

# A long-term strategy for sustainable growth for Cyprus

European Commission – DG Reform

Towards Vision 2035  
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# Purpose of this report

PwC was commissioned by the European Commission's DG REFORM to provide support for the provision of a long-term economic strategy for Cyprus. The general objective of the service contract is to contribute to the institutional, administrative and growth-sustaining structural reforms in Cyprus. The specific aims of the service contract are to support the:

- Initiatives of national authorities to design their reforms according to their priorities, taking into account initial conditions and expected socioeconomic impacts.
- National authorities in enhancing their capacity to formulate, develop and implement reform policies and strategies and in pursuing an integrated approach, ensuring consistency between goals and means across sectors.
- Efforts of national authorities to define and implement appropriate processes and methodologies by considering good practices of and lessons learned by other countries in addressing similar situations.

This report succeeds the Phase 4 Growth Model Options report, which developed alternative growth model options that could drive sustainable growth in Cyprus. It formulated a vision for the Cyprus economy in 2035 and identified three growth model options that would help Cyprus to achieve this vision: Europe's business and trade hub, Leader in sustainability and high-tech capital of Europe. Following stakeholder engagement, it selected a preferred growth model for Cyprus to pursue to achieve Vision 2035.

This report takes Vision 2035 and the selected growth model and sets out a long-term strategy for sustainable growth to achieve it. Specifically, this report:

- Identifies key goals, pillars and sectors of the new strategy
- Outlines initiatives, policies and reforms within each pillar, including concrete sectoral strategies

- Assesses the impact of the implementation of the new growth model in terms of GDP and other qualitative measures
- Provides examples of similar national growth strategies in other countries that can be considered as best practices or lessons from international experience.
- Aims to call to action policymakers, businesses, and citizens of Cyprus to engage with and work towards Vision 2035

While each initiative outlined in this strategy is evidenced and detailed in terms of how it can be implemented, this document should not be seen as a policy design document. There will be a significant amount of additional detailed policy scoping and design required before implementing any of the suggested changes. The next step of this project is to develop an action plan for implementation, which will include the specific measures/actions, milestones, tools and timeframes to implement the long-term strategy.

This report will be used as part of a national public consultation to communicate and test Vision 2035 across society.

The direct beneficiary of this contract is the Cyprus Economy and Competitiveness Council, an independent advisory body, established by a Council of Ministers' decision in June 2018. The implementation of the project will also be supported by the Directorate for Competitiveness and Growth of the Directorate General for European Programs, Coordination and Development (DG EPCD), acting as Secretariat to the above Economy and Competitiveness Council.

Other beneficiaries include all line Ministries in Cyprus that will be responsible for the appropriate implementation of strategic plans and reforms, as endorsed by the Government. Some ministries may also be involved in the implementation of the project, either through their participation in the steering group or on an ad hoc basis, during consultations. Finally, the Cyprus economy, policymakers, businesses, households, society at large and individual communities and citizens will benefit from the development and implementation of a sustainable long-term strategy.

## A note on the EU's Recovery and Resilience Facility

The Recovery and Resilience Facility ('RRF') is the centrepiece of NextGenerationEU and aims to mitigate the economic and social impact of the COVID-19 pandemic and make European economies and societies more sustainable, resilient and better prepared for the challenges and opportunities of the green and digital transitions. Cyprus is currently preparing its National Recovery and Resilience Plan ('NRRP') in order to be able to access the funds under the RRF.

The NRRP is the key tool for the period 2021 – 2026 to repair, restart, and reconfigure Cyprus's economic and social composition, to positively impact the citizens' well-being and the quality of the human capital and labour force, to build the capacity and efficiency of its institutions and to accelerate the country's green and digital transition. The total budget of the NRRP is €1.25 billion and the plan is developed around five (5) policy axes:

- Public health, civil protection and lessons learned from the pandemic;
- Accelerated transition to a green economy;
- Strengthening the resilience and competitiveness of the economy;
- Towards a digital era;
- Labour market, education and human capital.

In the preparation of the NRRP, significant effort has been made by PwC and the relevant competent authorities (DG EPCD and the MoF) to ensure its alignment and cohesion to the direction set by the long-term economic strategy (i.e. Vision 2035) for the sustainable development of the Cypriot economy. The NRRP will serve to prepare the ground for the buy-in, adoption and implementation of the Vision 2035 to transform Cyprus into the 'sustainable business and trade hub of Europe'.

# Acknowledgements

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The report was prepared by PwC, as a collaborative effort between PwC Cyprus and PwC UK's Economics team. The team would also like to acknowledge the valuable contributions of the project's Steering Group and the Cyprus Economic and Competitive Council – without their cooperation and guidance, this report would not have been possible.

The team would like to also convey our sincere gratitude to the many stakeholders in the private sector, in government agencies and in academia that made themselves available for interview and to attend workshops. Please refer to the Appendix for a full list of the participating organisations.

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# 1

## Executive summary

# Executive summary

Cyprus has the potential to be one of the best countries in the world. However, to make this happen, it needs a long-term plan: one which transforms the current economic model so that it addresses the global and local challenges of the future—including digitalisation, automation, climate change and rising levels of competition from within and outside the EU—which maximises economic growth in a sustainable and resilient manner to the benefit of all Cypriots. This report sets out the long-term plan to make this happen.

Over the course of the past fourteen months we conducted three large-scale workshops, more than 150 interviews involving Cyprus' public sector, businesses, academia and civil society and worked closely with the Cyprus Economy and Competitiveness Council (CyECC), the European Commission and Cypriot authorities to identify what that future vision should look like—also known as Vision 2035—and how the current economic model should evolve to deliver this.

This report sets out the plan to realise Cyprus' Vision 2035 and to transform the country to one of the world's best places to live, work and do business. In our opinion, it is the first document of its kind in Cyprus which:

- Describes and outlines actions in over 120 initiative areas and more than 50 case studies necessary to transform Cyprus' economic model to an outward-looking, low-carbon, high-tech economy which is sustainable and resilient for all Cypriots, making full use of the resources and opportunities offered by the European Union (including the Next Generation EU);
- Considers the entire fabric of the country including civil society, the wider green economy and environment, and future generations. It is not just focused on the economy;
- Sets out a governance framework responsible to deliver Cyprus' Vision 2035 and catalyse change supplemented, at a later stage, with a more granular and time-bound Action Plan;
- Defines success by setting targets based on publicly available Key Performance Indicators (KPIs) which can be transparently used to set direction, measure progress and highlight areas of success or failures; and
- Recognises that everyone has a vested interest to realise Vision 2035, with specific calls to actions outlining what is expected from Cyprus' policymakers, businesses, academia and citizens to make Vision 2035 a reality.

| Pillars              | World leading model nation   | Thriving and resilient economy  | Just and inclusive society   |
|----------------------|--|---|--|
| Strategic objectives | ...with an effective government machinery<br><br>...supported by an efficient judicial system which resolves disputes fast<br><br>...which is an open, transparent and fair marketplace for local and foreign businesses<br><br>...which takes ownership to shape its future destiny | ...with high and growing levels of productivity<br><br>...powerhouse of innovation<br><br>...supported by digitalisation<br><br>...and a greener economy<br><br>...so that the economy is diversified, sustainable and more resilient | ...with a world class education system<br><br>...with an excellent and accessible healthcare system<br><br>...which adheres to the rule of law and combats corruption<br><br>...which promotes liveability, equal access and opportunities for all |

## Growth model: Europe's sustainable business and trade hub



# Executive summary

## Vision 2035 means Cyprus needs to restart and adopt a new growth model

The initiatives we recommend in this report are based on Cyprus' Vision 2035, which is highly aspirational but plausible for the country's future. The Vision aims to make Cyprus one of the world's best places to live, work and do business. It is based on three main pillars which intend to transform Cyprus into one of the world's leading model nations with a thriving, resilient economy and a just, inclusive society. These three pillars are then supported by more granular strategic objectives which are summarised in the adjacent figure.

The vehicle that will realise Cyprus' Vision 2035 is its growth model. CyECC decided that the country should aim to be Europe's sustainable business and trade hub. This means that the growth model has Europe's business and trade hub at its core, but is enhanced by the green and blue economy and the development of niche high-tech services (including in the research heavy areas of e-health, agritech and green technologies including renewables) to drive sustainability and diversification. By any means, this does not mean that we are favouring one sector over the other. All the sectors of the Cyprus economy have their role to play to deliver Vision 2035.

## The horizontal and vertical initiatives will fix and build Cyprus' present and future

So what actions can Cyprus do to pursue this new growth model and exploit the future drivers of growth in a socially and environmentally sustainable way? This report focuses on two main types of actions which will set the direction of economic activity. These are:

- Horizontal initiatives:** Sector agnostic initiatives which have a wide-reaching impact across the entire economy, society and the environment. These initiatives intend to build the appropriate foundations and fix long-standing structural weaknesses which will help the economy to be competitive, resilient, fair and productive so that people can achieve their potential.
- Vertical initiatives:** Sector specific initiatives which have a narrower impact. These initiatives intend to build the necessary preconditions for sector-specific growth consistent with Cyprus' Vision 2035 and fix any other sector-specific inconsistencies.

The strategy to achieve Vision 2035 therefore applies a two-pronged approach and identifies both how to fix and build horizontal and vertical capabilities to fulfil Cyprus' ambition across the three pillars. We outline some of the key initiatives along with the KPIs in the following slides.

| Pillars  | World leading model nation  | Thriving and resilient economy  | Just and inclusive society             |
|--|---|---|--|
| Strategic objectives   | ...with an effective government machinery                             | ...with high and growing levels of productivity                       | ...with a world class education system |
| ...supported by an efficient judicial system which resolves disputes fast              | ...powerhouse of innovation   | ...with an excellent and accessible healthcare system                 |  |
| ...which is an open, transparent and fair marketplace for local and foreign businesses | ...supported by digitalisation  | ...which adheres to the rule of law and combats corruption            |  |
| ...which takes ownership to shape its future destiny                                   | ...and a greener economy  | ...which promotes liveability, equal access and opportunities for all |  |
|  | ...so that the economy is diversified, sustainable and more resilient |   |  |

## Growth model: Europe's sustainable business and trade hub



# The first pillar of Vision 2035 is to make the country one of the world's leading model nations with an efficient, effective government machinery that sets the rules in the marketplace...

| Strategic objectives  | Key horizontal initiatives   | Target outcomes by 2035   |
|---|--|---|
| <br><b>Effective government machinery</b>                      | <ul style="list-style-type: none"> <li>Drive the digital transformation with the Government as a Platform service delivery model that centralises procedures, creates efficiency gains, and makes public services more accessible for businesses and citizens alike</li> <li>Accelerate and finalise local municipality reforms, underpinned by clear principles, frameworks, and KPIs to offer greater autonomy, transparency and accountability to municipalities for local services, such as waste management</li> <li>Transform the civil service into a modern employer with a merit-based performance appraisal and promotion system to motivate, inspire and drive its people to upskill, to innovate, and to ultimately implement Vision 2035</li> </ul> | <p><b>Score of 1.6 - 2.0</b><br/>(consistent with New Zealand and Singapore)</p> <p>World Governance Indicators: government effectiveness, voice and accountability</p> |
| <br><b>Efficient legal system which resolves disputes fast</b> | <ul style="list-style-type: none"> <li>Accelerate progress on planned reforms to make the system faster and efficient, thus improving access. This involves clearing the backlog of delayed cases, improving court administration, digital transformation (including shift of court proceedings online) and increasing specialisation of courts and judges</li> <li>To make the justice system more forward-looking, we recommend a comprehensive forecast of future needs to house new courts, initiatives to upskill judges, and ways to ensure the digital transformation is a continuous process which embraces innovations such as artificial intelligence and predictive analytics over the long-term</li> </ul>   | <p><b>&lt; 200 days</b> time to resolve civil, commercial, administrative and other cases</p> <p><b>20-25 global rank</b><br/>International property rights index</p>   |
| <br><b>Open, transparent and fair marketplace</b>            | <ul style="list-style-type: none"> <li>Strengthening the Commission for the Protection of Competition and the Cyprus Advertising Regulation Organisation by revising its mandate to align to Vision 2035. Urgently set up an independent Pensions Regulator.</li> <li>Increase access to finance by establishing new financial instruments including an equity fund, a National Promotion Agency to act as a catalyst for EU funds, and a credit bureau to provide data-driven credit worthiness services.</li> <li>We recommend several initiatives to improve financial literacy, which is critical to enable citizens and businesses to take advantage of the opportunities of Vision 2035 and support long-term wellbeing</li> </ul>                         | <p><b>60-65%</b><br/>Share of external investment finance from bank loans</p>   |
| <br><b>Ownership of future destiny</b>                       | <ul style="list-style-type: none"> <li>Repurpose the Unit of Administrative Reform so that it is the preeminent body which co-ordinates, leads and monitors the implementation of Vision 2035, holding each Ministry to account for their assigned actions and targets</li> <li>Create of a long-term planning unit, tasked to assess long-term trends and challenges to inform policy, and a National Infrastructure Commission to provide impartial and expert advice for major long-term infrastructure challenges</li> <li>Elevate and enhance the role of the Fiscal Council to provide authoritative analysis and research on the long-term sustainability of public finances and more aggressively scrutinise public finances</li> </ul>                  | <p>Successful implementation of Vision 2035 and achievement of its target outcomes</p>  |

# The second pillar's focus is to develop a thriving economy which is innovative, resilient, diversified underpinned by the principles of digitalisation and the green economy

| Strategic objectives   | Key horizontal initiatives  | Target outcomes by 2035  |
|--|---|--|
| <br><b>Powerhouse of innovation</b>                 | <ul style="list-style-type: none"> <li>Develop a long-term R&amp;I strategy and a 'Regulation of the Future' taskforce to provide assurances and regulatory certainty to businesses, entrepreneurs and investors of the long-term potential opportunities in Cyprus</li> <li>Re-evaluate legislation on spin-offs and set up and operate a central Knowledge Transfer Office to facilitate the commercialisation of research and drive private sector and academia collaboration on relevant research</li> <li>Refine and augment the government's Innovative Company initiative and the start-up visa</li> <li>Create a culture with entrepreneurial education in schools and after school clubs</li> </ul>  | <p><b>2.5 – 3%</b><br/>R&amp;D spending as a share of GDP</p> <p><b>15<sup>th</sup> – 20<sup>th</sup> global rank</b><br/>Global Innovation and Entrepreneurship Indices</p> |
| <br><b>Supported by digitalisation</b>              | <ul style="list-style-type: none"> <li>Boost existing Deputy Ministry action plans to drive digitalisation and integrated information systems for the National Health Service, customs department, ports, and department of register of companies, among others</li> <li>Set up a National Testbed Programme to build Cyprus' brand for Artificial Intelligence, Internet of Things, e-health, smart mobility and agritech</li> <li>Improve connectivity and coverage with a national broadband plan that is cost-effective.</li> <li>Set up a National e-Identify and e-Signature Management Programme</li> </ul>  | <p><b>10 – 15 rank</b><br/>Digital Economy and Society Index</p> <p><b>8 – 13 rank</b><br/>UN e-Government Development Index</p>   |
| <br><b>A greener economy</b>                      | <ul style="list-style-type: none"> <li>Liberalise the electricity market by 2022 and invest in infrastructure like smart grids, battery technology, demand management systems, regional electricity connections and renewable energy. Increase energy efficiency standards and ban the sale (new and used) of internal combustion engine cars by 2035</li> <li>Radically increase investment to develop smart cities and sustainable transport, while focusing investment in the strategic road network to maintenance</li> <li>Investment in the infrastructure required for a circular economy, including recycling plants, and incentives to change behaviour using education, legislation, fines, and better monitoring and enforcement using drones</li> </ul> | <p><b>55% cut in emissions</b><br/><b>&gt;50% renewable share</b><br/>In line with EU Green Deal targets</p>   |
| <br><b>Diversified, sustainable and resilient</b> | <ul style="list-style-type: none"> <li>Set up an investment promotion taskforce within CIPA to proactively target CEOs and promote Vision 2035</li> <li>Better attract and nurture international firms with an aftercare programme and initiatives to improve air connectivity including a taskforce to identify priority routes and an airline partnership initiative</li> <li>Establish a STEM visa fast track and create a Digital Nomad ecosystem to bring talent to Cyprus</li> <li>Bolster the remit and capabilities of the Trade Service as an export promotion agency to help companies achieve scale and reach new export markets</li> </ul>  | <p><b>40-45%</b><br/>Contribution to GVA from top 5 sectors</p> <p><b>40 – 45 global rank</b><br/>IATA Air Connectivity Index</p>  |

# The third pillar ensures that Cyprus's Vision 2035 sets the conditions to ensure that the spread of its prosperity is fair and inclusive for all of its citizens

| Strategic objectives   | Key horizontal initiatives   | Target outcomes by 2035  |
|--|--|--|
| <br><b>World class education system</b>                                   | <ul style="list-style-type: none"> <li>Using existing resources, update Cyprus' school curriculum to deliver much better outcomes so that it is fit for a modern workplace, with subjects including environmental education, digital and financial literacy, relationships education, and modern ways of teaching to overhaul rote learning and develop skills, such as critical thinking, complex problem-solving, team-working, emotional intelligence, and entrepreneurship.</li> <li>Improve and promote vocational education with new vocational secondary schools and the re-establishment of a Higher Education Technical Institute, both providing courses co-designed and led by employers</li> <li>Create a culture of lifelong learning with a National Careers Service and a refresh of the Adult Education Centres</li> </ul> | <p><b>510 – 530</b><br/>Mean score in PISA</p> <p><b>20 – 25%</b><br/>Share of pupils enrolled in vocational education</p>                                 |
| <br><b>Excellent and accessible healthcare system</b>                     | <ul style="list-style-type: none"> <li>Raise the quality of healthcare standards through international accreditation, to improve the sectors' international reputation. Raise the bar of care provided with health managers and clinical leadership.</li> <li>Develop a long-term digital vision for the health sector including a roadmap for digital integration across hospitals</li> <li>Develop plans to move towards a value-based General Health System, supported by improved data collection</li> <li>Embrace change by using virtual care solutions to improve accessibility through med-tech start-up support and pilots</li> <li>Make forward-looking investments in elderly and assisted living communities</li> </ul>  | <p><b>80 – 85%</b><br/>Self-perceived health, % at good or very good</p> <p><b>35-40%</b><br/>Out of pocket expenditure on healthcare</p>                  |
| <br><b>Adheres to the rule of law and combats corruption</b>            | <ul style="list-style-type: none"> <li>Without fail, the authorities must implement all of the MONEYVAL and GRECO recommendations urgently to combat anti-money laundering and corruption, including a revision of requirements on financial institutions to international standards</li> <li>Support ongoing plans to establish an Independent Authority Against Corruption consistent with best international practice including public hearing selections and rotating members.</li> <li>We emphasise the need for a whistleblowing agency (including an environmental offences office), a code of conduct for MPs, ethics training for public servants and ethics education for students.</li> </ul>   | <p><b>33 – 37</b><br/>Corruption Perceptions Index rank</p> <p><b>75<sup>th</sup> – 80<sup>th</sup></b><br/>WGI: Control of Corruption percentile rank</p> |
| <br><b>Promotes liveability, equal access and opportunities for all</b> | <ul style="list-style-type: none"> <li>Promote liveability with affordable housing, green spaces and improve aesthetics in the built environment</li> <li>Elevate the role of Commissioner for Administration and the Protection of Human Rights to a Department for Diversity and Inclusion within the Ministry of Labour, responsible for implementing annual National Diversity Action Plans</li> <li>Build momentum for diversity by requiring more companies to publish gender pay gaps, tie procurement to ethical employer accreditations, appoint diversity managers in the public sector, and mandatory unconscious bias training</li> <li>Develop long-term rural regeneration plans and outreach programmes for vulnerable groups for social cohesion</li> </ul>  | <p><b>5 – 10%</b><br/>Gender employment gap</p> <p><b>15 – 20%</b><br/>Share people at risk of poverty or social exclusion</p>                             |

# All sectors of the economy are important and need to sign up to the Vision 2035 and the principles underpinning it. However, we suggest vertical initiatives for a range of diverse sectors

The sectors discussed here and in this report should not be interpreted as the only vertical drivers of growth and should not detract from the importance of other sectors to the Cyprus economy, or the potential of others to create value. Instead, we consider them to represent a diverse list of potential priorities for the government to support. They represent a balance between reinforcing existing sectors and building capabilities in smaller, newer sectors; they represent a careful balance between strong growth opportunities and sustainability; and they represent a balance between building resilience in the domestic market and recognising export potential and scalability.

| Sector  | Key vertical initiatives  | Sector   | Key vertical initiatives   |
|---|---|--|--|
|  <b>Tertiary education</b>         | <ul style="list-style-type: none"> <li>Driving improvements in teaching quality towards leading international standards with reforms to quality assurance and accreditation and annual performance appraisals for teachers.</li> <li>Promote collaboration, clustering and scale in the sector, through participation in sector skills councils, shared spaces and national centres of excellence, and international partnerships</li> <li>Attracting international students with modern pedagogy, teaching in English, hybrid online learning opportunities, and reforms to the student visa system and requirements.</li> </ul>   |  <b>Tourism</b>                 | <ul style="list-style-type: none"> <li>Driving circularity and sustainability in the sector with a network of green-rated hotels with a government certification framework that can implement legislative targets, such as share of renewable energy.</li> <li>Promote the agrotourism sector by improving the functionality of the Cyprus Agrotourism Company to provide digital and hospitality training in rural areas and marketing support. Develop a clear framework for planning permissions to enable renovations and investment.</li> <li>Raise the quality of private and public health care to European standards through international accreditation.</li> </ul> |
|  <b>Renewable energy</b>          | <ul style="list-style-type: none"> <li>Drive widespread adoption of solar PV panels by mandating their installation on new and renovated buildings, investing in their installation on public buildings, and offering financial incentives to households and businesses, for example in manufacturing and hotels</li> <li>Drive R&amp;D in solar energy by marketing Cyprus as a test bed for solar energy research and hosting an international conference to promote Cyprus' potential and further the research agenda.</li> <li>Make the long-term investments in infrastructure, such as offshore wind and regional electricity pipelines to enable scale in the sector</li> </ul>      |  <b>Light manufacturing</b>    | <ul style="list-style-type: none"> <li>Establishment of the first eco-industrial science park in South East Europe that carefully designs special economic zones for manufacturing of green tech equipment. It should promote clustering, supported by aftercare services and logistics support</li> <li>Upskill Cyprus' manufacturing workforce to prepare for Industry 4.0 and a net zero and circular future with the re-establishment of a technical college and improvements to STEM teaching</li> <li>Promote investment and innovation in the sector with innovation vouchers and accelerated depreciation allowances</li> </ul>                                      |
|  <b>Agriculture and agritech</b> | <ul style="list-style-type: none"> <li>Modernise the role of the agricultural co-operatives to help farms in achieving scale and competitiveness, supported by financial and organisational incentives for mergers and digital transformation.</li> <li>Move agricultural practices into the 21<sup>st</sup> century with a national centre of excellence in agritech and build an ecosystem of users</li> <li>Promote the awareness and adoption of agritech by farmers with pilot farms, exhibitions, training, and financial support.</li> <li>Organise and promote speciality foods with an organised trade body, further protections of origin and a Food Standards Agency.</li> </ul> |  <b>Maritime and shipping</b> | <ul style="list-style-type: none"> <li>Accelerate the digital transformation with digitalisation of port process and, over the long-term, the integration of intelligent IoT solutions.</li> <li>Strengthen ties between the sector and education with awareness of blue careers, incentives for blue R&amp;I for universities and the creation of relevant curricula.</li> <li>Support companies to decarbonise with workshops and pilots on best practice and increasing legislation on use of clean fuel.</li> <li>Grow Cyprus' as an international hub for shipping with attractive port charging schemes and concessions.</li> </ul>                                    |

# Not acting risks significantly harming the Cyprus economy, causing irreversible damage to its environment and its social fabric, resulting in lower wellbeing and standards of living

## There are four areas that require the attention of everyone now

When implementing Vision 2035, the authorities must recognise that the set of initiatives will be more successful if they are applied in sequence, reinforcing each other – but they should not delay progress along any of the dimensions. However, we emphasise the critical importance of the following four areas which require the urgent attention of policymakers:

- **The public sector**, to improve efficiency and long-term strategic planning and to enable Cyprus to take full advantage of Vision 2035's other initiatives and opportunities. To do this, the civil service's system need to be digitalised and its people upskilled. Doing so will better shape and structure the government's machinery to address the country's future needs, as well as empowering municipalities to better deliver local public services.
- **Green and digitalisation**, to fundamentally change the way businesses operate, sell and interact with others, and how citizens live, travel and consume. This includes creating a Deputy Ministry of Climate Action, the Environment and Sustainability to promote, coordinate and drive green economy initiatives and rapidly make the transition to a low-carbon economy. Progress must begin to educate, building digital skills and raising awareness of how to live sustainable lives in green, clean and liveable urban and rural areas. Urgent progress must be made to enforcing existing environmental laws to ensure Cyprus's fragile biodiversity and natural beaches are protected.
- **Education**, to begin the long journey of students and those in-training to learn newer, more relevant skills which can be applied in any modern workplace and help to grow the knowledge economy. This includes updating school curricula and shift the focus to equip students with critical thinking, complex problem-solving, entrepreneurship, creativity and originality to reflect the sophisticated societies we live in and the skills businesses need to compete in the modern world.
- **Justice system**, to build trust and credibility in the eyes of the citizens by awarding justice on a much speedier basis and help reduce levels of corruption. Doing so will signal to Cypriots and the rest of the world that Cyprus is a credible place to do business.

## The risks and costs of inaction are too large to ignore

- Cyprus' real GDP per capita relative to the EU average has, over the past decade, declined and stagnated. If Cyprus continues with its current growth model, this trend will continue and will result in decreasing standards of living for all Cypriots.
- The global market is an increasingly competitive and evolving place. Cyprus cannot continue to rely on its historical competitive advantages, such as its low corporation tax rate. It must develop a more holistic set of offerings to its citizens, businesses, workers and investors that makes their decision to do business, work and live in Cyprus resilient to global developments, such as the possibility of corporate tax harmonisation across the EU.
- Over the past decade alone, Cyprus has experienced several crises – financial, fiscal and health. Cyprus' recovery from the 2013 crisis was driven by a narrow set of sectors, such as construction and real estate, which is not only at odds with sustainability, but also resilience for the next crisis. To reduce Cyprus' vulnerability and increase its ability to absorb and recover from external shocks, diversifying its economy is imperative. This includes its mix of sectors, its exports, its skills and its competitive advantages. If this doesn't happen, is likely to plunge from one crisis to the next.
- The coming decades will add environmental crises to the aforementioned list. Without decisive action to drive forward the green economy and embed sustainability in how businesses operate, in how financial institutions make decisions, and in how citizens live, Cyprus will be exposed to financial, physical and sovereign risk. As a Mediterranean island, Cyprus will experience some of the most adverse effects of climate change in Europe, putting sectors like agriculture and tourism, which are reliant on its environment, at risk.
- With the price of carbon now generally expected to double, or even triple by 2030, the cost of Cyprus' current economic growth model is no longer viable. Accelerating the green transformation is not only the right thing to do for generational equity, but it will now also be significantly cheaper in the long-run. Emerging research, for example by the IMF, is also beginning to reveal the negative impact a country's environmental, vulnerability or lack of resilience to climate change on sovereign credit ratings. Higher costs of borrowing are likely to amplify the deterioration of public finances in a non-green scenario.

# This is a plan for all of Cyprus. It will only be successful if policymakers, businesses, academia and citizens understand it requires a permanent shift in mindset— breaking away from habits or behaviours of the past

## A call to action to all segments of Cypriot society – everyone has a role to make Vision 2035 a reality

This strategy outlines the policies, investments and structural reforms that policymakers should implement to deliver Vision 2035. But Vision 2035 will only be a success if all players within Cyprus' economy and society share its ambition, engage with its initiatives and embrace the opportunities it can provide.

To do so, policymakers must effectively communicate Vision 2035 and all must take responsibility for learning about Vision 2035, the opportunities it can offer, and the schemes, incentives and financial support that policymakers will make available. In this way, they can begin planning for the future, learning new skills, and making the necessary investments to ensure they are not left behind.

### Policymakers



The successful implementation of Vision 2035 ultimately relies on the commitment and drive of **policymakers** to take ownership for its delivery, carefully scope and design specific policies and investments, and monitor and evaluate progress. They must lead by example by driving forward the green, digital and upskilling agendas throughout the public sector. Critically, they must develop a credible track record to instil confidence and drive investment from the private sector. They must also recognise that reforming is a continuous journey and does not stop with Vision 2035. Policymakers must ensure that Cyprus' growth plan is refreshed every five years to reflect the latest global, EU and national developments.

### Businesses



**Businesses** must embrace new ideas and ways of working in line with Vision 2035's sustainable, digital and innovative ambitions. They should think outside of traditional markets and explore new export destinations. They must actively engage with policymakers – for example through forums such as the proposed sector skills councils – to make better policy decisions that have relevance, create the right incentives and minimise distortions. They must take responsibility for upskilling their employees and embrace collaboration and the sharing of best practice to drive sector-wide progress. In doing so, they must trust younger generations to bring new ideas and innovations to the table. For businesses within the key vertical drivers of growth, they must engage fully with the proposed initiatives.

While Vision 2035 has identified a number of key horizontal drivers of growth and proposed sector-sector specific initiatives, this does not mean its initiatives are only relevant to the businesses, academics and workers within those sectors. Vision 2035 envisages a transformation of the whole economy. Industry forums and trade associations must play a role in coordinating across all sectors to ensure their ambitions, investments and business models are aligned to Vision 2035 – for example, in their green, digital and skills agendas. Their role is to manage and promote broad and widespread change, innovation and transformation.

### Academia



**Academia** must ensure that university education is an extension of the refreshed school curricula and that they continue to update their teaching based on the latest research and pedagogical methods. Given the high preference for university education within Cypriot society, it is the responsibility of academia to prepare young people for the world of work and the opportunities of Vision 2035. Academia must also ensure that their research and innovation programmes are aligned to Vision 2035 and have relevance for businesses, solving real life problems and increasing their commercialisation. They must embrace collaboration with businesses, policymakers and international universities and researchers.

### Citizens



**Citizens** must demand more from their government, holding their local and national political representatives to account for progress towards Vision 2035. They should also engage with ESG agendas and send a strong demand signal to businesses to develop environmental, social and governance strategies, create sustainable goods and services, and promote diversity and inclusion. They must also take responsibility for their own journey of lifelong learning and upskilling. Ultimately, they should be flexible, embracing new opportunities and challenging existing assumptions about certain professions. Critically, they must learn about *why* they need to lead more sustainable lives, and *how* they can do this.

# 2

## Vision 2035

# Introduction

While Cyprus has made a strong recovery in the past five years in terms of GDP growth, its relative economic performance compared to other economies is stagnating. The graph shows GDP per capita in Purchasing Power Standards (PPS), indexed to the EU27 average for Cyprus (in black) and the Central Eastern European (CEE) economies over the past two decades.

Cyprus has been a member of the EU since 2004, having joined with eight other Central and Eastern European countries and Malta. In 2004, Cyprus had the highest level of income per capita (a proxy of standards of living) amongst these economies. In fact, after joining the EU, Cyprus managed to increase its distance from the other economies and sustained income levels that were higher compared to the EU average.

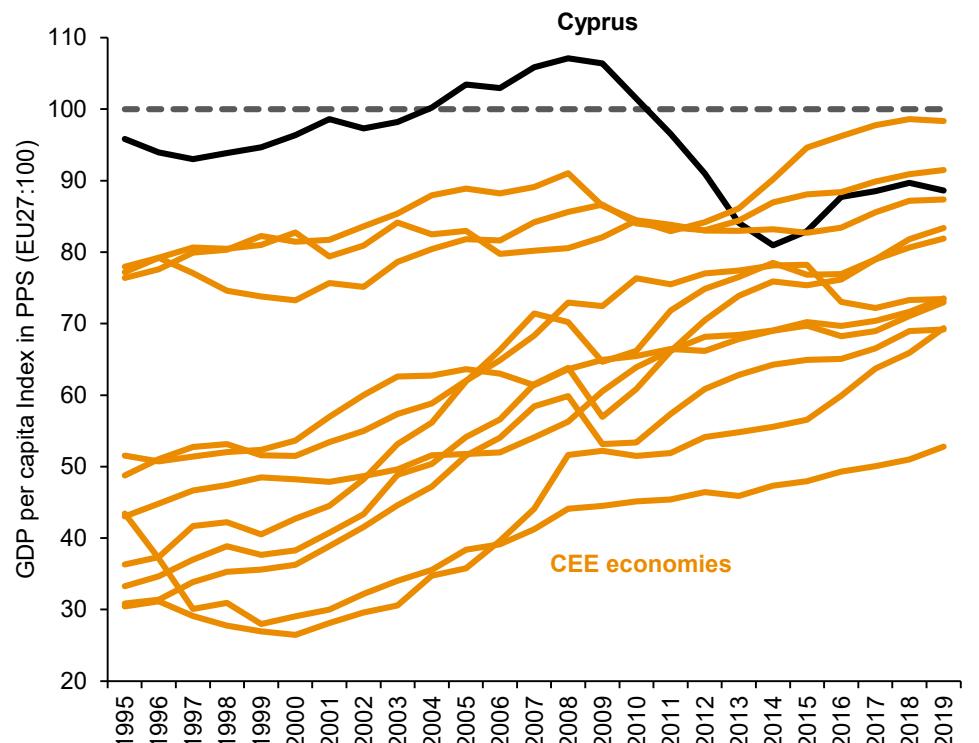
This has however ceased to be the case. Since 2013, countries like Malta and the Czech Republic have overtaken Cyprus. Our analysis and stakeholder interviews over the course of this project suggest that:

- **Cypriot incomes are struggling to catch up:** Cyprus's current economic model is not delivering the economic prosperity that will push Cyprus towards the EU's average (let alone the frontier) to deliver real outcomes and higher living standards and wellbeing for its citizens.
- **Standing still means others can overtake:** Not reforming and standing still in the international economy comes with a relative cost. This could reflect the fact that Cyprus's appetite for reform has been slowing, after years of plans and European Commission and IMF recommendations; the implementation of necessary institutional, business-friendly, and social policies has slowed down and, in many cases, stalled.

A new economic growth model is needed to revive growth in Cyprus, propel the recovery from the COVID-19 pandemic, and set Cyprus on a new and more sustainable trajectory for long-term growth.

In the previous phase of this project, we identified a vision for the Cyprus economy in 2035 and the growth model that can achieve this ambition. This report sets out the strategy for policymakers, businesses and citizens to achieve Vision 2035.

At its core, it is an economic strategy. But it also much broader than that. Economic performance is important for growth, but the broader implications to competitiveness, productivity, innovation, skills and sustainability are equally important. As such, we combine economic initiatives with a holistic set of social and environmental policies and strategies to improve resilience, self-sustainability, liveability, the green economy, digitalisation, equality, and diversity and inclusiveness.



Source: Portdata

Note: Cyprus is represented by the black line; Malta and the CEE economies are in yellow. The CEE economies are Bulgaria, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Slovakia, and Slovenia.

We want Cyprus to be one  
of the world's best countries  
to live, work and do  
business in

To do so we need to be a **world leading model nation** with a **thriving, resilient economy** and a **just, inclusive society**. All aspects of the Vision will be underpinned by cutting edge technology and environmental sustainability.

# Vision 2035 lies at the heart of Cyprus's long term economic strategy

We developed a Vision for the Cyprus economy in 2035 which will form the heart of Cyprus's long-term economic strategy. The Vision was designed to be ambitious, aspirational, and even utopian. It should inspire households, businesses, and policymakers to encourage and nurture change by bringing the entirety of Cyprus's society along this journey.

The Vision is the starting point to develop Cyprus's long-term economic strategy is the Vision which is based on Cyprus's current and future comparative advantages. We call this 'Vision 2035'. The Vision we develop is ambitious and aspirational. It intends to inspire change and progress.

## Vision 2035



By 2035, we will be a **world leading model nation** shaping its future with an effective government machinery which serves citizens and businesses—large and small—every single hour of the day through its digital platform. The regulatory bodies will maintain an open, transparent and fair marketplace for local and foreign businesses supported by an efficient judicial system which resolves disputes fast. Policymaking will follow international best practice, consistent with EU guidelines and governance but also tweaked to adapt to local conditions and aspirations. By doing so, Cyprus takes ownership to shape its future destiny.



We will be a **thriving and resilient economy** at the crossroads between Europe and the Middle East with high, growing levels of productivity and a powerhouse of innovation. The economic cycle will be significantly less reliant on natural resources and underpinned by the principles of digitalisation and a greener economy. The Cyprus economy will be more diversified and thus economic growth will be more sustainable and so more resilient to external or internal shocks.



All citizens will enjoy happy, healthy and safe lives with good rewarding jobs and a high standard of living in a **just and inclusive society**. We will boast a world class education system, an excellent health care system and a society that adheres to the rule of law, combats corruption and which provides equal access to opportunities for all in a sustainable manner.

## Stakeholder feedback on Vision 2035

Our vision for the Cyprus economy is inspired by the aspirations of Cypriot society we have gleaned through stakeholder interviews conducted as part of our *Drivers of Growth Report* (Phase 3) and generated with an understanding of the *current* competitive advantages (strengths, weaknesses, opportunities and threats) identified and summarised in the *Inception Report* (Phase 2).

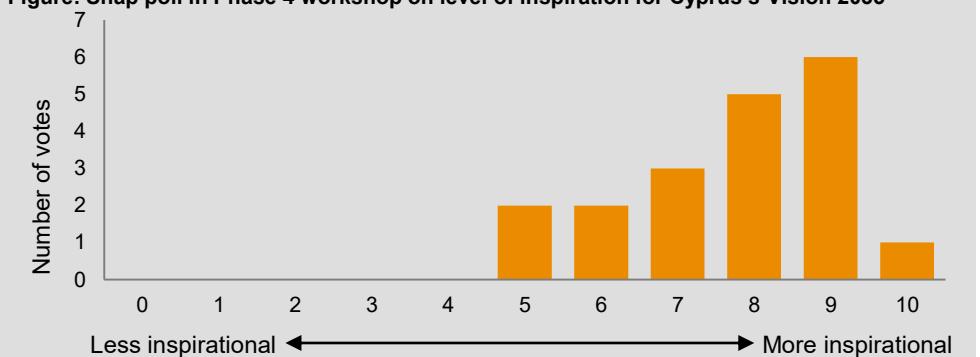
This Vision was further refined based on feedback from participants of a workshop we delivered during this phase of work. The workshop brought together representatives from across Cypriot society to understand how inspiring they found The Vision and what could improve it.

We held a workshop with 50 participants from across the private sector, public sector, academia and civil society. The interactive session was used to gather feedback and impressions on Vision 2035. The feedback from the workshop is used throughout the report.

Once Vision 2035 was presented to the audience we carried out a snap poll to gauge the level of inspiration felt by the participants. With 10 being the highest inspiration level and 0 the lowest. The poll was anonymous.

A total of 19 votes were cast out of the 50 participants (38% response rate). The majority of the votes were for a vote of 9. The average score based on all collected scores was 7.7 indicating that the majority of the participants consider the Vision fairly to strongly inspirational. The mode score recorded was 9 which suggests that the majority of the participants thought Vision 2035 was strongly inspirational.

Figure: Snap poll in Phase 4 workshop on level of inspiration for Cyprus's Vision 2035

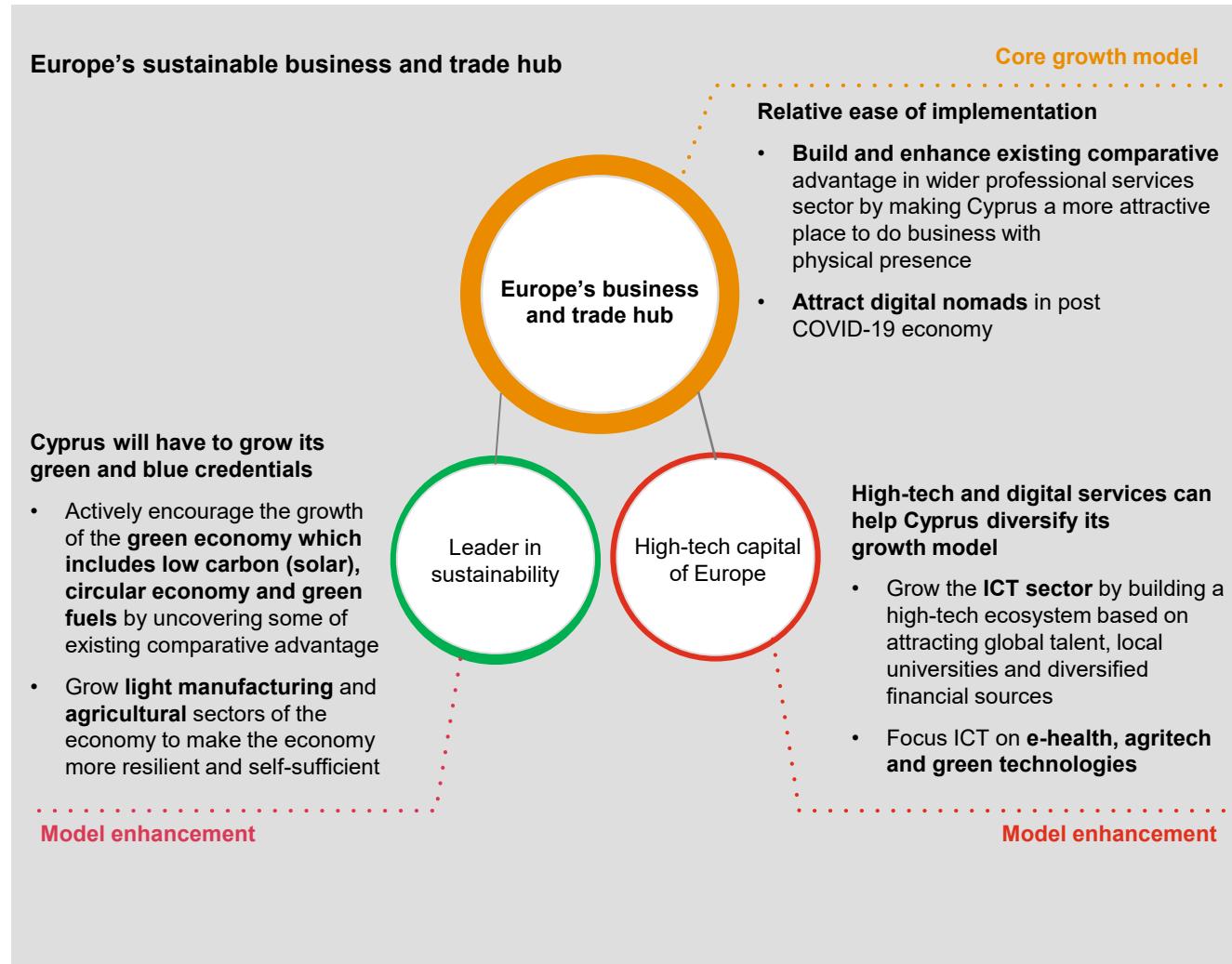


# Vision 2035 is underpinned by three pillars and more than ten strategic objectives

The Vision rests on three strategic pillars, depicted below. The Strategic Pillars are the high-level themes which capture the essence of the Vision. Each of the three pillars are in turn supported by strategic objectives. The Strategic Objectives are aspirational targets Cyprus needs to hit in the future to deliver on the Vision.

| Pillars              | World leading model nation   | Thriving and resilient economy  | Just and inclusive society  |
|----------------------|--|---|---|
| Strategic Objectives | <ul style="list-style-type: none"> <li>...with an effective government machinery</li> <li>...supported by an efficient judicial system which resolves disputes fast</li> <li>...which is an open, transparent and fair marketplace for local and foreign businesses</li> <li>...which takes ownership to shape its future destiny</li> </ul> | <ul style="list-style-type: none"> <li>...with high and growing levels of productivity</li> <li>...powerhouse of innovation</li> <li>...supported by digitalisation</li> <li>...and a greener economy</li> <li>...so that the economy is diversified, sustainable and more resilient</li> </ul> | <ul style="list-style-type: none"> <li>...with a world class education system</li> <li>...with an excellent and accessible healthcare system</li> <li>...which adheres to the rule of law and combats corruption</li> <li>... which promotes liveability, equal access and opportunities for all</li> </ul> |

# To realise Vision 2035 Cyprus will need to adapt its growth model and become Europe's sustainable business and trade hub



The objective of Phase 4 of this programme was to develop a new growth that can drive sustainable growth in Cyprus and deliver Vision 2035. This model was selected by the CyECC as *Europe's sustainable businesses and trade hub*.

There are three aspects to this model:

- **Europe's business and trade hub:** Where Cyprus is the best place in Europe for headquartering or to outsource a function (or functions) of large and medium sized multinational corporations (MNC) and the world's dream remote working location (digital 'nomads')
- **Leader in sustainability:** development of the green economy (i.e. renewable energy, cyclical economy, smart cities)
- **High-tech capital of Europe:** development of niche high-tech services (e-health, agritech and green technologies)

We recognise that Cyprus cannot achieve everything in its growth model, however combining the core model with the sustainability and digitalisation focus of the other growth models will lead to a greater primary and secondary sectoral contribution to growth and will help to build a more resilient economy.

# Each component of the growth model builds on Cyprus's strengths and proactively addresses weaknesses and challenges

## Europe's sustainable business and trade hub



### Europe's business and trade hub

Europe's business and trade hub is at the core of Cyprus's new growth model due to its **relative ease of implementation**. Cyprus already has a strong comparative advantage in services and a reasonable international reputation as a business hub. In this growth model, the movement towards headquartering and other functions enhances its existing comparative advantage to move towards a growth model where value is created through the physical presence of MNCs and medium-sized firms. Cyprus can leverage its existing professional services sector to develop more niche, high-value activities including risk management, fund administration, strategy consulting, bespoke architectural, engineering services, shipping services etc.

To enhance its current competitive advantage Cyprus will need to signal that it is a transparent and credible place to do business. In practice this means being the best in class with international anti-money laundering (AML) norms and combating corruption in all forms of life e.g. by implementing the Group of States against Corruption (GRECO) and other bodies' recommendations.

Achieving this growth model will require concerted efforts to address the weaknesses in this growth model, such as the lack of air connectivity, concerns about corruption, the credibility of institutions and the risk of automation of key services.

Furthermore, Cyprus will need to implement this growth model in a way that does not make it vulnerable to the threats, such as the decline in the capitalisation of large MNCs who are likely to be Cyprus's targets for setting up HQs in Cyprus or excessive reliance on its low corporation tax rates which is something that will gradually fade as tax avoidance schemes are gradually wound down in the EU. Cyprus will therefore need to build its competitiveness predominantly by focusing on non-tax issues ranging from improving its liveability to enhancing its international reputation by reducing corruption in all walks of life.



### Leader in sustainability

The shift to more green and sustainable practices is going to be the focus of the European Commission and the international community for the foreseeable future. In particular, green reform is a key priority for the Recovery and Resilience Facility. Building sustainable aspects into Cyprus's growth model will help Cyprus to achieve the minimum threshold of committing 37% of expenditure in its recovery and resilience plan to climate investments and reforms. Doing so also contributes to a much more sustainable economic trajectory whilst seeking to break the link between natural resource exploitation and economic development. It also helps Cyprus uncover underutilised areas of comparative advantage including the generation of electricity using the sun.

Incorporating these elements into Cyprus's growth model will require Cyprus to build on its natural capital to develop its comparative advantage in this area, with a particular focus on transforming the manufacturing sector and embedding the circular economy.



### High-tech capital of Europe

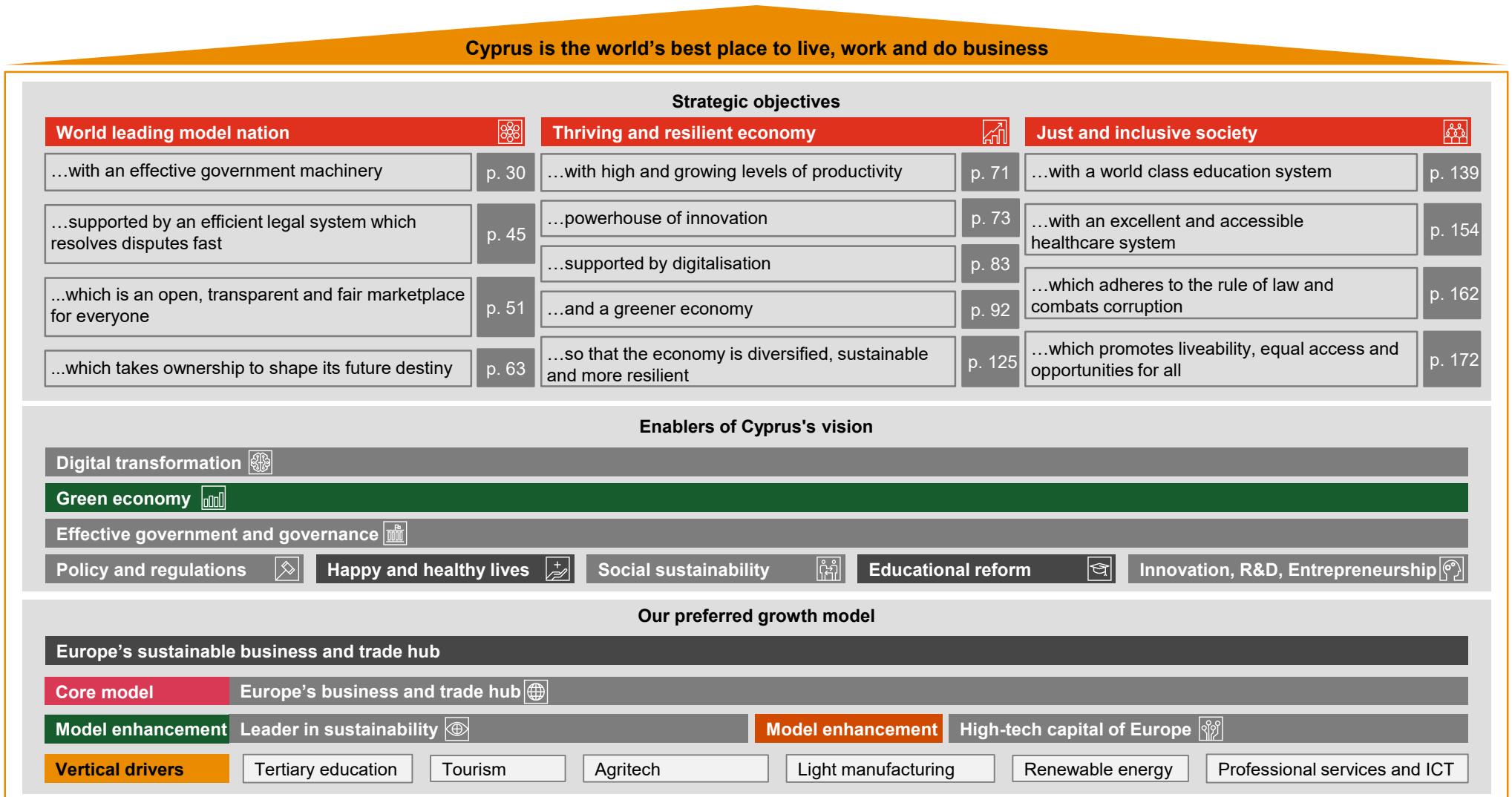
Digitalisation is both a key enabler and key sector that will be driving Cyprus's future growth. Digitalisation is a key priority for the Recovery and Resilience Facility, and the high-tech aspects of the growth model will help Cyprus to achieve the minimum threshold of committing 20% of expenditure in its recovery and resilience plan to fostering digital transition.

Digitalisation is a horizontal enabler across all our growth models, and so will underpin our preferred growth model. The COVID-19 pandemic has demonstrated the need for digital technology to be at the forefront of any growth model. The shift to remote working is unlikely to disappear entirely as the recovery from COVID-19 gets underway, and this period has highlighted how digital technologies can drive efficiencies. Digitalisation is therefore a key horizontal enabler driver of Cyprus's future growth.

The model sees the ICT sector as a key vertical driver of growth. Cyprus will build on its comparative advantage in services to diversify into more high-tech digital services such as e-health, agri-tech and green-tech. At the same time, Cyprus can use innovations in its ICT sector to grow the value-add of its wider suite of professional services (ranging from consulting to engineering and shipping services) thus building a more resilient economy. This demonstrates how a new growth model will not see new sectors being created, rather that the changes will occur within the sectors and how activities are performed. For example, the implementation of e-health technologies will change how services in the health sector are delivered.

The model further improves resilience by diversifying Cyprus's services sector and highlights the need for Cyprus to embrace global trends towards digitalisation.

# Vision 2035 is the foundation of the long term economic strategy



# 3

## Achieving Vision 2035

# Introduction to this section

Vision 2035 will be achieved by...

## 1 The right initiatives

Slides 23 to 25 explain our approach to identifying and designing initiatives and the key principles underpinning them

## 2 The right governance structures

Slide 26 explains how the authorities should approach the creation of the proposed governmental bodies

## 3 The right sequencing

Slide 27 explains how implementing the initiatives should be sequenced and the critical priorities

# 1.1 Achieving Vision 2035 will involve a coordinated drive across both horizontal and vertical initiatives

So what does Cyprus need to do to change its economic model, exploit the future drivers of growth in a socially and environmentally sustainable way, and achieve Vision 2035? There are two areas to focus on:

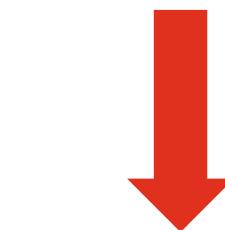
- **Horizontal drivers:** Setting the economy on the right foundations by fixing long-standing and structural weaknesses which will help the private sector to be competitive, resilient and operate at its most effective. This includes preparing the current and future workforce for the challenges of the future. But it also means building new public institutions and rethinking systems and processes in the public sector all of which will help steer Cyprus towards a more competitive, green and digital future consistent with the European Union's agenda and the UN's Sustainable Development Goals.
- **Vertical drivers:** Identifying and nurturing the sectors that will drive future long-term growth in an environmentally and socially sustainable manner. For a small, open economy like Cyprus these sectors should be chosen with global trends in mind. They also need to consider Cyprus's domestic dynamics including skills, competencies and societal priorities. For the existing vertical drivers, the emphasis should be on 'fixing' the sectors. For newer sectors, the focus should be to 'build' the foundations for future growth.

Within both sets of drives, there is a need to first fix the current state – including structural issues, bottlenecks and impediments to growth – and then to build for the future – including the investments, incentives and skills that are required to underpin long-term sustainable growth and competitiveness.

This report sets out the initiatives that are required to fix and build both the horizontal and vertical drivers. These initiatives may be comprised of the following:

- **Policies:** The actions required to achieve an objective and incentivise or mandate a change in behaviour or activity. In this report, they include structural reforms, regulatory or legislative actions, tax and fiscal incentives, operational or strategic actions, and the provision of information and education.
- **Investments:** The investment requirements over the short, medium and long-term, for example to provide the fundamental infrastructure required in cases where private sector provision is suboptimal, or to provide financial support to businesses or households to support an initiative.

The implementation of the initiatives outlined in this strategy will create the right foundation and incentives to follow the growth model outlined in the previous section. This will, in turn, enable Cyprus to pursue a long-term path of sustainable growth and competitiveness which will contribute to the achievement of the strategic objectives and Vision 2035.



**Horizontals:** The cross-cutting institutional, social, economic and environmental initiatives that are critical to unlocking potential across the economy and society



**Verticals:** The sector-specific initiatives required to realise the sector's growth and potential

The initiatives Cyprus needs to undertake to address its current structural issues, bottlenecks and impediments to business, investment and growth – in other words, to **get the basics right**.

The forward-looking initiatives Cyprus needs to undertake to move forward to achieve Vision 2035 and **build for the future**.

# 1.2 The initiatives have been selected based on their expected impact and outcomes and their feasibility of implementation

We identified the initiatives and recommendations in this report using the following approach:

- **In house view:** We used our network of international experts as well as our team-wide expertise developing strategic plans for other governments around the world including G20 countries as well as other nations including Singapore.
- **Learning from international best practice:** A process of desk-based research to identify case studies of policies, reforms and investments from other countries and to understand the impact of these initiatives on the outcomes required as part of Vision 2035.
- **Stakeholder interviews:** A series of around 100 interviews from across the Cypriot public and private sector, academia and civil society, as well as international PwC experts, was conducted to test ideas of initiatives and policies (i.e. refinement) and generate new ideas (i.e. completeness).
- **Stakeholder workshops:** Three workshops of over 50 individuals from the Cypriot public and private sector, academia and civil society were held to further test and refine recommendations.

While each initiative outlined in this strategy is evidenced and detailed in terms of how it can be implemented, this document should not be seen as a policy design document. There will be a significant amount of additional detailed policy scoping and design required before implementing any of the suggested changes. The next step of this project is to develop an action plan for implementation, which will include the specific measures/actions, milestones, tools and timeframes to implement the long-term strategy.

In addition, policymakers will have to undertake their own scoping and design processes, conducting robust impact assessments and appraisal of different options to achieve each initiative. Indeed, improving the capabilities of the Cypriot civil service with regards to policy design, appraisal and evaluation is one of the recommendations in this strategy. The initiatives in this strategy represent a significant transformation of the Cyprus economy and the use of taxpayer money, and other funds such as from the EU, will have to be justified and represent the best value for money.

In identifying the initiatives, a number of principles and attributes were considered:

- **Outcomes and impact:** Guided by the strategic objectives, the initiatives were developed by thinking about the KPIs and targets Cyprus needs to achieve to grow, be competitive and keep pace with EU agendas. They were selected based on the evidence (i.e. from other countries or from stakeholder discussions) that they would have the desired – and sufficient – impact on the outcomes identified. These looked beyond traditional monetary outcomes, such as GDP and FDI, but at broader societal outcomes, such as wellbeing, liveability, sustainability and equity.
- **Feasibility:** Drawing on experience and examples in other countries, it has been important to think about the nuances of Cyprus – such as its small island economy or government structure – to understand the relevance and feasibility of implementing such an initiative in Cyprus. The initiatives in this strategy have been selected because they have the potential to be successfully implemented in Cyprus – although, in many cases they depend on the right sequencing of implementation, for example getting the underlying physical or digital infrastructure in place, or ensuring government reforms are undertaken first to ensure the public sector has the capabilities to drive the strategy forward.
- **Distributional impact:** Of paramount importance for long-term sustainable growth is to ensure that the benefits of growth are shared equally across society and generations. This strategy not only includes a section on initiatives aimed at ensuring an equal and inclusive society, but when identifying initiatives across the other strategic objectives, they have been assessed to ensure they are fair, that they are not regressive, and that they do not have any unintended consequences on different groups in society. An overarching principle of the strategy is also generational equity – ensuring that growth is sustainable and does not come at the expense of future generations (i.e. in terms of environmental impact or financial burden).
- **Adherence with state aid rules:** In many cases, the initiatives outlined in this strategy constitute government support for certain businesses and sectors. They have been designed to ensure compliance with EU rules on state aid, which is where an advantage given by a government may provide a company with an unfair competitive edge over its commercial rivals.

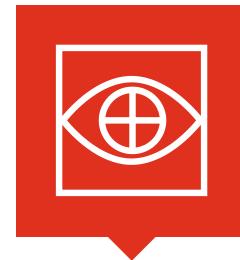
# 1.3 There are several key common themes across the initiatives required to drive Vision 2035

## Alignment to EU agendas



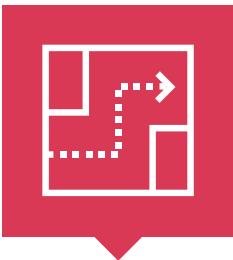
The initiatives reflect key EU agendas, setting out the steps required to enable Cyprus to meet targets, avoid fines and reputational damage, and contribute positively to collective progress. They aim to bring stakeholders together to ensure that education, research and development, and policymaking is aligned to the needs of businesses and society, Vision 2035, and EU priorities.

## Certainty and clarity



The initiatives aim to provide certainty and transparency to investors, businesses and citizens about future investments, policies and regulation/legislation. The government will need to develop a track record of successful implementation against plans in order to give stakeholders the confidence to invest in, relocate to, and set up businesses in Cyprus.

## Long-term investments



The initiatives set out the fundamental long-term investments in critical infrastructure (both physical and digital) that are required to provide the foundations for Vision 2035 and for private investment. Policymakers need to begin planning for these long-term investments now, signaling their intention, boosting business confidence and giving policymakers time to secure private sector investment.

## Challenging perceptions



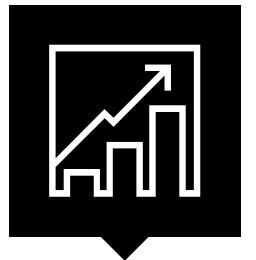
The initiatives aim to challenge perceptions of Cyprus and ultimately improve key indicators of economic, political, environmental and social performance towards leading EU benchmarks. Most pertinent is the need to clean up Cyprus's act with regards to corruption and the environment and professionalise key sectors.

## Changing behaviours



The initiatives aim to change behaviours in both the workplace and in society. Specifically, educating citizens on green and sustainable ways of living and working, embedding ethical and anti-corruption within society, changing perceptions of vocational education, and creating a culture of lifelong learning and upskilling.

## Efficiency and productivity



Through a mix of digitalisation, modernisation and reskilling, the initiatives aim to boost efficiency and productivity across the Cypriot public and private sector. Most notably, in the public sector and judicial system. Greater efficiency is key to reducing administrative burdens on businesses, investors and citizens and ultimately making Cyprus a great place to live and work.

# 2.1 A number of new strategic bodies, departments and taskforces will be key to achieve Vision 2035 –this does not require a significant expansion of the public sector but does require better use of the human capital in government

To achieve Vision 2035, the creation of a number of new strategic bodies are recommended. This ranges from small taskforces, comprised of a few key experts, to a new Deputy Ministry of Climate Action, the Environment and Sustainability. These bodies are crucial to refocusing efforts and doubling down on key priorities, providing strategic direction, driving efficiency, and ultimately ensuring that the initiatives of Vision 2035 are successfully implemented. In addition to the steps and principles described below, the creation of the new bodies crucially depends on the successful implementation of the HR initiatives set out in this strategy.

## How to set up the recommended new bodies:

### **Reorganising and optimising current state**

The Cypriot civil service has not been restructured for decades. Vision 2035 and the identification of new strategic bodies and roles represents a unique opportunity to reorganise the public sector, moving individuals around to other existing or new roles. The first step is therefore conducting a comprehensive assessment of which departments could be streamlined and where staff could be better utilised to optimise their potential.

### **Retraining and upskilling**

Upon identification of staff and departments, they must be offered training to help them upskill into new areas. This could be horizontal (i.e. digital upskilling) or sector / field specific (i.e. environmental policy).

### **Identify additional expert individuals**

The next step is identifying where gaps still lie, and where new expertise is required. In this instance, additional personnel may be required but should be focused on senior roles, bringing in those with business or international expertise to lead.

### **Agility and flexibility**

A key part of this will be embedding principles of agility and flexibility within the civil service, for example by offering secondments to different departments and the private sector, encouraging individuals to get a broad array of experience and skills.

## Key principles for the creation of new bodies:

### **Quality of individuals over quantity**

In many cases, the bodies recommended only need to comprise a few key experts in a certain field. They must be well versed in Vision 2035, with a clear understanding of the priority sectors, skills and stakeholders.

### **Strong mandate and accountable KPIs**

They must have clear roles and responsibilities, and be accountable for a set of well-defined and measurable KPIs and targets. They should have authority to conduct policy and make decisions without having to consult widely within or across Ministries.

### **International expertise**

Individuals who lead the bodies should have a strong network of international experts, who can be consulted for international best practice. Alternatively, international experts should be hired on a permanent or contractual basis, for example to design frameworks and assessment criteria for funds and schemes. This will be especially important for Cyprus's regulators.

### **Diversity and inclusion**

The bodies should strive for strong diversity, in terms of both gender, socioeconomic and educational backgrounds, and race and ethnicity in order to ensure policymaking and decisions are innovative, fair and inclusive.

# 3.1 The sequencing of initiatives should recognise reinforcing complementariness, but they should not delay progress across any of the dimensions

Getting the sequencing of implementation of such a wide-reaching set of long-term reforms, investments and policies right is challenging, but critical. This and the following slide explore some key principles and recommendations for how to get the sequencing right. This will be explored in more detail in the following phase of work, which will develop an action plan for implementing Vision 2035.

## Principles of sequencing for Vision 2035

|          |  |          |   |          |   |
|----------|--|----------|---|----------|---|
| <b>1</b> | <b>Don't delay reforms along any dimension but respect their complementarities</b>   | <b>2</b> | <b>Start with the initiatives that:</b>   | <b>3</b> | <b>Reforming is a continuous journey</b>  |
|          | <ul style="list-style-type: none"><li>The set of initiatives will be more successful if they are applied in sequence, reinforcing each other – for example, financial incentives to attract foreign businesses to Cyprus will be more successful once initiatives to improve liveability and government effectiveness are in place.</li><li>But while it is important to think about how implementation of the initiatives in each of the strategic objectives can reinforce progress in others (see the next slide), this should not delay implementation across any of the pillars.</li><li>Progress should begin in earnest across all strategic objectives, with roles and actions for each Ministry to begin work upon official adoption of Vision 2035.</li><li>The strategy represents a complete package of initiatives, all of which in some way contribute to achieving Vision 2035. Therefore, it is of critical importance not to ask: if only X number of reforms can be implemented, which should it be?</li></ul> |          | <ul style="list-style-type: none"><li><b>Underpin progress in the others</b>, for example large scale investments which will provide the fundamental infrastructure to enable progress across other dimensions of the strategy.</li><li><b>Attack the weakest link</b> in the vicious circle of uncompetitiveness and move up – for example, in Cyprus, one of the biggest constraints to growth is ineffective government machinery. Improving the efficiency and effectiveness of the public sector will improve the investment environment, which in turn will enable Cyprus to take better advantage of other reforms by creating incentives for things like innovation and education and training.</li><li><b>Aim to create a fundamental change</b> in behaviour, attitudes and skills in society, as these will take the long-test time. In Cyprus, this means accelerating progress on the green agenda and fundamentally changing behaviours and attitudes towards things like recycling and transport. It also means enhancing perceptions of more vocational and technical education and careers, which will be important for certain key sectors under Vision 2035.</li></ul> |          | <ul style="list-style-type: none"><li>This means that the authorities should not stop with Vision 2035. But rather, Vision 2035 aims to develop the right governance structures and attitudes within the public sector to ensure that Cyprus's growth plan is effectively monitored, evaluated and refreshed to reflect the latest global, EU and national developments and best practice policies.</li></ul> |

# 3.1 The sequencing of initiatives should recognise reinforcing complementariness, but they should not delay progress across any of the dimensions (cont'd)

## Principles of sequencing within each strategic objective

|          |   |   |   |  |                          |
|----------|---|---|---|--|--------------------------|
| <b>1</b> | <b>Get the basics right first</b>   | <b>2</b>  | <b>Lay the foundations in long-term investments</b> | <b>3</b>   | <b>Create incentives</b> |
|          | <ul style="list-style-type: none"><li>This means ensuring that Cyprus fixes its current structural issues, bottlenecks and impediments to business, investment and growth. For example, eliminating the backlog in the justice system and the issuing of title deeds.</li><li>It means optimising operations and ensuring Cyprus's public sector works as efficiently as in other leading EU countries.</li></ul> | <ul style="list-style-type: none"><li>Vision 2035 requires significant long-term investment in key areas such as digital and green. These investments are critical to unlocking the potential of other initiatives which will rely on that infrastructure being in place (i.e. broadband or physical infrastructure).</li><li>Demonstrating progress and, crucially, commitment to these long-term investments will be absolutely critical to giving investors, businesses and citizens the confidence that change is underway – this means clear timelines and action plans, regular monitoring of progress and developing a proven track record of implementing investment plans.</li></ul> |   | <ul style="list-style-type: none"><li>Once the basics are right and once the foundation has been laid for the long-term, policymakers can then create additional specific incentives to encourage businesses, investors and citizens to take advantage of new opportunities.</li></ul> |                          |

# 4

## World leading model nation

The first pillar of Vision 2035 is to make the country a world leading model nation with an efficient, effective government machinery that sets the rules in the marketplace...

| Strategic objectives  | Key horizontal initiatives   | Target outcomes by 2035  |
|---|--|--|
| <br><b>Effective government machinery</b>                      | <ul style="list-style-type: none"> <li>Drive the digital transformation with the Government as a Platform service delivery model that centralises procedures, creates efficiency gains, and makes public services more accessible for businesses and citizens alike</li> <li>Accelerate and finalise local municipality reforms, underpinned by clear principles, frameworks, and KPIs to offer greater autonomy, transparency and accountability to municipalities for local services, such as waste management</li> <li>Transform the civil service into a modern employer with a merit-based performance appraisal and promotion system to motivate, inspire and drive its people to upskill, to innovate, and to ultimately implement Vision 2035</li> </ul> | <b>80-85 percentile</b><br>World Governance Indicators: government effectiveness, voice and accountability<br>Up from 73rd percentile in 2019                          |
| <br><b>Efficient legal system which resolves disputes fast</b> | <ul style="list-style-type: none"> <li>Accelerate progress on planned reforms to make the system faster and efficient, thus improving access. This involves clearing the backlog of delayed cases, improving court administration, digital transformation (including shift of court proceedings online) and increasing specialisation of courts and judges</li> <li>To make the justice system more forward-looking, we recommend a comprehensive forecast of future needs to house new courts, initiatives to upskill judges, and ways to ensure the digital transformation is a continuous process which embraces innovations such as artificial intelligence and predictive analytics over the long-term</li> </ul>   | <b>&lt; 200 days</b> time to resolve civil, commercial, administrative and other cases<br><b>20-25<sup>th</sup> global rank</b><br>International property rights index |
| <br><b>Open, transparent and fair marketplace</b>            | <ul style="list-style-type: none"> <li>Strengthening the Commission for the Protection of Competition and the Cyprus Advertising Regulation Organisation by revising its mandate to align to Vision 2035. Urgently set up an independent Pensions Regulator.</li> <li>Increase access to finance by establishing new financial instruments including an equity fund, a National Promotion Agency to act as a catalyst for EU funds, and a credit bureau to provide data-driven credit worthiness services.</li> <li>We recommend several initiatives to improve financial literacy, which is critical to enable citizens and businesses to take advantage of the opportunities of Vision 2035 and support long-term wellbeing</li> </ul>                         | <b>60-65%</b><br>Share of external investment finance from bank loans<br>Down from 82% in 2019   |
| <br><b>Ownership of future destiny</b>                       | <ul style="list-style-type: none"> <li>Repurpose the Unit of Administrative Reform so that it is the preeminent body which co-ordinates, leads and monitors the implementation of Vision 2035, holding each Ministry to account for their assigned actions and targets</li> <li>Create a long-term planning unit, tasked to assess long-term trends and challenges to inform policy, and a National Infrastructure Commission to provide impartial and expert advice for major long-term infrastructure challenges</li> <li>Elevate and enhance the role of the Fiscal Council to provide authoritative analysis and research on the long-term sustainability of public finances and more aggressively scrutinise public finances</li> </ul>                     | Successful implementation of Vision 2035 and achievement of its target outcomes  |

# Expected ease of implementation and impact

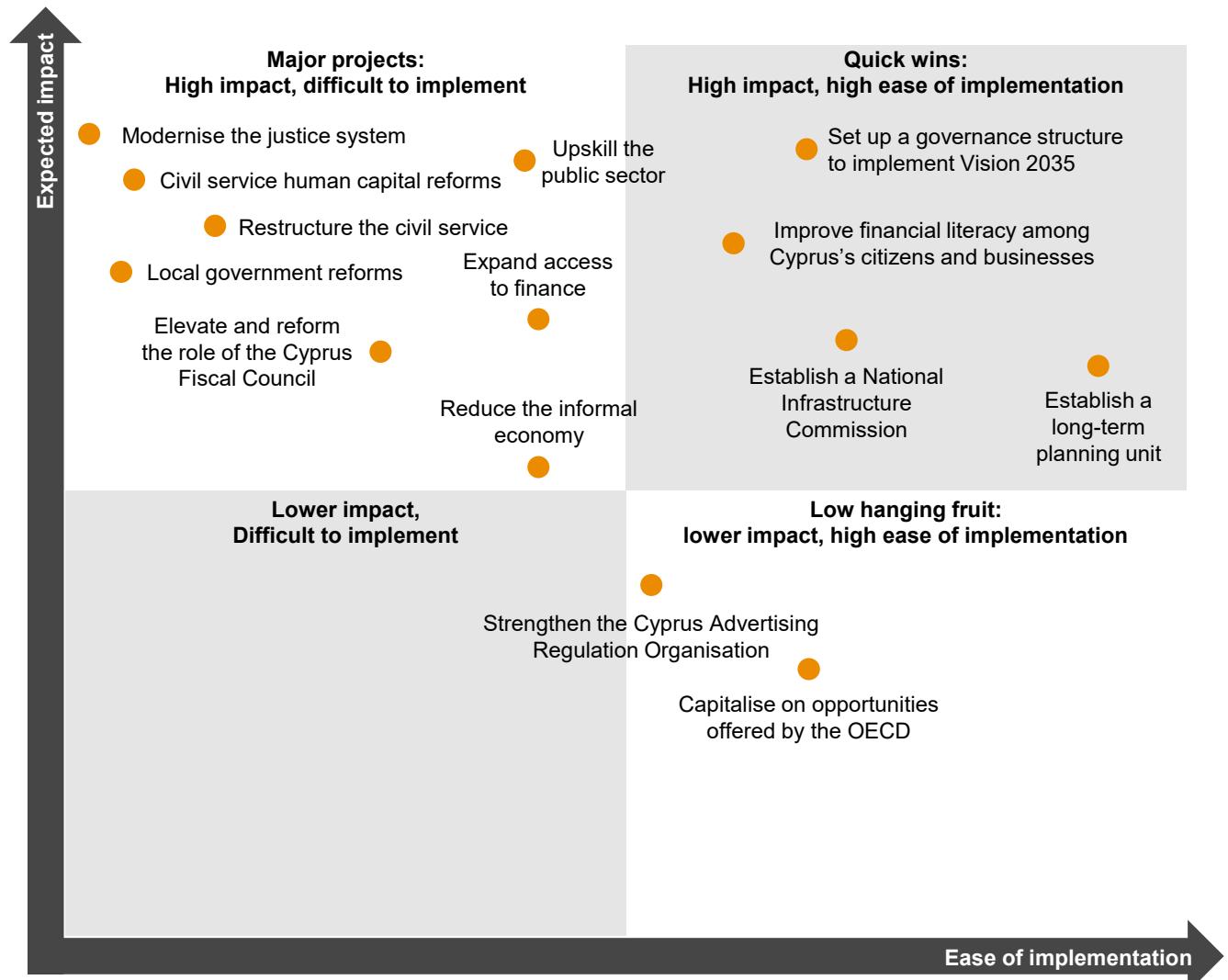
## Vision 2035 – World leading model nation

By 2035, we will be one of the **world's leading model nations** shaping its future with an **effective government machinery** which serves citizens and businesses – large and small – every single hour of the day through its digital platform. The regulatory bodies will maintain **an open, transparent and fair marketplace** for local and foreign businesses supported by an **efficient judicial system** which resolves disputes fast. Policymaking will follow international best practice, consistent with EU guidelines and governance but also tweaked to adapt to local conditions and aspirations. By doing so, Cyprus takes **ownership to shape its future destiny**. The private sector will engage in responsible and ethical business activities that respect the law, the environment, and create value for the whole of society.

Reforms in the **World leading model nation** pillar are expected to have a significant impact because they are focused on removing key institutional barriers to growth that are currently one of the biggest roadblocks to achieving Vision 2035. With many of them centred around restructuring, reforming and upskilling the public sector, they are also some of the hardest to implement as they will involve significant political capital and consensus.

**Expected impact:** The relative extent to which an initiative will contribute to achieving Vision 2035 in the long-run

**Ease of implementation:** The likely ease of implementing an initiative, based on level of stakeholder involvement, current institutional roadblocks, and level of political engagement required



# 4.1

## With effective government machinery

With effective government machinery

Supported by an efficient legal system  
which resolves disputes fastWhich is an open, transparent and fair  
marketplace for everyoneWhich takes ownership to shape  
its future destiny

# Effective government machinery

## Roadmap

| Outcomes   | Initiative areas   | Sample of initiatives outlined in this section   |
|--|--|--|
| Transform the Civil Service to a modern employer which grows and develops its people and reacts fast to changes in the global, regional and local ecosystem. | 1.1 Grow a civil service which serves the needs of its citizens, international and local businesses and its EU partners.<br>1.2 Improve the robustness and transparency of policymaking with a consistent approach to rigorous policy appraisal across Ministries.<br>1.3 Modernise semi-government organisations and create the right incentives for innovation and efficiency.   | <ul style="list-style-type: none"> <li>Identify top 200 requests made by citizens and identify efficiency gains.</li> <li>Design a central government framework for policy appraisal.</li> <li>Create a transparent and merit-based process for nominations to the boards of state-owned authorities.</li> </ul>   |
| Grow a civil service which serves the needs of its citizens, international and local businesses and its EU partners.   | 2.1 Build a local government which serves the needs of its community.  | <ul style="list-style-type: none"> <li>The authorities should provide clear forecasting of revenues over time to enable better policymaking and long-term planning.</li> <li>Give more autonomy to municipalities on community based services, such as waste.</li> <li>Develop clear zoning guidelines to ensure consistency in decision-making across the country and sustainable practices.</li> </ul>             |
| Build a local government which serves the needs of its community.  | 3.1 Transform the Civil Service to a modern employer which grows and develops its people.<br>3.2 Optimise the size and structure of the civil service to best serve its citizens and underpin Vision 2035.<br>3.3 Create a diverse, agile and resilient civil service which acts fast to changes in the global, regional and local ecosystem.<br>3.4 Create a culture of continuous learning, training and excellence within the Civil Service.<br>3.5 Support the professional development of civil servants and ministers. | <ul style="list-style-type: none"> <li>Implement a new performance, promotion and hiring framework based on merit and skills.</li> <li>Conduct a comprehensive assessment of the size and structure of government departments.</li> <li>Refresh the role and programmes of the Cyprus Academy of Public Administration.</li> <li>Set up a government think tank with a focus on professional development.</li> </ul> |

With effective government machinery

Supported by an efficient legal system  
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its future destiny

# Effective government machinery

## Outcomes

- 1 Transform the Civil Service to a modern employer which grows and develops its people and reacts fast to changes in the global, regional and local ecosystem
- 2 Grow a civil service which serves the needs of its citizens, international and local businesses and its EU partners
- 3 Build a local government which serves the needs of its community

## KPIs and targets

| Key performance indicator  | Year of latest available data <sup>1</sup> | Current state | Target by 2035             | Benchmark        |
|--|--|---------------|----------------------------|------------------|
|  World Governance Indicators:<br>Government effectiveness<br>(Percentile rank) <sup>1</sup> | 2019                                       | 1.0           | 2.0                        | Singapore: 2.2   |
|  World Governance Indicators:<br>Voice and Accountability<br>(Percentile rank) <sup>1</sup> | 2019                                       | 1.1           | 1.6                        | New Zealand: 1.6 |
|  Share of civil servants<br>completing annual CPD at<br>the CAPA                           | N/A  | N/A           | 75%                        | N/A              |
|  Renumeration of civil servants<br>as a share of GDP                                      | NA   | NA            | Consistent with EU average | NA               |
|  Digitalisation and completion of<br>top 200 requests by citizens<br>within 1 working day | N/A  | N/A           | 100%                       | N/A              |

Note: Latest available data is used up to 2019. 2020, where available, is excluded due to the COVID-19 pandemic.

Data from Eurostat unless otherwise stated.

<sup>1</sup> World Bank, World Governance Indicators.+2.5=maximum, -2.5=minimum

# 1.1 Grow a civil service which serves the needs of its citizens, international and local businesses and its EU partners

## The case for change

- Government effectiveness refers to the quality of public services, the effectiveness of the civil service, policy formulation and implementation, and government credibility. The Worldwide Governance Indicators (WGI) scoring of government effectiveness places Cyprus just below the 80<sup>th</sup> percentile. This compares poorly to key benchmark countries, such as Israel and Ireland at the 90<sup>th</sup> percentile, and Denmark above the 95<sup>th</sup> percentile in the 2020 release.<sup>1</sup>
- Similarly, Cyprus also ranks relatively poorly compared to other EU countries on the WEF's executive opinion survey on the wastefulness of government spending, with a global rank of 57, compared to 18 in the Netherlands and 3 in Singapore.<sup>2</sup>
- The evidence from the World Bank and WEF suggests that Cyprus is relatively uncompetitive in terms of its government effectiveness, which can be a constraint to business growth and investment if the government is perceived as being ineffective in delivering favourable economic, political and social policies.



### Adjust working hours of key aspects of Civil Service

- Cyprus's civil service typically ends its working day early in the afternoon. This means that many citizens and businesses struggle to access key public services.
- The working hours of the civil service should be adjusted to better align with EU norms and the working hours of the main institutions they liaise with.
- This should be a comprehensive adjustment across the whole civil service over time. To phase this adjustment in, it should initially be focused on key services and Ministries, such as health, welfare and social insurance, land and surveys department, and commerce and industry.
- A key aspect of increasing access to public services is developing online services. This means that public service delivery will be more accessible to all citizens at any time of the day. This is discussed in more detail in the digital section.

For more relevant initiatives..

See the **Supported by digital** section for more on digital transformation in the public sector



### Identify top 200 requests made by citizens and identify efficiency gains

- All ministries should be asked to identify their top 25 requests made by citizens and businesses.
- They must create an '**as-is**' process map detailing the number of steps, the number of documents required, the number of departments/ministries involved to complete said request, the level of digitalisation in the process, the typical time it takes to complete and request and what the typical bottlenecks are.
- They should then identify where efficiencies can be made and processes streamlined
- There should be an aim to automate and digitalise these processes within the next two years. The government should aim to complete these processes within one working day of the request being received.
- As an interim solution, until everything is digitalized, the government should make a version of these process maps available to the public. This will help people to understand all the steps and documentation needed and help the citizen/potential investor/visitor, to feel more ownership on the process and plan ahead

### Priority focus

- Title deeds (including reducing current back log)
- Building permits (including facilities to upload plans by local architect offices etc.)
- Visa applications, especially for workers in priority sectors and international students.



### Grow the network of citizens centres and their services

- There are currently 8 Citizen Service Centres in Cyprus. The aim of these Citizen's Service Centre's is to offer, from one point of contact, multiple services and process requests and documents, without the need to visit multiple government organisations. Services are provided on behalf of 6 government departments:
  - Road Transport Department
  - Department of Social Insurance
  - Grants and Allowances Service of the Ministry of Finance
  - Civil Registry and Migration (services that are provided by District Administrations)
  - Ministry of Health (medical card, European Health Insurance Card)
  - Land and Surveys Department
- **The number of Citizens Centres should be grown to cover rural areas**, targeting communities with relatively high population concentrations but low internet penetration. This is key to ensuring an equal access to public services across the whole country and better engaging and connecting rural communities.
- **Increase the services offered**, for example to include information and services for migrants and refugees – this includes ensuring that leaflets and staff should be available who can speak multiple languages.
- Once digital transformation is achieved in the Cyprus public sector, the Citizens Centres should convert to centres which educate citizens on how to use digital tools to carry out popular tasks online.
- Increase and improve translation of key public documents (directives, regulations, procedures) and websites into English and other relevant languages.

<sup>1</sup> World Bank, Worldwide Governance Indicators.

<sup>2</sup> World Economic Forum, The Executive Opinion Survey: The Voice of the Business Community, 2018.

# 1.2 Improve the robustness and transparency of policymaking with a consistent approach to rigorous policy appraisal across Ministries



## Design a central government framework for policy appraisal

- Currently, many decisions and policies are implemented in Cyprus without comprehensive or consistent economic impact assessment, or cost-benefit analyses across Ministries. In most EU countries, government policy making adheres to official appraisal and evaluation guidelines that enable a standardised and consistent assessment of the use of public money.
- Using the International version of the UK's Green Book, the authorities should develop a framework for robust policy development, options appraisal and impact assessment, and monitoring and evaluation. It should set out a consistent framework and methodology for all ministries to follow.
- This will enable the government to justify the use of public money in a standardised way across the public sector and to make better policy decisions.
- It should set out the following:
  - Principles for policy appraisal
  - The key analysis that must be conducted (and how this differs for projects of different sizes)
  - The key concepts (i.e. optimism bias, risk assessment, discounting)
  - Guidelines for how to assess the monetary costs and benefits of each option and the non-monetary advantages and disadvantages
  - Guidance on monitoring and evaluation.
- **Environmental impact assessment:** It should include guidance on how to conduct an environmental impact assessment of policy options. This should follow the UN's SEEA, which Cyprus already follows. The government must also mandate that each Ministry must include an assessment of the environmental costs in their annual plans and budgets.
- **Introduce training for all civil servants** that teaches them about the new framework, methods of policy appraisal and cost benefit analysis. This should draw on UK international Green Book training material as well as specific EU practices. It should be compulsory to complete an annual CPD course in policy appraisal. The course should draw heavily on case studies and applied learning.
- **Establish an oversight body for policy appraisal quality control** – this body should routinely review the policy making process of different ministries, including their compliance with government guidance, the quality of impact assessments and cost-benefit analysis, and options appraisal. It should also appoint persons accountable for quality control within each ministry/department where appropriate, who should be responsible for ensuring quality and robust assessments in their division. This body should sit across all Ministries.
- **Create a central log/library of all policy change projects** that are underway or planned by the government. This will avoid duplication and make the most of efficiencies between policies. Currently, there is no transparency and therefore some Ministries could be working on similar, complementary, or even opposing policies.

## Phasing in of new policy appraisal framework

### All budgets must have an environmental assessment

Mandatory requirement for Ministries to assess the environmental costs and benefits of their annual budgets from 2023



### Large transformational projects

Mandatory requirement for projects and investments over €1 million to be fully appraised with a full business case according to new government guidance from 2027 onwards.



### Small – medium projects and investments

Mandatory requirement for small to medium investments below €1 million to complete smaller-scale appraisals and lower-touch business cases from 2030.



For case studies

See the next page for relevant case studies

# 1.2 Improve the robustness and transparency of policymaking with a consistent approach to rigorous policy appraisal across Ministries (cont'd)



## UN's System of Environmental Economic Accounting (SEEA)

- The SEEA is a guide to integrating economic, environmental and social data into a single, coherent framework for holistic decision-making. It contains the internationally agreed standard concepts, definitions, classifications, accounting rules and tables for producing internationally comparable statistics and accounts.
- It is a flexible system that can be adapted to countries' priorities and policy needs while at the same time providing a common framework, concepts, terms and definitions.
- Over 90 countries have compiled SEEA accounts, including Cyprus as part of the EU.



## Case study: UK The Green Book

- The Green Book is guidance issued by the UK's HM Treasury on how to appraise policies, programmes and projects. It also provides guidance on the design and use of monitoring and evaluation before, during and after implementation.<sup>1</sup>
- Appraisal of alternative policy options is an inseparable part of policy development. The guidance is for all public servants concerned with proposals for the use of public resources, not just for analysts.
- The key specialisms involved in public policy creation and delivery, from policy at a strategic level to analysis, commercial strategy, procurement, finance, and implementation must work together from the outset to deliver best public value.
- The Treasury's five case model is the means of developing proposals in a holistic way that optimises the social/public value from public resources.
- The Green Book is not a mechanical or deterministic decision-making device. It provides approved thinking models and methods to support the provision of advice to clarify the social – or public – welfare costs, benefits, and trade-offs of alternative policy options.
- The international edition** of guidance supports professional accreditation and training programme which are available worldwide. It is best practice methodology for developing proposals to scope, analyse, plan, procure and manage delivery of policies and projects to achieve best value.

<sup>1</sup> HM Treasury, The Green Book Guidance, 2020.

# 1.3 Modernise semi-government organisations and create the right incentives for innovation and efficiency

Cyprus has many state-owned authorities. Some of the larger ones include:

- Cyprus Broadcasting Corporation
- Cyprus Telecommunications Authority
- Electricity Authority of Cyprus.

These are large corporations which, in many cases, provide an essential service to the wider Cypriot economy. However, some of the state-owned enterprises face inherent issues which have been documented in research by the European Commission and the IMF, as well as reports of the Auditor General. These reports highlight two pressing issues associated with most SOEs:

- Firstly, inefficiencies exist in the operation of these authorities and their current structure. This has been partly driven by the institutional setup of the state-owned enterprises and the lack of an appropriate incentive structure to improve productivity levels which remain low in absolute terms as well as relative to peers.
- Secondly, their relative underperformance compared to the rest of the economy which in turn exposes the state to contingent liabilities, potentially putting a strain on public finances.

Progress in delivering reforms in this area has been slow. In order to modernise state-owned enterprises, the government should implement reforms for improving their governance and management to boost innovation, competitiveness and productivity.

Source: European Commission, State-Owned Enterprises in the EU: Lessons Learnt and Ways Forward in a Post-Crisis Context, 2016.

## Create a transparent and merit-based process for board nominations



A fair and merit-based nomination process will help ensure that the boards of SOEs have the necessary competencies and authority to carry out their functions. The government should review its current framework for nominating boards and:

- Significantly strengthen the qualification and professional experience requirements for applicants – adding professional qualifications to the selection criteria and giving sufficient credit to private sector experience may boost the professionalism of boards.
- Issue clear guidelines and statutory or policy limits for remuneration and role descriptions,
- Enhance integrity of board appointments by appointing individuals who are not directly or indirectly (i.e. immediately family, dependents or spouse) affiliated to any of the political parties to ensure there is no conflict of interest, and
- Make use of independent professional recruits and international advertisements. Anyone should be able to apply to be members of the Board of SOEs and the selection of the finalised set of individuals should be independent followed by a recommendation made to the President.

Importantly, the process should be reviewed and updated to put candidates from the private sector on more equal footing. The government should make an active effort to appoint more international experts from the EU (which might mean remunerations of Board members could be revised).

## Set ambitious operational and financial targets



Greater transparency in the entity's financial, social and other performance and setting adequate entity-specific objectives will help SOEs align better with market discipline and objective performance benchmarks, thereby strengthening accountability. In defining and evaluating progress towards these operational and financial targets, the sustainability of the SOE's business model, current economic conditions and long term national and EU-level goals should be considered. The government should put in place a credible compliance mechanism, including appropriate penalties for missing targets. Cyprus can seek technical assistance for this project.

## Align governance and operation practices with international best practice



The government should seek to bring the standards of SOEs closer to private sector counterparts in terms of management and financial reporting practices. Direct government control over SOEs should be reduced, and more autonomy should be given to SOE boards to innovate and implement strategies consistent with Vision 2035. From a human capital perspective, greater independence means more powers to dismiss underperforming employees, offer bonuses for exceptional performance and develop a merit-based promotion framework for employees. Specifically, governance and operational practices should be aligned to the OECD's Guidelines on Corporate Governance of State Owned Enterprises, which sets out global best practice. At the same time, ethics and anti-corruption practices should be more strict in SOEs to set an example for private corporations.

## Investigate whether privatisation is the best option



Privatisation in some cases may be the optimal option for modernising SOEs. While public finance constraints have been the primary motivation for privatisation efforts in the EU, privatisation can also be used to quickly and efficiently bring SOEs' efficiency in line with well-run private companies. If part or all of the state assets are sold to entities that are the technological leaders in a particular space, then privatisation could also help quickly transfer technology between the entities. Partial privatisation, where a portion of company shares are placed on the stock market, is a softer alternative to full privatisation and may yield similar benefits, in particular helping SOEs to improve compliance with financial disclosure requirements and regulations.

However, if privatisation or part privatisation is the course of action Cypriot policymakers choose, then caution should be exercised including making sure that the market is competitive (as Cyprus is by construction a small market and, in some cases, unable to host many operators) and that the institutions are set up such that all rules, laws and regulations are abided. If these conditions are not met, and if transparent procedures are followed consistent with international best practice, then the act of privatising entities could be sub-optimal and result to phenomena dubbed as 'crony capitalism' in economics.

# 2.1 Build a local government which serves the needs of its community

## The case for change

- The European Commission has highlighted that although the Cypriot governance system is small in comparative terms to neighbours, it still struggled with effective coordination between the tiers of government (central and local).<sup>1</sup>
- Local government shows similar signs that there is a surplus of staff as well as inefficiencies from the duplication of effort. For example, in recent years, the number of municipalities rapidly increased in Greater Nicosia which has a relatively small population – less than 200,000 people.
- Opportunities exist for much greater economies of scale and reform in these areas to bring about greater economic and financial efficiencies.
- This is an ongoing reform area for the country since at least 2013. Unfortunately, though there has been no substantial movement on this point at the time of writing this document.

<sup>1</sup> European Commission, Public administration characteristics and performance in EU28: Cyprus, 2018.

### Existing municipal law proposals

- A revised version of the municipal law was drafted in April 2019. This reform aims to empower municipal authorities by:
  - Transferring new competencies from central government to municipalities, for example in urban planning, issuing of permits, social policy, local infrastructure and maintenance and schools' maintenance.
  - Reform of local finances to foster fiscal decentralisation
  - Legal supervision of local authorities that promotes administrative autonomy
  - New rules of transparency and democratic accountability.
- In order to deal with the problem of fragmentation in many of the smaller municipalities and communities, strategies for amalgamation are in place. The current scheme plans to amalgamate 30 municipalities and 50 communities into 17 new municipal authorities.
- This aims to lower running costs, reduce staff and increase productivity and economies of scale.
- The passing of the law remains in progress.



Plans for mergers and decentralisation should be accelerated to drive economies of scale and optimise government decision making and the delivery of public services. The following guiding principles should be ensured.

### Centralised standards and KPIs

Greater autonomy for municipalities must be underpinned by a clear and centralised set of standards that they must adhere to in their delivery of public services. This should include a clear mandate of what they are responsible for and will be held to account for. It should include KPIs and targets, such as share of waste that is recycled, or time taken to issue certain permits with clear timeframes for implementation. It should also link to the proposed central government framework for policy appraisal – with clear guidance what assessments municipalities need to do when making decisions and investments.

### Sources of revenue and transparency of finances

For autonomy to be successful, over time sources of revenue need to be identified for municipalities – for example, road taxes. The authorities should provide clear forecasting of revenues over time to enable better policymaking and long-term planning. It should also be a requirement that municipalities must publish their public accounts in a timely manner (i.e. less than 4 months before the calendar year end) driving accountability for spending and the use of public money.

### Autonomy

Give more autonomy to municipalities, as proposed, on community based services, such as waste. Using clear standards, KPIs and sources of revenue, these mechanisms should ensure that local government is held accountable for outcomes and the use of public money.

### Zoning guidelines

Develop clear zoning guidelines to ensure consistency in decision-making across the country and sustainable practices. This is especially important for environmental considerations. The guidelines should stipulate building standards and where different types of construction can take place, enabling municipalities to make consistent decisions.

### Incentives

Create positive incentives for best practice, such as excelling at recycling targets. These should be a mix of financial (i.e. additional funding) and non-financial, such as awards. This should also help create competition between municipalities and drive performance and innovation.

### Penalties for municipalities which don't meet targets

The new municipalities should be subject to inspections whether they meet their KPIs or whether they are underperforming. In cases where there is suspicion that municipalities are not being met the central government should commission an inspection based on the principles of evidence and independence within a fixed time period. If the outcome of such an inspection is negative, then the central government should take control of the day-to-day decision-making including setting budgets.

# 3.1 Transform the Civil Service to a modern employer which grows and develops its people

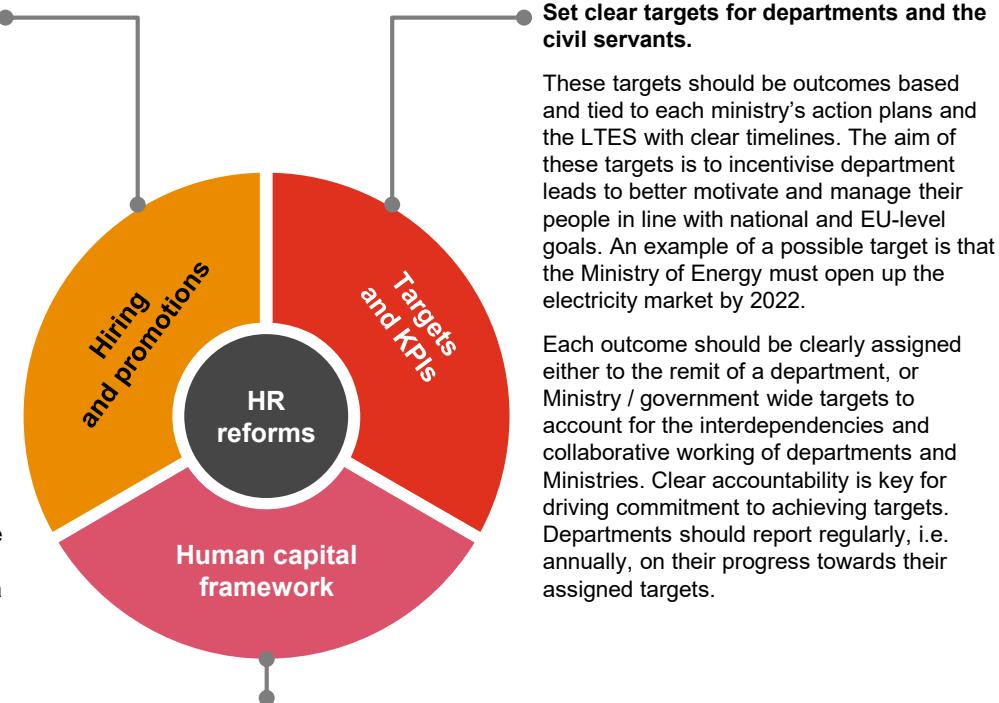
The existing evaluation system in the Civil Service does not create incentives for efficiency and strong performance as the majority of the civil servants are scored as excellent. A modern system of evaluation should identify and reward efficiency and address underperformance.

The Civil Service has in the past demonstrated its capacity for quick and effective response to new challenges. Nevertheless, sometimes there is resistance to change, which hinders progress and development. This mentality can make it difficult to modernize, with little incentive to challenge the status quo or innovate.

The prevailing culture needs to become more flexible and focused on results, as opposed to bureaucracy, complemented by a basic standardisation of processes and procedures to ensure control and accountability.

**The hiring and promotion process** should be transparent, merit-based and emphasise performance. In developing this process, the government should:

- **Set a formal schedule for summative feedback** i.e. a mid-year review and a full-year review. This would be in addition to encouraging formative feedback at more frequent intervals.
- **Hold independent assessments for promotions cases.** Assessors should be trained in using the human capital framework to fairly and transparently assess performance. A comprehensive assessment can involve written forms and interviews with the assessed and their colleagues.
- **Stress that ‘negative’ ratings are a signal of needing further support, e.g. more training, close mentoring, and not immediately a sign of dismissal.** Department should also put in place standards for managing underperformance
- **Set up a Human Resource Office**, who are responsible for conflict resolution and dealing with appeals. They must clearly communicate the appeals processes, with a robust framework in place to independently deal with appeals and to prevent disputes ending up at the Supreme Court.



**Implement a new performance, promotion and hiring framework based on merit and skills.** The objective of this is to create a merit-based civil service that is effective, efficient and impactful in its service delivery and that supports its people to constantly develop and grow in their careers.

- The new human capital framework must have clear indicators and outcomes expected for each grade and department based on core competencies a civil servant should possess at each relevant grade. These should be publicised to the entire civil service and should be visible on an internal website to all. Where relevant this should also consider interactions with citizens as well as with stakeholder in the European Union.
- The range of indicators and outcomes should be holistic, covering both traditional measures of success in a government-setting but also measures on how the employee has improved wellbeing for their colleagues, brought out the best in others, and championed values such as diversity and inclusion. This will be particularly relevant for managers in the civil service.
- Innovation and creativity should be encouraged, with rewards for those who seek change and efficiency consistent with best practice globally.
- The new human capital framework must be communicated a year ahead of implementation. It will be important to manage the phasing-in of the framework in such a way that gives civil servants adequate time to upskill.

**Set clear targets for departments and the civil servants.**

These targets should be outcomes based and tied to each ministry's action plans and the LTES with clear timelines. The aim of these targets is to incentivise department leads to better motivate and manage their people in line with national and EU-level goals. An example of a possible target is that the Ministry of Energy must open up the electricity market by 2022.

Each outcome should be clearly assigned either to the remit of a department, or Ministry / government wide targets to account for the interdependencies and collaborative working of departments and Ministries. Clear accountability is key for driving commitment to achieving targets. Departments should report regularly, i.e. annually, on their progress towards their assigned targets.

## 3.2 Optimise the size and structure of the civil service to best serve its citizens and underpin Vision 2035

### The case for change

- Cyprus has not undergone any significant public sector reform in the past four decades. A report by the World Bank in 2014, stated that 'the Cypriot public service is bound by a rigid, anachronistic system of laws and regulations that hinder effective personnel and performance management'.<sup>1</sup> Since 2014, there has been no significant reform to change this position.
- World Bank research suggest there exist a number of characteristics of the civil service system which restrain the productivity and innovation of workers. Firstly, promotion decisions are almost entirely based on seniority and appraisals are not linked to performance. To illustrate, in 2011, 99% of staff received at least six 'excellent' scores and no negative ratings.
- In addition, most promotion posts are overwhelmingly awarded to existing civil servants. The present system is also characterised by major inflexibility in the mobility of staff within the civil service and between departments, again restraining the development of staff and knowledge sharing.
- There also exist inefficiencies in the public procurement process. Cyprus remains one of the EU countries with the highest proportion of direct awards at 25% of total procedures in 2018.<sup>2</sup>

<sup>1</sup> World Bank, Cyprus at Crossroads: A Public Sector for the Post-Crisis Economy, 2014.

<sup>2</sup> European Commission, Country Report Cyprus, 2020.

**Update the skills framework.** As a first step, the civil service should update its skills framework with the competencies, technical and soft skills that a modern day Civil Servant requires. The framework should clearly outline the behaviours and capabilities required by civil servants to be effective in their roles.

- 1 **Key transferable skills:** critical thinking, inclusive management practices, digital, leadership, innovation, creativity, negotiation
- 2 **Key technical skills:** statistical analysis, environmental science

### Skills and competencies framework



### Independent assessment

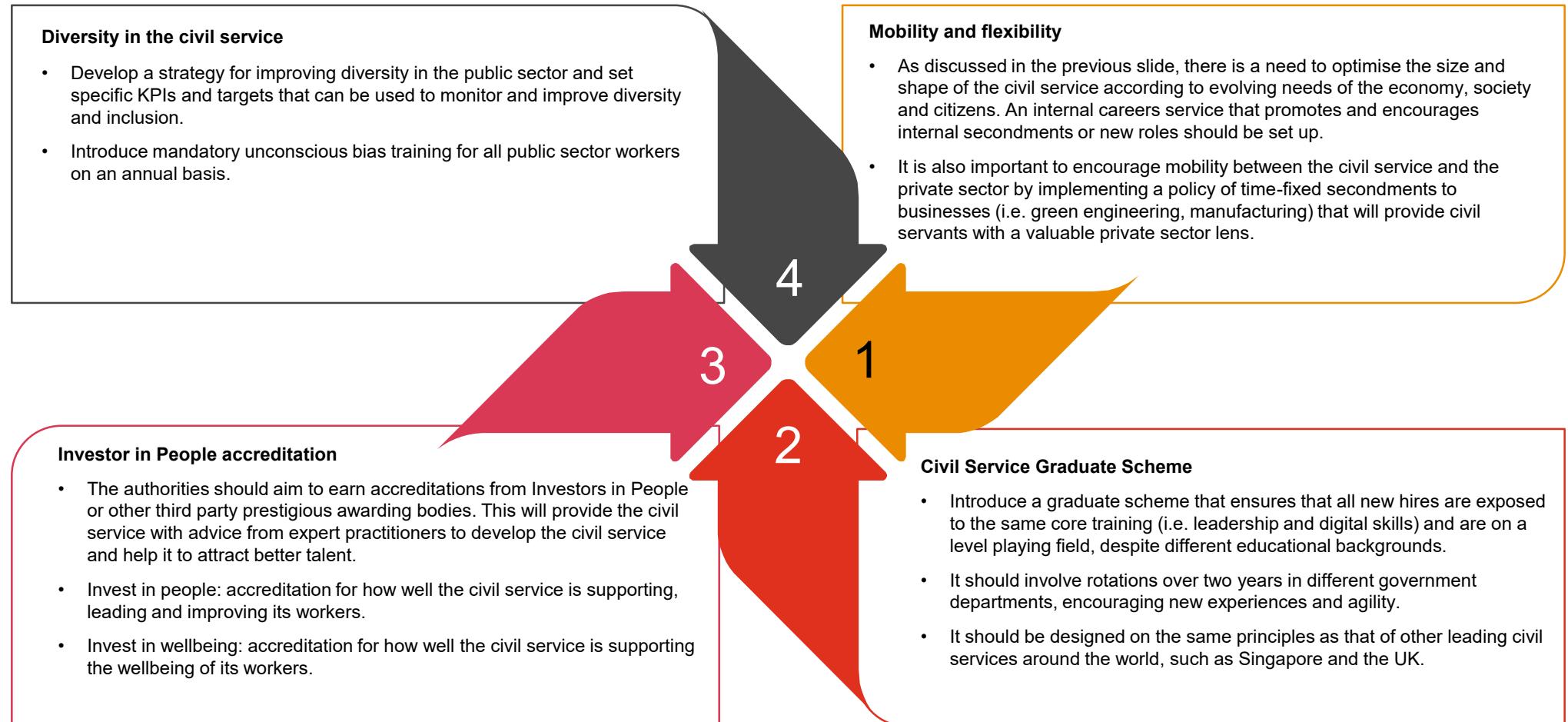
### Conduct a comprehensive assessment of the size and structure of government departments.

Currently, there is a disconnect between the size of various ministries and departments within government (i.e. the number of civil servants) and the size of the sectors primarily affected by their operations. For example, the Ministry of Agriculture has typically employed a significantly higher number of civil servants than is proportional to the share of agriculture in GDP.

In this strategy, a number of new bodies, departments and a new Deputy Ministry of Climate Action, the Environment and Sustainability is recommended. These new strategic bodies do not necessarily require the hiring of new personnel. Instead, they should be used as a unique opportunity to restructure the size and shape of the different government ministries to achieve the optimal reallocation of talent.

The government should conduct a comprehensive and independent review of its departmental and ministerial structures, assessing their resource needs in line with the country's current sectoral mix, government priorities and long term challenges. Using the skills and competencies framework developed in the previous step, the government can ensure that civil servants have the requisite skills to perform their departments' allocated tasks to the highest possible standard.

### 3.3 Create a diverse, agile and resilient civil service which reacts fast to changes in the global, regional and local ecosystem



# 3.4 Create a culture of continuous learning, training and excellence within the Civil Service



## Refresh the role and programmes of the Cyprus Academy of Public Administration

The Cyprus Academy of Public Administration must be refreshed to offer a more modern, accessible and digital training programme. New courses and training programmes should be offered in line with the skills gaps and in-demand competencies identified through the assessment framework on previous slides. The focus of this new training curriculum can be shared across both soft skills (e.g. leadership, management, resilience training) and technical skills (i.e. digital and ministry-specific areas such as renewable energy).

Specific reforms include:



**Cater to different styles of learning.** Beyond formal lecture and classroom-style learning, CAPA can offer a wide range of practical training opportunities e.g. mentoring, job shadowing and on-the-job learning. This type of learning is especially useful for new recruits, as it enables an efficient transmission of general knowledge and skills as well as an understanding of the specific workplace culture.



**Engage with modern ways of teaching.** Training programmes should make use of digital technologies. Alongside traditional ways of teaching such as lectures and classrooms, CAPA can use a mixture of online recordings and virtual classrooms. This will not only help build digital skills through active usage of digital tools, but will also support full-time employees in fitting training around their work responsibilities.



**Learn from the best.** The Cypriot government should seek to emulate leading international programmes for civil service training, e.g. Singapore or the UK. A key characteristic of these programme is their agile adaptation to changing priorities, e.g. COVID-19 has precipitated training courses in crisis communications. CAPA should keep abreast of the latest best practice.



## Mandate training for civil servants

It should be mandatory for Civil Servants to complete a certain amount of training every year. Mandatory training can include a combination of annual training required for all public servants and one-off training required by specific grades.

Annual training should focus on core compliance activities, reaffirming that public servants are observing the standard operating procedures of government. For example, the government should run annual training programmes on data safety, managing personal conduct in the workplace and ethics, including conflicts of interest and ethics training. These are key competencies that must be reinforced regularly and updated to align with changes in modern working practices and regulations.

One-off training for specific grades should be designed to fit the requirements of differing roles and responsibilities. For example:

- 1 **Training for all new joiners:** government structure, networking
- 2 **Middle management:** leadership, giving and receiving feedback
- 3 **Senior management:** driving value in people

In addition, public servants should be given an entitlement of training days each year, which they can use to attend trainings they have personally selected. For example, this could include training for technical skills such as coding or graphic design, or department-specific skills such as environmental science. Allowing civil servants to select training which aligns with their personal interests and career goals can help promote a culture of lifelong learning and development.

For more relevant initiatives...

See the **Adheres to the rule of law and combats corruption** section for recommendations to root out corruption in Cypriot society including the civil service



## Case study: Singapore Civil Service Training in Singapore

The Singapore public sector employs some 127,000 officers in 15 ministries in addition to over 50 independent government agencies with about 76,000 officers. At the heart of this sprawling organisation is the Civil Service College, a dedicated training institution for the upskilling and learning of public servants. The College plays a critical role in building skills and capabilities, and supporting government officials to acquire the competencies required for a modern and dynamic public service.

The Civil Service College offers over 150 courses for professional development. Each year, it sees over 30,000 unique classroom participants in person and close to 100,000 unique students online.

Some of its priority areas for 2019/20 were:

- **Enhancing transformation leadership** – the CSC launched the Learn to Lead Programme for new manager, a modular programme with online and in-person components to help participants navigate the transition into a supervisory role
- **Workforce development and upskilling** – launched programmes such as ‘Leading Digital Transformation’ to equip directors with the skills to drive value creation with digital strategies
- **Support public service culture on learning and innovation** – launched an experimental sandbox, INN x CSC, where public officers can come together to brainstorm, experiment and try out new ideas

Source: Civil Service College Singapore, Annual Report 2019-2020, 2020.

# 3.5 Support the professional development of civil servants and ministers

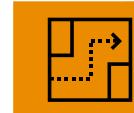


## Case study: UK

Institute for Government (IoG) think tank

The Institute for Government is the UK's leading think tank working to make government more effective. It provides rigorous research and analysis, topical commentary and public events to explore the key challenges facing government. It offers a space for discussion and fresh thinking to help senior politicians and civil servants think differently and bring about change.

- **Practical research and learning:** research focuses on the big governance challenges of the day and on finding new ways to help government improve, rethink and sometimes see things differently.
- **Learning and development:** IoG's inspirational learning and development programme provides a range of opportunities to help ministers, senior civil servants and their teams to govern and lead more effectively. They help ministers, special advisers and top officials to develop further the skills and behaviours required to govern effectively, and to help opposition parties to become better prepared for political transitions and government.
- **Events:** Their events support our research and learning programmes and provide platforms for leading international experts to exchange ideas and share new thinking on effective government. For example, recent events and live streams include:
  - How can the civil service develop the right skills?
  - The coronavirus crisis – one year on: in conversation with Tony Blair
  - Public services after the pandemic: how to scale up successful changes
  - Tax policy in the real world: in conversation with former chancellors
  - How to be a Prime Minister
- **Expert advice:** IoG provide practical advice from people with in-depth experience of working inside government to support senior decision makers to improve performance.
- **Ministers Reflect** is the Institute for Government's unique archive of interviews with former Conservative, Labour and Liberal Democrat ministers. It is designed to record – in their own words – what it takes to be an effective minister, the challenges they face and what more can be done to support them in driving forward policy objectives.



## Set up a government think tank with a focus on professional development

- Establish an independent government think tank to act as a catalyst for inspiring the best in government.
- Its objective should be to spark ideas, generate debate, challenge preconceptions, bring experience to bear and make new connections that work to improve government for the benefit of society. Specifically:
  - **Innovative** – push the boundaries of current knowledge, exploring and experimenting with diverse approaches to find the best solution.
  - **Rigorous** – be thorough and precise to produce the highest quality data and services.
  - **Impartial** – be objective in its approach, neutral and politically non-aligned.
- One of its roles should be to liaise with their European equivalent bodies on key research agendas and learn from them.
- Another of its key roles should be to support the professional development of ministers and civil servants through events (see case study), courses and workshops, and special advisors who can offer impartial advice on a certain topic or area of policy.
- Finally, this body should act as a vehicle for learning from past experiences in government. As such, the experience and input from previous ministers and government officials will be of importance.



## Create an award system for top performing civil servants

- Create an annual Civil Service Awards programme to motivate and inspire civil servants, creating additional recognition incentives for outstanding work and innovation.
- The awards must have a clear criteria, illustrating outcomes and examples to ensure consistency and fairness in decisions.
- The awards should be sponsored by businesses – a way of driving collaboration between the private sector and policymakers.
- The values and outcomes the awards should focus on could include:
  - **Core values** – Has the individual demonstrated the core values and behaviours set out in the Civil Service Code? Has the individual acted with honesty, integrity, impartiality and objectivity?
  - **Above and beyond** – Has the individual's achievement gone above and beyond their normal job role?
  - **Working in partnership** – Has the individual introduced effective joint working arrangements that connect colleagues from multiple teams, departments or other internal or external organisations?
  - **Innovation** – Has the individual used innovative approaches, which have resulted in a step up from business as usual?
  - **Measurable benefits** – Is the project or programme achieving tangible results?
  - **Impact** – Has the individual made an impact beyond their immediate team/business area/department?
  - **Sustainability** – Does the project leave a legacy, and can it be replicated across government?
  - **Inclusion** – Does the individual successfully bring to life the values around diversity and inclusion?

# 4.2

Supported by an efficient legal system which  
resolves disputes fast

# Efficient legal system which resolves disputes fast

## Roadmap

| Outcomes  | Initiative areas  | Sample of initiatives outlined in this section   |
|---|---|--|
| <b>Build a modern judicial system where justice is served fast to grow a lasting culture where the rule of law prevails</b> | 1.1 Accelerate efforts to reform the justice system and clear the long standing backlog<br><br>1.2 Build a modern and efficient judicial system where justice is served fast to grow a lasting culture where the rule of law prevails | <ul style="list-style-type: none"> <li>• Establish temporary courts to clear the backlog of cases</li> <li>• Establish the Courts Service of Cyprus to lead the administration of the justice system</li> <li>• Implementation of the new Civil Procedure Rules (CPR) aiming at speeding up decisions and improving efficiency</li> <li>• The Supreme Court should consider reducing the composition of the appeals bench to three judges for all administrative appeals.</li> <li>• Introduce digital audio recording (DAR) of court proceedings to reduce time spent on shorthand proceedings and improve efficiency</li> <li>• Introduce ADR mechanisms in consumer disputes and injuries assessment cases as an alternative to issuing court proceedings</li> <li>• The authorities should make annual CPD training at the Judicial Training school mandatory for all judges</li> <li>• Set up an e-justice system which includes: A digital court administration system and digital case management system; digital audit recordings of court proceedings, and video conferencing technology for tele-hearings</li> <li>• Establish Commercial Courts which will be assigned resolving disputes of commercial nature</li> </ul> |

# Efficient legal system which resolves disputes fast

## Outcomes

- ① Build a modern judicial system where justice is served fast to grow a lasting culture where the rule of law prevails

## KPIs and targets

| Key performance indicator   | Year of latest available data | Current state   | Target by 2035 | Benchmark                                  |
|---|-------------------------------|-----------------|----------------|--|
|  <b>EU Justice Scoreboard: Time needed to resolve civil, commercial, administrative and other cases<sup>1</sup></b>                                  | 2018                          | 737 days        | < 200 days     | Denmark – 24 days                          |
|  <b>EU Justice Scoreboard: Number of pending civil, commercial and administrative and other cases (1st instance/per 100 inhabitants)<sup>2</sup></b> | 2018                          | 6               | 1.5 – 1.75     | Netherlands – 1.5                          |
|  <b>International property rights index<sup>3</sup></b>  | 2020                          | Global Rank: 41 | 20 – 25        | Ireland – 20<br>Estonia – 24<br>Malta – 33 |

Data from Eurostat unless otherwise stated.

<sup>1</sup> European Commission, 2020 EU Justice Scoreboard, 2020.

<sup>2</sup> Ibid.

<sup>3</sup> Property Rights Alliance, International Property Rights Index.

Note: Latest available data is used up to 2019. 2020, where available, is excluded due to the COVID-19 pandemic.

# 1.1 Accelerate efforts to reform the justice system and clear the long-standing backlog of cases

## The case for change

- Cyprus has a strong justice system in terms of its independence and quality. The legal system in Cyprus is based on Common Law which is cited as one of the attractions for international investors. However, the justice systems falls down on its efficiency, specifically the time taken to conclude civil, commercial, administrative and other cases.
- Third party evidence shows that the average time to award justice on civil, commercial, administrative and other cases is three years.<sup>1</sup>
- Added to this, the Cypriot government also spends less, as a share of GDP on law courts, than the EU average, at around 0.2% of GDP in 2018, compared to 0.3% in the EU and 0.5% in Slovenia. Cyprus has a middling number of judges per 100,000 inhabitants of the EU countries, at around 14. This is more than Ireland and Denmark, but less than Slovenia and Finland.
- The main inefficiencies stem from outdated and complex rules for civil procedures, the absence of digitalisation, the low usage of mediation and subpar court's buildings which hinder operations.
- Progress to reform the justice system is limited. The authorities must urgently complete the actions summarised in the 2017 Action Plan set by the European Commission funded Functional Review of the Courts System.
- Addressing the areas highlighted in the Action Plan is crucial to attract greenfield foreign direct investment. A fast and efficient justice system will also provide the citizens and businesses of Cyprus with a sense of trust in Cyprus's institutions and should also contribute to reduce the perceived high level of corruption. It will also enhance Cyprus's credibility internationally, as Cyprus is one of the few locations within the European Union where Common Law is practiced.



### Establish temporary courts to clear the backlog of cases

It is vital that Cyprus streamlines its judicial system and ensures that there is no backlog of cases.

The authorities must urgently accelerate efforts to assign a dedicated and focused taskforce to resolve existing backlog of cases that are either slow moving or have not yet been processed and are overdue. The taskforce should include representatives of the Supreme Court and District Courts to oversee and direct this project.

The Taskforce must oversee the establishment of temporary courts to provide additional capacity required to clear the backlog of cases, as the UK has done over the COVID-19 pandemic (see box opposite). Specifically, the authorities should:

- **Define and prioritise overdue cases:** The definition of the backlog of cases should consider those that have been awaiting processing for too long of a period. Standard international comparators could be used to define what is 'overdue' e.g. in the UK 19 months delay is considered 'unacceptable'. Cases should then be classified by type, level of complexity, location, types of judges required, expected timeframe for completion, likely support personnel required, likelihood of mediation.
- **Identify building requirements:** Once cases have been classified, a taskforce should identify the location of the hearings which are consistent with the requirements of the case. For example, buildings with excellent technology facilities for cases where remote hearings can take place. This will also free up room in existing courts for other delayed cases, which require cells and secure dock facilities to keep the public, victims and witnesses safe.
- **Governance:** This task should be centrally coordinated and managed by qualified project managers in conjunction with the Unit of Administrative Reform (see separate slides on this) who should be responsible for tracking and assessing KPIs. They should investigate and explain KPIs that are missed.



### Case study: UK Nightingale courts

- In March 2020, almost half of all UK courts closed and jury trials paused to minimise social interaction between court users. Since then, court staff, legal professionals, and the judiciary collaborated to prioritise cases and keep the justice system running throughout the lockdown – with up to 90% of all hearings using remote technology during the pandemic.
- In July 2020, the UK government announced that it would be opening 'Nightingale courts' as part of its court recovery plan to address the impact of coronavirus on the justice system and reduce the backlog of cases that arose from closures during lockdown.
- To date, 30 Nightingale courts have opened.
- Additional measures included opening courts for longer to increase the number of cases that can be heard safely on any given day, and continuing to use video technology to hear cases where appropriate. Indeed, a major £142 million investment across the courts system has been announced to speed up technological improvements and modernise courtrooms.

# 1.2 Build a modern and efficient judicial system where justice is served fast to grow a lasting culture where the rule of law prevails

|   |   |
|---|---|
| <b>Governance and management of the courts system</b> | <ul style="list-style-type: none"> <li>The Courts Service of Cyprus will be an important step towards the modernisation of the system. It should be an independent statutory body including a Chief Executive and management team as well as a streamlined structure to focus on operations and support functions.</li> <li>The powers and functions of the Courts Service of Cyprus must be clearly set out in statute, but should, among others, include:           <ul style="list-style-type: none"> <li>administration of the justice system for a fair, efficient and accessible courts system</li> <li>supporting an independent judiciary in the administration of justice</li> <li>driving improvements across all aspects of the administration of the courts and tribunals</li> <li>collaborating effectively with other justice organisations and agencies, including the legal professions, to improve access to justice</li> <li>working with government departments and agencies to improve the quality and timeliness of their decision-making, which will reduce the number of cases coming before courts</li> </ul> </li> </ul> |
| <b>Appeals process</b>                                | <ul style="list-style-type: none"> <li>The number of appeals now outstanding is simply causing the system to grind to a halt. The establishment of the Administrative Court has helped to some degree in freeing up judicial time and capacity creation, however the problem is extreme and ongoing. The authorities must investigate the following:           <ul style="list-style-type: none"> <li>Establishment of a second-tier Court of Appeals, and the future role of the Supreme Court in the appeal process, including possible establishment of a separate Court of Appeal</li> <li>Categorisation of appeals based on urgency and complexity to better identify which court is better equipped to handle.</li> <li>Restrictions on the absolute right to appeal, the potential for more paper-based appeals, single judge court appeals, establishment of a fast-track arrangement for urgent appeals</li> </ul> </li> </ul>  |
| <b>Judicial time management</b>                       | <ul style="list-style-type: none"> <li>The Supreme Court should consider reducing the composition of the appeals bench to three judges for all administrative appeals.</li> <li>The role of Registrars and Legal Officers should be expanded to include dealing with routine procedural matters, assisting in research and the drafting of judgments.</li> <li>The composition of interview boards for judicial appointments should be examined with a view to reducing the number of Supreme Court judges directly involved.</li> <li>Judges should be provided with modern ICT hardware, software, and remote access to relevant systems, with appropriate training and support. Access to online legal databases and resources should be facilitated.</li> <li>Introduce digital audio recording (DAR) of court proceedings to reduce time spent on shorthand proceedings and improve efficiency</li> </ul>  |
| <b>Alternative Dispute Resolution</b>                 | <ul style="list-style-type: none"> <li>The primary purpose of alternative dispute resolution (ADR) is to ensure the speedy, cost effective resolution of disputes so that court hearings are a last resort for litigating parties. No such schemes of ADR exist in Cyprus, where initiation of court proceedings is generally seen as the first step in litigation</li> <li>Introduce ADR mechanisms in consumer disputes and injuries assessment cases as an alternative to issuing court proceedings</li> <li>Courts should actively encourage mediation in cases where settlement is considered to be a likely outcome. The Rules of Court should be amended to make provision for the court to refer cases to mediation.</li> <li>Offer training courses to judges and lawyers to provide them with the skills to promote alternative dispute resolutions and mediation.</li> </ul>   |

# 1.2 Build a modern and efficient judicial system where justice is served fast to grow a lasting culture where the rule of law prevails (cont'd)

|                                   |   |
|-----------------------------------|---|
| Judicial assignments and training | <ul style="list-style-type: none"> <li>Modify the current two-year rota system to ensure that judges rotate at different times in the cycle, thus ensuring that there is continuity of expertise and input to trials. Make the development of expertise in specific areas part of the continuing professional development programme for judges.</li> <li>The establishment of a Judicial Training School is a welcome development. The authorities should make annual CPD training at the school mandatory for all judges. Its curricula should focus on: <ul style="list-style-type: none"> <li>The interpretation and application of the Rules of Civil Procedure</li> <li>Digital skills to support with the digitalisation of the justice system</li> <li>Time management</li> </ul> </li> <li>The School can also seek more input, advice and guidance from the Council of Bars and Law Societies of Europe and learn from best practices from other such Schools in the EU and also benefit from talks, presentations and training from experienced instructors.</li> <li>Judges should be trained in the detail of Vision 2035 and the implications for the legal system. For example, the authorities must continuously train judges in the field of corporate law to improve international competitiveness and to underpin Cyprus' position and reputation as a business and trade hub. In addition, there should also be a focus on environmental law.</li> <li>A mentoring system where more experienced judges train/mentor newly appointed or less experienced judges is already in place, however further enhancement can be considered such as the direct involvement and increased number of seminars/education from broader ecosystem players e.g. academics, bar association, international experts and/or judges.</li> </ul> |
| Digitalisation and e-justice      | <ul style="list-style-type: none"> <li>Set up an e-justice system which includes: A digital court administration system and digital case management system; digital audit recordings of court proceedings (using advanced audio processing techniques for the Greek language and the Cypriot dialect which is sometimes used in the Cyprus courts) to allow for consistent and timely production of transcripts (i.e. within the day of the trial); video conferencing technology for tele-hearings, which allow for virtual and remote hearings to take place</li> <li>Equip judges with modern ICT hardware, software and relevant systems, with appropriate technical training. Ensure ample and uninterrupted funding so that technology, laptops and Wi-Fi are all maintained to high standards and speeds.</li> <li>The justice system must constantly be looking to evolve its digital transformation. The authorities should engage with international counterparts to understand how new technology like AI and machine learning can be used to assist and deliver justice. They should identify pilot courts and judges, which can then be scaled up.</li> </ul>  |
| Commercial Court                  | <ul style="list-style-type: none"> <li>Cyprus has a large number of commercial cases that are pending trials. This reflects the increasingly complex nature of economic transactions and the Cypriot courts need to adapt to this. To do this the authorities should proceed to establish Commercial Courts which will be assigned resolving disputes of commercial nature. This should help Cyprus also increase its international reputation and credibility as a jurisdiction which solves commercial cases</li> </ul>   |
| Civil Procedure Law               | <ul style="list-style-type: none"> <li>Weak enforcement of judgments, coupled with inefficient court proceedings, are adversely affecting the payment discipline, and overall attitude, in the country.</li> <li>To this end, an amendment to the Civil Procedure Law that will make it easier to carry out court decisions to seize movable property has been approved by the Supreme Court. A strict timeline for adopting this amendment should be put in place (2020 European Semester). This will enable the justice system to strengthen its judgement enforcement.</li> </ul>  |
| English use                       | <ul style="list-style-type: none"> <li>While the court system must observe the official languages of the country and English cannot be imposed, the use of English language in courts should be promoted, where all parties consent. In particular, in commercial courts procedures and hearings. This would assist in making Cyprus more extroverted, accessible, and 'welcoming' to the international community.</li> </ul>   |

# 4.3

Which is an open, transparent and fair  
marketplace for everyone

# Open, transparent and fair marketplace for everyone

## Roadmap

| Outcomes   | Initiative areas  | Sample of initiatives outlined in this section  |
|--|---|---|
| <b>Set up a level-playing field for all businesses in Cyprus</b>   | 1.1 Set up a level-playing field for all businesses in Cyprus<br>1.2 Improve transparency by publicly documenting government decisions and with better and regular data provision<br>1.3 Support businesses to achieve scale and promote export growth in key markets   | <ul style="list-style-type: none"> <li>Strengthen the Cyprus Advertising Regulation Organisation by training personnel in monitoring and investigating new forms of advertising used on social media and video sharing platforms.</li> <li>Request technical support from the OECD to carry out an independent policy assessment on the state of competition in Cyprus's markets.</li> <li>Establish a national data working group.</li> <li>Bolster the remit and capabilities of the Trade Service as an export promotion agency.</li> </ul>  |
| <b>Diversify the sources of finances for businesses in Cyprus consistent with that of other European economies</b> | 2.1 Focus on the society first, providing the necessary information transparently so that consumers can understand the full suite of financial options available to them and can plan better<br>2.2 Establish the right institutional mechanisms, for an effective, efficient and diverse financial system to flourish<br>2.3 Equip the banking, insurance and finance sectors with the tools and expertise to improve financial health and stability<br>2.4 Align with best practice and strengthen enforcement to reduce the burden of non-performing loans<br>2.5 Diversify the sources of finances for consumers and businesses in Cyprus, consistent with that of other European economies | <ul style="list-style-type: none"> <li>Cyprus's insolvency framework needs to be continuously updated to stay consistent with best practice.</li> <li>Improve the efficiency and capability of Cyprus Post by reducing administrative duties.</li> <li>Develop and implement an action plan for Cyprus banks to play an active role in improving financial literacy in the Cypriot population.</li> <li>Encourage Cypriot corporates to be admitted to the Cyprus Stock Exchange (CSE) using tax incentives.</li> <li>Establish a robust credit worthiness service for the benefit of all.</li> </ul> |
| <b>Reduce the role of the informal economy</b>   | 3.1 Reduce the role of the informal economy and embrace digital payments  | <ul style="list-style-type: none"> <li>Launch a tax education campaign targeted at small taxpayers.</li> <li>Increase the uptake of digital payments by clearly communicating the benefits of digital payments to merchants and retailers.</li> </ul>   |

# Open, transparent and fair marketplace for everyone (cont'd)

## Outcomes

- 1 Set up a level-playing field for all businesses in Cyprus
- 2 Diversify the sources of finances for businesses in Cyprus consistent with that of other European economies
- 3 Reduce the role of the informal economy

## KPIs and targets

| Key performance indicator   | Year of latest available data | Current state | Target by 2035                      | Benchmark           |
|---|-------------------------------|---------------|-------------------------------------|---------------------|
|  % of external corporate investment finance from bank loans <sup>1</sup> | 2019                          | 82.3%         | 60 – 65%                            | EU average – 59.5%  |
|  Share of adults who are financially literate <sup>2</sup>               | 2019                          | 35%           | 65 – 70%                            | EU average – 52%    |
|  Size of informal economy as % of GDP <sup>3</sup>                      | 2016                          | 30.4%         | 15 – 20%                            | Austria – 9.6%      |
|  Bank non-performing loans to total gross loans (%)                    | 2019                          | 17%           | 10 to 15 percentile in the Eurozone | Ireland, Malta – 3% |

Data from Eurostat unless otherwise stated.

<sup>1</sup> European Investment Bank, EIB Investment Survey, 2020. <sup>2</sup> Standard & Poor, Global Financial Literacy Study, 2014.

<sup>3</sup> IMF Working Papers, Explaining the Shadow Economy in Europe: Size, Causes and Policy Options, 2019.

Note: Latest available data is used up to 2019. 2020, where available, is excluded due to the COVID-19 pandemic.

# 1.1 Set up a level-playing field for all businesses in Cyprus

## The case for change

- Cyprus already has a strong comparative advantage in services and a reasonable international reputation as a business hub. In the preferred growth model for Vision 2035, Europe's sustainable business and trade hub, the movement towards headquartering and other functions enhances its existing comparative advantage to move towards a growth model where value is created through the physical presence of MNCs and medium-sized firms.
- Cyprus can leverage its existing professional services sector to develop more niche, high-value activities including risk management, fund administration, strategy consulting, bespoke architectural, engineering services, shipping services etc.
- To do this, Cyprus will need to signal that it is a transparent and credible place to do business. In practice this means strengthening the foundations that allow for fair and open interactions between businesses and consumers, and businesses and other businesses.
- Key of these foundations is a regulatory and governance system that fosters competition while at the same time protecting customer rights and product quality.
- By developing this regulatory and governance system, Cyprus will be able to create a level-playing field for all businesses, supporting competitiveness and growth across all sectors.



### Strengthen the Commission for the Protection of Competition

The government should strengthen the independence and the effectiveness of the Commission for the Protection of Competition (CPC). Competition is one of the fundamental tenants of a market economy and government should focus its resources on this important function. We think that the CPC should undergo a comprehensive reinforcement of its workforce, both in terms of quality and quantity.

- **Ensure that the CPC has sufficient and stable financial means, as well as qualified personnel.** The government should support the CPC in attracting more experts from abroad, for example by offering wage support or by facilitating the work permit and visa processes. In addition, the government should support the CPC with funding adequate for the growing size of its role reflecting the complexities of markets in a growing EU economy as well as the need to have a level-playing field across all businesses.
- **Give the CPC an urgent mandate based on Vision 2035** that is inspirational and motivational, and that encourages them to be on top of their game. In the future, there may a significant transformation in Cyprus's economy:
  - From a landscape of many small firms to one of larger, fewer firms in certain sectors
  - The presence of more international firms
  - New entrants into previously state-owned monopolies (i.e. electricity sector)

A strong mandate, that continuously promotes a more active role of the CPC in the area of advocacy, will be a key to safeguarding and promoting fair and open competition between businesses in Cyprus.



### Strengthen the Cyprus Advertising Regulation Organisation

The Cyprus Advertising Regulation Organisation (CARO), an independent non-profit body, joined the European Advertising Standards Alliance in 2013. Its role in Cyprus is to ensure that advertisements are legal, decent, honest and truthful by applying the Cyprus Advertising Code.

The government must support CARO and ensure that it has the sufficient personnel and resources to carry out its functions and public service role. CARO should also be supported in upskilling its personnel, and enhance its advertisement monitoring and analysis procedures with the latest technologies:

- **Train personnel in monitoring and investigating new forms of advertising used on social media and video sharing platforms.** Consumers on these platforms, especially younger consumers, tend to have less awareness of being advertised to when using these platforms, i.e. it is more difficult to distinguish advertisements from organic content. As such, it is important for CARO to put in place the necessary safety precautions not only in regulation, but also by fielding a workforce adequately skilled in detecting non-compliance in digital advertisements.
- **Use machine learning to improve regulation and response time** – as the volume of online advertising grows, CARO must improve its ability to monitor and analyse large amounts of advertisements. Machine learning and real world applications of artificial intelligence, employed in other similar organisations around the world, can help CARO take on more complex and comprehensive detection and monitoring of non-compliant advertisements.



### Make best use of resources from the OECD

Currently, Cyprus is not a member of the OECD. Recognising the political constraints to this, there are a number of merits to instead ensuring Cyprus utilises some of the OECD's resources in competition assessment and data provision (see next slide for the latter).

- **Request technical support from the OECD to carry out an independent policy assessment** to identify rules and regulations that hinder the competitive and effective functioning of markets in the key sectors of the Cyprus economy, wholesale and retail trade and e-commerce. The methodology followed should be consistent with the Competition Assessment Toolkit developed by the OECD.

For more relevant initiatives...

See the **Supported by digitalisation** section for recommendations on digital government to improve access to public services for SMEs

For more relevant initiatives...

See the **Adheres to the rule of law and combats corruption** section for recommendations on anti-corruption

# 1.2 Improve transparency by publicly documenting government decisions and with better and regular data provision



# 1.3 Support businesses to achieve scale and promote export growth in key markets



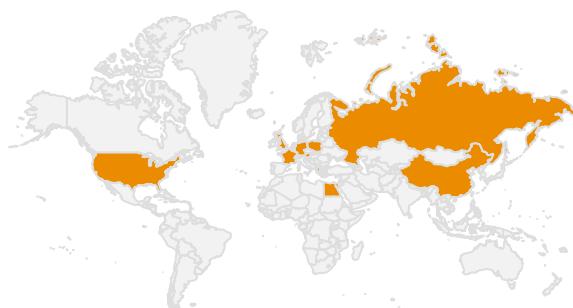
## Cyprus's Trade Service and Centres

The Trade Service of the Ministry of Energy, Commerce and Industry aims to promote the exports of products and services of Cyprus abroad and, in general, to coordinate the external commercial policy of Cyprus. Its activities include:

- Promoting the exports of agricultural products,
- Promoting the exports of industrial products,
- Promoting Cyprus as an international business centre and a provider of high-value professional services,
- Representing Cyprus when dealing with the implementation of the Common Commercial Policy of the EU and the development of international trade Relations,
- Issuing import and export licences.

The Trade Service also has **13 Trade Centres** located around the world (see map below). Its objective is to assist Cypriot enterprises with establishing new and developing business links in key countries, developing trade, promoting Cyprus as an international business centre, and organising events with trade delegations and exhibitions.

### Countries with a Cyprus trade centre



## Bolster the remit and capabilities of the Trade Service as an export promotion agency

- **Expand its mandate:** as opposed to singling out agricultural products and industrial products, it should aim to help promote all companies from any sector with their export ambitions.
- **Establish more Trade Centres:** run a consultation with businesses in key sectors to understand other priority countries, for example in growing markets in Asia and Africa such as India. Selection should also be aligned with the Economic Diplomacy strategy and with Cyprus's embassy network.
- **Develop its capabilities and support as an agency within Cyprus:** the current website of the Trade Service could be improved with:
  - **Workshops, advice and training:** Currently, the Trade Service website does not have any information on such events. It should provide expert advice on how to build scale, expand market reach and develop robust business strategies. It should engage large exporters in Cyprus to share knowledge.
  - **Exhibitions and trade fairs:** Currently, the Trade Service website does not have any information on such events. It should aim to run or advertise other national/international trade fairs to facilitate trade promotion in other countries – primarily through the network of Cyprus Trade Centres, to connect Cypriot business with global customers.
  - **Market research:** Currently, no such service is offered. It should pay for market research from boutique consultancies who regularly analyse data, run surveys and assess markets.
  - **Online portal:** Over the medium-term, it should look to develop an online portal listing Cypriot exporters for foreign companies to search and make contact with – using the Singapore portal as a model.
  - The Trade Service should be staffed with experts who have a) industry experience, and b) a full understanding of Vision 2035 and Cyprus's new growth plan, to focus attention in those areas.



## Case study Enterprise Ireland

- Enterprise Ireland is the government organisation responsible for the development and growth of Irish enterprises in world markets. It works in partnership with Irish enterprises to help them start, grow, innovate and win export sales in global markets.
- Its mandate and functions are broad, including helping companies secure funding, supporting them with their R&D, and management advice.
- Regarding export promotion, Enterprise Ireland does the following:
  - **Export development:** It works with businesses to help them scale and expand reach into new export markets. To support companies in assessing export capability, it has developed an online export preparedness scorecard to help companies to determine capability to develop and implement an export led business plan.
  - **Market research centre:** Enterprise Ireland has purchased world class market research reports on behalf of its clients.
  - **Training and mentoring:** It offers customised sales training and access to experts to bolster and develop international selling skills
  - **Trade events:** It runs a programme of trade missions, trade fairs and knowledge events to give clients the opportunity to connect with existing and new customers, access key decision makers, increase sales in international markets and exchange ideas

# 2.1 Focus on the society first, providing the necessary information transparently so that consumers can understand the full suite of financial options available to them and can plan better



## Improve financial literacy within the Cypriot population

- To alleviate the imbalances and private indebtedness that are still present in the financial system, Cyprus should start with the basics – begin with improving the financial literacy of the society.
- Financial literacy in Cyprus is low compared to other countries – S&P's Global Financial Literacy Survey reports that just 35% of adults in Cyprus are financially literate, compared to 52% across the EU and >65% in Denmark.<sup>1</sup> Indeed, Cyprus has a long history of systemic financial challenges that can to some degree be related to poor, uninformed decision making by borrowers.
- Financial literacy is not limited only to a sound knowledge of the banking system and the inner-workings of financial products. Nor is it only the responsibility of educators for their students or the banks for the customers – it must be a combined effort where everyone plays their part. Financial literacy is having the proper education and information that develops the awareness and behaviors to make rational, informed and sustainable decisions. Improvement in this area will have a positive impact on day-to-day behavioral choices and ultimately long-term happiness and wellbeing of the people of Cyprus.

For more relevant initiatives...

See the **World class education system** section for recommendations on financial literacy within school education

<sup>1</sup> Standard & Poor, Financial Literacy Around the World, 2015.



## Formulation of the National Financial Literacy Strategy

- At the end of 2020 an Ad Hoc Committee was established to formulate a national strategy that puts forth a plan by the end of 2021, building on University of Cyprus proposals. At the time of writing this report, the intended scope and planned outputs of this strategy were not yet defined.
- Actions resulting from the strategy must be aligned to OECD guidance, addressing all 3 elements of financial literacy: Knowledge, Behaviour, Attitude. Placing emphasis on designing interventions and initiatives that go beyond traditional 'training' or curriculum updates will be critical to making the necessary impact on the community – particularly in the area of Behaviour (e.g. long-term saving and planning).
- While the financial system regulators are members of the committee, we propose the need for an active role by the banks who have day-to-day interactions with the community as customers. The provision of hands-on, practical upskilling opportunities are a must to change behaviours and work to alleviate the issues that have contributed to prior systemic issues.
- We also emphasise the need to tailor delivery of the actions to the target segments – preliminary input reports show these include youth, females, low-income and low-educated segments. For example, by using digital or gamification methods in the delivery of the interventions to the youth segment may result in greater impact. The Deputy Ministry of Digital Policy could be involved in the long-term implementation for certain components that transcend curriculums and can be made available as digital public services.



## Develop and implement an action plan for Cyprus banks to play an active role

- The Association of Cyprus Banks can enhance its current level of engagement of the community by playing an active, hands-on role in upskilling the public (beyond bank customers) and by aiming to make an immediate impact, prior to the formal strategy being completed. Mobilising resources from its members, it can be in a coordinator role to positively influence the financial decisions and actions of society. Efforts can be integrated with those of the broader stakeholders of the National Financial Literacy Strategy when defined and available.

### Proposed indicative objectives:

- Create a mechanism to mobilise member banks to roll out accessible and varying levels of financial education to the community, above and beyond their direct engagement with their customers
- Provision of lifelong learning opportunities for all citizens that will contribute to the long-term resilience of the financial system and that builds trust in the community for the role of the bank and the overall financial system.
- Raise awareness of the availability, value, and practical benefits of improving financial literacy – targeting all segments of the population and emphasising practical informational relevant to life choices.
- Build upon existing educational efforts that the Association and banks perform such as publicly available seminars and events
- Positively contribute to the CSR agenda and societal goals

### How?

- Leverage available material from member banks to design a robust curriculum, ranging from basics to more intermediate levels.
- Assemble a team of volunteers to deliver the training and information sessions, composed of employees from the Association's member banks across all regions of the country.
- Define a plan with member banks, universities, and local municipalities to raise awareness and offer the courses free of charge to all segments of the population (age, geography, etc.)
- Delivery should include in-person formats utilising bank branches or servicing centres after working hours, as well as digital formats for ad hoc and remote use, maximising reach and impact to the community

## 2.2 Establish the right institutional mechanisms for an effective, efficient and diverse financial system to flourish

### The case for change

- Artemis Bank Information Systems is considered to be Cyprus's credit bureau. But it does not provide modern, data-driven credit worthiness services to all borrowers (i.e. performing and non-performing) to arm themselves and credit institutions alike with improved information and integrity in lending decisions.
- The Cyprus stock exchange is unsophisticated, having fewer than 10 non-financial companies listed, rendering this key alternative source of financing as non-viable.
- Diversifying Cyprus's sources of finance is key to building resilience. Doing so would make Cyprus less vulnerable to financial shocks, and would typically reflect a more mature financial system, such as a well-developed stock market.



### Ensure the General Social Insurance Scheme is run using best practice

The General Social Insurance Scheme (GSIS) extends compulsory insurance to every person gainfully employed in Cyprus, including all categories of the self-employed. This Scheme should be managed based on best practice including:

- Frequent actuarial studies which project the viability of the GSIS based on demographic trends as well as life expectancy.
- Adherence to rules of expert advice. For example, those who retire – for example those who will retire at an early date than the statute prescribes – should not be eligible for the same amount of pension compared to those who retire at the statutory date and so contribute more on a proportional basis.



### Encourage Cypriot corporates to be admitted to the Cyprus Stock Exchange (CSE) using tax incentives

- To encourage smaller Cypriot corporates to admit to the Cyprus Stock Exchange (CSE) the authorities should consider tax incentives for a limited period of time. For example, one approach would be to apply a discount on corporate taxes for a limited period of time..
- Encouraging Cypriot corporates to admit on the CSE means that they would be subject to tighter corporate governance rules which would be welcome. This would be for the benefit of wider Cypriot society. At the same time, it would increase transparency within the business community in Cyprus, potentially helping drive a wave of mergers and acquisitions as the financial information of these entities would be available on a comparable, timely and transparent basis.
- This, however, requires a much more co-ordinated approach to avoid the mistakes of the past. The Cyprus Securities and Exchange Commission (CySEC) should anticipate events and ensure they have the appropriately trained people and processes in place to ensure the regulation of the CSE. The business community as well should be aware of the risks and responsibilities of Directors of entities that are admitted to the CSE– the CySEC should take the lead educating the business community and the wider public on these matter.



### Nudge households to save and invest into safe and regulated savings product by replicating UK ISA scheme

- The authorities should consider bringing in UK style tax incentives to encourage all households in Cyprus to increase their short-term savings which is explained below.
- Each person in Cyprus would have a fixed ISA contribution amount e.g. €5,000. The individual would have the option to use this allowance either using a Cash ISA or a Stocks and Shares ISA, or both (provided that the combined money do not exceed the annual allowance). The allowance is valid for one year and is non-transferrable to other years.
  - Cash ISA:** These are saving accounts where any deposits made would be tax-free (i.e. exempt of interest tax or Defence Fund contributions or any other taxes).
  - Stock and Shares ISA:** This would be a tax-efficient investment account which would allow the individual to put money in a range of different investments. These would include individual shares, investment funds and investment trusts (i.e. relatively safe, highly regulated financial instruments). Individuals using this scheme would be exempt from any future capital gains tax or dividend income tax on any earnings on the assets.
- These measures have worked successfully in the UK. However, we highly recommend that these type of schemes are not put into effect unless there is an extensive and informative educational campaign in Cyprus so that individuals understand the risks that this entails.
- Doing so, along with a professional regulatory environment and consumers' education and consumer safeguards would mean that Cyprus managed to gradually grow a local asset management industry thus diversifying source of finance for businesses and providing more choice to consumers.



### Establish an equity fund

- We understand that the authorities are in the process of establishing an Equity Fund consistent with what has been observed in Israel, Greece and other countries.
- This is a sensible move. However, we highlight that these type of entities should follow best practice governance including non-political appointees who have proven experience in the field

## 2.3 Equip the banking, insurance and finance sectors with the tools and expertise to improve financial health and stability



### Set up an Insurance and Occupational Pensions Regulator

- The events of 2013 showed that the Cypriot occupational pensions scheme sector requires better regulation. Cyprus has more than one thousand occupational pensions schemes in the private sector. These need effective and smart regulation to reduce any potential levels of risk. These occupational funds could, at an extreme, have an impact on the non-financial corporate sector as well as the sovereign. Currently, they are regulated by a department of the Ministry of Labour and Social Insurance. This is not consistent with best practice.
- We recommend that an independent regulator is established and tasked with supervising the occupational pensions schemes and insurance schemes in Cyprus. The entity should be adequately staffed and follow European best practice with respect to regulation. This includes the following issues related to occupational pension schemes (non exhaustive):
  - Assessment on the credentials, qualifications and background of the Investment and Risk Committees of Occupational Pensions Schemes (fit and proper tests);
  - Internal controls;
  - Reporting breaches of the law;
  - Trustee Knowledge and Understanding; and
- Doing so would likely make Cypriot workers more confident in Occupational Pension schemes, and so encourage higher savings. We expect this would gradually lead to an increase in demand for asset management services in Cyprus.
- The insurance industry is regulated by the Insurance Companies Control Service in the Ministry of Finance. A similar approach should be taken for this industry to be regulated by an independent authority. In the UK, the insurance industry is regulated by the Prudential Regulation Authority (PRA) which is part of the Bank of England. This makes sense as the insurance industry has implications for the financial stability of a country.



### Establish a robust credit worthiness service for the benefit of all

- A credit bureau service is a robust credit reporting service that must encompass a vast flow and store of information. This includes various types of financial products as well as all segments of the population and borrowers alike.
- While there are existing plans to enhance the data integration capabilities of Artemis, we propose that its role and offerings be drastically expanded and enhanced to serve the critical informational role in the broader economy. Respecting all GDPR and privacy regulations, the key functions of the service should include:
  - All credit products.** In most markets, credit bureau scope captures performance on all consumer products including mortgage, auto loans, credit cards, etc. Artemis should be expanded to meet these standards and become an criteria evaluated for all lending decisions.
  - Service to the entire population.** In countries like the US, credit bureau services are available and performed on all segments of the population and for decision-making beyond credit eligibility (e.g. rent agreements). Artemis should be enhanced to be a mechanism for all to benefit from, increasing integrity in the broader business arena.
  - Free annual reporting.** Artemis needs the data analytics capabilities to provide real-time credit reports. Beyond this on-demand for purchase service, to increase its role in the market, offer free annual reports once a year by request. Reports must be user-friendly and clear for all consumers to understand the criteria and behaviours impacting their credit worthiness. Doing so would likely raise the awareness, and ultimately financial literacy, of the broader public.
  - Integration into lending policy and bank procedures.** Local banks should be advised to update their underwriting procedures to integrate the consumer credit scoring from this robust service (beyond their own criteria) into the credit eligibility process in the same way that income verification is evaluated.



### What do national authorities currently envisage for enhancements to Artemis?

- Central Bank of Cyprus (CBC) will be the owner of the system
- A revamped the legal framework used by CBC and other credit institutions for data exchange (credit registry)
- Improved procedures for data collection
- Provision of data from the Insolvency Department
- Improved data management

For more relevant initiatives...

See the **Greener economy** section for recommendations on developing green finance and funds

## 2.4 Align with best practice and strengthen enforcement to reduce the burden of non-performing loans



### Cyprus's insolvency framework needs to be continuously updated to stay consistent with best practice

- At 17%, Cyprus has one of the highest levels of non-performing loan ratios in the Eurozone. At the same time, Cypriot non-financial corporates are one of the highest leveraged amongst the Eurozone. Household in Cyprus are also highly levered, though most of these debts are backed by assets.
- Given the size and scale of the challenge, it is imperative that Cyprus's foreclosure laws remain up-to-date and consistent with best practice. This is all the more important given that there could be a rise in Covid-induced corporate and individual insolvencies in the near future.
- In practice, this means reducing the possibility of strategic defaults. If not, then the risk premium on new loans extended is elevated, raising the cost of finance for Cypriot businesses. At the same time, a poor foreclosure framework could have macro-wide implications for the wider Cypriot economy and productivity. This could include extending the useful economic life of so-called 'zombie' corporates.
- Some of our recommendations to aid the practice of minimising strategic defaults include:
  - Strengthen enforcement instruments** by establishing an electronic system for digitising public asset registries. Doing this should enhance the search-ability of various public asset registries using machine learning techniques so that gradually capacity is developed to search for the name of close relatives (spouse or children) to determine whether debtors have transferred properties to avoid recovery procedures
  - Make the policymaking environment predictable.** Future changes to the insolvency framework should be in agreement with the regulators. For example, changing the valuation threshold for primary residences should be strictly supported on economic data and explicitly be linked to a social objectives. They should also be associated with impact assessments to understand the net cost or benefit to wider society. Arbitrary changes to the foreclosures laws, however, will inevitably cause uncertainty to bank investors and shareholders. It also goes against the strategic objectives of Cyprus's Vision 2035
  - Introduce a computerise case-management system** for the courts and phase out reliance on paper based recording and communication. These suggestions are investigated further in the justice reforms section.

A long-term strategy for sustainable growth for Cyprus

PwC



### Progress in reducing non-performing loans (NPLs)

In Cyprus, just under one in five loans are non-performing. As part of its stringent reform package introduced following the 2013 crisis, the Cypriot government followed a three-pillar strategy to reduce levels of non-performing loans. This included:

- Strengthening the regulation and supervision of banks:** New directives for recognising non-performing loans, provisioning, and arrears management were introduced. Bank supervision was strengthened through enhanced reporting on arrears management, restructuring activity and restructuring targets.
- Reforming the legal framework:** Reforms centred on modernising the personal and corporate insolvency framework to increase efficiency and develop the right incentives for restructuring, as well as improvements to the judicial system. In addition, a new foreclosure framework was established, as well as a voluntary mediation process for restructuring under the Financial Ombudsman.
- Creating a market for distressed assets:** A law enabling the sale of loans was enacted. This sought to reduce barriers to entry and encourage a market for distressed assets.

Furthermore, the Cyprus Cooperative Bank was sold in 2018 and a state-owned asset management company, KEDIPES, was established to manage the remaining 'bad assets' of the Cyprus Cooperative Bank residual entity.

Since 2013, reforms have encouraged a complex shift in focus by banks, from lending to collecting. Reforms have been underpinned by cultural change, staff training and performance management systems.

As a result, Cyprus's stock of non-performing loans has fallen from 50% in 2015, to 17% in 2019. Despite strong progress, this figure is still high – across key benchmark countries, the average is one in fifty.



### Continue progress in improving the health of the financial sector

- Despite strong progress in a short space of time, the remaining stock of non-performing loans still weighs somewhat on bank profitability and the overall stability of the banking sector. These loans also curtail the overall competitiveness of the economy by limiting the availability of finances to new businesses. NPLs also still significantly impede the competitiveness of Cyprus's banking sector and should be a continued focus for policymakers
- Cyprus needs to continue to follow best practice in its insolvency framework. Doing so will allow banks to recoup some proportion of loans that have gone bad, subject to some social provisions, and minimise strategic defaults
- It must do so by continuing to make progress on the European Commission's Country-Specific Recommendations. Their 2020 assessment of progress was as follows:
  - Some progress** on facilitating the reduction of non-performing loans through implementation of the ESTIA scheme and e-auctions. Slow progress, though, in setting up the state-owned asset management company.
  - Limited progress** on improving payment discipline.
  - Limited progress** on strengthening the supervision of credit acquiring companies, as the law is still under preparation.
  - Limited progress** on the supervision capacities in the non-bank financial sector as the law is pending adoption.
- Implementing initiatives aimed at improving financial literacy and improving data collection at the inception of the loans will also be important.

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# 2.5 Diversify the sources of finances for consumers and businesses in Cyprus, consistent with that of other European economies

## The case for change

- The WEF Global Competitiveness Index financial systems pillar provides a useful view into the relative strength and perceptions of the financial infrastructure. As of 2019, Cyprus shows the following results:
  - 75% of external investment finance comes in the form of bank loans (excluding subsidized bank loans, overdrafts and other credit lines). A further 20% is generated from other forms of bank finance, leaving less than 5% financed through grants, additional loans, factoring/invoice discounting and newly issued bonds. In Cyprus, no finance from leasing or hire purchases was recorded in 2018, compared to an average of 20% across the EU.
  - The high proportion of SMEs means it will be challenging for this segment to access non-bank forms of external finance in Cyprus.
- According to the IMD World Competitiveness Centre (2020), despite Cyprus's improvement in the areas of 'Corporate Debt' (from 3.54 to 5.58) and 'Venture capital' (from 2.80 to 4.12), access to alternative sources of finance is still one of the main challenges.
- According to results from Global Entrepreneurship Monitor in 2019-20, financial support is one of the significant weaknesses of Cyprus entrepreneurial ecosystem. Cyprus has very low scores in:
  - Equity funding availability – 3.8 out of 9
  - Business Angels funding – 3.5 out of 9
  - Venture capitalist funding – 2.5 out of 9
  - Initial Public offerings – 2.6 out of 9
  - Crowdfunding – 2.5 out of 9



## Ex-ante study for establishment of new financial instruments aligned to Vision 2035

- Following the ex-ante assessment for the potential use of financial instruments in Cyprus in 2017, the national authorities established two financial instruments:
  - The loan instrument for energy efficiency and renewable energy sources through an agreement for favourable rates with the European Investment Bank (EIB)
  - An equity fund, the first co-investment facility in Cyprus targeting start-ups and high-growth companies.
- Cyprus must build upon this momentum, and the new strategic direction provided in this national strategy.
- A new ex ante study is recommended to bridge the gap from 2017, to take into account the current realities and areas exposed from the COVID-19 pandemic, and to maximise alignment to the defined Vision 2035 and the growth sectors identified therein. The study must provide analysis on current market failures and better utilising programmes such as Invest EU, RRF, ESIF, etc.
- The study should be performed in parallel with the establishment of the National Promotional Agency so that future establishments mechanisms are integrated and managed by the agency.



## Case studies:

*Financial Instruments co-funded by the European Structural Investment Funds*

### European Agricultural Fund for Rural Development (EAFRD) Loan Fund for agriculture in the Friuli Venezia Giulia Region in Italy

The EAFRD Loan Fund was established in 2018 to address the market failure in the agriculture and agri-food business in the region. The financial instrument was set up with a capital of EUR 93 million. It provides subsidized loans for investments in processing, marketing and developing new agricultural products and for improving the performance and competitiveness of agricultural enterprises. Loans are provided to final recipients through four local financial intermediaries. By October 2020, 443 Agricultural enterprises were supported by nearly EUR 95 million of subsidized loans.

### IBB MirkoCrowd programme, Berlin

Under the IBB MikroCrowd programme, the Investitionsbank Berlin provides low-interest micro-loans of up to EUR 25,000. Additional funding is provided via the Startnext crowdfunding platform. By combining this with crowdfunding, additional supporters can be gained for financing and feedback can be gathered from potential customers regarding market acceptance. The programme is co-financed with the European Regional Development Fund.

### Financial Instrument for Urban Rehabilitation and Revitalisation (IFRRU 2020)

IFRRU 2020 supports energy efficiency measures complementary to urban rehabilitation interventions through loans and guarantees. The financial instrument provides EUR 1.4 billion acquired by various financial sources; the European Structural Funds, the European Investment Bank, the Council of Europe Development Bank and commercial banking funds. The loans offered are composed of up to 50% public funds, with interest rates below market values, maturity of up to 20 years, and a grace period of the investment duration, plus six months (up to four years). Guarantees are used to facilitate loans for riskier projects, covering up to 70% of the loan value. Before submitting the application to the intermediary commercial banks, the municipality in which they are located assess the proposal. In addition, energy certification is held to determine the effectiveness of the proposed intervention.

# 3.1 Reduce the role of the informal economy and embrace digital payments

## The case for change

- A large informal economy can impede growth, since it represents inefficiencies in the wider economy and institutional environment. Widespread informality distorts the labour market, creating less secure working conditions and fewer provisions for training. It also reduces government tax revenue, thereby constraining its ability to spend. Distorted economic indicators and national accounts can potentially result in flawed policy decisions.
- IMF research finds that the size of the informal economy in 37 European countries averages around 25% of official GDP; in Cyprus, estimates for 2016 are larger at 30% of GDP.<sup>1</sup>
- Further research by AT Kearney and Visa estimates the size of the informal economy in 60 markets across the world suggests that the size of Cyprus's informal sector is more in line with emerging markets in Asia and Latin America.<sup>2</sup>
- Over the past decade, the countries that have been the most successful in reducing the size of their informal economies have focused on reducing the use of cash and improving the acceptance and adoption of digital payments.

<sup>1</sup> IMF Working Papers, Explaining the Shadow Economy in Europe: Size, Causes and Policy Options, 2019.

<sup>2</sup> AT Kearney and Visa, Digital Payments and the Global Informal Economy, 2018.

For more  
relevant  
initiatives...

See the **Supported by  
digitalisation** section for  
recommendations on  
digitalisation



## Improve tax compliance among SMEs

- Launch a tax education campaign targeted at small taxpayers.** SMEs may not have access to information on how to register or operate a firm formally. Education campaigns and support services at the local level are required to facilitate compliance for small taxpayers. In particular, the campaign should target SMEs in sectors where envelope wages (cash-in-hand payments) are common, such as in transport, catering, agriculture and construction. The campaign should include information on the annual taxation process – how and when to pay taxes –and information on how taxes are used by the government.
- Research shows that tax compliance can be significantly improved through simplified tax filing reminders. The key is to shorten tax letters, reduce information overload and emphasise the information that is directly related to action-taking. Ideally, information in tax reminders should be limited to the deadline for tax payment, how the tax can be paid, and contact information for further enquiries.
- Tax deterrence messages can further increase tax compliance. In tax reminders and other communications, penalties for non-compliance, e.g. fines and tax increases, and their methods of enforcement should be made explicit and again, explained using simplified language. The authorities should consult behavioural economists to best design and word letters to maximise compliance.

[1] De Neve et al. (2020), How to Improve Tax Compliance? Evidence from Population-wide Experiments in Belgium



## Reduce cash use and increase uptake of digital payments

Cyprus remains heavily dependent on cash. According to research by the European Central Bank, Cyprus has one of the highest shares among EU states of the number of point-of-sale transactions conducted using cash (88%). In terms of value of transactions, Cyprus is the highest in the EU – at an average of €18.60 spent per cash transaction.<sup>3</sup>

The prevalence and high valuation of cash transactions are indications of the sluggish transition to a digital payments economy in Cyprus. To accelerate this transition, the government should combine reforms to reduce cash use and increase the uptake of card and digital wallet payments.

### Reduce cash use

Since 2018, a €10,000 threshold for the cash purchase of vehicles, precious stones and metals, works of art and antiques has been in place. This high threshold is mainly in place for anti-money laundering and counter-financing terrorism purposes.

A lower cash threshold for general transactions could be more effective for improving tax compliance. The government, in tandem with the Central Bank of Cyprus, could review the possibility of implementing a lower cash threshold for certain purchases over time, once the authorities have developed further and alternative mechanisms for anti-money laundering by implementing the Moneyval recommendations. For example, other EU countries such as Spain, Belgium and Italy have thresholds below €4,000 while Greece and France have thresholds of €1,000 or lower.

### Increasing uptake of digital payments

#### Clearly communicate the benefits of digital payments to merchants and retailers:

- Safety – Limits risks of holding cash on-site
- Efficiency – Eliminates the need to constantly transport cash between place of business and bank branches
- Protections against fraud – Limits the chances of being paid in counterfeit banknotes and reduces the time required to train cashiers in detecting counterfeits
- Know your customers – Collect digital record of purchase details

#### Offer financial incentives:

- Tax relief on payments conducted digitally
- Grants for the initial purchase of a digital payments terminal, and financial support for the first year of digital transaction charges

#### Initiate regulatory support:

- Allow merchants to apply for licenses to refuse cash
- Monitor and enforce EU rules on interchange caps and surcharges for card payments

<sup>3</sup> European Central Bank, The use of cash by households in the euro area, 2017. July 2021

# 4.4

Which takes ownership to shape its future destiny

# Ownership to shape its future destiny

## Roadmap

| Outcomes   | Initiative areas   | Sample of initiatives outlined in this section  |
|--|--|---|
| <b>Set up a governance structure to deliver Cyprus's Vision 2035</b> | 1.1 Set up a governance structure to deliver Cyprus's Vision 2035<br>1.2 Equip the government with independent expert advice to underpin strategic, long-term planning | <ul style="list-style-type: none"> <li>• Repurpose the 'Unit of Administrative Reform' so that it is the preeminent body that drives forward and monitors the implementation of Cyprus's Vision 2035.</li> <li>• Get all of the political parties to sign up to the Unit's Terms of Engagement and the Vision 2035 as early as possible.</li> <li>• Establish a long-term strategic planning unit.</li> <li>• Elevate and reform the role of the Fiscal Council so that it sets the forecasts used by the Budget</li> <li>• Establish a National Infrastructure Unit</li> </ul> |

# 1.1 Set up a governance structure to deliver Cyprus's Vision 2035

**Cyprus should establish a preeminent Body that drives forward and monitors the implementation of Cyprus's Vision 2035.** It should be responsible for looking beyond political cycles and ensure commitment and progress to long-term reforms. The Body would support the government to effectively plan, coordinate, facilitate and monitor the implementation of Vision 2035 and its structural reforms. It would hold the government to account for long-term investments and policies needed to confront future challenges, such as climate change. It would be tasked with pushing through horizontal and vertical policies.

It will speak to all government departments and ensure they are all joined up and aligned in addressing long-term challenges. The Body should set deadlines to the various Ministries to implement Vision 2035, set owners for each task, monitor progress, intervene where and where required, publicly liaise with the Houses of Parliament, the European Commission and monitor KPIs across political cycles. Each ministry will have to prepare an annual report which outlines how they will work to achieve the reforms outlined by the strategic office. This will be reviewed and assessed by the Body. All of these should be available in the public domain with full transparency – a website should be set up with clear tracking of progress and KPIs to hold Ministers to account on a monthly basis. It should be effectively operate independently from the government and political party, staffed with highly regarded independent experts for the roles, as well as drawing on experts in the Ministry of Finance who can bring their budgetary experience. It should be a lean but strong strategic unit. Delays should be flagged and reported to the public.

**Political consensus**



**Get all of the political parties to sign up to the Body's Terms of Engagement and the Vision 2035.** There must be political consensus for the Body's remit and backing of Vision 2035, to ensure commitment to the long-term reforms that are so critical for Cyprus's future. All political parties, in signing up to Vision 2035, must also agree with the basic principles of the Body, including its remit (i.e. accountability to the President and the House of Representatives), the frequency of regular meetings with the House of Representatives (incl. voting timings and the action plan), Ministry of Finance and others, and how Ministers will be held to account for progress. There could also be a further agreement to set aside a specific day each month dedicated to voting on legislation relating to Vision 2035.

**Strategy Summits**



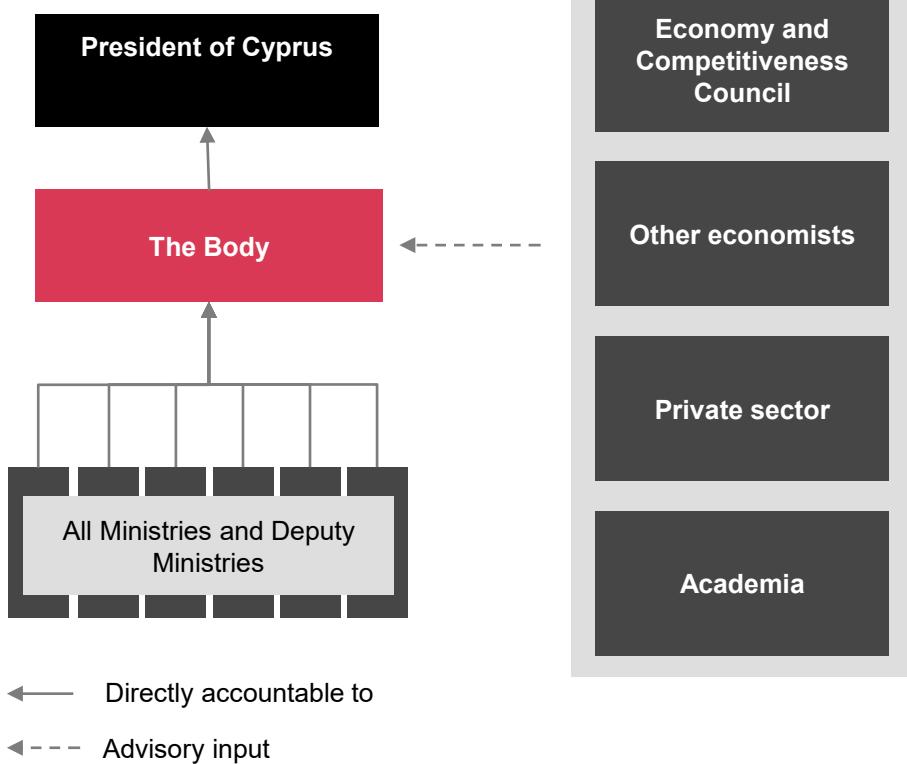
**Establish 'Strategy Summits'** (e.g. once a quarter or semi-annually) where the President and Ministerial Council will retreat for 2-3 days, where they are given a progress update on the implementation of Vision 2035 and its structural reforms. They should then make decisions to push forward implementation. The Summits should be a forum to discuss long-term challenges, focused around the work of the Long-term Planning Unit (see next slide). Once these Summits are concluded the body should publish a report to the electorate outlining the progress on the Vision 2035, any key stumbling blocks, potential delays and what is being done to rectify delays.

**Communication and Roadshows**



The Body will also be responsible for driving the communication and socialisation of the Vision and action plan to citizens and businesses of Cyprus, and internationally. The Body should be the 'voice' of Vision 2035, running a national communication, advertisement and information campaign to incite passion and drive for the Vision. It should serve as a forum for questions and be responsible for educating Civil Servants and other stakeholders in the details and actions required for implementation. These should be frequent, transparent and accessible to all.

## Indicative organisational structure



# 1.1 Set up a governance structure to deliver Cyprus's Vision 2035 (cont'd)

To ensure continuity of action to realise Vision 2035 across different political cycles, we recommend that:

- All political parties should agree and commit to Vision 2035, the strategic objectives and the high-level action plan as early as possible. This should include the dates at which key legislation shall be voted and scenario-based plans on the Body's response to potential legislative roadblocks.
- Where possible, we encourage authorities to communicate the benefits as well as the costs of not carrying out or of delaying the reforms listed out in Vision 2035. Ideally, these should be communicated in terms of impact of GDP and jobs as well as any monetary penalties that could result from not abiding to EU targets. Similarly, the use of distributional models should also be considered where the economic impact of delaying specific reforms can be shown by income deciles which could help expedite actions on key reforms.

## Performance management

- **Cascading KPIs:** Using the KPIs and targets set out in this report, the body of Administrative Reform should identify a set of cascading KPIs, at the national and Ministry levels, with clear accountability and responsibility for each indicator. For example, each Ministry should be responsible for digitalising a certain number of citizen requests, together building towards an overall national KPI for digital requests.

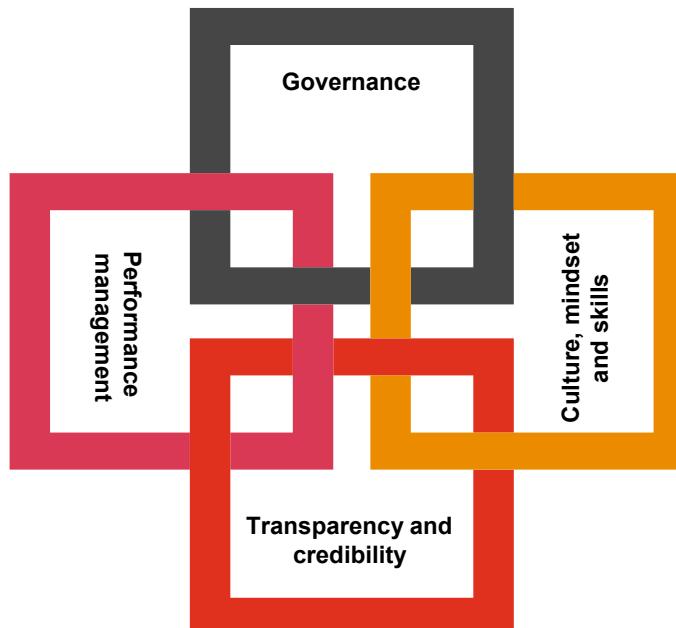
- **Continuous data collection:** Performance must be measured and data must be collected, on a regular and defined basis depending on data availability and sources, for example quarterly labour market statistics, or annual indices and emissions data. The body should also collect data on key benchmark countries to assess Cyprus's comparative progress and ensure targets are reflective of the current frontier that Cyprus should be aiming for.

- **Performance tracking:** The body should provide a transparent and comprehensive database through a dashboard, for example using Power BI or Tableau. This will aggregate data in a single source of information that should be available for all Ministries to view and monitor their own progress, motivating stakeholders through measurable success and progress and also promoting accountability.

- **Project management:** The body should hire individuals with project management experience, who have experience tracking progress, monitoring data and reporting on successes and failures. They should have excellent capabilities in this area including potentially private sector experience. Alternatively, consultant could be hired but if so, it should be part of forming a longer term relationship with a private sector entity.

## Governance

- Each Minister will ultimately be responsible for reporting to the Body and for justifying why progress against KPIs has not been made. To inspire progress and motivate ministries, an ambassador should be identified within each Ministry, who can liaise with the Body, attend monthly progress meetings, and become fully versed in Vision 2035 and the KPIs.



## Transparency and credibility

- A simplified version of the dashboard should be publicly available. Indeed, the body should set up a Vision 2035 website, where progress against KPIs for each Ministry should be available. This will help to drive credibility where success is achieved, but also be transparent about failures.

## Culture, mindset and skills

- The Body, as the preeminent body implementing Vision 2035, must also be responsible for driving the change in mindset that is required to implement Vision 2035 – one of being open to new ways of working and living, that is bold and ambitious, and that is creative and innovate.
- Its staff should be hired on the basis that they can demonstrate these qualities and can lead by example to other Ministries. One way to do this is for the body to adopt **ambassadors of change** in each of the Ministries and Deputy Ministries who will inform, update and make the entire government machinery of the changes that have to be done.
- Another key aspect of culture that needs to change is moving towards an outcomes-oriented mindset. Civil servants and ministries should move away from an individual view of roles and tasks, and towards a coordinated and team view of how to achieve certain outcomes.

# 1.2 Equip the government with independent expert advice to underpin strategic, long-term planning



## Establish a long-term strategic planning unit

- This unit should comprise around five key expert individuals, either as part of the DG EPCD or the Ministry of Finance. Its overarching objective would be to look beyond political cycles and think strategically about how Cyprus should be preparing for the future and informing policy.
- The Body will be responsible for the following:
  - Monitoring international and regional trends
  - Assessing long-term opportunities and threats to the Cypriot economy .
  - Refreshing and updating Cyprus's Growth Plan in future years.
  - Understanding the implications of these trends for Cyprus and informing the policymakers about these challenges.
- Its key activities should involve:
  - Assessing the economic outlook and opportunities of Cyprus's main competitors and trading partners.
  - Hosting discussions and workshops with the different Ministries to discuss the implications of the research for their policymaking.
  - Reporting regularly to the Ministry of Finance and to the Unit of Administrative Reform to ensure the continued alignment of Vision 2035 and other initiatives to the long-term trends identified.



## Case study – Government strategy department Finland

- Government report on the future** – Once during each electoral period, the Government submits to Parliament a report on the future focusing on long-term perspectives. Each report is restricted to key strategic issues relative to policy decisions to be taken in a 10-20 year period. The aim is also to encourage broad debate in society.
- Government foresight group** – The Government Foresight Group lends support to national foresight work and aims to help forge a connection between foresight and decision-making processes.
- National foresight network** – The network brings together Finnish foresight data producers and is a discussion and coordination forum for national foresight actors. It aims to promote the use of information and futures perspectives in decision-making. The purpose is to foster public discussion, research and decisions on the new challenges and opportunities facing Finnish society. The national foresight network is coordinated by the Prime Minister's Office and Sitra, the Finnish Innovation Fund. The national foresight network organises meetings called Foresight Fridays. The themes and contents of these meetings vary and include foresight presentations, courses and networking.

## Other recommendations for improving the provision of impartial, expert and strategic planning:

1

- Elevate and reform the role of the Cyprus Fiscal Council.** Currently, the Fiscal Council is a compact entity with a relatively limited remit. To safeguard against fiscal events, and to provide a firm foundation for the spending and investment requirements of Vision 2035, its role should be further elevated and reformed to be an official independent fiscal watchdog similar to what is experienced in the UK which is deemed one of the best-in-class in the European space.
- Produce its own forecasts for the Cyprus economy, regularly updated. These should be the forecasts used by the Ministry of Finance around which the Budget is formed.
  - Provide independent and authoritative analysis of public finances to assess long-term sustainability by carrying out debt sustainability analyses.
  - Scrutinise the government's spending costs on a more regular basis.
- For this to happen, the Fiscal Council should be given appropriate support including additional staffing, budget and scientific expertise. Its staff should be specialised economists, able to produce forecasts and to assess public finances. Cyprus is likely to face fiscal challenges in the future including:
- An ageing population** which means government spending and revenues are likely to be affected due to higher spending on pensions and health and social care.
  - Climate change** which, according to the IMF's recent study (Cevik, Jales, 2020) shows that a country's vulnerability or to climate change has direct implications for its creditworthiness (as discussed in the executive summary).
  - Potential change in tax revenues** due to changes in international corporate tax laws.

2

- Establish a National Infrastructure Commission.** Currently capital spending is not based on long-term thinking and it is not linked to growth plans or to population and climate trends.
- The role of the Commission will be to provide impartial, expert advice on the major long-term infrastructure challenges (physical, digital and other) that Cyprus faces.
  - An emphasis should be placed on green and digital infrastructure, consistent with Cyprus's Vision 2035 – helping Cyprus adapt to the effects of climate change, develop its international competitiveness, and meet the needs of its citizens.
  - The Commission must be staffed with experts who can analyse projects according to a robust impact assessment, which appraises options to provide the best value for tax payer money. International expertise should be sought, where appropriate.

# 5

## Thriving and resilient economy

The initiatives of the second pillar focus on how to develop a thriving economy which is innovative, resilient, diversified underpinned by the principles of digitalisation and the green economy

| Strategic objectives   | Key horizontal initiatives   | Target outcomes by 2035  |
|--|--|--|
| <br><b>Powerhouse of innovation</b>                 | <ul style="list-style-type: none"> <li>Develop a long-term R&amp;I strategy and a 'Regulation of the Future' taskforce to provide assurances and regulatory certainty to businesses, entrepreneurs and investors of the long-term potential opportunities in Cyprus.</li> <li>Re-evaluate legislation on spin-offs and set up and operate a central Knowledge Transfer Office to facilitate the commercialisation of research and drive collaboration in the private sector and in academia on relevant research.</li> <li>Refine and augment the government's Innovative Company initiative and the start-up visa.</li> <li>Create a culture with entrepreneurial education in schools and after school clubs.</li> </ul>   | <p><b>2.5% – 3%</b><br/>R&amp;D spending as a share of GDP</p> <p><b>15<sup>th</sup> – 20<sup>th</sup> global rank</b><br/>Global Innovation and Entrepreneurship Indices</p>        |
| <br><b>Supported by digitalisation</b>              | <ul style="list-style-type: none"> <li>Boost existing Deputy Ministry action plans to drive digitalisation and integrated information systems for the national health service, customs department, ports, and department of register of companies, among others.</li> <li>Set up a National Testbed Programme to build Cyprus's brand for Artificial Intelligence, Internet of Things, e-health, smart mobility and agritech</li> <li>Improve connectivity and coverage with a national broadband plan that is cost-effective.</li> <li>Set up a National e-Identify and e-Signature Management Programme</li> </ul>   | <p><b>10<sup>th</sup> – 15<sup>th</sup> rank</b><br/>Digital Economy and Society Index</p> <p><b>8<sup>th</sup> – 13<sup>th</sup> rank</b><br/>UN e-Government Development Index</p> |
| <br><b>A greener economy</b>                      | <ul style="list-style-type: none"> <li>Liberalise the electricity market by 2022 and invest in infrastructure like smart grids, battery technology, demand management systems, regional electricity connections and renewable energy. Increase energy efficiency standards and ban the sale of all internal combustion engine cars by 2035.</li> <li>Significantly increase investment to develop smart cities and sustainable transport, while focusing investment in the strategic road network to maintenance.</li> <li>Invest in the infrastructure required for a circular economy, including in recycling plants, and create incentives to change behaviour using education, legislation, fines, and improve monitoring and enforcement using drones.</li> </ul> | <p><b>55% cut in emissions</b><br/><b>&gt;50% renewable share</b><br/>In line with EU Green Deal targets</p>   |
| <br><b>Diversified, sustainable and resilient</b> | <ul style="list-style-type: none"> <li>Set up an investment promotion taskforce within CIPA to proactively target CEOs and promote Vision 2035</li> <li>Better attract and nurture international firms with an aftercare programme and initiatives to improve air connectivity including a taskforce to identify priority routes and an airline partnership initiative.</li> <li>Establish a STEM visa fast track and create a Digital Nomad ecosystem to bring talent to Cyprus.</li> <li>Bolster the remit and capabilities of the Trade Service as an export promotion agency to help companies achieve scale and reach new export markets.</li> </ul>  | <p><b>40-45%</b><br/>Contribution to GVA from top 5 sectors</p> <p><b>40<sup>th</sup> – 45<sup>th</sup> global rank</b><br/>IATA Air Connectivity Index</p>                          |

# Expected ease of implementation and impact

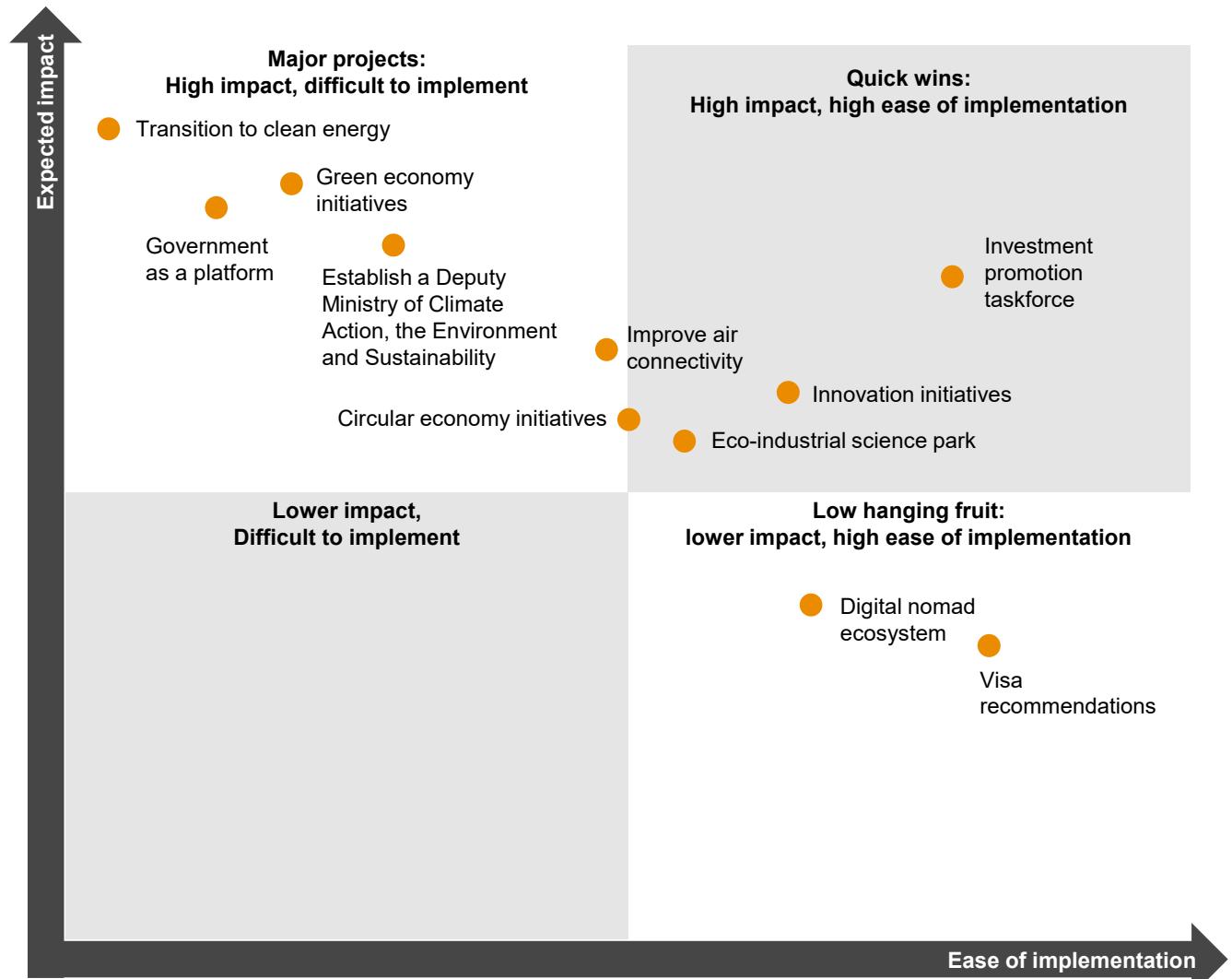
## Thriving and Resilient Economy

Cyprus will be a thriving and resilient economy at the crossroads between Europe and the Middle East with **high, growing levels of productivity** and a **powerhouse of innovation**. The economic cycle will be significantly less reliant on natural resources and underpinned by the principles of **digitalisation** and a **greener economy**. The Cyprus economy will be more diversified and thus **economic growth will be more sustainable and so more resilient to external or internal shocks**.

Reforms in the **Thriving and resilient economy** pillar comprise significant effort to accelerate the digital and green transformations from Cyprus's relatively low current base. Coming from a low base, the effort will be focused on fundamentally changing how businesses operate and people live, building political consensus for long-term committed climate change policy and embarking on significant investments in physical and digital infrastructure. The expected benefits of this will be huge and are too big to ignore. Most notably, Cyprus's transition to a clean energy future is likely to deliver the single biggest impact on long-term sustainable growth – not only because Cyprus's imports of fossil fuels around 10% of GDP, but because the renewable energy sector has the potential to generate significant job and GDP benefits.

**Expected impact:** The relative extent to which an initiative will contribute to achieving Vision 2035 in the long-run.

**Ease of implementation:** The likely ease of implementing an initiative, based on level of stakeholder involvement, current institutional roadblocks, and level of political capital required.

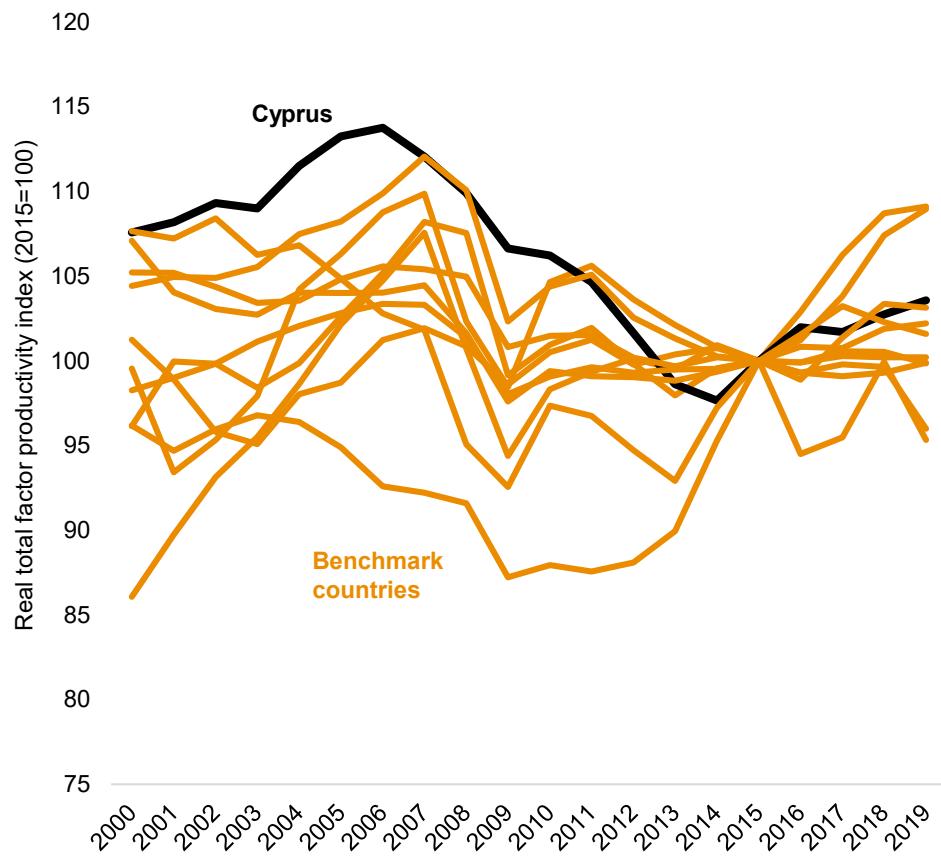


# 5.1

With high and growing levels of productivity

# Revive stagnating productivity growth with the wide-reaching institutional, economic, technological and environmental initiatives of Vision 2035

## Real total factor productivity growth, 2010-19



Productivity is central to a competitive economy; it is what ultimately supports wage growth, incomes and living standards. Productivity should reflect the key aspects of competitiveness, namely strong institutions, education systems and innovation.

Total factor productivity (TFP) is computed using the growth accounting framework and measures the share of GDP growth not attributable to labour or capital. TFP growth therefore reflects advances in efficiency, whether from technology, the reallocation of resources to more productive uses, or greater skills.

TFP growth has not only stagnated but has drastically decreased over the past 15 years. In 2015, TFP growth was 10% lower than it had been a decade before, in 2005. While this is a common story across the benchmark countries, and indeed across many other European economies, the difference is more pronounced in Cyprus's case. TFP growth continued to steadily fall in the first half of the past decade, perhaps reflecting the building of stress in the financial system until 2013. Since 2013, growth has marginally picked up, but still remains below 2010 levels.

In Cyprus, lagging productivity is a function of the many institutional, economic, technological, and environmental challenges prevalent across the country. **There is no quick win or one magic fix.** Rather, by introducing wide-reaching structural and institutional reforms to boost competitiveness, sustainability and innovation, Cyprus will reap the benefits in terms of productivity growth.

There are no specific initiatives to set out in this section. Rather, all of the initiatives set out in this strategy will in some way contribute to high and growing levels of productivity. Specifically, Vision 2035 will deliver strong productivity outcomes by:

- Boosting the country's digital transformation and technological revolution
- Supporting SMEs to grow and merge, enabling firms to make productivity-enhancing investments, for example in technology, and benefit from economies of scale
- Growing capital-intensive sectors of the economy, such as light manufacturing
- Driving entrepreneurship and innovation
- Overcoming institutional defects and eliminating government bureaucracy
- Upskilling the population

Source: The Conference Board Total Economy Database – Growth accounting and total factor productivity (Adjusted version)

Note: the benchmark countries (as defined from the Inception report) represent the yellow lines. Cyprus is in red.

# 5.2

## A powerhouse of innovation

# Powerhouse of innovation

## Roadmap

| Outcomes  | Initiative areas   | Sample of initiatives outlined in this section  |
|---|--|---|
| <b>Boost innovation that leads to commercialised innovations</b>          | 1.1 Boost innovation that leads to commercially viable patents, products and services<br><br>1.2 Create the right foundations and vehicles to connect researchers, businesses, innovators and investors<br><br>1.3 Create the right mix of financial incentives and support to drive research and innovation<br><br>1.4 Make more of the Innovative Company initiative to grow the country's ecosystem | <ul style="list-style-type: none"><li>• Develop a long-term national R&amp;I strategy.</li><li>• Re-evaluate the recent legislation and rules on university spin offs.</li><li>• Offer financial incentives and support for firms to conduct R&amp;I.</li><li>• Refine and augment the Innovative Company initiative.</li></ul> |
| <b>Create a vibrant and productive start-up/entrepreneurial ecosystem</b> | 2.1 Create a vibrant and productive start-up and entrepreneurial ecosystem<br><br>2.2 Nurture and grow start-ups and entrepreneurs   | <ul style="list-style-type: none"><li>• Add entrepreneurial education into the school curriculum.</li><li>• Extend the tax exemption for companies investing (acquiring shares) in other innovative companies.</li></ul>  |

# Powerhouse of innovation (cont'd)

## Outcomes

- 1 Boost innovation that leads to commercialised innovations
- 2 Create a vibrant and productive start-up/entrepreneurial ecosystem

## KPIs and targets

| Key performance indicator  | Year of latest available data | Current state  | Target by 2035 | Benchmark                           |
|--|-------------------------------|----------------|----------------|-------------------------------------|
|  R&D spending as % of GDP   | 2019                          | 0.63%          | 2.5% – 3%      | EU27 average – 2.2%                 |
|  Global Innovation Index <sup>1</sup>   | 2020                          | World Rank: 29 | 15 – 20        | Netherlands – 5<br>Israel – 13      |
|  Global Entrepreneurship Index <sup>2</sup>                                   | 2018                          | Rank: 32       | 15 – 20        | Netherlands – 11<br>Israel – 16     |
|  Business investment, as a share of GDP                                     | 2019                          | 8%             | 15-20%         | EU27 average – 14%                  |
|  Business enterprises, share of total R&D funds <sup>3</sup>                | 2018                          | 35%            | 50-60%         | N/A                                 |
|  Patent applications to the European Patent Office, per million inhabitants | 2019                          | 54             | 125-150        | EU27 average – 148<br>Denmark – 415 |

Data from Eurostat unless otherwise stated.

<sup>1</sup> Cornell INSEAD WIPO, Global Innovation Index. <sup>2</sup> The Global Entrepreneurship and Development Institute, Global Entrepreneurship Index. <sup>3</sup> Cystat.

Note: Latest available data is used up to 2019. 2020, where available, is excluded due to the COVID-19 pandemic.

# Increase R&D spending to 2.5-3% of GDP by 2035

R&D accounted for 0.63% of Cyprus's GDP in 2019. This equates to €140.4 million in 2019 prices. To increase R&D spending as a share of GDP to 3% by 2030, this will require **R&D spending to be higher by €528 million** in 2019 prices around fifteen years from now.

## How can Cyprus achieve this?

- Cyprus should aim to increase the volume and share of R&D spending coming from the private sector. In 2018, the share of R&D from the business community was 35%. In countries like Switzerland, the share was around 70%.
- In the short-term, it is likely that a greater funding commitment will need to come from the government. This will be required to develop Cyprus's R&D ecosystem, create the right foundations (i.e. investing in research centres and national centres of excellence), and attract more researchers and businesses to Cyprus, which will in turn incentivised businesses to increase R&D.
- The government can commit more funding to the Research and Innovation Foundation. This will act as a vehicle for channelling this money into R&D programmes and connecting relevant stakeholders.
- The government, along with the university sector, should consider whether to establish a world-renowned research centre with private sector sponsorship. This could follow the Singaporean model, whereby a business sets up a 'corporate laboratory' on a university campus for teaching and R&D. The research centre should focus on key sectors, such as agritech and solar energy. These are sectors where Cyprus can exploit its comparative advantages and establish itself as an R&D hub.

In the following slides, specific R&D initiatives are set out, as follows:

**Commercialisation of university research and spin-offs**

**Financial incentives for R&D**

**Regulatory certainty**

**Entrepreneurial and start-up culture and ecosystem**

Rising to the challenge of increasing R&D to at least 2.5-3% by 2035 will also require action in the following initiatives, which will together contribute to creating an ecosystem conducive to greater R&D.



**Long-term strategic planning in government:** This will help identify future R&D priorities and give the private sector certainty to invest in R&D

p. 63 – 67



**Access to finance:** With more breadth of types of finance and greater access, businesses will be better able to invest in R&D

p. 51 – 62



**Digitalisation:** With greater digital skills and infrastructure, all players in the economy will be better equipped to undertake R&D and technological innovation

p. 83 – 91



**Green transformation:** With a clear direction of travel, businesses will be incentivised to begin investing in the transition and sustainable innovations

p. 92 – 124



**Business hub:** With more international firms, more collaboration spaces and the clustering of businesses, innovation and R&D can thrive

p. 73 – 82



**Sector skills councils:** By bringing policymakers, businesses and academia together, collaborative research programmes and agendas will develop

p. 139 – 153



**Tertiary education:** Developing R&D capabilities through international and private sector collaboration, e.g. with corporate-sponsored research centres

p. 187 – 209

# 1.1 Boost innovation that leads to commercially viable patents, products and services

## The case for change

- R&I expenditure as a percentage of GDP was 0.63% in 2018 – almost four times lower than the EU average.
- Cyprus ranks below peers such as Malta, Israel and Ireland in the Global Innovation Index.<sup>1</sup>
- Most of Cyprus's R&I expenditure occurs within the higher education (0.23%) and business enterprise (0.20%) sectors, with very little in the government sector (0.05%).
- There is also a low involvement of women and men in entrepreneurial activity (0.6 ratio of women to men)<sup>2</sup>
- The formulation of a Deputy Ministry of Research, Innovation and Digital Policy in March 2020 was the first step towards co-ordinating government policy to develop a start-up ecosystem. However, more needs to be done.

<sup>1</sup> Soumitra Dutta, Bruno Lanvin, Sacha Wunsch-Vincent, Global Entrepreneurship Monitor 2020, Who will Finance Innovation?, 2020.

<sup>2</sup> Polyviou Anna, Eteokleous Pantelitsa, Dikaikos D. Marios, Kassinis I. George, Entrepreneurship in Cyprus. National Report 2019/2020, 2021.



## R&I Strategy Framework 2019-23

- In May 2019, a new R&I strategy was introduced by the National Board for Research and Innovation. It covers 2019-23 and revolves around nine strategic pillars and enablers: Governance, National Strategy for Research and Innovation, Research Excellence, Knowledge Transfer and Commercial Exploitation, Innovative Entrepreneurship, Cultural Change, International Dimension, Communication and Digital Transformation.
- The ultimate aim of the strategy is to triple the national R&I intensity to 1.5% of GDP by 2023, with half of the expenditure incurred in the private sector.
- One key planned measure is the creation of clusters of excellence to gather universities and businesses within environmental science, agritech, maritime, health and ICT.
- Smart specialisation:** As a small country with a relatively young R&I system and limited resources, Cyprus needs to balance the need for establishing of a fully-developed, functional R&I ecosystem with the need for focusing resources on priority niche areas. The priority areas highlighted through the Smart Specialisation Strategy are: Energy, Tourism, Structured Environment/Construction, Transport/Shipping, Agriculture/Food and Information and Communication Technologies and Environment as horizontal sectors.



## Develop a long-term national R&I strategy

- The 2019-23 strategy is a step in the right direction. But to really create incentives for innovation, investment and risk-taking, policymakers must provide more long-term certainty about what the priorities are, where the government is investing, and where the opportunities are.
- A long-term R&I strategy with a 10-year horizon, should identify long-term R&I intentions, opportunities for collaboration with the private sector, and what the funding opportunities might be for researchers and innovators.
- The R&I strategy should be aligned to Vision 2035, which in itself is very aligned to the priorities of the 2019-23 strategy. Therefore, the current strategy should be extended, with some careful thinking about how the landscape has changed post-COVID. Crucially, the long-term strategy needs to more clearly set out the government's investment intentions to provide certainty and assurance to businesses, researchers, entrepreneurs and investors. The 2019-23 strategy was announced without a corresponding increase in spending intentions.



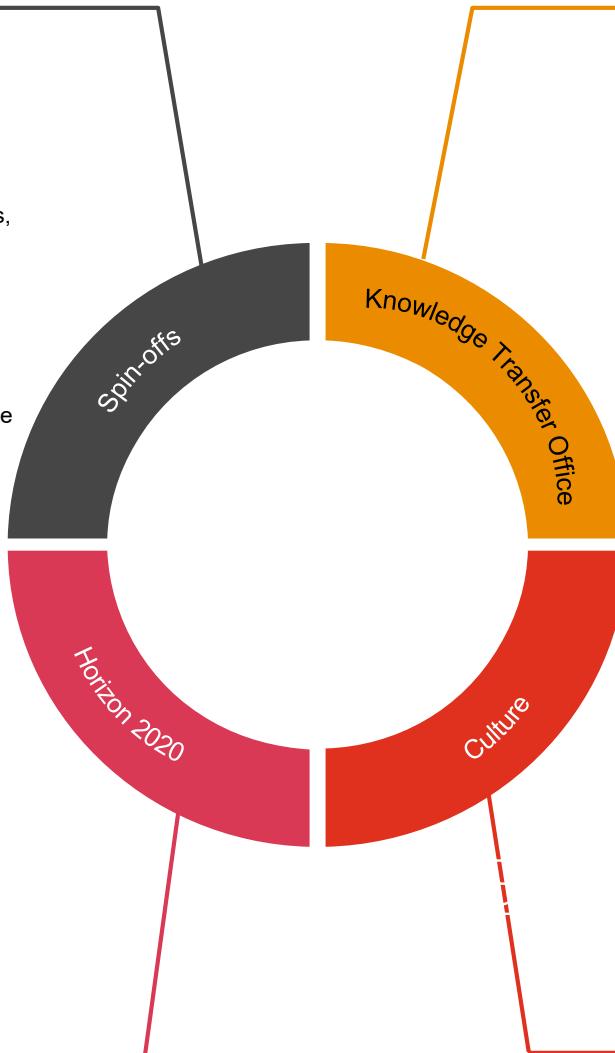
## Establish a 'Regulation of the Future' Taskforce

- One of the key factors determining R&I intentions is regulatory certainty. Innovators, investors and entrepreneurs need to have assurance that new ideas, goods and services will be able to rolled out and commercially viable in a certain country – and a fundamental part of that is understanding the regulatory requirements.
- In the past, Cyprus had a vibrant blockchain innovation ecosystem, but this was hindered by slow progress in designing and passing the required regulation. This resulted in companies and innovators moving elsewhere to set up businesses.
- To prevent further missed opportunities, a taskforce should be established to accelerate progress in designing and implementing regulation for new products and technology. For example, drones, driverless cars and lab grown meat.
- The objective should be to ensure Cyprus remains at the forefront of global regulatory developments and rapidly pass legislation following other countries like Singapore.
- Specifically, the taskforce should:
  - Be comprised of a few key regulatory, legal and technology experts, who have a detailed understanding of EU and international regulation
  - Conduct systematic and regular reviews of regulation in other countries – specifically leaders like the US, Israel and Singapore. Their role should be to translate this international best practice into regulation for Cyprus
  - As part of this, they should consult with international regulatory experts

# 1.2 Create the right foundations and vehicles to connect researchers, businesses, innovators and investors

## Re-evaluate the recent legislation and rules on university spin offs

- In 2018, a law permitting the creation of spin-off companies from universities was passed. The resulting law, however, represents a compromise that places restrictions on:
  - Universities and their personnel on holding equity in spin-offs,
  - Inventors and entrepreneurs working in an advisory or managerial capacity in the spin-off,
  - Spin-offs having access to university buildings or equipment.
- Going forward, this law should be re-evaluated. Cypriot policymakers should look to model legislation on best practice in other countries, such as the UK or the US.



## Implement the recommendations by the Horizon 2020 Policy Support Facility

- Professionalisation of the Universities and Research Institution Services offerings
- Review of the public research and innovation programmes

Though the course of this project the authorities were in the process of setting up and operating a central Knowledge Transfer Office (KTO). We suggest that the KTO should:

- Provide funding and specialized value-add knowledge transfer support services to facilitate commercialisation of research results.
- Provide funding, for example grants promoting cooperation between industry and science and innovation vouchers (which can be used for specific purposes e.g. to cover the costs of consultancy services provided by external experts).
- Form cooperative relationships between universities and the private sector. This will boost the availability and use of ICT infrastructure as many companies in Cyprus do not have the necessary infrastructure to sustain an R&D department.
- Implement expert assessments of the quality of economic institutions and firms' capacity to access and absorb technology.
- Act as R&D Cooperation centres, as exchange programmes for people working in academia and industry, and as information dissemination services.

## Remove cultural barriers hindering the academia-business interaction:

- Currently, the prevailing view is that public-funded academic institutions should not engage with business and 'make a profit'. In this respect, in parallel with the above initiatives, emphasis should be given to an awareness campaign highlighting the benefits of the research commercialisation and the collaboration between academia and research.
- The awareness campaign should consist of conferences, workshops, social media posts, TV shows, and European research institutions' visits by politicians, public servants, academics and entrepreneurs.

# 1.3 Create the right mix of financial incentives and support to drive research and innovation



## Offer financial incentives and support for firms to conduct R&I

- Financial incentives and support should be used as complementary policies to other initiatives aimed at creating the right innovation ecosystem in Cyprus.
- There are generally two types of policy – R&I tax incentives (which are usually available to all firms, although they can apply to targeted sectors or types of firms), and subsidies which offer specific support to targeted R&I projects. The effects of the two instruments are found to vary across industries and firms. For example, R&I subsidies have been found to increase TFP growth more in industries that are highly dependent on external finance and the ICT sector. While, R&I tax incentives have been found to have a larger effect in smaller firms which can't secure external finance – an important consideration for Cyprus. Both the IMF and OECD conclude that policymakers should consider balancing both tax incentives and direct support to foster innovation.<sup>1,2</sup>
- The design and implementation of these initiatives are critical to their effectiveness. Some recommendations include:
  - Targeting young companies, not SMEs:** Preferential treatment for SMEs may discourage companies from growing. Targeting young companies is considered better practice. Incentives can also be designed to incentivise mergers, with large companies encouraged to acquire start-ups.
  - Offering carry-forward provisions, cash refunds or reductions in labour taxes:** Start-ups often have negative profits and will not immediately benefit from tax incentives. Offering a carry-forward provision and cash refunds if there is a negative tax liability is an effective measure for young companies. Alternatively, relief from labour taxes like payroll taxes or social security contributions mean young firms will still benefit even if they don't report positive taxable income. The latter can also be better targeted on researcher's wages.
  - Developing a one-stop, online application procedure and guidelines:** Provide clear requirements to claimants, for example that they must keep R&I records in a pre-defined way. Online applications are key to minimising time on decisions – it should not take the authorities more than a year to make a decision on eligibility.
  - Providing impartial and expert assessors:** Being an expert in the field and preventing conflict of interest is paramount. Policymakers should consider outsourcing decisions to international consultants and/or experts with no links to Cyprus's economy and society to reduce risks of corruption.<sup>3</sup>
  - Conducting ex-ante and ex-post assessments:** Evaluations of the effectiveness of initiatives must consider value for money and the distortion of competition between incumbents and new entrants. Firms must be required to collect high-quality data according to international standards. It is recommended the authorities run a consultation across sectors to understand how companies measure R&I and what data they collect. In addition, companies should receive targeted training on the best ways to measure their R&I impact.

## Advantages and disadvantages of tax incentives vs direct support to companies<sup>4</sup>

| Policy initiative                    | Advantages   | Disadvantages  |
|--------------------------------------|--|--|
| R&I tax incentives                   | <ul style="list-style-type: none"> <li>Lower administrative costs of planning, allocation and management – in Cyprus, while the digitalisation agenda is in its infancy, this can be important.</li> <li>Allows the private sector to decide what the most productive way to invest is.</li> <li>Technology neutral and non-discriminatory in terms of research and field.</li> <li>Encourages companies to report their R&amp;D activities more accurately.</li> <li>Avoids an upfront budget.</li> <li>Prevents misappropriation of funds and rent-seeking by civil servants – a key consideration in Cyprus currently.</li> </ul> | <ul style="list-style-type: none"> <li>Lack of control over the budget</li> <li>Greater risk of deadweight loss (by supporting projects that would have been performed anyway) – indeed, in Cyprus, as a small economy with limited resources, arguably funds should be more targeted.</li> <li>Private firms may choose R&amp;D projects based on private returns without accounting for spillovers.</li> <li>Risk of firms re-labelling other activities as R&amp;D.</li> <li>Limited incentives for technology transfer – this is a factor for policymakers to consider as this is important for lots of SMEs.</li> </ul> |
| Direct support to businesses for R&I | <ul style="list-style-type: none"> <li>Better suited to encourage high-risk projects and to meet specific policy goals, such as those priorities of Vision 2035.</li> <li>Ability to target projects with the greatest spillovers and social returns.</li> <li>Competition among firms ensures public resources are directed to the best projects.</li> <li>Can be used to target specific technologies or areas to address sector-specific issues.</li> <li>Better budget control – this is a key factor for Cyprus due to limited resources.</li> <li>Encourages cooperation and tech transfers.</li> </ul>                        | <ul style="list-style-type: none"> <li>Higher administrative burden for companies.</li> <li>Administratively difficult to process a high number of applications.</li> <li>Risk of rewarding lobbyists.</li> <li>Risk of corruption in allocation of funds.</li> <li>Firms may not undertake other R&amp;D projects not approved for funding.</li> </ul>  |

<sup>1</sup> OECD, Criscuolo C, Bajgar M, Appelt S, Galindo-Rueda F. R&D tax incentives: design and evidence, 2016.<sup>2</sup> IMF, IMF Fiscal Monitor: Acting Now, Acting Together, 2016.<sup>3</sup> Uhlif D, Straathof B, Hambrø C., Mutual Learning Exercise Administration and Monitoring of R&D tax incentives, 2016.<sup>4</sup> European Commission, R&D tax incentives: how to make them most effective?, 2017.

# 1.4 Make more of the Innovative Company initiative to grow the country's ecosystem



## Refine and augment the Innovative Company initiative

The government currently awards certificates to accredit companies that they consider innovative. Policymakers essentially conduct due diligence on behalf of potential investors and companies, signalling that they represent sound investment and business opportunities.

However, some changes and additions should be made to:

- Build credibility and confidence in the initiative.
- Align the initiative more closely to Vision 2035.
- Deliver more tangible benefits and create more opportunities for innovative companies and potential investors.

### Awareness and branding



**Information:** The current list of innovative companies should be bolstered with more data and information including their sector, their plans, website links, and key contacts

**Create an online portal:** With company details, enabling investors and companies to browse this and search for opportunities for investment and mergers and acquisitions

**Branding:** Create a logo to signify the company has been designated as innovative to allow companies to use it on their website and in their marketing as a signal to investors and customers.

### Mapping the ecosystem



**Create an innovation ecosystem dashboard:** This should map the current state of research and innovation in Cyprus, using the Innovative company list as a starting point but also including the wider research and innovation efforts underway in universities and the public sector. It should assess the current state against needs, as set out by Vision 2035 and identify the key gaps which should policymakers should address as a priority.

### Networking



**Facilitate networking:** Policymakers should organise events with innovative companies, academics and investors. This should aim to build up the start up and investor community within Cyprus, creating a space to share ideas and refine intentions. It should also facilitate the creation of new opportunities – for academics to refine their research based on business need, for companies to connect with investors, and for companies to identify merger and acquisition opportunities.

### Guidance and support



**Establish a small team of experts** who should be on hand to provide advice and support to innovative companies. This advice should focus on:

- Guidance and technical support on how to collect data and measure R&I activities and impact
- Information and support for receiving both government and EU grants and incentives
- Information on the wider research and innovation ecosystem

### Expert decision



**Ensure experts are on the panel:** The authorities should seek counsel and support from international experts when designing criteria and making accreditation decisions. Specifically, they should get experts from highly innovative countries such as Israel, and those who have comprehensive business experience, such as venture capitalists. This will enable the authorities to really put companies through their paces and challenge them.

# 2.1 Create a vibrant and productive start-up and entrepreneurial ecosystem

## The case for change

- According to the Global Competitiveness Report 2019, Cyprus has low score in the Innovation Capability pillar (46/100).
- Specifically, Cyprus scores very low on the International co-inventions (29/100), multi-stakeholder collaboration (42/100), patent applications (43/100), R&D expenditure (17/100).<sup>1</sup>
- According to the Global Entrepreneurship Monitor, Cyprus's ecosystem weaknesses are the following:
  - Entrepreneurial education at school (in 2020 is 3.2 out of 9, up by only 0.1 from 2017/2018 but 0.4 down from the most recent 2018/2019).
  - Access to Finance (3.6 in 2020, compared to 4.2 in 2018/2019 and 3.3 in 2017/2018)
  - Research and Development transfer (3.9 in 2019/2020, 4.6 in 2018/2019 and 3.9 in 2017/2018<sup>2</sup>

<sup>1</sup> Kalus Schwab, The Global Economic Report 2019, 2019.

<sup>2</sup> Polyviou Anna, Eteokleous Pantelitsa, Dikaiakos D. Marios, Kassinis I. George, Entrepreneurship in Cyprus. National Report 2019/2020, 2021.



## Attract and retain entrepreneurial talent

- The ability of Cyprus to attract entrepreneurs will crucially depend on wider horizontal reforms. These include liveability, air connectivity and boosting R&D. Additional incentives include:
- Extending the 50% tax exemption for non-residents earning less than €100,000 to better incentivise mid-level professionals and research employees.
- Given cash flow challenges, most offer stock options as alternative compensation to employees. Many governments (Estonia, Lithuania, Israel, Canada, France, UK, Portugal, US) are supporting their start-up ecosystems by adopting a favourable treatment of stock options. Cyprus should consider introducing similar initiatives. Currently, non-transferable stock options are taxed early.
- A 'Start-up Visa' scheme was piloted between 2017 and 2019. However, over the course of the two years, only 14 applications were submitted, resulting in 6 Cyprus Residence Permits being granted. Changes including reducing capital required from €50,000 to €20,000 and family reunification have been made. We also recommend allow a 6 month buffer following the failure of a start-up for the entrepreneur to stay in Cyprus and explore other opportunities.



## Create a culture of entrepreneurship

- Add entrepreneurial education into the school curriculum** – this should involve teaching students about business, but also embed a culture of creativity and thinking outside the box, and appetite for risk-taking. See the education section for more details.
- Organise school trips to incubators and accelerators** to expose them to successful entrepreneurial stories, communities, culture. In collaboration with the Deputy Ministry of Innovation, the Ministry of Education should develop a programme to allow all students to visit at least once any of the incubators or Centers of Excellences active in research commercialisation of Cyprus.
- Set up a Young Entrepreneurs Club** at schools, where students work together to develop and pitch a business idea. It should be a national competition, where students pitch to entrepreneurs (i.e. Dragons Den style). In addition, the participation of elementary and high school students in the Junior Achievement programme, which is already provided in Cyprus's private and public schools, should be further encouraged.
- Encourage the media to promote entrepreneurship** – including broadcasting shows about start ups (e.g. a Cypriot Dragon's Den programme modelled on the BBC equivalent), interviewing entrepreneurs on the news and hearing their stories (both successful and unsuccessful attempts). The Deputy Ministry of Research, Innovation and Digital Policy should also use social media to promote case studies of start ups, highlighting failures as well as successes.



## Case study: Finland Entrepreneurial education

A Finnish student receives, on average, 12 years of entrepreneurship education programmes as part of the compulsory education system and from three to seven additional years linked to non-compulsory education. The entrepreneurship curriculum is based on learning-by-doing and creativity, and is underpinned by a positive entrepreneurial culture and climate of attitudes both nationally and regionally. The system also extends the concept of entrepreneurship from the traditional perspective related to starting up a new enterprise, to entrepreneurship as a positive proactive 'attitude' towards new ideas, the solving of existing problems or the improvement of everyday life, either within enterprises themselves (the so-called concept of 'intrapreneurship') or in real-life situations. The strategy is underpinned by strong teacher training in the curriculum.

- Primary education:** The main goals at this stage are to make students understand entrepreneurship as a general concept, encourage a readiness to take responsibility, strengthen the self-image of students, and encourage them to interact successfully with others.
- Secondary education:** Aged 12-16, the main goals are to strengthen the capabilities of students to participate and influence society from different perspectives (political, economic, cultural and so on), where society is defined from a wide perspective (local, national, European and global). At this stage, the focus is on understanding the value of work, the importance of self-motivation, autonomy, and the role of entrepreneurship in society.
- Vocational education:** For those aged 16-19 in vocational education, students are encouraged to develop enterprise-related ideas, stressing the cooperation with external enterprises and other relevant stakeholders and networks. All Finnish Initial Vocational Education and Training (IVET) qualifications include at least five weeks of study of entrepreneurship and business studies.

## 2.2 Nurture and grow start-ups and entrepreneurs

- There is a pressing need to improve the efficiency and speed of public administration processes relevant for start-ups. To reduce the administration burden and create additional incentives to start a business in Cyprus, the government should:
  - Ensure a continuity and certainty of innovation policies to increase the private sector's willingness to undertake risky investments with a long payback period.
  - Promote further the recently established Fast Track Business Activation abroad.
  - Develop and establish an 'aftercare' policy and governance programme for foreign-owned high-tech, sciences and ICT firms established in Cyprus.
- Extend the tax exemption for companies investing (acquiring shares) in other innovative companies.** Currently, the tax exemption only applies to private investor and companies cannot because they are not included in the General Block Exemption Regulation (GBER) of the EU. Companies should also be included in the scheme to further boost entrepreneurship and innovation.
- Awareness and capacity building regarding crowdfunding:** In 2020, CySEC developed a regulated environment for companies to obtain funding through crowdfunding platforms. However, knowledge and capacities in this field are still low, which hinders the mainstream use of crowdfunding. The authorities should build on the experiences gained from the Blue Crowdfunding project and provide training to all stakeholders involved. Also, a working group comprising to explore how the authorities can further promote crowdsourcing as an alternative form of finance for Cyprus companies.



**Establish an independent strategic taskforce** that will provide hands-on business advice to incubators and innovation hubs. It should comprise a few key experts and be an extension of the expert panel discussed on the following slides regarding Innovative Companies. They should have a comprehensive understanding of government policies, the entrepreneur community, and its sectors. Its role should include:

- Making frequent open calls to start-up businesses and entrepreneurs to see what support they need to grow.
- Setting up a local association of early stage entrepreneurs and businesses which can offer support and advise to each other.
- Setting up a network of domestic and international mentors that can advise the start-ups of Cyprus's ecosystem.
- Specifically targeting female entrepreneurs with mentorship programmes – at schools, universities and work.
- Raising the awareness of Cyprus's start up ecosystem and business angels by:
  - Promoting the ecosystem as an alternative investment option – this should be done via education on financial literacy (see the **Open, transparent and fair marketplace** section), as well as national advertising campaigns (for example, as part of the launch of new incubator/sandbox sites).
  - Provide information and contact as part of aftercare services for international businesses investing and headquartering in Cyprus, and digital nomads.
- Disseminate the recent regulation (and subsequent proposed changes) on the commercialisation of research results towards the researchers of public universities and encouraging them to commercialise their research results and create spinoff companies
- Build incubator/accelerator and sandbox sites for start-ups and entrepreneurs to come together, share and develop ideas, and connect with researchers and academics. These should be part of the proposed digital nomad community site.

# 5.3

## Supported by digitalisation

# Supported by digitalisation

## Roadmap

| Outcomes  | Initiative areas  | Sample of initiatives outlined in this section   |
|---|---|--|
| Transform Cyprus's digital public services delivery model into a Government as a Platform   | 1.1 Take the digital transformation of Cyprus to the next level, beyond e-Government<br><br>1.2 Mobilise user roles and defined plans for the transition to Digital Cyprus  | <ul style="list-style-type: none"><li>Adopt the Government as a Platform service delivery model to reap benefits of a collaborative ecosystem environment.</li><li>Establish key roles in the Government as a Platform digital ecosystem</li></ul>                   |
| Set up a digital infrastructure ecosystem which will allow businesses, households and the government to start interacting digitally | 2.1 Set up a digital infrastructure ecosystem which will allow businesses, households and the government to start interacting digitally<br><br>2.2 Develop the necessary infrastructure to support growth in e-commerce | <ul style="list-style-type: none"><li>Set up a National e-Identity and e-Signature Management Program.</li><li>Set up a Government Cloud Platform Program.</li><li>Improve the efficiency and capability of Cyprus Post by reducing administrative duties.</li></ul> |
| Develop a user-centric and efficient digital government   | 3.1 Focus on user-centrism and efficient digital public services  | <ul style="list-style-type: none"><li>Accelerate existing Deputy Ministry action plans to drive digitisation across the government, future-proofing the delivery of public services.</li><li>Define an ICT Industry Strategy</li></ul>                               |
| Build a leading digital economy with more competitive and future-proofed industries, leveraging the growing local ICT sector        | 4.1 Build a leading digital economy with more competitive and future-proofed industries, leveraging the growing local ICT sector  |  |

# Supported by digitalisation (cont'd)

## Outcomes

- 1 Transform Cyprus's digital public services delivery model into a Government as a Platform
- 2 Set up a digital infrastructure ecosystem which will allow businesses, households and the government to start interacting digitally
- 3 Driven by a user-centric and efficient digital government
- 4 Build a leading digital economy with more competitive and future-proofed industries, leveraging the growing local ICT sector

## KPIs and targets

| Key performance indicator   | Year of latest available data | Current state     | Target by 2035 | Benchmark                           |
|---|-------------------------------|-------------------|----------------|-------------------------------------|
|  E-government Development Index <sup>1</sup>                                   | 2020*                         | Global Rank: 18th | 8th – 13th     | Denmark – 1st<br>Netherlands – 10th |
|  Share of total enterprises (excluding financial sector) with e-commerce sales | 2019                          | 14%               | 20 – 25%       | EU27 – 20%<br>Ireland – 29%         |
|  Digital Economy and Society Index <sup>2</sup>                                | 2019                          | EU28 Rank: 22nd   | 10th – 15th    | Finland – 1st<br>Malta – 10th       |
|  Connectivity sub-component of the DESI                                      | 2019                          | EU28 Rank: 21st   | 10th – 15th    | Finland – 5th<br>Estonia – 13th     |
|  IMD World Digital Competitiveness Index                                     | 2019                          | Global rank: 54th | 25th – 30th    | Netherlands – 6th<br>Ireland – 19th |
|  Individuals with basic or above basic digital skills                        | 2019                          | 45%               | 85% – 95%      | EU27 – 56%<br>Estonia – 62%         |

Data from Eurostat unless otherwise stated.

<sup>1</sup> United Nations E-Government Knowledgebase, E-government Development Index. <sup>2</sup> European Commission, The Digital Economy and Society Index (DESI). <sup>3</sup> European Commission, Mobile and Fixed Broadband Prices in Europe, 2019.

Note: Latest available data is used up to 2019. 2020, where available, is excluded due to the COVID-19 pandemic.

\*Data for UN's E-government Index used for 2020 as no data for 2019 is available.

# 1.1 Take the digital transformation of Cyprus to the next level, beyond e-Government

## The case for change

- Cyprus has had a paper-based government since 1960. Historically, Cyprus has kept busy making progress on 'e-government.' While this is a critical first step, it is only part of the journey to true digital transformation. Challenges thus far, validated by stakeholders include:
  - Vendor-lock
  - Predicate on current understanding of government
  - Systems-focused, not outcomes-focused change
  - Duplication of efforts
- These challenges caused the first iteration of 'Cyprus's e-government' to become associated with:
  - Overall slow pace in digital transformation
  - Digital versions of existing processes, not designed around citizen/user needs, but instead designed around the capabilities of the vendors providing the solution
  - Low ecosystem stakeholder trust and confidence
- Other leading countries have looked outside of government for inspiration on new modus operandi: the Government-as-a-Platform service delivery model. This platform, or ecosystem, model dramatically boosts speed to market, efficiency, and innovation-levels by leveraging inputs from any and all participants in the economy as collaborators.
- Cyprus has made significant progress in the last years in the digital arena, and especially so amidst the COVID-19 pandemic. Its greatest accomplishments in terms of progress have been the foundational steps of building capacity and signalling outwards the strategic, political ownership to address these challenges through the establishment of a Deputy Ministry. Cyprus is ready and willing to transform. It's 'future readiness' and have led to the highest climb in the 2020 IMD World Digital Competitiveness Ranking from 41 of 63 countries in 2019, to 30th place – marking an improvement in all four categories in the overall ranking.
- Now Cyprus must go beyond the state of readiness and pursue a true transformation by adopting the Government-as-a-Platform model.

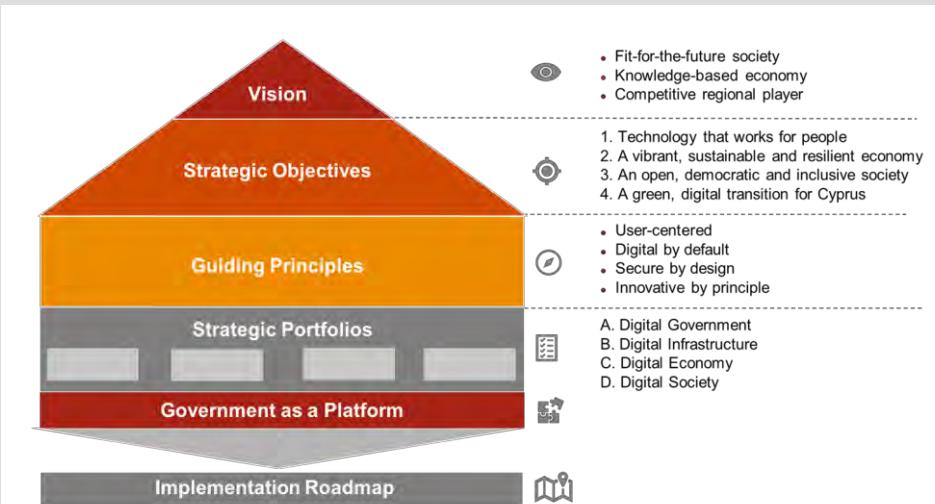


## Cyprus's Digital Strategy

- Since 2020, the newly established Ministry of Research, Innovation and Digital Policy has been responsible for coordinating and implementing the digital strategy.
- Among others, the following digital initiatives/strategies have been implemented by the Ministry include:
  - Government's digital transformation through the continuous development of new e-services
  - Development of a coherent approach for all governmental websites.
  - Implementation of the e-signature
  - Upgrading and establishing new digital information systems in the public sector
  - Optimising the public sector's internal operations.
  - Implementing the Cyprus Broadband Plan
  - Development and utilisation of cutting edge technologies (DLTs & Blockchain, Artificial intelligence and Space applications)
  - Investing in human capital through the digital up-skilling of the public and private sectors' employees and society
  - Development of the national framework of the development of the Smart Cities
  - Development and implementation of a strategy to attract high-tech and start-up companies

• One of the guiding principles of Cyprus's national digital strategy that is that considerations of cyber security and resilience should be built in by design, and not designed as an afterthought.

• Achieving Vision 2035 relies on the successful digital transformation of the Cypriot economy and society. In this section, we emphasise some of the most critical and transformational initiatives to be implemented as part of the digital strategy.



# 1.1 Take the digital transformation of Cyprus to the next level, beyond e-Government (cont'd)



## Adopt the Government-as-a-Platform service delivery model to reap benefits of a collaborative ecosystem environment (continued)

To change ways of working and organise themselves to be future-proof and in an open, collaborative marketplace-like environment, the government should design, implement, and foster a new, efficient platform-driven service delivery model. This will enhance the manner in which public services and solutions are produced and provisioned and will aim to meet the rapidly changing expectations of all users – other ministry or broader public sector players, businesses, and society alike. In simple words, the ‘Government-as-a-Platform’ framework is about reorganizing government work around a network of shared applications and components, open standards and canonical datasets. As a result, the public sector, the private sector, and the active citizens can deliver better, safer services efficiently and accountably.

### Governance to drive accountability



### Common standards to ensure consistency



**Start with the setting up a Digital Strategy and Policy Unit** within the Deputy Ministry through which all public interventions needed for the delivery of Cyprus's digital ecosystem are coordinated and managed. This unit will be accountable for the delivery of Cyprus's digital ecosystem and the transition to a Government-as-a-Platform model as outlined in the national digital strategy. The Platform provides the framework that allows communities to come together, share, extend or enhance digital assets, processes and capabilities for the benefit of all stakeholders involved in the ecosystem. This is done through a common foundation which includes: guiding principles, standards, shared components and mechanisms for monitoring and enforcing of these standards and principles.

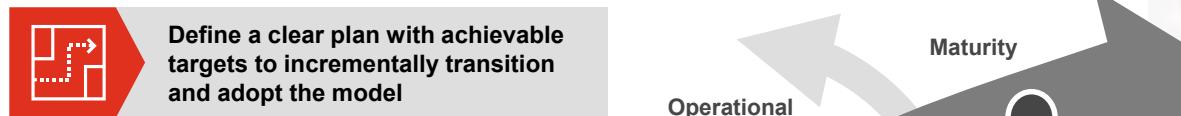
**Define common frameworks and standards for the effective transformation of the public services** delivery model to the Government-as-a-Platform model. This should include common architecture frameworks, interoperability standards, program/project management frameworks, risk management frameworks, change management frameworks, etc. Building a ‘Digital Services Factory’ capable of delivering standardised end-to-end digital micro services that will meet citizens’ needs, adopting a model to ensure the rapid implementation of services using Agile/Scrum methodologies, supported further by the development of strong governance mechanisms to safeguard the sustainable deployment of services.

# 1.2 Mobilise user roles and defined plans for the transition to Digital Cyprus



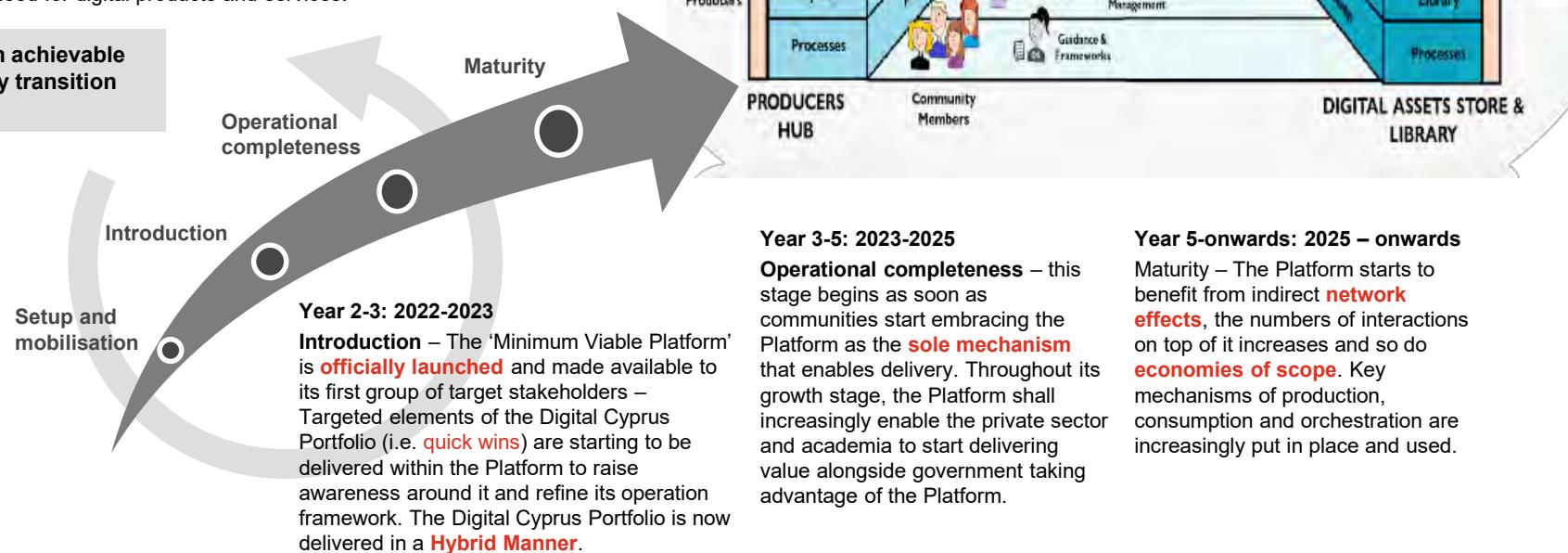
**Define and establish the 3 key 'roles' in the digital ecosystem:** orchestrator role (Unit), producer role, consumer role. Producer and consumer roles can be held by anyone, leading to improved knowledge-sharing and speed to market for any digital solution. Cyprus's Ecosystem Platform is envisioned to be orchestrated by the government. This means the government becomes responsible for fostering the ecosystem around the Platform, supporting and enabling all stakeholders (including the government) to act as producers and/or consumers within it.

- **Orchestrator role** – a role held by the government, more specifically the proposed Digital Strategy & Policy Unit is responsible for governance, fostering the ecosystem are the platform, and enabling all stakeholders to act as producers or consumers within it. That is, defining mechanisms that will enable the Platform to adapt to the changing needs of its users.
- **Producer role** – a role held by the government to create the services and shared components stakeholders can build upon to develop and provide their products and services to the ecosystem. Producing new services should involve collaboration with other players such as private sector and academia.
- **Consumer role** – anyone that has a need for digital products and services.



**Year 1: Mid 2020-End 2021**

**Setup & Mobilisation** – The Platform is still at a **conceptual level** and will begin after the formation of the Digital Strategy and Policy Unit (DSPU). The DSPU operates as a consultant from Day 0 while laying the foundations for its orchestrator role and the organisation of the government into a Platform. It will do this by defining the frameworks and standards that will underpin this transformation (how we enable production / consumption/orchestration) and identifying the quick wins.



## 2.1 Set up a digital infrastructure ecosystem which will allow businesses, households and the government to start interacting digitally

### Focus on quality, availability, and industry competitiveness.

Raise Cyprus's standing in the DESI through improvements to two of the five assessment criteria of Connectivity and Use of Internet by the following:

- Deliver a plan to achieve the national broadband objectives in alignment with EU standards. This plan should include achieving enhanced national connectivity, increasing Fibre to the Premises (FTTP) and Fibre to the Home (FTTH) footprint, promoting higher ultrafast broadband (at least 100Mbps) to achieve greater penetration especially in rural and suburban areas, reducing broadband prices etc. Ensure a continuity and certainty of innovation policies to increase the private sector's willingness to undertake risky investments with a long payback period. Efforts need to be made to allow all parts of society to take part in digital transformation, including rural populations currently experiencing significantly worse broadband access.
- Empower the National Regulatory Authority (OCECPR) and the National Broadband Competence Office.** Establish a Centralised Infrastructure Control committee with representation from all telcos and the regulator, to conduct a study on how to mitigate the overreliance on specific operators for the deployment and management of fixed and wireless broadband infrastructure. The committee should investigate the potential of state intervention in those areas where commercial operators are unlikely to invest.

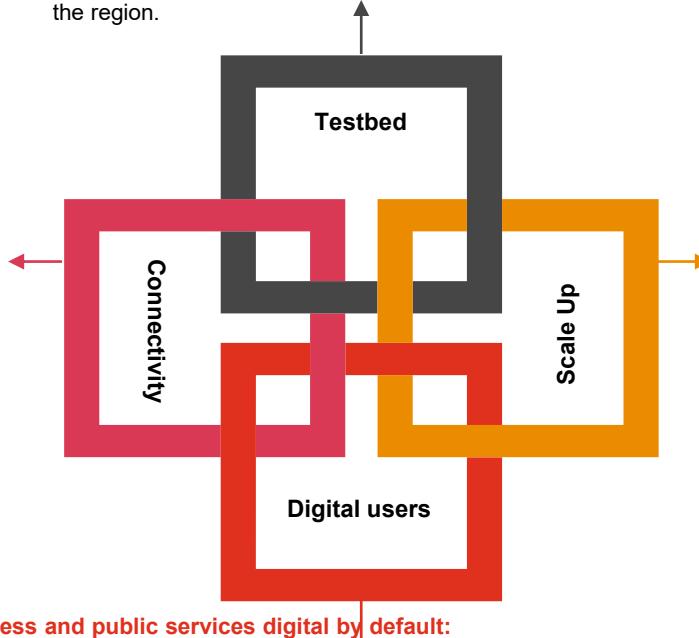
### Make interactions and transactions across society, business and public services digital by default:

**Set up a National e-Identity (eID) and e-Signature Management Program** within the Digital Strategy and Policy Unit of the Ministry that will ensure the legal framework around electronic identification and signature is digital-ready and establishes the mechanism upon which trusted certifying authorities operate. The programs should create a plan for assigning an eID and e-Signature for each physical and legal entity while also defining the framework around eID and e-Signature.

- Enhance building cabling to be "Gigabit-ready" and promote connectivity take-up. Encourage end users to connect with very high-capacity networks, deployed close to their residence, through the reduction of cost. Ensure that 100% of the population living in organized communities (urban or rural), and all major terrestrial transport paths have uninterrupted 5G coverage.
- Development e-services across the Cyprus government and Ministries providing digital services to citizens.

Create the right infrastructure and controlled environment to establish Cyprus as a testbed for new products and services

**Setup a National Testbed Program** within the proposed Digital Strategy and Policy Unit of the Ministry that will be tasked with creating a plan for building Cyprus's national brand as an ideal testbed destination for Europe and the region.



- The program should begin by establishing collaboration among existing owners of local testbeds e.g. KIOS, RISE and the government. It should then work towards developing the right ecosystem for local and international participants to access, experiment, innovate and co-create.

- The program could include: Big data sandboxes/Data Analysis and AI testbeds, IoT testbeds, Immersive/Virtual technologies testbed, Integration testbeds (e.g. Smart Cities/Smart Mobility/Cyber-physical security/Agritech

### Pursue a shift to cloud-computing to accelerate scaling up

**Setup a Government Cloud Platform Program** within the proposed Digital Strategy and Policy Unit of the Ministry to promote government-wide adoption of cloud computing. The program should deliver a comprehensive cloud platform that will help integrate existing and siloed infrastructure of the Cypriot public sector (and beyond) into a shared pool of resources.

- The program shall aim to see all Cypriot public sector institutions (and eventually other institutions from within the ecosystem) to gradually transition from existing legacy systems to new Government Cloud solutions developed in accordance with the standards and frameworks and applicable laws and regulations.
- Implementation of Government Cloud (G-Cloud). Establishment of a government cloud to consolidate systems and data scattered across government IT systems and implement a 'cloud first' migration strategy.

### What are related efforts already underway?

The Deputy Ministry has the ownership of rebuilding the government IT infrastructure to be a solid, integrated and modern government digital architecture, to drive standards across government IT systems and to improve the connectivity across departments for seamless sharing and improved coordination; to implement a 'cloud first' migration strategy and introduce an Infrastructure-as-a-Service (IaaS) model to ensure the public sector can refresh systems more quickly and upgrade to new technologies more easily.

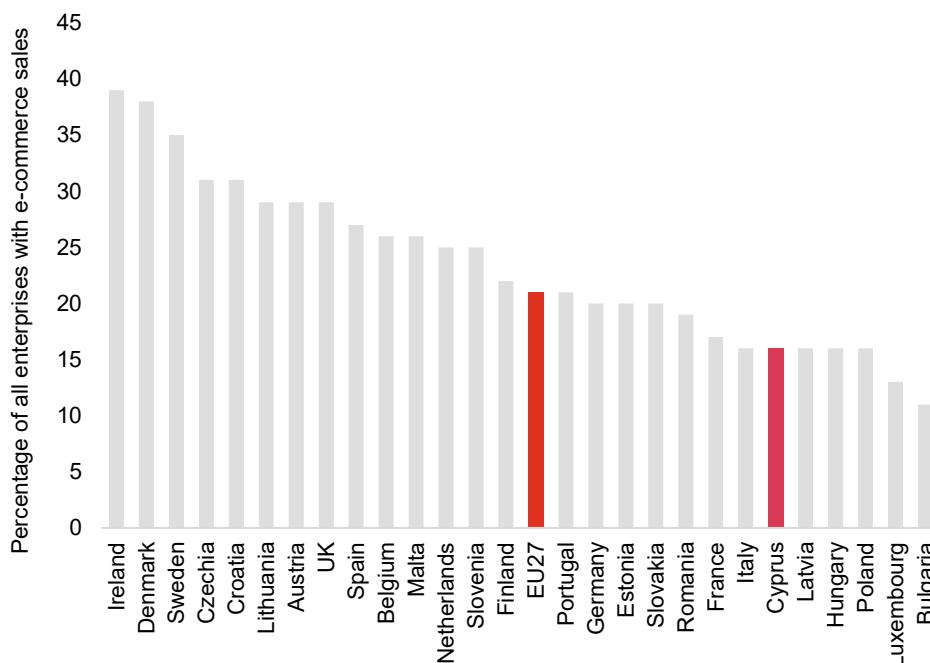
## 2.2 Develop the necessary infrastructure to support growth in e-commerce

The COVID-19 pandemic has induced a step-change in the growth of online retail. Retail sectors worldwide have been faced with pivotal structural change in the form of e-commerce. Given Cyprus's position as an island and small size relative to its neighbours, this shift towards e-commerce presents a strong and resounding call to action for businesses to build online retail capabilities.

However, e-commerce remains relatively underdeveloped in Cyprus compared to other EU member states. In 2020, 15% of enterprises in Cyprus recorded e-commerce sales of at least 1% turnover compared to 18% in the EU27 and 38% in Denmark, the leading EU member state.

Cyprus should invest in e-commerce capabilities and the relevant infrastructure to enable the growth in e-commerce.

**Percentage of all enterprises with e-commerce sales, 2020**



### Improve the efficiency and capability of Cyprus Post

To support growth in e-commerce, Cyprus should make relevant investments in its postal infrastructure. A reliable postal service, which delivers on time and offers affordable prices for cross-border deliveries, will be a crucial factor in deciding how fast and how far Cyprus's online retail market can grow.

Cyprus should review whether authorisation procedures and related administrative burdens imposed on parcel service providers can be simplified. According to a study by the European Commission, Cyprus is one of the three countries in the EU where these burdens are disproportionately high compared to other member states.<sup>1</sup> Mitigating administrative duties can enhance choice and service quality for both e-retailers and consumers.

<sup>1</sup> European Commission, Development of cross-border e-commerce through parcel delivery, February 2019.



### What is EU best practice for e-commerce?

There are rules and guidance set in place by the EU to break down online barriers. The goal is to enable people to enjoy full access to all goods and services offered online by businesses in the EU, no matter where they are in the Union. Rules include:<sup>2</sup>

- **Making cross-border parcel deliveries cheaper:** While there is no cap on delivery prices, businesses must disclose their prices clearly so that consumers are able to easily compare options. National authorities should collect information every year from parcel delivery companies and assess where tariffs are unreasonably high.
- **Protecting the rights of online consumers:** New rules for digital contracts have been proposed for implementation at the end of 2021. These rules will create clearer rights for consumers when accessing digital content and services, for example when an order is not received as promised or a wrong or damaged product is sent.
- The EU has also implemented programmes targeting specific issues in the postal sector. For example, Cyprus Post participated in the EU's INNOV'AGE Project, which was designed to facilitate age management and tackle the postal sector-specific age pyramid and promote multigenerational diversity.<sup>3</sup>

<sup>2</sup> EU Digital Strategy, e-Commerce rules in the EU.

<sup>3</sup> European Commission, INNOV'AGE Project in a nutshell.

# 3.1 Focus on user-centricity and efficient digital public services



## Accelerate existing Deputy Ministry action plans to drive digitisation across the government, future-proofing the delivery of public services

Embracing and implementing user-driven approaches in the design and delivery of public services is becoming one of the major priorities of governments. Digital tools should enable users to express their needs and public sector organisations to test ways to best identify and meet these needs.

Despite progress, Cyprus still trails behind its peers in both e-government and digital performance. Cyprus ranks 24th out of 28 EU Member States in the EU's DESI 2020, and the Digital Economic Opportunity Index, where Cyprus ranks 19<sup>th</sup>, 18<sup>th</sup> and 17<sup>th</sup> out of 22 in digital maturity against, digital technologies and digital accelerators, respectively.

### National health information system

Providing all public hospitals and health centres with a common database as well as upgrading the level of service and provision of medical care to the citizens. Alongside with the better organisation and control of the operation of hospitals.

### New Information system for the customs department

Ensure the correct application of the Union Customs Code (UCC) Work Plan of the European Union, to modernise and simplify trade into and within the EU and to harmonise the customs procedures across Member States.

### Digital transformation of the Cyprus Ports

The objective of this project is to ensure the operations of the Cyprus Ports Authorities are performed efficiently and effectively and communication between the vessels and the relevant competent authorities are executed seamlessly and digitally. At the same time, improvements in monitoring vessel traffic in the whole of Cyprus waters, will ensure the safe navigation of vessels, reduce the risk of environmental damages due to spills from accidents and reduce vessel emissions by plotting more efficient routes.

### Development of a new integrated information system for the road transport

Road Transport Department will redesign all its services to be provided electronically, thus minimizing bureaucracy, improving customer service and raising productivity, while better utilising human resources. This measure is expected to result in lower government expenses and lower fees.

### Deputy ministry of shipping-digital transformation

The ultimate aim of initiative is to digitally transform and optimise the Deputy Ministry of Shipping operations and processes. The simplification and streamlining of the internal processes across the complete spectrum of its operations, within the scope of Digital Transformation and in alignment with the Government's goal of digitally transforming the public sector.

### Government gateway

The objective of the initiative is to promote e-government through the design and installation of an electronic system that will allow the electronic submission of grant schemes applications under the de minimis rule as well as their evaluation up to the stage of decision to pay the grant. In this context the redesign of the Trade service website is mandatory to accommodate new technological features and to work as a guideline for the enterprises interested in exporting.

### Digitisation of department of register of companies and official receiver

The deployment, operation and maintenance of a New Integrated Registry Platform Solution in the Companies and Intellectual and Industrial Property Divisions of the Department of Registrar of Companies and Official Receiver, aiming at the complete digital transformation, optimisation of processes and the provision of fast and high-quality services to customers.

### E-justice

The system aims to digitise the operations of the courts, accelerating court awards while at the same time relieving citizens and professionals (lawyers and law offices) of bureaucratic burden by providing digital services through the web.

For more relevant initiatives...

See the **Efficient judicial system** section for recommendations on reforming the Justice system

For more relevant initiatives...

See the **Vertical initiatives** section for recommendations on port authorities and customs

# 4.1 Build a leading digital economy with more competitive and future-proofed industries, leveraging the growing local ICT sector

## The case for change

- In 2020, Cyprus ranked 20th in the EU on the integration of digital technology in business activities as per the DESI.
- The share of enterprises selling online in Cyprus is lower than the EU average.
- A digital skills gap is still present in the economy: domestic demand for ICT specialists exceeds domestic supply.
- The contribution of the ICT sector to cumulative real GDP growth was ~6.3% (or around 2.1 percentage points) in 2001 – 2009 period.
- This share rose to ~15% of the cumulative real GDP growth in the 2015 – 2019 period (or around 3.4 percentage points). This shows tremendous growth that should be capitalised on.
- The 2012 Digital Strategy and Action plan identified the ICT sector as the priority growth sector for the country. Ten years later the Vision 2035 set forth by this long-term economic strategy reconfirms the importance of ICT and professional services in driving economic growth.



### Deliver a leading digital economy that continually reinvents itself in the fourth industrial revolution

Digitalisation is one of the key enablers to the economy and its growth and prosperity. However, Cyprus's current standing on relevant indices and its economic performance indicates the need for improving digital transformation and harnessing the full potential envisioned by the new national digital strategy in Digital Cyprus. One of the five portfolios defined in the strategy relates to the digitalisation of the economy.

We propose that the national authorities accelerate plans to deliver this portfolio to develop a leading digital economy that continually reinvents by taking advantage of a growing ICT sector to bolster competitiveness in all industries. A few key existing initiatives should be reinforced as they strongly and directly contribute to this objective set forth in the national digital strategy. This reinforcement can include close evaluation of current progress and outcomes and adding execution rigor and/or capacity to ensure efficient execution and desired results:

- The scheme for enhancing integration of digital technology in SMEs launched in December 2019. The scheme aims to enhance the digital identity of business and to increase the number of SMEs using ICT. This is partly brought about by the changes to lifestyles and how businesses operate owing to the COVID-19 pandemic.
- Smart manufacturing and digitisation of two of the seven pillars of the new Industrial Strategy Policy of Cyprus (2019-2030). Investment outlined in the strategy to increase productivity must be accelerated and aligned to Vision 2035 and to growth sectors outlined in this umbrella, long-term economic strategy. Success in the industrial strategy may also be reinforced by structural funding should Cyprus successfully receive funding in response to related actions requested in its RRP.

National authorities should consider creating incentives and a framework for local strategy and technology advisory firms to provide relevant expert information as well as hands-on, technical support at reduced rates to drive technology enablement within the private sector – targeting SME segments and back and front office digital transformation. The Deputy Ministry of Digital Policy should drive this initiative and also establish a website that clearly sets out the vision for the private sector/economy, benefits to business and citizens alike. It should also promote the implementation and utilisation of digital services e-signature, e-seal, e-document, e-invoice, data & analytics, database and BPM workflow tools, etc. This framework would make available tools and technology that would otherwise be largely inaccessible due to the size and scale and financial feasibility.



### Define an ICT Industry Strategy

The ICT sector has been an increasingly important source of growth to countries across the world. Cyprus is no exception. The number of companies in the ICT sector has more than doubled from 650 in 2008 to 1,600 in 2017, with a corresponding increase in turnover from €1.4 billion to €3.3 billion. That said, there is clear value and need for defining a long-term, strategic view and plan for the sector for Cyprus to ensure that the growth continues.

- Define an actionable ICT Industry Sector strategy and framework to identify key focus areas that Cyprus should invest in so as to create a strong and resilient ICT sector with local and international needs.
- Define an actionable ICT Industry Sector EU-alignment strategy and framework to identify key areas where alignment with the EU should be pursued and determine how to best achieve this.
- Define a benefits program for technology companies (both foreign and local) that includes tax benefits, legislation enhancements, tools and infrastructure.
- Begin the delivery of key strategic objectives and benefits program implementation.



### Ensure harmonisation with EU legislation

- Intellectual Property Law 59/1976:** The Law of Copyright and Related Rights Act 1976 (59/1976) contains no definition and/or specific sectors concerning ICT. It is important to update the legislation to incorporate definitions, procedures, and a framework on the relevant matters that are important to facilitate the operation of ICT companies (e.g. including definitions of a 'computer program'). It is advisable to also move a step further than the obligatory EU legislation where permitted and provide a more attractive regime for ICT companies.
- EU Directive 2009/24/EC on the Legal Protection of Computer Programs:** Cyprus's legislation needs to be updated in order to be harmonized with the relevant EU Law.

# 5.4

## A greener economy

# Greener economy

## Roadmap

| Outcomes  | Initiative areas   | Sample of initiatives outlined in this section  |
|---|--|---|
| <b>Transition to a renewable energy system that capitalises Cyprus's solar energy potential</b>   | <p><b>1.1</b> Transition to a clean energy system capitalises Cyprus's world-class solar energy potential.</p> <p><b>1.2</b> Ensure the electricity market is open and equipped to maximise renewable energy in the mix.</p> <p><b>1.3</b> Invest in the fundamental infrastructure required to underpin Cyprus's energy transition.</p> <p><b>1.4</b> Take action now to prepare for green hydrogen.</p> <p><b>1.5</b> Drive the widespread adoption of solar PV panels across businesses and households.</p> <p><b>1.6</b> Bring international expertise, investment and R&amp;D in the solar energy sector to Cyprus.</p>   | <ul style="list-style-type: none"> <li>• Develop a roadmap for Cyprus's energy transition.</li> <li>• Design renewable energy generation auctions.</li> <li>• Invest in smart upgrades for Cyprus's electricity transmission grid.</li> <li>• Mandate solar PV panel installation on new and renovated buildings.</li> </ul>  |
| <b>Improve energy efficiency and reduce carbon emissions across large sectors of Cyprus's economy including transport and the built environment</b> | <p><b>2.1</b> Build broad political and public support for plans to achieve net zero.</p> <p><b>2.2</b> Create transparency, consistency and a proven track record to build credibility.</p> <p><b>2.3</b> Provide clarity and certainty on key legislative and regulatory developments.</p> <p><b>2.4</b> Support companies to measure, understand and reduce their impact on the environment.</p> <p><b>2.5</b> Remove barriers to green innovation and transformation across the economy.</p> <p><b>2.6</b> Educate and incentivise all people to live sustainable lives.</p> <p><b>2.7</b> Drive comprehensive carbon reductions in the built environment.</p> <p><b>2.8</b> Drive electrification within the transport sector.</p> <p><b>2.9</b> Encourage alternative modes of transport and develop the public transport network.</p> <p><b>2.10</b> Invest in the development and application of smart cities.</p> <p><b>2.11</b> Lay the foundations for progress in hard to abate sectors.</p> <p><b>2.12</b> Arm the financial sector with the capabilities to fund the transition to net zero.</p> | <ul style="list-style-type: none"> <li>• Create a world class website for Cyprus's Net Zero strategy.</li> <li>• Set up a Carbon Council.</li> <li>• Enforce the EU Efficiency Directive.</li> <li>• Establish a Rapid Licensing Council for Green investments.</li> <li>• Promote green diets in schools.</li> <li>• Invest in retrofitting buildings with energy efficient construction.</li> <li>• Support the move to electric vehicles by investing in solar-powered charging infrastructure.</li> <li>• Invest in bike lanes.</li> <li>• Invest in the wide-scale deployment of 5G communication networks.</li> <li>• Introduce a London style congestion charge after 2030.</li> </ul> |

# Greener economy (cont'd)

| Outcomes   | Initiative areas   | Sample of initiatives outlined in this section   |
|--|--|--|
| <b>Drive the transformation towards a circular, zero-waste economy across businesses and households</b>                                | <p><b>3.1</b> Drive the transformation towards a circular, zero-waste economy across businesses and households.</p> <p><b>3.2</b> Reduce: incentivise individuals and businesses to minimise avoidable waste and consumption.</p> <p><b>3.3</b> Reuse: develop facilities to extend the life of a product through maintenance, refurbishment or reselling.</p> <p><b>3.4</b> Recycle: invest in the fundamental infrastructure for recycling and create the right incentives to change behaviours.</p> <p><b>3.5</b> Embed the circular economy within the manufacturing sector.</p> | <ul style="list-style-type: none"><li>Implement rules for what supermarkets and restaurants can do with their unsold food.</li><li>Develop repair shops in local communities.</li><li>Oversee rollout of national PAYT scheme.</li><li>Invest in waste management infrastructure such as recycling plants.</li></ul>   |
| <b>Develop environmental resilience in people, businesses and ecosystems against the risks and uncertainty posed by climate change</b> | <p><b>4.1</b> Develop environmental resilience in people, businesses and ecosystems to adapt to the risks and uncertainty posed by climate change.</p> <p><b>4.2</b> Strengthen and enforce protections for biodiversity and natural environments.</p> <p><b>4.3</b> Develop an understanding of climate-related risks in the financial sector.</p> <p><b>4.4</b> Support the financial sector in managing climate risks and developing resilience.</p>  | <ul style="list-style-type: none"><li>Enforce Cyprus's National Adaptation Plan (NAP) and the Natura directives eliminating any loopholes.</li><li>Set out a clear timeline for mandatory TCFD compliant disclosures by 2030.</li><li>Urgently ratify and enforce the Barcelona Convention removing loopholes which lead to the creation of private beaches.</li></ul> |

# Greener economy (cont'd)

## Outcomes

- 1 Transition to a renewable energy system that capitalises Cyprus's solar energy potential
- 2 Improve energy efficiency and reduce carbon emissions across large sectors of Cyprus's economy including transport and the built environment
- 3 Drive the transformation towards a circular, zero-waste economy across businesses and households
- 4 Develop environmental resilience in people, businesses and ecosystems against the risks and uncertainty posed by climate change

<sup>1</sup>As part of the European Green Deal, the Commission proposed in September 2020 to raise the 2030 greenhouse gas emission reduction target, including emissions and removals, to at least 55% compared to 1990. By June 2021, the Commission will also announce more ambitious targets for renewable energy and energy efficiency improvements.

## KPIs and targets

| Key performance indicator   | Year of latest available data  | Current state                 | Target by 2035                      | Benchmark  |
|---|--|-------------------------------|-------------------------------------|--|
|  Change in greenhouse gas emissions per capita since 1990 <sup>1</sup>         | 2018   | +53.8%                        | -55%                                | Green Deal target: -55% by 2030*                           |
|  Share of renewable energy in total energy consumption                         | 2019   | 13.8%                         | >50%                                | Green Deal target – 33%* by 2030                           |
|  Exposure to pollution, crime or other environmental problems, % of households | 2019   | 8.5%                          | 5%                                  | Ireland – 6.5%   |
|  Recycling rates of municipal waste   | 2019   | 15%                           | 80%                                 | Green Deal target – 65%                                    |
|  Landfill rate   | 2016   | 67%                           | 15%                                 | Green Deal target – 10%                                    |
|  Energy efficiency   | NA   | NA                            | 40% improvement                     | Green Deal target: 32.5%* improvement by 2030              |
|  Environmental Performance Index <sup>1</sup>                                | 2020   | Global Rank: 31 <sup>st</sup> | 15 <sup>th</sup> – 20 <sup>th</sup> | Netherlands – 11 <sup>th</sup><br>Malta – 23 <sup>rd</sup> |
|  Traffic and public transport use  | There is currently no data available on either road traffic or public transport use. The authorities should prioritise collecting data on both, in line with Eurostat methodologies. |                               |                                     |  |

Note: Latest available data is used up to 2019. 2020, where available, is excluded due to the COVID-19 pandemic.

# For a greener economy, governments need to pull three levers at the same time and in the same direction

## Technology, markets and policy

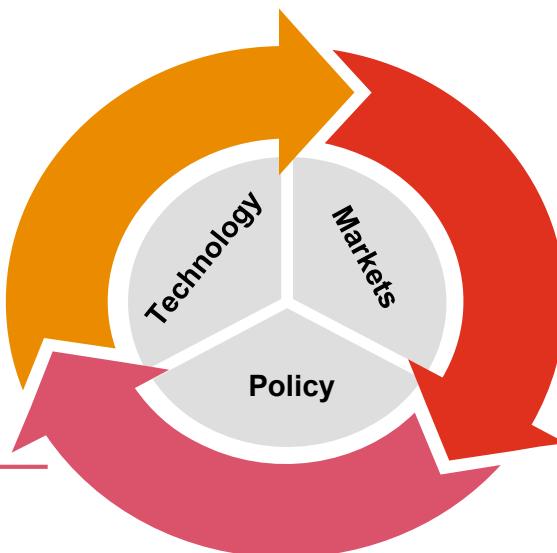
To achieve Vision 2035 and to urgently create the necessary foundations for a greener economy, the Cypriot government must ensure that it pulls three key levers in the same direction to ensure they all work in complementary ways. In the following section, we set out recommendations for each of the three levers to create an environment for change and to drive businesses, investors and households towards a sustainable future.

### Technology

Innovations which lead to:

- New solutions to combating and adapting to climate change – such as increasing efficiency or new ways of making and doing things which create fewer emissions
- Reductions in the cost of technological solutions

- Investment in fundamental infrastructure required to drive R&D and adoption of new technology, such as electric charging points, battery and electricity storage technology etc
- Funding the development of pilots, for example in the circular economy in manufacturing, to then scale up
- Creating an innovation ecosystem that fosters green innovation and the commercialisation of R&D



- Procurement is a powerful way to send a demand signal to the market for green goods, services and supply chains and start building markets
- Creating a predictable and clear price of carbon
- Regulation and legislation (i.e. energy efficiency standards, phasing out of petrol cars) that sends a clear signal to consumers and businesses about what products and services will not be viable in a low carbon future
- Advice and support for businesses to develop and implement their own transition plans

### Policy

The use of any levers in a government's toolbox (i.e. tax incentives, R&D spending, education provision) to change behaviours and embed sustainability within the Cypriot economy and society.

- Financial incentives and support for businesses and consumers to implement new solutions and buy zero carbon alternatives, such as electric cars and solar PV panels
- Education of the Cypriot population of how to lead sustainable lives, the importance of the green transition to Cyprus, and the solutions and zero carbon alternatives available

### Markets

The businesses creating new innovations and greener ways of doing and making things, and the investors and financial markets backing these businesses. Governments can shape markets using incentives, regulations and legislation to create the right market structure for green businesses to thrive and bring innovations to market.

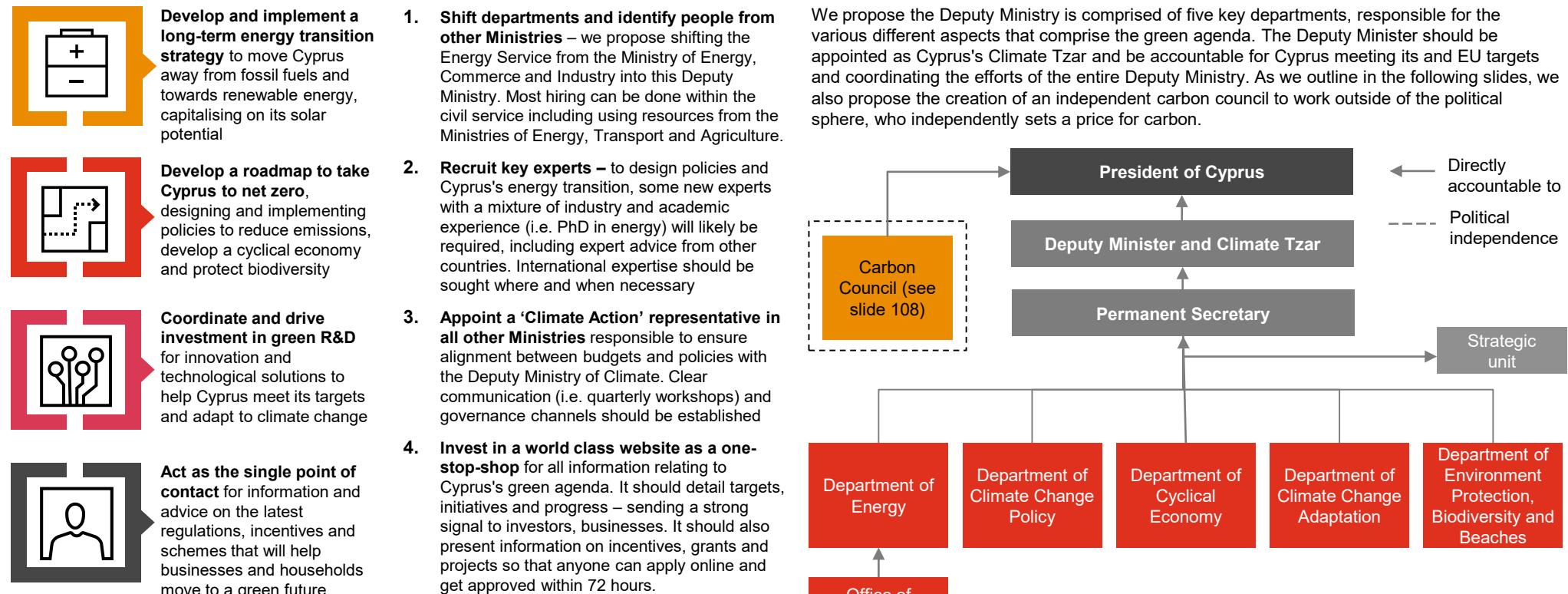
# To coordinate and drive change across all Ministries, a Deputy Ministry of Climate Action, the Environment and Sustainability should be established

We propose the creation of a Deputy Ministry for Climate Action, the Environment and Sustainability to:

- Send a clear signal to businesses, citizens and Cyprus's European partners that the green agenda is a top priority – this will stimulate R&D, business activity in the green economy, and incentivise households to change behaviours.
- Join up and coordinate the various green initiatives undertaken across the Ministries.
- Better reflect the economic and social importance of sustainability with a dedicated and large Ministry.

## It should have four primary functions:

## How?



# 1.1 Transition to a clean energy system that capitalises Cyprus's world-class solar energy potential

## The case for change

- Cyprus's current energy mix is a significant impediment to Vision 2035
- Cyprus relies heavily on imports of fossil fuels for its energy (around 8% of GDP), leaving it vulnerable to price and supply shocks, as well as negatively impacting its current account balance
- At the same time Cyprus's strategy to purchase carbon permits is simply not financially viable. Since Q1 2020 the price of carbon permits has soared from around € 20 per tonne to € 50. Experts think this will reach € 300 per tonne by 2030.
- Electricity is expensive in Cyprus compared to the EU average, despite its price comprising a relatively smaller proportion of taxes and VAT
- Cyprus has a strong natural advantage in solar energy and offshore wind farms, given its climate, days of sunshine and position as an island. Research by the International Renewable Energy Agency suggests that Cyprus has the potential to generate between 25-40% of its total electricity supply from renewables by 2030<sup>1</sup>
- Despite this potential, Cyprus has one of the lowest shares of renewable energy in gross final energy consumption – at around 14% in 2019, compared to an EU average of almost 20%. What's more, there was zero improvement in this metric between 2018 and 2019
- Cyprus has been very slow in opening up the electricity market, which is currently effectively a state-owned monopoly run by the Electricity Authority of Cyprus – progress to open up this market is crucial to facilitate investment and allow customers to demand alternative and greener energy sources.



## Develop a roadmap for Cyprus's energy transition

- There is an urgent need to develop a clear roadmap for Cyprus's energy transition away from fossil fuels and towards a renewable and clean energy future. Against the backdrop of the EU's Green Deal, policymakers need to clearly set out the role that natural gas will play in Cyprus's energy transition.
- Policymakers must send a clear signal to businesses and investors, and provide them with the confidence that there will be a sufficient market in Cyprus that will be supported by ongoing investment (i.e. in smart grids) by the government.
- Given the fundamental infrastructure that will be required to support the growth of new industries, like hydrogen, policymakers must begin strategizing and identifying investment needs today, in order for Cyprus to capitalise on innovations and developments in clean energy when the time comes for them to be commercially viable.

### What?

- Set out the energy outlook for Cyprus, drawing on global energy outlooks such as the International Energy Agency's, but within the Cypriot context – for example, over what timeline is natural gas expected to play a role?
- Set out clear KPIs and targets. Cyprus should aim to have a **third of its energy from renewable sources by 2030, 75% by 2040 and 100% by 2050**. Both medium-term and long-term targets must be set out to show the path of transition and to inform business planning.
- Identified investment requirements and opportunities, for example in upgrading the electricity grid and preparing for hydrogen (i.e. pipes).
- Clear actions assigned to stakeholders – the report must be more than a strategy, but a roadmap. It must detail an implementable action plan, with clear interventions and policies and responsible stakeholders.
- A clear roadmap, action plan and timelines will also help to inform the design of the proposed Deputy Ministry of Climate Action, the Environment and Sustainability.

### How?

- **Make the roadmap a mandate of the new Deputy Ministry of Climate Action and Sustainability.** The need to create an energy transition roadmap should be enshrined in the mandate and mission of the Deputy Ministry of Climate Action and Sustainability. The Deputy Minister should be directly responsible for commissioning, producing and implementing the roadmap.
- **Appoint IRENA to update their analysis and advise on the roadmap.** The International Renewable Energy Agency (IRENA) wrote a renewable energy roadmap for Cyprus in 2015. The landscape has changed since then, due to slow progress in opening up the country's electricity market and bringing natural gas to the market, as well as increasing targets from the EU on renewable energy. Their analysis should be updated based on detailed demand forecasts, long-term energy modelling and a review of relevant technologies for the grid integration of variable renewable energy.
- **Get cross-party support for the implementation of the roadmap.** There is an urgent need for all political parties to agree on a comprehensive energy transition plan based on a scientifically substantiated inter-party energy agreement. Public declaration of support for the findings of the IRENA and Deputy Ministry report should be attained. The costs of inactions should also be communicated to the public.
- **Conduct an annual review of progress** towards achieving the roadmap. Progress against action should be assessed and stakeholders and their actions should be awarded RAG ratings, which are publicly available on the Deputy Ministry of Climate Action and Sustainability's website

### The regional angle

- To engage the private sector, the roadmap must clearly set out the opportunity for not only satisfying national demand, but also the potential for exporting. This will require the government to lay the foundations, with key investments in regional pipelines, for example.
- The Southeast Mediterranean region can become pioneers towards a hydrogen economy and become exporters of sustainable energy to the European Union. Cyprus's roadmap must include consideration of its role in this regional potential. Policymakers must actively engage in regional long-term strategic planning, for example led by MEDREG (Mediterranean Energy Regulators)
- Specifically, it must consider:
  - The connection of Cyprus with other Southeast Mediterranean countries through electricity interconnections and natural gas pipelines
  - The integration of sustainable energy technologies in the region
  - The use of hydrogen technology after 2030

# 1.2 Ensure the electricity market is open and equipped to maximise renewable energy in the mix



## What is the current progress in opening up the electricity market?

- The Cyprus Energy Regulatory Authority (CERA) aims to introduce competition in the electricity market at the start of 2022, meaning producers of renewable energy will be able to sell via the national grid.
- There are three main objectives of electricity deregulation in Cyprus:
  - Reduction of the role of the state, in terms of, command and control, prescriptive solutions and direct cross subsidy.
  - Creation and enhancement of competition, with the aim of increasing the share of renewable energy and lowering electricity prices.
  - Increasing choice for consumers and participation in short- and long-term demand management and responsibility to secure their energy.
- Several activities have already been completed concerning the new electricity market rules, the review of grid codes, the regulation of Electricity Authority of Cyprus (EAC) activities by regulated tariffs, functional unbundling and unbundling of accounts, as well as the improvement of Transmission System Operator (TSO) resources. The legislation revision which includes the unbundling of the TSO activity from the EAC is at a final stage awaiting approval from the Cyprus Parliament.
- CERA has issued a series of regulatory decisions, specifically:
  - The mass installation, by the Distribution System Operator (DSO), of an Advanced Metering Infrastructure including smart meters to all electricity consumers.
  - The establishment of basic principles of a regulatory framework for the operation of electricity storage systems in the wholesale electricity market.
  - The redesign by the TSO and DSO of the power grid to become smart and bi-directional, in order to allow integration of large quantities of renewable energy sources in combination with energy storage systems.
- Fifteen independent electricity suppliers have been licenced to date.
- However, there are delays mainly concerning the development of two software applications – one by the TSO and one by the DSO, which are both pre-requisites for the operation and monitoring of the electricity market.



## Finalise the liberalisation of the electricity market by mid 2022

- Commit additional resources urgently to overcome delays** – delays in the creation of two software applications must be overcome as a pre-requisite for the operation and monitoring of the liberalised electricity market.
- Eliminate bureaucracy for those who want to set up new power generation.** To develop a truly liberalised electricity market, it needs to be quicker and more efficient for a new supplier to enter the market. CERA should run a consultation with the current licence holders to identify ways in which their license process could have been improved and prepare recommendations. Digitalisation of processes should also be optimised where possible.
- Procure the design of an electricity price comparison website** once there is enough electricity suppliers in the market. The objective of the website should be to increase transparency and information on various energy providers to enable consumers to make an informed decision based on several objectives, including price and how green the energy is. It should be a legal requirement for energy companies to provide a certain amount of information across defined metrics.
- Educate people about switching suppliers** – after there effectively being a sole energy supplier in Cyprus, there will be a learning curve for citizens of Cyprus to understand the benefits of the new liberalised market, the benefits of switching, how to compare suppliers (i.e. what different tariffs mean) and what consumer rights regarding switching are. CERA should create education resources, available online but also as part of an information campaign upon liberalisation, which set out consumer rights and how to go about switching suppliers. The UK's Ofgem provides excellent education guides which should be used as best practice.



## Design renewable energy generation auctions

- A key trend in the maturity of the renewable energy sector has been the increasing use of auctions, as policymakers seek to procure renewables-based electricity at the lowest price and other criteria. It also enables foreign entities to bid and drive competition.
- Utilise the AURES II database.** With a liberalised electricity market, Cyprus will need to design an auction process. There is a growing body of research into the best design of auctions. Most notably, AURES II is an EU project, with a free and live database of auction rounds in EU countries, which presents details on auction design and financing conditions.
- Request technical support from MEDREG** – the Association of Mediterranean Energy Regulators can provide training and workshops and studies for members. Specifically, a technical study should be requested on how to appropriately design auctions for renewable energy in the newly privatised electricity market to assist CERA in designing new regulatory frameworks.



## AURES II – Auctions for Renewable Energy Support II

- AURES II investigates auction design options in EU countries to determine policy performance and give recommendations.
- It communicates insights on the applicability, performance, and effects of specific auction designs, given various policy objectives.
- It provides tailor-made policy support for different types of auction applications and facilitates knowledge exchange between stakeholders.

# 1.3 Invest in the fundamental infrastructure required to underpin Cyprus's energy transition



## Invest in smart upgrades for Cyprus's electricity transmission grid

- To support a liberalised electricity market, Cyprus must invest in a smart grid so that by 2025 it is able to:
  - Enable people to sell electricity back to the grid
  - Store sufficient electricity to better manage demand
  - Improve reliability and efficiency, with lower losses
- Conduct a consultation with experts** – engaging with the European Energy Research Alliance, for example, and the Cyprus Institute to develop an investment roadmap of the physical infrastructure and technology (i.e. sensors, meters, communications tech, storage capabilities).



## Invest in the critical infrastructure to support Cyprus's long-term energy transition

- Capital investment is required in a number of key areas to facilitate Cyprus's long-term energy transition. In many cases, there exists clear business opportunities, both in the local market and also as an export, but to capitalise on these requires significant and risky long-term investments in the underlying infrastructure.
- This is where the government should intervene to **provide initial capital outlays**, either directly or through a public-private partnership through the creation of a public body for the purpose of driving investment.
- Develop a strategy for private sector involvement** following the investment to ensure the government reaps the benefits of investment. They must **articulate potential business opportunities**, through robust market studies and demand forecasting.
- These investment requirements should be clearly set out in detail in the energy transition strategy, but we set out four broad areas here.



## Solar energy generation

- Invest in solar panels on public buildings** – the public sector should aim to take the lead in widespread solar energy generation. Government procurement is a powerful tool for incentivising and driving the development of sectors, for example the manufacture of solar panel software and the development of solar panel installation and maintenance companies. By creating significant demand for panels on public buildings, the government can provide a boost to the sector, while at the same time actively contributing to energy targets and lowering its electricity costs.
- Develop a framework for considering environmental factors in solar plant licenses and prioritise repurposing unused land into solar parks** – there are a number of areas of former mining/quarrying and unused land in Cyprus that could be repurposed for solar parks while limiting the environmental impact of clearing land.
- Invest in energy storage** – this is critical for household net metering, to enable the development of smart grids and the selling of electricity back to the grid.



## Offshore and onshore wind

- As an island, Cyprus has potential for offshore wind generation – but there exist uncertainties around the amount of and reliability of wind. Wind power is a key cornerstone of the EU's Green Deal, however, and this should be further explored within the Cypriot context.
- Building on existing studies, a comprehensive assessment of wind power should be conducted as part of the energy transition strategy, with areas for government investment identified.



## Regional electricity interconnections

- Set out a clear timeline for the completion of the EuroAsia electricity interconnectors, connecting the electricity grids of Cyprus, Greece and Israel (and potentially Egypt).
- The government must ensure the necessary and timely smart upgrades to the Cyprus national grid to ensure the potential of the regional pipelines can be maximised.

# 1.4 Take action now to prepare for green hydrogen

- **Green hydrogen**—produced through renewable resources such as solar and wind—holds significant promise in meeting the world's future energy demands. In the long-term, hydrogen will play an increasing role in the EU's energy mix. However, the economics of green hydrogen are challenging today, primarily because the underlying costs and availability of renewable energy sources vary widely.
- PwC analysis of the global green hydrogen market expects that:
  - Through 2030, hydrogen demand will grow at a moderate, steady pace through many niche applications across the industrial, transport, energy and buildings sectors.
  - Through cross-sector collaborations, new alliances will form to develop hydrogen projects.
  - Hydrogen production costs will decrease by around 50% through 2030, and then continue to fall steadily at a slightly slower rate until 2050.
  - Export and import hubs will develop around the world, similar to current oil and gas hubs, but with new players in renewable-rich regions.
- The most attractive production markets for green hydrogen are those with abundant, low-cost renewable resources – this will include Cyprus under Vision 2035 as it accelerates its energy transition.
- Production costs will decrease over time, due to continuously falling renewable energy production costs, economies of scale, lessons from projects underway and technological advances. As a result, green hydrogen will become more economical.
- Specifically, PwC analysis estimates that the cost of green hydrogen could fall from €5-5.25/kg in 2020 to €3-3.25/kg in 2030, €1.75-2/kg in 2040, and to €1.5-1.75/kg in 2050.
- The challenge is anticipating those trends and acting in time. Investment and regulation needs to begin today to prepare and ensure Cyprus is ready to capitalise on opportunities and lower costs.

- 1 ➤ **National strategy:** The authorities must set out a vision for green hydrogen and the importance of developing renewable energy capabilities to underpin this. It must set out a roadmap and strategy with targets and policies to get there. Throughout the process of preparing the strategy, **public-private partnerships** should be formed. They serve as a platform to exchange information to advance technological progress, create consensus, align views, develop incentives and co-ordinate activities. Public-private partnerships can reduce the risks during early deployment, facilitating the transition from demonstration to commercialisation. They allow companies to build experience while providing the benefits of first-mover advantage in case of success. The objective should be to reach a point where no further public support is needed.
- 2 ➤ **Infrastructure:** The government should commission an assessment of what investments are required to make the gas chain hydrogen ready – for example, making sure that pipelines are composed of the right materials to transport hydrogen, building underground storage facilities, and adapting end use infrastructure (i.e. manufacturing plants) to hydrogen.
- 3 ➤ **Research priorities:** By identifying technology needs, policy makers can prioritise the actions needed to close innovation gaps. A regular review of funding, progress and priorities should be part of the process. Since many of the hydrogen pathways needed over the long term are still in their early stages, policy makers should ensure the research agenda includes key demonstration projects to bridge the gap to commercialisation.
- 4 ➤ **Pilot projects:** Cyprus should begin implementing pilot projects as soon as possible, to gain practical experience and capitalise on efficiencies through learning curves and scale effects on production equipment. Developing projects today is important to ensure continuous demand growth, which justifies the implementation of the required hydrogen infrastructure to meet future greenhouse gas reduction targets.
- 5 ➤ **Regulation:** The regulatory framework—including subsidies, taxes and levies—has a huge impact on CapEx and OpEx, which can dramatically swing the economics of projects. It is essential that the authorities pursue hydrogen-supportive policies and create a regulatory framework that encourages investment in production equipment. Regulatory development should align to international standards. For Cyprus as an international shipping hub, this is crucial for alternative fuels.
- 6 ➤ **International codes and standards:** International standards make it possible not only to execute cross-border projects, but also to reap the benefits of learning-by-doing from foreign companies that design and construct the equipment. This will enable costs to decrease more rapidly and will enhance safety as a result of applying best practices, among other benefits for end consumers.
- 7 ➤ **Collecting statistics:** Hydrogen is not currently included in national energy balances, because it is considered to be a chemical product. Including hydrogen supply and demand as a separate category in national energy balances (similar to electricity, fossil fuels or bioenergy) will allow better identification of energy flows and provide a solid basis for further analysis.

# 1.5 Drive the widespread adoption of solar PV panels across businesses and households



## Mandate solar PV panel installation on new and renovated buildings

- Given Cyprus's small size and the need to preserve natural areas, the future for solar in Cyprus is on maximising use of rooftops.
- As per the 'Regulation of the Energy Efficiency of Buildings 121/2020', Cyprus now mandates a minimum percentage of total primary energy consumption from renewable energy sources (as calculated based on the overall energy efficiency of buildings) at 9% for hotels and 25% for all other building types.
- Policymakers should take this one step further and mandate that for new houses (which meet certain conditions) solar electricity panels must be installed, moving beyond the focus on solar heating systems. To phase this in, the mandate should focus initially on:
  - New residential property should install solar PV panels to ensure a minimum percentage of households' energy use is produced via solar energy. The government can make this possible by attaching this condition to lending made through the Housing Finance Corporation (Οργανισμός Χρηματοδοτήσεως Στέγνς) and gradually extend this to all mortgages
  - Residential property associated with citizenship investment schemes should also install solar electricity panels
  - Large commercial developments including retail space, malls and hotels, as the tourism sector is one of the biggest energy demanders in the island.
  - New regulations should be signed off by the Town Planning department to ensure panels are not unsightly



## Incentivise households and businesses to accelerate adoption of solar PV panels

- The Cyprus government has successfully used subsidies and grants to support households and businesses afford the upfront cost of solar panel installation. These financial incentives should be continued.
- The government can also consider providing other financial incentives to households and businesses directly to accelerate the rate at which progress is made.

### How?

- Some possible tools to investigate include the following:
  - Buy Down Programmes:** Where cash incentives are used to encourage the installation of renewable energy technologies by 'buying down' the initial equipment costs.
  - Loan Programmes:** Government subsidised loans which are used to encourage the installation of solar energy technologies.
  - Tax credits:** These are income tax credit that are a deduction on the personal taxable income of homeowners. However, this is likely to be a less effective measure for Cyprus as already a large number of individuals do not pay income tax (threshold is relatively high).
  - To take solar initiatives to the next level, the government should tie solar installation to grant funding; for example, in order to access funds (i.e. from EU grants), businesses must install solar panels. This could be an especially pertinent initiative given the expected funds available from the EU's Recovery and Resilience Fund related to the green agenda.

- In addition, the government should consider facilitating collective buying schemes, modelling on the Solar Together London example (see case study), where local businesses could aggregate to collectively purchase solar energy panels at a lower cost. This could be an especially useful incentive scheme in rural communities, for example agrotourism businesses and in agriculture, where energy demands are high but the typically small size of businesses makes long-term investments challenging.
- Any renewable energy initiatives must be complemented by an education campaign, with online resources and advertisement to educate people on the cost savings and long-term economic and environmental benefits of making an initial investment in renewable energy. The new Deputy Ministry of Climate Action and Sustainability should create educational web pages, which explain the following:
  - The long-run financial and environmental benefits of renewable energy
  - Illustration of the expected cost savings
  - How selling electricity back to the national grid works and the benefits



## Case study: Solar Together London

- Solar Together London, a pilot project launched in March 2018, is a reverse auction where the roles of seller and buyer are reversed compared to a usual auction.<sup>1</sup>
- Multiple buyers state their intention to purchase solar panels, and their demand is pooled together, or aggregated, typically by one organisation so they become a single buyer. The sellers need to compete to sell high quality solar panels to the aggregated buyers, with the lowest priced bidder winning.
- This form of collective purchasing helps to reduce costs, drive up quality and take the hassle out of buying solar panels compared to buying separately.
- A similar scheme in Norfolk, UK, has successfully aggregated demand for solar PV installations and driven down costs through economies of scale.
- The scheme is estimated to have increased installation rates by 83 per cent, and saved households an average of 16 per cent on the installation cost of solar PV.

<sup>1</sup> Mayor of London, Solar Action Plan for London, 2018.

# 1.6 Bring international expertise, investment and R&D in the solar energy sector to Cyprus



## Market Cyprus as a test bed for solar energy

- Cyprus has significant untapped potential as a testing ground for new technologies, due to its size, its position within the EU, and its favourable and reliable climate.
- This untapped potential is perhaps most pertinent within the area of solar technology – given Cyprus's abundant supply of sunlight.
- With a similar remit of the Investment Promotion taskforce, a small number of 2-3 individuals should be tasked with targeting companies to come to Cyprus to test new solar PV technology. They should do this by:
  - Positioning Cyprus as an ideal testing ground for solar energy technology development
  - Attending international conferences and seminars to directly meet companies, discuss their issues and challenges, and what they would need from policymakers to consider coming to Cyprus
  - Developing a network of solar energy experts from Cypriot universities and the private sector, to provide prospective companies with the skills, people and facilities to conduct research and innovation in Cyprus, and the forum to discuss challenge, share data and evaluate results
  - Focus on key challenges and research agendas – for example, bringing companies to Cyprus to test energy storage projects. These are essential to developing a smart grid. Offer contributions to R&D in these projects to further incentivise businesses to Cyprus.



## Case study: Singapore test bed for floating solar PV

- In 2016, as part of Singapore's vision to be a model for green innovations across Asia and the world, the authorities began a project to test out 10 solar panel systems on the largest floating solar testbed in the world.
- Singapore's Economic Development Board (EDB) and Public Utilities Board (PUB) evaluated companies to participate. Eight enterprises from small local companies to large international corporations are participating in the \$11 million project.
- The Solar Energy Research Institute of Singapore (SERIS) will help evaluate the different systems in the testbed.
- In a press statement, the EDB stated, 'We have identified floating solar capabilities as a key focus for us. It's about grooming our local companies; it's about attracting international companies to come here to co-innovate with us.'



## Host an international conference in solar energy

- Using the launch of the new Deputy Ministry of Climate Action and Sustainability as a launch pad, policymakers, in collaboration with academia and business, should explore options for hosting an international conference in solar energy.
- This should build on the experience of the Cyprus Institute's International Conference on Climate Change and Solar Energy in 2018.
- The conference should aim to present emerging research undertaken in Cyprus by universities and businesses, exploring key topics and challenges such as storage capacity and energy efficiency.
- The conference series should aim to build on the positioning of Cyprus as the solar capital of Europe and aim to attract international investors and R&D activity by highlighting the research potential of Cyprus.
- A key opportunity that policymakers should explore is hosting the EU's annual Photovoltaic Solar Energy Conference and Exhibition. This has been running since 1977 but never hosted by Cyprus. Given Cyprus's significant solar potential in the EU, Cyprus is a clear candidate for hosting the conference. Efforts to host should be a key pillar of marketing Cyprus as a test bed for solar energy technology and research and innovation.



## European Photovoltaic Solar Energy Conference and Exhibition

- The EU PVSEC is the largest international Conference for Photovoltaic research, technologies and applications, and at the same time a top international PV industry Exhibition.
- It gathers the global PV community to conduct business, to network and to present and discuss the latest developments and innovations in Photovoltaics.
- It is the world renowned science-to-science, business-to-business and science-to-industry platform with a full and only focus on the global PV Solar sector.
- The conference programme is coordinated by the European Commission's Joint Research Centre.
- The EU PVSEC has been running since 1977, hosted across the EU in countries like Spain, Germany, France and Italy. This year's conference will be held in Lisbon in September 2021. It has yet to be held in Cyprus – an EU country with one of the highest potential for solar energy generation.

# 2.1 Build broad political and public support for plans to achieve net zero

## The case for change

- As international political pressure mounts, it will be increasingly important for countries to prepare for a greener future, by creating the right incentives to encourage companies to diversify their energy mix, reduce carbon footprints and invest in environmental technologies.
- Cyprus has a long way to go to achieve net zero, as evidenced by its relatively poor performance on key data, compared to other EU countries:
  - High levels of greenhouse gas (GHG) emissions per capita – 11.6 tonnes of CO<sub>2</sub> equivalent per capita, compared to 8.9 CO<sub>2</sub>e for the EU27. The country is expected to miss EU greenhouse gas reduction targets by 25 p.p. in 2030<sup>1</sup>
  - Transport is the most energy-intensive sector in Cyprus, accounting for 40% of energy demand
  - Private car use is significantly above EU average, while public transport makes up just 3% of total trips<sup>2</sup>
  - Majority of buildings in Cyprus are constructed with little or no thermal insulation, resulting in significant energy inefficiencies

Data from Eurostat unless otherwise specified.

<sup>1</sup> European Commission, Country Report Cyprus, 2020.

<sup>2</sup> Ibid.

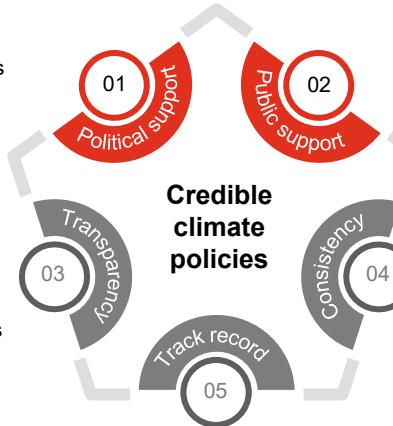
The inherent failure of governments around the world to act to mitigate against and adapt to climate change reflects the tragedies of the commons and horizons. These tragedies mean that private companies, financial institutions and individuals will not fully account for the impact of their actions on the climate. Catalysing a critical mass of private actions requires effective, predictable, and credible public policies. There are five key attributes of credible climate policy.

**Build cross-party consensus on climate change policy.** Policies for reaching net zero will require committed and sustained political efforts over long periods of time. In order to address the time-inconsistency problem, the objective must be acknowledged by politicians across the political spectrum. Knowing that opposition parties are likely to maintain or implement similar policies gives businesses the certainty to invest in green infrastructure that has long economic lifespans. Cyprus must build cross-party consensus on climate change policy to ensure consistency and commitment to long-term change.

Leaders in climate action have taken different approaches to building cross-party consensus.

- Most ambitious of these approaches is Denmark's: a new law that legally binds governments to combat climate change, irrespective of political party. Every year, the Danish government will need to obtain a majority parliamentary approval of its global and national climate strategies. If unsuccessful, this may be cause for the government to step down.
- In the Republic of Ireland, a Joint Committee on Climate Change is appointed each time a new Dáil (lower house) comes into power. The Committee is comprised of members across political parties who meet regularly to develop expertise in climate change, scrutinise relevant draft legislation and the work of government departments, and advise on policy issues.
- In the UK, the relevant body is the All-Party Parliamentary Group for Future Generations, which is comprised of MPs across political parties. Its aim is to combat political short-termism in policies tackling long term issues, e.g. climate change and health trends. The Group runs speaker events and discussion roundtables, publishes research, and supports network building.

The range of options for building cross-party consensus should be explored by the proposed Deputy Ministry for Climate Action, the Environment and Sustainability.



## Tragedy of the commons

Occurs when individuals neglect the well-being of society in the pursuit of personal gain. This leads to over-consumption and ultimately depletion of the common resource, to everybody's detriment.

## Tragedy of the horizon

The misalignment of incentives between current and future generations to solve climate change. The impacts of climate change will be felt beyond the traditional horizons of most actors – for example, political cycles of 4-5 years, monetary policy horizon of 2-3 years, horizon for financial stability is around a decade.

**Run Citizens' Assemblies.** A Citizens' Assembly is a group of people, brought together by the government, to discuss key issues – in this case, climate change. During Assemblies, members can learn about the issue at hand, discuss opinions and reach conclusions for what actions they believe should be taken.

In particular, Citizens' Assemblies are a useful platform for the voice of younger generations. As climate change is expected to have impacts lasting long into the future, it is important to urge policymakers to think about the impacts of climate change on future generations.

The Assemblies should bring together a diverse group of people, representative of Cyprus's population – different ages, backgrounds, occupations and political parties. Organisers can recruit specialists – academics, researchers and industry leaders – to talk about their area of expertise. Through this, members are given the chance to listen to a broad and balanced evidence base on climate issues prior to discussing their different views.

Key topics could include:

- Timeline to achieve net zero
- Disincentives, fines and punishments for behaviours which is at odds with the environment and the climate
- Paying for climate action, including taxes and financial incentives

Results should be written up in publicly-available report that should be presented directly to decision-makers in government.

Citizens' Assemblies are widely used by governments around the world (e.g. Germany, Canada, France) to support their decision-making. For example, in the UK discussions in Citizens' Assemblies have been used to inform decisions about air quality, public transport, and adult social care.

## 2.2 Create transparency, consistency and a proven track record to build credibility

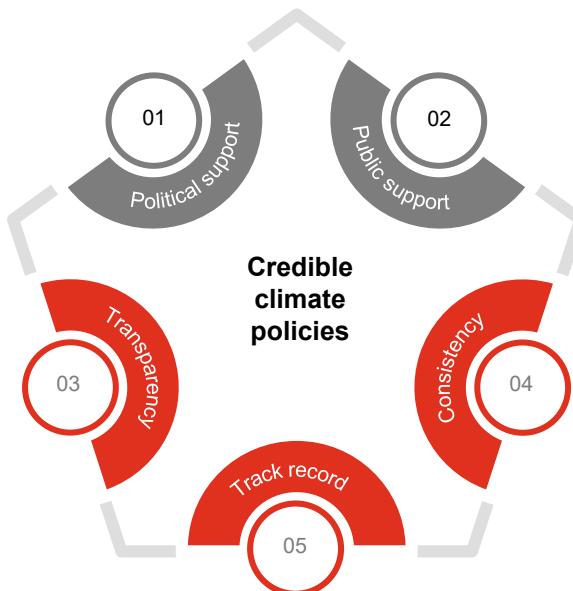
The more that progress towards net zero is transparently and reliably reported, the more that authorities can be held to account. Credible climate policies therefore need to improve the transparency of their climate policymaking by:

- Providing information in an accessible way – this is a challenge for climate policy given its inherent complexity and uncertainty. It is helpful to break climate policy into manageable themes, such as by sector or groups of society.
- Providing an objective assessment of the scale of the challenge and the effectiveness of measures – specific climate policies should be linked to estimates of the greenhouse gas reductions expected to be achieved, enabling people to grasp the tangible importance of their actions
- Providing context – for example, education around the impact of climate change on Cyprus, the EU's Green Deal, and what other leading countries are doing – to help build the impetus for change.

### A Cyprus Net Zero website can act as a platform for this information:

- Clear targets and KPIs that are regularly reported
- Timeline of the implementation of policies (i.e. clear plan for the rising of carbon price)
- Educational resource for citizens and businesses to refer to, to limit their carbon footprint

The government should also partner with an independent non-profit organisation with expertise in assessing and accrediting climate change actions.



Credible policy frameworks make it clear that certain activities will not be viable in a net-zero world. This means an absence of contradictions regarding certain policies or sectors, such as subsidising fossil fuel companies while at the same time incentivising the development of the renewable energy sector. Policies need to work together in a complete and consistent package, removing any ambiguity on the direction of travel.

### A Cyprus Net Zero website can act as a platform for this information:

- Serve as a one-stop-shop for information on all government policies, incentives, schemes and funds
- Create online and simple application processes for such funds (i.e. households applying for solar panel subsidies)
- Be kept updated with recent news and events, and link in with key related documents from Vision 2035 and the EU Green and Blue Deals.

A climate-policy track record is required to cement credibility. Just as in monetary policy and company performance, track records are built by identifying intermediate goals and evidencing achievement. Tracking and monitoring progress is another mechanism to hold policymakers to account for their long-term strategies.

### A Cyprus Net Zero website can act as a platform for this information:

- Update the public, other government departments and EU authorities on Cyprus's progress to net zero.
- Construct a tracker for Cyprus's climate change targets and continuously update with developments to provide evidence that progress is being made.
- Provide official statements from the Deputy Minister of Climate Action, the Environment and Sustainability when targets are missed explaining why and what actions will now be taken to accelerate progress

## 2.3 Provide clarity and certainty on key legislative and regulatory developments

The authorities must implement a credible, time-consistent and committed policy framework to pull forward sustainable investment and shut down unsustainable activity that is no longer viable in a net-zero world. There are three key aspects of climate policy that businesses and investors in particular require clarity and certainty over.



### Carbon price

Meaningful carbon prices are a cornerstone of any effective policy framework. An explicit price for the right to emit greenhouse gases helps ensure that more sustainable businesses are not at an unfair disadvantage and encourages higher-carbon businesses to adjust. But to support an effective, orderly and fair adjustment, prices must rise in a predictable manner and they must be designed equitably – for example, using the proceeds to help low-income households adjust.

**The Cypriot authorities should set up a Carbon Council.** Determining the goals of climate policy, such as the commitment to reach net zero by 2050, requires democratic accountability and can only be done by elected governments. Governments can, however, delegate the calibration of the instruments that are necessary to achieve this target to ‘Carbon Councils.’ Delegating these responsibilities helps insulate decisions with significant long-term implications from short-term political pressures.

It should be independent of the government, but be directly accountable to and report to the President of the Republic.

### Regulation

One of the key factors determining the speed at which companies transition to net zero is the extent to which they make green investments. In turn, this will be impacted by regulatory regarding new green technology. Investors and companies will need to have assurance and an understanding of the regulatory requirements of new technologies and solutions.

**The Cypriot authorities should set up a Green Regulation taskforce** within the proposed new Deputy Ministry of Climate Action, the Environment and Sustainability. Its main objective should be to accelerate progress in designing and implementing new regulation for new products and technology of today and the future – for example, renewable diesel, lab-grown meat, and green cement. The objective should be to ensure Cyprus remains at the forefront of global regulatory developments and rapidly pass legislation following other countries like Singapore. Specifically, the taskforce should:

- Be comprised of a few key regulatory, legal and technology experts, who have a detailed understanding of EU and international regulation
- Conduct systematic and regular reviews of regulation in other countries – specifically leaders like the US, Israel and Singapore. Their role should be to translate this international best practice into regulation for Cyprus
- Consult with international regulatory experts

### EU's Green Deal

Businesses and investors need to have certainty that Cyprus's policy agenda is aligned to the EU's Green Deal. This is not only important to drive forward the private sector's transition, but more generally to give the private sector certainty that Cyprus's reputation will not be tarnished by climate inaction and fines.

#### **The Cypriot authorities should:**

- Adjust EU directives that are based on company size to account for the disproportionate amount of small and medium enterprises in Cyprus. Current directives are focused on large companies therefore mean that much of Cyprus's private sector is exempt from rules on important pillars of climate policy, such as reporting.
- Push standards on things like energy efficiency to EU best practice. Currently, Cyprus's regulations on building standards, for example, lag behind the EU. These should be pushed forward, with a clear timeline for when they will increase to give businesses time to prepare and individuals to adjust accordingly.

## 2.4 Support companies to measure, understand and reduce their impact on the environment



### Help companies understand their carbon footprint

- Businesses must first understand their baseline and how their current operations affect the environment. Disclosure can benefit companies in many ways. It helps businesses stay ahead of regulatory and policy changes, identify climate risks and respond to consumer and investor demands. Disclosing using a recognised standard, such as CDP, can also enable companies to track and benchmark progress, both through different years and against competitors.
- The government should partner with international charities, for example the Carbon Disclosure Project, to help companies better understand their environmental footprints.
- The proposed Deputy Ministry of Climate Action, the Environment and Sustainability should organise workshops, seminars and training for businesses around the importance of, and methodologies for, environmental disclosure.



### Incentivise and support companies to make climate pledges and design transition plans

- It is an urgent imperative to make ESG (environmental, social and corporate governance) values a CEO- and Board-level mandate in large companies. Now, more than ever, companies are being held accountable not just by shareholders and investors, but also customers, employees, communities and others. Modern society wants businesses to not only deliver quality goods and services, but also do so while being conscientious of their environmental and social impacts.
- Focusing on the 'E' element, the more companies that make commitments to achieve net zero and turn these pledges into actions, the more the real economy and financial system will react and accelerate the transition.
- Create awareness:** Policymakers should build awareness of projects such as the Climate Pledge, which encourage businesses to formally sign a climate pledge. Climate pledges give companies tangible goals to work towards, as well as improving reputation and credibility, especially in a consumer climate that is increasingly demanding accountability for environmental impacts. Often, formal climate pledges also offer support to businesses through the network of firms which have signed.
- Create incentives:** The government can incentivise companies to commit to ESG by tying procurement to ESG standards. This would mean that in assessing the bids of contractors, the government can increase the weighting of carbon-friendly and sustainable companies, alongside wider ESG goals of diverse workforces and transparent accounting methods.
- Create support:** Provide educational resources and advice to companies to help them design a transition strategy and implement policies to move towards net zero. A combination of:
  - Provide free resources, case studies and example company actions on the Cyprus Net Zero website
  - Run workshops and seminars for businesses to learn about and share their own progress in designing and implementing a transition plan
  - Promote projects such as the SME Climate Hub, which is a global initiative to provide companies with the tools, guides and webinars to measure emissions and develop a climate strategy.

## 2.4 Support companies to measure, understand and reduce their impact on the environment (cont'd)

### ESG framework: Environmental – minimising the impact of a firm on nature

|                                      |   |
|--------------------------------------|---|
| <b>Products and Services</b>         | <ul style="list-style-type: none"><li>Product use (energy use from electronics, water use in consumer health, direct emissions from cars, planes etc.)</li><li>Product disposal (product disposal at end of life, packaging waste, e.g. non-recycled single use plastics)</li><li>Financing (debt, equity, green financing, etc.)</li></ul>   |
| <b>Supply chain and Distribution</b> | <ul style="list-style-type: none"><li>Deforestation and nature loss/pollution from raw material sourcing (e.g. palm oil, cattle ranching, food)</li><li>Carbon emissions from raw material production, oil &amp; mineral extraction, processing, manufacturing, transportation</li><li>Non-renewable resource use (e.g. oil for plastics, synthetic fibres, etc.)</li><li>Waste from process losses, secondary and tertiary packaging, unsold/unused products</li></ul> |
| <b>Operations</b>                    | <ul style="list-style-type: none"><li>Carbon emissions from offices, production facilities, retail outlets, refrigeration, distribution, data centres</li><li>Waste to landfill and incineration (e.g. non-recycled electronics) and water pollution</li><li>Business travel (flights, fleets, trains, etc.)</li></ul>  |

Source: Strategy& UK, ESG and growth: a new way of thinking, 2021.



### Case study: The Climate Pledge

The Climate Pledge, founded by Amazon and Global Optimism, is a call to action for companies to achieve net zero by 2040. By signing the Climate Pledge, businesses commit to:

1. Regular **reporting** on emissions
2. Implementing **decarbonisation strategies** in line with the Paris Agreement
3. Neutralising any remaining emissions through **credible offsets**

To date, there are 53 signatories from around the world, including Microsoft, Unilever, and IBM.



### Case study: Carbon Disclosure Project

- The Carbon Disclosure Project (CDP) is a not-for-profit charity that runs a global disclosure system for investors, companies, cities and governments to manage their environmental impacts. It is considered the gold standard of environmental reporting.
- Each year, the CDP supports thousands of companies, cities and regions to measure and manage their risks and opportunities on climate change, water security and deforestation. An independent scoring methodology is used to measure corporate and city progress towards environmental leadership. To date, over 130 states and regions, 800 cities, and 9,500 companies have reported through CDP.

## 2.5 Remove barriers to green innovation and transformation across the economy



### Incentivise green investments

- Green innovation will be a driving force for tackling climate change. According to the EU's Green Deal, R&D in this area will play a central role in (i) accelerating and navigating the necessary transitions, (ii) deploying, demonstrating and de-risking solutions and (iii) engaging citizens in social innovation.
- The government should increase its support for businesses in developing green technologies or ways of working through financial incentives, for example through grants or funding services. One way to do this is to support businesses in applying funding available through the EU Green Deal, e.g. Horizon Europe. Specific contacts in DGEPCD should be assigned to deal with requests for information and support from companies regarding the Green Deal.
- In addition to funding, the government should offer tax relief for green-related investments. In offering these tax incentives, the government should first review tax system and ensure that all incentives are aligned with sustainability goals. For example, if improving a commercial property's energy efficiency currently increases business rates this disincentivises property owners from renovating their buildings to be more energy efficient.
- The government should review the tax system for misalignments like the above, and adjust them to align with the green agenda.



### Establish a Rapid Licensing Council for Green investments

- The need for ambitious climate action is growing ever more urgent. However, obtaining licensing for green reforms and projects can often be a laborious and time-consuming process in Cyprus, requiring large amounts of documents and taking potentially years of processing time. This presents a significant barrier to implementation.
- The government should support the implementation of green projects by establishing a Rapid Licensing Council. This council will take charge of licensing requests for projects related to sustainability, e.g. new recycling points, diesel refinery, etc. An initial action of this Council would be to develop a set of conditions which projects must meet in order to qualify for rapid licensing. These conditions can be set for quality assurance and safety, among others.
- This council will be a pivotal force in the opening of Cyprus's electricity market. In order to encourage competition, barriers to entry will need to be reduced. If Cyprus wants to cultivate a competitive and low-price electricity supply it must support the entry of new firms. Decreasing the bureaucratic process required or speeding up processing time are effective ways to achieve this.
- Electricity markets in other countries, e.g. the UK, have also launched 'licensing lite' options. These are specifically targeted to help new suppliers enter the electricity supply market. The option stipulates that new entrants need to have robust alternative arrangements in place for a third party licensed supplier to manage your code compliance in key areas, reducing barriers to entry.



### Support partnerships between large companies and SMEs

- A large part of what limits SMEs from undertaking comprehensive green transformation is a lack of know how. The government can support SMEs by forging partnerships between large and smaller companies.
- These partnerships would involve large businesses sharing their climate strategies and data with smaller businesses to guide them in designing and implementing transition plans.
- The government can encourage these partnerships by offering financial incentives to large businesses, including corporate tax breaks.



### What is the current state of climate initiatives in Cyprus's businesses?

- The Cyprus Employers and Industrialists Federation (OEB), in partnership with the Cyprus University of Technology and the Ministry of Agriculture, Rural Development and Environment, participates in Business4Climate.
- Business4Climate is a programme funded by the European Institute of Innovation and Technology, and is designed to promote sustainable behaviours in businesses. The concrete goal of the programme is to commit businesses to reduce their greenhouse gas emissions by 8% until 2030. Businesses are supported in developing an action plan for achieving this target.
- Other activities of the programme include free online lectures, the development of a methodology for identifying baseline greenhouse gas emissions, training on climate action, and identifying available financing schemes for emission-reducing projects.
- To date, there are 67 signatories of the Business4Climate project. Prizes are awarded each year to the businesses with the best performance in reducing emissions, as well as for cooperating with other businesses.

Source: Cyprus Employers and Industrialists Federation, Business4Climate.

## 2.6 Educate and incentivise all people to live sustainable lives



### Educate citizens on how to lead sustainable lives

In a market ruled by supply and demand, sustainable individual decisions can have a big impact on the demand side of the equation. Making alternative consumer choices sends a strong signal to the market that people are willing to pay for zero-carbon alternatives. When enough people send that signal, policymakers, companies and investors respond. The government can incentivise sustainable decisions and ways of living by:

- Make environmental education a mandatory part of the school curricula (see Education section and case study). This will provide the foundation for teaching citizens about the importance of sustainable living and how they can do so.
- Provide a list of individual actions on the Cyprus Net Zero website, with guidance and links and crucially, information on the positive impact of those actions.
- Promote sustainable energy consumption (see previous section) by increasing the uptake of smart meters and investing in an energy comparison website that increases awareness of renewable providers.
- Encourage participation in a Citizens Assembly and local community groups through national advertising and talks in schools and workplaces.



### Promote green diets in schools

In order to encourage children to develop healthy and sustainable eating habits, the government should revise its current school food policy to increase the offering of vegetarian and plant-based meals. This will also help to target childhood obesity, which is a growing issue in Cyprus's population.

In consultation with the Ministry of Education, schools and caterers, the government should develop an action plan for introducing green eating in schools, with the goal of minimising the environmental impact of school meals, while still promoting nutritional diets. Green diets can be phased in through incremental stages – first by offering more green options alongside meat-based meals, and then by instating special vegetarian-only days, e.g. 'Meatless Monday' whilst at the same time ensuring protein intake is at recommended levels.

## 2.6 Educate and incentivise all people to live sustainable lives (cont'd)



### Case study: Finland

Environmental education and the global Eco-Schools programme

Finland's Environmental education (EE) and sustainable development education aims to equip students with the awareness, knowledge and skills to consider environmental sustainability in everything they do. Finland utilises the resources and learning frameworks designed by **Eco-Schools**, the largest global environmental educational programme that operates in 68 countries and engages over 19.5 million children. It includes a simple seven-step framework to achieve the international Eco-Schools Green Flag award. In Finland, there are currently more than 300 schools registered with the programme.

For Kindergartens, the Eco-Schools Programme has been in place since 1999. The programme encourages pupils to take actions to reduce environmental impacts in their school and everyday lives, developing responsible attitudes and commitment to sustainability at home and wider in the community.

For primary and secondary schools, sustainable development must be included in schools' curriculum work in the compulsory and optional subjects. It is also listed as a key component of upper secondary vocational qualifications. It extends throughout the curriculum, for example, students learn how to calculate percentages using the school's energy statistics, such as the share of renewable energy.

At the university level, SYKLI Environmental School of Finland, a vocational college focused on the environment, offers competence-based qualifications in EE. The University of Oulu's Department of Education also offers core studies in EE for students who want to investigate further in this field.

In terms of funding, both the Ministry of Environment and Ministry of Education and Culture subsidise organisations that offer EE services for schools and communities. Furthermore, the regional ELY Centres offer project-based financial support for EE, and the Board of Education offers support for in-service teacher training initiatives and projects that expand learning environments for schools.<sup>1</sup>

<sup>1</sup>Global Environmental Education Partnership, Finland, 2020.



### Endorse green volunteering opportunities

One way to get citizens directly involved making Cyprus a greener and more sustainable country is through volunteering. Different types of volunteering opportunities can be made available to suit people of different ages, abilities, skills and interests. For example, short event volunteering can include beach or park clean ups or tree planting. More longer term opportunities include placements with conservation groups, summer camps for young children and even appointments into a regular team such as park rangers or wildlife surveyors.

In order to support volunteering, specific reforms include:



**Collate volunteering opportunities in a one stop shop website.** This website should offer information on the conservations, nature reserves and parks currently operating in Cyprus. There should be a master calendar, which shares information on all the upcoming short events, summer camps and available placements. It should also share testimonials and success stories of personal volunteering experiences.



**Encourage workplaces to do volunteering days, or offer employees volunteering days off.** This will support adults who are working full time to take advantage of volunteering opportunities. Public sector organisations and the civil service should partner with local green charities and non-profit organisations to set up a regular volunteering arrangement.



**The government should openly celebrate achievements in the volunteering and charity space.** National and local governments can utilise social media and email updates to boost morale among citizens, helping them share in the pride of volunteering to support their country's nature and biodiversity.

## 2.7 Drive comprehensive carbon reductions in the built environment



### Increase energy efficiency standards for new builds

Reducing carbon emissions from the existing and future building stock is essential for Cyprus to meet EU Green Deal targets. Regulations for efficiency standards for new builds can be key to driving this change if they are revised to be more ambitious.

The government should set out a plan for increasing energy efficiency requirements for new homes. The requirements should cover, among others:

- Minimum insulation and air tightness
- Building design and orientation
- Approved materials for the construction of walls, roofs, floors and windows

The specifications should be increased in a predictable and clear way to the EU frontier.

Also, the Government should enforce the transposed legislation for the Energy Directive. Specifically this means enforcing the upgrading of central government building by at least 3% per year (based on floor space).

This applies to all central government buildings including schools and also hospitals (which have now been transferred to the NHS). The government should urgently upgrade the same buildings for the retrospective inaction in doing so since 2014.



### Invest in retrofitting buildings with energy efficient construction

Prior to Cyprus's accession to the European Union, legislation and regulations governing energy performance of buildings were limited. This means a high share of the current built environment have low energy efficiency. High potential for energy saving lies in retrofitting these buildings with energy efficient solutions.<sup>1</sup>

The government should invest in large scale retrofitting of buildings which are not up to modern day energy efficiency standards. An action plan should be set out that covers, among others:

- The identification of priority buildings – which buildings are consuming the most energy, are most used, or would be the easiest to upgrade?
- The identification of buildings where demolition or rebuilding may be preferable (i.e. where thorough renovations are only marginally cost-effective)
- Creation of a fund or grant for basic improvements that would be simple for households or local handymen to perform themselves e.g. such as attic insulation and weather-stripping doors and windows. The government should offer VAT cuts for households spending on green home improvements.

In the procurement stage, the government can consider including ESG criteria into its assessments of contractors to ensure that construction, renovation and demolition practices are in line with wider goals for sustainable and inclusive growth.

<sup>1</sup> Menicou et al., An economic analysis of Cyprus's residential buildings' energy retrofits potential, International Journal of Sustainable Energy, 2013.



### Promote partnerships between government and leading commercial property owners

Significant investment is required to achieve comprehensive carbon reductions in the built environment. While government funding and investment can act as the jump start, a more sustainable and market-led approach to financing will help support a wider range of initiatives in the long term.

The government should seek to build partnerships between the finance sector, academia and non-profit organisations to develop a market to finance net zero transition in the built environment. Members can work together to develop and discuss enabling policies, regulations and data sets required to accelerate investment in this area.

The coalition should seek to recruit members that are leading experts in their fields. By encouraging evidence-based debate, the partnership of experts can be used to evaluate the latest and most innovative methods of financing green projects used internationally, such as building renovation passports and Property Assessed Clean Energy (PACE) financing.

Conclusions can be published in public-facing reports, as well as presented to relevant government departments. An example of this being done successfully is the government-backed Coalition for the Energy Efficiency of Buildings (CEEB) in the UK (see adjacent case study).



### Enforce the EU Efficiency Directive

We understand that certain aspects of the EU's Efficiency Directive (which has been transposed into national law) is not being implemented.

This is not in keeping with Cyprus's Vision 2035 and will result in energy waste, ultimately leading to consumers using their disposable income, and businesses dipping into their cash reserves to cool up or heat their premises. This is not sustainable and doesn't lead to a low-carbon economy. To this end, we recommend that national law is enforced. In practice, this means that:

- Large corporates in Cyprus have to conduct energy audits every four years. This requirement should be enforced consistent with the provisions of the law.
- Homeowners and businesses are obliged to build new buildings using minimum energy performance standards. Government should issue the certificate after the buildings are built by carrying out inspections on site, in a similar way inspections happen when an electricity connection is made to new buildings.
- Anyone renting buildings (residential, commercial etc.) should be notified of the energy certificate of the structure. This aspect of the law is not currently being enforced.

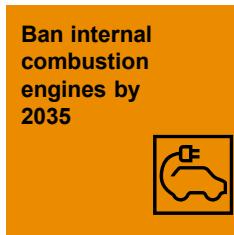
## 2.8 Drive electrification within the transport sector



### Support the move to electric vehicles by investing in solar-powered charging infrastructure

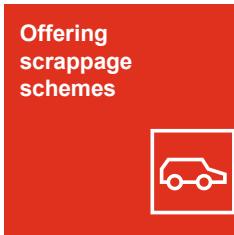
- Moving to electric cars will not contribute to Cyprus's transition unless the electricity that powers the cars comes from renewable energy sources. Solar can be used to accelerate the transition to electric vehicles by making electricity greener – and cheaper. Currently, a large part of Cyprus's electricity supply is sourced from non-renewable sources. Solar-powered charging infrastructure would be a step in the right direction for transitioning Cyprus's electricity market to become more sustainable and affordable.
- Solar offers the highest power generation capacity during the day and traditional working hours, so would be of most use to commuters who travel to work by car and park their vehicles outdoors. Locating charging facilities in public and commercial buildings or outdoor car parks would therefore be suitable options; the government should invest in this infrastructure to support the roll out of electric vehicles.
- Specific policies should include:
  - Amendments to building or planning regulations to ensure that new developments with parking have charging points. Authorities can prioritise large development project first including large retail and commercial spaces followed by residential developments.
  - Encourage municipalities to set up a medium-term strategy on the target number, location and distribution of electric charge points. Once approved, achieving these targets could be linked with cash bonuses from the central government to the municipalities.
  - Design and create a government mandated user-friendly electronic map to indicate areas where charging stations exist and whether they are in use or not. This should be compatible with third party platforms including Google Maps.
- In investing in the transition to electric vehicles, the government should take care to consider the **implications on equity**. It is likely that EV owners, especially in the early phases of adoption, will be clustered in affluent neighbourhoods as the cost of EVs may be prohibitive for lower income households. The incremental demand for electricity from these affluent neighbourhoods may be enough to disrupt existing supply and require new investments in power generation. This creates the risk that richer areas will receive the benefit of upgraded infrastructure long before less affluent areas do.
- For this reason, investing in national-wide smart grids and other smart energy control solutions will be important. These systems can help manage surges in demand, for example when owners plug in their EVs upon returning from work in the evenings.

### Once the enabling infrastructure is in place, incentivise households and businesses to go electric by:



#### Ban internal combustion engines by 2035

Cyprus should ban the sale of new and imported second-hand passenger and commercial vehicles with internal combustion engines by 2035. However, the government should be careful to ensure that lower income households are not disproportionately disadvantaged by the ban. Additional support, e.g. scrappage scheme below, and lower cost options for green transport should be made available to them with a reasonable time and income cut-off point.



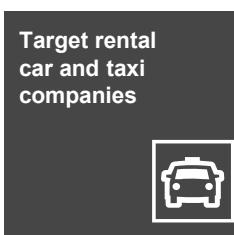
#### Offering scrappage schemes

Older, less energy efficient vehicles should be progressively phased out. The government can help businesses and households scrap their vehicles by offering scrappage grants. The scheme should cover all types of vehicles, e.g. cars and motorcycles, vans and minibuses, and heavy vehicles. Eligibility of heavy vehicles is particularly key to incentivise firms heavily reliant on transport, e.g. shipping companies, to upgrade their fleets. These schemes should be targeted by income.



#### Offer 'green' license plates

Special license plates should be offered to owners of electric vehicles. These license plates will provide benefits such as parking discounts and potentially bus lane access. A key consideration for this reform is that benefits should be time limited, e.g. to the first year or two of owning the EV. This is to ensure exclusivity and novelty even once EVs become the mainstream option for private cars.



#### Target rental car and taxi companies

The government can encourage taxis and rental car companies to upgrade their fleets to electric vehicles by offering financial incentives such as tax relief and targeted funding for both scrappage of old fleets and buying new electric vehicles. This will help mitigate carbon emissions originating from tourist car use – simultaneously improving the sustainability of both the transport and tourism sectors. This can be done in conjunction with a specific manufacturer in mind.

## 2.9 Encourage alternative modes of transport and develop the public transport network



### Emphasis should be on improving public transport and maintaining existing road network (and not on building new roads)

Uptake of public transport in Cyprus is very low – making up just 3% of all trips taken in 2020. In order to transition to a sustainable and green transport system, Cyprus must improve this and encourage more of its citizens to use public transport regularly.



**Re-allocate around 50% of spending on capital infrastructure to public transportation investments.** Rather than continuing to invest in roads and highway projects, the government should divert its attention to improving its public transport system, possibly including a light rail tram line connecting Nicosia to other cities. In drawing up its transport budget for the coming years, the Ministry of Transport, Communications and Works must consider whether its investments align with Vision 2035 and its objectives of a greener transport system.



**Strategically identify and forecast public transport needs.** As part of the proposed new national zoning plan, public transport should be critically evaluated to better align routes with travel to work needs. Specifically, bus routes, park and rides, and bicycle spaces need to be built to connect residential areas with business areas, including the proposed new business parks.



**Mandate the regular maintenance of bus stops and public transport terminals.** The usability and cleanliness of these facilities can heavily influence whether or not they are used by the public. In addition, stops and terminals which are currently difficult to access should be redesigned and updated to accommodate persons with disabilities.



**Improve monitoring and enforcement in the use of public transport.** The government should invest in CCTV on bus lanes, bus stops, frequently used streets and also on buses themselves. The footage can be used to enforce fines for illegal parking on street and misuse of bus lanes. Furthermore, this will help commuters and travellers feel more secure in using the public transport system.



### Promote cycling as an alternative to private cars

Cycling is not only one of the greenest modes of transport available – it is also beneficial to the health and more affordable than most other modes. As a small island with relatively short distances between amenities, residential areas and business spaces, the government should promote the use of bicycles as a commuter vehicle.

Specific reforms for this include:



**Invest in bike lanes.** Individual perception of safety can be a major determinant behind a person's decision not to cycle. Novice or casual cyclists, in particular, may hesitate to cycle on main roads alongside motor vehicles. In order to encourage people to take up cycling as more than a recreational activity and to actively use it as a daily commuting vehicle, Cyprus should invest in expanding its bike lane infrastructure. While commuting lanes should be a top priority, the government can also look at investing in scenic routes which may become popular tourist attractions.



**Promote cycle to work schemes.** Cycle to work schemes allow employees to purchase bicycles and cycling accessories through their employer. The cost of the purchases would normally be spread out over the financial year, and be taken out of the employees' pre-tax income.



**Promote community cycling events,** for example bicycle races or tours. The main target for these cycling events should be families. This is to encourage children and teenagers to be exposed to cycling from a young age. Building confidence in the younger generation to cycle frequently and around other people and other vehicles can help prepare them to use cycling as their mode of commuting in the future.

## 2.9 Encourage alternative modes of transport and develop the public transport network (cont'd)



### What is Cyprus currently doing to promote cycling?

In March 2021, Transport Minister Yiannis Karousos unveiled a €4 million plan of action for promoting cycling as an alternative form of transport to cars.

The €4 million scheme covers the period from 2021 to 2023, and provides for:

- The construction of bicycle lanes
- Reduction of the speed limit to 30 km/h in neighbourhoods, town centres and other special interest areas
- Traffic arrangements including appropriate regulation of traffic lights
- Car-free Sundays
- Rental of electric bicycles on favourable terms
- Free transportation of bicycles on public transport vehicles
- Map of cycling infrastructure available on mobile applications
- Covered and secured bicycle ranks
- Changing rooms in government buildings
- In cooperation with the Department of Town Planning and Housing, changing rooms and shower facilities will be promoted for workplaces, malls, hotels, etc.
- A 'Climate Neutrality' certificate for businesses that promote the use of bicycles by building the relevant facilities
- Incentives and subsidies to buy new bicycles and repair old bicycles
- A Bike2Work website, which brings all information on cycling in Cyprus together, including free lessons on the traffic code and correct use of bicycles
- The purchase of 100 electric bicycles for use by state services



### After 2030, the authorities in Cyprus should consider a London-type congestion charge for ICE cars in urban areas

Cyprus is one of the countries with the highest per capita number of vehicles. This in turn is reflected in mainly urban areas, where traffic is increasingly unbearable.

The transition to electric vehicles should help with the noise and air pollution situation. However, this needs to happen at an adequate pace and the banning of sales of cars with internal combustion engines (ICE) by 2035 will not be enough.

To this end we propose that Cyprus moves in a phased manner towards a situation where it considers imposing a London style congestion charge.

A potential phased approach could resemble the following:

- Establish 'No cars on Sundays' for the high streets in the major cities for Cyprus. For example, for Nicosia, this could involve the Makarios III avenue down-town and some of the affiliated streets. This could be applied for every other Sunday to start off with and then applied for each and every Sunday
- Ensure that large commercial vehicles can only enter the city centres in certain times of the day (e.g. after working hours) to restock the commercial premises or carry out other work.
- Set up the infrastructure to monitor the entry of cars at predetermined points in the urban areas. London, for example, has seamless infrastructure to do this and its model has been copied around other leading centres of the world.
- Finally, impose a London style congestion charge for pre-determined hours of every single day for every week. Residents of the areas where the congestion charge is applied should incur a hefty discount (e.g. 95%) from the charge. Also, the proceeds from this charge should be re-invested by law into public transport.

These measures should be taken using a holistic approach. For example, the masterplans and planning permissions system for housebuilding and commercial premises needs to be adhered to and strictly enforced, else there will just be a migration of commercial premises outside the city centre, which is not the intention of this policy. At the same time there should be more strategic thinking on the location of parking spaces around the main Cypriot cities.



### Consider ambitious mass transport systems only after exhausting all other options

Currently, uptake on mass and alternative transport systems is low. The most economically efficient way to decrease road traffic, emissions and noise is to encourage mass and alternative transport systems first and then once these modes of transport are saturated consider alternative measures.

There is a natural temptation to think that big vanity projects e.g. train lines, underground train systems and trams will forever solve Cyprus's issues with traffic. This line of thinking is wrong and could, at worst, lead to vast amounts of public money being squandered.

We strongly recommend that the Cypriot authorities actively and consistently encourage the use of buses, car sharing schemes, bicycle riding schemes first. Doing so will mean that these modes of transports will probably alleviate issues with respect the road traffic, emissions and noise levels for at least the next decade in Cyprus.

More importantly it will bring about a change in the habits of Cypriot citizens (and less so to the visitors in Cyprus who, in some cases (e.g. Paphos) use mass transport systems like buses) which is the fundamental issue.

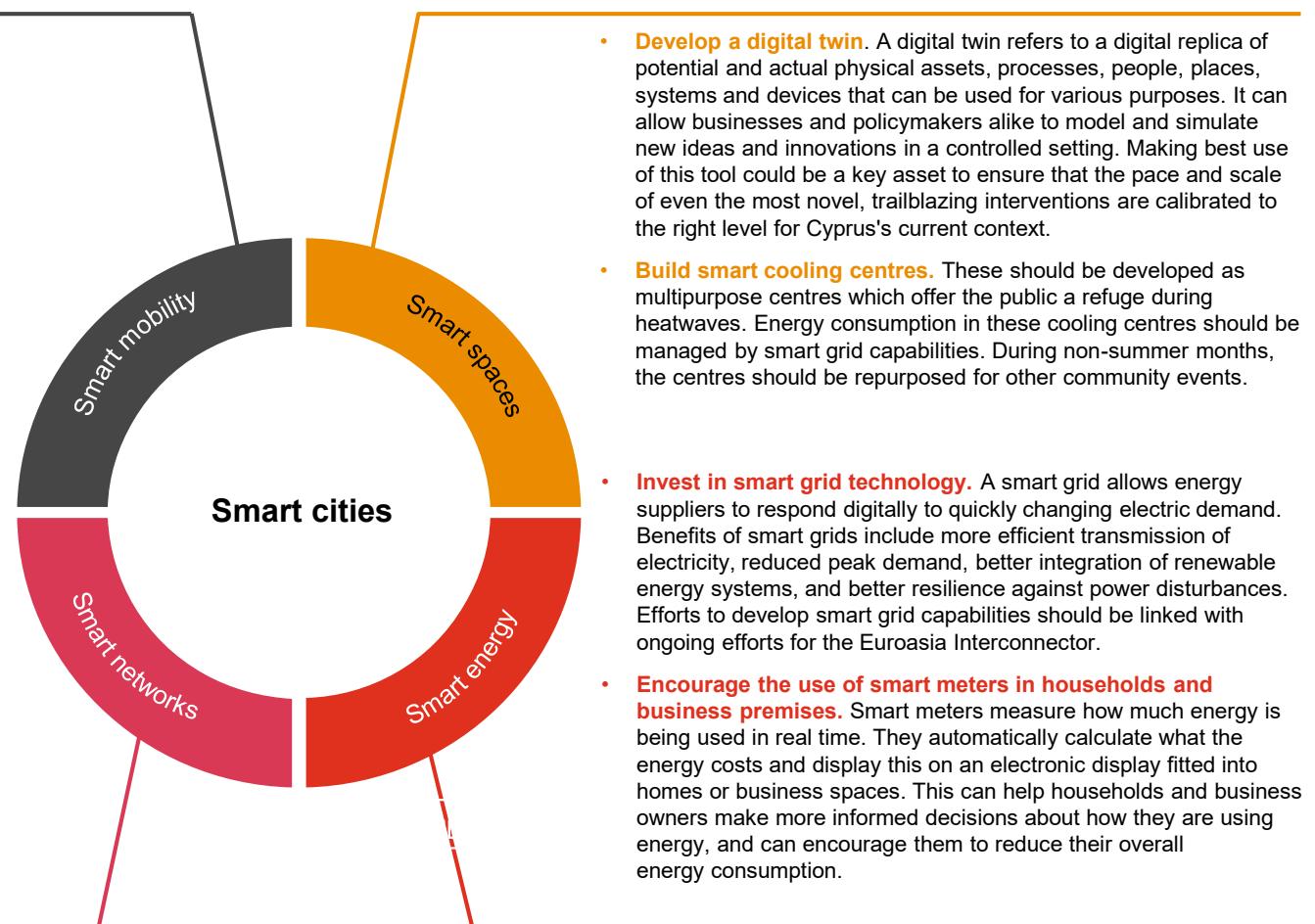
Only if these conditions have been met should the Cypriot authorities start to think about more ambitious mass transport projects.

## 2.10 Invest in the development and application of smart cities

Smart cities use technology to drive green and inclusive transformation in transport systems, buildings and communication networks. Cyprus is currently in the process of developing an action plan to develop smart cities. The action plan should provide a full strategic and practical scheme to implement smart city policies and reforms, such as the ones described in further detail below. The plans should give information on the financial resources needed, the targets and goals for each recommendation/project and the people or departments responsible for their implementation. It can be based around the United Nation's Key Performance Indicators for Smart Sustainable Cities. The plan can be used by local authorities to prioritise and organise their work and identify the financial sources to implement the planned projects.

- **Plan for seamless transfers between different modes of transport.** In setting timetables, there should be central oversight over the timings of services across different transport operators that ensures that connections are timed appropriately. In practice, this will also involve dynamic, synced timetables that are updated in real time for any delays or accidents in the transport network.
- **Develop applications for buses and other public transport modes.** These applications should provide real time information on timetables and available transfers between different modes of transport. To support the tourism industry, the application should highlight modes of inter-city transport, and from airports to common tourist sites.
- **Invest in the wide-scale deployment of 5G communication networks.** Upgrading to 5G would support individual, corporate and government communications, enhancing mobile broadband speed and stability, supporting reliable low latency communication and improving data security, massive machine-type communications and power efficiency.<sup>1</sup>
- **Invest in the rollout of free public wi-fi.** Public wi-fi benefits a wide range of stakeholders, from businesses to students to commuters. It will be especially key for any cities that endeavour to become hubs for business activity. It will also help to attract tourists from outside of the EU, who would otherwise have to pay high roaming charges to use their mobile data.

<sup>1</sup> World Economic Forum, The Impact of 5G, 2020.



## 2.11 Lay the foundations for progress in hard to abate sectors

To reach a fully decarbonised economy, we must also reduce and eventually eliminate emissions from so called 'hard-to-abate' sectors. For Cyprus, the main heavy industry is cement and heavy duty transport like shipping and aviation.

Recent research by the Energy Transitions Commission has focused on how to decarbonise, for example, see the Figure on the previous slide on the cement sector. The technologies required to decarbonise already exist, but several still need to be market ready and achieve commercial viability.

The transition will not be achieved unless policymakers, investors and businesses jointly take immediate and forceful action to transform economic systems through 6 innovation areas:

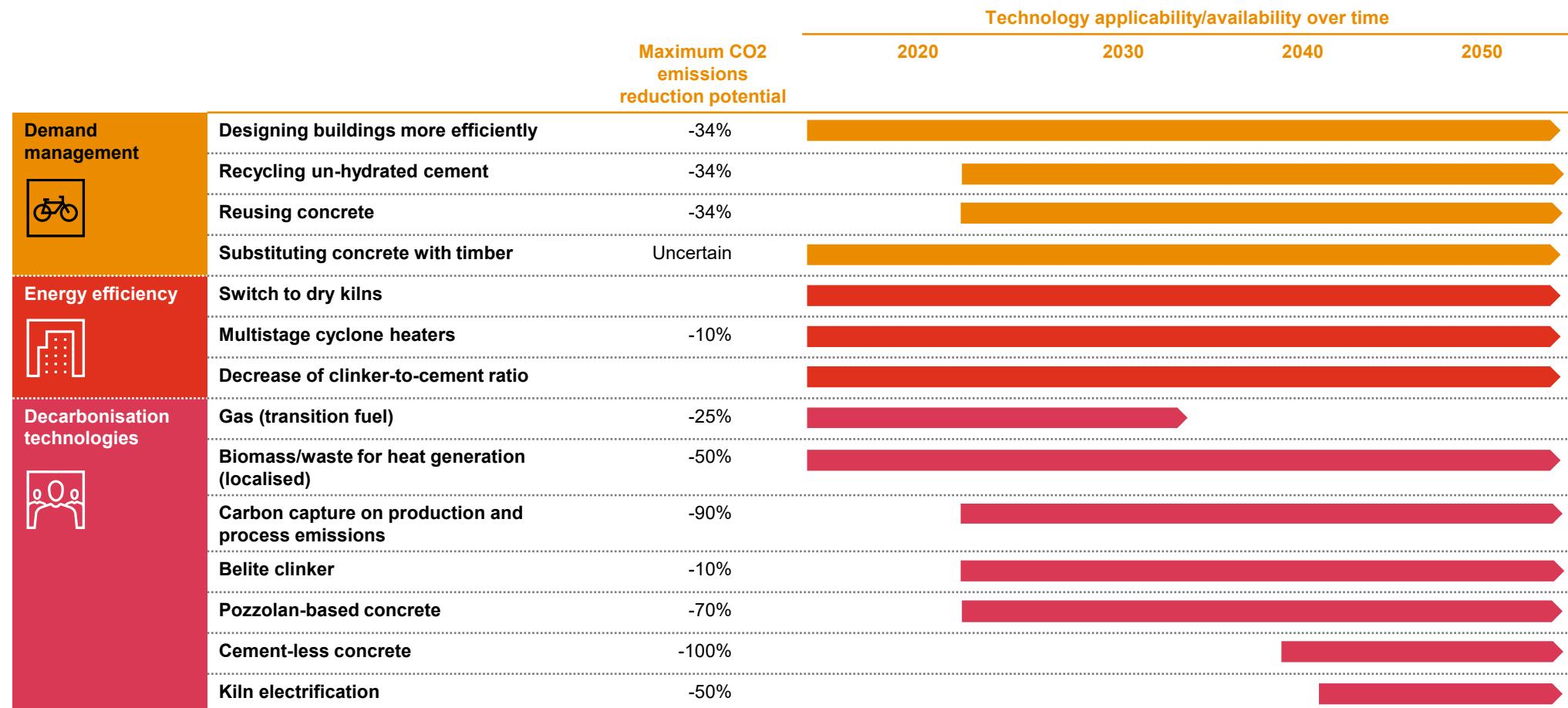
- 1 **Electrification:** Cheaper and more efficient batteries, electric furnaces for cement and chemicals
- 2 **Hydrogen:** Cheaper fuel and long-distance transport of hydrogen
- 3 **Biochemistry:** Increase efficiency in biomass transformation, synthetic chemistry
- 4 **Materials efficiency and circularity:** New designs for consumer products, recycling
- 5 **New materials:** Low carbon cement, substitute fibres for plastic
- 6 **Carbon capture and use:** More efficient capture especially in cement

To ensure that Cyprus remains abreast of developments to decarbonise hard-to-abate sectors, policymakers should:

- **Develop an efficient and pragmatic approach to carbon pricing** that incentivises improved energy efficiency, supply-side decarbonisation and demand reduction. Differentiated prices by sector can help drive change in hard-to-abate sectors. Prices should also be applied to the lifecycle of carbon emissions of consumer products, rather than production processes to limit carbon leakage between sectors and regions.
- **Tighten regulation** regarding energy efficiency, sustainability standards (i.e. low-carbon fuels), green fuel mandates (i.e. requiring airlines and ship operators to use a rising percentage of zero-carbon fuels), and labelling (i.e. carbon intensity, traceability of the source).
- **Support deployment of new technology:** fund pilot projects to test new technologies and bring them to market in Cyprus. Provide facilitating finance through loan guarantees or reimbursable advances, and use public procurement to create demand for low-carbon products and services.
- **Support companies to develop a decarbonisation roadmap:** Connect with international experts and organisations to advise companies in developing a transition plan.
- **Encourage cross-sectoral partnerships** to develop demand for low/zero-carbon products (e.g. partnership between airlines, airports and travel agencies to develop a zero-carbon flight offer) and to support materials circularity (e.g. partnership between steel producers and manufacturers to improve collection rates and quality of steel scrap).

## 2.11 Lay the foundations for progress in hard to abate sectors (cont'd)

Reaching net zero CO<sub>2</sub> emissions from cement is possible by combining 3 major decarbonisation routes:



Source: Energy Transitions Commission, Sectoral Focus: Cement

## 2.12 Arm the financial sector with the capabilities to fund the transition to net zero



### Improve environmental data collection in financial institutions

- As the backbone of the economy, the financial sector's environmental impact is broad and hard to assess. Measuring, understanding and tracking that impact is not only important for catalysing the financial sector to contribute to a net zero future, but also for ensuring the sector is funding the green transformation.
- To deepen their understanding of how their investments affect the climate, banks and financial institutions in Cyprus will have to improve their collection of environmental data.
- The government should **run a consultation with Cypriot banks and financial institutions along with the Central Bank of Cyprus** to learn more about how they currently collect environmental data and measure their financed emissions and carbon footprint.
- Through this consultation, the government can identify areas of improvement and set out an action plan for these institutions to be able to publish reports on the climate impacts of their investment portfolios.
- Several tools are available for banks and financial institutions to analyse the environmental footprints of their portfolios, e.g. the United Nations Environment Programme's Portfolio Impact Analysis Tool which has been adapted and implemented by global institutions such as Deutsche Bank, Credit Suisse and Barclays. This tool is open source and available for free online.



### Promote sustainable finance to fund the green transformation

- Sustainable finance is not just about managing risks and contributing to net zero. The transition to the green economy is the greatest commercial opportunity of our time. Major public and private investments are needed to transform the global economy.
- While sustainable finance and green investment products, such as those on the following slide, are important catalysts to develop a green financial system, they will not be sufficient to finance the green transition. There is an urgent need to begin mobilising mainstream finance to help support all companies adjust their business models and to fund the transformation.
- At the core of this is developing more a more sophisticated understanding of how companies are working to transition, not just where they are at a single point in time. Carbon footprints, for example, are not forward looking.
- Investors and financial institutions need to be able to assess the credibility of company transition plans. Initiatives such as the Transition Pathway help by certifying plans for meeting appropriate thresholds.
- There are several steps that policymakers can do to accelerate progress:
  - Encourage companies to make transition plans:** As discussed in earlier slides. The more data and plans, the more financial institutions can make comparisons and form a view.
  - Promote existing initiatives:** Policymakers should identify some pilot firms to use tools such as the Transition Pathway Initiative, monitor their progress and use as a case study to the rest of the sector.
  - Support the financial sector to develop its own expertise:** Over time, rather than outsourcing judgements, financial institutions will need to develop their own capabilities. To do this, the government should bring in experts from the EU and host training courses on things like EU Taxonomy, a unified EU classification system for green activities. It is an essential building block for sustainable finance operations in Europe. The Taxonomy can be used to determine if an economic activity is environmentally sustainable based on harmonised EU criteria.
  - Incentivise lending based on ESG:** for example, time-limited tax incentives for companies which develop a robust lending criteria based on ESG.

## 2.12 Arm the financial sector with the capabilities to fund the transition to net zero (cont'd)

### Sustainable financing

#### Green Bonds



Green bonds raise funds from fixed income investors to support new and existing projects which deliver environmental benefits, and a more sustainable economy. While there is no universal definition of a green bond, the EU has a voluntary four-part Green Bond standard, which requires the projects/activities financed by green bonds to align with EU taxonomy. Several multinational institutions have issued green bonds, e.g. the World Bank and International Finance Corporation.

#### Green Loans



Similar to a green bond, green loans can help private corporations fund green energy and sustainable projects. They are any type of loan instrument made available exclusively to finance or re-finance new and/or existing green projects.

#### Sustainability-Linked Loan/ESG-Linked Loan



Proceeds of this type of loan are used for general corporate purposes, rather than 'green' projects. The pricing of this loan is determined by the borrower's ESG score or overall sustainability achievements, e.g. emission reductions. Favourable interest rates can be offered to borrowers who successfully disclose achievements of ESG goals. Conversely, if they fail to achieve the target, borrowers must pay a higher rate.<sup>1</sup>

#### Environmentally- responsible credit cards



Credit card providers around the world are getting creative in integrating ESG values into their offerings. *Doconomy*, in the US, offers a credit card that prevents consumers from making purchases once they've reached a pre-set CO<sub>2</sub> emissions limit. *TCM Bank*, again in the US, offers a credit card where a percentage of what is spent will go towards charities supporting fair trade, clean energy and other sustainable initiatives.

<sup>1</sup> The World Bank, Green loans: Financing the transition to a low-carbon economy, 2020.

# 3.1 Drive the transformation towards a circular, zero-waste economy across businesses and households

## The case for change

- There is an urgent need for Cyprus to improve uptake of circular economy behaviours. Principles of circular living have yet to take root in businesses and communities, as shown by the stats below:
  - Cyprus has one of the highest landfill rates in the EU at almost 70% of waste in 2016. This has been on an upwards trajectory, rising from around 50% in 2010
  - Low recycling rates of municipal waste, at around 15% in 2019 – meaning that Cyprus is almost certain to miss the EC target for 50% recycling by 2020
  - The recycling rate has been stagnant since 2014, with little progress made to improve nationwide waste management processes
- According to the EU's Early Warning Report on the implementation of waste legislation, Cyprus's weaknesses to implement EU waste law is due to a lack of infrastructure, lack of coordination and a lack of incentives. Regarding the latter, Cyprus does not tax landfill or mechanical biological treatment.
- Financial incentives – as well as public awareness campaigns – need to complement investment by EU funds in recycling points, to encourage households and producers to take responsibility for their waste.

A circular economy aims to maintain the values of products, materials and resources for as long as possible given a product's lifespan. For Cyprus, this will mean generating less waste, discarding fewer products, and extracting less resources from nature.

To achieve these goals, we propose reforms across the standard '3 Rs' of waste management: reduce, reuse and recycle. These reforms are detailed in further depth in the following slides.



## The EU's Circular Action Plan

The EU has recently adopted a new Circular Economy Action Plan as part of the Green Deal which seeks to:

- Make sustainable products the norm in the EU;
- Empower consumers and public buyers;
- Focus on the sectors that use most resources and where the potential for circularity is high such as: electronics and ICT; batteries and vehicles; packaging; plastics; textiles; construction and buildings; food; water and nutrients;
- Ensure less waste;
- Make circularity work for people, regions and cities,
- Lead global efforts on circular economy.

The proposals were passed in European Parliament in February 2021, with the motion urging the European Commission to set binding targets for materials use and consumption footprint for all products placed on the EU market – in particular, for textiles, plastics, food and packaging, and waste.

## Reduce

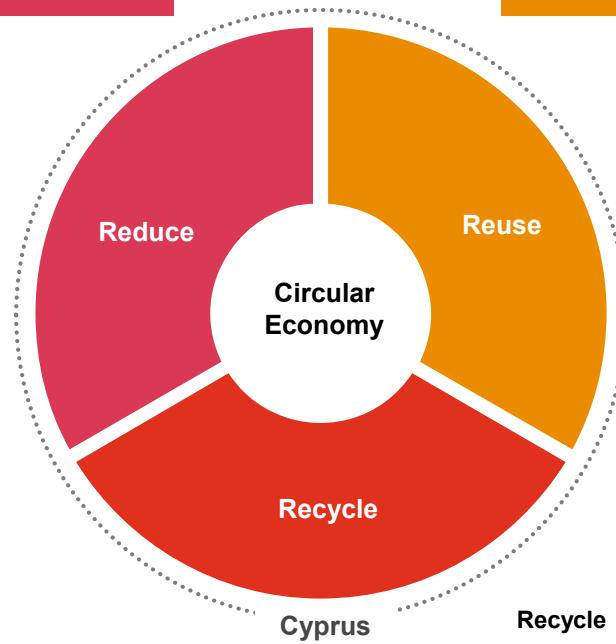
### Consumption behaviours

### Food waste

## Reuse

### Repair shops

### Community reselling



## 3.2 Reduce: Incentivise individuals and businesses to minimise avoidable waste and consumption



### Incentivise better consumption behaviours to reduce energy consumption by households

Efficient energy consumption behaviours are key to reducing energy wastage in households. Awareness of these consumption behaviours, alongside the adoption of energy-saving technologies are effective ways for individuals to manage the energy and water they use in the long term, with little government intervention after awareness.

The government can raise awareness and adoption of behaviours and technologies by:

- Appealing to individuals motivated by cost-saving by launching a marketing campaign based on how much can be saved in energy bills through efficient consumption behaviours and using a smart meter. These campaigns can be run in large stores selling household appliances and e-goods.
- Implementing a scrappage scheme for older, less energy efficient appliances. Offer free removals and recycling for these appliances with help from the municipalities as well as retailers.
- Targeting households undergoing or intending to undergo home improvement. Create a simple communication pack (brochure, leaflet) circulated through renovation companies that contains the most energy efficient and cost-saving options.
- Incentivising energy companies to drive smart meter use – for example, making it a requirement of new licenses in the electricity market, and setting out a timeline for when increasing shares of customers must have a smart meter by. Cyprus should aim to have 40% of households installed with a smart meter within 10 years of the electricity market opening up.
- Making it mandatory for hotels to have a smart meter for water and waste



### Efficient energy consumption behaviours

- Turn off air-conditioning and lights when not in use
- Unplug appliances when not in use
- Wash clothes at lower temperatures



### Energy-saving technologies

- Smart meters
- Use low-energy consumption light bulbs
- Light sensors
- Buy energy efficient appliances
- Water-saving shower heads

## 3.2 Reduce: Incentivise individuals and businesses to minimise avoidable waste and consumption (cont'd)



### Reduce avoidable food waste

In the EU, approximately 88 million tonnes of food waste is generated annually. Tackling food wastage is an ethical, economic and environmental priority that will be key for achieving sustainable and inclusive growth. All actors in the supply chain of food – farmers, transporters, supermarkets and households – can play a role in mitigating food waste.

The government can support these actors through the following reforms:

- **Raise awareness on optimal food preservation practices.** Fresh produce can quickly become inedible when stored improperly. Households can improve the longevity of their groceries by practicing optimal preservation practices, for example freezing surplus food, vacuum packing, and using proper storage containers. The government can run a marketing campaign in locations such as supermarkets and farmers markets.
- **Encourage retailers to sell imperfect-looking food at decreased prices.** A portion of supermarket food waste is generated from stores throwing away fresh produce that is not aesthetically-pleasing. Grocery chains should be encouraged to sell these goods at discounted prices. Alternatively, supermarkets can partner with local restaurants to agree on bulk deals where restaurants are sold imperfect-looking ingredients, which are processed before being served and therefore not seen in their original forms. The government should encourage and facilitate those conversations.
- **Implement rules for what supermarkets and restaurants can do with their unsold food.** Countries across the EU have implemented rules on food waste generated by supermarkets. These rules include banning supermarkets from throwing away, destroying or deliberately spoiling food and requiring supermarkets to sign contracts with local food banks and charities. See the adjacent case study on France, the first country in the world to implement these rules.



### Case study: France

Discouraging food waste in supermarkets

- In 2016, France became the first country in the world to pass national regulation against supermarkets throwing away or destroying unsold food.
- Under a law passed by the French senate, supermarkets are now required to donate good quality food approaching its best-before date to charities or food banks. Supermarkets have also been banned from deliberately spoiling food in order to prevent the food from being eaten by foragers.
- The passing of the law came as a result of significant campaigning. A petition for the law to be passed collected more than 200,000 signatures in just four months.
- Heads of supermarkets of at least ~4,300 sq. ft. in size must now sign food donation contracts with charities, or else face fines of €3,750. These contracts do not stipulate a minimum donation amount or frequency of donation, but rather promote responsible corporate behaviour and the social expectation that supermarkets will and should donate.
- Food assistance organisations and supermarkets found that donation quantities increased by around 30% just one year later. The percentage of supermarkets donating unsold products rose from 66% prior to 2016 to more than 90% in 2018.

<sup>1</sup> Foodtank, France's Ban on Food Waste Three Years Later, 2019.

<sup>2</sup> The Guardian, French law forbids food waste by supermarkets, 2016.

# 3.3 Reuse: develop facilities to extend the life of a product through maintenance, refurbishment or reselling



## Develop repair shops in local communities

As a result of increased manufacturing globally, broken electronics and other household goods have become a large, and growing, source of waste. Repair shops have the added value of increasing job opportunities, offering a place for young people to volunteer and upskill by gaining hands-on experience repairing mechanical and electrical goods.

The government can support repair shops by:

- Offering vouchers to individuals to get their bicycle repaired. This has the additional effect of promoting sustainable and active transport options. The UK's Fix Your Bike Voucher Scheme should be used as a case study, which offers citizens up to €60 towards the cost of their bike repair.
- Offer grants to entrepreneurs seeking to open repair businesses. In addition, support entrepreneurs in creating business plans and securing further funding for insurance, tools and advertising.
- Partner with charities, such as Repair Café, to open not-for-profit repair shops. Households with lower incomes will tend to buy lower quality household goods and appliances. Offering a free option for repairs, with services offered by volunteers, will allow this reform to be inclusive for all. See the adjacent case study on how Repair Café has been successful in Paris, France and other European cities.

Repair shops are in line with incoming EU legislation on the 'right to repair', which requires manufacturers to ensure that household appliances such as washing machines, hairdryers, refrigerators and TVs sold in EU are repairable for up to 10 years.



## Case study: France Repair cafés in Paris

- Europe generated 12 million tonnes of e-waste in 2019, ranking first worldwide in terms of e-waste generation per capita (16.1kg per capita).<sup>1</sup> Only 17% of global e-waste in 2019 was collected and recycled, meaning that high-value materials including gold, silver, and platinum were mostly dumped or burned instead of reused.
- In addition, e-waste often contains toxic or hazardous substances such as mercury and chlorofluorocarbons (CFCs). Low collection rates and non-environmentally sound disposal of e-waste can pose significant risks to the environment and public health.
- Repairing e-goods is one solution to reduce volumes of e-waste. In Paris, and more widely in cities across Europe, citizens and NGOs are setting up repair cafés. Repair cafés are free, monthly initiatives that allow local residents to fix household objects and electronics. Services and advice are provided by volunteer repairmen and women, who are normally also part of the local community.
- The cafés supply the tools and materials needed to repair common e-goods, but also clothing, furniture and bicycles. They support hands-on learning – volunteers aim not only to repair the goods, but teach their owners how to maintain them and conduct simple repair jobs themselves.
- There are now over a dozen repair cafés in Paris, and over 1,500 worldwide.

<sup>1</sup> United Nations Institute for Training and Research, Global E-waste Monitor, 2020.

<sup>2</sup> BBC News, The country rejecting throwaway culture, January 2021.



## Encourage community reselling and sharing

- Create a community platform for sharing durable assets.** Rather than each household in a small community owning durable assets such as lawnmowers, hardware tools, etc. a platform for sharing and lending should be set up. This platform can be digital, for example using a community webpage, or can be managed in person using a register at the town hall. Even if not centrally managed, the government can encourage building managers or streets of households to create their own ad hoc platforms. This can be done by overseeing a pilot of such a platform, and communicating its results publicly.
- Promote charity and second hand clothing shops to tourists.** Tourists who are nearing their departure date may seek to offload holiday items such as shoes and clothes. Often, these items are lightly used. The government can minimise waste generated by tourists when disposing these items by advertising in hotels charity and second hand clothing shops that accept donations. Alternatively, or in addition to, government should encourage hotels to partner with these local charity and second hand shops. In doing so, hotels can set up donation boxes on their premises to make the process of donating even easier for tourists.
- Encourage community events like garage sales and fairs.** Municipalities and local communities should be encouraged to host community events where locals are able to sell and trade their items. In addition to promoting green behaviours, these events can benefit social inclusion.

For more relevant  
initiatives...

See the **World class education system**  
section for recommendations on technical  
skills and vocational education

# 3.4 Recycle: invest in the fundamental infrastructure for recycling and create the right incentives to change behaviours



## Invest in waste management infrastructure

- There is an urgent need to invest in building recycling plants for household and industrial waste.** Plants need to be strategically located, involving a mix of large national plants and smaller local ones – giving all citizens and businesses close access.
- The government must provide the initial capital outlays to build recycling plants, or seek out a public-private partnership. The government should then seek out private companies to run and maintain the recycling plants.
- For this to be effective, the government must ensure credible laws and penalties are put in place to give companies confidence that a sufficient supply of waste will be delivered to the plants for recycling.
- Laws must be introduced (in line with the ‘pay as you throw’ efforts already underway) to ensure compliance and give a clear mandate and accountability to municipalities for recycling.
- Positive incentives should be used to encourage municipalities to meet recycling targets (which will be subject to third party verification), as well as fines for failing to meet new laws.
- Targets should be set for municipalities, businesses (e.g. starting from the larger ones including hotels, supermarkets, banks, semi-government organisations) and the government sector at large (schools, hospitals, civil service) for recycling levels and fines should be applied for failing to meet targets (subject to third party verification). Naming and shaming offenders could also be another strategy to adopt.



## Oversee rollout of national PAYT scheme

Pay-as-you-throw (PAYT) schemes have been identified by the EU as the most effective option for waste reduction and source separation, and an essential first step to produce clean streams and consequently increase recycling. PAYT schemes charge households and businesses according to the amount of waste generated. A pilot scheme was tested in the Aglandja municipality in 2020, after initial planning started in 2014. In this pilot, rubbish bags of different sizes could be bought at the town hall or other locations such as supermarkets, bakeries and grocery stores. According to the data, during the two months of the pilot’s implementation, there was 99.3% participation by residents and a 39% reduction in garbage.<sup>1</sup>

A bill to regulate PAYT schemes island-wide is now before the House (as of Dec 2020).

The government should:

- Accelerate the passing of the PAYT bill, and oversee that the nationwide roll-out continues at pace.
- Mitigate opportunities for arbitrage by carefully considering the prices of PAYT bags in neighbouring municipalities.
- Support municipalities in acquiring and installing the necessary infrastructure for waste collection and monitoring.
- Liaise with any ongoing projects and initiatives to build waste management infrastructure, e.g. recycling plants.

<sup>1</sup> In-Cyprus, ‘Pay as You Throw’ program to be implemented all over Cyprus, 2021.



## Introduce fines and penalties

Fines and prosecution for fly-tipping and illegal waste dumping should be introduced nationwide. In recent years, areas around the capital (Malounta, Kliroú) have evolved into illegal tipping sites for residents, businesses and rubbish collectors.

At the moment, certain municipalities, such as Larnaca and Limassol, impose fines for illegal dumping of solid waste starting from €200 for individuals and €500 for companies, with fines for repeat offenders even higher.

Efforts to push recycling of municipal waste would be improved by doing the following:

- Implementing similar fines across the country, with a national fine applicable across the whole country for it to be effective
- Powers must be given to local municipalities to enforce these penalties
- In order to enforce fines and penalties, Cyprus must improve its capability to monitor commonly-used illegal waste sites. To do this, the government can invest in drone technology to monitor these waste points and disincentivize fly tipping and improper waste disposal. This will also help to create jobs in ICT and further the digital agenda.
- Investment in drones will support Cyprus’s current efforts to expand the workforce of inspectors in municipalities tasked with combatting and monitoring illegal waste dumping.

### Best practice in offices and hotels

- Ensure all public sector buildings have waste separation bins (i.e. paper and cardboard, glass, cans)
- Ban single-use plastic such as plastic cups and cutlery and promote reusable bottles
- Encourage hotels to reduce single-use plastic (i.e. no individual shampoos) – this can be done either through green certification incentives, or legalisation. For example, they should be required by law to separate their waste and recycle correctly.

## 3.5 Embed the circular economy within the manufacturing sector

Establish a public-private partnership to identify solutions for circulatory within the manufacturing sector and evaluate the operations and supply chains of local manufacturers for candidacy of a pilot.

It should involve local manufacturers, Ministries of Energy, Commerce and Industry, the Ministry of Agriculture, and the proposed Deputy Ministry of Climate Action.

### Establish a PPP



### Plan

Identify leading firms, such as from the manufacturing sector, to run pilot studies, identify best practice and cost effective solutions to improving circularity.

Provide hands-on technical support to identify areas for upgrades to production processes, create business plans, implement enhanced supply chains, etc.

### Pilot



### Scale up

Accelerate implementation of the government's existing action plan for the circular economy, focusing on the key roadblocks, such as the necessary declassification of key waste products as use as raw material in production.

Run workshops and seminars with experts to design solutions, drawing on international best practice and success stories. For example, commission an international manufacturing leading the way in circular economy to come and talk about their circular solutions and offer tangible advice to other companies.

Successful projects should then be scaled up across the sector, with financial incentives focused tied to these projects. Policymakers should provide financial support and incentives for circular economy machinery.

Raise awareness by sharing business plans and ultimately outcomes with other players in the market to drive change.

# 4.1 Develop environmental resilience in people, businesses and ecosystems to adapt to the risks and uncertainty posed by climate change

## The case for change

- Cyprus is expected to experience adverse effects of climate change, compared to parts of Europe.
- Yet, according to PwC's latest CEO Survey, only 30% of Cypriot organisations have explicitly factored the threat of climate change into their risk management activities, compared to 40% globally.<sup>1</sup>
- According to research by The Cyprus Institute<sup>2</sup>:
  - **Warmer weather:** Between 2020 and 2050, maximum temperatures exceeding 38°C are expected for an additional two weeks per year. There is also expected to be one additional month of warm 'tropical' nights of temperatures at least 25°C. By 2100, the number of hot days per year in Nicosia is expected to increase by two months.
  - **Less rainfall:** Reductions of 10-15% are expected between 2020 and 2050. Cyprus already has the most severe water scarcity problem in Europe. Water scarcity and heat stress will likely result in an increased frequency and severity of forest fires and further desertification.
- Climate change will have far-reaching impacts on nature, ecosystems, biodiversity and human life, as well as on businesses and the economy.
- It is estimated that around 50% of EU GDP is either moderately (36%) or highly (13%) dependent on nature. In Cyprus, the percentage may be even greater, due to the importance of the tourism sector and its reliance on imports for food supply chains.

<sup>1</sup> PwC, 24th Annual Global CEO Survey, 2021.

<sup>2</sup> The Cyprus Institute, Climate Change and Impact.

<sup>3</sup> World Economic Forum, Nature Risk Rising: Why the Crisis Engulfing Nature Matters for Business and the Economy, 2020.

**Implement Cyprus's National Adaptation Plan (NAP).** The government of Cyprus formally adopted a National Adaptation Plan in 2017, an excerpt of which is included below. The NAP lists 57 measures, actions and practices that are required for the effective climate change adaptation of eleven vulnerable areas: water resources, soils, coasts, biodiversity, agriculture, forests, fisheries & aquaculture, public health, energy, tourism and infrastructure. The NAP sets out clearly the implementing body for each adaptation measure. The implementation of several adaptation measures in the 11 vulnerable sectors is currently underway.

We urge the government to remain committed to the NAP, and accelerate the implementation of some of the key and high priority adaptation measures highlighted here. Crucially, progress against the plan should be monitored and reported on annually, holding stakeholders to account for progress.

## Excerpts from Cyprus's National Adaptation Plan – Adaptation Initiatives

| Water   | Land  | Infrastructure   | Biodiversity   |
|---|---|--|--|
| Maintenance and repair of water transport systems, networks and related infrastructure  | Development and implementation of a Measures Plan to combat the desertification of Cyprus – this is currently in process by the Department of Environment | Development of flood decongestion projects in cities (e.g. green spaces, artificial lakes)     | Protection, maintenance and proper management of the important natural wetlands of Cyprus  |
| Control and avoidance of water-based requirements in all areas with insufficient water resources (e.g. golf courses, tourist facilities, water-bearing crops) | Continuation and increase of agri-environmental measures through the Rural Development Programme 2014-2020  | Effective rainwater management in existing and new buildings                                   | Creation of a biodiversity catalogue, which includes population, distribution and genetics of species living in Cyprus, with a focus on endemic, rare and vulnerable species |
| Enhancement of water efficiency usage in buildings, agriculture and manufacturing   | Control of illegal and free grazing with the restoration of the farm guard, modernisation of the Law on Goats, and its extension to all areas of Cyprus   | Revision of building regulations to prohibit construction in floodplains and coastal zones     | Creation of action plans for the protection of endangered species and their habitats   |
| Reuse processed liquid waste of urban origin only after strict control of their suitability   | Development and implementation of a plan for the sustainable use of land  | Improvement of the design and construction materials of buildings and transport infrastructure | Promotion of research on biodiversity and climate change   |

Legend:   High priority adaptation initiatives which are vital to the adaptation plan and should be accelerated

## 4.2 Strengthen and enforce protections for biodiversity and natural environments



### Enforce the Natura 2000 directives to protect biodiversity and natural environments in Cyprus

- Natura 2000 is the largest coordinated network of protected areas in the world, stretching over 18% of the EU's land area and more than 8% of its marine territory.<sup>1</sup> The network aims to provide long term protections for valuable and threatened species and habitats, both on land and at sea, by promoting conservation and sustainable interactions with nature. Areas under Natura 2000 are protected by strict conditions under which development may take place. Rigorous and comprehensive assessments of plans proposed for development in Natura 2000 sites should be conducted before approval. In addition, EU member states with protected areas must release reports every 6 years detailing measures to manage and protect these sites.
- On paper, Cyprus has over 60 areas protected under Natura 2000 including large swathes of land and coastlines such as Dasos Pafou and Chersonisos Akama. However, Cyprus's track record of adequately managing and protecting these areas has been weak. This is of high concern. Cyprus has already a lower coverage of forests compared to the EU average and is suffering from the effects of environmental degradation. More importantly, most tourists visit Cyprus for its natural beauty. Destroying or commercialising Cyprus's natural beauty will imply the eventual commercialisation of these areas which will detract higher spending tourists (that Cyprus wants to attract) from coming to the island.
- In 2019, the European Commission said in a letter to Cyprus's government that 'Cyprus has generally and persistently failed – since its accession to the EU – to ensure that its authorities subject plans or projects to appropriate assessment of their implications on the Natura 2000 sites.' Cyprus was urged to improve its 'systemic failure' in the protection of these areas.<sup>2</sup>
- Examples of Cyprus's failure to protect its Natura 2000 sites include illegal hospitality and retail premises built on protected beachfronts and government-approved infrastructure projects that have knowingly harmed protected species and habitats.
- We urge Cyprus to strengthen its enforcement of Natura 2000 directives and protect the biodiversity and natural environments – beaches, forests, seas and more – which give the country so much of its unique heritage.

Measures can include:

- Survey Natura 2000 areas and put in a time-bound action plan to demolish illegal premises built on or near to the protected land.
- Eliminate loopholes in the legislation which permit the authorities to overrule environmental impact assessments and continue damaging Natura 2000 areas (or indeed offset areas prone to damage with other Natura 2000 areas). If environmental impact assessments show a net cost to the public from a project going ahead then these should not begin in the first place. Delicate ecosystems are not replenished or reproduced. For example, solar parks should not be constructed adjacent or in Natura 2000 areas. Highways should not be built in areas close to Natura 2000 areas. No projects should start without a complete environmental impact assessment.
- Environmental impact assessments are in line with the EU's Environmental Impact Assessment Directive, some parts of which Cyprus has not yet correctly transposed.<sup>3</sup> For example, Cyprus has not transposed its obligation to ensure that practical information is made available to the public on access to administrative and judicial procedures. Cyprus should transpose these parts of the Directive with haste.
- Conduct thorough environmental impact assessments for the effects of public and private projects proposed for Natura 2000 sites. The government should impose more stringent and stricter requirements for all environmental impact assessments. This is to ensure that the private sector entities in particular do not guide or impose their view on those carrying out the environmental impact assessment and ensure independence.



### Ratify, in full, and improve enforcement of the Barcelona Convention for coastlines

- Cyprus adopted the Barcelona Convention for coastlines in 1995, committing to protect the Mediterranean marine and coastal environment and ensure the sustainable management of natural marine and coastal resources.
- However, enforcement of the protections provided by the Convention has been insufficient, leading to systemic encroachment on Cyprus's coastal areas by developers and businesses.
- Cyprus must ratify the Convention in full and strictly enforce its protocols and directives. Cyprus can also:
  - Reinforce the requirements for planning permits in protect areas**, e.g. the sea caves area in Paphos and seafronts in Protaras. Proposals for planning permits must include a comprehensive review of the actions the developer will take to mitigate negative impacts on Cyprus's coastlines and marine environment.
  - Conduct capacity studies**. The Ministry of Agriculture, Rural Development and Environment must analyse and produce evidence-based capacity studies for coastlines in Cyprus, i.e. how many hotels, villas and tourists an area can support before becoming untenable.
  - Municipalities with large sections of coastline should have a dedicated officer for environmental affairs, including the protection of beaches and marine life**. This officer will be responsible for monitoring compliance with the Barcelona Convention and other laws protecting marine and coastal resources.

<sup>1</sup> European Commission, Natura 2000.

<sup>2</sup> European Commission, November infringements package: key decisions, November 2019.

<sup>3</sup> European Commission, February infringements package: key decisions, February 2021.

# 4.3 Develop an understanding of climate-related risks in the financial sector

## The case for change

- Climate change poses significant risk to the finance and insurance sector and its stability.
  - Physical risk:** As climate change advances, the risk of abrupt value losses in climate risk-sensitive geographical areas – such as Cyprus – increases. This can lead to the erosion of collateral and asset values for a large number of financial institutions.
  - Transition risk:** Financial markets can be adversely affected by the uncertainties related to the timing and speed of the transition towards a low-carbon economy. Mitigation policies, technological advances or changes in public sentiment can lead to value reassessments by financial market participants, possibly in an abrupt manner. An unanticipated introduction of policy measures or a rapid change in consumer preferences could trigger abrupt asset price decreases for the affected firms and sectors.
- It also creates opportunities – the expected transition to a lower-carbon economy is estimated to require around \$1 trillion of investments a year for the foreseeable future, generating new investment opportunities.<sup>1</sup>
- Policymakers and financial institutions must take a long-term view and act today to ensure the finance and insurance sector can adapt and be resilient to the effects of climate change across the economy.



## Taskforce on Climate-related Financial Disclosures

- To help identify the information needed by investors, lenders, and insurance underwriters to appropriately assess and price climate-related risks and opportunities, the Financial Stability Board established an industry-led task force: the Task Force on Climate-related Financial Disclosures
- The Task Force developed four recommendations on climate-related financial disclosures that are applicable to organisations across sectors and jurisdictions – see below.
- As of September 2020, there are 1,440 global companies disclosing climate-related financial risks and are supporters of the TCFD, representing a market cap of \$12.6 trillion.



## Set out a clear timeline for mandatory TCFD compliant disclosures by 2030

- Following in the UK's footsteps, the government should set out a clear timeline for when climate disclosures of financial institutions will be mandatory by 2030.
- Create initial reputational incentives:** On the Deputy Ministry of Climate Action's website, best practice and case studies should be outlined to incentivise companies to follow suit and create reputational benefits
- Utilise existing frameworks:** Clear guidance should be set up using the framework of the Task Force on Financial Disclosures, as well as the EU's TEG (technical expert group on sustainable finance) guidelines. The government can support businesses by developing robust environmental disclosure standards, with clear metrics and data points.
- The key steps for how this should be achieved are set out on the following slide.

1

**Governance:**  
Disclose the organisation's governance around climate-related risks and opportunities

2

**Strategy:** Disclose the actual and potential impacts of climate-related risks and opportunities on the organisation's businesses, strategy, and financial planning where such information is material

3

**Risk management:**  
Disclose how the organisation identifies, assesses, and manages climate-related risks.

4

**Metrics and targets:**  
Disclose the metrics and targets used to assess and manage relevant climate-related risks and opportunities where such information is material



## Case study – UK's roadmap towards mandatory climate-related disclosures

- The UK has announced its intention to make TCFD-aligned disclosures mandatory across the economy by 2025, with a significant portion of mandatory requirements in place by 2023.
- The UK Taskforce's Interim Report, and accompanying roadmap, set out an indicative pathway to achieving that ambition. The government released a consolidated timeline of planned or potential regulatory actions or legislative measures over the next five years.
- The roadmap presents a timeline for each **category of financial institution**, for example banks and building societies, listed commercial companies, asset managers, and insurance companies, and by their size, for example as defined by market capitalisation, turnover and balance sheet assets.
- The new rule will be introduced initially on a 'comply or explain' basis, before being made mandatory. The Financial Conduct Authority generally expects companies to be able to comply. However, it understands that some companies may need more time to deal with data, analytical or modelling challenges.

<sup>1</sup> International Energy Agency, World Energy Outlook Special Briefing for COP21, 2015.

## 4.4 Support the financial sector in managing climate risks and developing resilience



### Run a consultation with financial institutions

- A taskforce should be established to explore the application of TCFD-compliant climate-related reporting within Cyprus.
- As part of this, a consultation with financial institutions (including banks, insurers, pension providers) should be conducted to understand and explore the following:
  - The current metrics that are tracked and the reporting procedures that are undertaken with regards to climate risks
  - The guidance, methodologies and support that would be required to enable financial institutions to make compliant climate-related disclosures
  - The timelines for mandatory reporting
- As part of the consultation, the taskforce should organise a seminar or event which takes companies through the TCFD framework, outlines the importance of understanding the risks (from both an economy-wide and company perspective) and the benefits. For example, preliminary research by the Bank of England and PwC found that some TCFD disclosures were positively correlated with the stock price of firms that have disclosed to date, with the disclosures about a firm's targets, emissions, risk management, resilience and impacts exhibiting the strongest correlations.



### Support companies in their journey to make climate-related disclosures

- **Subsidise training courses:** The TCFD offers a number of online courses to help organisations fill knowledge gaps and enhance their disclosures. They also have a specific training course on climate reporting in the EU, which would be of particular importance. The government should aim to subsidise the cost of such training courses for companies who are willing to be pioneers of compliant reporting in Cyprus and commit to disclosures on an escalated timeline.
- **Stock exchanges should provide momentum:** Stock exchanges should work toward making annual climate disclosures that reflect this guidance a continued listing requirement. To do this, they need to develop common guidance and a framework that is consistent with TCFD.
- **The Central Bank of Cyprus need to lead by example and publish TCFD-compliant disclosures.** This is important as central banks control large balance sheets and have considerable clout in setting expectations for the private sector. Central banks can also help develop best practice in data collection, analysis, metrics, and tools such as scenario analysis that can be used by the private sector.



### Climate change stress testing

- Once reporting capabilities and standards have been developed, the next step is to interpret that data and to embed it within risk management strategies.
- Central banks, such as the Bank of England and the Federal Reserve have begun large scale climate-stress testing of the country's financial system, and announced plans to support financial institutions do the same.
- Building on the Central Bank of Cyprus's membership of the Network of Central Banks and Supervisors for Greening the Financial system, the authorities should accelerate the development of capabilities and frameworks for climate-stress testing across the sector.
- The authorities should run a consultation with Cypriot financial institutions to understand the current procedures for evaluating climate risks. Training and workshops should be provided to firstly build awareness of the importance of such an exercise, and secondly to build capabilities. A clear timeline should be developed of when financial institutions must be doing so to a specific standard.
- Climate stress tests are not conventional pass-or-fail tests that can lead to impairment of assets, but rather about developing strategies and governance to build resilience and adapt business models to climate change.



### Case study – Landsec: Creating financial transparency on real estate climate risk

- Landsec is a real estate investor and developer. The company made a public commitment to implementing the recommendations of the TCFD and in 2019, disclosed a concise set of financial metrics to provide investors with accurate and useful insights about the level of climate-related risk associated with the business.
- Landsec conducted quantitative analysis of their portfolio, as well as qualitative scenario analysis, assessing the risks and opportunities associated with climate change.
- Landsec also use their research to inform property investment, development, operation and divestment decisions, including:
  - Assessing energy efficiency and climate-related financial risks when buying new assets.
  - Managing the risks presented by higher cooling costs and lower heating demand, by adapting building services design, reducing heating capacity and maintaining summer cooling capacity to cope with heatwaves.
  - Actively investing in renewable energy generation capacity to improve resilience, reduce carbon emissions and reduce operational costs.
  - Continuing to invest in reducing contributions to climate change.

# 5.5

So the economy is diversified, sustainable  
and more resilient

# Diversified, sustainable and more resilient economy

## Roadmap

| Outcomes  | Initiative areas  | Sample of initiatives outlined in this section  |
|---|---|---|
| Attract and nurture foreign companies through targeted and personal networking  | 1.1 Attract and nurture foreign companies through targeted and personal networking<br><br>1.2 Maximise spillovers and knowledge transfer from foreign firms to the Cyprus economy   | <ul style="list-style-type: none"> <li>Set up a dedicated proactive investment promotion task force within CIPA.</li> <li>Implement an aftercare programme for foreign firms.</li> </ul>  |
| Bring the best possible talent to Cyprus to complement the local workforce  | 2.1 Bring the best possible and appropriate talent to Cyprus to complement and upskill the local workforce<br><br>2.2 Fill current skills gaps with workers in STEM to underpin the implementation of Vision 2035<br><br>2.3. Create and sustain Cyprus's brand as a destination for Digital Nomads | <ul style="list-style-type: none"> <li>Simplify visa application process for dependants of existing work visa holders.</li> <li>Create a 'Work in Cyprus' one-stop-shop.</li> <li>Design a STEM visa fast track process.</li> </ul> |
| Support businesses to achieve scale and promote export growth in key markets  | 3.1 Building the infrastructure for Cyprus to be a European business and trade hub  | <ul style="list-style-type: none"> <li>Build a new business park.</li> <li>Create a nationwide zoning plan for Vision 2035.</li> <li>Identify a Cyprus central business district (CBD).</li> </ul>                                  |
| Improving Cyprus's air connectivity to key markets and making Cyprus a great and convenient place to do work, study, visit and live | 4.1 Improving Cyprus's air connectivity to key markets and making Cyprus a great and convenient place to do work, study, visit and live   | <ul style="list-style-type: none"> <li>Progress with plans outlined in the National Tourism Strategy to run an airline partnership initiative.</li> <li>Set up a taskforce to identify priority routes.</li> </ul>                  |

# Diversified, sustainable and more resilient economy (cont'd)

## Outcomes

- ① Attract and nurture foreign companies through targeted and personal networking
- ② Bring the best possible talent to Cyprus to complement the local workforce
- ③ Support businesses to achieve scale and promote export growth in key markets
- ④ Improving Cyprus's air connectivity to key markets and making Cyprus a great and convenient place to do work, study, visit and live

## KPIs and targets

| Key performance indicator  | Year of latest available data | Current state   | Target by 2035 | Benchmark                                |
|--|-------------------------------|-----------------|----------------|--|
|  Contribution to GVA from the top 5 largest sectors                   | Average 2015-19               | 48%             | 40-45%         | N/A                                      |
|  GVA share of primary and secondary sectors (excluding construction) | 2019                          | 11%             | 15%            | N/A                                      |
|  Air Connectivity Index <sup>1</sup>                                | 2019                          | Global Rank: 70 | 40 – 45        | UK – 6<br>Singapore – 23<br>Ireland – 36 |

Data from Eurostat unless otherwise stated.

<sup>1</sup> International Air Transport Association, Air Connectivity: Measuring the connections that drive economic growth, 2019.

Note: Latest available data is used up to 2019. 2020, where available, is excluded due to the COVID-19 pandemic.

# Creating a more diversified, sustainable and resilient economy

## The case for change

- Economic growth in Cyprus is **currently reliant on a few sectors**. To some extent this is expected for a small and service-orientated economy. However, a lack of diversification is compounded by the fact that most of these sectors are either reliant on foreign demand or are linked to foreign firms and investments.
- The number of foreign-controlled enterprises across the total economy stands at around 230 (as of 2018) – although this number does not include key sectors such as financial and insurance services, and construction. This is **less than 0.5%** of the total number of enterprises operating in the Cypriot economy.
- Foreign controlled entities in Cyprus investment more than twice the level compared to their locally controlled entities. Similarly, the employees of foreign controlled entities in Cyprus appear to be at least **twice as efficient** than their local counterparts based on Eurostat's data on labour productivity.
- In the WEF's 2017 Executive Survey, a question asking, 'to what extent does foreign direct investment bring new technology into your country?', Cyprus ranked 79th in the world. This suggests that **spillover effects** from the presence of multinational companies may be limited.
- Cyprus also does not have a very diversified export mix. As measured by the Herfindahl-Hirschman Concentration Index, its **exports are over five times more concentrated** than the EU average.

## Priorities of Vision 2035

### Increase Cyprus's mix of sectors

Vision 2035 has identified a number of key sectors which have the potential to drive growth in Cyprus – these are discussed in detail with sector-specific initiative recommendations in this section.

### Drive scale and increase extroversion

Support companies to sell their goods in new export markets, achieving scale and boosting Cyprus's global brand in key sectors like Cypriot speciality foods.

### Maximise spillovers and knowledge transfer

Ensuring that local businesses and workers benefit from the presence of foreign firms in Cyprus – with knowledge and technology transfer and new jobs and opportunities, and indirectly as world leading firms create competitive pressures for local firms to increase productivity and efficiency.



### Increase the diversification and resilience of key sectors

In terms of both the quantity and variety of markets and countries that sectors rely on (i.e. tourism), and the quality of those markets and people (i.e. focusing on international students in key fields of study and skills).

### Attract foreign companies and expertise to Cyprus

Create additional competitive advantages to attract companies to Cyprus. This means building the right horizontals, so Cyprus is not reliant on its competitive tax structure – which could expose the country to shocks if changes to international regulation erode its advantage.

# 1.1 Attract and nurture foreign companies through targeted and personal networking



## Cyprus Investment Promotion Agency

- Invest Cyprus (Cyprus Investment Promotion Agency) is the investment authority of the Government of Cyprus dedicated to attract and facilitate foreign direct investment into Cyprus.
- Invest Cyprus's mandate is to raise awareness of the country as a FDI destination, providing certainty around all aspects of operating a business in Cyprus and supporting potential investors in developing their business case for investment into the country.
- As a member of the World Association of Investment Promotion Authorities, Invest Cyprus has been following competition and best practices of IPAs at an EU and international level.
- However, the public resources deployed for promoting the country as a destination for foreign investment and international business have always been significantly lower when compared to the rest of Europe and other competing jurisdictions.
- With a promotional budget less than €1m pa and without a network of representatives/offices in major international markets, the awareness is inevitably limited. This constitutes a major discrepancy for an open serviced-based economy, especially when compared to the annual public spending for the promotion of the country as a tourist destination.



### Set up a dedicated proactive investment promotion task force within CIPA

- Its mandate would be to develop and grow links and networks between Cyprus and international firms on a proactive basis. This service could be in-house as part of CIPA and should be proactive rather than reactive.
- The task force should include a small number of highly trained executives to explain and promote what Cyprus can offer as a country to multinational companies of any size (e.g. low corporate tax rates, EU member-state advantages, climate and geographic offerings) and lay the groundwork for future relocation opportunities.
  - They should have a comprehensive and detailed understanding of Vision 2035, the LTES and the types of companies and sectors that Cyprus needs to attract
  - They should be clear and aligned on Cyprus's comparative advantages that should be promoted – avoiding any contradictory presentations
  - They should have a clear mandate and the authority to grant specific requests to companies without having to follow lengthy approval process. The taskforce must be credible and gain a reputation for efficiency and effectiveness.
  - They need to be well versed on the availability and skills in the Cyprus labour market – for example, being able to answer questions about availability of workers with ICT skills
  - The highly trained individuals should be extroverted individuals with excellent communication skills, high level of EQ and a native command of the English language as well as very good understanding of how modern conglomerates operate. The performance of these individuals should be partly assessed based on the number of businesses that set up a branch in Cyprus consistent with Vision 2035.
- Consistent with Cyprus's Vision 2035, the focus should be on mid-level conglomerates which do not have a presence in the South East Mediterranean but want to gain a foothold in the European Union.
- For the taskforce to fully understand current pain points and where special permissions could be granted, a 'investor roadmap' should be built to identify the permits, processes and administrative changes that are constraining investments.

For more  
detail...

See the following page  
for more detail on the  
investment promotion  
taskforce

# 1.1 Attract and nurture foreign companies through targeted and personal networking (cont'd)

## Build networks



Initiate conversations with business leaders in various forums (roadshows, business forums, seminars, summits etc) around what foreign companies would need to base their operations in Cyprus. These should include reaching out campaigns to specific corporates. The emphasis should preferably be in focused in EU countries (given alignment of rules, regulations and standards) and, in particular, the non-Greek speaking world.

## Target CEOs and investors



Investment officers undertake regular 'back-to-back outcalls' to targeted investors, to discuss project status and needs for other services and support. These often involve an ambassadorial-level meeting at investor headquarters, and an CIPA high-level representative meeting with the CEO and top management of the investors' local subsidiaries.

## Showcase Cyprus



Invite potential foreign executives to Cyprus and guide them through how their headquarters could look like if they choose to make the decision to relocate to Cyprus. This could include networking events with current expat executives already located in Cyprus. A similar approach could be adopted with high profile journalists (New York Times, the Guardian, the FT, BusinessWeek, Newsweek, The Economist) to cover Cyprus's progress on this front. This approach should not be a one-off. Rather Cyprus will have to nurture these relationships over the long-term instead of establishing short-term, transactional relationships.

## Business linkages



**Business linkage programmes:** Establish matchmaking services between potential executives considering moving part of their headquarter operations and local Cypriot SMEs in the related fields to maximise synergies between the foreign and local entities. Maintain long-term relationships with targeted executives and businesses.

## Feedback conversation



Hold honest feedback conversations with executives on the corporate and personal reasons on why they didn't choose Cyprus as a headquartering destination. Doing so helps detect investor irritants, which may hinder smooth operations and become potential obstacles to future investment. The outcome of these conversations should be referred to the authorities and acted upon so that they are not repeated in the future.

# 1.2 Maximise spillovers and knowledge transfer from foreign firms to the Cyprus economy



## Implement an aftercare programme for foreign firms

- Implement an aftercare programme for foreign firms established in Cyprus to provide better support. This could be led by Invest Cyprus, or by the Deputy Ministry of Research, Innovation and Digital Policy if focussed on tech/STEM firms. It should comprise a dedicated team focused on retention and maximising the opportunities for Cyprus from a foreign companies presence in the country.
- The programme should aim to understand the current inward investors ecosystem and develop recommendations for how to better provide aftercare, for example finding local partners, R&D support and funding opportunities, supply chain support, support finding local talent and provide lifestyle advices.

1

**Prepare an inventory of top investors in Cyprus.** This could be based on their headline impact (i.e. total employment, revenues), or other criteria such as certain sectors, or investors linkages to local suppliers.

2

**Map connections to each company.** This includes all direct contacts to the company's local operation or their parent company. Each contact should be qualified in terms of decision-making authority and strength of relationship.

3

**Assess the company's situation.** This will require research and discussions with stakeholders, such as suppliers. This information should then be used to highlight the companies most at risk and in need of aftercare support.

4

**Determine the best approach for engaging with each company.** And keep a track of communications (i.e. using platforms like Salesforce) to prevent duplication of effort. Roundtables can be effective to engage key sectors.

5

**Be clear about what can be offered.** Identify possible solutions ahead of conversations and what the benefits to the company would be. The investment promotion taskforce should have authority to also grant aftercare request.

6

**Set up a COVID-19 recovery taskforce.** Future investment attraction starts with looking after established foreign investors today. Helping current investors navigate the recovery will be critical for Cyprus's reputation as a business hub.



## Establish a matching service

- Establish a matching service on Invest Cyprus to facilitate partnerships between MNCs and local projects or businesses.
- These could be tied to Cyprus's procurement rules particularly for large-scale digitisation projects in the public sector. Cyprus is in the early stages of the digitisation process in the state and private sector. Naturally, this will involve large digital transformation projects. Encouraging collaboration between MNCs and large state-run projects, such as in the digital or health sector, will incentivise big overseas corporations to establish a presence in Cyprus and generate spill over effects between domains of the economy.
- Equally, once established in Cyprus, partnerships between MNCs and smaller local businesses can encourage knowledge sharing.
- This should form part of the aftercare programme. They should talk to investors about their needs and how they could be solved with partnerships and mergers. They should identify some key criteria for local firms to be matched (i.e. certain skills, local market share, specific knowhow) and build a digital database of local firms that could be matched to investors and MNCs.
- One of the objectives should be to encourage mergers and acquisitions of local firms, in order to build up scale within the Cypriot economy. Successful and tailored matching is one way to facilitate this. The aftercare taskforce should also have a comprehensive understanding of the potential benefits, for example of any tiered financial incentives that firms can get a larger company.



## Launch an awareness campaign of Cyprus as a business hub

- Once the right foundations are in place – the investment taskforce, the aftercare programme, and other fundamental reforms have been implemented which are critical to Cyprus's competitiveness such as to the justice system – an awareness campaign should be launched to promote Cyprus as a business hub.
- With lack of awareness being evident by the huge divergence between the perceptions of established and non-established investors, Cyprus needs to undertake an aggressive and well-targeted information campaign to raise awareness about conditions and investment opportunities, promote success stories and clear up possible misconceptions or prejudices. These campaigns should be long-term rather than transactional and short-term. They should also be aided with proactive, extroverted employees of CIPA with excellent knowledge of the English language and which are well-versed in the ways of working in other leading commercial centres of the world including London, Paris and New York.
- This campaign needs to be targeted in key jurisdictions, such as the European Union economies as well as the near Middle East economies.
- The campaign should focus on key nuances and benefits that Cyprus can offer. For example, it should promote opportunities for companies to establish temporary headquarters in Cyprus on a recurring basis. These can be tech companies that are utilising attractive offers e.g. underutilised hotels during seasons where Tourism is low or during periods where Tourism has been hit by other factors such as COVID-19.

## 2.1 Bring the best possible and appropriate talent to Cyprus to complement and upskill the local workforce



### Modernisation of Cyprus's visa and application processes

- There are a number of features of Cyprus's current visas that should be reassessed and reformed, in order to make working in Cyprus more attractive.
- Invest in e-government for immigration** and digitalise Cyprus' visa and work permit application processes
- Simplify visa application process for dependants of existing work visa holders.** Currently, dependants of work visa holders must obtain a Temporary Residence Permit through a separate application submitted under the Family Reunification process. We recommend that dependants are able to come to Cyprus under the same visa. Change the Young Adults Restriction so that children can stay under family reunification if they are not in school or university.
- Activate the EU's Blue Card**, which is a work and residence permit for non-EU national, awarded on a merit basis to those with professional experience and skills.
- Allow flexibility for workers to be shareholder in a Cypriot company.** For the temporary residence visa, currently it restricts applicants from being a shareholder in a Cypriot company. We recommend relaxing these rules and allowing allow flexibility for entrepreneurs to be able to be a shareholder, director, or investor in Cypriot companies.
- Naturalisation scheme** for highly-skilled workers (for example, under the STEM visa – see next slide) can become Cyprus citizens if they have lived and worked in Cyprus for at least 5 years.
- Coordinate better across different government systems** such as social insurance, immigration, health. This can be done through process mapping and clear signposting and listing out key contacts on websites.



### Create a 'Work in Cyprus' one-stop-shop

- Building on the success of the Invest Cyprus and Study in Cyprus one-stop-shop websites, a similar online platform should be developed for immigrants – 'Work in Cyprus'
- The objectives of the online platform and the key features should be as follows:
  - Increase the speed and efficiency of visa applications**, detailing the key information for each type of visas and how they compare (i.e. information on taxes, spouse and other restrictions). It should clearly direct people to the right web pages on the Ministry of Labour, Welfare and Social Insurance to apply for visas. A key point of contact should be assigned, who should aim to respond to all enquires within 72 hours.
  - Advertise the benefits of living and working in Cyprus** – it should form the cornerstone of any marketing efforts to promote Cyprus as a destination for foreign workers in key sectors
  - Provide information on living in Cyprus**, for example information about housing, rental cars, restaurants and other social events, co-working spaces and schooling.



### Create additional incentives for workers in key sectors to come to Cyprus

- The Cypriot authorities should also consider actively creating incentives for workers in key sectors to come to Cyprus and for Cypriot companies to hire them to fill skill gaps.
- Offer tax deductions for immigrants that work in growth sectors.** Currently in Cyprus, there is a temporary tax incentive in-place that allows immigrants to be eligible for tax deductions if their income is from a new job and they have no prior income in the country. We recommend extending and adapting these tax incentives towards specific growth industries e.g. ICT, renewable energy.
- Consider making living expenses tax deductible.** For example, the cost of schooling or travel to create additional incentives.
- Extend the 50% tax exemption for non-residents earning more than €100,000 to those earning more than €50,000, but target this in certain sectors.** The authorities should aim to need to make the visa more fair and attractive for mid-level professionals and research employees, but target in key sectors like science and technology.
- Reconsider to re-introduce allowance for duty free vehicles purchases for expats to Cyprus. Specifically we recommend excise and other customs duties are eliminated for mild and full hybrid vehicles. This will also enhance the brand of Cyprus as a green business centre.
- Reconsider social insurance contributions for expats.** It is now considered as an indirect tax without any benefit. In particular, this exception should apply in specific growth sectors (e.g. ICT, renewable energy).
- An exemption could apply to the employer's obligation to contribute the rate of 2% in the Social Cohesion fund. Alternatively, it is recommended to introduce a cap to the employee emoluments which are subject to social cohesion fund contributions. This can be applied to specific growth sectors or can have a broader application giving the increased unemployment caused by the COVID-19 pandemic.
- Explore how to attract more international schools to Cyprus, for example with a simplified license process. This will create additional incentives for families to relocate.

For more relevant initiatives...

See the **Digitalisation and Government machinery** sections for more detail on e-government

## 2.2 Fill current skills gaps with workers in STEM to underpin the implementation of Vision 2035



### Design a STEM visa fast track process

- The processing time for a Cyprus work visa is between 4-6 weeks from the time the Migration Department receives all required documents. However, in some cases, it can take longer – up to six months. The process involves the contracted employer in Cyprus first having to apply and receive approval from the Department of Labour. Then the employer must apply for the work permit at the Civil Registry and Migration Department. Only after obtaining this work permit can the applicant then apply for a Cyprus work visa.
- Simplify the work visa application process for STEM applicants with a fast track.** Cyprus can offer a fast track route for STEM applicants that would allow for speedier approval. A dedicated STEM visa team should be set up to ensure fast processing of applications of under one month to ensure it is competitive with other countries. The application process should be streamlined, where only one centralised application is required, without having to be tied to an employer who has to make subsequent applications. To make this visa attractive to talent and competitive amongst other similar schemes, it should aim to offer flexibility, security, and opportunities for growth.



**Flexibility** – This visa should not be tied down to a specific employer or sector. The applicant should also be able to bring dependents along. Other countries' Tech Visas have more lax requirements for dependants of holders, for example removing any financial maintenance requirements (UK).



**Security** – This visa should be indefinitely renewable and offer a secure pathway to permanent residence.



**Opportunities for growth** – This visa can offer tax incentives for STEM entrepreneurs and their businesses. Both employees and business owners should be eligible under this visa, to help fill skills gaps in Cyprus's existing businesses and to advance its innovation frontier.



### Case study – UK Global Talent Visa

- The Global Talent visa is a UK immigration category for talented and promising individuals in specific sectors, including the sciences, humanities, engineering, the arts, and technology.
- The visa is flexible and individuals can apply for any period of visa between one year and five years.
- To be considered for entry under the Global Talent visa, all applicants must obtain an endorsement from one of six approved endorsing bodies depending on the sector in question, for example the Royal Society, UK Research and Innovation (UKRI), Royal Academy of Engineering, the British Academy, Arts Council England or Tech Nation. Each body has a clear set of eligibility criteria, including skills and qualifications.
- There are two entry criteria routes:
  - Exceptional Talent criteria** for applicants who have already demonstrated that they have made a significant contribution as a leader to their field; and
  - Exceptional Promise criteria** for applicants who may be at an early stage in their careers and have already shown the potential to make significant contributions as a future leader in their field
- The application for endorsement usually takes up to 28 to be processed. The visa application can then take up to three weeks if applying from outside the UK and up to eight weeks if applying from within the UK. However, digital technology applicants may apply to have their endorsement application fast-tracked under certain prescribed circumstances.



### Case study – STEM visas in the US

- The US has offered H-1B visas since 1990. This visa category allows foreign workers to migrate temporarily (stays of up to six years) to the US to work in specialty skilled occupations such as those requiring Science, Technology, Engineering and Mathematics (STEM) skills. When introduced, this visa category accounted for a 40% increase in legal migration to the U.S.
- A recent study using a sample of H-1B visa holders examined the overall productivity effects of immigration under this visa category.<sup>1</sup> The findings of the study suggest that a one percentage point increase in the share of foreign-born scientists and engineers in the working population boosts the average weekly wages of native-born college-educated workers by 8–11%.
- Further, the study finds that a one percentage point increase in H1-B visa holders contributed to a boost in the average weekly wages of native-born non-college-educated workers by almost 4%.
- These results suggest positive productivity effects across the economy (to natives both with and without college educations) from skilled migration into STEM sectors, which can be driven by the skills needs of both domestic and foreign firms operating in the country.
- The authors note that long-term productivity improvements could also come from attracting foreign-born PhD students to STEM fields. The authors find evidence that these students increase academic output (as measured by number of scientific articles) and that this may have positive productivity effects, although the effects may take longer to arise than for the immigration of skilled workers (rather than PhD students)

## 2.3 Create and sustain Cyprus's brand as a destination for Digital Nomads



### Develop a Digital Nomad visa

- For non-EU digital nomads, Cyprus should design a bespoke Cyprus Digital Nomad Visa. This will allow creators from around the world to spend a limited number of days on the island (typically 90 days) and work independently and remotely. This scheme is particularly suitable for freelancers in the fields of data science or computing to foreign businesses while living in Cyprus.
- Applications:** The authorities should also follow best practice which includes the following points:
  - Criminal record check of the applicant
  - Proof of funds
  - For employees: proof of employment from current employer with a minimum stipulated monthly salary.
  - For business owners: proof of ownership of the company along with the monthly earnings.
- Tax treatment of income:** The authorities should determine the tax treatment of income and dividend income for nomads as well as whether any National Insurance contributions will be required. Most countries require National Insurance contributions from nomads – the process to do so is easy because of e-government.
- The authorities also need to clarify the treatment of dividend income for holders of the Cyprus Digital Nomad Visa (most creators set-up their own companies and draw in their earnings as dividends).

For more relevant initiatives...

See the **Supported by digitalisation** section for recommendations on e-government



### Create a one-stop-shop for visas and associated services

- To enable visa applications, the Cypriot authorities should set up a website which will act as the centralised hub for all the correspondence of the potential nomad with the authorities.
- Ideally, the system should be integrated with the corresponding system of the Ministry of Interior, Ministry of Justice, Ministry of Labour, Welfare and Social Insurance and the municipalities, such that it gives access to all standard information and services to residents that citizens of Cyprus benefit from, including telecoms and utilities (and schooling if possible). It would also mean that the nomad would be able to invoice Cyprus companies, receive payments into Cyprus banks and pay social security and income tax (if applicable) in Cyprus.
- The Cypriot authorities should respond to these requests within 48 hours of the application.
- All relevant information regarding the services and offerings in Cyprus's nomad ecosystem should be explained and advertised in a one-stop-shop web-platform – including information on health and schools. The platform should also advertise tourist attractions, social and professional events, direct-placements or networking with local ICT companies, and other activities that would be of interest to a new-comer to the island.
- The platform should also have a tool to assess an applicant's level of digital skills – this will have the benefit of being able to demonstrate the value of the programme and also incentivise companies to collaborate with the Digital Nomad community.



### Create a holistic Digital Nomad ecosystem

- Living and working arrangements:** The Cypriot authorities should identify a dedicated sea-side village or city-district that can become the central hub for digital nomads – it should include an array of lodging options, co-working spaces, and social activities in order to create a vibrant ecosystem of digital nomads.
- Investing in lodging and co-working spaces** is critical so that the nomads can cluster, share ideas, develop social and professional networks and meet others/businesses similar to them. Free and fast broadband will be critical.
- The ecosystem must go beyond housing options and a suitable work environment with a core set of business services, to include support programmes and other relevant lifestyle services. **A pre-arrival and post-arrival support programme** should be implemented in order to maximise the indirect benefits to the economy from digital nomads, with regular 'concierge' type support including emails suggesting necessary lifestyle services such as rental cars, lodging, professional and social networks, restaurants and events to maximise their spending.
- Run workshops and 'learning evenings'** where nomads present and share their work, inviting businesses and academics to create synergies.
- Use celebrity influencers:** Cyprus's presence in the virtual world as a destination for digital nomads is limited (e.g. there is no mention of Cyprus on nomadlist.com). To reverse this Cyprus could also consider using 'influencers' or YouTube based ambassadors on the internet that can trial Cyprus's infrastructure for nomads, provide feedback on the areas that need improvement to the authorities and finally promote Cyprus as a destination for digital nomads (e.g. Tim Ferris, Ali Abdaal, Nat Eliason etc.).



### Case study – Digital Nomads Madeira

- Digital Nomads Madeira is a project developed by the Regional Government of Madeira, through Start-up Madeira, and with the help of a digital nomad consultant.
- The pilot programme offers travellers free communal workspace, free Wi-Fi between 8am to 10pm daily, and exclusive events from at the John dos Passos Cultural Centre.
- Members also have access to a Slack community and a village hosting team that is on hand to foster exchanges between the nomads and locals to support them to build their networks and links with local firms.
- As part of the visa, residents must commit to staying for at least a month.
- The project has also teamed up with local businesses, such as real estate, hotels and rental car companies to create a holistic ecosystem for nomads.
- The project is supported by a one-stop-shop website, detailing all the information nomads need to integrate into the community and to register their interest in the project in one simple form online.
- Over 3,000 people applied for the project, which aims to host 100 nomads in the pilot phase.

# 3.1 Building the infrastructure for Cyprus to be a European business and trade hub

## The case for change

- These construction and real estate sectors combined contributed to almost 1/3 of real GDP growth in both the pre-crisis period (2001-08) and post-crisis (2015-19).
- Relying on construction and real estate as the main driver of economic activity comes with economic, environmental and reputational risks, especially in Cyprus's case due to its citizenship by investment schemes (which is now defunct).
- An economic model reliant predominantly on construction is not sustainable. Cyprus is a physically small island with limited space and natural resources; in the long-term, supply side constraints will increasingly limit the scope for further growth. In addition, Cyprus's unique natural beauty is a key factor for tourists. Relying on construction as the main source of growth puts this at risk.
- Cyprus's construction industry is focused in residential dwellings. The construction industry can deliver many positive spillovers for the economy, if it is concentrated in the right areas and in productive investments, for example in building infrastructure that increases efficiency and the productive capacity of the economy.
- To strike a sustainable balance between development and the environment, designing building standards and urban planning procedures that take into account environmental sustainability will be crucial for the new long-term strategy. This will allow construction to continue to drive growth going forward, along with a strategy that also increases the importance of other sustainable sectors.



### Build a new business park

- Invest in specialised business parks to attract businesses to Cyprus and encourage clustering to build Cyprus's competitive advantage.
- The parks should offer concessionary target businesses – specifically, those in high tech and STEM sectors.
- The clustering of businesses will also aid the work of the investment promotion taskforce, who can hold regular meetings and catch ups with businesses all in one place



### Build multipurpose spaces

- Invest in buildings where young scientists or entrepreneurs with innovative ideas can work and develop their ideas (i.e. incubators and accelerators)
- Provide a space where they can receive relevant support and guidance



### Build the spaces for a Digital Nomad community

- Invest in co-working and shared office spaces where people can work remotely – this should be for nomads, but also more broadly for Cypriots who may work remotely in a post-COVID digital world
- Invest in lodging and other facilities to build a Digital Nomad community



### Digital transformation of the Cyprus Ports

- Ensure the operations of the Cyprus Ports Authorities are performed efficiently and effectively and communication between the vessels and the relevant competent authorities are executed seamlessly and digitally.
- Improvements in the digital monitoring of vessel traffic in Cyprus waters, will ensure the safe navigation of vessels, reduce the risk of environmental damages due to spills from accidents and reduce vessel emissions by plotting more efficient routes.

## How to incentivise and support the construction sector to build this core infrastructure?

### Create a nationwide zoning plan for Vision 2035

This should involve a critical assessment of current land use to identify where a change of zoning could result in more productive use of land, according to the needs of Vision 2035. As part of this, a land planning officer should be appointed in each region. A future-looking zoning plan is required to give developers certainty over potential investments and assure them that they can make money from a project.

### Identify a Cyprus central business district (CBD)

Currently, Cyprus's businesses and office space is dispersed across cities. There is a need to promote better clustering and create a dedicated business district for the construction of the investments to the left. It should be the responsibility of the land planning officer to make the case for such a district and its associated benefits in their region.

### Promote access to finance

Incentives for construction will ultimately rely on the quality of access to finance for developers.

See the Open, transparent and fair marketplace section for more recommendations.

### Financial incentives

Once developers know they can make money from a project (i.e. correct zones) and have the right access to finance, the final step is offering tax incentives for certain high priority projects, such as those on the left.

# 4.1 Improving Cyprus's air connectivity to key markets and making Cyprus a great and convenient place to do work, study, visit and live

1

**Airline Partnership initiative:** Progress with plans outlined in the national Tourism Strategy to run an airline partnership initiative to work closely with airlines and airports to develop a strategy.

2

**Set up a taskforce to identify priority routes:** The taskforce should prioritise to the markets Cyprus needs access to achieve Vision 2035 – for example, key R&D sectors like Israel and business capitals of the world, as well as key destinations for tourists and international students like Africa and Asia. It should also be compatible with the economic diplomacy strategy. It should identify three tiers: High, Medium and Low priority.

3

Provide subsidies to airlines with the specific objective of commissioning 1) market and competitor studies on the costs and feasibility of new routes, and 2) detail business cases, from independent consultancies. These market assessments should aim to answer the following questions<sup>1</sup>:

- What is the current market for a potential route?
- How much can the market be stimulated?
- How will the competition react?
- How much market share could be gained?
- What will be the connectivity contribution?
- Will the new route be a financial success in the long-run?

3

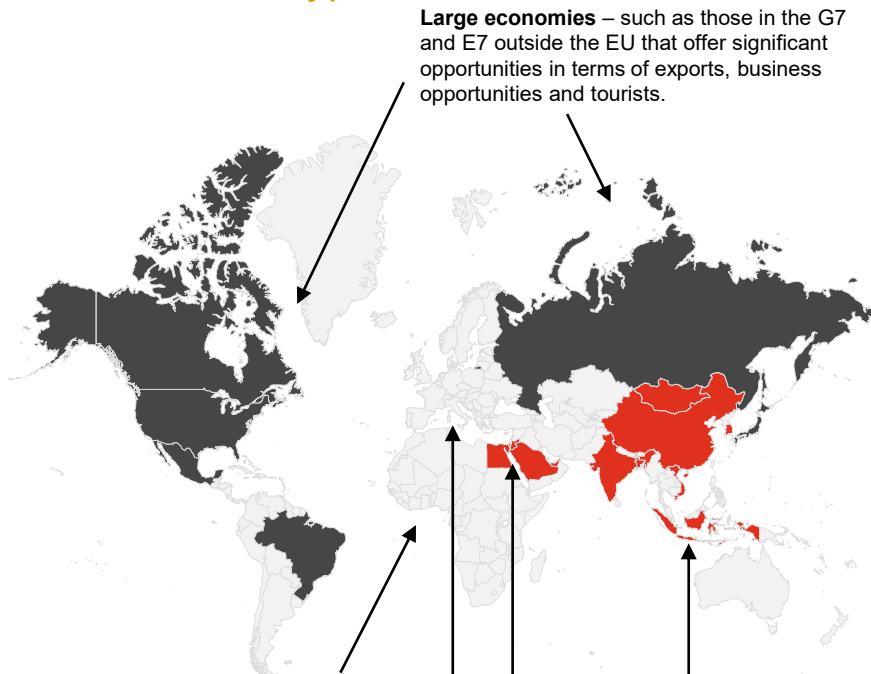
These business cases should then be used to start a dialogue with policymakers on the incentives and additional support that may be needed from the government.

4

Upon evidence of a robust route that could be sustainable in the long-run and a sound business case, government incentives (i.e. subsidies, tax incentives) should be provided to enable new routes to be developed through the use of a Public Service Obligation. This provides a vehicle that combines state and private money (overcoming issues of state aid) to create an investment fund that can help airlines start new routes.

<sup>1</sup> Ouimet, P. Airline Routes: How you can influence their development, 2010.

## Indicative air connectivity priorities



**Africa, Asia and the Middle East** – including Israel, China, India, Indonesia, Saudi Arabia, Vietnam, and Egypt. These regions offer potential due to geographical proximity and expected economic and income growth over coming decades. Specifically, there exists potential for:

- Source of international tourists and students
- Market for exports, including Cypriot speciality goods and manufacture of parts for renewable energy generation

**Large economies** – such as those in the G7 and E7 outside the EU that offer significant opportunities in terms of exports, business opportunities and tourists.

**International business hubs** – including Singapore, Beijing, as well as those in the EU

**Key R&D hubs** – specifically Israel, given proximity and alignment to Vision 2035 (i.e. agritech, ICT)

**Optimise EU connections:** while links to growing places around the world are important, Cyprus should also ensure it maximises connections to key EU locations



## Case study – Regional air connectivity Fund UK

- The Regional Air Connectivity Fund was a UK government initiative from 2015 to offer for start-up state aid to airlines to stimulate connectivity from and to regional airports. It had to meet the conditions of the EU guidelines on state aid. It aimed to launch of new routes from regional airports that handle fewer than five million passengers a year. New services were required to have an expected profitability within 3 years. Funding of £56 million was available in total and could cover up to 50% of the aeronautical charges.<sup>1</sup>
- However, the fund had a very low success rate.<sup>2</sup> In the 2016 funding round, just three of ten routes which were offered funding actually ended up being successful and launching lasting routes. In the other seven cases, routes either never ended up launching, or has a temporary run before being pulled, or ran at a significantly lower frequency than was planned. The reasons for failure included financial constraints, or the entry of new competition. The provision of this state aid highlights the importance of there being clear financial and competitive reasons for the private sector to add new routes.

<sup>1</sup> UK government, Press release – Regional airports asked to bid for up to £56 million funding for new routes over next 3 years, 22 January 2015.

<sup>2</sup> hiddenEUROPE, Funding regional air services, 2017.

# 6

## Just and inclusive society

# And the third and final pillar ensures that Cyprus's Vision 2035 sets the conditions to ensure that the spread of its prosperity is fair and inclusive for all of its citizens

| Strategic objectives   | Key horizontal initiatives   | Target outcomes by 2035  |
|--|--|--|
| <br><b>World class education system</b>                                   | <ul style="list-style-type: none"> <li>Using existing resources, update Cyprus' school curriculum to deliver much better outcomes so that it is fit for a modern workplace, with subjects including environmental education, digital and financial literacy, relationships education, and modern ways of teaching to overhaul rote learning and develop skills, such as critical thinking, complex problem-solving, team-working, emotional intelligence, and entrepreneurship.</li> <li>Improve and promote vocational education with new vocational secondary schools and the re-establishment of a Higher Education Technical Institute, both providing courses co-designed and led by employers</li> <li>Create a culture of lifelong learning with a National Careers Service and a refresh of the Adult Education Centres</li> </ul> | <p><b>510 – 530</b><br/>Mean score in PISA</p> <p><b>20 – 25%</b><br/>Share of pupils enrolled in vocational education</p>                                 |
| <br><b>Excellent and accessible healthcare system</b>                     | <ul style="list-style-type: none"> <li>Raise the quality of healthcare standards through international accreditation, to improve the sectors' international reputation. Raise the bar of care provided with health managers and clinical leadership.</li> <li>Develop a long-term digital vision for the health sector including a roadmap for digital integration across hospitals</li> <li>Develop plans to move towards a value-based General Health System, supported by improved data collection</li> <li>Embrace change by using virtual care solutions to improve accessibility through med-tech start-up support and pilots</li> <li>Make forward-looking investments in elderly and assisted living communities</li> </ul>  | <p><b>80 – 85%</b><br/>Self-perceived health, % at good or very good</p> <p><b>35-40%</b><br/>Out of pocket expenditure on healthcare</p>                  |
| <br><b>Adheres to the rule of law and combats corruption</b>            | <ul style="list-style-type: none"> <li>Without fail, the authorities must implement all of the MONEYVAL and GRECO recommendations urgently to combat anti-money laundering and corruption, including a revision of requirements on financial institutions to international standards</li> <li>Support ongoing plans to establish an Independent Authority Against Corruption consistent with best international practice including public hearing selections and rotating members.</li> <li>We emphasise the need for a whistleblowing agency (including an environmental offences office), a code of conduct for MPs, ethics training for public servants and ethics education for students.</li> </ul>   | <p><b>33 – 37</b><br/>Corruption Perceptions Index rank</p> <p><b>75<sup>th</sup> – 80<sup>th</sup></b><br/>WGI: Control of Corruption percentile rank</p> |
| <br><b>Promotes liveability, equal access and opportunities for all</b> | <ul style="list-style-type: none"> <li>Promote liveability with affordable housing, green spaces and improve aesthetics in the built environment</li> <li>Elevate the role of Commissioner for Administration and the Protection of Human Rights to a Department for Diversity and Inclusion within the Ministry of Labour, responsible for implementing annual National Diversity Action Plans</li> <li>Build momentum for diversity by requiring more companies to publish gender pay gaps, tie procurement to ethical employer accreditations, appoint diversity managers in the public sector, and mandatory unconscious bias training</li> <li>Develop long-term rural regeneration plans and outreach programmes for vulnerable groups for social cohesion</li> </ul>  | <p><b>5 – 10%</b><br/>Gender employment gap</p> <p><b>15 – 20%</b><br/>Share people at risk of poverty or social exclusion</p>                             |

# Expected ease of implementation and impact

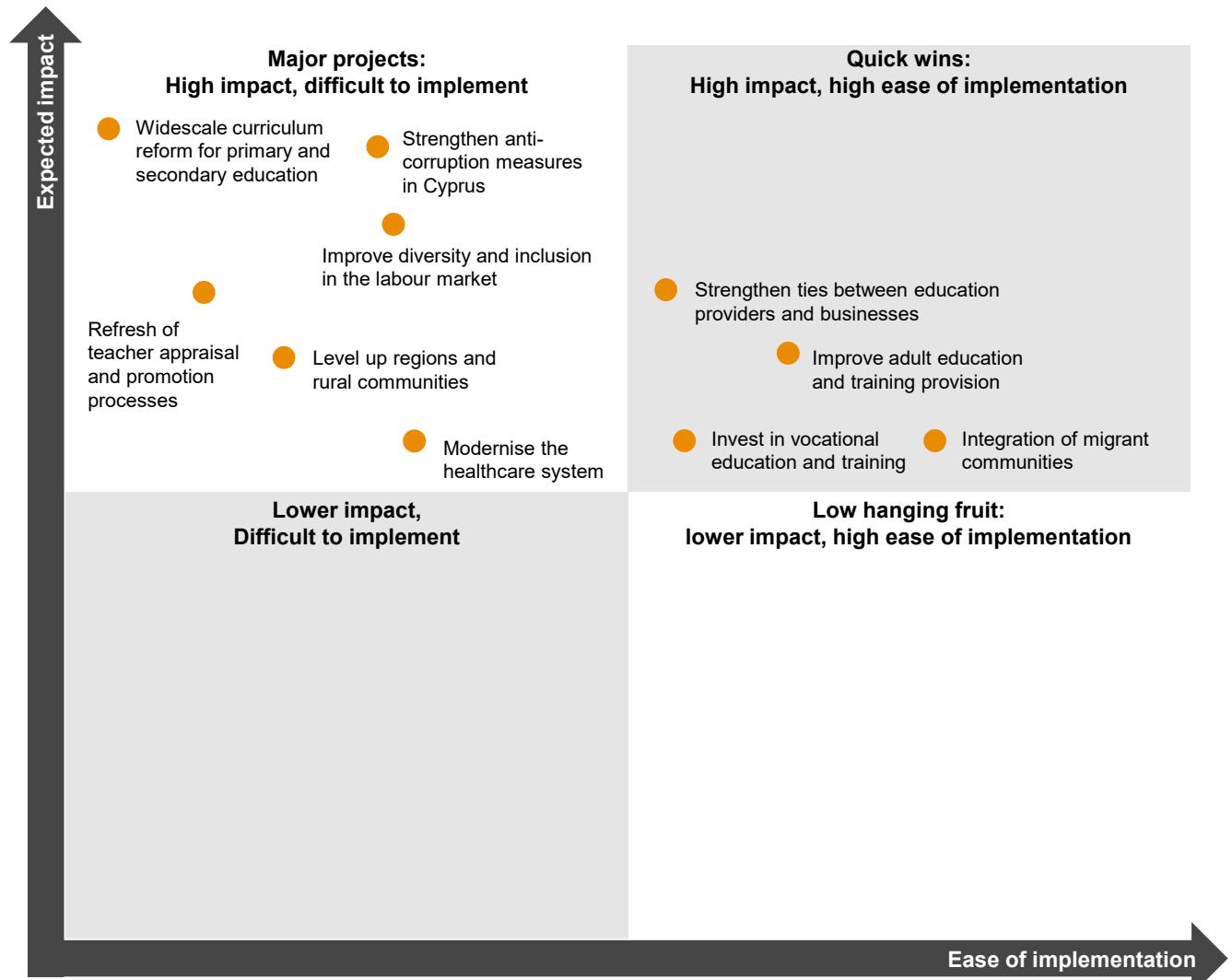
## Vision 2035 – Just and Inclusive Society

All citizens will enjoy happy, healthy and safe lives with good rewarding jobs and a high standard of living in a just and inclusive society. We will boast a **world class education system**, an **excellent health care system** and a **society that adheres to the rule of law and combats corruption** and which **promotes liveability, equal access and opportunities for all** in a sustainable manner.

Reforms in the Just and inclusive society pillar are centred on cultivating growth that does not leave anyone behind. Many of the reforms here are rated as major projects (high impact, difficult to implement) as they seek to change Cyprus from the ground up, most notably from the education system and a widescale refresh of the curriculum. Many of the initiatives in this section comprise small projects and policies (i.e. careers advisors, diversity training), which together contribute to a high impact on society and the economy. Indeed, many of the societal recommendations, for example focused on the integration of migrants and refugees, will have impacts that are hard to measure and will take time to realise – but the importance of long-term social stability and sustainability are fundamental to the success of Vision 2035.

**Expected impact:** The relative extent to which an initiative will contribute to achieving Vision 2035 in the long-run

**Ease of implementation:** The likely ease of implementing an initiative, based on level of stakeholder involvement, current institutional roadblocks, and level of political capital required



# 6.1

## With a world class education system

# World class education system

## Roadmap

| Outcomes  | Initiative areas  | Sample of initiatives outlined in this section   |
|---|---|--|
| Form a strong link between education and business to build in-demand skills   | 1.1 Forge a strong link between education and business to build in-demand skills  | <ul style="list-style-type: none"> <li>Create sector-specific skills councils to identify the necessary interventions required to upskill existing workforce</li> </ul>  |
| Transform the education system with a curriculum and infrastructure designed to develop skills for a modern workplace | 2.1 Take a long-term view to the skills and knowledge that will underpin Vision 2035 and the Cyprus economy for decades to come<br>2.2 Update Cyprus's primary and secondary school curriculum to be fit for a modern workplace and Vision 2035<br>2.3 Drive engagement from teachers, students and parents with a national after-curricula programme for primary and secondary schools<br>2.4 Create a modern schooling system and infrastructure to provide the right foundations for a new curriculum<br>2.5 Transform the education system with a curriculum and infrastructure designed to develop skills for a modern workplace<br>2.6 Drive quality education with annual assessments of primary and secondary schools | <ul style="list-style-type: none"> <li>Develop a long-term national skills strategy.</li> <li>Set up a cross-government Skills Advisory Board.</li> <li>Launch a national after-school programme of activities, clubs and certifications.</li> <li>Introduce a new teaching framework that focuses on new skills and competencies.</li> <li>Establish an independent inspector body tasked to develop assessment criteria based on international best practice.</li> </ul> |
| Invest in vocational education with a clear link to Vision 2035   | 3.1 Invest in vocational education with a clear link to Vision 2035<br>3.2 Design employer-led vocational courses with real workplace learning<br>3.3 Enable students to make informed decisions about their education pathway with improved careers advice from an early age   | <ul style="list-style-type: none"> <li>Build new vocational secondary schools and re-establish a Higher Technical Institute.</li> <li>Develop new courses in key sectors with employer-led standards.</li> <li>Design vocational post-graduate diplomas.</li> <li>Appoint an early schools Careers Team.</li> </ul>  |
| Forge a culture of lifelong learning and upskilling   | 4.1 Equip citizens with the resources and support to transition to new sectors and jobs<br>4.2 Forge a culture of lifelong learning and upskilling with high quality adult education  | <ul style="list-style-type: none"> <li>Launch a National Careers Service.</li> <li>Create a one-stop-shop website for all adult education resources.</li> </ul>  |

With a world class education system

With an excellent and accessible healthcare system

Adheres to the rule of law and combats corruption

Which promotes liveability, equal access and opportunities for all

# World class education system

## Outcomes

- 1 Form a strong link between education and business to build in-demand skills
- 2 Transform the education system with a curriculum and infrastructure designed to develop skills for a modern workplace
- 3 Invest in vocational education with a clear link to Vision 2035
- 4 Forge a culture of lifelong learning and upskilling

## KPIs and targets

| Key performance indicator  | Year of latest available data | Current state | Target by 2035 | Benchmark                           |
|--|-------------------------------|---------------|----------------|-------------------------------------|
|  <b>Young people neither in employment nor in education and training, % of total population</b> | 2019                          | 14.1%         | 8% – 12%       | EU27 – 12.5%<br>Iceland – 5.7%      |
|  <b>Job mismatch rate (horizontal skills mismatch), total economy<sup>1</sup></b>               | 2019                          | 28.7%         | 15% – 20%      | EU27 – 27.9%<br>Finland – 24%       |
|  <b>Over-qualification rate (vertical skills mismatch), total economy<sup>2</sup></b>           | 2019                          | 33.6%         | 20% – 25%      | EU27 – 21.9%<br>Netherlands – 16.3% |
|  <b>Mean score in PISA 2018 (average of reading, mathematics and science)<sup>3</sup></b>      | 2018                          | 438           | 510 – 530      | OECD – 488<br>Estonia – 525         |
|  <b>Share of pupils enrolled in vocational education</b>                                      | 2019                          | 17%           | 20%-25%        | EU27 – 48%<br>Malta – 28%           |
|  <b>Adult participation in learning</b>   | 2019                          | 5.9%          | 10% – 15%      | EU27 – 10.8%<br>Sweden – 34.3%      |
|  <b>Number of universities in the Top 250 Times World University Rankings<sup>4</sup></b>     | 2021                          | 0             | 1 – 2          | N/A                                 |

Data from Eurostat unless otherwise stated. <sup>1</sup> 'Skills mismatch (%)' refers to the percentage of the population aged 25-34 who are employed in job misaligned to their subject of study. <sup>2</sup> 'Skills mismatch (%)' refers to the share of employees aged 25-34 who are over-qualified for their position. <sup>3</sup> OECD, PISA 2018 Results: Combined Executive Summaries, 2018. <sup>4</sup> Times Higher Education, World University Rankings 2021

Note: Latest available data is used up to 2019. 2020, where available, is excluded due to the COVID-19 pandemic.

# 1.1. Forge a strong link between education and business to build in-demand skills

## The case for change

- A number of labour market outcomes suggest structural issues in the Cypriot education system.
- Vertical skills mismatch:** Cyprus has one of the highest proportions of tertiary educated graduates employed in low-skilled jobs, with around 1/3 of university graduates employed in occupations that do not require tertiary education. This suggests either over-qualification (i.e. vertical skills mismatches) or that businesses are not generating high quality jobs.
- Horizontal skills mismatch:** Workers being employed in occupations unrelated to their field of study is highly prevalent in Cyprus, even in sectors which require high levels of technical competency including computing, science and mathematics. This reflects the lack of collaboration between the Cypriot education system and businesses, and relatively low levels of adult education and training.
- NEET rate:** Cyprus has relatively high levels of young people not in education, employment or training (NEET) – 13% in 2018, higher than EU average of 10%. This partly reflects a lack of upskilling and reskilling opportunities.
- Temporary employment:** Around 14% of employees are engaged in temporary employment, although this is in line with the EU average. Of concern in Cyprus is that 93% of temporary workers cited the reason as not being about to find permanent work – this compares to 50% in the EU on average.
- These outcomes reflect, in part, the weak link and lack of collaboration between education providers and businesses.



### Create sector-specific skills councils to identify the necessary interventions required to upskill existing workforce

**Designate sector skills councils** as the decision-making groups to develop solutions to skills gaps and aligning the education sector with Cyprus's Vision 2035. The councils should be forward looking, ensuring that future skills and gaps are anticipated and appropriately planned for, given the lag of interventions in the education system translate into the labour market.

A key role of the councils will be to critically assess the current school and university curricula and ways of teaching, to identify areas for improvement – this applies to both general and vocational education, but with a key focus on co-designing the latter as the country's vocational education programme is expanded.

Objectives of and activities conducted by the sector skills councils should include:

- identifying the skills required by a modern labour market both today and in the future – and mapping these to what currently exists in the Cypriot labour market
- identifying gaps in education and training (both schools and adult education) and how to fill these gaps to build the skills needed
- improving learning by bringing students and employers together through apprenticeships and mentorships, and
- identifying R&D opportunities with universities and designing a research programme with business and commercial relevance.

The councils should bring together representatives from key sectors of industry (consistent with Vision 2035, e.g. green engineering, agriculture, ICT), education providers, universities, the Ministries of Education and Labour, and organisations such as the Cyprus Pedagogical Institute. Representatives from sectors should be prepared to offer training and support to students, such as through mentoring and outreach programmes, as well as apprenticeships and industry placements at university.

Key actions for the development of sector councils are as follows:

- An early key milestone is to **set up a vision statement and mandate**, including responsibility to critically evaluate the new curriculum. They should then be communicated cross-government, to education providers and to the public as a sign of commitment.
- Following this, a **regular meeting schedule should be set** to mitigate any operational issues related to attendance.
- A **dedicated page on Ministry of Education/Labour's website** designated to disseminate minutes for the purpose of transparency.
- Hold biannual seminars and workshops** to engage across the sector, beyond the members of the sector skills councils.
- Create a common framework of activities and responsibilities**, for example offering mentoring to schools.



### Case studies: Sector skills councils

Sector skills councils (SSCs) in the UK are independent, employer-led national organisations. The main aim of SSCs are to build a skills system that is driven by employer demand. This aim can be broadened out to four key goals:

- To reduce skills gaps and shortages
- To improve productivity, business and public service performance
- To increase opportunities to boost the skills and productivity of everyone in the sector's workforce
- To improve learning supply

There are currently 13 SSCs, who work together with over 550,000 employers in the UK to define skills needs and standards for their respective industries. They cover industries such as:

- Cogent Skills SSC: Nuclear, chemicals, polymers, petroleum, and other pharmaceuticals
- Screen Skills SSC: TV, film, radio, animation, etc

The SSCs work with a range of stakeholders, including employers, trade unions and training providers. They are funded through a range of sources, including the UK government and member organisations.

A recent success of SSCs includes the joint work achieved by the ScreenSkills and Skills for Health SSCs to develop training to help film and TV production restart safely after the first wave of COVID-19.

Source: European Foundation for the Improvement of Living and Working Conditions, Sector Skills Councils, 2020.

## 2.1. Take a long-term view to the skills and knowledge that will underpin Vision 2035 and the Cyprus economy for decades to come

### The case for change

- Though Cyprus spends a relatively large amount of its GDP on education<sup>1</sup>, at 5.4% in 2019 compared to the EU average of 4.7%, the education system has been unable to convert this high spending into strong and internationally comparable educational outcomes.
  - Cyprus underperforms the EU average in the Programme for International Student Assessment (PISA) results for science, mathematics and reading.<sup>2</sup> Cyprus's average score across the three subjects is 438, compared to 485 in the EU
  - Cyprus has one of the lowest shares of individuals aged 15 and above with basic digital literacy skills in the EU.
- Other areas of underperformance suggest that current educational machinery is inefficient, and not making best use of large resources.<sup>3</sup>
  - Around a fifth of total private education expenditure is spent on supplementary education. Poorer households are almost as likely as high-income families to invest in private tutoring, providing further evidence of broad shortcomings in the Cypriot education system. More importantly this contributes to higher inequality in Cypriot society as private tutoring is essentially considered as a supplemental fixed tax per child which disproportionately affects those on low earnings. It could also be a factor that contributes to Cyprus's low fertility rate.
  - Proportion of schools with a high provision of digital equipment per student is lower than EU average
  - Early childhood education and care is underfunded – only 3% of day care centres in 2017 were government-backed

- The EU's framework for lifelong learning considers there to be three strands of learning and education:
  - **Knowledge:** The concepts, facts and figures, ideas and theories which are already established, and support the understanding of a certain area or subject.
  - **Skills:** The ability to carry out processes and use the existing knowledge to achieve results, for example critical thinking, problem solving, teamwork, communication, creativity, analytical and management skills.
  - **Attitudes:** The disposition and mindset to act or react to ideas, persons or situations.
- The Cypriot education system is predominately focused on the first strand – that of knowledge. In order to prepare students for university, the school curriculum is centred around learning content and preparing for written examinations. As a result, practical education, or education which lends itself to developing skills which will be valuable in the workplace, is overlooked.
- The Cypriot education system urgently needs to be modernised and move away from being a knowledge-based, rote curriculum to also incorporating skills-based learning that equips young people with core transferable skills, such as **critical thinking, creativity, dexterity and problem solving** – skills that can be applied in any sector and ensure that students are job-ready.
- These core transferable skills are increasingly important in a dynamic and modern workplace, where people are unlikely to remain in one career or sector for their whole working lives. Students need to be equipped with the skills to be flexible and agile, boosting the resilience of the economy in turn.
- There are two ways that policymakers and education providers need to approach modernising the education system, which are discussed in the following slides:
  - Modernising **what** is taught – the knowledge and attitudes that are required for a modern world and workplace
  - Modernising **how** students are taught – developing skills and attitudes in students
- As well as the creation of sector skills councils, there are two further recommendations required to underpin the modernisation of education and the alignment of skills of future employees to employers.

Data from Eurostat unless otherwise specified.

<sup>1</sup> Pre-primary, primary, secondary and tertiary education, post-secondary non-tertiary education, education non definable by level, subsidiary services to education, R&D; n.e.c.

<sup>2</sup> OECD, PISA 2018 Results: Combined executive summaries, 2018.

<sup>3</sup> European Commission, Education and Training Monitor 2019: Cyprus, 2019.

## 2.1. Take a long-term view to the skills and knowledge that will underpin Vision 2035 and the Cyprus economy for decades to come (cont'd)



### Develop a long-term national skills strategy

- The Ministry of Education should create a long-term national skills strategy. This should be informed by the work of the sector councils, as well as by the research of organisations like the EU and the OECD on the future of work and the skills that will be important – both in general and to certain sectors.
- The objective of the strategy should be to, i) inform the design of modifications to education and training provision, ii) inform students of the skills required for a modern workplace, and iii) assure employers and investors that future employees will have the skills they need in the long-term.
- Given the long time lags in education and skills feeding through to the labour market, the strategy should look beyond Vision 2035 to the next 15 years as well.



### Set up a cross-government Skills Advisory Board

- This Advisory board should be led by the Ministry of Education and the sector skills councils, but it should report to a cross-government group given the importance of skills to each Ministry (i.e. tourism, digital).
- Its aim is to provide the government with up to date information, data and advice on the labour market and skills gaps.
- It should work closely with the sector skills councils to review and support regular skills analysis and data collection.
- It should prepare annual reports on the state of skills in Cyprus, against the needs identified in the national skills strategy,

## 2.2 Update Cyprus's primary and secondary school curriculum to be fit for a modern workplace and Vision 2035



### Update Cyprus's primary and secondary school curriculum to be fit for a modern workplace and Vision 2035

There are a number of identified gaps in the Cypriot education curricula, with five top priorities. These priorities should be mandatory for all students, with learning beginning at primary school in many cases. They should be new subjects added into the curricula, but core elements of these new subjects should also be incorporated more widely across the existing curricula, for example, adding digital projects to other lessons, and additional learning about climate change in science and geography.



#### Environmental education

Students will learn about individual sustainable behaviours, the circular economy and climate change. Environmental awareness and a better understanding around the individual's role in conserving and protecting natural resources should be developed starting from a young age. It should highlight the effects climate change will have on Cyprus and the positive contribution that individuals can play to mitigating those adverse effects.



#### Digital literacy

ICT has become an integral part of almost every job in the modern labour force. Students will learn how to use standard software for word processing, data processing and creating presentations. There should be practical courses to introduce them to coding, machine learning and AI.



#### Personal, relationships, social, health and economic education

Relationships education should be taught in primary schools, educating young students on how to manage healthy and respectful relationships. In addition, health education should be offered to secondary school students focusing on healthy lifestyles, mental health and risks such as drugs and alcohol. Care should be taken to ensure that the learning is taught sensitively and inclusively, with respect to backgrounds and beliefs.



#### Financial literacy

As part of the above, economic education should develop financial skills such as money management, budgeting and investment. Students will learn about basic financial instruments such as savings accounts, credit cards and stocks. This will better equip the incoming cohort of business owners, home buyers etc. to act on financial best practice.



#### Entrepreneurial education

These courses can focus on business building and management, as well as broader education around consumerism and supply chains. More widely, entrepreneurial education should teach students how to be creative, opportunity-oriented and innovative and set guidelines for personal development in these areas.



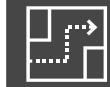
#### Modernise ways of teaching by exploring innovative models of pedagogy to develop core skills

- Preparing young people for a changing workplace means reviewing and updating the methods and techniques that teachers use. At a high level, this means overhauling rote learning which focuses on knowledge, with new dynamic approaches that develop core skills in students, for example analytical, leadership and communication capabilities.
- An 'Innovating pedagogy' working group should be established within the Ministry of Education, working closely with the Cyprus Pedagogical Institute. It should be tasked to review alternative and emerging models of pedagogy and prepare recommendations.
- There is a mounting body of research and case studies of new innovations in teaching methods. For example, the OECD has identified six clusters of innovative pedagogies for powerful learning. These include:<sup>1</sup>
  - Experiential learning – focusing on process discovery and project-based learning
  - Embodied learning – focusing on creativity and emotions through arts and design-based learning
  - Computational thinking – understanding how scientists use computers to frame thinking and solve real problems
  - Multiliteracies and discussion-based learning – fostering critical thinking and questioning
- Other resources to draw from include the Open University series of eight Innovating Pedagogy reports. In a recent report, it discusses the experiences of the National Institute for Digital Learning at Dublin City University, Ireland, in new approaches involving artificial intelligence, multisensory learning and social justice pedagogy.<sup>2</sup>
- The working group should aim to prepare a report on the value of new methods, the practicalities of implementing them within a curriculum and the expected outcomes.
- **Pilot schools should be assigned**, in which new teachers are trained new methods and these are trialled and developed with students in certain classes.

## 2.3 Drive engagement from teachers, students and parents with a national after-curricula programme for primary and secondary schools

Implementing a new school curricula is a very complex process, involving many stakeholders, and must be carefully managed to minimise disruption to exam preparation of current students. The Ministry of Education should hold the reins on the content of the refreshed curriculum while collaborating with education providers, sector councils and international experts. The process of refreshing the curricula and then phasing should include the following steps:

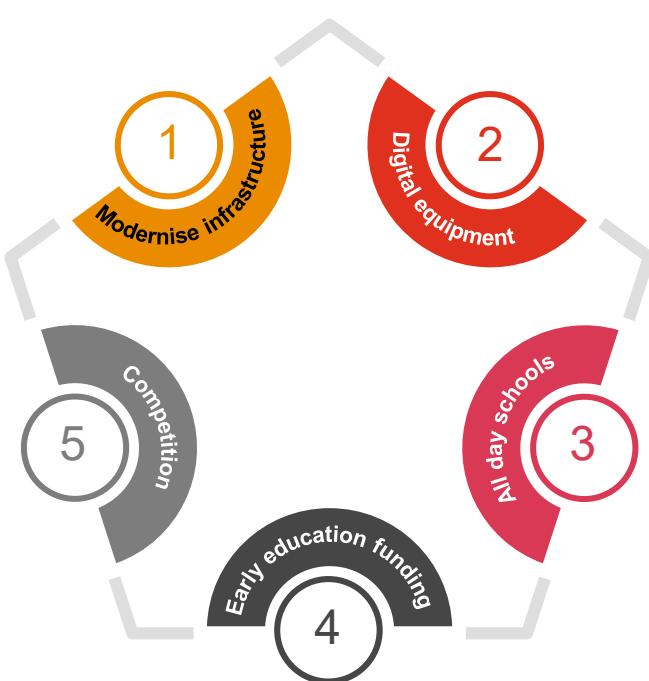
- 1 Request support from the EU** to provide analysis and information, including cross-country comparisons of school calendars, teacher salaries, and national education policies, to assist education systems in decision-making. In order to develop an inclusive school curriculum which both enriches students and targets future skills gaps, Cyprus should make use of resources and data available to them through this network.
- 2 Engage with teachers unions early** and involve them in decision-making and the changes made to the curricula. Ensuring their support is critical to the successful implementation of a new curricula. The case for change should be clearly articulated, as well as the expected benefits to teachers, students and the economy. Together, the Ministry of Education and teacher's unions should clearly set out what the ask of teachers is (i.e. additional CPD) and what support they will have without, however, detracting from the overall objective of the policy which is to upgrade the quality of teaching on offer.
- 3 Set out a clear roadmap** for the implementation of the new curricula and how this will be phased in. The end date for full implementation should be no later than the 2025 academic year. For each academic year until then, it should set out the changes that are being phased in and the recommended CPD. This will give teachers, students and parents time to adjust to the changes and prepare. New curricula details should be shared one academic year early to allow for preparation.
- 4 Run teachers training.** Training days should be set up in the summer for the new curricula, involving case studies and practical experience. New CPD courses should also be designed, allowing teachers to develop their skills and experience in these new subjects – completing a certain amount of this CPD mandatory (see following slides). This training should aim to be delivered flexibly, for example online learning, and practically, for example incorporated into providing after school activities (see right).
- 5 Launch a national after-school extra-curricula programme.** A key step to updating the curriculum is to secure buy in and engagement from teachers, parents and students. A new national programme of extra-curricula activities is a way to test ideas and ways of teaching and to generate buzz for new skills and subjects. It is also a way of catering to students who may leave school before the new curricula is fully phased in.
- 6 Mandate reviews of the curriculum every 3 years.** The curriculum update proposed is large-scale and a once-in-a-decade update, requiring the addition of new subjects and way of teaching – necessary given the outdated nature of the Cyprus's curriculum. However, there are smaller changes which should be regularly made to the curriculum to keep it up to date with economic and social developments, for example, updating readings lists to reflect cultural and ethnic diversity. A regular review of the curriculum should be conducted at least every three years, with the Ministry of Education monitoring changes that other EU countries make to their curriculum and preparing recommendations.



### Launch a national after-school programme of activities, clubs and certifications

- To supplement the phase in of new curriculum, the government should design and launch a new after school programme that organises the following:
  - Societies, projects, and prizes, such as a debate society and Dragon Den's style entrepreneurs clubs.
  - Competitions between schools in local areas, for example cooking competitions, or designing sustainable solutions for schools
  - Encourage schools to link up with local businesses to design projects that are relevant to their local community and the workplace, getting children excited about new careers and doing applied learning
- This reform should be led by the Ministry of Education, in collaboration with the Cyprus Pedagogical Institute (CyPI), schools and local and potentially international businesses that are thinking of relocating to Cyprus. Actions that can be taken include:
  - Take stock of current offerings and societies and identify key gaps, drawing on sector councils to identify the skills needed (i.e. entrepreneurial).
  - Reach out to charities and non-profits who already run such programmes and understand the potential for scaling these up on a national or regional basis. At the same time, government should work with existing providers of these programmes to mitigate the chance of redundancies and gaps– e.g. multiple similar environmental courses being offered, but no offering in financial literacy.
  - Create certifications based on attendance and participation (i.e. presentations and projects). This will increase the engagement of both students and parents.
  - Offer financial and reputational incentives to schools and teachers to roll out the programme. This can include bursaries for simple materials and equipment, or wage bonuses for teachers who facilitate activities.
  - Taking part in activities could also be built into CPD, for example, enabling teachers to learn about how to teach entrepreneurship – creating additional incentives for teachers to participate.

## 2.4 Create a modern schooling system and infrastructure to provide the right foundations for a new curriculum



- 1 Invest in modernising school infrastructure to match a new skills-oriented curriculum.** Classrooms that promote team working and collaboration over individual participation are the future and well matched to developing skills such as collaboration, critical thinking, negotiation, judgement and decision making.
  - Re-think layouts to be more collaborative (i.e. how working environments have evolved over the years from boots to open common spaces)
  - Invest in equipment that fosters collaboration, such as interactive whiteboards
- 2 Invest in digital equipment and technology for schools.** To support digital literacy in schools, students must be equipped with the technology to enable this learning and engage in practical learning. Schools should be allocated a certain budget to invest in digital equipment in schools, e.g. computer labs, as well as a budget to provide targeted aid for lower-income students who do not have regular access to such equipment at home.
 

Digital equipment will also be key to innovating ways of teaching – investments should be closely aligned to recommendations from the Innovating Pedagogy working group (see previous slides). Targeted aid should be offered to schools to make investments into online education.
- 3 All-day schools should be introduced in secondary education to align the school and work day.** Supportive teaching can be provided for students to fill in gaps, improve the students' understanding of the subject matter and reduce the risk of students lagging in understanding the material. Moreover, the creation of groups of students with special interests can be promoted, enabling them to participate in extracurricular activities. This will result in integrated learning for the students, while it will also benefit their parents/guardians as it will match the class schedule to their work schedule, enabling smooth participation in the labour market, especially for women.
 

Supplement all-day school in primary education with extracurricular activities. Currently, all-day schools are already in operation in primary schools on either an optional or compulsory basis. All-day schedules are usually implemented four times a week, incorporating additional classes for homework time, supportive teaching and optional subjects of interest.. We propose that on the remaining day where an all-day schedule is not implemented, after-school activities can be offered instead.
- 4 Address underfunding in early childhood education and care.** Participation in early childhood education and care is gradually moving towards the EU average, at close to 95%. But public early childhood education and care remains underfunded; of 220 day care centres in 2017, 70% were privately funded, 25% were subsidised by municipalities and only 6 were publicly funded.<sup>1</sup> This imbalance should be addressed by increasing government funding for early education and childcare. This can be done through local governments, which should feed the investments through to local nurseries and childminders.
- 5 Encourage constructive competition between primary schools.** The government can introduce inter-school competitions for primary education providers. Competitions for students can be held on a subject-specific level (e.g. mathematics or science experiment fairs) or on transversal skills (e.g. speech writing, debating). The goal of these competitions would be to encourage primary schools to continuously improve their teaching standards and student performance across a range of subjects and capabilities.

<sup>1</sup> European Commission, Education and Training Monitor 2019: Cyprus, 2019.

## 2.5 Transform the education system with a curriculum and infrastructure designed to develop skills for a modern workplace

**Introduce a new teaching framework that focuses on new skills and competencies**

A new teaching framework should be designed to reflect the changes to the curriculum. It should aim to (i) guide teachers in their professional development to ensure they have the right skills, (ii) ensure they are teaching in line with Vision 2035, and (iii) are continually striving for growth through goal-setting and self-reflection.

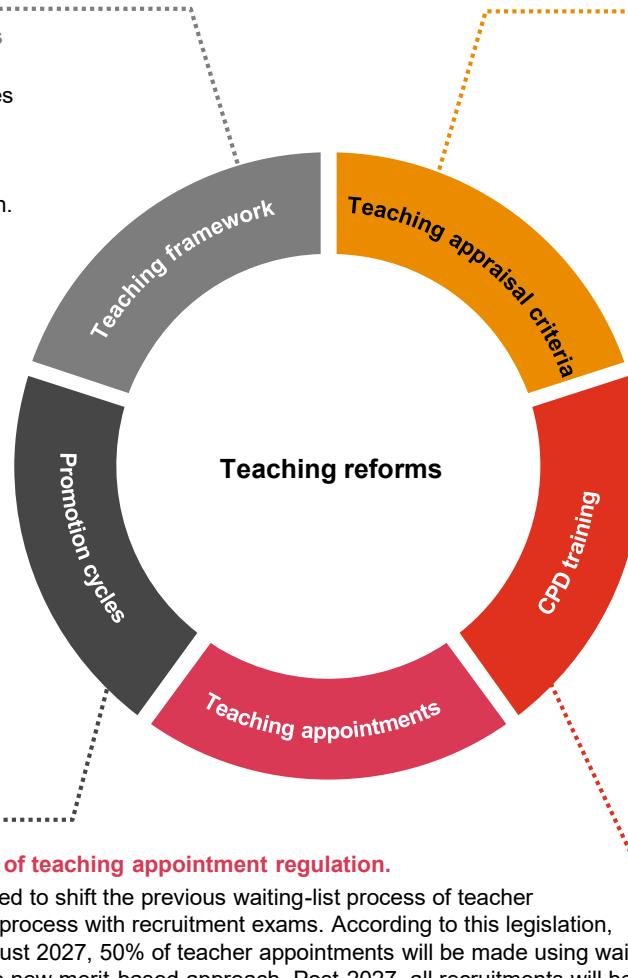
An effective teaching framework will:

- Clearly identify desired outcomes for teaching and learning.
- Determine what evidence can be used to assess performance against the teaching framework.
- Take account of the need to build out core ‘soft’ skills and other life skills including collaboration, critical thinking, negotiation, judgement and decision making so that the workforce offers the skills required by MNCs.

**Better align promotion and training cycles for teachers**

Currently, teachers are promoted and then trained for their new role. This cycle should be reversed – teachers must demonstrate new grade capabilities through training prior to promotion.

- Set up an annual promotion cycle with pre-defined dates and milestones. Clear communication and commitment to this schedule will be key to creating confidence in the new cycle.
- Upskill through appropriate training prior to promotions. A schedule for available training within promotion cycle should be made available for teachers.



### Accelerate implementation of teaching appointment regulation.

In 2017, legislation was passed to shift the previous waiting-list process of teacher recruitment to a merit-based process with recruitment exams. According to this legislation, from September 2018 to August 2027, 50% of teacher appointments will be made using wait lists and 50% made using the new merit-based approach. Post-2027, all recruitments will be made based on merit. We propose that the government re-enter discussions with teaching unions to accelerate transition into a fully merit-based recruitment process. This will support the transition of Cyprus’s education system into a modern and fair workplace for teachers.

Source: Cyprus Mail, Over 6,000 candidates for new-look teaching appointments, August 2017

**Promote equal educational outcomes across the country with incentives for high-performing teachers to teach in rural areas**

Under Cyprus’s centralised system, the Ministry for Education allocates teachers to schools, with no teacher being allowed to stay for more than six years in one primary institution, or more than eight years in a secondary school. As with most public services in Cyprus, length of service is the key metric of merit, which determine preferences for transfers. This leaves remote or disadvantaged schools, as the least preferred, with novice and potentially inexperienced teachers.

Policymakers should introduce financial incentives or promotional incentives for experienced and high-performing teachers who move to rural areas and raise the performance of the rural schools.

### Reintroduce and modernise mandatory teacher induction and CPD training

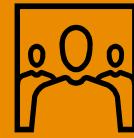
Support teachers in continuous professional development by formalising requirements for induction and CPD training. This can involve:

- Mandating minimum training hours per annum – aligned to the discipline taught (e.g. maths, physics, etc.) in addition to generic soft skills (e.g. teaching methods, student empowerment, etc.)
- Monitoring training results and feeding this into teacher appraisal and promotion cycles
- Related to this, introduce key training KPIs to measure the success of training programmes
- Require that head teachers must have postgraduate certificates in education in order to ensure that leaders in the education system are keeping abreast with modern teaching techniques.

## 2.6 Drive quality education with annual assessments of primary and secondary schools

Currently, schools are not assessed in Cyprus. This opens up for disparities in teaching quality and a lack of incentives for school leadership and teachers to improve. To ensure the successful implementation of the revised curriculum, schools must be assessed at least on an annual basis and against a robust and consistent criteria across the country. This reform should be led by the Ministry of Education, in collaboration with the Cyprus Pedagogical Institute (CyPI) and schools.

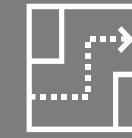
**Establish an independent inspector body** tasked to develop assessment criteria based on international best practice (e.g. judgements on quality of education, behaviours and attitudes, personal development and leadership and management). The body should be a new entity and not linked to the current body that conducts assessments of teachers. It could be outsourced to a professional education organisation.



**Develop a framework of common outcomes for schools to be assessed against.** These outcomes should include standards such as academic performance, attendance, teaching quality but also further metrics such as student and teacher wellbeing and parent engagement. Consider outsourcing the development of a criteria to a professional education organisation.



**Set a clear timeline** for when assessments will begin following communication of criteria. This should be no later than the 2025 academic year if Cyprus is expected to reap the benefits.



**Conduct initial survey of quality of data-recording in schools.** For schools which are not performing up to standards required by the independent inspector body, a milestone plan should be required outlining how they will achieve sufficient data standards.

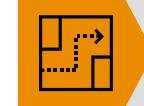
**Assess schools against these independent criteria** and publicise school ranks against these criteria using open data. Consider outsourcing the assessments to a professional education. Schools should be assessed against minimum standards, and should be given bronze/silver/gold for performance above minimum standards for different aspects of the criteria. Assessors will have the option of conducting unannounced inspections.

**Under-performing schools placed under special measures** where the Ministry of Education intervenes directly. More frequent visits should be put in place by inspectors until they are removed from this category.

# 3.1 Invest in vocational education with a clear link to Vision 2035

## The case for change

- Cyprus has a correspondingly low share of pupils enrolled in vocational education and training (VET), with only 17% of pupils in upper secondary education enrolled in vocational courses, compared to an EU average of almost 50%
- Vocational training is an important way to better engage businesses and prospective workers and design education programmes that develop the skills businesses need. Yet there are two prominent barriers to VET in Cyprus.
- Firstly, the cultural norms which view university education as more prestigious than other qualifications limit enrolment.
- Secondly, there are persistent shortcomings in the delivery of Cyprus's VET system that prevent the successful development of the skills that businesses need. For example, none of the VET programmes in Cyprus combine school with work-based programmes and experience.<sup>1</sup>
- Most of Cyprus's technical schools are operating at full capacity, with 100-120 potential pupils denied entry to technical schools each year due to overcapacity.<sup>2</sup>



### Build new vocational secondary schools and re-establish a Higher Technical Institute

Currently, there exist issues with both the quantity and quality of vocational education in Cyprus. To fix both, it is recommended that new schools are built to provide more opportunities for young persons to attain relevant and high quality vocational education and training. Specifically:

- Construction of new vocational secondary schools:** Increase the provision of vocational schools for upper secondary education (ages 15-18). Most vocational secondary schools are currently located in urban areas, limiting access for those living in suburban areas. New vocational schools should therefore be constructed in key suburban areas, following in-depth survey research to identify a location which will maximise demand.
- Re-establish the Cyprus Higher Technical Institute:** It is important to also offer students technical alternatives to university. Cyprus had a Higher Technical Institute in the past, but it was discontinued. Authorities should consider the reasons why the HTI was discontinued and learn from best practice from other countries.

Key features and principles of the vocational education and training should include (and are discussed in more detail on the following slide):

- Curriculum and courses should be designed in collaboration with industry through the sector councils and consistent with Vision 2035
- Courses should involve a mix of basic education dealing with technical aspects, and practical training held ideally at the premises of future employers
- Qualifications from vocational secondary schools should be equal to that from non-vocational secondary schools, giving students equal access to university and challenging societal perceptions of a two-tier education system
- The delivery of courses should involve collaboration with businesses, for example work placements and mentoring programmes (e.g. in-company vocational qualifications)
- The schools should also form a base for the provision of adult education (i.e. evening classes and reskilling courses)
- Ensure courses are taught with modern teaching and management techniques are refreshed frequently
- Ideally the vocational education teachers should have appropriate university degree education and three years of work experience in the fields relevant to their field and pedagogical mastering (similar to the approach used in Germany).

<sup>1</sup> European Commission, Education and Training Monitor 2019: Cyprus, 2019.

<sup>2</sup> Department of Secondary Technical and Vocational Education, 2020.



### Case study: Germany

Vocational education and training

Germany places a big emphasis on vocational education and training and, crucially, on forging links with employers to facilitate the transition to work and skills matching.

In Germany, over 50% of school students participate in Germany's upper secondary VET system (a dual vocational-academic system) choosing from one of over 300 training opportunities, ranging from diamond cutters to chimney sweepers. Germany's dual education system combines the experiences of education in a school with taking an apprenticeship in a company. Strict regulations set the national standards of each apprenticeship so that they maintain their prestige. A strong dual education system has resulted in relatively lower levels of tertiary education, as young graduates from these programmes typically find jobs without needing further study.

German government policies to improve education attainment include:

- The National Pact for Career Training and Skilled Manpower Development to provide the public sector and companies with training in VET.
- The Education Chains Initiative starts at age 12 with a vocational orientation programme and aims to create job prospects, avoid early drop-out and ensure better transition into VET and the labour market.
- The Vocational Training Act ensures that over 500,000 company-based training contracts are awarded to young people each year.

## 3.2 Design employer-led vocational courses with real workplace learning



### Develop new courses in key sectors with employer-led standards

- As part of the creation of new vocational/technical schools, new courses should be developed which align to **Vision 2035**. Specifically, in the areas of agritech, sustainable models of tourism, green engineering, ICT, and manufacturing.
- The creation of new courses must be **designed with employers**, specifically led by sector skills councils and trade unions.
- The sector skills councils must work with the Ministry of Education to develop a set of **National Occupational Standards**, which:
  - Set out the skills, knowledge and understanding required to perform competently in the workplace – both in across sectors (i.e. leadership, teamwork), and in specific sectors (i.e. specific technical skills, techniques, safety measures).
  - Set out measurable performance outcomes which individuals are expected to meet to work in a given occupation and determine an individual's grade
  - Identify modern ways of teaching, for example in real or stimulated workplace settings, case studies, practical tasks
  - Identify qualifications assessments, for example the right mix of practical assessments (observation, portfolio of evidence), formative and written assessments, group activities
  - Must be regularly refreshed to ensure qualifications are up to date with the most recent developments in techniques and technology



### Create business and international partnerships

- Develop business partnerships:** Through the sector skills councils, partnerships should be forged between employers and schools that could involve mentorships, job shadowing, work experience or internships, job fairs, or guest speakers at career talks in schools.
- Create opportunities for workplace learning:** Ideally, for each course, some real life exposure to the workplace should be acquired – whether it is a one-off week in a business, or a once-a-week lesson held at business premises.
- Establish vocational links with neighbouring countries:** In the event there are no employers in Cyprus in a chosen field the state could subsidize overseas vocational placements (e.g. Israel for agritech and ICT, Denmark for green technologies)
- Organise extra-curricular projects/prizes that are relevant to local communities:** To develop deeper partnerships, schools should organise after school clubs/prizes that get kids to think about solutions to real life work problems, with local businesses helping to design these projects.
- Offer opportunities for early school leavers and those at risk of leaving to re-engage with education:** Partner with local businesses to (i) lead local community coalitions, helping to address disconnected youth in communities where they do business, (ii) engage employees by giving them an allowance of volunteering days – which they can use to participate in community events with disadvantaged youths, (iii) contribute financially and sponsor those who are at risk of leaving school early due to financial constraints, and (iv) bring young people into the company through apprenticeships, internships and shadowing opportunities.



### Design vocational post-graduate diplomas

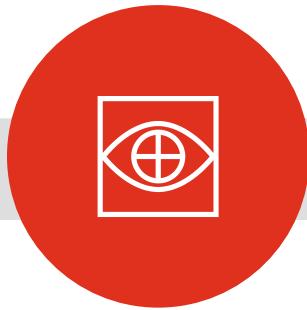
- In Cyprus, societal perceptions of vocational education are generally negative compared to general education and going to university. These perceptions are well-engrained and will take a long time to change.
- Recognising this, vocational post-graduate diplomas should be developed. These should be suitable for people who have a university degree, but who then want to undergo more practical and applied learning suitable for a particular sector. In this way, the education pathway is more highly considered by students and their families, and the economy still benefits from students getting a technical education in a key sector for Vision 2035.
- They should connect university graduates directly to sectors and future employers. Universities should lead these courses, in collaboration with sector councils for their design so that the courses hit target sectors and fill key skills gaps consistent with Vision 2035.
  - Run surveys in universities** – to understand appetite, key areas of interest and constraints
  - Workshops with sector councils and universities** – to identify key priorities, discuss course content, challenges and constraints
  - Get business sponsors** – each course should be sponsored by a business to send a clear signal to prospective students of the value of the course and its content being a high standard and relevant for future careers
  - Work placements** – the courses should also ideally have some level of applied learning, for example work placements, business-related R&D projects at the universities
  - Ideally, the teachers should have some industry experience, for example academics who have connected with businesses on R&D.

### 3.3 Enable students to make informed decisions about their education pathway with improved careers advice from an early age



**Appoint an early schools Careers Team**  
– responsible for going to primary schools and running talks and advice sessions with children and parents to enable them to make informed decisions about the paths available for them to take after secondary school.

In particular, the available options for vocational education should be presented to the students early on, after primary school, and before they make their academic decisions around the age of 15.



#### Expose students to the world of work to inform their decisions

Host career fairs in schools. They can be organised at a community-level, for example by bringing in parents of students in to talk about their respective careers.

Connect working-age students with part time job opportunities and apprenticeships.

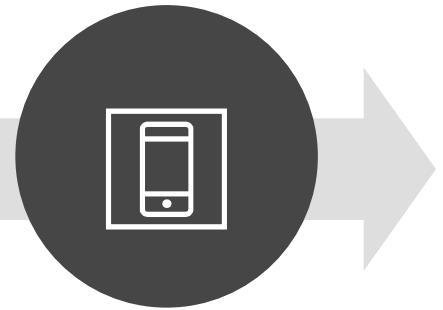
Organise and sponsor tours of different businesses, factories, and organisations for school fieldtrips.



#### Improve engagement of students at risk of dropout.

The early careers advice service should improve engagement by supporting students to develop career plans. Special attention should be paid during critical transitions between levels of schooling, e.g. primary to secondary, secondary to higher or further education.

Students from vulnerable groups, such as those from migrant backgrounds, may need extra support to reduce risk of dropout for example through additional after-school sessions.



#### Implement a nationwide marketing campaign to improve the perception of vocation education.

It needs to promote the fact that vocational education is the key to Vision 2035 and fundamentally re-brand VET as an attractive route to successful careers.

It should promote new and exciting opportunities, for example agritech and green engineering – and position these as critical to the growth and competitiveness of Cyprus.

Across all initiatives, careers in key sectors of Vision 2035 should be emphasised by advisors, businesses and work experience placements.

# 4.1 Equip citizens with the resources and support to transition to new sectors and jobs

## The case for change

- Participation in adult education and training is low in Cyprus compared to other EU countries.
  - 10.2% of workers participated in employer-led training in 2019, compared to the EU27 average of 16.8% and the highest rate in the EU of 38.6% in Sweden
  - Participation in adult learning is also low, at 5.9% of 25-64 year olds in 2019, compared to the EU27 average of 10.8% and the highest rate in the EU of 34.3% in Sweden
- In today's rapidly evolving workplace, lack of lifelong commitment to education and training, particularly once employed, has significant implications to ensure the Cyprus's labour force remains relevant for the future. Technological progress poses a threat to a large proportion of jobs, both in Cyprus and other advanced economies – but at the same time, it is also creating many more new job opportunities. Upskilling and reskilling the workforce will be paramount to harness these newly created opportunities and remain on the front foot to automation and disruption.
- Indeed, PwC UK estimates that around 30% of existing jobs in Cyprus have a high risk of potential automation by the 2030s.
- DG EPCD is currently supporting Cyprus in drafting of a new Strategy for lifelong learning for 2021 – 2027. A meeting was in February 2021 between the Ministry of Labour, Ministry of the Interior, Erasmus, the Cyprus Productivity Centre and other relevant stakeholders to discuss priorities for this future lifelong learning strategy.

Data from Eurostat unless otherwise specified.



## Launch a National Careers Service

- Launch a free and impartial information service that offers advice and guidance to both students and adults on careers and training. This service will be a combination of a one-stop-shop website with resources and links to jobs and courses, as well as a national network of careers advisors who go to schools (see previous slide) and into the community.
- This reform should be led by the Ministry of Labour, Welfare and Social Insurance in collaboration with the Ministry of Education.
- This will be especially important for reaching vulnerable groups, such as the elderly, the frail and disabled, and immigrants. These careers advisors should be trained in the local businesses and employment opportunities in the area, as well as options for training, upskilling, and reskilling.
- Actions that can be taken include:
  - Investing in a top quality website** that, crucially, has good search functions to be able to filter by sector/qualifications so that more tailored support is available to jobseekers. The UK's National Careers Service website should be used as best practice in design and functionality.
  - Developing key resources:** for example, online skills assessments, tips for writing a CV or LinkedIn profile, and mock interview questions. This should involve a systematic review of international best practice careers services and utilise resources
  - Advertising opportunities:** provide links to opportunities like mentorship programmes, work experience placements and apprenticeships
  - Recruiting or training a dedicated Careers Service website team** that will be responsible for keeping the information up to date and responding to queries



## Launch targeted initiatives for low-skilled, unemployed and jobseekers

- The National Careers Service should also involve targeted initiatives focused on the creation of upskilling and reskilling resources to help people transition to new roles.
- A key part of this extension will be to run retraining programmes and provide counselling services to get unemployed people back to work as quickly as possible. These retraining programmes should actively identify and initiate communication with the recently unemployed to alert them of available courses and certifications. Special support should be designed for unemployed persons originating from shrinking sectors such as agriculture, who will likely need to be educated in skills far removed from their original backgrounds.

1

Creation of local job centres where people can access advisors and support. The job centres can run workshops for key job-seeking skills such as CV writing, interviewing for jobs, and interacting with businesses online through social media.

2

Embed the careers service within the conditions of receiving welfare – for example, make speaking to a careers advisor a condition for unemployment benefits after a certain number of weeks out of work.

3

Liaise with local businesses to develop partnerships for wage-subsidised jobs

4

Run support groups for the unemployed, where jobseekers can get together and participate in community activities, mitigating chances of social exclusion and detrimental effects of unemployment on mental wellbeing.

5

Train careers advisors in Vision 2035 so they can identify the sectors and roles that will be of most value for people to transition into.

6

Offer any individual without upper secondary education the opportunity to attend a free course to obtain a qualification

## 4.2 Forge a culture of lifelong learning and upskilling with high quality adult education

Policymakers and education providers need to consolidate and modernise the country's adult education offerings. Currently, the offering is fragmented and the courses on offer do not necessarily match the biggest skills gaps in the country or align to Vision 2035.

### Create a one-stop-shop for training opportunities



#### Create a one-stop-shop website for all adult education resources

- Information on courses available at universities, schools and other adult education centres, as well as online training courses.
- Online skills assessments – learning from countries like the UK who offer an online skills assessment, which then matches individuals to potential careers, jobs and further training opportunities
- Utilise free online resources – for example, companies like Google and Microsoft offer free online training in areas like coding and financial literacy.
- It should include free information pages on digital upskilling basics, for example how to set up an online bank account, how to use the internet to search for a job.

### Refresh the courses of Adult Education Centres



#### Refresh course content and align to Vision 2035

- Conduct a systematic review of the offering of Adult Education Centres, identifying redundant courses and key gaps against the needs of Vision 2035
- Phase out obsolete courses such as typing and add in-demand skills such as coding and data analytics.
- Survey local businesses for what they consider to be the largest skill deficiencies in the workforce.
- Incorporate hybrid and online learning into ways of teaching in order to cater to adults who may already be in full time employment.

### Refresh the marketing campaign of adult education



#### Launch a nationwide marketing campaign for the new National Careers Service and adult education offering

- Focus on connecting with young adults. Adult education can be cutting edge and lead to highly desired digital skills. A possible strategy would be to highlight this angle using marketing campaigns on social media websites and applications.
- The one-stop-shop website should highlight success stories and testimonials from past students who were able to reskill and find work with higher pay or better conditions.

### Incentives to participate in adult education



#### Create incentives for individuals and employers to utilise adult education opportunities

- Offer any individual without upper secondary education the opportunity to attend a free course to obtain a qualification
- Offer subsidies on course costs to attract people into high priority areas, like ICT courses
- Offer grants and subsidies for businesses to cover the costs of enrolling their employees in adult education – targeted in key sectors, such as farmers learning key digital skills

# 6.2

With an excellent and accessible  
healthcare system

# Excellent and accessible healthcare system

## Roadmap

| Outcomes  | Initiative areas  | Sample of initiatives outlined in this section   |
|---|---|--|
| Develop a modern healthcare system, futureproofed for health, demographics and digital trends | <p>1.1 Develop a modern healthcare system, underpinned by digitalisation</p> <p>1.2 Ensure high quality of service is provided consistently and continuously across all healthcare providers</p> <p>1.3 Embrace digitalisation and change to deliver care in the most effective and efficient way</p> <p>1.4 Promote healthy lives and prepare for long-term health trends</p> <p>1.5 Move towards a value-based system, focused on performance management and patient outcomes</p> | <ul style="list-style-type: none"> <li>• Set out a long term digital vision for the health sector.</li> <li>• Set up an independent regulator for the quality and safety of care.</li> <li>• Run a pilot for virtual care solutions targeted for the elderly and frail.</li> <li>• Move towards a value-based General Health System</li> </ul> |

# Excellent and accessible healthcare system

## Outcomes

- 1 Develop a modern healthcare system, futureproofed for health, demographics and digital trends

## KPIs and targets

| Key performance indicator  | Year of latest available data | Current state | Target by 2035 | Benchmark  |
|--|-------------------------------|---------------|----------------|--|
|  Out of pocket expenditure on healthcare (% of total current expenditure)           | 2018                          | 45%           | 35 – 40%       | EU27 – 16%<br>Estonia – 25%                      |
|  Self-perceived health, % of population at good or very good                        | 2019                          | 78%           | 85-90%         | Ireland – 84%<br>Greece – 79%                    |
|  Childhood obesity rates (obesity level among five- to nine-year-olds) <sup>1</sup> | 2019                          | 43%           | 35 – 40%       | OECD35 – 31.4%<br>Estonia – 22.8%                |
|  Prevalence of current tobacco use (% of adults) <sup>2</sup>                     | 2018                          | 36.7%         | 25 – 30%       | Norway – 13%<br>Italy – 23.4%<br>Estonia – 30.5% |

Data from Eurostat unless otherwise stated.

<sup>1</sup> OECD, Cyprus Country Health Profile, 2019.

<sup>2</sup> World Bank, World Development Indicators.

Note: Latest available data is used up to 2019. 2020, where available, is excluded due to the COVID-19 pandemic.

# 1.1 Develop a modern healthcare system, underpinned by digitalisation

## The case for change

- Cyprus's healthcare system is currently undergoing unprecedented change, with the introduction of the General Healthcare Service (GHS) since 2018.
- Prior to the GHS, funding for healthcare in Cyprus was characterised by low public spending and high out-of-pocket payments— almost 45% of health spending came from OOP in 2017, the second highest share in the EU and far higher than the EU average of 15.8%<sup>1</sup>.
- In addition there was fragmentation of care between the public and private sector, with high waiting times for free care in the public sector versus expensive but fast access to treatment in the private sector.
- The GHS has been effective in addressing these issues. Nonetheless, as a newly formed system it faces issues with controlling abuse & fraud and with monitoring the provision of care more effectively.
- There are also a number of worrying health trends apparent in Cyprus's population, which must be addressed urgently in order to mitigate future burden on the health system and reduce the high rates of CVD, diabetes and certain cancers.
  - High rates of smoking – 26% of adults in 2014 compared to EU average of 19%<sup>2</sup>
  - High rates of childhood obesity – 43% of children were overweight in 2015-2017<sup>3</sup>
- Acting while the GHS is still in its infancy to set the right SOPs for patient care, hospital management and fraud mitigation will be key to its success

Data from Eurostat unless otherwise specified.

<sup>1</sup> European Commission, State of Health in the EU: Cyprus – Country Health Profile 2019, 2019. [2] Ibid. [3] Ibid.

A long-term strategy for sustainable growth for Cyprus

PwC



### Set out a long term digital vision for the health sector

Digital technologies will shape the future of healthcare. In order to sustain an equitable and affordable healthcare system that provides universal access in the long term, Cyprus will need to set out a vision and road map for integrating digital and being agile with respect to technological breakthroughs.

The Ministry of Health should lead on this vision and roadmap, while recognising the critical role that will be played by the private sector in both developing new health technologies and putting them into practice. The vision and roadmap should include, among others, key milestones and dates for firm deadlines, e.g. for switching to e-health records.

More specifically, the vision should also include:



**Launching a nationwide data analytics training course for key hospital staff to enable them to draw cost-cutting and quality-improving insights from data.** Data can be better used to identify where improvements can be made in both cost (e.g. adjusting re-orders of stocks of pharmaceutical and medical supplies based on usage rates) and quality of care (e.g. identifying the determinants of hospital waiting times). Both public and private healthcare providers can benefit from improved data analytics. We propose that data analysis capabilities are built up in hospitals, through training of administrative staff or targeted external hiring.

Alongside this training, the government must support healthcare providers in addressing structural barriers in their IT systems and adoption of digital data recording. Current systems may not be able to support or enable the efficient and effective use of data to produce insights.



**Developing a roadmap for digital integration across hospitals.** To create a seamless patient journey and also to improve fraud detection, the Health Insurance Organisation (HIO) should strive for seamless digital integration with the activity-recording systems of health care providers. Currently, there is room for integration to become more automated. Alongside automated integration, the HIO needs to develop IT reporting capabilities which will help detect fraud (e.g. through analysing activity and referral patterns). Acting now while the GHS is still in its infancy is important in order to encourage the right behaviours and develop the appropriate culture of respect for the system by all participants.



### Case study: Germany

Vocational education and training

E-health is currently in its early stages in Cyprus. Existing efforts include:

- The development of an **Integrated Health Information System for public sector providers**, which will provide oversight and access to patient records, billing, e-prescriptions, etc. It is designed to ease administrative burdens in hospitals, improving quality of care and controlling costs. Currently, the IHIS operates in the Nicosia and Famagusta General Hospitals, and some health centres.
- Electronic cross-border health services** are planned to be implemented by 2025.<sup>2</sup> This is an EU initiative across all member states, centred around two cross-border health services:
  - ePrescription (and eDispensation):** This will allow EU citizens to obtain medication in pharmacies located in other EU countries.
  - Patient Summaries:** This will allow health providers across EU member states to access information on important health-related aspects such as allergies, current medication, medical history, etc. In the long term, Patient Summaries will also include medical images and lab results.
- A future goal of the Ministry of Health is the creation of **Regional Health Networks (RHN)**. The RHN will enable the exchange of information between all hospitals, Health Centres, regional clinics and private doctors. The RHN will offer direct access to patient records, appointments, and clinical protocols.<sup>3</sup>

<sup>1</sup> Ministry of Health Cyprus, eHealth.

<sup>2</sup> European Commission, Electronic cross-border health services.

<sup>3</sup> Ministry of Health Cyprus, eHealth.

# 1.2 Ensure high quality of service is provided consistently and continuously across all healthcare providers



## Set up an independent regulator for the quality and safety of care

Currently there is a Medical Audit Committee in place which secures the provision of high quality healthcare services and takes all appropriate measures as regards specific incidences where health providers have not exercised reasonable skill or attention.

Most European countries have moved into a system of quality care regulation which is independent and available to the public domain. We therefore recommend that the authorities in Cyprus follow this model as the quality of care on offer will be of paramount importance as healthcare provision becomes more sophisticated and there is an increase in the volume of care required due to the ageing of the population and the rising demand for Cyprus's health service.

Depending on how effective these controls are, doing so will help Cyprus make its case as a centre of healthcare services. The independent regulator should therefore be the body that deals with the majority of patient and service user serious health and safety incidents. This body should also be responsible for setting national standard and guidelines, facilitating the development of local measures and disseminating this information throughout the health service. This will help limit national variations in health outcomes, e.g. rural areas receiving poorer quality of care versus areas which are serviced by major hospitals.

Specifically we think the regulator should be carrying out the following activities:

- **Core role:** Monitor, inspect and regulate these providers' core services to ensure they consistently meet the fundamental standards and do not put patients at risk of harm. Where a healthcare provider falls below these standards, the independent regulator should be able to take enforcement action or recommend that the provider should enter special measures (see box on following slide).
- **Inspections:** Regularly inspect providers by location and service, and award ratings based on what it finds. A guideline should be disseminated to healthcare providers before the programme of inspections is rolled out. These guidelines should specify the schedule for announced inspections, and specific rules for unannounced inspections that allow them to be fair and transparent (e.g. unannounced inspections will only occur during normal working hours). Inspection teams should typically include experts by experience (people who are experienced users of healthcare services) and specialist advisors (health professionals external to the organisation being inspected).

Following an inspection, providers will receive a report on the findings, including examples of good practice and any areas for improvement, and will be awarded an overall rating as well as individual ratings for each service and location inspected.

- **Rating service:** Providers should have an opportunity to 'fact check' the report and inform the regulator of any factual inaccuracies prior to its publication. Following the publication of the inspection report, providers may also request a 'rating review' if they feel that the independent regulator did not follow due process for making and aggregating ratings decisions. Providers are required to display their overall ratings at all sites where they deliver services.
- **Care bundles and checklists:** In supporting the goal of high quality national standards and to ensure the same level of standardised treatment by non-specialists, i.e. A&E doctors and general physicians, the regulator should develop 'care bundles'. Care bundles are sets of evidence-based treatments (e.g. diagnostic tests, medication, thresholds for escalation) that are tailored by health condition. They should be performed collectively and consistently across healthcare providers to drastically improve health outcomes of patients.
- **Patient and staff feedback:** Patients should be able to give feedback to healthcare providers and standards assessors through quick and anonymised means. The regulator should create a centralised survey, available online, that allows patients to express their opinions about the service they received from a specific healthcare provider in a safe space. For example, in the UK a 'Friends and Family Test' is offered to patients. This test frames feedback by asking patients if they would recommend the services they have used to friends and family and if not why. This feedback structure can also be used for staff. It should be used as a quick temperature check for how healthcare staff are feeling about work and their perception of the quality of care provided by their employer. Because of its short length, it can be used to acquire regular and frequent feedback – though the feedback will be less comprehensive than annual surveys. This can help the regulator identify gaps in quality of care and improve the level of staff engagement.

All of this information should be available online for the public to view and compare.

# 1.2 Ensure high quality of service is provided consistently and continuously across all healthcare providers (**cond't**)



## Case study: UK Care Quality Commission (CQC)

In the UK, the Care Quality Commission is the independent regulator that monitors, inspects and regulates the core services of healthcare providers and ensures they consistently meet fundamental standards and do not put patients at risk of harm.

Where a provider falls below these standards, the CQC is able to take enforcement action or recommend that the provider should enter special measures. The purpose of special measures is to:

- Ensure that providers found to be providing inadequate care significantly improve.
- Provide a framework within which we use our enforcement powers in response to inadequate care and work with, or signpost to, other organisations in the system to ensure improvements are made.
- Provide a clear timeframe within which providers must improve the quality of care they provide, or we the CQC seeks to take further action, for example to cancel their registration

## Results of inspections carried out by the CQC

Home > This month > 885 results from our site for All Services

Refine your search

Selected filters (-) This month

Services

- Care homes (880)
- Clinics (37)
- Community services (8)
- Dentists (6)
- Doctors/GPs (30)
- Hospitals (19)
- Mental health services (29)
- Services in your home (161)

More services

- Ambulances (4)
- Homecare agencies (146)
- Hospices (4)
- Prison healthcare (2)

Type of information

- Services (879)
- Service providers (6)

Click for key ✓ ✗ ⚡ ⚡ ⚡ ⚡

885 results from our site for All Services

Use the filters on the left to improve your search results. If you're interested in services that are no longer registered with us, you can search for the history of care services.

Duke Street Bungalows Good

21-25 Duke Street, Wednesfield, Wolverhampton, WV11 1TH  
(01902) 553356  
Provided by: City of Wolverhampton Council

CQC inspection area ratings  
(Latest report published on 28 April 2021)

| Safe       | Good |
|------------|------|
| Effective  | Good |
| Caring     | Good |
| Responsive | Good |
| Well-led   | Good |

Requires improvement

| Good | Good |
|------|------|
| Yrs  | Yrs  |

Care homes  
Specialisms/services

- Accommodation for persons who require nursing or personal care
- Learning disabilities
- Physical disabilities
- Sensory impairments
- Caring for adults under 65 yrs
- Caring for adults over 65 yrs

Source: CQC website

For more relevant initiatives...

See the **Vertical drivers of growth** section for recommendations on international health accreditations



## Support the efficient operation of the Health Commissioner's Office

Set up an organisational structure which will enable the efficient operation of the Health Commissioner's Office (HCO) in accordance with the powers provided for in the relevant legislation (Law on the introduction of a general Healthcare system and related issues 89 (1) 2001(section 42-47)) and enhance HCO's overall capacity to effectively perform its main functions as structured around three pillars:

- Complaints management
- Health audit
- Supervision of services provided

# 1.3 Embrace digitalisation and change to deliver care in the most effective and efficient way



## Use virtual care solutions to improve accessibility and health outcomes

Virtual care solutions can help improve outcomes and reduce costs, expand access to services especially for remote populations, improve utilisation management and radically promote preventive and chronic disease management. Globally, consumers are starting to adopt virtual health – with 16% of global consumers surveyed already owning a wearable device that monitors their health continuously in real-time, and 31% planning to own one (PwC Global: Total Retail Survey, 2017). Wi-Fi enabled scales, mobile apps for chronic disease monitoring and wireless biometric sensors mean that care has become more proactive and no longer needs to be tied to the hospital or to the physician's office.

To further virtual care in Cyprus, the following actions can be taken:



**Fund and provide virtual health initiatives** by creating partnerships with established global tech providers. For example, Netherlands-based Royal Philips partnered with Changi General Hospital in Singapore to help patients manage their heart conditions at home. The Ministry of Health can work with a leading public hospital to scope out (i) which illness should be prioritised for targeting and (ii) viable partners.



**Offer funding for med-tech start-ups.** Med-tech start-ups are on the rise in Europe, targeted at a range of initiatives: dementia care, antibiotic resistance, breast cancer detection, etc. Cyprus can join in this frontier of medical advancement by offering funding and other financial incentives, including tax breaks or tax credits, for med-tech companies to start-up in the country.



### Run a pilot for virtual care solutions targeted for the elderly and frail.

Keeping in mind the aging population in Cyprus, pursuing virtual care solutions could open up various treatments for the elderly and frail. For example, monitoring chronic conditions from home through health care devices. There are already existing and easily accessible devices available for at-home health monitoring. The Ministry of Health can work together with an existing healthcare provider to trial a pilot using these monitoring devices. If ill health is detected through the monitoring device, healthcare practitioners can be sent to homes to intervene.



## Case study: Israel Artificial intelligence in hospitals

Sheba Medical Centre in Tel Aviv, Israel's largest hospital, introduced the ARC Centre (Accelerate-Redesign-Collaborate) for Digital Innovation in 2019 to redesign healthcare and improve patient care using innovation to provide real value to patients.

The ARC Centre brings together all players in digital medicine including physicians, researchers, start-ups, industry leaders, academia, investors and top-tier medical centres. An open innovation campus was set up focusing on digital innovation in surgery, VR/AR, personalised medicine, AI/big data, and telehealth/mHealth. The ARC consists of three teams (Clinical/Regulatory, Development, Project Management) that collaborate to provide an all-encompassing response to research and development. By releasing internally developed technology, the program also launches 30 new innovation projects every year, receiving \$50,000 each over a rapid development cycle of ten months to obtain access to digital development capabilities.

Sheba Medical Centre has now become a serial producer of digital innovations with other countries including the US trying to copy their model, as well as being exported to other countries such as ARC Ottawa in Ontario, Canada. Examples of current projects at ARC include:

- Predictive Analytics and Artificial Intelligence where systems are designed to predict how a patient will respond over time to a particular disease or condition, enabling physicians to make informed decisions about the most effective, individualised treatment programs for each patient.
- Telemedicine, involving remote care with sensors, cameras and other technologies helping patients receive advanced quality healthcare from home, reducing the burden on hospitals without compromising patient care.
- Venture Capital Fund ensures that medical innovation progresses from development to the commercial market, creating significant value for patients.

<sup>1</sup> Grätzel Von Grätz, P., Sheba Medical Center: From hospital to innovation factory, 2019.

<sup>2</sup> Sheba Medical Center, The Center for Digital Innovation at Sheba Medical Center.

# 1.4 Promote healthy lives and prepare for long-term health trends



## Develop Elderly Housing and Assisted Living communities

Cyprus's population is ageing. Today, the share of over 65 year olds is around 15% of the population (or 175,000 people) and is expected to rise to a quarter by 2050, equivalent to around 350,000 people above the age of 65. To ensure the welfare of this growing group of 65s and above, Cyprus should take initiative now and plan for their housing and care needs by expanding the development of elderly housing and assisted living communities.

1

- Designate a taskforce for collaboration between the Ministry of Health and the Ministry of Labour. At the moment, elderly housing and assisted living communities do not fall under the jurisdiction of the Ministry of Health but instead the Ministry of Labour. For substantive, long-term improvements, a joint and coordinated effort between these two Ministries is needed.
- Incentivise specialised contractors. Offer financial incentives, e.g. tax relief or direct grants, to developers for the construction of elderly housing in order to attract specialised contractors in this area.

2

- Offer devolved funding to municipalities. This funding should include an 'emergency' fund for short-term supported house placements for the elderly and frail who have, under short notice, become unable to manage daily tasks independently through, for example, sudden illness or accidents.

3

- Plan for ageing-associated diseases. Incidence rates of illnesses which require more intensive care, such as dementia or Alzheimer's, are likely to increase as the population ages. In the designing of elderly housing, developers should be instructed to design facilities appropriate for future health trends.

For more  
relevant  
initiatives...

See the **Vertical drivers of growth** section for recommendations on how to develop the health tourism sector



## Invest in preventative health care interventions

Cyprus's population suffers from high rates of smoking and childhood obesity, in comparison to other EU countries. As part of preventative health care, educational campaigns targeted at raising awareness on the 1) possible negative health effects of lifestyle choices such as smoking and unhealthy eating, 2) what families and individuals can do to improve their health outcomes, e.g. tools for smoking cessation and meal planners.

1

- Incorporate lessons on the health effects of tobacco use into the school curriculum. In addition, students can learn about the impacts of smoking on economic and social aspects, e.g. the forecasted lifetime cost of smoking. Integration can be simple, for example by running classroom discussions about tobacco during relevant subjects such as biology. These lessons can draw on learnings from existing initiatives, e.g. education provided by Pasykaf (cancer NGO) in collaboration with the Ministry of Education

2

- Launch a tobacco quit-line. This can be a telephone, text messaging, or web-based service that provides proactive counselling for smoking cessation. When used in combination with medications, this has been shown to increase chances of quitting smoking.<sup>1</sup>

3

- Launch a health care campaign targeted at reducing obesity.
  - The campaign can include:
    - A guide for active lifestyles – simple exercises and suggestions for everyday activities like carrying shopping bags or walking to work
    - Curated weekly meal plans and grocery lists, targeted at different income levels

4

- Review policy on food in schools, in particular food portion sizes and sugar levels. Food served and sold (for example in vending machines) in schools should align with healthy eating standards.

<sup>1</sup> Centers for Disease Control and Prevention, Smoking Cessation—The Role of Healthcare Professionals and Health Systems, 2020.

# 1.5 Move towards a value-based system, focused on performance management and patient outcomes



## Move towards a value-based General Health System

The General Health System in Cyprus is currently using an age adjusted capitation model for primary care where Personal Doctors (PDs) are paid based on the number of patients on their list (based on their age category) and a volume-based reimbursement model for all other services (e.g. diagnostic laboratories, outpatient specialist doctors, inpatient care etc). So far, the capitation model used for primary care has not been complemented with value-based incentives, quality KPIs and controls.

In order to establish appropriate value-based models and initiatives within primary care and inpatient care, the following three activities need to be introduced:



**Data collection and management:** Define data governance standards and undertake an effort to collect the necessary data across all points of interaction with the patient i.e. first contact, meeting with the GP, meeting with the specialist, follow-up meetings and customer-satisfaction surveys. Start with 1-2 pilot hospitals and then expand from there.



**Performance management:** Utilising the data collected, analyse the data with the introduction of KPIs that would measure among other things:

- **Accuracy:** The extent to which the GP has accurately referred the patient to the specialist or whether he/she should be able to diagnose the symptoms and provide the solution without creating unnecessary appointments, and hence costs, within the system.
- **Timeliness:** The extent of waiting lines at healthcare institutions that would signify the efficiency when it comes to planning of appointments with medical practitioners
- **Reward:** Provide incentives, at an institutional level, to reward providers that are practicing with quality, exhibited by low rates of infections, low rates of follow-up visits etc.



**Quality standards and monitoring:** Implement quality standards and protocols, and the relevant monitoring measures to reduce the variability of care and improve the quality of provision. These quality standards should set out priority areas for quality improvement, incentivising continuous development and progress in health and social care.



## Case study: UK NHS Oversight Framework 2019/20

The NHS Oversight Framework outlines the approach the NHS is taking to oversee organisational performance. It includes a comprehensive and evidence-based set of KPIs and targets that can help guide Cyprus's development of its own performance management framework for implementing a value-based GHS. Health care providers in the UK are assessed annually against the Oversight Framework.

Results of the assessment are used to determine the level of support required by health care providers, from special measure required for providers in breach of health licenses to maximum autonomy for providers with excellent performance. Support, in this case, can mean signposting to resources of other health care providers, arranging peer support from other providers, or direct support from the NHS's regulatory oversight body, NHS Improvement, among others.

Metrics included in the Oversight Framework cover (i) service models, (ii) preventing ill health and reducing inequalities, (iii) quality of care and outcomes, (iv) leadership and workforce, and (v) finance and use of resources. Further detail is shown below.

### Examples of oversight metrics

#### 1. Service models

- # of emergency admissions
- Delayed transfers of care per 100,000 population

#### 2. Preventing ill health and reducing inequalities

- Maternal smoking at delivery
- Injuries from falls in people aged 65+

#### 3. Quality of care and outcomes

- Neonatal mortality and stillbirths

Other recommendations for quality standards include the NHS National Institute for Health and Care Excellence (NICE) guidelines which can be used to inform the development of clinical standards in Cyprus.

Source: NHS Oversight Framework 2019/20, 2019.

# 6.3

Which adheres to the rule of law and  
combats corruption

# Adheres to the rule of law and combats corruption

## Roadmap

| Outcomes   | Initiative areas  | Sample of initiatives outlined in this section  |
|--|---|---|
| Combat corruption across the entire spectrum of Cypriot society, business and government | <p>1.1 Eliminate corruption across the entire spectrum of Cypriot society, business and government</p> <p>1.2 Develop a governance and legislative infrastructure for anti-corruption</p> <p>1.3 Hold politically-exposed persons to account through statements of wealth</p> <p>1.4 Align with international standards on anti-corruption and anti-money laundering</p> <p>1.5 Modernise corporate law to meet international standards of governance and oversight</p> <p>1.6 Develop ethical behaviours through widespread education and training</p> | <ul style="list-style-type: none"> <li>• Establish an Independent Authority Against Corruption (IAAC)</li> <li>• Establish a whistleblowing agency within the IAAC.</li> <li>• Implement all MONEYVAL recommendations in the next 24 months.</li> <li>• Implement mandatory ethics training for public servants.</li> </ul> |

# Adheres to rule of law and combats corruption (cont'd)

## Outcomes

- 1 Combat corruption across the entire spectrum of Cypriot society, business and government

## KPIs and targets

| Key performance indicator   | Year of latest available data | Current state   | Target by 2035 | Benchmark                              |
|---|-------------------------------|-----------------|----------------|--|
|  Corruption Perceptions Index rank <sup>1</sup>  | 2019                          | Global Rank: 41 | 33 – 37        | New Zealand & Denmark – 1 Ireland – 18 |
|  World Governance Indicators: Control of Corruption (Percentile rank) <sup>2</sup>                       | 2019                          | 71.6th          | 75 – 80        | Denmark – 97.6 France – 88.9           |
|  % reporting that corruption or bribery is one of the three biggest problems in the country <sup>3</sup> | 2016                          | 49%             | 30 – 35%       | Netherlands – 17% Estonia – 25%        |
|  % reporting that 'most of state authorities' are involved in corruption <sup>4</sup>                  | 2017 – 20 wave                | 43%             | 10% – 15%      | NA                                     |
|  % reporting that 'most of business executives' are involved in corruption <sup>4</sup>                | 2017 – 20 wave                | 33%             | 10% – 15%      | NA                                     |
|  Basel AML index <sup>5</sup> Note: a lower ranking indicates a better performance                     | 2020                          | Global rank: 88 | 110 – 105      | UK – 116 Israel – 130                  |

Data from Eurostat unless otherwise stated. <sup>1</sup> Transparency International, Corruption Perceptions Index 2020. <sup>2</sup> World Bank, Worldwide Governance Indicators. <sup>3</sup> Transparency International, Global Corruption Barometer, Europe and Central Asia 9th edition, 2016. <sup>4</sup> World Values Survey Wave 7. <sup>5</sup> Basel Institute of Governance.

Note: Latest available data is used up to 2019. 2020, where available, is excluded due to the COVID-19 pandemic.

# Eliminate corruption across the entire spectrum of Cypriot society, business and government

Eliminate corruption across the entire spectrum of Cypriot society, business and government



**Civil service:** Promotions and rewards based on competence and transparent procedures on hiring and firing will create an impartial civil service over time

p. 33 – 44



**State-run organisations:** Reforms to improve governance and reduce corruption, including board members not affiliated with political parties

p. 33 – 44



**Justice system:** A speedier resolution of cases at courts will mean that people will be incentivised to prosecute wrongdoing

p. 45 – 50



**Transparency:** Improving the provision of data and making government decisions public. Robust approach to policy appraisal.

p. 51 – 62



**E-government:** Faster and better service means that people will not resort to bribing other people and use special favours

p. 83 – 91



**Education:** Important to help change culture

p. 139 –  
153



**Cleaner centre for business:** Strict adherence to AML laws will mean that Cyprus cleans up its act and attracts high-profile global conglomerates.

p. 162 –  
171

In the following slides, additional anti-corruption initiatives are set out, as follows:

**Develop a governance and legislative infrastructure for anti-corruption**

**Holding politically-exposed persons to account through statements of wealth**

**Align with international standards on anti-corruption and anti-money laundering**

**Modernise corporate law to meet international standards of governance and oversight**

**Develop ethical behaviours through widespread education and training**

# 1.1 Eliminate corruption across the entire spectrum of Cypriot society, business and government

## The case for change

- Corruption can have wide-reaching impacts on economic performance and competitiveness. Research concludes that high corruption rates constrain economic performance and potential.<sup>1</sup> Corruption can lead to rent seeking, uncertainty, inefficient investments and misallocation of resource.
- Corruption is a persistent issue within Cyprus, serving as a drag on Cyprus's competitiveness and the strength and dynamism of its business, political and social environment.
- In the Corruption Perceptions Index, Cyprus ranked 42 out of 179 countries in 2020, down 9 places since 2012. It has a score of 57/100, below Western Europe and the European Union's average score of 66.
- While a number of measures have been implemented in recent times to combat corruption in Cyprus's government institutions, there is more still to be done. A key constraint is the lack of coordination across government to deal with this broad and wide-reaching issue.

Data from Eurostat unless otherwise specified.

<sup>1</sup> World Economic Forum, How does corruption affect economic growth?, 2015.

<sup>2</sup> Transparency International, Corruption Perceptions Index, 2020.



## What is the current state of anti-corruption measures in Cyprus?

Various initiatives have been already been undertaken by Cyprus's government to combat corruption. These initiatives include:

1. Enhanced control mechanism by reinforcing the Investigative Committees' establishment framework
2. The power to appoint criminal investigators has been granted to the Attorney General, in addition to the Council of Ministers that already has this power
3. Currently processing a legislative regulation to enhance the ability of the authorities to reclaim financial benefits gained through illegal activities
4. Enhanced the framework for the investigation of cases against corruption by promoting the necessary legislative framework within the constitutional confines, in order to grant the right to waive confidentiality in private communications
5. Credibility of the control on financial declarations by the state officials has been enhanced, by entrusting control to certified auditors and publication of their assets' declarations
6. Maximum of continuous terms for the office of the President of the Republic was set
7. Laws changed to provide access to public records for reasons related to transparency and control
8. Powers to establish and maintain flexible divisions or directorates of international control have been given to all Ministries
9. An Internal Affairs Service in Cyprus Police has been established. It has powers to effectively check and investigate information related to actions by members of Cyprus Police that constitute corruption and abuse of power
10. A specialised legal framework was established to fight against sporting events manipulation
11. The Cyprus Sports Organisation has prepared a Good Governance Code for the Cyprus Sports Federation

<sup>1</sup> Speech by Minister of Justice and Public Order, Ms Emily Yirolitis, January 2021, available here: <https://www.pio.gov.cy/en/press-releases-article.html?id=18161#flat>



## What are the key draft bills that are currently pending?

A series of draft bills have been submitted, and are currently pending at the House of Representatives as of April 2021:

1. Increase the time of imprisonment from three to seven years for the crime of power abuse by public servants and officials
2. Define the limits of parliamentary immunity, so it cannot be used as a shield against prosecution for members of parliament
3. Establishment of an Independent Authority Against Corruption – a non-governmental institution, the main responsibility of which is to ensure cohesion and effectiveness of public service
4. Additional protection measures for whistle-blowers in both the public and private sector, and leniency measures for those who are implicated but cooperate fully with authorities
5. Inclusion to national legislation of the EU Directive on the protection of persons reporting on breaches of EU law
6. Government is promoting comprehensive and ambitious programme of structural changes to the administration of justice
7. Reform and modernisation of the highest echelons of justice at last stage of finalisation. These reforms will restructure the Supreme Court, establish checks and balances, establish a separate Second-Instance Appeals Court, and enlarge the Supreme Council of Judicature
8. Once the preceding point has been completed, establish a Commercial Court and Navy Court

<sup>1</sup> Speech by Minister of Justice and Public Order, Ms Emily Yirolitis, January 2021, available here: <https://www.pio.gov.cy/en/press-releases-article.html?id=18161#flat>

# 1.2 Develop a governance and legislative infrastructure for anti-corruption



## Establish an Independent Authority Against Corruption (IAAC)

- Legislation is currently underway for establishing an Independent Authority Against Corruption (IAAC) as a non-governmental institution. Its main responsibility will be to undertake all necessary initiatives and actions in order to ensure the cohesion and effectiveness of public service and private sector actions in the prevention, treatment and fight against corruption.
- To this end, its key roles will involve: i) **investigations of** corruption offences and complaints, ii) examining **practices and procedures** of government ministries and public bodies to identify where further preventative initiatives can be put in place, and iii) **educating** citizens and businesses on anti-corruption.
- Cyprus must prioritise the passing of this bill with urgency. The IAAC will be key to the successful implementation of checks and balances against corruption in Cyprus's public and private sectors. The government should seek support from experts from international IAACs like Australia and Hong Kong.

In addition, we propose that the following recommendations are taken into account in its design:

- Members should:
  - Be from a range of ages
  - Be from a range of professions
  - Not be linked to political parties
  - Not be allowed to have second jobs
- Members should be rotating to prevent cronyism and corruption
- Legislation should include rules for maximum term times
- Conduct Public Hearing Selections – the key is to provide complete transparency around who and why a member was hired and who contributed to the hiring decision
- The IAAC should be located in a separate building from any government departments.



## Establish a whistleblowing agency within the IAAC

- Within the Independent Authority Against Corruption, we propose the establishment of a formal whistleblowing agency. Setting up a hotline or service is not enough. The government must formalize the process, and give accountability to a team for creating standard procedures for whistleblowing and ensuring the safety of whistle-blowers.
- The agency must have full responsibility and a clear mandate to investigate, escalate and penalise. It is essential for this agency to have the autonomy, even while working in partnership with other departments, offices and organisations, including the Cyprus Police
- It should develop a framework for imposing sanctions and penalties on individuals and companies, for example barring offending companies from government tender processes
- It should also create positive incentives, for example community awards for ethical behaviour and strong corporate values
- It should be responsible for setting out a strategy every 3-5 years with progress, actions and solutions
- And it should have the powers to extract data from relevant government departments, ministries and the Central Bank
- Key teams for different types of offences could include:

Improper conduct of public businesses, and corruption in local government

Money laundering

Improper conduct of private businesses

Environmental offenses

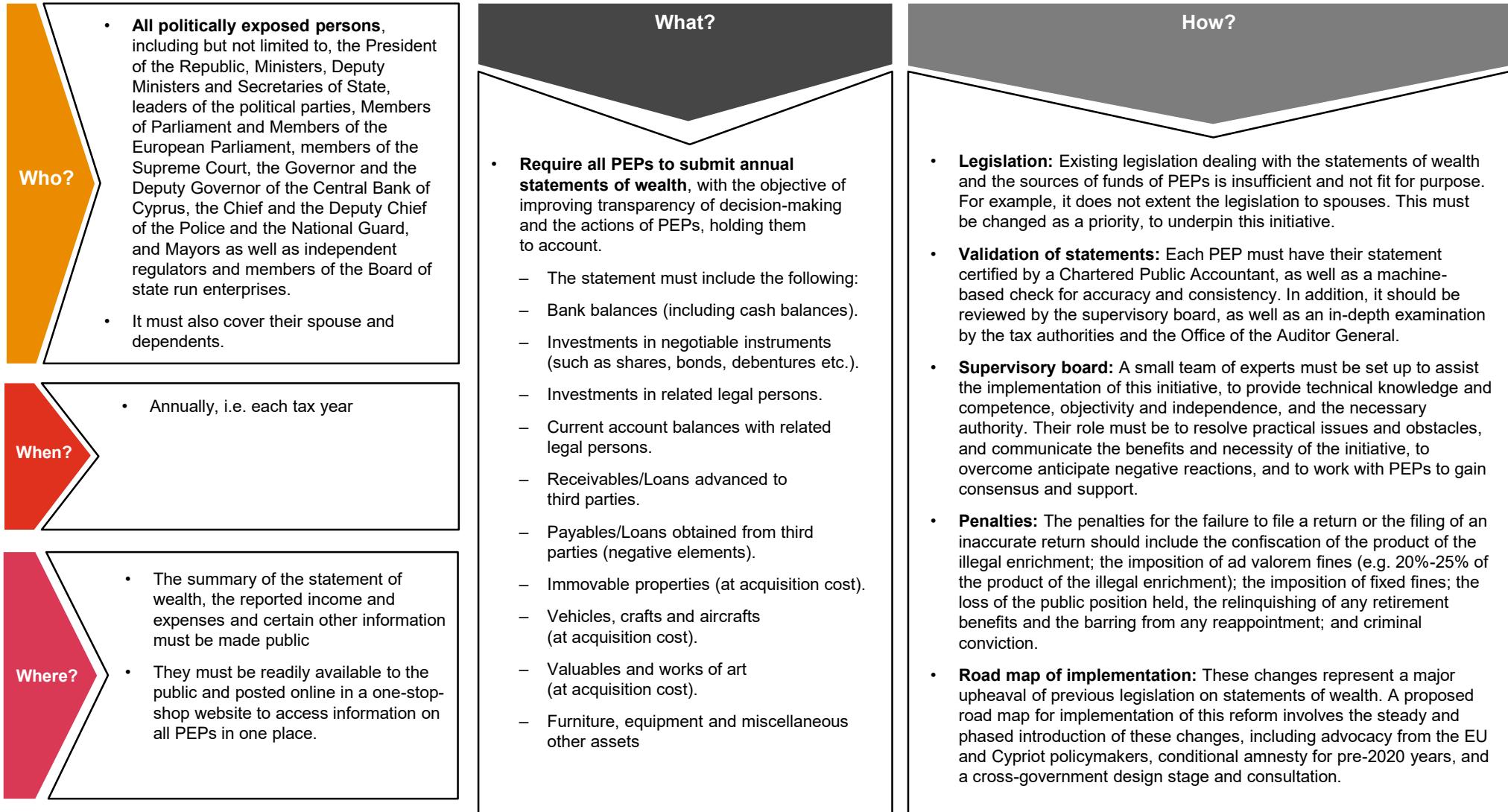


## Implement a code of conduct for MPs

- The Cypriot Parliament, on 18 February 2021, approved a decision enacting the Code of Conduct for MPs, implementing a recommendation by GRECO, the Council of Europe's anti-corruption monitoring body.<sup>1</sup>
- A code of conduct will help drive accountability and instil a high purpose and morale fibre into public servants, irrespective of political party. The code will govern the broader conduct of MPs both in and outside the Parliament, and regulate issues of transparency such as conflict of interest, declaration of gifts and paid trips abroad. It provides for political penalties in case of violations.
- Compliance with the Code will be monitored by a Code of Conduct Committee to be appointed according to the article of the Constitution governing the appointed of the parliamentary Committee of Selection.
- Efforts of the code of conduct can be reinforced with ethics training, a reform we propose overleaf, and small, everyday marketing campaigns, for example newsletters sent through the civil service.

<sup>1</sup> In-Cyprus, Cyprus Parliament approves Code of Conduct for MPs, February 2021.

# 1.3 Hold politically-exposed persons to account through statements of wealth



# 1.4 Align with international standards on anti-corruption and anti-money laundering



## Implement all MONEYVAL recommendations in the next 24 months

The Committee of Experts on the Evaluation of Anti-Money Laundering Measures and the Financing of Terrorism (MONEYVAL) is a permanent monitoring body of the Council of Europe. The committee is entrusted with assessing compliance with the international standards for anti-money laundering (AML) and counter-financing terrorism (CFT).

As a member of MONEYVAL, Cyprus undergoes regular evaluations on the effectiveness of its processes for preventing criminal abuse of the financial system. Out of the 40 recommendations submitted by MONEYVAL in 2019, Cyprus is rated partially compliant – the lowest level of compliance – on three. These three are focused on below.

| Issue raised by MONEYVAL  | Current state   |
|---|---|
| <b>1. Powers of law enforcement and investigative authorities</b><br>Controlled delivery cannot be used for the movement of cash and bearer negotiable instruments (BNIs)<br>Limited powers for interception of communication   | Cyprus should review its legislation around the use of controlled delivery. This issue has been addressed since the last MONEYVAL evaluation.   |
| <b>2. Correspondent banking</b><br>AML/CFT Law in Cyprus currently does not require credit institutions or financial institutions to collect information on whether their foreign correspondents have been subject to money laundering (ML) or terror financing (TF) investigations or regulatory actions.<br><br>Credit and financial institutions can accept third party evaluations of whether potential respondent institutions allow their accounts to be used by shell banks, rather than requiring that the institution make its own evaluation on this issue. | Cyprus should assess the requirements placed on banks and financial institutions in Cyprus for combatting ML and TF, and revise them to meet international standards.   |
| <b>3. Non-profit organisations (NPOs)</b><br>Cyprus has not identified the subset of NPOs which may be vulnerable to TF abuse. Neither has Cyprus identified the nature of threats posed by terrorist entities to the NPOs which are at risk as well as how terrorist actors abuse those NPOs.<br><br>No best practices have been developed together with NPOs to address TF risk and vulnerabilities.<br><br>No measures have been taken to encourage NPOs to conduct transactions via regulated financial channels.   | Cyprus must conduct an initial AML/CFT assessment of its NPO sector. In this assessment, it must review the current capacity of the sector to combat ML and TF and set out an action plan for addressing the issues raised by MONEYVAL. |



## Implement all GRECO recommendations in the next 24 months

The Group of States against Corruption (GRECO) was established by the Council of Europe to monitor States' compliance with anti-corruption standards. Its objective is to improve the capacity of its member states to fight corruption by monitoring their compliance through mutual evaluation (i.e. peer review).

As a member of GRECO, Cyprus undergoes regular evaluation rounds aimed at furthering the necessary legislative, institutional and practical reforms to improve capacity to combat corruption. Out of the 16 recommendations submitted by GRECO to Cyprus in 2020, Cyprus was rated as not having implemented three. These three are focused on below.

| GRECO recommendation  | Current state   |
|---|---|
| Strengthen the independence of prosecutorial functions and the capacity of the individual law officers and prosecutors to conduct their duties in a more autonomous way, guided by the safeguards necessary under the rule of law.  | The Law Office has prepared a bill on its independence and autonomy – which is a positive first step. However, this has only been transmitted to the executive and the final draft is still not available. Authorities have since stated that the aforementioned bill was not able to pass beyond the executive, and that a new bill is again under consultation. To resolve this recommendation, Cyprus should prioritise the passing of this bill by the executive. |
| Implement a code of ethics/conduct for members of parliament, covering various situations of conflicts of interest.   | This recommendation has been addressed since the last GRECO evaluation.   |
| Implement consistent rules on the acceptance by MPs of gifts, hospitality and other benefits including special support provided for parliamentary work. Internal procedures for the valuation and reporting of gifts, and the returning of those that are unacceptable, must also be developed. | This recommendation has been addressed since the last GRECO evaluation.   |

# 1.5 Modernise corporate law to meet international standards of governance and oversight



## Continuously update corporate law in Cyprus to meet modern, international standards.

- Following its accession to the EU in 2004, Cyprus has made strides in updating and modernising its corporate law (Cyprus Companies Law, Cap. 113) in line with EU laws and regulations. Amendments as recent as 2019 have been made to the Law, e.g. around late filing penalties, appointment of company secretaries, and the allotment of shares payable in kind.<sup>1</sup>
- However, corporate governance in Cyprus still has room to improve. The Companies Law will be an essential means for driving these improvements forward and instilling modern, internationally-recognised standards of governance and oversight in Cyprus's corporations.
- Cyprus can model updates to key provisions on the latest UK Companies Act. Key features of this law are described opposite.

### **Focus on: Business appointments**

- In particular, Cyprus should implement stricter rules on business appointments after the retirement of former MPs, senior civil servants and other officials in the public sector.
- In the UK, appointments of this kind must be approved by the Advisory Committee on Business Appointments (ACOBA), which is an advisory non-departmental public body sponsored by the UK's Cabinet Office. ACOBA's role is to advise on the conditions that should apply to appointments or employment under the UK's Business Appointment Rules, which apply to former MPs for two years.
- The Rules seek to mitigate the chances that i) the decisions of currently acting public servants are influenced by the expectation of future employment with a particular firm or organisation, ii) employers make improper use of information to which a former public servant had access to and iii) any other causes for concern.<sup>2</sup>
- Importantly, if this body is replicated in Cyprus, it should be given the power to enforce judgements and conditions on applicants. For example, where employment is permitted under certain conditions of confidentiality or barring the applicant from assisting in work relating to procurement, the body should be able to implement punishments and fines in cases where the applicant is found to be non-compliant.

<sup>1</sup> MPC LLC, Amendments to Cyprus Companies Law, CAP 113, November 2019.

<sup>2</sup> Gov.uk, Advisory Committee on Business Appointments



## Key features of UK Companies Act 2006

The Companies Act 2006 forms the primary source of UK company law. It supersedes the Companies Act 1985, off which Cyprus company law is predominantly based. The Act is comprehensive, covering the whole breadth of laws relating to companies. Some key provisions of the Act include:

### General provisions

- Modernised the procedure for incorporating companies to facilitate incorporation over the Internet.
- Made it possible for a single person to form a public company.

### Directors

- Imposed seven codified duties for directors:
  - To act within their powers
  - To promote the success of the company
  - To exercise independent judgement
  - To exercise reasonable care, skill and diligence
  - To avoid conflicts of interest
  - Not to accept benefits from third parties
  - To declare an interest in a proposed transaction with the company

### Private companies

- Removed the requirement for a private company to appoint a company secretary
- Abolished the requirement for unanimity in shareholders' written resolutions
- Abolished the requirement to hold Annual General Meetings

### Public and listed companies

- Imposed additional requirements for annual reports and accounts, including main trends likely to affect future development and information on ESG issues
- Requires listed companies to hold AGMs within 6 months of the end of the financial year

# 1.6 Develop ethical behaviours through widespread education and training



## Implement ethics education in primary and secondary schools

- Ethics education can be used to promote values and morals in children, which will yield long term benefits in the empowerment of Cypriots to act with integrity. To this end, we propose that ethics should become a mandatory subject in both primary and secondary schools. It should be taught using practical methods, with the use of real world case studies, classroom debates and team work, as opposed to text book learning. A sample of an ethics education curriculum is described below.
- We propose the subject is part of a broader subject covering social topics (i.e. relationships, equality), health (i.e. healthy lifestyles) and financial education (i.e. taxes and savings). In addition, as part of the wider curriculum refresh (see education reforms), the Ministry of Education should aim to include ethics teaching within other subjects, for example history, politics and science. In this way, students can apply their ethics learnings in many contexts and the principles can be fully embedded within society.
- Teacher training would be required to fully implement this reform. Government can work to implement teacher training in ethics by bringing in experts from relevant institutions, e.g. UNESCO, or other EU countries which have successfully implemented ethics training, e.g. Germany, France.

### Infants

Stories, poems and rhymes to prompt children to listen to others, take turns to speak, and give reasons for opinions

### Primary School

Focus on developing critical thinking and discussion-based skills through stories, contemporary examples and real life scenarios

### Secondary School

Enhance skills of collaborative inquiry, developing valid arguments and evaluating evidence through case studies and hands-on examples

Source: Primary Ethics AU, Ethics Education for Children



## Implement mandatory ethics training for public servants

Ethics training for public servants can build integrity and strengthen anti-corruption behaviours in Cyprus's civil service. In order for ethics training to be implemented successfully within Cyprus's public sector, we propose:

- Ethics training must be embedded within Cyprus's wider anti-corruption efforts.** Cyprus must have a balanced and comprehensive anti-corruption strategy, of which ethics training will support in maintaining for future generations.
- Ethics training must have strong buy-in from senior leadership and across political parties.** We suggest that a pilot of ethics training is first held with senior government authorities. This will show buy-in through action, and not just declarations. Buy-in from senior leadership can be further sustained through appropriate allocation of funds and manpower for the implementation of these training programmes.
- Embed the requirement of ethics training into legislation.** It is important to have legislative or other official requirements in order for the practical implementation of ethics training to be successful. For example, it can be embedded into the Code of Conduct and part of mandatory CPD.
- Target training for specific groups of public officials as it is phased in and the training is scaled up.** Training can be prioritised for: new public officials, senior public officials in management positions, and public officials in areas at risk of corruption.
- Make the training practical.** Apply modern training methods, e.g. theoretical lectures, case studies, and workshop-style learning.
- Evaluate the effectiveness of the training.** Ethics training can be assessed along metrics of outputs, e.g. number of public officials trained. Measuring effectiveness in eliminating corruption is more difficult, and can only be assessed in the long term.

<sup>1</sup> OECD and SIGMA, Ethics Training for Public Officials, 2013.

For more relevant initiatives...

See the **World class education system** section for recommendations on curriculum reform

# 6.4

Which promotes liveability, equal access and opportunities for all

# Liveability, equal access and opportunities for all

## Roadmap

| Outcomes   | Initiative areas   | Sample of initiatives outlined in this section   |
|--|--|--|
| Improve and maintain liveability for all Cypriots  | <b>1.1</b> Create a society which promotes liveability, equal access and opportunities for all<br><b>1.2</b> Create safe and liveable communities  | <ul style="list-style-type: none"> <li>Invest in overall liveability aspects of Cyprus's cities such as affordable housing, green spaces and the built environment.</li> <li>Improve safety on roads by investing in automated speed cameras.</li> <li>Limit illegal parking by investing in CCTV.</li> <li>Develop smart parking facilities by replicating the Paphos smart system pilot in other municipalities.</li> </ul>  |
| Ensure that all citizens have equal access to opportunities in all walks of life                 | <b>2.1</b> Ensure that all citizens have equal access to opportunities in all walks of life<br><b>2.2</b> Build awareness and momentum from businesses to drive diversity and inclusion<br><b>2.3</b> Create strategic leadership positions to promote diversity and inclusion<br><b>2.4</b> Promote gender equality, starting from school, across the workplace and in politics<br><b>2.5</b> Embed flexible working across the economy to increase labour market participation | <ul style="list-style-type: none"> <li>Elevate the role of Commissioner for Administration and the Protection of Human Rights to a Department for Diversity and Inclusion within the Ministry of Labour.</li> <li>Enshrine in law that all Ministries must conduct diversity impact assessments every three years.</li> <li>Require more companies to publish gender pay gap statistics.</li> <li>Tie government procurement to ethical employer accreditations.</li> <li>Appoint diversity managers within the public sector and promote in the private sector.</li> <li>Encourage men to take up childcare roles by rolling out more generous paternity leave policies.</li> <li>Review legislation for statutory rights to request flexible working.</li> </ul> |
| Establish a future of shared prosperity by levelling up regions and regenerating rural economies | <b>3.1 – 3.4</b> Establish a future of shared prosperity by levelling up regions and regenerating rural economies<br><b>3.5</b> Support the integration of migrants to better achieve social cohesion  | <ul style="list-style-type: none"> <li>Implement master planning in rural and urban areas.</li> <li>Create a Liveability Index.</li> <li>Improve access to public services and boost awareness of rights by setting up a Work in Cyprus website.</li> </ul>  |

# Liveability, equal access and opportunities for all (cont'd)

## Outcomes

- 1 Improve and maintain liveability for all Cypriots
- 2 Ensure that all citizens have equal access to opportunities in all walks of life
- 3 Establish a future of shared prosperity by levelling up regions and regenerating rural economies

## KPIs and targets

| Key performance indicator  | Year of latest available data | Current state | Target by 2035 | Benchmark                      |
|--|-------------------------------|---------------|----------------|--------------------------------|
|  Gender employment gap  | 2019                          | 11.6%         | 5 – 10%        | EU27 – 11.7%<br>Finland – 2.9% |
|  Employment rate of people aged 55-64   | 2019                          | 60%           | 65 – 70%       | EU27 – 60%<br>Sweden – 78%     |
|  Severe material deprivation rate of foreign nationals aged 18+ in Cyprus                           | 2016                          | 13.5%         | 7 – 9%         | EU27 – 9.2%<br>Malta – 2.5%    |
|  Gini coefficient of equivalised disposable income (0: perfect equality, 100: perfect inequality) | 2019                          | 31.1          | 28 – 30        | EU27 – 30.2<br>Slovenia – 24   |
|  Share of people at risk of poverty or social exclusion <sup>1</sup>                              | 2019                          | 22%           | 15 – 20%       | EU27 – 21%<br>Slovenia – 14%   |
|  Percentage of the population rating their satisfaction as high (%)                               | 2018                          | 22%           | 35 – 40%       | Ireland – 45%<br>Denmark – 41% |

Data from Eurostat unless otherwise stated. <sup>1</sup> This indicator corresponds to the sum of persons who are: at risk of poverty or severely materially deprived or living in households with very low work intensity.

\*Note: Latest available data is used up to 2019. 2020, where available, is excluded due to the COVID-19 pandemic.

# 1.1 Create a society which promotes liveability, equal access and opportunities for all

Virtually all of the initiatives in this strategy are important for liveability – making Cyprus a great place to live and work in. In particular, the following are of paramount importance:

-  A fair and anti-corrupt society p. 162 – 171
-  A sustainable and cyclical economy p. 92 – 124
-  Sustainable transport network p. 92 – 124
-  Digital connectivity p. 83 – 91
-  Air connectivity p. 125 – 135
-  Efficient government p. 33 – 44
-  Excellent and accessible healthcare p. 154 – 161

Other key aspects for liveability are outlined in the following slides within this section:

- |  |  |
|--|--|
|  <b>Equality, diversity and inclusion</b> |  <b>Social cohesion</b> |
|  <b>Levelling up regions</b>            |  <b>Safety</b>        |

# 1.2 Create safe and liveable communities



## Invest in overall liveability aspects of Cyprus's cities

### Affordable housing

Effective housing policy, based on demographic need and best practice, should be introduced. Policy suggestions include (i) housing subsidies for families that cannot afford to pay market rents, (ii) rent-to-buy schemes and repurposing of vacant properties into affordable housing, and (iii) incentivise developers to build affordable housing through tax relief, among others. Cyprus should also mandate that a set proportion of every new build is designated as affordable housing (e.g. in the UK, councils can dictate that 25% to 40% of new dwellings in any development are affordable housing). New developments for affordable housing should be focused in inner city areas to regenerate residential spaces and attract movers (e.g. new families, recent graduates) and place safety at its heart.



### Green spaces



Urban green spaces provide residents with a range of benefits: they promote mental and physical health, reduce exposure to pollutants and can serve as centres for social activities and community interaction. The government should invest in public green spaces, such as parks, playgrounds and roadside greenery, to deliver these quality of life benefits to local communities. Cyprus should also emphasize the maintenance of existing parks and set guidelines autonomous municipalities need to meet.

### Built environment

Neighbourhood aesthetics form a significant part of the appeal that could attract potential residents into rural areas. Investments into making a city a better place to live and work should take into account not only the practical aspects of buildings and spaces, but also their visual attractiveness, cleanliness and cohesion with the area's culture and heritage.

In order to protect and improve the visual appeal of the built environment, municipalities should liaise with building managers to plan the renovation of residential and commercial buildings at scale. This would involve setting timelines, drawing up design plans, and securing funding for retrofitting buildings to meet modern energy efficiency standards. Importantly, these plans should consider the existing natural environment of Cyprus (e.g. beachfronts), and include details on how renovation can be done in a sustainable and green way.



Cyprus should also look to implement national standards for the aesthetic quality of buildings, e.g. height limits and materials, while still allowing local municipalities to set more detailed guidance, e.g. colour schemes, for new developments in their area.



## Improve safety and compliance with the law

1

**Improve safety on roads:** Tougher traffic fines were introduced in 2020 – fines for the offences of drunk driving, speeding, and driving while using a mobile phone all saw increases, among others. To support the implementation and enforcement of these fines, the government should push forward investments in automated speed cameras along all major roads in the country. At the moment, this technology is only in place in certain streets in Nicosia.

2

**Limit illegal parking:** Illegal car parking – on pavements or on double yellow lines – are not only an inconvenience for residents and commuters, but also a safety risk for people with disabilities and limited mobility. While fines have already been increased, as above, Cyprus must improve its enforcement to deter further offences. CCTV should be placed in roads where illegal parking is rampant. In addition, the workforce of traffic wardens, separate from the police, should be expanded and targeted at these same roads.

3

**Develop smart parking:** Illegal parking can also be deterred by providing better legal parking facilities. This does not necessarily mean more parking – which would not be environmentally sustainable – but it can mean smarter parking. Paphos Municipality recently launched a pilot for a 'smart' system to manage major parking areas. This system will manage parking spaces through sensors, and communicate information to motorists through a mobile application. If successful, other municipalities should seek to replicate this pilot.

4

**Eliminate littering and improve cleanliness:** To limit large scale illegal dumping, by businesses or households, Cyprus can implement novel technologies such as drones to help monitor illegal dumping sites and identify repeat offenders. To tackle littering improve the overall cleanliness of cities and green spaces, the government should increase jobs for sanitation workers and invest in machinery, e.g. mechanical street sweepers.

5

**Prevent noise pollution and anti-social behaviour:** Municipalities can develop a reporting phone line or mobile phone application for citizens to report offenders. In addition, and as a more long term solution, the government should look to implement building standards and planning policies around noise insulation.

# 2.1 Ensure that all citizens have equal access to opportunities in all walks of life

## The case for change

- Gender equality in Cyprus has much improved over the years, achieving the considerable narrowing of gaps between the outcomes of women and men in the labour market, such as the employment gap. In particular, Cyprus has made remarkable strides in reducing the gender pay gap – coming down from an economy-wide gender pay gap of 22% in 2007 to around 10% in 2019, lower than the EU27 average of 14.1% and other EU countries such as the Netherlands, Denmark, and Germany.
- However, women still suffer from under-representation in certain areas such as the ICT sector and parliament membership, showing that some opportunities may be afforded less to women in Cyprus.
  - Only 2% of employed females work in the ICT sector compared to 4% for males
  - Only 18% of seats in parliament are held by women in Cyprus, compared to up to 42% in Finland
- The issues surrounding gender equality and broader diversity & inclusion in the labour market are complex, and tackling them successfully means changing the way that workplaces, businesses, the government and wider society functions.

## Department for Diversity and Inclusion

Elevate the role of Commissioner for Administration and the Protection of Human Rights to a Department for Diversity and Inclusion within the Ministry of Labour. Its mandate should be to promote diversity and inclusion in all walks of life, work and society. It should be responsible for developing policy, monitoring progress, and education as well as awareness.

## Annual Diversity Action Plans

The Department for Diversity and Inclusion should prepare and implement a Diversity and Inclusion Action Plan every year. It should set out the government's vision and strategic plan for boosting diversity across the workplace and improving inclusion in society, regarding diversity, inclusion and non-discrimination against gender, race, sexuality, and people with disabilities. It should list policies and initiatives and have a detailed list of KPIs that are tracked, particularly with respect to the religious groups in Cyprus as mandated by its Constitution.

## Diversity impact assessments

Enshrine in law that all Ministries must conduct diversity impact assessments every three years. The impact assessments should assess whether a law, policy or programme reduces, maintains or increases inequalities between genders, race, abilities and others. This therefore makes the government accountable for diversity and inclusion in its decision making, making it the responsibility of Ministries to incorporate all aspects of diversity and equality (i.e. gender, race, disability) in all aspects of planning and administration, particularly with respect to the religious groups in Cyprus as mandated by its Constitution.

## Unconscious bias training

Make it mandatory that all civil servants, MPs, and public sector workers must complete unconscious bias training. Encourage businesses to do the same – for example through the Diversity Charter (see next slide).

## Diversity workshops

The authorities should engage with selected enterprises and organisations to provide inspiration materials with specific examples of how to work with the gender and race balance in management. In cooperation with the recruitment sector it should be assessed how the sector can promote a more balanced representation of women and men in the recruitment base for boards and management. Run workshops on how to promote equality and create an inclusive culture in the workplace.

## Diversity Institute

Set up an independent equality body, which has responsibility for explaining, monitoring, protecting and promoting respect for human rights including equal treatment in practice, policy and legislation, and increasing awareness of diversity and inclusion. It should assess infringements of equality law, conduct research on measures to protect human rights, report and make recommendations, and provide advice to the government, parliament and other bodies on information on human rights.

## Relationships and sex education

Include comprehensive relationships and sex education (RSE) in primary and secondary school curricula. RSE is critical to protecting people from abuse and sexual harassment, teaching people about safety, security and acceptance. It is the fundamental way to create an open and inclusive society. RSE should be offered in all schools with age appropriate content, trained educators, and partnership with parents and carers.

Data from Eurostat unless otherwise specified.

## 2.2 Build awareness and momentum from businesses to drive diversity and inclusion



### Require more companies to publish gender pay gap stats

Pay gap reporting can support equal opportunities by:

- Driving companies to examine the state of diversity in their workforce.** If large pay gaps do exist, the data gives business leaders and owners the supporting evidence to ask difficult questions around discrimination and deterrents for vulnerable and minority groups within their company.
- Giving the government oversight of pay disparities.** This data can help inform policy development and identify deficiencies in current labour regulations.

An EU Directive proposed 4 March 2021 suggests that employers with at least 250 employees must publish information on the pay gap between female and male workers in their organisation. To support its potential implementation and more broadly, policymakers should:

1

Evaluate the proposed legislation for Cyprus: In Cyprus, only around 80 companies have more than 250 employees (as per 2018 Eurostat data). To have the biggest impact, the authorities should consider adjusting the legislation to account for Cyprus's greater prominence of small companies. For example, if Cyprus's share of large companies was the same as the EU average, it would mean 20 more companies submitting data.

2

Issue national guidance on the following to ensure consistency and accurate data:

- Which companies are required to report. Cyprus should evaluate whether a minimum for workforce size lower than the EU recommendation should be considered, in order to take into account the large number of SMEs in Cyprus with under 50 employees.
- Timelines, e.g. deadlines for reporting each year
- How to collect pay gap data, e.g. measurement and data collection methods
- How to calculate pay gap statistics – to ensure consistent and comparable data

3

The results should be made available to the public, for example through a government webpage, where people will be able to search for a specific company's pay gaps. This will place additional reputational incentives on employees to expand their equal opportunities efforts.



### Tie government procurement to ethical employer accreditations

The government can help to ensure that its commercial activities create positive impacts on labour market practices by tying procurement to criteria for the ethical recruitment and employment of migrants.

One way to do this is by **requiring contractors to obtain a specific employer accreditation/certification**. For example, the International Recruitment Integrity System (IRIS) is a global benchmark for ethical recruitment standards for migrants. Employers can be certified under IRIS standards and become preferred employers alongside multinational companies.

Examples of the standards that IRIS assesses employers of migrants against include:

- Respect for freedom of movement – recruiters must not withhold, destroy or confiscate documents or wages or otherwise limit freedom of movement
- Respect for confidentiality – recruits must not record personal data of migrants which is not required for facilitating their deployment

IRIS also reviews whether employers follow general labour regulations around insurance rights, sick pay, and holiday allowance.

In collaboration with IRIS, the government could further promote best practice for ethical recruitment by hosting conferences and seminars that inform employers and migrants of obligations and rights.

Alternatively, the government can **embed ESG values into public procurement by developing a framework for assessing social impact**. See the adjacent case study for how this has been applied by the UK government.



### Case study: UK Social Value Model

Since January 2021 the UK has used a 'Social Value Model' (SVM) to evaluate ESG themes in all central government procurements. The SVM sets out the UK government's social value priorities across 5 themes, such as economic inequality and equal opportunity, and 8 policy outcomes, such as reducing the disability employment gap and tackling workforce inequality.

Using this model, prospective bidders are evaluated on whether they can deliver stated ESG objectives in procurement. This could mean, in terms of ethical employer standards, including criteria such as:

- Reducing the disability employment gap
- Paying suppliers on time
- Certifying alignment with labour regulation as above (insurance, sick pay, paid leave, etc.)

These social value criteria are given a minimum overall weighting of 10% of the total evaluation score whenever the SVM is used. For example, the authority out for procurement may split the weighting of the procurement evaluation as 30% for price, 60% for quality of response and 10% social value. This sends a message to the supply market that social value is important to the procuring authority.

<sup>1</sup> UK Government Commercial Function, The Social Value Model, 2021.

## 2.3 Create strategic leadership position to promote diversity and inclusion



### Diversity Charter Cyprus

The Diversity Charter Cyprus (DCC) was established in 2019. By signing the charter, companies commit to:

- Create a workplace that reflects the diversity of society, helping employees feel dignified, valued and respected.
- Recognise and invest in each employee's differences and talents, focusing on human resource management based on each individual's knowledge, skills and competencies.
- Promote mutual trust, equal treatment and non-discrimination, among organisations and their employees and support an inclusive workplace, free of bias.
- Develop policies, strategy and practices based on the acceptance of diversity and inclusion and apply a multifaceted approach towards every aspect of the organisation's operations, management processes and culture in general.
- Disclose its commitment to the Diversity Charter Cyprus and the achievements of its diversity policy both internally and externally

To date, more than 40 signatories have joined the DCC including public bodies e.g. Cyprus Energy Agency (CEA) and the Health Insurance Organisation (HIO), private sector companies e.g. KMPG, and education providers e.g. Olympion High School and Frederick University.



### Build and promote the Diversity Charter

- **Create a dedicated website**, as opposed to solely a Facebook page. This needs to be formalised and official.
- **Promote case studies and policies**: it needs to move from commitments to a demonstration of action and implementation.
- **Build a proven track record**: Collect data on the signed up companies and make this publicly available, tracking progress on KPIs such as gender pay gap, employment, employee satisfaction. This is crucial to building reputational pressure for change and signalling to other companies that now is the time for change.
- **Pilot and promote policies**: Policymakers should use these companies as a base to pilot new policies, such as widespread unconscious bias training, and encourage them to be the trailblazers.



### Appoint diversity managers within the public sector and promote in the private sector

- Diversity managers and task forces monitor talent management processes (e.g. recruitment or promotions) and diversity. They can help reduce biased decisions in recruitment and promotion by increasing accountability, as people who make decisions will know that their decision may be reviewed against diversity criteria.

A well-positioned and motivated task force should also engage regularly with vulnerable and minority groups within a government department or company, develop programme plans to address any issues raised, and hold oversight over the programme results and improvement processes.

Policymakers should:

- **Appoint a Diversity Manager in all ministerial departments and public sector organisations** responsible for promoting good practice, escalating any issues or complaints, monitoring data and KPIs, serve as a confidential source to report inappropriate behaviour, and ensure appropriate recruitment practices.
- **Encourage companies to do the same**: Educate around the benefits of such a role and use the Diversity Charter to pilot and promote it

In creating a diversity task force, business and government leaders should consider the following guidelines:

- **Appoint a leader with senior or executive-level decision-making power to visibly increase diversity at Board level**. This lead should be in the position to ask for more information on why HR decisions were made.
- **Secure strong sponsorship from senior/executive-level leadership**. This is especially in large companies or departments with workers in several different workstreams and clusters.
- **Ensure visibility of internal data**. The diversity of task force should have clear transparency around employment.



### Case study: IBM Corporation

Managing Diversity at IBM with Diversity Task Forces

IBM has long been a leader in diversity management. In 1993, CEO Louis Gerstner observed low levels of diversity in the senior ranks despite strong equal employment efforts in the company.

To combat this, he created eight diversity task forces. These task forces each targeted a specific demographic groups such as women and men, Asians, Africans, LGBT people, employees with disabilities, etc. Each task force consisted of senior-level executives and higher-level managers. Activities run by the task forces included:

- Conducted a series of meetings and employee surveys around key factors concerning each group. E.g. male-dominated culture, lack of networking opportunities and work-life management challenges were the top concerns for women.
- Launched a series of programmes to address these key factors, e.g. creating a matching service on the company website for those who were seeking a mentor for guidance and advice.

Key to IBM's success was addressing both issues based on reality or perception. They realised that perceptual barriers could also act as a deterrent to career aspirations.

As a result of these initiatives, IBM has:

- More than tripled the number of female executives worldwide
- Doubled the number of minority executives
- Increased number of LGBT executives by seven times
- Tripled the number of executives with disabilities

Source: Lumen Learning, Managing Diversity for Success: The Case of IBM.

## 2.4 Promote gender equality, starting from school, across the workplace and in politics

### Politics

Women's equal participation in political leadership is an integral step in achieving sustainable and inclusive growth. However, achieving gender parity in Cyprus's political system is still far off. Cyprus can put in place the following policies to support working women in government – which in turn will support working men.

**Mandate that one in three candidates for the municipal and parliamentary elections in Cyprus are women by 2030 and one in two by 2040.** This policy has been successful applied in other European countries and encourages developing female role models.

**Permit female politicians to bring their infant children to work, especially at the breastfeeding age.** In addition, suitable facilities for changing and feeding should be made available to women in parliament within a reasonable distance. The government can also review the possibility to enshrine in law that women should be permitted to breastfeed while in parliament.

**Give working parents, fathers and mothers, more flexibility to meet family responsibilities by introducing proxy voting in the parliament.** Consider also allowing voting from home via weblink for parents of infant children, which has been shown to be a viable option during the COVID-19 pandemic.

### Workplace

**Encourage men to take up childcare roles by rolling out more generous paternity leave policies.** Currently, Cypriot labour law provides fathers, including those who are adopting, with two consecutive weeks of paid leave. This is much less than the more generous paternity leave policies in other EU member states such as Sweden, which offers 480 days at 80% of normal pay.

- Cyprus needs to review its parental leave policy – uptake of maternity and paternity leaves, respectively – and identify if and how it has affected the tenures of its parliament members by sex.
- In revising its paternity leave policy, Cyprus can also consider joint parental schemes, which have proved successful in e.g. Sweden, Germany.
- Run an awareness campaign about parental leave to encourage men to take up the opportunity

**Collect sex disaggregated data on the use of ICT and women's participation in policy-making as well as developing targets, indicators and benchmarks to track the progress of women's and girl's access to the benefits of ICT.** This data will be key in understanding where it is in the education and career journey that women's representation falls behind.

The Ministry of Education should work to pull this data together into a publication on women's representation in these sectors, identifying the reasons for underrepresentation and committing to KPIs.

**Combat sexual harassment at work.** The Ministry of Labour should hold a consultation on sexual harassment at work with women and men across different sectors. Focus should be on breaking the taboo around sexual harassment and on respect, good tone and courtesy at work.

### Education

**Cyprus can lead the way and be the first country in the EU to offer free sanitary products to school children.**

Period poverty exists when people who menstruate are not able to access sanitary products, or have poor knowledge around menstruation due to financial constraints. This leads to absences from school. Offering free sanitary products could help people who menstruate from vulnerable groups for whom sanitary products may not be readily available or affordable. Eventually this can be expanded to free sanitary products in universities and other designated public places such as community centres. **Improve the availability of private, safe latrines and acceptable menstrual hygiene management (MHM) facilities in schools.** High quality hygiene facilities will help young women by removing related stressors from the school environment.

**Provide STEM mentorship programmes, particularly with other female IT specialists.** This will also help to increase visibility of female success and the career paths women can take in the ICT sector. The programmes should be targeted to primary and secondary school girls in order to raise early awareness. This will allow them to factor in this information into their decisions for higher and/or further education.

**Nurture family engagement in STEM learning.** Schools, supported by the Ministry of Education, can share a list of recommended books and toys for parents to use at home with their children to promote STEM learning. Schools and day-cares can further encourage at-home activities by providing instructions/lesson plans to parents, for example on simple science experiments that can be performed using household items.

# 2.5 Embed flexible working across the economy to increase labour market participation



## Expand flexible working practices across public and private sector organisations

COVID-19 has had a profound impact on the labour market, forcing organisations to change their ways of work rapidly and comprehensively. It is unlikely that office work patterns will revert completely to what they were before the pandemic. Employers must factor this into their plans for the future by investing in flexible ways of working.

Adapting to more flexible working practices can have a strong and positive effect on the employment of people with out-of-work responsibilities, for example parents and other carers, who can be disadvantaged by traditional work hours. Promoting remote working can also support rural areas – so that people can live in non-urban spaces, but still work in city jobs. Flexible working will also be important to deal with the challenges of an ageing population, allowing people to expand their working lives, for example with flexible phased retirement.

Various options for flexible working practices are available that will suit different scheduling needs.

- Flexitime:** Give employees the freedom to structure their workdays – when, where and for how long they work.
- Compressed workweek:** Employees get a shorter workweek but still work the same number of hours. For example, an employee can work four 10-hour days instead of five eight-hour days. Both total to a normal 40-hour work week, but the former gives employees an extra day off for added flexibility.
- Job sharing:** Two part-time employees share the job of one traditional full-time employee. This could follow a one week on, one week off structure, or a structure whereby each employee works certain days of the week.
- Remote work:** Employees will work from home or another location outside of the office for some or all of their workweek.
- Permanent part-time arrangements:** Employee shortens their workweek. These arrangements can still be flexible – for example, by stipulating the number of days in a year an employee must work, instead of by week, an employee that usually worked a 4-day week can choose to work a full 5-day week in exchange for taking a 3-day week in the future.

A key enabler of flexible work is the digitalisation of businesses. Without the foundational infrastructure – stable internet connections, modern digital equipment, cloud sharing and digital literacy standards for employees – flexible working will be difficult to implement on a broad and wide-reaching basis.

For more relevant initiatives...

See the **Supported by digitalisation** section for recommendations on digital transformation in businesses

### Review types of flexible work arrangements



Different approaches to flexible work suit different needs. These approaches, described in the adjacent box, can be tailored to fit the different out-of-work responsibilities of employees. Organisations should formalise these work arrangements through their Human Resources departments and communicate the different options to their employees. Policymakers can offer guidance on this.

### Review legislation



Currently, there is no statutory right to request flexible working in Cyprus. Other European countries, including the UK, Belgium and France, offer this statutory right for employees regardless of parental or caring responsibilities. With this statutory right, employers must consider requests for flexible working in a reasonable manner and can only refuse under conditions stipulated by legislation.

### Fund resources for working flexibly



In order for flexible work arrangements to be inclusive, workplaces should subsidise the resources required for efficient home working, e.g. laptops, monitor screens and office chairs. Organisations also need to invest in online infrastructure, for example cloud drives and video conferencing software.

### Train management in supporting flexible working



Implementing flexible work practices often requires a change in culture. Secure buy-in from senior leadership, and well-trained management can help mitigate this. Project and department heads should be trained in supporting their team members: drawing clear boundaries for meeting scheduling and project work in line with flexible working arrangements.

### Consider what this means for migrant workers



Migrant workers may have different requirements, based on their visa, for maintaining their right to work. Organisations which are interested in expanding flexible work arrangements across their workforce should invest in a dedicated immigration task force that can check compliance with Cyprus's regulations in this area.

# 3.1 Establish a future of shared prosperity by levelling up regions and regenerating rural economies

## The case for change

- Social inclusivity and stability are key for sustainable growth. However, there are still disadvantaged areas in Cyprus, which show relatively lower outcomes in indicators such as household income and education:
  - Cyprus's Gini coefficient of equivalised disposable income is relatively higher than EU27 average, at 31.1 in 2019 compared to 30.2.
  - Differences between disadvantaged and advantaged schools in average reading scores are high and in some cases are equivalent to two or three years of schooling.<sup>1</sup>
- Cyprus must also consider the integration of its migrant population with local communities. Cyprus has high rates of immigration – in 2018, there were 27 migrants per 1,000 inhabitants (or almost 23,500 people). However, activities to promote integration and social cohesion within the country's migrant population are still limited, and welfare outcomes of migrants can still be improved.
  - 13.5% of foreign nationals above the age of 18 suffered severe material deprivation in 2019 – compared to the 9.2% EU27 average and the lowest rate in the EU of 2.5% in Malta
- Focusing on the communities and vulnerable groups that may be falling behind will allow regions to level up and share in Cyprus's progress in reaching Vision 2035.



### Support continuity of regional policy that lasts beyond political cycles

Regional policies are susceptible to policy churn and poor institutional memory. As levelling up regions normally requires extensive and complex reforms, ensuring that objectives and strategies remain in place regardless of political term will be key to their success.

Possible reforms to target the continuity of regional policy include:



**Create long term rural area plans.** The central government can support and fund the creation of these long term plans, which should be developed in collaboration with community-level leaders and officials. Similar to Vision 2035 at the national level, visions can be developed tailored to specific rural areas while still aligning with the overarching goals and strategic objectives. Again similar to Vision 2035, the rural area plans can go through a period of public consultation with the local community with a focus on in-person events versus online, if conditions of the pandemic allow.



**Promote within-region partnerships between local officials and businesses and services.** Key to long-lasting regional growth is harnessing local entrepreneurship. Sourcing work from local businesses and service will promote and support growth in rural areas. This need not be a complex undertaking. For example, governments can contract local engineers to support road and construction projects. On an even simpler level, government can contract local restaurants and eateries to cater events and conferences. The idea of this reform is to think 'local first' when considering community-level opportunities.



### Decentralise some government functions into rural areas and open up more Citizens Service Centres

High concentration of government services in urban centres means that information on initiatives and grant schemes often does not filter through to local communities in a timely and effective manner. Indeed, there are currently eight Citizen Services Centres in Cyprus, mostly locations in urban areas such as Limassol, Nicosia and Famagusta. Their aim is to improve the structure and operation of public service administration. They offer citizens access to several services on behalf of departments such as Road Transport, Social Insurance and the Ministry of Health.

We propose that more Centres are built in rural areas in order to simplify government procedures for rural communities. To further support the accessibility of government services, remote options that are still viable for areas with limited access to internet should be expanded, e.g. postal and telephone help lines.

We also propose that available information offered in brochures or pamphlets are offered in other common languages to aid migrant workers and families.



### Establish network style forums in rural areas to give centralized social/political support to village residents

Community-led forums are an effective way for local leadership to communicate with constituents, receive updates on local-level issues and encourage participation in democracy.

- Appoint 1-2 members per rural area to conduct support-style 'town hall events' or personal/individual sessions on a recurring basis to collect complaints and/or areas requiring public attention. This could be personal matters such as domestic abuse, or public matters such as increased police presence in the village.
- This representative should aggregate issues and raise them to the Ministry of Interior for actioning.

Data from Eurostat unless otherwise specified.

<sup>1</sup> European Commission, Country Report Cyprus, 2020.

## 3.2 Establish a future of shared prosperity by levelling up regions and regenerating rural economies



### Implement master planning in rural and urban areas.

- Master planning is dynamic, long-term planning that takes into account the connections between different buildings, amenities and the wider urban environment. The plan should be a document which lays out, for a specific rural area, recommended locations and specifications for infrastructure projects (roads, transport links), community facilities (schools, parks) and other uses of land. In addition, it should set standards for construction practices and environmental protections. An example of a master planning process, as prescribed by the World Bank, is depicted here.
- In general, master planning can involve:
  - A comprehensive assessment of current land use and possibilities for zoning
  - Developing an implementation and action plan
  - Defining public, semiprivate and private spaces and amenities and their mix of uses
  - Engaging the local community
- Key questions that the plan could seek to address are:
  - How should the use of space reflect changes in demography and economic activities?
  - How should local projects be funded and who will be responsible for implementation?
- Master planning can be used to regenerate rural areas and urban areas alike, improving overall liveability and revitalising the local economy. In particular, master planning can help small areas utilise economics of scale by locating similar amenities and buildings together, e.g. in a high street, or commercial district.
- Used in a targeted fashion, master planning can also seek to address economic disparities between places by enabling rural areas to make the best use of their unique advantages.
- Plans can be set for the medium or long term, i.e. 5 to 10 years, but should be revisited regularly and adjust flexibly to changes in demographics and sectors. For example, a flexible master plan would take into account the effects of COVID-19 on the retail and hospitality sectors, and consequently the traffic demand they can expect on roads when considering increased online deliveries.
- Master plans should be implemented using sustainable and green construction techniques and where possible, existing resources should be used or recycled for reuse in lieu of acquiring new materials.
- While transportation links are an important ingredient for levelling up rural areas, master planning can, and should, be used to highlight broader aspects of rural areas that can be built up without damaging the natural landscape and heritage.
- The master plan could be developed collaboratively between the Ministry of Agriculture, Rural Development and Environment, Ministry of Transport, Communications and Works, and the Ministry of Energy, Commerce and Industry.
- It should be joined up with the wider goals of inclusion and sustainability, and be consistent with the goals of other initiative areas of Vision 2035.

For more detail...

See the following page for more detail on master planning

## 3.2 Establish a future of shared prosperity by levelling up regions and regenerating rural economies

### Master Planning Process

#### Feasibility study:

What are the available options for development? Includes visioning and scoping exercises

#### Strategic Framework:

Establish baseline information relating to physical, social and economic context



### Physical and Spatial Elements

Image, neighbourhood character and heritage

Biodiversity

Various uses including housing, commercial areas

Integrated water management and utilities

Open space and public realm

Transport



#### Case study: Barcelona 1992 Barcelona Olympics

Barcelona's strategy for the 1992 Summer Olympics was so successful that it continues to be a model example for city master planning. The so-called 'Barcelona Model' of urban planning has been awarded numerous awards for architecture in the years since, praised for its triumphs in expanding amenities, regenerating economies and vastly improving liveability for residents and appeal to tourists.

Key components to the Barcelona Model include the following:

- Hosting a large international event like the Olympics or World Cup, can result in the building of infrastructure that loses its purpose after the event has concluded. Instead of focusing on a limited number of large sports venues which these events are known for, Barcelona instead spread new investment throughout the city. For example, industrial facilities in the Poblenou district were removed and replaced by an 'Olympic village' – a residential area for athletes. After the Olympics, these residences became part of the normal housing supply. London, for the 2012 Olympics, took a similar route with the East Village in Stratford.
- Topography was used creatively – and in a way that still preserved natural beauty. For example, an Olympic stadium and now iconic Olympic pool were built in the Montjuic mountain in southern Barcelona.
- Ring roads were constructed to ease congestion around key locations.

A number of factors contributed to the large success of the Barcelona Model, key of which was public-private coordination, headed by the Mayor of Barcelona at the time, Pasqual Maragall. He attracted both private and public funding to implement this revolutionary urban plan.

<sup>1</sup> Vox, Barcelona's remarkable history of rebirth and transformation, 2019.

Source: The World Bank, Master Planning Process | Urban Regeneration

# 3.3 Establish a future of shared prosperity by levelling up regions and regenerating rural economies



## Support the revival of rural communities by offering financial incentives for businesses to open up in rural areas

- To truly support the revival of rural communities, the government needs to provide financial incentives to attract businesses and workers back to rural communities. This includes anything from shop owners, to local professional services companies, to construction companies.
- The goal is to improve overall liveability in rural areas by expanding the offering of amenities – gyms, theatres, live music event halls, etc. To attract further activity, top talent and innovation in these areas, the holistic experience of living must be improved – while still considering the authenticity and culture of the community. Specific reforms include:



**Infrastructure investment:** Investments in road quality, transport connections and internet broadband will have long term impacts on business efficiency. In addition, these investments improve the overall attractiveness of an area – potentially attracting more residents and widening the customer base for businesses. Highlighting ongoing investments in infrastructure can therefore incentivise businesses to set up shop in anticipation of future growth. In particular, Cyprus's rural economy would benefit from better road and highway connections to the island's urban centres.



**Subsidised training for employees:** Disparities in skills are a key driver of regional productivity differences. The government incentivise businesses to open up in rural areas by providing subsidised or fully-funded training to upskill local employees. The training can be employer-led, courses taught by one of Cyprus's vocational or technical schools or online training provided by independent providers.



**Fast-tracked processes:** In order to attract more businesses to rural areas, the government can provide fast track processes for establishing new business. This could lower bureaucratic hurdles that may prevent firms from setting up businesses in more remote municipalities.



**Broadband and connectivity:** Digital infrastructure is becoming increasingly important for businesses across all sectors of the economy. Moreover, broadband access is integral for citizens' ability to engage in a country's cultural and community life. This means the government should invest in network connectivity in rural areas to ensure that these areas remain attractive to businesses and their requisite work forces.



## Incentivise teachers to teach in rural areas

Under Cyprus's centralised system, the Ministry for Education allocates teachers to schools, with no teacher being allowed to stay for more than six years in one primary institution, or more than eight years in a secondary school. As with most public services in Cyprus, length of service is the key metric of merit, which determine preferences for transfers. This leaves remote or disadvantaged schools, as the least preferred, with novice and potentially inexperienced teachers. Research from the OECD confirms the importance of experienced teachers for student outcomes, as well as showing that schools with more autonomy in selecting teachers tend to see the greatest improvements in student outcomes.<sup>1</sup>

For this reason, we propose that the central government should offer incentives to teachers for them to come and teach in rural areas. These incentives can include:

1

**Appraisal:** Formally acknowledge periods spent teaching in rural educational institutions in teachers' appraisal and promotions processes. These could then be used as a basis for accelerated promotion or pay bonuses.

2

**Housing assistance:** Finding and affording housing can be a large stressor for teachers who have to move to a new area. The government can support them by providing housing assistance, with a dedicated rental agent for teachers. If needed, temporary housing should be provided as well on a subsidised basis.

3

**Relocation allowance:** Further to the above, the government can assist in the actual act of moving by supplying a relocation allowance. This can cover the cost of packaging and shipping of household goods, as well as the services of a moving company.

4

**Offer tours and short-term volunteer experiences in rural areas:** Adapting to new, unfamiliar surroundings can be a daunting task. By acquainting teachers with rural area communities, for example through day or weekend trips, the prospect may become more attractive. These tours should be targeted specifically towards teachers and therefore touch on important locations, e.g. schools, libraries and community centres. In addition to this, short-term volunteer experiences in rural areas should be advertised to teachers, e.g. teaching afterschool courses or facilitating sports events.

Crucially, the provision of these incentives should be linked to conditions around successfully improving the academic performance of the rural school the teacher is allocated to.

<sup>1</sup> European Commission, Structural Indicators for Monitoring Education and Training Systems in Europe, 2018.

## 3.4 Establish a future of shared prosperity by levelling up regions and regenerating rural economies



### Create a Liveability Index

The government should encourage the Statistical Service to expand its provision of data. Cyprus should improve its collection of regional statistics – first at the district level, and subsequently at a more disaggregated level of detail. This can be linked into wider efforts for Cyprus to improve its production of more granular and timely statistics. Specifically for liveability, more regular household income surveys should be collected, alongside wider quality of life data.

While some of this data may already be collected on a regular basis, ease of access can be improved by collating relevant data under a liveability theme. This data can then be compiled and analysed, and used to write an annual report on liveability assessments, similar to the UK Quality of Life Survey (Halifax) or the Global Liveability Index (The Economist Intelligence Unit). These are further described in the adjacent case study.

The Liveability Index should be a balanced metric using a range of welfare indicators that go beyond narrow economic measures, for example:

- Health outcomes in the local population
- Educational outcomes and skills
- Self-reported happiness.

Constructing a Liveability Index would have a number of benefits:

#### Attract people to move to rural areas

A key benefit of this report would be to attract people to move to rural areas by highlighting strengths across different aspects of liveability. A consistent record which allows comparison across cities will empower people to make informed decisions around moving to rural areas and help to eliminate potentially negative stereotypes about living in non-urban locations.

#### Help governments target reforms and allocate funding

The benefit above will mostly apply to the areas that are already performing relatively well on liveability measures. This data can also be used to prop up areas that are lagging behind, by giving the government better oversight of the current state of different rural communities and allowing them to prioritise and allocate resources more efficiently and according to need. Liveability indices cover a wide range of indicators, and so can be used to support decisions around various government initiatives, including funding for schools and infrastructure, healthcare and environmental protections e.g. air quality.

#### Incentivise rural areas to improve upon key metrics

Publishing an annual ranking can motivate rural areas, both top- and bottom-performing. Areas that are ranked highly will strive to maintain their position, while areas that are ranked low will be spurred on to improve their performance. Being data-driven, the rankings will allow leadership of rural areas to identify the indicators on which they are performing comparatively poorly – again enabling targeted intervention.

## 3.4 Establish a future of shared prosperity by levelling up regions and regenerating rural economies (cont'd)



### Case study: Liveability Indices

Halifax Quality of Life Survey & The Economist Global Liveability Index

Liveability assesses which locations provide the best or worst living conditions for residents. Assessments can be used to benchmark development levels, determine allocations of funding for local governments, as a case for change for infrastructure projects, and help people make informed decisions about where to live.

The Halifax Quality of Life Survey is an annual ranking of the best places to live in the UK, run by the Lloyds Banking Group. Local authorities in the UK are ranked across a spectrum of different liveability aspects. Within each of these liveability aspects, Halifax compares key KPIs e.g. life expectancy, exam results and days of sun. For example:

| Aspect of liveability           | KPIs  |
|---------------------------------|---|
| Labour market strength          | Employment rates, average weekly earnings     |
| Housing availability            | House price to earnings ratio                 |
| Urban and physical environments | Traffic flows, crime rates                    |
| Health                          | Life expectancy, hours of sunshine            |
| Education                       | Exam results in English & Mathematics         |
| Personal well-being             | Self-reported life satisfaction and happiness |
| Leisure                         | Pubs to population ratio                      |

Survey rankings are publicised each year, and receive wide media coverage. East Hertfordshire was crowned the UK's best place to live in 2020, overtaking Orkney, the 2019 winner.

Similarly, the Economist publishes the Global Liveability Index, an annual report comparing cities internationally. Every city in this Index is assigned a rating for over 30 qualitative and quantitative factors across the categories of stability, healthcare, culture and environment, education and infrastructure. Alongside KPIs similar to those used in the Quality of Life Survey, the Economist also takes into account other categories such as deterioration of culture, exposure to climate change, and perceived threat of terrorism. Vienna, Austria was the most liveable city in the world in both 2018 and 2019.

<sup>1</sup> Halifax Quality of Life Survey, 2020.

<sup>2</sup> The Economist Intelligence Unit, The Global Liveability Index, 2019

# 3.5 Support the integration of migrants to better achieve social cohesion



## Improve the provision of targeted education support and outreach activities

- Support children of migrant families by offering integration courses and additional parent/teacher liaison.** Adjusting to a new learning environment is especially challenging for children of immigrant families. Cyprus needs to design outreach policies and teaching support for migrant students to help them successfully integrate into Cyprus's education system. This will prevent underachievement among migrants. Extra support can be given in the form of: 1) separate integration courses (culture and language) with small class sizes, 2) additional parent/teacher communication to support development at home, and 3) guidance counsellors trained in integrating migrants. Policy guidance in this area should prioritise post-secondary education, as the proportion of recently arrived refugees is skewed towards the latter stages of education (e.g. those aged 18-34 accounted for 62% of new arrivals in 2018).<sup>1</sup>
- Subsidise Greek language courses for adult migrants.** Cyprus has one of the highest rates of both immigration and emigration into and out of the economy, second only to Malta. In 2018, there were 27 immigrants per 1,000 inhabitants (or almost 23,500 people). Many of the foreign residents in Cyprus originate from countries, such as Romania, Bulgaria and the Philippines, that do not speak the native languages of the country. Offering or subsidising language courses for adult migrants can help them better integrate into local communities and workplace. The government should aim to schedule these courses at times suitable for working adults, and host them in familiar and comfortable locations, such as places of worship or local communal areas.
- Focus on digital skills.** Offer targeted training to migrants to improve digital literacy – not only from the perspective of improving job opportunities but also to improve their integration with government services and the community. Run courses which teach migrants how to use various online services, e.g. how to find bus schedules online, how to file government forms online, etc.
- Foster community-led outreach to integrate migrant communities.** Where possible Cyprus can draw on its local network of NGOs to deliver grassroots initiatives for connecting the local community and migrants e.g. culture-sharing events, local job fairs and language courses. The government can encourage this by providing funding and promoting collaboration between local communities and NGOs. In organising these community events, government and NGOs should make use of the wealth of existing resources from international organisations, e.g. UN Habitat's Gateway to existing ideas, resources and capacities for local inclusion of migrants and refugees in cities around the world.

<sup>1</sup> European Commission, Education and Training Monitor 2019: Cyprus, 2019.



## Improve access to public services and boost awareness of rights

- Break down linguistic barriers in access to public services.** Provide public service forms and literature in common languages spoken by migrants (Arabic, English, etc.). Signage in key public service locations (e.g. post offices, government bureaus, embassies) should also be accompanied by translations or translated.
- Set up a Work in Cyprus website.** This website should disseminate information around employment rights, healthcare rights, job openings, housing opportunities, etc. The main purpose of this website is to empower migrants to make informed decisions about moving to Cyprus, and to equip them with key local contacts. The website will also be a key asset for migrants already working in Cyprus, providing a centralised location for information on their rights as international employees.



## Improve provision of affordable housing, and for migrants and other vulnerable groups

To ensure migrants have access to suitable housing and to promote social inclusion:

- Review public funds for housing of the youth, students, and the disabled, and collaborate with landlords/property managers to supply bespoke solutions for specific housing needs.
- Consider future supply and demand, in tandem with other policy reforms. For example, if Cyprus wants to encourage international students to study on the Island, housing provision must sufficient and affordable.
- In order to avoid ghettos, affordable housing designated for migrants should not be segregated or placed in isolated locations. Affordable housing should be offered in various locations to encourage integration and culture sharing.

# 7

## Vertical initiatives

# All sectors of the economy are important and need to sign up to the Vision 2035 and the principles underpinning it. However, we suggest vertical initiatives for a range of diverse sectors

The sectors discussed here and in this report should not be interpreted as the only vertical drivers of growth and should not detract from the importance of other sectors to the Cyprus economy, or the potential of others to create value. Instead, we consider them to represent a diverse list of potential priorities for the government to support. They represent a balance between reinforcing existing sectors and building capabilities in smaller, newer sectors; they represent a careful balance between strong growth opportunities and sustainability; and they represent a balance between building resilience in the domestic market and recognising export potential and scalability.

## **Driver of growth Key vertical initiatives**

|  |   |   |  |
|--|---|---|--|
| <b>Tertiary education</b><br>         | <ul style="list-style-type: none"> <li>• Driving improvements in teaching quality towards leading international standards with reforms to quality assurance and accreditation and annual performance appraisals for teachers.</li> <li>• Promote collaboration, clustering and scale in the sector, through participation in sector skills councils, shared spaces and national centres of excellence, and international partnerships</li> <li>• Attracting international students with modern teaching methods, such as teaching in English, hybrid online learning opportunities, and reforms to the student visa system and requirements.</li> </ul>   | <b>Tourism</b><br>                 | <ul style="list-style-type: none"> <li>• Driving circularity and sustainability in the sector with a network of green-rated hotels with a government certification framework that can implement legislative targets, such as share of renewable energy.</li> <li>• Promote the agrotourism sector by improving the functionality of the Cyprus Agrotourism Company to provide digital and hospitality training in rural areas and marketing support. Develop a clear framework for planning permissions to enable renovations and investment.</li> <li>• Raise the quality of private and public health care to European standards through international accreditation.</li> </ul> |
| <b>Renewable energy</b><br>         | <ul style="list-style-type: none"> <li>• Drive widespread adoption of solar PV panels by mandating their installation on new and renovated buildings, investing in their installation on public buildings, and offering financial incentives to households and businesses, for example in manufacturing and hotels</li> <li>• Drive R&amp;D in the solar energy by marketing Cyprus as a test bed for solar energy research and hosting an international conference to promote Cyprus' potential and further the research agenda.</li> <li>• Make the long-term investments in infrastructure, such as offshore wind and regional electricity pipelines to enable scale in the sector</li> </ul>    | <b>Light manufacturing</b><br>   | <ul style="list-style-type: none"> <li>• Establishment of the first eco-industrial science park in South East Europe that carefully designs special economic zones for manufacturing of green tech equipment. It should promote clustering, supported by aftercare services and logistics support</li> <li>• Upskill Cyprus' manufacturing workforce to prepare for Industry 4.0 and a net zero and circular future with the re-establishment of a technical college and improvements to STEM teaching</li> <li>• Promote investment and innovation in the sector with innovation vouchers and accelerated depreciation allowances</li> </ul>                                      |
| <b>Agriculture and agritech</b><br> | <ul style="list-style-type: none"> <li>• Modernise the role of the agricultural co-operatives to help farms in achieving scale and competitiveness, supported by financial and organisational incentives for mergers and digital transformation.</li> <li>• Move agricultural practices into the 21<sup>st</sup> century with a national centre of excellence in agritech and build an ecosystem of users</li> <li>• Promote the awareness and adoption of agritech by farmers with pilot farms, exhibitions, training, and financial support.</li> <li>• Organise and promote speciality foods with an organised trade body, further protections of origin and a Food Standards Agency.</li> </ul> | <b>Maritime and shipping</b><br> | <ul style="list-style-type: none"> <li>• Accelerate the digital transformation with digitalisation of port process and, over the long-term, the integration of intelligent IoT solutions.</li> <li>• Strengthen ties between the sector and education with awareness of blue careers, incentives for blue R&amp;I for universities and the creation of relevant curricula.</li> <li>• Support companies to decarbonise with workshops and pilots on best practice and increasing legislation on the share of clean fuel by ships.</li> <li>• Grow Cyprus' as an international hub for shipping with attractive port charging schemes and concessions.</li> </ul>                   |

# Vertical initiatives

## Roadmap

| Vertical driver                | Initiative areas   | Sample of initiatives outlined in this section   |
|--------------------------------|--|--|
| Tertiary education             | <ul style="list-style-type: none"> <li>• Collaboration, clustering and scale</li> <li>• Create competition and drive improvements in teaching quality</li> <li>• Develop a coordinated national strategy to attract international students</li> <li>• Create the right foundations to attract and retain international students</li> <li>• Modernise the offering for international students</li> </ul>                                      | <ul style="list-style-type: none"> <li>• Invest in the infrastructure such as shared spaces and teaching hospitals to support collaboration and clustering</li> <li>• Create a Cyprus University Index</li> <li>• Run an annual international student survey</li> <li>• Modernise student entry requirements, visa requirements and application process</li> </ul> |
| Tourism                        | <ul style="list-style-type: none"> <li>• Diversify the sector to increase resilience and capitalise on growing niches</li> <li>• Drive sustainability and circularity across the sector</li> <li>• Capitalise on growing demand for agritourism and create opportunities for the rural economy</li> <li>• Drive quality and improve the international reputation of health tourism sector</li> </ul>   | <ul style="list-style-type: none"> <li>• Create a network of 'green-rated' hotels</li> <li>• Undertake a market assessment of the national health tourism sector</li> </ul>  |
| Agriculture                    | <ul style="list-style-type: none"> <li>• Achieve economies of scale and drive competitiveness</li> <li>• Upskill the farming community and professionalise the future labour force</li> <li>• Organise and promote Cypriot speciality foods and ensure quality</li> <li>• Move agricultural practices into the 21st century and drive investment in agritech</li> <li>• Promote the awareness and adoption of agritech by farmers</li> </ul> | <ul style="list-style-type: none"> <li>• Create incentives and structures to increase farm size such as voluntary exchange or merging of parcels of land</li> <li>• Set up an organised trade body for Cypriot foods</li> <li>• Establish a Food Standards Agency</li> <li>• Invest in a national centre for excellence in agritech.</li> </ul>                    |
| Manufacturing                  | <ul style="list-style-type: none"> <li>• Growth is underpinned by core horizontal initiatives</li> <li>• Upskill the workforce and promote investment and innovation</li> <li>• Establish the first eco-industrial science park in South Eastern Europe</li> </ul>   | <ul style="list-style-type: none"> <li>• Upskill Cyprus's manufacturing workforce's skillset to prepare for Industry v.4.0 and a net zero and circular future</li> <li>• Carefully design and craft special economic zones for manufacturing of green tech equipment.</li> </ul>   |
| Construction                   | <ul style="list-style-type: none"> <li>• Encouraging the industry to move into renovating and retrofitting buildings with green credentials rather than demolishing and constructing from scratch</li> </ul>   | <ul style="list-style-type: none"> <li>• Digitise construction permits.</li> <li>• Set clear sustainability criteria in public procurement.</li> </ul>   |
| Maritime industry and shipping | <ul style="list-style-type: none"> <li>• Drive forward modernisation and cutting-edge technologies</li> </ul>  | <ul style="list-style-type: none"> <li>• Increase national funds dedicated to research and innovation activities within the Marine and Maritime sector in Cyprus.</li> <li>• Identify skills gaps in the maritime industry and tailor higher and further education training programmes to address these gaps.</li> </ul>   |
| Professional services and ICT  | <ul style="list-style-type: none"> <li>• Growth will require progress on several horizontal areas</li> </ul>   | <ul style="list-style-type: none"> <li>• Invest in co-working spaces for employees to be able to work remotely in a post-COVID world</li> </ul>  |

# Tertiary Education: Collaboration, clustering and scale



## Forge greater collaboration between universities and the private sector

- The government should accelerate progress on the new R&I Strategy Framework for 2019-23, which was announced by the National Board for Research and Innovation in May 2019. The new strategy needs to be underpinned greater private sector collaboration. One key planned measure is the creation of clusters of excellence to gather universities and businesses within environmental science, agritech, maritime, health and ICT. Investment in these should be accelerated, with the view for these centres to bring universities and businesses together to co-design research agendas.
- The creation of sector councils, as discussed in the Education section, should be a key vehicle for driving greater collaboration. They will be industry-led and involve regular meetings and seminars to discuss challenges and design research agendas.
- To truly connect with the private sector, Cypriot authorities could explore the Singapore model – establishing corporate laboratories in universities. These drive the development of relevant research and skills, create career opportunities, and boost the profile and reputation of universities. Making the results of research visible will be key to driving more collaboration and attracting more students and researchers to Cyprus.
- Initiatives to help connect with businesses, including exploring the potential for corporate laboratories, include hosting of a series of seminars or ‘research fairs’ where universities and businesses can discuss new research.
- Create sandwich programmes, which offer students the chance to undertake work placements as part of their degree. Identifying these should be a key role of the sector councils.



## Forge greater collaboration between universities

- National collaboration: to truly drive R&D across the tertiary education sector, greater scale is needed. Cyprus has a high number of universities given its size and population. Greater scale would provide universities with the infrastructure to engage in more R&D. It would promote knowledge and technology sharing, which will boost innovation. One way to achieve this is by collaborating on joint programmes and courses. Another is to create shared spaces, like centres of excellence, which bring universities together. Another is to use financial incentives tiered by university size to encourage mergers.
- International collaboration: Raise awareness and joint degree programs with creditable international universities. Establish a committee comprised of members of key universities tasked with 'business development' needs:
  - Create partnerships with international creditable universities
  - Design joint degrees and/or Satellite Campuses for Cypriot students to be on a rotation abroad for a semester and to bring foreign students to Cyprus for a semester
  - Leverage Cyprus's lower cost of living and proximity/geography to attract students instead of going to the partner Uni in the UK, US, or EU
  - Encourage Cypriot academics early on in their career to go abroad to international universities to collaborate on new research projects.

# Tertiary Education: Collaboration, clustering and scale (cont'd)



## Invest in the infrastructure to support collaboration and clustering

- There are a number of infrastructure investments required to provide the foundation for collaboration, enable clustering and promote clustering. Specifically, the following should be explored.
  - **Shared spaces:** Physical spaces like technology parks or centres of excellence in certain sectors/fields of study are crucial for clustering and collaboration. Collaboration on research agendas will provide Cypriot universities with the scale to go further. They are also key to bringing universities together with businesses and collaborating on relevant research and innovation.
  - **Teaching Hospital:** A hospital focused on training medical students would not only help to improve the quality and international standing of Cyprus's medical departments, but it would also underpin efforts to improve the country's health sector (including medical tourism) by bringing experts together and also bringing more R&D into hospitals. It would also provide a base for teachers and students to come together from different universities and share resources and knowledge.



## Case study: Public-private partnerships with Singapore Corporate Laboratories

Singapore's National Research Foundation encourages public-private R&D partnerships between universities and companies through the establishment of Corporate Laboratories in universities. The aim to enable industry partners to tap into the university's scientific and technological capabilities to develop new products and services, while universities gain by developing cutting edge solutions for real-world problems faced by the private sector. The research conducted therefore has direct relevance for the economy.

To date, 14 Corporate Laboratories have been set up across several universities.

These include:

- **Sembcorp at the National University of Singapore:** The S\$60 million Corporate Laboratory aims to develop new, competitive sustainable solutions in the areas of energy, water and waste. Research activities include solutions to optimise power generations while reducing emissions, improvements to industrial water and wastewater treatment systems, and to transform waste into high value products.
- **HP at the Nanyang Technological University:** The S\$84 million Digital Manufacturing Corporate Lab will drive innovation and skills to advance the Fourth Industrial Revolution, focussing on digital manufacturing technologies, 3D printing, artificial intelligence, machine learning and new materials.

For more  
relevant  
initiatives...

See the **Powerhouse  
of innovation** section  
for recommendations  
on how to drive research  
and innovation

# Tertiary Education: Create competition and drive improvements in teaching quality



## The Cyprus Agency of Quality Assurance and Accreditation in Higher Education

In 2015, the Cyprus Agency of Quality Assurance and Accreditation in Higher Education (CYQAAA) was established on the basis of the 'Quality Assurance and Accreditation of Higher Education and the Establishment and Operation of an Agency on Related Matters Law of 2015.'

The legislation provides a quality assurance framework for higher education in Cyprus within which higher education institutions will be driven to enhance quality and develop an internal quality culture.

The CYQAAA is responsible for ensuring the quality of higher education in Cyprus and for supporting the continuous improvement and upgrading of higher education institutions (HEIs) and their programs of study through the procedures provided by the relevant legislation.

Its assessments are compliant with the European Standards and Guidelines and relevant national legislation.

It conducts external evaluations on a six-month basis and Collection and analysis of feedback from higher education institutions, members of external evaluation committees, student associations, faculty associations, professional associations and the Ministry of Education.



## Drive teaching quality to be internationally comparable

- Policymakers could do more to incentivise teaching quality, using the evaluations by the CYQAAA, which are based on European Standards and Guidelines.
- Alter the mandate of quality assurance body** – another key objective should be ensuring that Cyprus's tertiary education sector is internationally competitive.
- Improve credibility with international experts**, for example from equivalent regulators in other countries. This could be in the form of hiring them or having them on the Board that sets the evaluation criteria.
- Set targets** for state universities against the KPIs and measures outlined in the European Standards and Guidelines. To then create incentives for improvement, progress against targets could be tied to financial incentives, such as R&D funding or tax breaks.

- Conduct and publish benchmarking** of Cypriot universities against EU universities. As the same evaluation framework is used, comparisons and benchmarking is possible and should be used to incentivise improvements towards the EU frontier.
- Translate reports into English**. Quality Annual Reports and Common Assessment Framework should be published in English, making results more accessible and enabling international students to use them to inform their decisions.
- Achieve greater gender diversity in the External Evaluation Committee** – in the latest available data, only 17% of members were female. A more even gender split is required to ensure evaluations are robust and inclusive.



## Create a Cyprus University Index

- Using the data from the evaluations of the CYQAAA, each of the country's eight universities should be scored on aspects, such as teaching quality, research and innovation, and student experience, and rank each one.
- This has the benefit of incentivising the universities to strive for better and invest in improvements, as well as establishing a set of standards to strive towards
- It will also help prospective students compare the universities and make a more informed decision.
- The index should form part of the Study in Cyprus website and the country's national marketing campaign, focusing on the top three as an additional incentive to do better.
- The government should also actively encourage the country's other six universities not on the Times Global Rankings, to strive to do so.

# Tertiary Education: Create competition and drive improvements in teaching quality (cont'd)



## Implement annual performance appraisals for teachers

- There is currently no performance appraisal for teachers and academics at state universities for their delivery of undergraduate courses. This is crucial to underpin any efforts to improve the quality of teaching. Currently, legislation specifies grades and promotions based on seniority. This needs to be amended to allow universities autonomy to assess staff on the basis of merit.
- Outcomes and quality standards should be based on leading international appraisal frameworks, such as of the UK to ensure standards are internationally comparable
- This will create incentives for teachers to go above and beyond, for example, modernising teaching, developing online courses and resources, or adult education.
- Additional positive incentives should be used, for example monetary incentives in the form of annual performance bonuses, or recognition awards. Awards could be on a national basis across the universities, to provide additional competitive incentives.

## Innovating pedagogy and creating an agile curriculum

- As we discuss in the education section, there is an urgent need to revamp both the content of Cyprus's curriculum and the way it is taught. At the core of this is cultivating transversal skills such as critical thinking and creativity, and creating an agile and flexible curriculum which is regularly reviewed for relevance and to be up to date with the latest developments in the field.
- These same principles for improvement also apply to the university curricula. To do this, universities should liaise with and partake in the proposed Innovating Pedagogy working group, and in the curricula redesign, to ensure that university learning is a valuable extension of school.
- For example, updating curricula to expose students to new technology including AI and AR/VR
- In addition, there should be a critical assessment of the current curricula against Vision 2035, for example adding more courses in ICT and environmental science.

For more  
relevant  
initiatives...

See the **Education** section  
for recommendations  
on how to innovative  
pedagogy

# Tertiary Education: Develop a coordinated national strategy to attract international students

## The case for change

- To achieve Vision 2035, there is a growing need to deliver workers to high-value sectors, such as engineering and technology. With a relatively small domestic workforce that has traditionally been service-orientated, foreign students offer one solution to bolster the country's supply of highly skilled workers. The tertiary education sector also offers the potential for Cyprus to underpin economic activity in key sectors by specialising in such learning as shipping and tourism.
- Cyprus has a relatively short history in tertiary education and, to date, has done relatively well to achieve such high rates of domestic enrolment in universities and to have two of eight universities in the top global 500 rankings.
- However, there are several factors which currently limit the sector's potential and constrain progress. Perhaps the most structural issue is the overall quality of the country's entire education system and the need to modernise and revamp teaching methods, teaching quality and the skills it is orientated towards. Currently, Cyprus's two universities which feature on the global rankings are scored relatively poorly on teaching quality measures.
- Cyprus's tertiary education sector lags behind in developing graduates trained in STEM – with the second lowest enrolment in STEM subjects in the EU, at 10 graduates per 1,000 inhabitants.
- Other hurdles include improving air connectivity, modernising teaching and visa systems, delivering courses in English and increasing liveability (social and environmental factors).



### Develop a national strategy to develop Cyprus as an international tertiary education destination.

- Cyprus has a number of competitive advantages to attract the growing market of international students, including its climate, culture and society.
- But it needs to identify the most appropriate kind of university sector it wants to develop, what the target market is, and the necessary steps required to develop and promote it.
- Many different institutional archetypes for success exist in the higher education and international student market. These include:
  - Niche research institutes who are world best in key disciplines and linked to industry hubs
  - Elite comprehensive universities which are interdisciplinary
  - Student experience focused institutions,
  - Scalable digital universities which provide flexible learning platforms and online support
  - Professional learning institutes which focus on career advancement value and strong ties with industry.
- Cyprus currently exhibits strengths across these but should consider its potential to develop its digital offering, as well as its reputation as a leading R&D hub in the world in a number of niche areas, such as renewable energy, e-health and e-government.
- A national strategy is required to align the position of the country's universities and the private sector and create a medium to long-term roadmap that all relevant stakeholders support and are committed to investing in while also supporting the needs and wants of the local Cypriot economy.

For more relevant initiatives...

See the **Open, transparent and fair marketplace** section for recommendations on how to improve Cyprus's data provision

This strategy document should at least touch on the following points:

- Model:** What kind of university model does Cyprus want to adopt?
- Fit with local economy:** How does the choice of university model serve the country's national objectives as well as business needs?
- Market:** Analysis of target countries based on skills gaps, demographics, proximity etc.
- Funding:** Is the current funding model sustainable for both domestic and EU students as well as third country students?
- Quality:** How to establish a Teaching Quality System?
- Subjects and specialisms:** Does Cyprus want to be known for certain areas of study? Can this form part of a competitive advantage?
- Other issues including:** Immigration policy, Credit transfer system, ancillary services and medium of instruction, delivery of courses online and appetite for this.



### Run an annual international student survey

- There exists a relative lack of data on the demographics, characteristics and motivations of international students in Cyprus. To develop a truly effective national strategy, it is essential to understand what attracted international students to Cyprus, to enable marketing efforts to capitalise on this.
- It would also allow for more targeted marketing campaigns and to identify target destination countries.
- The survey should aim to get details on where international students go post-graduation – what roles, what sectors and what countries. It should aim to ascertain the factors that would determine students remaining in Cyprus for work. It will also be critical to get more disaggregated data on the subjects and courses that international students are coming to Cyprus for, so an appropriate national strategy can be developed to target growth in high value subjects, for example engineering.

# Tertiary Education: Create the right foundations to attract and retain international students



## Modernise student entry requirements, visa requirements and application process

- There are several features of Cyprus's visa and entry requirements that limit both demand and the quality of international students. There is a specific need to focus on boosting the quality of students from abroad and ensure Cyprus is attracting highly skilled students that will contribute to the growth of a high value economy and to Vision 2035.
- Streamline and digitalise the application process:** A key feature of most top university destinations is a simple, quick and digitised visa process (i.e. Canada, New Zealand, Singapore). Cyprus should accelerate digitalisation in its visa application process as a priority to enable students to complete applications online.
- Set up a special office at the Civil Registry and Migration Department to manage the applications of universities on a priority basis with rigorous checks carried out.
- Target quality students:** At the same time as improving accessibility and increasing demand for Cyprus universities, it is also important to ensure that the system is focused on boosting the quality of students, and not purely – or even necessarily – the quantity. Targeting students in certain fields that are key for Vision 2035 should be a fundamental feature of changes to the system.
- Specifically, the following changes to the nature of the visa are recommended:**

For more relevant initiatives...

See the **Economy is diversified, sustainable and more resilient** section for recommendations on how to improve Cyprus's air connectivity



Adjust post-graduation work rights according to the level of qualification, for example 6 months for a bachelor's degree, 12 months for a master's degree, 24 months for a PhD, and the field of study, for example 18 months for those undertaking a STEM degree and finding employment in a related role and in priority sectors under Vision 2035.



Increase recognition of school qualifications from other countries, as opposed to requiring students to sit additional entrance exams for Cypriot universities



There should also be the option to fast-track a student who has remained in Cyprus post-graduation in a high-value occupation for a permanent work visa in Cyprus, for example if they have sponsorship from an employer.



Upon identification of any specific target countries outside of the EU, Cyprus could also introduce 'fast-tracking' for visas from students from these countries as an additional incentive.



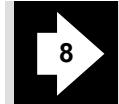
Policymakers should also explore the possibility of offering short visas, e.g. for three months, to students and researchers who wish to come to a Cypriot university for a short research programme, or to contribute to an R&D project in some capacity.



Currently, the jobs that overseas students are permitted to undertake while studying are solely lower-skilled roles, such as cleaners and kitchen assistants. To attract higher skilled students, these requirements should be amended to emphasise employment in roles related to the student's field of study, for example lab assistants.



Open applications for student visa and residence permits throughout the year, as opposed to only at the end of the summer with a one month window. This will provide the opportunity for universities to respond to interested students within reasonable time before the beginning of the studies, proportionate to other competitive countries.



Improve transparency of the visa requirements and application process, by creating a world class website with all of the information in one place and a digital application process.



Create an Alumni network of international students who have graduated from universities in Cyprus, keeping them connected to academia and businesses in Cyprus and creating new opportunities for them to stay and work in Cyprus.

# Tertiary Education: Modernise the offering for international students



## Create a tertiary education sector fit for a modern world

### Adopt a more liberal approach to teaching programmes in English

- This is essential across private and public universities to make them truly accessible to international students from around the world. Whilst it is already possible to access some degrees in Cyprus at different universities in English, it is still far from universal.
- Policymakers need to encourage universities to take ownership of this issue and drive a more liberal approach towards delivering courses in English, for example financial incentives could be tied to, or tiered based on the share of courses delivered in English.
- This doesn't mean that local language course should be replaced – indeed it will be important to balance this against the demand from Greek students for teaching in Greek. Rather it means that Cyprus (and in particular, the University of Cyprus and the Cyprus Technology University) should follow the path of a significant number of European universities to offer more courses in English. This needs to be complemented by language lessons. Also, public Cypriot universities should allow admission of candidates with GCE O and A level qualifications which are internationally accepted.



### Green spaces

- Hybrid learning combines online classes with in-person teaching. COVID-19 precautions may mean that, for now, packed lecture theatres are a thing of the past. Teaching that was previously run face-to-face can now be streamed online and shared with a larger audience. International and out-of-city students would no longer have to contend with high living costs or travel to obtain a degree, expanding the offer of tertiary education to a wider range of students.
- Universities already have much of the infrastructure in place as a result of the pandemic. Policymakers should encourage further investment in digitalisation and video conferencing technology. This will not only allow Cyprus's universities to expand their reach across the world, but also allows for a much more flexible study experience which helps to attract students.



### Built environment



- Leading universities offer standalone, instructor-led courses online. These courses are usually short in length, ranging from 4-8 weeks and can be available to anyone anywhere.
- While the English market is saturated, Cyprus could gain a foothold in the market for courses in Greek by exploiting existing course material from its universities and adapting them for online learning.
- They would help increase visibility of Cyprus's university offerings while being relatively easier to implement than changes to full courses.
- Online courses is a key platform for adult education to support the upskilling agenda.

# Tertiary Education: Modernise the offering for international students (cont'd)



## Develop a consolidated, real-time portal that improves upon the existing 'Study in Cyprus' campaign

There currently exists a relatively large information gap on studying abroad in Cyprus. At a first pass, this needs to be filled by improving the Study in Cyprus website. Compared to other countries, Cyprus does not have a coordinated 'one stop shop' for information on studying in Cyprus that encompasses information and courses across all of Cyprus's eight universities. The information brochure is relatively brief and could do much more to highlight the benefits and practical considerations. Greater detail, elaboration, links, and resources across the website are needed. Specifically, the following three main improvements should be made:

- **Comprehensive portal of courses:** to aid students in selecting a course, a portal that brings together all courses offered across the country's eight universities must be developed.
- **Comparable data on all universities for comparisons:** currently the information provided on Cyprus's universities on the Ministry of Education website is incredibly varied, with different data points and details, making comparisons very difficult. There currently exists no specific information on the universities on Study in Cyprus. Detail and profiles of the universities in Cyprus, including the key strengths, specialisms and research agendas of the specific institutions would help to inform student choices.
- **Up to date statistics on the tertiary education sector:** currently, statistics on foreign student data, for example, is only available up to 2011. This lack of relevant information on the strength of the country's international university experience is a potential barrier to attracting students.
- **Testimonials and personal experiences:** A page including testimonials and recounts of experiences from students who have or are currently studying in Cyprus would give more personal insight and speak more directly to prospective students, for example videos of student experiences.

By creating a modern, attractive website with more detailed information that coordinates the country's offering across the eight universities will deliver the following benefits:

- Reduce the time and research costs to prospective students
- Begin to consolidate and coordinate international marketing efforts across the eight universities
- New generations of students have grown up with the internet and have come to expect high standards from the design and usability of websites. A university's website should reflect the quality and modernisation of the institution and the education provided. While the 'Study in Cyprus' website has a modern feel to it, it is lacking in detail, and the Department of Higher Education's website is outdated and lacks usability.

These could also be linked with the Economic Diplomacy strategy that is currently being formed with the Ministry of Foreign Affairs.

# Tourism: Diversify the sector to increase resilience and capitalise on growing niches

## The case for change

- Cyprus received around 4 million tourists in 2019, spending €2.7 billion.<sup>1</sup>
- As one of the most important sectors, Cyprus must ensure its offering and tourism model keeps pace with changing demand, competition and external factors.
- There is an urgent need to diversify the sector.
  - Two countries, the UK (33%) and Russia (20%) accounted for over half of total arrivals in 2019.
  - Strong seasonality – ‘Sun and sea’ accounts for 90% of the main activities of tourists and holidays account for over 80% of visits, with businesses and conferences at just 5%. This results in overcrowding during peak periods and an underuse of tourism infrastructure in off-peak periods. Seasonality can produce labour market issues due to unstable employment.
  - This places the sector in a position of vulnerability against large shocks such as COVID-19. There are currently few contingencies and pro-active initiatives in place to make the sector more resilient.
- While the number of tourism numbers has continued to grow, growth in international tourism revenue has been stagnant, driven by a decline in the average expenditure per person/trip.
- Low profitability in the sector is an obstacle to investment to upgrade ageing infrastructure and innovate, thereby reducing the sustainability of the sector.



### Prioritise procedures for joining the Schengen area

- The Schengen area refers to the EU passport-free zone that covers most European countries and is the largest free travel area in the world. The Schengen visa is the most common visa for Europe. It enables its holder to enter, freely travel within, and leave the Schengen zone from any of the Schengen member countries. There are no border controls within the Schengen Zone.
- Cyprus formally started the process of joining the Schengen area in 2019. Since then, Cyprus has reached the third of five phases of the EU's evaluation process, which assesses prospective Schengen members along criteria such as external borders, visa policy, data protection, police cooperation, judicial cooperation in criminal matters, and the absence of border controls at internal borders.
- However, Cyprus remains the only EU member state where the Schengen Information System (SIS) is not operational. The SIS is the most widely used and largest information sharing system for security and border management in Europe. It enables border authorities and police forces to enter and consult alerts related to criminals, missing persons, and stolen goods. Connecting to SIS would be a transformational for the Cypriot police and border forces in their investigation of cross-border crime.
- Cyprus should prioritise actions for connection to the SIS, including:
  - Policymakers should provide the resources and financial support to build and test the IT infrastructure needed to connect to SIS.
  - Investment in the training of a dedicated SIS task force in both the border control force and police force is required.

For more  
relevant  
initiatives...

See the **Economy is diversified,  
sustainable and more resilient section**  
for recommendations on how to improve  
Cyprus's air connectivity



### Run a biannual tourism survey

- There is a need to attain more detailed and temporal data on the tourism sector. For example, the Central Bank of Cyprus runs a biannual survey of the country's shipping sector, accompanied by a report detailing the contribution of the sector to GDP, the key activities undertaken and developments in costs and revenues.
- Given the current challenges facing the country's tourism sector (i.e. declining revenues, environmental impact, COVID-19), a similar approach should be taken. The more data that can be obtained about businesses and tourists, the better policies and strategies can be designed to support it going forward.
- The National Tourism Strategy expresses significant ambition to grow the sector and diversify activities; a survey that is run at frequent intervals is critical to understand whether the strategy is working, and whether change is underway in the sector. It will help underpin policy development in the sector and will be key to progressing the subsectors identified in this report.
- It is recommended that the Deputy Ministry of Tourism runs the following survey:
  - It should be conducted at least twice a year, covering both winter and summer tourists.
  - It should aim to understand appetite for tourism in a post-COVID world, i.e. what infrastructure, procedure and facilities need to be in place to make people comfortable with travel and leisure.
  - It should dig deeper into demand for niches, such as agritourism and health tourism to understand what would increase demand for these.
- Commitment by the Ministry of Tourism will be required to analyse and distil the results of the survey into meaningful policy recommendations for the sector.
- These should also be publicised in an interactive website which should be accessible to all of the main tourism stakeholders, improving the usability and analysis of the tourism data that is currently available on Cystat.

# Tourism: Diversify the sector to increase resilience and capitalise on growing niches



## Create a network of 'green-rated' hotels

The objective is to establish a framework for overall green behaviours, aligned in nature with the Cyprus's Employers and Industrialists Federations' efforts underway related to the European project Hotels4Climate. A clear framework will help focus efforts by businesses to be more sustainable and green, while ratings and certification will create incentives for businesses to reassess operating models and invest in renovations (i.e. for energy efficiency).

## Create a rating framework

- The Deputy Ministry of Tourism should create a rating system of hotels, based on the extent to which hotels use renewable energy, are energy efficient, incorporate circular policies, such as waste and water management and eliminate single-use plastic.
- This rating system should be explained and promoted on the online information hub that will be developed for the Hotels4Climate project.

## Government certification

- This network should be a government provided certification with various levels depending on progress towards full compliance. Certification criteria and quantifiable targets should be based on established and internationally recognised certifications, for example LEED (Leadership in Energy and Environmental Design) and BREEAM (Building Research Establishment Environmental Assessment Method).
- Accelerating implementation can be accomplished by creating a complimentary government validation for advisory firms to support hotels in establishing an action plan and executing that plan.

## Marketing tool

- An official website must be created that advertises these highly rated green hotels. This website should be used as a central marketing tool in promoting green tourism Cyprus and capturing the 'Greta generation' of environmentally conscious tourists.



## Hotels 4 Climate – OEB

The project financed by the European Climate Initiative, and championed by the Cyprus Employers and Industrialists Federation (OEB), aims to drive sustainability in the hotel industry by:

- Capacity building workshops and training for hotel staff on possible GHG reduction, energy saving practices and circular business models
- Development of an online information hub, to share knowledge and to assess GHG emission reduction potential through a virtual tool
- Study visits of 10 Cyprus hotel representatives to hotels that apply good practices in Greece and Germany.
- Networking events with hotels representatives and financial institutions to showcase business models and best practices and enhance their collaboration opportunities.

## Creating additional incentives

- Reputational incentives:** the combination of certification and the promise of additional promotion on the green tourism website should create incentives for companies to change.
- Financial incentives:** Funding and access to Eu grants should be tied to participation and performance on the network. For example, high performers could have access to special green rates from government and bank funding, or acceleration of the depreciation rate on investment for further installations of solar energy. It can also do this indirectly by mandating the Electricity Authority of Cyprus to meet sustainability targets with a segment of its clientele.
- Legislative incentives:** Using the framework as a base, the government should look to create phased regulatory requirements, for example that 100% of net energy consumption of hotels should come from renewables by a certain time. This should be done especially in the area of waste, requiring companies to dispose of waste correctly and recycle.

# Tourism: Diversify the sector to increase resilience and capitalise on growing niches (cont'd)



## Case study: Slovenia

Green Scheme of Slovenian Tourism

- The Slovenian Tourist Board has embarked upon a repositioning of Slovenian tourism in recent years based on sustainability. The Green Scheme of Slovenian Tourism<sup>1</sup> was developed at the national level as a certification programme that assesses service providers against a globally recognised criteria on their compliance with sustainability requirements.
- The certification programme enables providers to obtain the 'Slovenia Green Destination' label, which is used to communicate the country's sustainability efforts and promote green service providers. The brand can only be used by destinations and service providers who have joined the GSST and fulfil the requirements. Gold, silver or bronze awards are offered to accommodation providers, travel agencies and parks. The benefits include increased visibility and increased level of promotion through national and international channels.
- The GSST criteria are based on the Green Destinations Standard, which is recognised by the Global Sustainable Tourism Council. To obtain a Slovenia Green label, providers must follow eleven steps, including:
  - Appointment of a green coordinator and setting up a green team.
  - Increasing green awareness and signing a green policy.
  - Carrying out surveys and drafting action plans.
- The Green Destinations Standard assesses sustainability across sustainable management (i.e. monitoring and reporting, and stakeholder engagement), socio-economic sustainability (i.e. responsibility to the local community), cultural sustainability (i.e. protection of cultural assets and visitor management) and environmental sustainability (i.e. resource management, water stewardship, low impact transportation, light and noise pollution, wildlife protection.<sup>2</sup>

<sup>1</sup> Slovenia Green, Green Scheme of Slovenian Tourism, 2018.

<sup>2</sup> Global Sustainable Tourism Council, GSTC Destination Criteria, 2019.

# Tourism: Capitalise on growing demand for agritourism and create opportunities for the rural economy



## Create the right infrastructure

- Develop legislation for attractions:** Currently, there is no legislation for attractions such as agritourism establishments that are also workable farms. In order to move from simply renovating old homes and towards the provision of experiences, new legislation is required to enable rural businesses to double up as tourist attractions. Consultations between policymakers and local government and businesses.
- Improve efficiency in planning permissions:** To make decisions faster and more aligned to local needs, responsibility for granting planning permissions should be devolved to local government. A clear framework needs to be in place to ensure consistency in national policy, but with local nuances to expand the buildable area – for example, enabling construction on agricultural land (which makes up the majority of rural areas). Policymakers should also make a list of unused buildings which could be converted to tourism or other purposes to revive rural communities.
- Provide financial incentives and support for upgrading infrastructure:** For example, policymakers could create a fund to provide loans to farmers with favourable interest and repayment terms.

For more relevant initiatives...

See the **Supported by digitalisation** section for recommendations on digital connectivity



## Improve functionality of the Cyprus Agritourism Company

- The Cyprus Agritourism Company (CAC) was established to better coordinate offerings and centralise bookings for agritourism experiences. Its role can be expanded to join up with national marketing strategies and to support local businesses and communities.
- The CAC should better feed their marketing campaign into national tourism campaigns. This should be a joint effort between the CAC and the Deputy Ministry of Tourism. More could be done to promote and position agritourism as a key attraction.
- The CAC should also provide resources to help local businesses advertise. The CAC can offer advice and training on social media management and maintaining communication with past tourists and encouraging repeat visits. They should also host training seminars with local agritourism stakeholders informing them of best practice on accommodation management.
- The CAC should also look to create more joined up information flyers and website, for example on wider tourist requirements such as pharmacies and food.

For more relevant initiatives...

See the **Equal access and opportunities for all** section for recommendations on how to revive the rural economy



## Bring skills to rural areas and encourage digitalisation

- Digital training:** The CAC should coordinate digital training programmes, for example on online booking systems, social media and WiFi for guests. They should make the most of EU programmes and webinars, but also compliment with in-person training for digital beginners.
- Set up partnerships between education institutions and local businesses:** The intention of the partnership would be for young people can undertake work placements and apprenticeships to: i) develop their skills within the tourism sector, addressing Cyprus's relatively high NEET rates and ii) to help revive old and stagnating traditional models of tourism with new ideas from young people, for example incorporating social media into a marketing strategy. Engaging young people at an early age in work in the rural economy is critical to ensuring sufficient labour supply, with young people increasingly expressing preferences to live and work in urban areas.

### Partnerships with international hotels

- Across the whole tourism sector, partnerships with international hotels should be set up to share best practice.
- This will enable Cypriot businesses can keep up with modern management practices and to refresh and update their product offering.



## Hold forums with local communities

- These should be led by the Deputy Ministry of Tourism, in conjunction with local policymakers. The intention of these forums should be to hear about the local communities' views on the development of the agritourism sector and the impact it is having on the local community. They should also give an indication of the issues they are facing and what the obstacles are to grow this sector. In this way, the Ministry will have a much richer idea of the size and development of the sector and how to better manage its growth and impact.
- The Deputy Ministry should prepare an annual report on the development of tourism in the rural economy and recommendations for growth and management of the sector.
- The Ministry should follow the UNESCO World Heritage Sustainable Tourism Toolkit's 'Guide to Engaging Local Communities and Businesses', which offers advice on how to reach out to local communities to begin a dialogue on how to bring mutual benefits.
- Source: UNESCO, World Heritage Sustainable Tourism Toolkit.

# Tourism: Drive quality and improve the international reputation of health tourism sector



## Undertake a market assessment of the national health tourism sector

- The global medical tourism market is large and growing. For Cyprus to establish itself it needs to understand how its advantages can best be leveraged, and which market niches it can be most competitive in. Cyprus has a lot to offer, in particular by combining its natural capital and tourism infrastructure with its healthcare system, and in doing so allowing tourists to combine holidays with healthcare needs.
- Undertake a** consultation and market assessment study to understand the potential to develop the medical tourism industry, and the key markets and forms of medical tourism to pursue. The report should identify a compelling product of medical tourism in Cyprus – a set of services which will be able to begin Cyprus's expansion into the global health tourism market.
- Experts across the relevant ministries, healthcare providers, medical facilitators and travel agencies, and professional associations and governmental bodies, as well as from academia and should be engaged.
- It should also review the strategies taken by other countries with similar features to Cyprus. This report can then provide a foundation for future strategy and policy development to stimulate the specific niches which are identified as priority areas for Cyprus.
- The key aspects the report should investigate are:
  - The global market of wellness industry (incl. forecasts and growing markets (including the Middle East)
  - Current experience of patients in Cyprus; Strengths and Weaknesses
  - Case studies other countries that are leaders in the area
  - Model that Cyprus could adopt
  - Availability of ancillary services (wellness resorts, rehabilitation services etc).



## Raise the quality of private and public healthcare standards in Cyprus to those of Western Europe

- There are a growing number of international organisations which provide consistent and robust assessments of hospitals and health care providers. Raising the quality of healthcare in Cyprus on a continuous basis is therefore highly important. To do this, Cyprus needs to follow a two-pronged approach to healthcare:
  - Private sector:** The Cypriot authorities should make it a condition for private healthcare establishments to gain accreditation from the leading health centres of the world. For example, the Joint Commission International is one of the most recognised accreditation services, which allows for international comparisons across countries and health care providers. Achieving accreditation has been shown to not only improve international perception, but also quality of care, quality of management, and risk mitigation. Cyprus should aim for 50% of private hospitals have this accreditation by 2026 and 100% by 2030.
  - Public sector:** A similar approach should be followed to raising standards in the public sector (which is the bigger sector in Cyprus). To do this, and given the similarities of the Cypriot health system with that of the UK we recommend that the Cyprus health authorities obtain advice from the General Medical Council in the UK which is responsible for reviewing standards, set accreditation process and quality assurance frameworks. These should be applied to all public hospitals in Cyprus as soon as possible to ensure that best practice is followed.
- Furthermore, accreditation should be sought for the full range of health care services in Cyprus – not only hospitals, but also care homes, specialist care, rehabilitation centres, short stay surgery – to diversify the export offerings of the health and medical sector.

For more  
relevant  
initiatives

See the **Excellent and accessible healthcare system section** for more recommendations on how to improve the healthcare sector



## Case study: Medical tourism in India

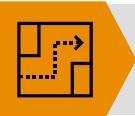
In 2002, the government published The National Health Policy, marking the start of government intervention:

- The Medical Visa was introduced by the Ministry of External Affairs, which granted patients a long-term stay (more than 180 days). In 2017, the medical e-visa was launched, which made the application process even easier. Under the e-tourist visa scheme, an applicant receives an email authorising him or her to travel for medical treatment.
- The government formed the AYUSH ministry in 2014 to develop and propagate the AYUSH systems of health care, in the hope of attracting more people for wellbeing tourism, where 'AYUSH' is the acronym for ayurveda, yoga and naturopathy, unani, siddha and homeopathy. The Ministry established common standards on service providers of these facilities. A list of recognised service providers is provided on the Ministry's official Incredible India campaign.
- To promote medical tourism, the Ministry of Commerce and Industry, along with ministries of tourism and health, launched a web portal to provide a one stop shop source for all information needed in order to come to India for treatment. The portal contains comprehensive information on hospitals, visas and accommodations, and is available in 4 languages.
- The Ministry of Tourism has also launched 24-7 help line to guide medical tourists during their stay in India. The helpline is available in twelve foreign languages.
- A new policy launched in 2017 made it compulsory for all medical tourism hospitals and medical travel agents to register with the government before they advertise on official tourism or medical tourism websites. This policy is to avoid unauthorized agents bringing a bad name to India, further maintaining India's high-quality healthcare.

# Agriculture: Achieve economies of scale and drive competitiveness

## The case for change

- The agricultural sector is dominated by small enterprises and is fragmented, limiting economies of scale. 85% of farmers in Cyprus owning farms less than 5 hectares.<sup>1</sup> This means that 81% of farms in Cyprus have less than €8,000 of standard output, and 97.6% of farms in Cyprus are 'family farms', meaning that over 50% of regular labour is from family members.<sup>2</sup>
- In terms of available land, agricultural areas in Cyprus have been in decline, falling by a third from 166,000 hectares in 2005 to 112,000 hectares in 2016<sup>1</sup>
- Cyprus's agriculture sector is characterised by low productivity. Total factor productivity (TFP) growth in the agriculture, forestry and fishing sector was, on average, amongst the lowest relative to other sectors between 1996-2018<sup>3</sup>
- There is also a challenge of a lack of awareness and knowledge of the benefits of technology solutions and know-how to implement solutions which will make farms more productive and cost-competitive. Investment in agriculture is comparatively low by EU standards. Gross fixed capital formation measures how much of the value added created by agriculture is invested (as opposed to consumed). GFCF in agriculture in Cyprus in 2018, as a percentage of GVA, was the lowest among the EU28<sup>2</sup>



### Modernise the role of agricultural co-operatives in Cyprus

- Cooperatives can also play a role in Cyprus's agricultural model as they can help overcome some of the problems of having a small-scale farm size.
- **Farmer's agreement on planting the same crops:** The government can encourage farmers to agree to plant the same crop on adjoining farmers. Some of this already happens on an informal basis in Cyprus, but it could made more systemic perhaps with the involvement of the agricultural co-operatives.
- **Merging of entities:** Some of the cooperatives in Cyprus are too small in terms of members and turnover. For example, in the Famagusta District there are above five co-ops within the same 15km radius. The government can encourage merging some of these entities.
- **Refresh of the institutional framework** of co-operatives so that they are more autonomous and flexible, have a more business-oriented oriented approach while maintaining high environmental standards, are more consumer-oriented, and are hubs of innovation.
- The institutional and legislative framework the UK follows (e.g. Cooperative and Community Benefit Societies Act (2014)) in the UK could be useful starting point on setting the refreshed institutional framework for cooperatives.

[1] European Commission, Analytical factsheet for Cyprus, 2019.

[2] European Commission, Agriculture, forestry and fishery statistics, 2019.

[3] University of Cyprus, Economic Research Centre – 'Sectoral Productivity Developments in Cyprus', Issue 20/1, March 2020.

# Agriculture: Achieve economies of scale and drive competitiveness



## Create incentives and structures to increase farm size

- Cypriot farm sizes are considerably smaller than the EU average. Increasing farm sizes is important to improve the potential for economies of scale. Spreading costs over a larger output, makes farmers more cost-competitive, which in turn can help Cyprus increase its presence on global markets, and also enable farmers to make more investments in technology.
- In order to create the right incentives for increasing farm size, policymakers can explore the following:
  - Voluntary exchange or merging of parcels of land: The government can act as a mediator and encourage the exchange of land. The authorities could do this by building a web-based platform and running seminars in the rural areas of Cyprus to inform the farming community of the benefits of such a transaction. Legislation needs to be enacted to ensure any potential disputes are resolved appropriately.
  - Tier financial incentives: incentives should be tiered according to firm size in order to incentivise mergers and hence create the scale required for investments and digital transformations. These incentives could be in the form of tax credits, direct subsidies for specific technologies, or the provision of government-backed loans with favourable interest rates.
- There is also currently an initiative underway to identify unutilised or abandoned plots of land and then offer incentives to young people to cultivate the land using technology. To boost the effectiveness of this policy, the opportunities of agritech need to be showcased in universities, and bring people together to collaborate on cultivation projects. Indeed, universities should even offer trips out to land and agritech pilot farms to demonstrate the potential opportunities.

## How to overcome resistance to change from farmers?

- It's about collaboration, not the exchange of land: Incentives for mergers and scale need to be positioned in a way that drives collaboration, joint ventures and creates projects and consortia. There needs to be mutual benefits – the agricultural cooperatives should play a role in ensuring that contracts and agreements are fair and equitable.
- Holistic approach to education: Education of younger generations, and in particular in schools in rural areas, is key to convincing farmers of the benefits of new technology and methods, as children report back their learnings to their families who run farms.
- Education on the risks: Education on the impacts of climate change and the implications for the agriculture sector are of paramount importance to overcoming risk-aversion for investments in technology.

# Agriculture: Upskill the farming community and professionalise the future labour force

## The case for change

- There are several limiting factors regarding skills in the agricultural sector. These include a lack of digital skills, ageing farmers (which is associated with a resistance to technological change and modern farming methods), and a lack of high quality STEM skills necessary for developing the sector.
- Only 3.3% of farmers are under 40, compared to an EU-28 average of 10.6%. Of increasing concern, is that Cyprus has the lowest share of young farm managers, aged below 35, in the EU in 2016 at 1.3%, compared to an EU average of around 5%. Its share of young farmers decreased between 2010 and 2016.
- Just 0.6% of farmers have full agricultural training compared to a 9.1% average in the EU. This is where the manager has taken at least 2 years full time training at the end of compulsory education, and completed an agricultural college, university or other higher education qualification in agriculture or associated subject.
- Over a third of employees in the agriculture, forestry and fishing sector have a lower socio-economic status and over 20% are temporary workers.
- Skilled agricultural workers have a relatively low risk of automation compared to other occupations; around 20-25% of jobs are at high risk of automation by the 2030s, compared to around 30% for sales and technicians, and over 50% for clerical workers and machine operators.<sup>1</sup> With the necessary skills the next generation of farmers will work with autonomous and robotic machines, from programming them to operating and maintaining the equipment.



## Invest in human capital

- Increasing the level of human capital in the agricultural sector in Cyprus would mean that the sector would be more professional. Practically, this translates to more efficient use of limited resources through investing in newer technologies which results to a more competitive agricultural sector. Doing so means that the sector's export potential becomes more plausible.
- There needs to be a process of curriculum redesign and co-creation of education systems in order to develop the skills required by industry. The government needs to take a role in bringing together a broad coalition of representatives from across the sector and universities to grow the necessary skills in agricultural technology. The role of industry is key to ensure that the skills and training are aligned to business needs. Universities and training institutions need to be agile and adapt to industry demand quickly.
- This will be part of a coordinated effort to build a stronger skill base for the sector who can be involved in the innovation of agricultural technology through its application in farms across the island.
- There is also a need to 'bring agriculture to the city', for example making people aware of the data science roles available with agritech.

See next  
slide

For more details on how  
to invest in human capital

# Agriculture: Upskill the farming community and professionalise the future labour force (cont'd)

## Training and education of existing farmers



**Establish a new syllabus of educational programmes run by Cyprus's Agricultural Research Institute for existing farmers.** These should consider a mix of management techniques and financial literacy (booking, costing, financial statements, cashflow management, export-financing), but also novel and new areas in the sector including smart irrigation systems, precision farming, hydroponic environments, robotisation, integrated pest management (IPM), use of drones, agroecology, use of less hazardous pesticides and animal and public health. They could be run in rural areas on a frequent basis, free of charge.

## Scholarships



**Offer scholarships** to young Cypriots who are willing to study Agriculture related degrees in the Cypriot universities (e.g. Degree in Agriculture Sciences, Biotechnology and Food Science at the Cyprus University of Technology). The scholarships would be contingent on the scholar working in an agricultural business in Cyprus within three years of graduation. Also funding can be offered to students to study leading agricultural courses abroad (for example, Israel or the Netherlands) on the condition they come back to Cyprus and set up an innovative business.

## Year in industry



**A 'year in industry' programme** should be set-up to place students into industry during their degree. Under this scheme students studying relevant degrees can opt to undertake a business placement to develop their skills, increase their employability in the sector, and inform their thinking and understanding of the sector. Placements at farms implementing agri-tech solutions, agri-tech companies and innovators would result in a better awareness of the agri-tech sector and boost investment. To do this, universities need to use their career service offices to liaise with farmers and allocate students at farming establishment in Cyprus.

## Understanding of wider skillsets



**Create a greater understanding of the wider skillsets and capabilities needed to grow the sector**, such as computer science and data science which are needed to analyse the large volumes of data generated from agritech. It is also often a role which can be done remotely to agricultural land and so workers could live in cities rather than rural environments, which may have wider appeal for young Cypriots. The government should work with academia to develop partnerships between farms and universities which allow students to use their data as part of their learning, applying their skills to real-life industry problems.

## Vocational education



**Develop specific agricultural courses at vocational education colleges** to equip students with the right skills to excel in agri-tech. Businesses should be directly involved in developing these programmes and incorporating skills and training into the curriculum, for example through the recommended skills councils. This policy is likely to rely on developing a good foundation for vocational education generally in Cyprus, increasing the perception and popularity of such career pathways.

# Agriculture: Organise and promote Cypriot speciality foods and ensure quality



## Set up an organised trade body for Cypriot foods

- The general mandate of the body will be to campaign to raise awareness of unique Cypriot foods (e.g. indigenous wines, high quality olive oils, cheeses other than halloumi), as well as continuing to promote the goods which are known and loved around the world. The body should identify and prioritise key export markets and set out a product market strategy for these. In doing so it should be forward looking and seek to develop strategies to capitalise on changing market trends, for example considering how Cyprus's food can be known as healthy, high quality, and authentic.
- Reputation incentives in the tourism industry could also be introduced to help boost demand at home, for example accreditations for hotels and restaurants in Cyprus that buy over a certain percentage of foods from Cyprus can help to link the tourism sector more closely to the higher value authentic experience market.
- A national branding strategy should involve coordination across all producers of Cypriot foods to ensure that the key aspects of the 'national brand' are encapsulated across all products – this could include an emphasis on local production, quality ingredients or sustainable farming. These must seek to differentiate Cyprus from other countries and build upon growing consumer trends (i.e. desire for authentic and green produce).
- A consistent communication and brand strategy must exist across all facets of the Cyprus national brand, including Visit Cyprus, Study in Cyprus and Invest in Cyprus.



## Seek further protection of origins for Cyprus goods

- In a competitive global food market where traditional and authentic produce seeks a premium, Cyprus can enhance its role in protecting and promoting the unique heritage of its produce. This will both protect Cypriot goods from unfair competition, and attest to the quality of goods which will help raise standards.
- At present Cyprus has four goods with PGG – Argos Rose Spoon Sweet, Paphos sausages, sugared Yeroskipou almonds, and Yeroskipou Cyprus delights, and one PDO product, Sotira Kolakassi (taro root), with halloumi recently receiving PDO status as well.
- The Trade Service is currently in the process of issuing a tender of the development of a brand of Cyprus goods and services in line with the Economic Diplomacy Strategy. These should also be consistent with Vision 2035
- These efforts should be boosted a consultation to identify which foods in the international market would benefit from EU origin protections and prioritise those which should be pursued at an EU level as Cyprus currently lags behind other European countries in this regard.
- In parallel, to promote Cypriot goods of high quality and brand recognition a '**Made in Cyprus's** origin certification mechanism should be put in place for a large proportion of Cypriot food and beverages which meet quality standards.

# Agriculture: Organise and promote Cypriot speciality foods and ensure quality (cont'd)



## Establish a Food Standards Agency

- To ensure the high quality of food in the Cypriot market, a Food Standards Agency should be established. Its mandate should be responsibility for ensuring that food is safe to consumers and that food is what it says it is on the labels.
- A priority should be the standardisation of the production of organic foods in line with EU initiatives – organic and authentic is a key play for Cypriot speciality foods to appeal to increasingly environmentally and health conscious consumers.
- When designing standards, it should be anchored in EU legislation, but also consider standards in key export markets – for example, China does not import pork meat from Cyprus due to the use of antibiotics.
- The Agency should have the same status as any other regulatory body in Cyprus and will be staffed from existing experts from the Ministry of Agriculture, Rural Development and the Environment. Foreign expertise may be sought where and when necessary (including use of statisticians, researchers, policy professionals, inspectors etc).
- The body should also be responsible for conducting food and hygiene controls, including in abattoirs and cutting plants, wine and on-farm dairy establishments. Port Health Officials should also conduct risk-based document check, identity checks, physical checks.
- The role of the Food Standards Agency will be of increasing importance going forward as new products like lab grown meat and other artificial foods are developed and come to the market. Ensuring the correct labelling of these and compliance with EU regulations will be important. The Food Standards Agency should work closely with policymakers in consultations about how to develop appropriate legislation.



## Reduce the use of pesticides and antibiotics

- **Set up a one-stop-shop Cyprus Farm Advisory** service which offers advice to arable farmers on pesticide use. This service should be freely accessible to the farming community as well as households. Its key aim should be helping farmers make reducing their use cost effective.
- **Total or targeted ban** for certain pesticides, where non-chemical alternatives or other candidates for substitution exist. This would need to be complemented by encouraging the use of non-chemical alternatives for pest management. This has been tried in Germany where 30% of farms have targets measurable targets to use non-chemical alternatives for pest-management.
- **Area-based restrictions** to protect underground drinking water, especially in areas where water scarcity is a particular issue
- **Set up a network of demonstration farms** so that they can play a key role in reducing mainstream pesticides through peer to peer learning. Research in France shows that existing technologies and practices alone expect to reduce chemical use by 20%.
- **Encourage co-operatives** to sign up to national targets relating to pesticide use.
- **Drive uptake of technological solutions** that can moderate and manage usage– see the following slides for a detailed discussion of the agritech sector.
- **The Food Standards Agency should run an education campaign** to inform consumers of the health and environmental impacts. This will ensure demand for change comes from the market as well.

# Agriculture: Move agricultural practices into the 21 century and drive investment in agritech

## The case for change

- Climate change will create significant challenges for Cyprus's agricultural sector. Rising temperatures, humidity, decreasing rainfall and lack of available surface water for irrigation will create pressures including drought stress, heat stress, decreasing plant health, extreme weather events and reduced crop productivity.
- Milder winters in the north of the country may lengthen the growing season. However, the net impact on agricultural production is expected to be negative due to the increasing number of extremely hot days and decreasing soil moisture (i.e. desertification), leading to reduced yields. Large amounts of the land area of Cyprus is sensitive to desertification. The percentage of areas very sensitive to desertification may increase from 57% in 2008 to 70% in 2050.<sup>1</sup> The projected decrease in precipitation in Cyprus will increase the likelihood of droughts in summer and greater risks of soil erosion.
- Despite making up a relatively small portion of Cyprus's economy, agriculture is the most water intensive sector and makes up more than 60% of total annual freshwater demand.<sup>2</sup>
- The European Food Safety Authority (EFSA) study on food quality found that Cyprus had the highest rate of pesticides residue levels in food, with 5.7% of the samples tested over the allowed maximum.<sup>3</sup>

<sup>1</sup> Climate Change Post, Desertification Cyprus.

<sup>2</sup> Papadopoulou et al., Agricultural Water Vulnerability under Climate Change in Cyprus, 2020.

<sup>3</sup> EFSA, The 2017 EU report on pesticide residues in food, 2019.



## What is agritech?

- Agritech offers the potential to mitigate against some of these challenges and future-proof the sector.
- 'Precision agriculture' uses sensors and data to identify which crops are complementary to climates and conditions, to optimise yields and quality. Agritech enables farmers to prepare and anticipate change and ensure they are growing what works in the face of changing conditions.
- Agritech also allows for more efficient resource use, by increasing the accuracy with which water and fertilisers are used, for example by targeted irrigation delivery optimising the quantity of water used and the time at which it is provided, helping to reduce excessive demand and waste.
- Agri-tech solutions can help to reduce the amount of chemicals used in growing crops, by selecting the right plants for the environment and growing crops which are more resistant to pests or disease
- The Agricultural Research Institute (ARI), under the Ministry of Agriculture, Rural Development and Environment, is already promoting the use of technologies to both reduce the impact of agriculture on the natural environment and boosting productivity, quality and taste, yields, and resilience. A key program is aimed at experimental breeding technology to identify plants which are suited to Cyprus's challenging climate.

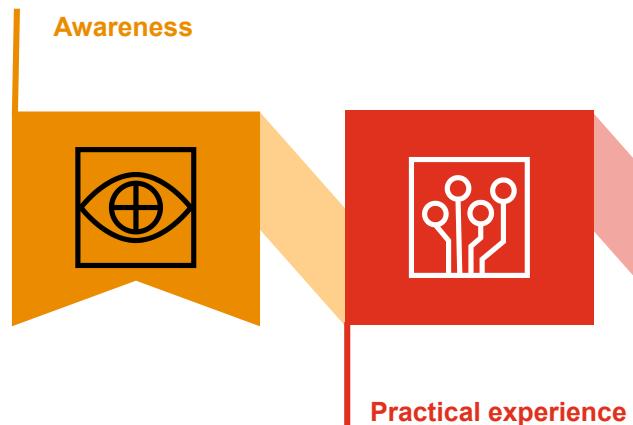


## Invest in a national centre for excellence in agritech

- Upgrade the role of the Cyprus's Agricultural Research Institute (ARI)** as the country's centre of excellence on agricultural practices. This would mean ARI takes the lead in developing and disseminating the latest innovations in the agricultural sector to the Cypriot farming community.
- Build an ecosystem** between farmers, food processing businesses and scientists and researchers to share experiences, innovations and the hot issues in their respective sub-sectors. The authorities could also consider subsidising farmers to travel and engage with overseas farmers to understand new technologies.
- Connect with world leaders in agritech.** Cyprus could do more to connect with established international research centres to increase the flow of knowledge and expertise. The potential for this is particularly high since one of the global leaders in this sector is one of Cyprus's closest neighbours – Israel. Greater academic links such as secondments for research staff and students between Cyprus and Israel could enable learning and connect Cyprus into global research. Israel faces many of the same agricultural climate and conditions challenges as Israel due to their geographic proximity and similar climates, meaning that much of the research into Israeli agri-tech solutions is also relevant to innovation in Cyprus. This programme should be driven by seminars or conferences to bring universities together and be incorporated into the national centres of excellence to foster exchange and collaboration which can draw in international expertise.
- ARI could also consider partnering** with overseas centres of agricultural excellence (e.g. Wageningen University and Research (WUR)) and co-operate further exchanging students, establishing a joint research programme that is relevant to Cypriot farming and encouraging WUR spin-offs to collaborate with Cypriot partners. This can be linked to funding from the Cyprus Equity Fund which is currently in progress of being set up. This would therefore help the dissemination of novel and new technologies to the Cypriot farming community. The ARI should also tap on the expertise of the European Commission's EIP-AGRI.
- Incentives to increase R&D in agritech:** Policymakers can encourage R&D in agritech across academia and the private sector. One approach is an innovation credit which is a government guaranteed loan for the development of new technical product – policymakers can specify credits to solve sector products, for example agritech for better water management. Additionally, tax credits for R&D expenditures in the sector could be rolled out to motivate private sector investment. These should be targeted at investments which seek to find technical solutions to improve agriculture in Cyprus.

# Agriculture: Promote the awareness and adoption of agritech by farmers

**Awareness** of the technological solutions now available within agriculture are not well known. The Ministry of Agriculture should create a national agritech campaign, with information about what agritech is, how much it typically costs and its expected benefits. Promoting these new investments will be the first step in starting the saving, planning and investment process. The Ministry should do this with a combination of online resources, information booklets sent out to farmers, as well as seminars and forums.



The government can help researchers in agritech to collaborate early and frequently with the industry, and develop closer cooperation between farmers, the agricultural industry and technology. There are currently weak links and low commercialisation of research. Cyprus should develop a strategic plan for collaboration across academia, technology business and agricultural businesses. Partnerships between education institutions, in particular vocational education colleges, farms and agri-tech businesses can help to do this. This will help to achieve multiple goals of ensuring that academic research is commercially viable and practical, engaging end users, developing knowledge and skills, increasing the sector profile and raising investment.



**Presenting and demonstrating agri-tech:** Given the large initial capital outlays required, farmers need to fully understand the long-term financial benefits of investing. Moving from the laboratory to the market is key to practical education. The government can help to support this adoption through sharing of best practice, collaboration of data, raising the visibility, profile and knowledge sharing within the sector.

The government should work with universities to set up **regional trade fairs** to exhibit agritech and best practice.

The government should also provide financial incentives, such as tax credits, for farms to be '**demonstrator farms**', where they hold quarterly demonstrations of the technology in practice at their farms, inviting farmers from across the country to come and learn, providing advice on how to get started and overcome challenges.

Given the prevalence of small farmers in Cyprus and the lack of diversification in access to finance, the government needs to play an intermediary role in both incentivising and enabling investments.

This could be in the form of tax credits, direct subsidies for specific technologies, or the provision of government-backed loans to farmers with favourable interest rates, which make the investments more financially viable. They should however come with specific conditions on the use of the funds.

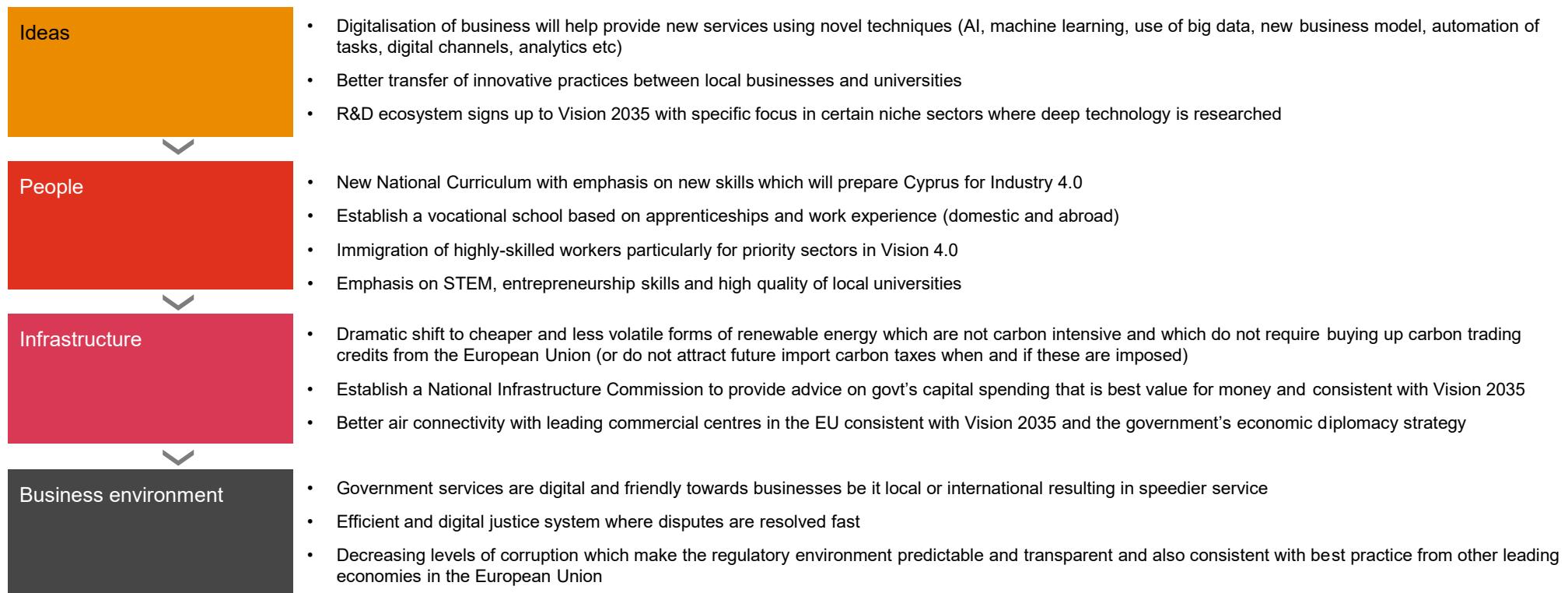
Local municipalities could also explore the possibility of purchasing technologies themselves and offering farmers technologies on loan.

# Manufacturing: Growth is underpinned by core horizontal initiatives

In the next slides, we have outlined specific vertical strategies relevant to nurture and support growth in manufacturing. Using Eurostat definitions, manufacturing includes sub-sectors including manufacture of food products (or food processing). This is a major industry in Cyprus and we have addressed vertical policies relevant to this sector in the Agriculture section.

We also highlight the horizontal policies are equally important for the manufacturing sector, particularly if Cyprus wants to grow a high value, low volume manufacturing base. The traditional area of emphasis of Cyprus has been in low value manufacturing, however, recent developments show that the pharmaceutical industry as well as the food processing industry are one of the most export-orient and largest producers in the manufacturing space.

The chart below indicates the four main macro level ingredients required for any industrial strategy in Cyprus to work. Without any reforms and upgrades to the themes of Ideas, People, Infrastructure and a friendly Business Environment the growth of the manufacturing sector is likely to be small. As such, the vertical reforms and investment we suggest for manufacturing should work and function in tandem with the horizontal reforms.



# Manufacturing: Upskill the workforce and promote investment and innovation

## The case for change

- At the moment there is a lack of alignment between Cyprus's Vision 2035, which envisages the growth of the light manufacturing sector, and the national curriculum, particularly at the high-school, tertiary and vocational studies angle.
- Most STEM related subjects do not incorporate professional development compared to other best practice case studies. This means Cyprus does not necessarily have the skills and experience base to nurture a light manufacturing sector.
- The size of Cyprus's economy and the structure of the market limit the potential for economies of scale. SMEs dominate Cyprus's aggregate manufacturing sector, with only 11 large companies with over 249 employees, while 88% of firms have nine or fewer employees



### Upskill Cyprus's manufacturing workforce's skillset to prepare for Industry v.4.0 and a net zero and circular future

STEM related subjects are mostly in demand for employers in the light manufacturing sector, including in building equipment for the renewables industry (e.g. net meters, demand response systems, etc.). Cyprus's objective should be to continue to encourage the growth of STEM subjects at all levels (high school, vocational, tertiary).

- Establish an Engineer in Residence Programme to existing STEM university programmes:** Local universities (e.g. Cyprus Institute of Technology) should partner with domestic and overseas manufacturing companies (in areas consistent with Vision 2035 i.e. greentech, renewable energy, ICT and agritech equipment and components) for either one term or one year (as part of the degree). Under this programme, one or more faculty members would mentor a group of students to work with a company which is critical for its survival. The intention would be for students to spend time and to interact with engineers, operators and other personnel to understand the problem faced, seek approval for solution implementation, and work with management to implement the solution. Doing so will ensure that Cypriot students gain on-hands experience in the manufacturing sector which will potentially help set up their future business in Cyprus.
- Re-establishing a technical college:** It is crucial that the Institute partners with corporates in the sectors of national priority consistent with Vision 2035. The courses on offer should be made up of two parts: basic education dealing with technical aspects and practical training held ideally at the premises of future employers. It is crucial that Cyprus could look to establish these vocational links either with neighbouring countries like Israel (agritech, ICT), Denmark (green technologies). Cyprus already had a Higher Technical Institute in the past but was discontinued. Authorities should consider the reasons why the HTI was discontinued and learn from best practice from other countries. In addition, HTI's management team should ensure that the Institute operates with modern teaching and management techniques and that these are updated frequently (similar perhaps to the model followed by the University of Cyprus)



### Promote investment and innovation in the manufacturing sector

The existing manufacturing businesses in Cyprus will face many challenges in the future:

- First, they will need to be more digital.
- Second, they will need to reduce their greenhouse gas emissions.
- Third, they will also need to increase their level of productivity, via either upskilling their workforce (tackled through prior reform/investment items) or increasing capital expenditure on machinery and equipment.

The authorities should conduct a landscape study of the sector to identify who is manufacturing what, investment levels, and the level of modernisation in production methods (i.e. energy efficiency, outdated technology). It should identify leaders who can be used to share technical know-how.

The initiatives described below aim to make manufacturing entities in Cyprus more productive either through digitalisation or through encouraging investing in machinery and equipment.

- Innovation vouchers to existing manufacturing businesses in Cyprus:** These are grants to existing small and medium sized manufacturing businesses based in Cyprus to make their business processes more efficient. The entities applying for this grant can claim up to the 5,000 Euro towards the cost of expert advice. This could include advice on an innovation idea, learning more about using design within the business or how you should make the most of the intellectual property.
- Accelerated depreciation allowances:** instead of the normal 20 percent, companies can claim 33.3 per cent over three years for all plants and machinery; they may also claim 100 per cent in one year for prescribed automation equipment and robots, and certain environmental-related equipment.

For more relevant initiatives...

See the **Greener economy** section for more recommendations on how to develop a circular economy

# Manufacturing: Establish the first eco-industrial science park in South Eastern Europe

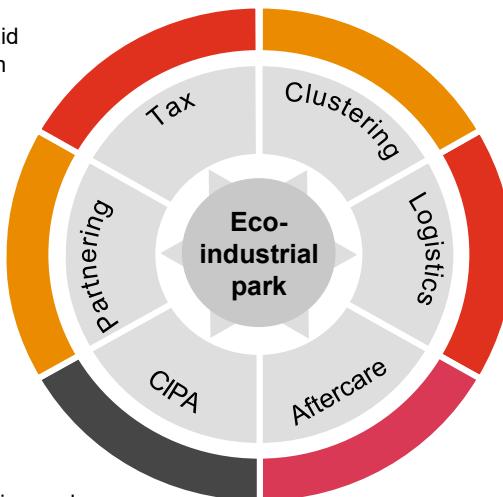
**Carefully design and craft special economic zones for manufacturing of green tech equipment.** The intention of these zones would be to create clusters, where foreign and local manufacturing entities co-exist, along with the presence of university research centres. These zones should be further supported by temporary tax exemptions consistent with what has been recorded in other EU member states (e.g. Poland which has established 14 special economic zones with tax and other exemptions for a limited period of time). The science park should be close to university research centres and a well-developed transport network.

## Potential tax exemptions:

- Aid to cover cost of job creation and potential training costs of staff;
- Exports to third countries exempt from VAT;
- Small – and medium – sized foreign businesses could also obtain aid designed to reduce a firm's current operating expenses including on contracted services, energy, rent, administration for a limited period of time

**Partnering:** Due to the lack of knowhow involved in undertaking such projects Cyprus should request technical assistance either from the European Commission or from individual EU member states that are similar to Cyprus. A relevant example which we think is appropriate for the Cypriot authorities to investigate is the Shannon Development and National Technology Park in Limerick, Ireland or the Sophia Antipolis in France. For example in the former case, the central government set up the Shannon Development agency which was a state-run specialised development agency.

**Work with CIPA:** The authority responsible for the design, implementation and maintenance of the science park should work with CIPA for effective investment promotion. This would mean that a highly trained, and very specialised and dedicated marketing and investment team needs to be formed. To enhance the efficiency of investment promotion these specialised teams will target different segments of the manufacturing production process such as production, distribution, R&D, services etc. This joined up approach should place emphasis on internationally active manufacturing firms consistent with Vision 2035 and their suppliers to help form clusters (following a 'knocking door' approach).



**Cluster formation:** Focus on anchor investor in the priority sectors with a cluster approach. Emphasis should be placed on mid-sized manufacturing firms in Israel or the European Union and their suppliers in the sector consistent with Vision 2035. Doing so helps build clusters. The sectors and products that Cyprus could focus to manufacture are as follow:

- **Renewables:** Assembly of solar panels, central and micro inverters, ballasted roof mounts, charge controllers, storage systems, control and simulator boards, trackers, transformers, performance monitoring systems
- **Agritech:** Equipment relating to Irrigation control, soil and cattle monitoring, farm asset management, cattle monitoring, auto-feeders, automated pump systems, shed-cleaning bots, hydroponic systems
- **ICT:** Precision engineering production: Original equipment manufacturers (OEM), smart sensors, back end semiconductor equipment, special purpose machinery (testing workstations, control systems), precision machining, mobile robotics, automotive control system, simple medical devices

**Logistics:** Manufacturing firms which are part of global value chains usually require access to fast logistics. One approach that has been followed in for science parks to have an independent customs and logistics centre with the complete functions of an 'inland' port and 24/7 services (e.g. by using Electronic Data Interchange systems). This means that goods shipments and processing at the ports is reduced from 3-4 days to 3-4 hours. This facility is usually set up and maintained by central government.

**Aftercare services:** Government troubleshooting support service for foreign businesses that are located on the science park that experience almost any issue. These could be anything ranging from workers' visa delays or helping with any planning applications. They should be indefinite and free of charge. This type of person would be offered by central government which means that the staff must be trained appropriately that will handle this portfolio of businesses.

**Matching supplier marketplace:** The authorities should also manage a supplier marketplace through which it tries to match the procurement needs of the business located on the science park with local suppliers who might be able to meet that need.

# Construction: Encouraging the industry to move into renovating and retrofitting buildings with green credentials rather than demolishing and constructing from scratch



## Retrofitting buildings for green improvements

- Retrofitting roofs walls, windows and doors to improve energy efficiency
- Connecting renewable energy generation, such as solar panels to roofs



## Building core infrastructure for the green revolution

- Renewable energy: construction of solar parks, offshore wind parks, renewable diesel refinery, hydrogen infrastructure, regional electricity pipelines
- Cyclical economy: building local and national recycling plants



## Support the regeneration of rural areas

- Renovating unused or repurposing buildings and homes, for example in the agrotourism sector
- Building new infrastructure, such as restaurants and schools in rural areas to grow the rural economy



## Promote the liveability agenda

- Improving the aesthetics of buildings (i.e. exterior improvements)
- Building more parks and green spaces
- Construction of new vocational schools

## What is the role for policymakers?

**1**

**Digitise construction permits.** A proficient deployment of IT not only reduces the costs of approval processes, but also enables regulators and practitioners to cope with increasingly complex building standards and additional policy objectives (such as those related to energy efficiency). Particularly promising in this context is the development of BIM-based software tools that are capable of automating the verification of building-code compliance. Building plans often need to be approved by multiple different agencies. To coordinate their efforts better, and to increase the speed and convenience for permit seekers, regulators should establish 'single window' systems and one-stop centres that combine the required competencies under a single roof and commit to specific timelines for approval.

**2**

**Set building codes and standards to EU best practice** according to the Eurocode harmonized methodologies for design and calculation for construction projects in the EU. **Provisions must be updated regularly.** Building codes and standards need to be adaptable and appropriately reflect economic, societal and technological change. This regular updating is particularly important in the light of growing environmental concerns and the emergence of new digital tools such as BIM.

**3**

**Create incentives for greater digitalisation in the sector.** For example offering tax incentives (similar to those for R&D) to companies who invest in new technology (such as drones) to ensure the sector keeps pace with technological developments in the world. The use of building information modelling systems and increased automation are key to the adoption of circular opportunities and better resource use.

**4**

**Modernise teaching.** Refresh the course content of vocational courses in construction to ensure students are learning the most up to date techniques and technologies.

**5**

**Consult with the sector on regulatory design of transformative future technologies and green revolutions.** While processes like green cement are still very much in their infancy, the Cypriot authorities should ensure they are ready to adopt regulation when they become cost effective through regular consultation with industry experts to understand the implications for things like building codes and standards.

**6**

**Mandate and promote green certification for construction companies.** Certification criteria and quantifiable targets should be based on established and internationally recognised certifications, for example LEED (Leadership in Energy and Environmental Design) and BREEAM (Building Research Establishment Environmental Assessment Method).

**7**

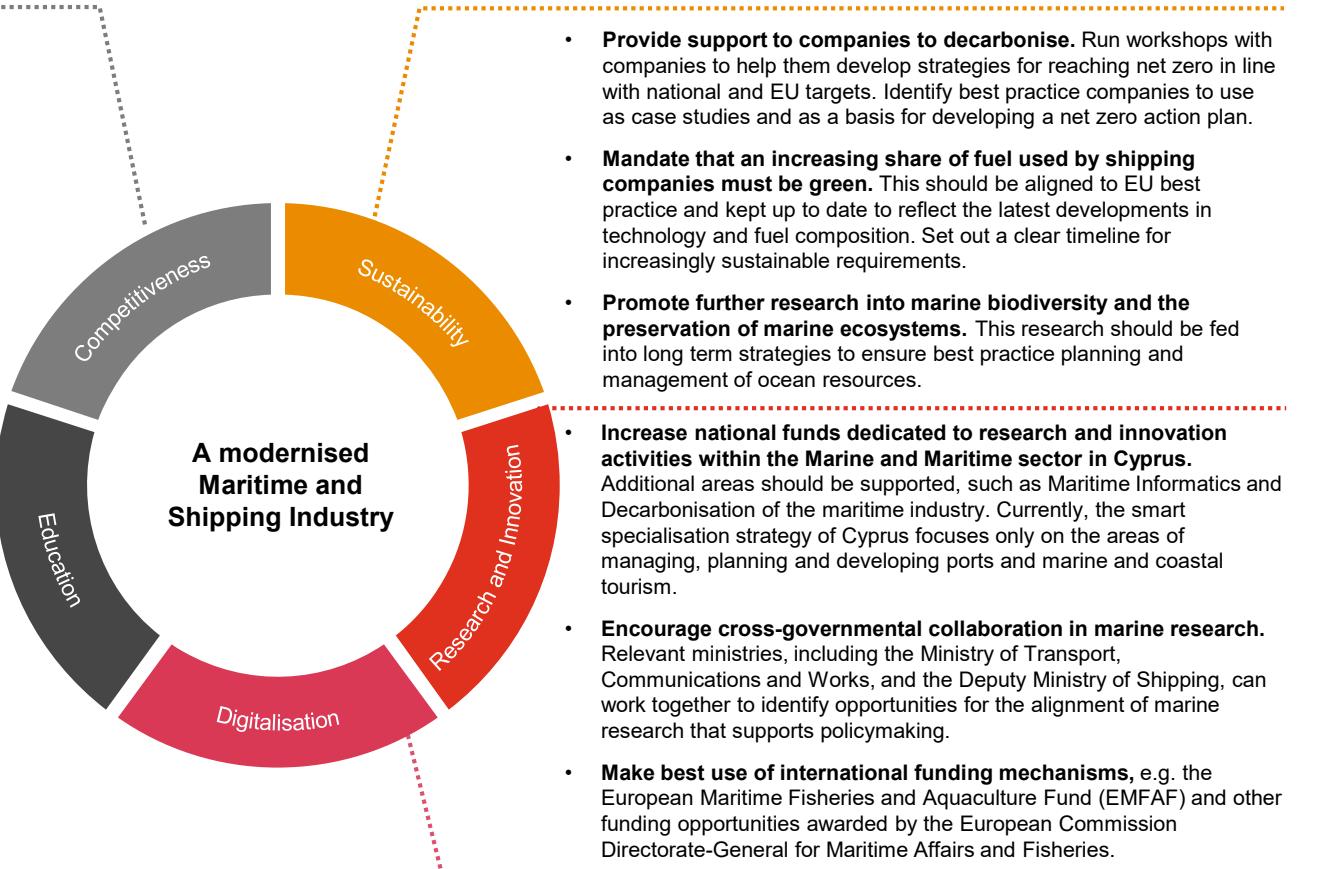
**Set clear sustainability criteria in public procurement.** Using established green certification, policymakers should set clear green/sustainability standards that companies should have to meet to be able to submit a tender for public construction projects.

**8**

**Promote knowledge transfer.** Few construction companies have institutionalised knowledge transfer processes, meaning past experience is lost. A related issue is weak project monitoring, with a lack of data collection and analysis. Policymakers can assist by 1) providing business management training, 2) promoting case studies online, such as on the website of the Cyprus Land and Building Developers Association, and 3) providing financial incentives for demonstration projects involving new technologies and processes.

# Maritime industry and shipping: Drive forward modernisation and cutting-edge technologies

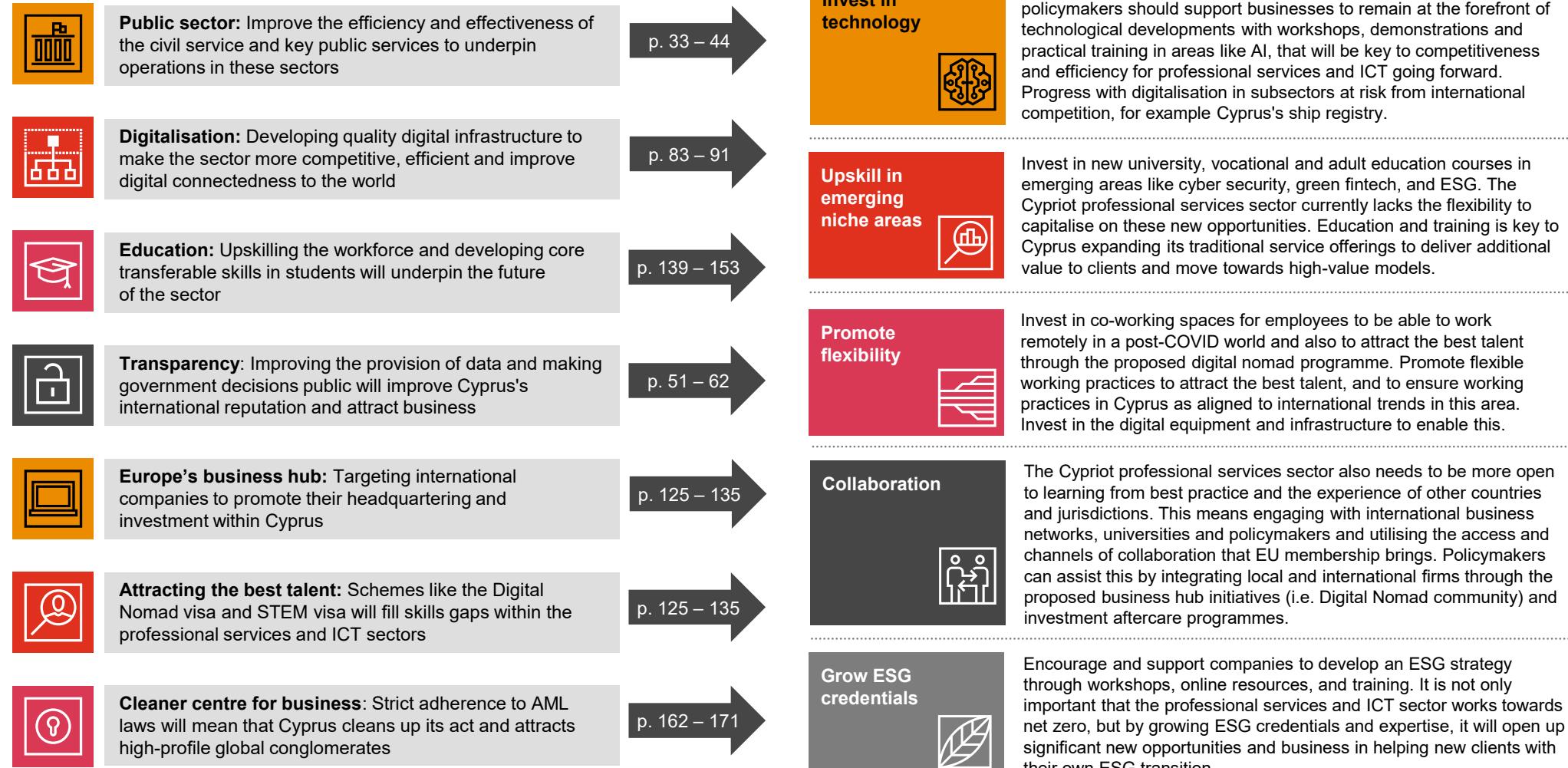
- Offer attractive port rates, tariffs and concessions to establish and maintain Cyprus as a stopover destination in trade.** Cyprus is in an ideal geographic location for becoming an international hub for shipping, connecting Europe, the Middle East and North Africa. To attract further business to its ports, Cyprus should offer an attractive port charging scheme, e.g. lower ship and goods dues versus nearby competitors.
- Upskill the workforce.** Develop and offer training programmes for port workers to upskill in both technical courses such as environmental science, marine engineering and data analysis, as well as soft skills such as management.
- Digitise the Deputy Ministry of Shipping** making it the first government department to undergo transformation and an example to be followed.
- Identify skills gaps in the maritime industry and tailor higher and further education training programmes to address the gaps.** An initial review of the labour market in the maritime industry should be conducted, assessing the frequency of vacancy postings, how long vacancies are open for, and which occupations are frequently sought after. After this assessment, results should be discussed with education providers in Cyprus.
- Strengthen ties between the maritime industry and education.**
  - There are promising, high-paid careers available in the maritime industry, e.g. technical superintendent. However, there is limited awareness in the school system or among school career counsellors of these opportunities. The government should build on the efforts made by the Deputy Ministry of Shipping and CMMI to create awareness about blue careers to school students. Additional activities could be organisation of fieldtrips to ports and school visitations from maritime professionals.
  - None of Cyprus's universities are currently part of the maritime consortium, which recently received €30 million from EU and national funds to establish the Cyprus Marine and Maritime Institute. The government should provide incentives to academics to get involved in research and innovation programmes addressing the current challenges of the industry.
  - Policymakers should fund the development of curricula relevant to the fields of Maritime informatics. The facilities of the upcoming Digital Innovation Hub, professionals from international shipping companies established in Cyprus, and regional marine and maritime research centers should be invited and incentivised to be part of the design and the delivery of the curriculums.



- Provide support to companies to decarbonise.** Run workshops with companies to help them develop strategies for reaching net zero in line with national and EU targets. Identify best practice companies to use as case studies and as a basis for developing a net zero action plan.
- Mandate that an increasing share of fuel used by shipping companies must be green.** This should be aligned to EU best practice and kept up to date to reflect the latest developments in technology and fuel composition. Set out a clear timeline for increasingly sustainable requirements.
- Promote further research into marine biodiversity and the preservation of marine ecosystems.** This research should be fed into long term strategies to ensure best practice planning and management of ocean resources.
- Increase national funds dedicated to research and innovation activities within the Marine and Maritime sector in Cyprus.** Additional areas should be supported, such as Maritime Informatics and Decarbonisation of the maritime industry. Currently, the smart specialisation strategy of Cyprus focuses only on the areas of managing, planning and developing ports and marine and coastal tourism.
- Encourage cross-governmental collaboration in marine research.** Relevant ministries, including the Ministry of Transport, Communications and Works, and the Deputy Ministry of Shipping, can work together to identify opportunities for the alignment of marine research that supports policymaking.
- Make best use of international funding mechanisms,** e.g. the European Maritime Fisheries and Aquaculture Fund (EMFAF) and other funding opportunities awarded by the European Commission Directorate-General for Maritime Affairs and Fisheries.
- Embrace the newest technologies and digitalise port processes.** Digital and physical connectivity go hand in hand. Ports in Cyprus should update their port processes – filing, forms, customs declarations – to be digitised, and where possible, automated. Over the long-term, ports in Cyprus should also seek to integrate intelligent solutions such as aquatic drones to collect data on ship and port conditions below the water line, high tech weather-instruments to provide accurate weather forecasts for docking schedules, and efficient models of cranes and trucks for transporting cargo. Large ports in Europe, e.g. the Port of Rotterdam – the largest in Europe by tonnage – are already beginning to trial these latest technologies. Cyprus should keep a close eye on the most effective port technologies being tested in other countries, and make investments where suitable.
- Make better use of marine and shipping data.** The government should use data to monitor port operations and performance, analysing trends in destinations and origins of goods, cargo loads and sizes and fleet deployment, among others.

# Professional services and ICT: Growth will require progress on several horizontal areas

Growing the professional services and ICT sectors will require progress on several horizontal areas, as set out in this strategy document. They include:



# 8

## A call to action

# 4.1 A call to action for policymakers

The successful implementation of Vision 2035 ultimately relies on the commitment and drive of **policymakers** to take ownership for its delivery, carefully scope and design specific policies and investments, and monitor and evaluate progress. They must lead by example by driving forward the green, digital and upskilling agendas throughout the public sector.

|  |  |   |
|--|--|---|
| <b>Plan ahead</b>                        | Be prepared for the future. Think strategically about policymaking and how decisions affect both the present and the decades to come.  | <b>The Nolan Principles</b>   |
| <b>Be bold</b>                           | Set ambitious targets for success. Policymakers should seek to bring out the best in Cyprus's potential and strive for greatness.  | <b>Selflessness</b><br>Holders of public office should act solely in terms of the public interest.  |
| <b>Learn from others</b>                 | Replicate excellence seen in other governments and the private sector. Be inspired by the successes of others, and use their examples to push Cyprus's efforts faster and further.                                     | <b>Integrity</b><br>Holders of public office must avoid placing themselves under any obligation to people or organisations that might try inappropriately to influence them in their work. They should not act or take decisions in order to gain financial or other material benefits for themselves, their family, or their friends. They must declare and resolve any interests and relationships. |
| <b>Listen to the experts</b>             | Cyprus is part of an economic and political union through which a vast amount of resources – financial, expertise, strategy – is available. Reach out for assistance and expertise in areas where support is required. | <b>Objectivity</b><br>Holders of public office must act and take decisions impartially, fairly and on merit, using the best evidence and without discrimination or bias.  |
| <b>Do not be disappointed by failure</b> | Learn from making mistakes. Bring lessons learnt into the next endeavour in a constant cycle of evolution. Perseverance is a key ingredient for achieving ambitious and progressive goals.                             | <b>Accountability</b><br>Holders of public office are accountable to the public for their decisions and actions and must submit themselves to the scrutiny necessary to ensure this.  |
| <b>Lead by example</b>                   | Show others what is possible. By driving progress in the public sector first, the government can inspire the country to be the best it can be.   | <b>Openness</b><br>Holders of public office should act and take decisions in an open and transparent manner. Information should not be withheld from the public unless there are clear and lawful reasons for so doing.   |
| <b>Evaluate progress</b>                 | Be rigorous and thorough in self-assessment. Identify KPIs and track progress. Embed a culture of outcome-driven policymaking.   | <b>Honesty</b><br>Holders of public office should be truthful.  |
| <b>Communicate successes</b>             | Have pride in triumphs and build credibility in Vision 2035 by communicating accomplishments to citizens and businesses. Celebrate where celebration is due.   | <b>Leadership</b><br>Holders of public office should exhibit these principles in their own behaviour. They should actively promote and robustly support the principles and be willing to challenge poor behaviour wherever it occurs.   |

Source: Gov.uk, The Seven Principles of Public Life

## 4.2 A call to action for businesses

**Businesses** are the engine of the economy. They create jobs, generate public finances and inject vibrancy and dynamism into the Cypriot society. In turn, Vision 2035 will ensure that business owners are supported by strong institutions that protect the tenets of fair competition and entrepreneurship. It will supply businesses the resources needed to break into high value markets and climb new summits of productivity and profitability. To help Cyprus grow to reach its potential as a sustainable European business and trade hub, we ask businesses to unite their efforts with the goals of Vision 2035 through the following actions and behaviours.

|  |   |  |   |
|--|---|--|---|
| <b>Embrace new ideas and ways of working.</b>                    | This involves embracing digital transformation, new innovations, and crucially, developing a strategies for how to embed sustainability within supply chains and operations, and get to net zero.   | <b>Learn about Vision 2035.</b>  | Businesses and citizens should engage with Vision 2035's public consultation and the materials shared by the authorities in the communication phase. For Vision 2035 to be a success, all members of the Cypriot workforce and society need to be aware of the direction that policymakers are going to take the economy in, the key priorities, and the opportunities that will be available to them. In this way, they can begin planning for the future, learning new skills, and making the necessary investments to ensure they are not left behind. |
| <b>Collaborate with policymakers.</b>                            | For the initiatives to be successful, they require careful design in collaboration with businesses – to ensure they are relevant (i.e. ensuring education creates the right skills), create the right incentives, and minimise distortions.                             | <b>Learn about the schemes, incentives, and financial support available.</b> | For many of the initiatives outlined in this strategy to be successful, it requires businesses to be aware of the programmes on support, including grants, subsidies, tax incentives and other schemes. While the responsibility will partly lay with policymakers in communicating and advertising such schemes, as well as making information accessible and readily available on top class websites, the onus is also on the individual to research and find out about what support they can get for things like green upgrades and training courses.  |
| <b>Upskill your employees.</b>                                   | To create a culture of lifelong learning, businesses must take part of the responsibility for incentivising and supporting their employees to upskill.  | <b>Assess the long term costs and benefits.</b>                              | In order to thrive in a world where digital transformation and cutting-edge technology are becoming increasingly important, all businesses must adapt and change. Though adaptation may involve high up front cost and capital investment, businesses should educate themselves about the potential long-term benefits and cost savings that can be delivered through technological advancement, through sustainable operations, and through research and innovation.   |
| <b>Place trust in the youth.</b>                                 | Offer quality employment opportunities to the youth and embrace the new ideas and innovation they can bring. Challenge them with responsibilities and duties so that they can learn and grow and become the business leaders and entrepreneurs for the next generation. |  |   |
| <b>Be bold.</b>  | Vision 2035 will foster a business environment where innovation and creativity can flourish. Businesses should take advantage of the opportunity to test new waters and think outside traditional markets to realise new export possibilities.                          |  |   |
| <b>Don't be afraid to ask for help from international firms.</b> | Draw on experts and case studies from around the world. There is a wealth of resources available to businesses in Cyprus that can be accessed through international networks and partnerships. Success is easier built with many hands.                                 |  |   |

## 4.3 A call to action for academia

**Academia** will underpin Vision 2035, both through its research and innovation, and by educating the next generation of workers. It will be important to ensure that both their R&I programmes and curricula are refreshed and aligned to Vision 2035. They must be open to collaboration with policymakers, businesses and students to ensure that research and learning is relevant to businesses and will have the most value in the workplace.

|   |   |  |   |
|---|---|--|---|
| <b>Embrace new ideas and ways of working.</b>                       | This involves embracing digital transformation, new innovations, and crucially, developing strategies for how to embed sustainability within supply chains and operations, and get to net zero.   | <b>Learn about Vision 2035.</b>  | Academia should engage with Vision 2035's public consultation and the materials shared by the authorities in the communication phase. For Vision 2035 to be a success, all members of the Cypriot workforce and society need to be aware of the direction that policymakers are going to take the economy in, the key priorities, and the opportunities that will be available to them. In this way, they can begin planning for the future, learning new skills, and making the necessary investments to ensure they are not left behind.            |
| <b>Collaborate with businesses.</b>                                 | There is a need to make R&I more relevant to businesses in Cyprus. They should actively collaborate and engage with businesses to solve real life business problems and improve the commercialisation of research.  | <b>Learn about the schemes, incentives, and financial support available.</b> | For many of the initiatives outlined in this strategy to be successful, it requires universities and academics to be aware of the programmes on support, including grants, subsidies, tax incentives and other schemes. While the responsibility will partly lay with policymakers in communicating and advertising such schemes, as well as making information accessible and readily available on top class websites, the onus is also on the individual to research and find out about what support they can get for new research and investments. |
| <b>Upskill your staff.</b>  | To create a culture of lifelong learning, universities must take part of the responsibility for incentivising and supporting their employees to upskill.  | <b>Align R&amp;I programmes to forward Vision 2035.</b>                      | Research and innovation is a key pillar of Vision 2035, especially in key areas such as renewable energy, agritech and sustainability. They must actively ensure their research agendas are contributing to progress in key sectors and horizontal aspects (i.e. the environment). They must also embrace Cyprus' potential as a test bed for new products and services, be open to working with international businesses, sharing resources, expertise and data.   |
| <b>Refresh curricula.</b>   | Universities must be aware and engaged with the planned changes to school curricula and ensure that their curricula is a natural extension of school learning. They must ensure their teaching reflects the latest developments and research in a subject area, and experiment with new ways of teaching, for example using technology. |  |   |
| <b>Be bold.</b>   | Vision 2035 will foster an environment where innovation and creativity can flourish. Universities should take advantage of the change in skills and culture, nurturing this in new generations of students.   |  |   |
| <b>Collaborate with international universities and researchers.</b> | Draw on experts and research from around the world. There is a wealth of experience and advice available to academia in Cyprus that can be accessed through international networks and partnerships. Success is easier built with many hands.   |  |   |

## 4.4 A call to action for citizens

**Citizens** are the backbone of every country. Vision 2035 recognises this, and seeks to equip the people of Cyprus with the best in offer for education and jobs. It will develop cities and towns that are liveable, safe and well-functioning now and for the generations to come. Citizens will be afforded opportunities to better the lives of their families – and their families' families – in a nation that is growing sustainably and inclusively. We therefore ask citizens to stand in solidarity with the government as it seeks to fulfil the goals of Vision 2035 through the following actions and behaviours:

|  |   |  |   |
|--|---|--|---|
| <b>Demand more from government.</b>                | Citizens must actively engage with Vision 2035 and the political agenda, calling on their local and national government to make progress and work towards key policy objectives, such as sustainability, wellbeing and equality.  | <b>Learn about Vision 2035.</b>  | Businesses and citizens should engage with Vision 2035's public consultation and the materials shared by the authorities in the communication phase. For Vision 2035 to be a success, all members of the Cypriot workforce and society need to be aware of the direction that policymakers are going to take the economy in, the key priorities, and the opportunities that will be available to them. In this way, they can begin planning for the future, learning new skills, and making the necessary investments to ensure they are not left behind. |
| <b>Engage with ESG agendas.</b>                    | The drive for businesses to do better comes from its consumers. Citizens must send a strong demand signal to companies to develop environmental, social and governance strategies, and promote diversity and inclusion.   |  |   |
| <b>Consider new education and career pathways.</b> | Citizens should challenge existing assumptions they or their families have about certain education routes or professions, and embrace new opportunities.  | <b>Learn about the schemes, incentives, and financial support available.</b> | For many of the initiatives outlined in this strategy to be successful, it requires citizens to be aware of the programmes on support, including grants, subsidies, tax incentives and other schemes. While the responsibility will partly lay with policymakers in communicating and advertising such schemes, as well as making information accessible and readily available on top class websites, the onus is also on the individual to research and find out about what support they can get for things like green upgrades and training courses.    |
| <b>Upskill.</b>                                    | Citizens should engage with education and training programmes over the course of their working lives, taking up adult education opportunities and incentives, and pushing their employers to offer training.  |  |   |
| <b>Be flexible.</b>                                | The next 10 to 15 years will be a period of upheaval for Cyprus. Globally, countries will be grappling with the after-effects of the COVID-19 pandemic. Cyprus must do the same, but at the same time implement a highly ambitious long term strategy. Cypriots can support this by being agile and opening up to change. |  |   |
| <b>Live sustainable lives.</b>                     | Cypriots must learn the importance of sustainable and green living, and learn how to adapt to the effects of climate change. They must take responsibility for educating themselves about sustainable ways of living and demanding more from their government to protect future generations.                              |  |   |

# 9

## Impact of implementation

# Capitalising on the opportunities from the green, digital and skills transformations could yield significant economic benefits for Cyprus

**2.2-2.5%**

Average boost to GDP in Europe from upskilling by 2030



Source: World Economic Forum, PwC

**8%**

Potential boost to Cyprus's GDP from increasing female employment rates to match those of Sweden



Source: PwC UK, Women in Work 2020

**9%**

Potential boost to GDP from increasing employment rates of workers aged 55+ to match those of New Zealand

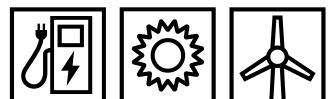


Source: PwC UK, Golden Age Index 2018

**€43–100 billion**

Total annual savings across the EU under a scenario where the EU doubles its share of renewables in total energy mix

Due to energy system savings, avoided health damages, and avoided environmental costs related to climate change



Source: International Renewable Energy Agency, Renewable Energy Prospects for the EU

**6.7x**

Return on investment on from digital investments versus non-digital investments

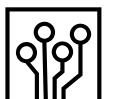
Using a sample of ~100 countries over 3 decades, research showed that every US \$1 invested in digital technologies has added US \$20 to GDP on average versus US \$3 from non-digital investments



Source: Oxford Economics, Digital Spillover

**11.5%**

Boost to GDP in Southern Europe by 2030 from AI



Source: PwC, Global AI Study: Sizing the Prize

# Achieving Vision 2035 could lead to an economy which is over 10% bigger by 2035 compare to a business as usual scenario

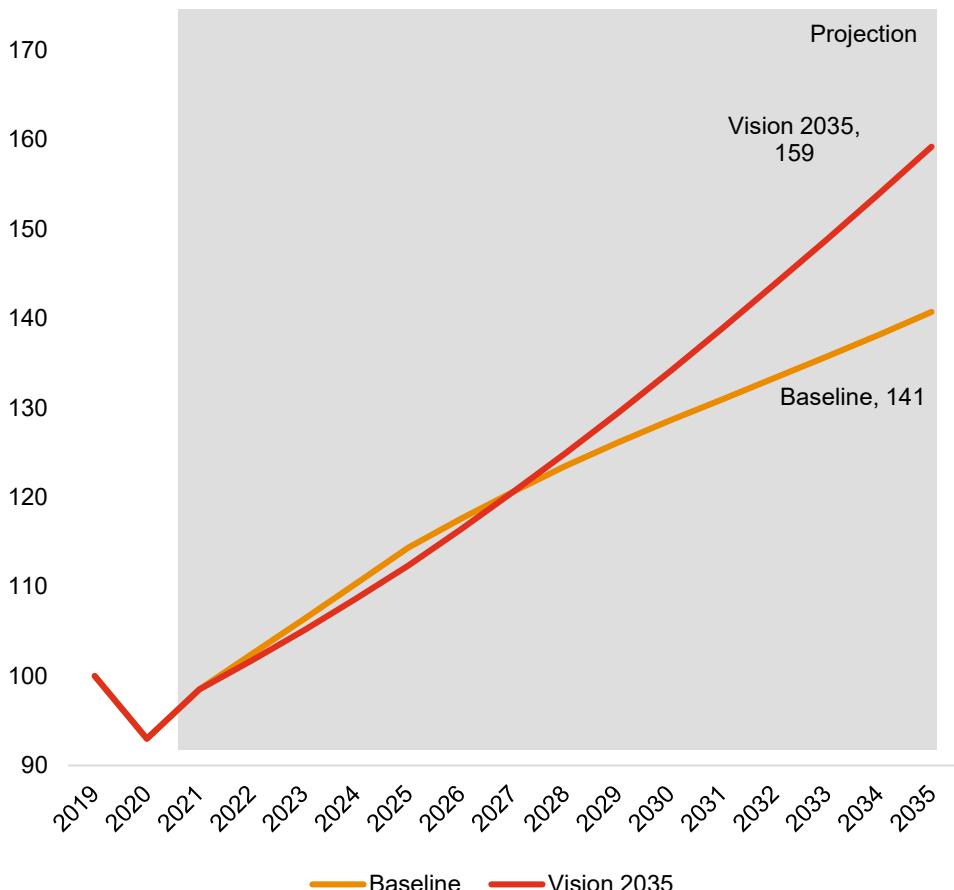
Cyprus's Vision 2035 strategy is expected to set GDP growth on a new, accelerated trajectory. The graph to the right shows projected baseline growth for Cyprus to 2035 and the potential path of GDP if Vision 2035 is achieved. Our analysis involves macroeconomic modelling (see technical appendix for more details), historical analysis and benchmarking.

In the baseline we assume that there is no serious, concerted or continuous effort by the authorities to carry out ambitious, tough structural reforms to tackle Cyprus's long-standing challenges. Cyprus continues to place excessive reliance on its low tax rate as a source of competitiveness. However global efforts towards tax harmonisation put pressure on Cyprus to revisit its tax policies and lead to Cyprus losing this competitive edge over time. The main growth drivers of economic activity revolve around the construction, tourism and higher education sectors with little or no attention to moving up the value chain in terms of higher value adding services. Instead emphasis is on growing volumes. These sectors attract low skilled immigration in relatively large numbers. The environment suffers due to mass building and excessively large number of tourists who are drawn to Cyprus due to its 'sun, sea, sand' model.

In the baseline we project that doubling down on Cyprus's existing growth model could lead to short-term growth, but that this would slow down over time as diminishing returns to scale set in and Cyprus's growth model becomes less competitive over time.

In comparison, under the scenario in which Cyprus pursues and achieves Vision 2035, the economy could be around 12-13% larger compared to the baseline by 2035. The following slides explore the sectoral sources of this growth.

**Cyprus's indexed real GDP paths in the baseline and Vision 2035 scenario (2019 = 100)**



Source: PwC analysis

# Achieving Vision 2035 has the potential to lift average annual GDP growth by around 1 percentage point over the next fifteen years

Over the next fifteen years to 2035, average annual GDP growth and GDP per capita growth could be around 1 percentage point higher under the scenario in which Cyprus pursues and achieves Vision 2035. Annual GDP growth is likely to be the fastest in the years 2026-30, as the effects of investments (both physical, digital and soft, including investments in training and skills) feed through to the economy, and output increases in key existing and new sectors.

## Projected average annual real GDP growth under the baseline

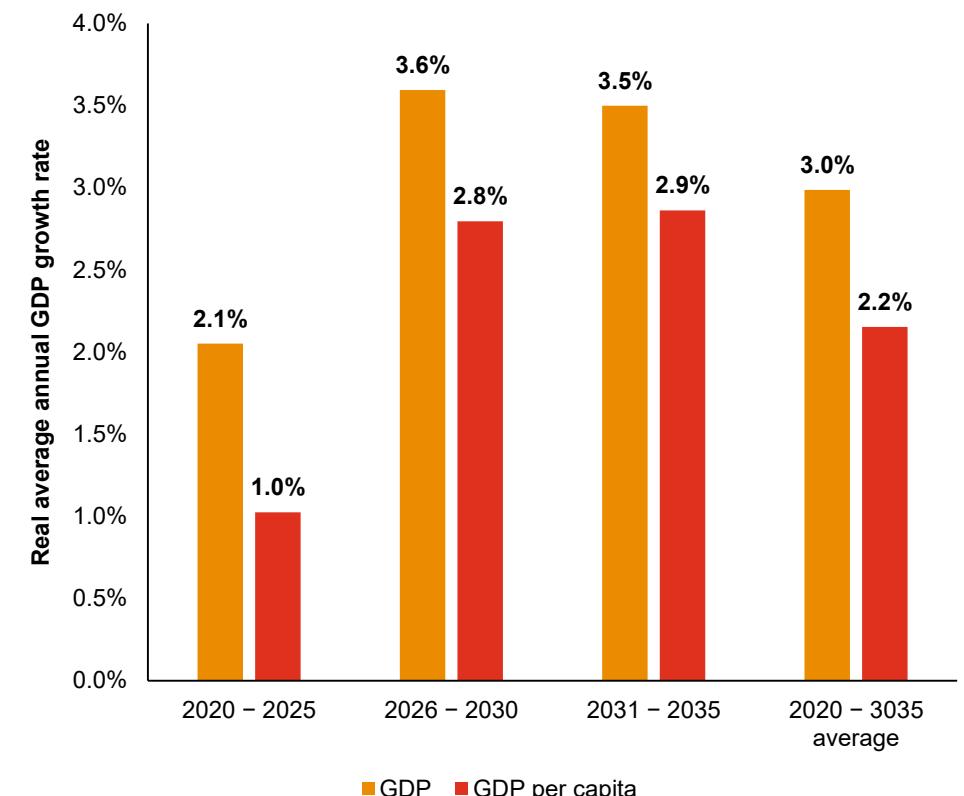
|  | 2020-25 | 2026-30 | 2031-35 | Average 2020-35 |
|--|---------|---------|---------|-----------------|
| Annual avg. real GDP growth            | 2.4%    | 2.4%    | 1.8%    | 2.2%            |
| Annual avg. real GDP growth per capita | 1.2%    | 1.5%    | 1.1%    | 1.2%            |

## Projected average annual real GDP growth under the long-term economic strategy

|  | 2020-25 | 2026-30 | 2031-35 | Average 2020-35 |
|--|---------|---------|---------|-----------------|
| Annual avg. real GDP growth            | 2.1%    | 3.6%    | 3.5%    | 3.0%            |
| Annual avg. real GDP growth per capita | 1.0%    | 2.8%    | 2.9%    | 2.2%            |

Source: PwC analysis

## Projected average annual real GDP growth under the long-term economic strategy



Source: PwC analysis

# Implementing the strategy is expected to boost investment, net exports and have a positive impact on positive finances in the long-run

## Consumption



Consumption will naturally increase as GDP per capita grows and the economy provides more stable and prosperous job opportunities, combined with the growth of skills within the economy from the proposed educational reforms. An overarching aim of the strategy is to improve the agility and flexibility – and therefore resilience – of workers to be able to transition into new roles and sectors. This will help to reduce unemployment, increase incomes, and ensure the resilience of consumption. As Cyprus embraces its digital and green transformation, its businesses and households will also begin to demand new goods and services, including the latest technology and alternative sustainable products. The strategy also seeks to maximise consumption from international workers (i.e. digital nomads), tourists and students.

## Investment



The initiatives set out several long-term investment plans for policymakers, including in green, digital and physical infrastructure, and should represent a mix of public and private finance, if the authorities succeed in demonstrating the benefits of public-private partnerships in such projects. As a European business and trade hub, the strategy is expected to have a significant positive impact on investment, as international businesses set up headquarters in Cyprus. The initiatives also aim to capitalise on Cyprus's potential as a test bed for new technology and products, driving investment in R&D. The proposed initiatives regarding tertiary education will also have a positive impact on investment as the sector engages in more commercially relevant research and innovation, driving private sector investment.

## Government spending



Government spending will be required to fund many of the initiatives outlined in this strategy, whether in the form of direct investment, financial support to businesses and households, and the improved provision of key public services such as education, health and transport. As discussed in the previous section, we do not envisage the need for an expansion of the public sector to implement Vision 2035; rather the restructuring, upskilling and optimisation of the current civil service. This will allow the government to deliver improved public services without a significant increase in day-to-day government spending.

## Net exports



The strategy aims to have a positive impact on net trade in two ways. Firstly, the initiatives aim to make Cypriot companies more extroverted and exploit opportunities for exports and business on the global marketplace. They do this by helping to drive scale, improving productivity in key export sectors like agriculture, focusing on key emerging and neighbouring markets, and putting in place the supporting institutional infrastructure to promote the Cyprus brand in the global market. Secondly, they aim to reduce Cyprus's reliance on imports for key goods by building domestic production capabilities, for example in light manufacturing, and fundamentally limiting Cyprus's reliance on fossil fuels for its energy over the long-run by developing renewable energy generation capabilities – and the infrastructure to actually export some of this electricity over time.

## Impact on public finances

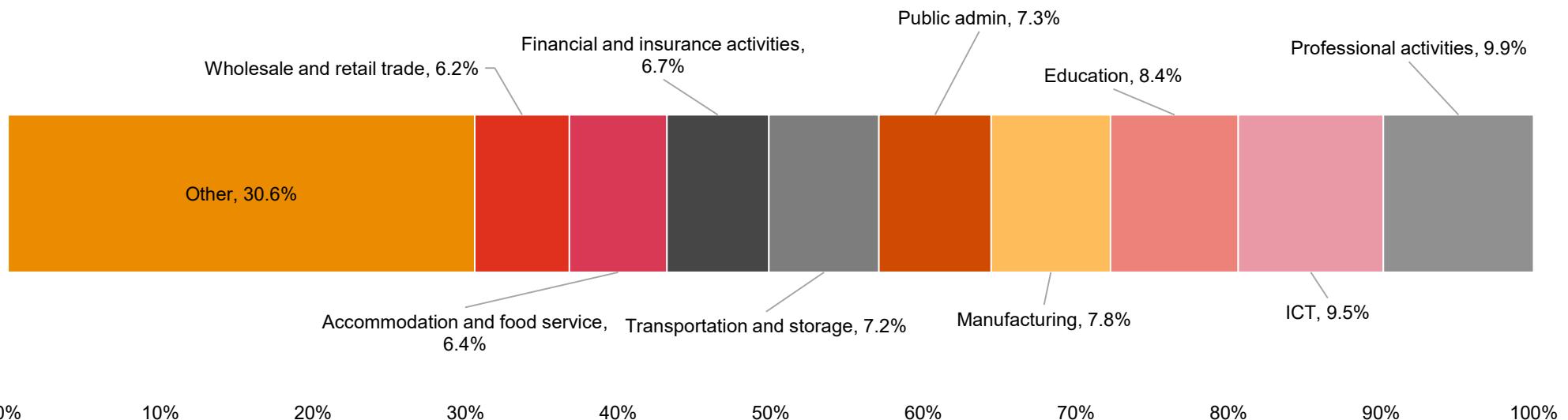
- This strategy sets out a number of initiatives requiring financial support and investment from the government. However, all of the initiatives have been selected because, in the long-run, they are growth enhancing and will raise revenue from greater business activity and investment. Therefore, in the long-run, they should have a negligible or positive impact on public finances.
- In the short-run, the funding for many of the initiatives in this strategy will be funded by the EU's Recovery and Resilience Fund. The reforms planned as part of Cyprus's Recovery and Resilience Plan are closely aligned to those in this strategy, therefore reducing the requirements on public money to fund the implementation of this strategy.
- The growth model of this strategy aims to develop Cyprus as a hub of international business and trade. This is important to give Cyprus a competitive edge and allow it to retain and attract foreign business – and their tax revenues – even against a backdrop of corporate tax harmonisation across the EU, or the world. At the same time, the strategy aims to diversify the Cypriot economy and broaden the country's tax base, ensuring the resilience of tax receipts in the event of significant changes to the EU tax legislation.
- With EU carbon prices widely expected to more than double, and potentially triple, by 2030, Cyprus's current economic model is increasingly unviable. Accelerating the green transition will therefore have a significantly net positive impact on public finances over the long-run, reducing the price the government and companies have to pay to operate.

# Vision 2035 could see Cyprus's GDP growth driven by many more sectors, increasing the economy's resilience

Over the past two decades, around two thirds of the contribution to 21st century real GDP growth in Cyprus is attributed to just five sectors. These include construction and real estate, ICT, financial and insurance services, and wholesale and retail trade. Under Vision 2035's strategy, around two thirds of the contribution to growth could come from nine sectors.

Specifically, 43% of Cyprus's future growth is projected to come from professional activities, ICT, education, manufacturing and public administration. These top five sectors are mainly driven by the Europe's business and trade hub model. However, enhancements from Leader in sustainability and High-tech capital of Europe are evident in the increased prominence of the Transportation and storage and Financial and insurance activities sectors, respectively. In addition, there are greater contributions to growth of the primary and secondary sectors.

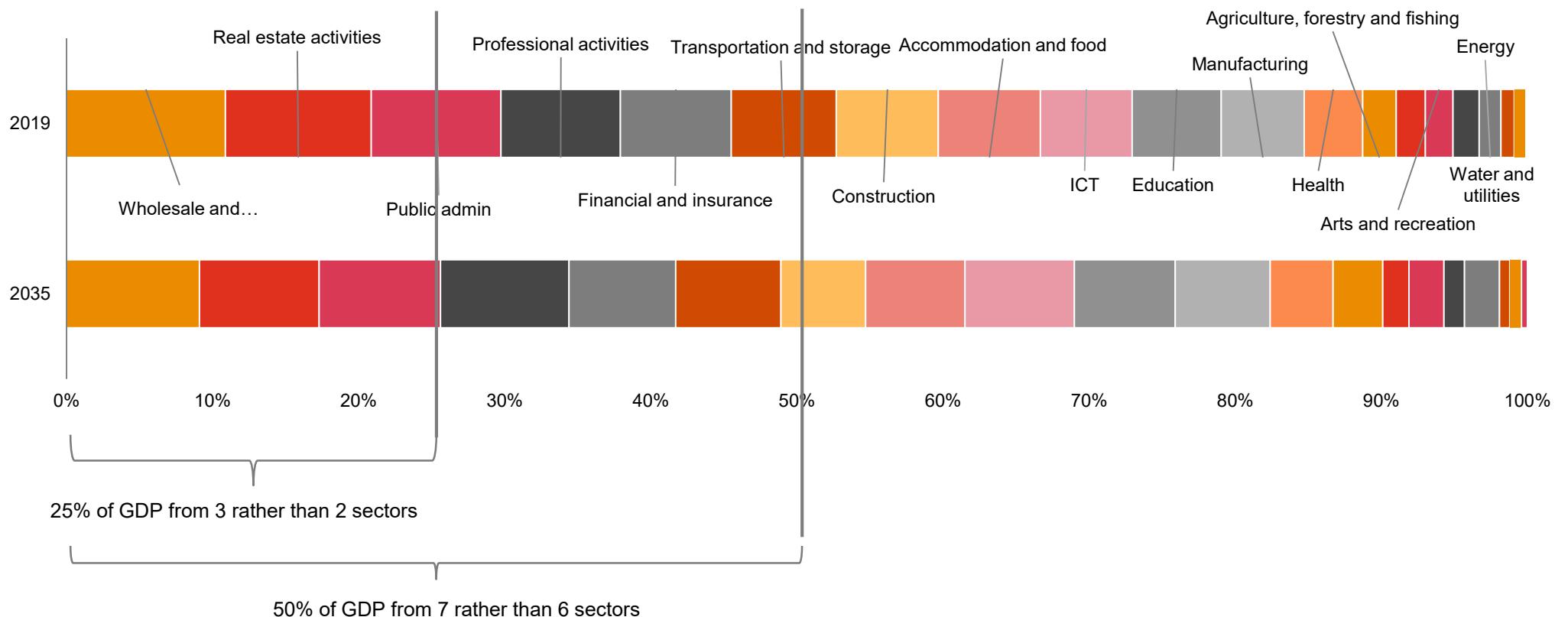
**Contribution to GVA growth, 2020-2035**



Source: PwC analysis

Vision 2035 aims to diversify the Cyprus economy, increasing the number of sectors on which GDP depends

Current and projected GVA shares by sector



Source: PwC analysis

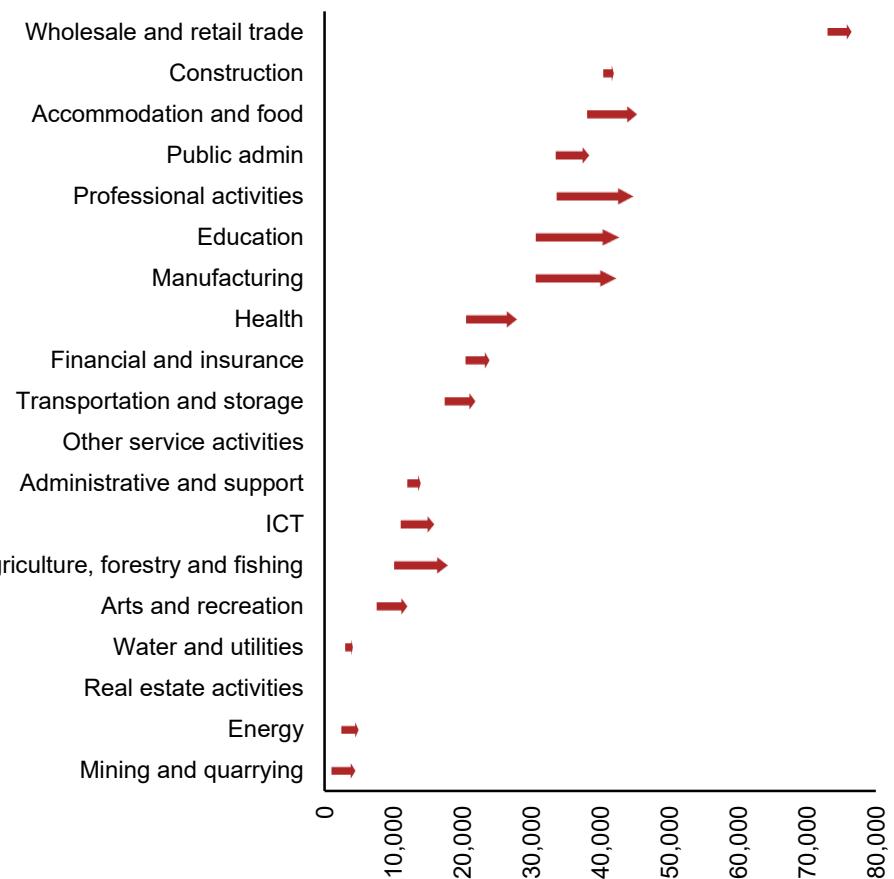
# Increases in employment reflect job creation and skills development in Vision 2035's key sectors

**Current and projected employment shares by sector**

| Sector                            | 2019  | 2035  | Change 2019-2035 |
|-----------------------------------|-------|-------|------------------|
| Wholesale and retail trade        | 17.6% | 15.0% | -2.6%            |
| Construction                      | 9.7%  | 8.2%  | -1.5%            |
| Accommodation and food            | 9.1%  | 8.9%  | -0.2%            |
| Professional activities           | 8.1%  | 8.8%  | 0.7%             |
| Public admin                      | 8.1%  | 7.6%  | -0.5%            |
| Manufacturing                     | 7.3%  | 8.4%  | 1.1%             |
| Education                         | 7.3%  | 8.4%  | 1.1%             |
| Financial and insurance           | 4.9%  | 4.7%  | -0.2%            |
| Health                            | 4.9%  | 5.5%  | 0.5%             |
| Transportation and storage        | 4.3%  | 4.3%  | 0.1%             |
| Other service activities          | 3.2%  | 2.7%  | -0.5%            |
| Administrative and support        | 2.9%  | 2.7%  | -0.2%            |
| ICT                               | 2.6%  | 3.1%  | 0.5%             |
| Agriculture, forestry and fishing | 2.4%  | 3.5%  | 1.1%             |
| Arts and recreation               | 1.9%  | 2.4%  | 0.5%             |
| Water and utilities               | 0.7%  | 0.8%  | 0.0%             |
| Energy                            | 0.6%  | 0.9%  | 0.4%             |
| Real estate activities            | 0.6%  | 0.5%  | -0.1%            |
| Mining and quarrying              | 0.2%  | 0.8%  | 0.7%             |

Source: PwC analysis

**Current and projected employment numbers by sector**



Source: PwC analysis

# Vision 2035 places resilience, diversification and self-sustainability at its heart

These are important aspects to consider as one of the targets of the European Commission has been to increase the resilience of the bloc as a whole, with the COVID-19 pandemic bringing the need for resilience into sharp focus. For Cyprus in particular, this is important as the island economy has suffered from two economic hits in the 21st century.

| Resilience  | Diversification  | Self-sustainability   |
|---|--|---|
| Reforms in the green economy, particular in water management, could help Cyprus better use its limited water resources thus making the economy more resilient during droughts.  | One of the key KPIs we recommend is to ensure that the contribution to growth from the top five sectors doesn't exceed 50% of GDP growth. This will help authorities ensure that growth is not limited to a few select sectors contributing to the diversification of the economy  | Vision 2035 sees agriculture form a bigger proportion of economic activity in the future. This will help Cyprus increase its food production—which is a key strategic sector—and help to reduce its reliance on food imports.   |
| Future education reform to emphasise transferrable skills including collaboration, critical thinking, negotiation, judgement and decision making. These skills are requirements for a wide variety of jobs in various sectors. So, in the event of a sector-specific the workforce would be better prepared to transition to another sector with relative ease. In the future, this will also make the workforce less likely to feel the effects of automation. | Vision 2035 assumes a re-allocation of investments into more productive use (i.e. less on building dwellings and more on business and public investment). This will aid productivity to grow faster and help the economy become less reliant on growing the volume of labour (or hours worked). There will therefore be less reliance on one single factor of production as a source of economic growth. | Vision 2035 requires Cyprus to start to reduce its carbon emissions either by switching into renewable forms of energy generation (i.e. electricity) or transport (i.e. electric cars). This means that Cyprus's reliance to refined oil imports (which are used both for transport as well as electricity generation) equivalent to around 10% of GDP will make the island more self-sufficient. |
| Stronger, meritocratic and corruption-free institutions will help the country keep up with its reforms before a crisis happens so that it can bounce back faster.   | Digitalisation across all sectors of the economy will mean that there will be less reliance on labour as a source of input for many routine functions and processes.   | Cyprus is a small, open economy and will continue to remain so. This means that its economy will be reliant on the fate of its main trade partners. Vision 2035, due to its emphasis on Cyprus as a European business and trade hub will mean Cyprus is exposed to events unfolding in the wider global economy.  |
| Providing excellent education in public schools will help ensure that the gap between private and public schools is bridged helping contribute to a more cohesive, resilient society.   | We recommend Cyprus taps into newer sectors and sub-sectors which will contribute to diversifying its sources of growth.   | Vision 2035 aims to align Cyprus's educational system (secondary and tertiary education) aligns itself with the sectors and growth opportunities identified. This cohesive approach could mean that Cypriot students could start relying less on overseas universities and more on domestic universities.   |
| We recommend Cyprus taps into faster growing sub-sectors and to increase its value add in existing sectors. Doing so means that Cyprus's product and service offering is less prone to be replicated by competitors thus contributing to a more resilient economy.  | The strategy proposes that Cyprus builds and grows alternative sources of funding for its businesses (e.g. private equity, venture capital, peer to peer lending etc.). This will help diversify sources of liquidity and credit to businesses.  |   |
| Providing excellent healthcare will help the population and society at large remain healthy and resilient.  |  |   |

# Appendices

# Technical Appendix

# World in 2050 model – Model structure

In line with economic theory and a large number of previous research studies,<sup>1</sup> we adopt a simplified model of long-term economic growth in which the shares of national income going to capital and labour are assumed to be constant.<sup>2</sup> GDP growth in this model is driven by assumptions about the three factors of production, which we discuss in turn below:

- **Demographics:** Growth in the volume of the people of working age;
- **Education:** Change in the quality of labour ('human capital'), which is assumed to be related to current and projected average education levels in the workforce;
- **Capital investment:** Growth in the physical capital stock, which is determined by new capital investment less depreciation of the existing capital stock; and
- **Technological progress:** Technological progress, which drives improvements in total factor productivity.

In applying this approach, we take the US as our benchmark economy, as this is assumed to be at the 'global frontier' in terms of technology and so productivity. US GDP growth is modelled in a somewhat simpler manner based on assumed labour productivity growth of 1.5% per annum and UN working age population projections. As described further below, Cyprus is then assumed to catch up gradually with US productivity levels over time.

One limitation of our model is that although it does allow for linkages between country performance due to shifts in the global technological frontier, it does not allow for performance in one country (except the US) to affect performance in other countries directly. Capturing these inter-linkages would require a much more complex modelling approach covering trade and investment flows between countries. Our approach limits the value of the model for global simulation purposes but is much more tractable for the purposes of producing long-term growth projections for individual countries.

|                        |   |
|------------------------|---|
| Demographics           | <p>We use the latest projections for total population and for the population aged 15-64 as a proxy for labour force growth (including net migration). We use UN projections for the US population and Eurostat projections for Cyprus's population.<sup>3,4</sup></p> <p>We use 15 as the lower bound for the working age population projection as education is compulsory until the age of 15. Therefore, after this age the population is able to join the workforce if willing.</p>  |
| Education              | <p>In common with several past academic studies, we have based our estimates of the human capital stock on average years of schooling for the population aged 25 and over from Barro and Lee (2001).<sup>5</sup> The latest data point available in this series is 2010, we extrapolate from this point to 2019 using the average annual increase in education over 1990-2010.</p> <p>We then follow the approach of Hall and Jones (1998),<sup>6</sup> which in turn was based on the survey of international estimates of the returns to schooling in countries at different levels of economic development by Psacharopoulos (1994).<sup>7</sup> Specifically, for the first four years of education, we assume a rate of return of 13.4%, corresponding to average estimates for sub-Saharan Africa. For the next four years, we assume a return of 10.1%, corresponding to the average for the world as a whole. For education beyond the eighth year, we assume estimated OECD average returns of 6.8%. Using regional averages enables us to capture the diminishing returns to education: we are able to estimate the returns to education in a country on average at a point in time, but comparing this with other countries with lower levels of education reveals how the returns evolve as the level of education in a country increases. This approach leads to estimates of the stock of human capital per worker as an index relative to the US.</p> <p>We then assume that the average years of schooling of the over-25 population rises over time at rates derived by extrapolating forward from trends over the past 5-20 years and adjusted for scenario based on informed judgement about the implications of proposed policies.</p>  |
| Capital investment     | <p>We begin with estimates from King and Levine (1994) of capital stock to output ratios in the mid-1980s.<sup>8</sup> These ratios are projected forward to our 2019 base year using data on investment as a percentage of GDP from the IMF. We assume a uniform 5% annual depreciation rate of the existing capital stock both in this calculation and in the forward-looking projections, which is consistent with the 4-6% depreciation rates generally assumed in the academic literature. In line with similar past studies, we assume for simplicity that capital has a constant 33.3% share in national output, with labour having a 66.7% share. While labour shares have declined in many advanced economies in recent years, it is not at all clear if this will continue in the long run, so we prefer to make this simpler assumption to avoid over-complicating the model.</p>  |
| Technological progress | <p>This factor is assumed to be related to the extent to which a country lags behind the technological leader (assumed here to be the US) and so has the potential for 'catch-up' through technology transfer, conditional upon levels of physical and human capital investment (as set out above) and other more institutional factors such as political stability, openness to trade and foreign investment, the strength of the rule of law, the strength of the financial system and cultural attitudes to entrepreneurship. These latter institutional factors are not readily quantifiable through a single index but are reflected in our assumptions on the relative speed of technological catch-up in each country. Depending on the scenario, we may assume a slower or faster rate of technological progress in the short-term relative to the long-term.</p> <p>It is important to stress that this approach is only intended to produce projections for long-term trend growth. It ignores cyclical fluctuations around this long-term trend, which history suggests could be significant in the short-term, but which we cannot hope to predict more than a year or two ahead at most. It also ignores the possibility of major adverse shocks (e.g. political revolutions, natural disasters or military conflicts) that could throw countries off their equilibrium growth paths for longer periods of time, but which are inherently impossible to predict. At the same time, our modelling ignores the possibility of a sudden leap forward in the technological frontier due to some major new wave of innovation either from new breakthrough discoveries not imagined yet, or innovative application of existing technologies.</p> <p>The US is considered to represent the 'global frontier' in terms of technology and productivity. We assume that US technological progress is driven by labour productivity growth, which is assumed to increase at a steady 1.5% per annum rate in real terms, reflecting recent historic trends)</p> |

# World in 2050 model – Other modelling considerations

## Caveats to our modelling

The World in 2050 model does not account for the quality of education, focusing rather on average returns to the quantity of education. Cyprus has relatively high education levels, but scores badly on educational outcomes such as PISA results. If educational quality does not significantly improve then the growth projected by our model is likely to be overstated.

However, horizontal reforms to education is a key driver of growth in each of our growth models. This means that achieving these significant improvements in education could unlock even further growth than is currently projected.

Similarly, the World in 2050 model does not account for the productivity of investment. We assume that investment will be productive to implement each growth model and reach Vision 2035. In particular, the movement away from investing in the residential construction sector in each of the growth model options will help to improve the productivity of investment.

## Approach to sectoral projections

Our sectoral projections focus on GVA and employment for each sector, as defined by the European System of Accounts ESA2010.

## GVA size

Our World in 2050 model enables us to project headline GDP, but sectoral growth is measured in terms of GVA. The difference between total GVA and GDP arises due to taxes and subsidies on products. We deduce total GVA from GDP for each year by assuming that the ratio remains in line with the average for 2000-2019, i.e. at around 0.89. This is a reasonable assumption to make as historic variation has been limited and our scenarios do not assume any major reform to subsidies and taxes.

### Section references

- The model goes back to the Nobel Prize-winning work of Solow (1956, 1957), which has remained the standard academic approach ever since the late 1950s and was later applied empirically by Denison (1985) and many others.
- We assume a Cobb-Douglas production function with constant returns to scale.
- United Nations, 2019, World Population Prospects.
- Eurostat, 2020, Population projections at national level.
- Barrow, R. and Lee, J.-W., 2013, 'A new data set of educational attainment in the world, 1950-2010' *Journal of Development Economics*, Vol 104, pp. 184-198.
- Hall, R. and Jones, C., 1999, 'Why do some countries produce so much more output per worker than others?' *The Quarterly Journal of Economics*, Oxford University Press, Vol 114 No 1, pp. 83-116.
- Psacharopoulos, G., 1994, 'Returns to investment in education: A global update' *World Development*, Elsevier, Vol 22 No 9, pp. 1325-1343.
- King, R. and Levine, R., 1994, 'Capital fundamentalism, economic development, and economic growth' *Policy Research Working Paper Series 1285*, World Bank.
- IMF (2020). *World Economic Outlook Database*, October 2020.

We also project sector GVA from a bottom-up perspective, with sectors defined in line with the European System of Accounts ESA2010. We estimate GVA growth rates for each sector by taking the historic average annual growth rate and applying a factor informed by a combination of judgement, historic correlations, potential links with the scenario narratives as well benchmarks from other countries who have gone through a similar trajectory. For example, if a scenario assumes that a sector will grow faster than it has done historically, then we apply a factor greater than 1. We then apply this growth rate to Cystat estimates of sector GVA in 2019 to produce projections out to 2035.

This calculation can be expressed as:

$$GVA_t = GVA_{t-1} * \text{Historic average annual growth rate} * \\ \text{Scenario sector specific factor}$$

Where the scenario sector factor is greater than 1 if the sector is expected to grow faster than it has done historically and less than 1 if it is expected to grow slower than it has done historically.

We then scale GVA for all sectors so that the sum of sector GVA equals total GVA as estimated from GDP. In the Table below we summarise the average GVA growth rates for each of the scenarios in question.

## Employment

We estimate employment numbers based on GVA and labour productivity growth. We estimate labour productivity each year by dividing GVA from labour by the total working age population, therefore a lower value reflects higher productivity as less labour is required to produce one unit of GVA. GVA from labour is 66.7% of total GVA, as per our assumption about the shares of GDP from labour and capital.

We calculate the additional labour required in the economy each year by comparing the change in GVA from labour and the change in labour productivity. The additional labour required can be expressed as:

### *Additional labour required*

$$= (GVA \text{ from labour} * \text{Labour productivity}_t) - (GVA \text{ from labour}_{t-1} * \text{Labour productivity}_{t-1})$$

If GVA from labour grows faster than labour productivity, then additional labour is required to produce it so employment increases. If the opposite is true, employment decreases. We start from Cystat's estimate of employment in 2019 and add the additional employment required each year to project total employment.

We take a similar approach to project employment on a sectoral basis, starting from sector employment in 2019 and estimating the additional labour required each year based on projections of sector GVA and labour productivity. We take current labour productivity as employment divided by GVA from labour for each sector in 2019. We then project this forward using the growth rate in labour required per unit of GVA for the economy as a whole, as estimated by the World in 2050 model.

We also assume that the productivity trajectory varies by sector, i.e. some sectors become more productive faster than others, as informed by our scenario narratives. We set high productivity growth sectors as increasing productivity 2% faster than average, and low productivity sectors as 2% slower throughout the period.

Once we have projected employment by sector using this approach, we then scale employment by a factor so that the sum of sector employment is aligned with our projection for total employment.

# Summary and analysis of the interviews and the two workshops

# Overview of stakeholder engagement

As part of this phase of work, we conducted 38 interviews and 2 large workshops in order to present, review, inform and refine the proposed initiatives aimed at achieving Vision 2035.

The 38 interviews took place from February 8 to March 8, 2021. Twelve (12) interviews were conducted with PwC experts from the local and global network (hereinafter referred to as 'PwC Experts') and 26 interviews were with other industry experts representing a total of 23 organisations from the government and wider public sector, private sector, academia and civil society (hereinafter referred to as 'Other Experts').

The 2 large-scale workshops were conducted on March 31 and April 9 2021, with a total of 71 stakeholders. Twenty-one (21) of these stakeholders are continuously engaged throughout the project with assigned responsibilities as part of the project Steering Group and/or Cyprus Economy and Competitiveness Council members (hereinafter referred to as 'SG&C members'). The additional 50 stakeholders were invited to participate representing a total of 38 organisations from the government and wider public sector, private sector, academia and civil society (hereinafter referred to as 'participants'). It is noted that some of the workshop participants were previously informed of the project and engaged through interviews and working sessions in previous phases.

Due to the in-person restrictions from the COVID-19 health pandemic, the interviews and large-scale workshops were both performed virtually via Webex Meetings and the workshops also utilised the collaborative virtual canvas platform 'Mural' to perform interactive activities and thus simulate a large conference room environment. The main objective was to present, socialise, vet and refine proposed horizontal and vertical (sector-specific) initiatives that would ultimately inform and drive the implementation of the long term economic strategy and achievement of the defined Vision 2035.

## Overview of the interviews

Each interview conducted was for a duration of one hour. During the 1-hour time frame, PwC presented a brief overview of the project and its progress to-date and thereafter, introduced key policy objectives aimed to be achieved, and a sample of proposed initiatives for the specific areas being addressed that would support in achieving those objectives. The interview then consisted of discussion and refinement with the experts of those items.

The indicative questions that were posed to facilitate the discussion with the interviewee(s) are the following:

Regarding key policy objectives:

- What are the top 3 policies you would like to see implemented in order to achieve the aforementioned policy objectives?
- What roadblocks or barriers to successful implementation do you foresee and how could these be overcome?
- What areas of investment would be needed to complement these interventions?

Regarding the sample of proposed initiatives:

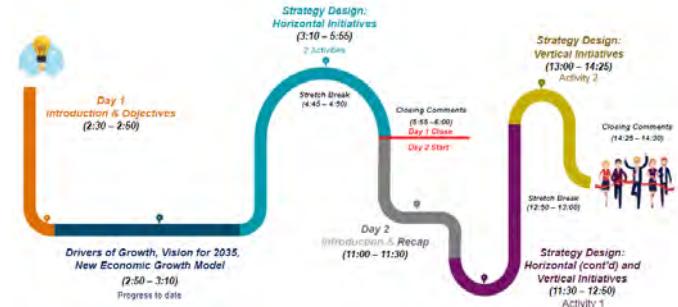
- How would you prioritize these initiatives?
- How can they be adapted or augmented to better complement existing efforts?
- What additional initiatives do you think are required?

## Overview of the workshops

The two 3.5-hour workshops were facilitated jointly by the PwC project team as well as portions by the President of the Steering Group. The combination of the two workshops included presentation of project overview and progress to-date, the defined Cyprus Vision 2035 and selected growth model to achieve long-term growth, namely the 'Europe's sustainable business and trade hub', the objectives of the current project phase and the workshops specifically, as well as a detailed presentation and collaborative activities of the proposed horizontal and vertical initiatives.

The joint agenda for the 2 workshops was structured as outlined in the diagram below, including interactive group activities to stimulate ideation and discussion and short breaks.

**Figure 1**



The first workshop (May 31, 2021) focused on horizontal initiatives and a total of 4 of them were covered. The second workshop (April 9, 2021) primarily focused on vertical initiatives, as well as one additional horizontal initiative (see below).



# Details of workshops

## Interactive Activities

As a part of each workshop, three types of interactive activities were designed and employed to engage participants, obtain their expert, quality input on proposed initiatives, and promote them to collaborate and generate new ideas.

| Interactive Activity                          | Total duration throughout the 2 workshops                       | Tool used   |
|---|---|---|
| Deep-dive discussion in small breakout groups | 50mins per activity * 4 Activities = 200mins                    | <ul style="list-style-type: none"> <li>• Webex breakout rooms</li> <li>• Mural</li> </ul> |
| Open feedback in a plenary format             | 22-30mins per activity * 4 Activities = 104mins                 | <ul style="list-style-type: none"> <li>• Webex</li> <li>• Mural</li> </ul>                |
| Post workshop feedback                        | Participants were given 1 week to complete each workshop survey | <ul style="list-style-type: none"> <li>• Qualtrics Survey</li> </ul>                      |

### 1 Deep-dive discussion in small break out groups (50mins per activity)

The participants were divided into themed groups (aligned with themes in diagram of Figure 2 above) based on their expertise and personal preference as collected via the workshops' registration form and survey. In these themed groups, PwC and the president of the Steering Group presented in detail a select number of proposed initiatives of each theme and the participants were then divided into small-sized discussion groups. Each discussion group included on average 8 participants, 2 SG&C members and 2 PwC facilitators. In the discussion groups, participants were requested to review and discuss the proposed initiatives and provide their expert input in response to the following prompts:

- How should the proposed initiatives be implemented?
- Additional initiatives to boost competitiveness and resilience in specific areas or themes.

Participants were requested to use the Mural virtual canvas tool to document their thoughts and ideas. PwC project team members were actively recording key discussion points simultaneously.

### 2 Open feedback in plenary format (22-30mins per activity)

With the completion of the deep-dive discussions in small breakout groups, participants returned to the main room of Webex ('plenary') and each discussion group presented/summarised the output of their group activity and discussion to all other workshop participants. During this activity and after its completion, participants were encouraged to provide further input, giving the opportunity for reactions and feedback on topics that they didn't have the chance to participate in. Using the Mural tool participants provided their expert input in response to the brief group presentations and in line with the following prompts:

- Additional ideas on how should the proposed initiatives be implemented (add or refine)?
- Add any other comments.

### 3 Post-workshop feedback (March 31 – April 7 and April 9 – April 16, 2021)

Participants were also given the opportunity to provide further comments on any of the themes/initiatives covered in the workshops through a survey. The survey was designed using Qualtrics and was distributed at the end of each workshop to all participants accompanied by relevant instructions to complete within a week.

# Interviewees and workshops participants

## Organisation of the interviewees and workshops participants

Following discussion with the Steering Group, PwC developed a list of proposed experts for the interviews (23 organisations) and participants of the two workshops (38 organisations) taking into consideration the following criteria:

- Expertise on the horizontal initiatives areas; namely, Justice & Corruption, Public Service, Education System, Energy Transition to Sustainable Sources, Liveability & Wellbeing;
- Expertise on the vertical initiatives areas; namely, Tertiary Education, Renewable Energy/Solar, Agritech, Sustainable Tourism (i.e. Agritourism, Health and wellness tourism), Light Manufacturing, Professional Services, Construction, ICT;
- Representation across all four domains of the economy; namely, Government and wider public sector, Private sector, Academia and Civil Society.
- Prior participation in the workshop conducted during Phase 3 and the series of interviews conducted during Phase 3, 4 and 5 (only applied for the workshops stakeholders list);
- Fresh perspective from stakeholders that had not participated in the workshop conducted during Phase 3 and the series of interviews conducted during Phase 3, 4 and 5 (only applied for the workshops stakeholders list);

Please refer to the charts and diagrams below depicting the breakdown of the interviews and workshops participants.

Upon finalisation of the stakeholder invitee lists, a communication letter was drafted and sent to all prospective interviewees and workshop participants providing them with an introduction to the project and the interview/workshop objectives. Additional context information was provided to invitees through an attached presentation in the communication letter sent. A slightly different communication was sent to the organisations and/or individuals that had previously been engaged thanking them for their prior contribution and welcoming them to support the work effort again through their participation in the interview and/or the 2 workshops. Following the initial communication letter being sent, ongoing follow up efforts were performed via telephone in order to secure participation.

In order to maximise the quality of the participants' contribution, pre-read material was provided to the invitees on the discussion topic areas (for the interviews) and the horizontal and vertical initiatives themes on which interactive activities would be performed (for the workshops). Invitees were requested to familiarize themselves with the pre-read material beforehand so that the limited time together in the interview/workshop could be efficiently spent on refinement and implementation of the proposed initiatives and content presented.

Lastly, for each interview/workshop, a formal calendar invitation was sent electronically to all the participants including the respective agendas and detailed instructions on how to join the Webex platform.

For the 2 workshops, PwC welcomed all participants to take the opportunity and try the Webex and Mural platforms at a predefined time, one day before each workshop, and ask any questions they had to minimise logistical and technical issues during the workshops. This proved a high level of success in supporting the execution of the workshop on the day of.

## Detailed analysis of interviewees and workshops participants

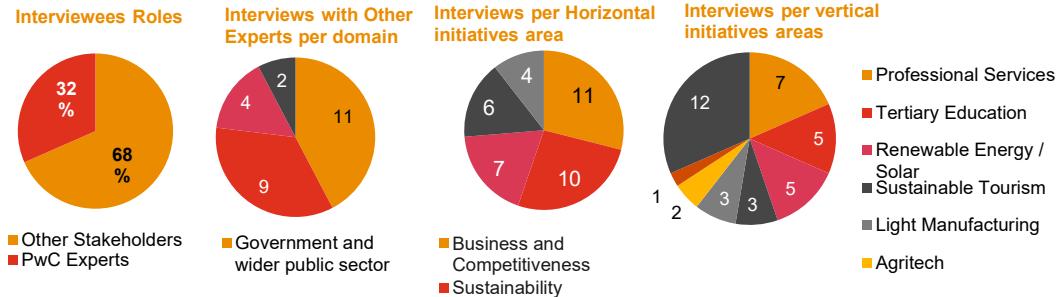
In the sections and figures below, we provide information on the profiles (role, domain, expertise) of the interviews and workshop attendees. We show a breakdown of the 38 interviews and the 71 workshops attendees to showcase how the aforementioned criteria were used to drive stakeholder selection, to maintain a balance of perspectives, and to ultimately collect more well-rounded input for the long-term economic strategy.

Note that the number of interviews depicted in the following analysis does not equate with the number of interviewees. Even though the vast majority of the interviews were conducted one-on-one, some interviews were conducted with more than one interviewees (i.e. working sessions).

### Interviews snapshot

Total number of interviews: 38

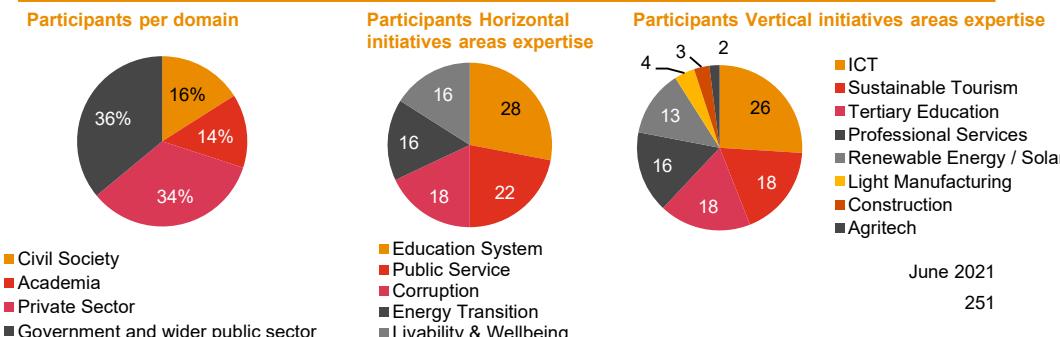
Total number of organisations represented in the interviews: 24



### Workshops participants snapshot (non-SG&C members)

Total number of interviews: 50

Total number of organisations represented in the interviews: 38



# Analysis of feedback from the interviews and workshops activities

In this section we provide a high level analysis of how some of the feedback and input collected through the interviews and workshops has been accounted for and incorporated in our work.

While all input was highly valuable in the refinement and finalisation of the proposed initiatives to develop the new sustainable growth strategy, the analysis shown here is limited due to the open-ended and dynamic nature of the stakeholder engagement activities as described above. The input from both the interviews and workshops activities was reviewed in detail and taken into consideration in the development of the final report detailing the 'new sustainable growth strategy.'

The interview series and the 2 large-scale workshops conducted were deemed successful as they achieved two primary, defined objectives (1) contributing to raising awareness for the Cyprus Vision 2035, sustainable economic growth model, and long-term strategy amongst a broad set of stakeholders and building momentum to secure wide-spread adoption of the strategy and collective support for its implementation and achievement over the next 10-15 years and (2) performing a quality and a completeness check of the proposed themes and initiatives with experts across the economy.

Over the course of the two workshops' activities, the participants submitted a total of 550 comments in the form of post-in notes using the virtual canvas of the Mural tool, equivalent to an average of 11 feedback points posted per participant. The feedback points helped to refine and augment the initiatives, provide us with some new ideas and perspectives, and were largely supportive of the full set of proposals. Crucially, the overwhelming majority were supportive of the larger and more transformational initiatives, including:

- The proposed creation of a Deputy Ministry of Climate Action, the Environment and Sustainability
- The revision of primary and secondary school curricula to focus on key skills and include new subjects that align to the Cyprus Vision 2035 and identified drivers of growth
- The establishment of an Independent Committee Against Corruption
- Review and reform the civil service's human resources management system with a new framework which is open, fair and merit-based

# List of organisations engaged in Interviews series and the two large-scale workshops

# List of organisations engaged

| #  | Organisation   | Domain         | Engagement Type           |
|----|--|----------------|---------------------------|
| 1  | <b>ALA planning</b>  | Private Sector | Interview                 |
| 2  | <b>Association of Cyprus Banks</b>                                       | Private Sector | Workshop(s)               |
| 3  | <b>Association of Cyprus Travel Agents</b>                               | Private Sector | Workshop(s)               |
| 4  | <b>Center for Social Innovation (CSICY)</b>                              | Civil Society  | Workshop(s)               |
| 5  | <b>Chief Scientist</b>   | Public Sector  | Interview & Workshop(s)   |
| 6  | <b>Cyprus Association of Research and Innovation Enterprises (CARIE)</b> | Private Sector | Workshop(s)               |
| 7  | <b>Cyprus Association of Social Workers</b>                              | Civil Society  | Interview and Workshop(s) |
| 8  | <b>Cyprus Bar Association</b>  | Private Sector | Interview                 |
| 9  | <b>Cyprus Chamber of Commerce and Industry (CCCI)</b>                    | Private Sector | Workshop(s)               |
| 10 | <b>Cyprus Employers and Industrialists Federation (OEB)</b>              | Private Sector | Interview & Workshop(s)   |
| 11 | <b>Cyprus Energy Agency</b>  | Civil Society  | Workshop(s)               |
| 12 | <b>Cyprus Energy Regulatory Authority</b>                                | Public Sector  | Workshop(s)               |
| 13 | <b>Cyprus Fiduciary Association</b>                                      | Private Sector | Workshop(s)               |
| 14 | <b>Cyprus Health Services Promotion Board</b>                            | Private Sector | Workshop(s)               |
| 15 | <b>Cyprus Hotel Association</b>  | Private Sector | Workshop(s)               |
| 16 | <b>Cyprus Investment Funds Association</b>                               | Private Sector | Workshop(s)               |
| 17 | <b>Cyprus Land &amp; Building Developers Associations</b>                | Private Sector | Interview and Workshop(s) |
| 18 | <b>Cyprus Marine and Maritime Institute (CMMI)</b>                       | Academia       | Workshop(s)               |
| 19 | <b>Cyprus Shipping Chamber</b>   | Private Sector | Workshop(s)               |
| 20 | <b>Cyprus University of Technology</b>                                   | Academia       | Interview & Workshop(s)   |
| 21 | <b>Deputy Ministry of Research, Innovation and Digital Policy</b>        | Public Sector  | Interview & Workshop(s)   |
| 22 | <b>Deputy Ministry of Tourism</b>  | Public Sector  | Workshop(s)               |
| 23 | <b>EC Natural Hydrocarbons Company Ltd (eCNHC)</b>                       | Private Sector | Interview                 |
| 24 | <b>European University</b>   | Academia       | Workshop(s)               |

# List of organisations engaged (cont'd)

| #  | Organisation  | Domain         | Engagement Type           |
|----|---|----------------|---------------------------|
| 25 | Cyprus Green Party  | Civil Society  | Interview                 |
| 26 | Health Insurance Organisation (HIO)   | Public Sector  | Interview                 |
| 27 | International Organisation for Migration In Cyprus (OHE)                        | Public Sector  | Interview and Workshop(s) |
| 28 | KIOS Research and Innovation Centre of Excellence                               | Academia       | Workshop(s)               |
| 29 | Logicom Public Ltd  | Private Sector | Workshop(s)               |
| 30 | Ministry of Agriculture, Rural Development and Environment                      | Public Sector  | Workshop(s)               |
| 31 | Ministry of Education, Culture, Sport and Youth                                 | Public Sector  | Interview & Workshop(s)   |
| 32 | Ministry of Energy, Commerce and Industry                                       | Public Sector  | Interview & Workshop(s)   |
| 33 | Ministry of Finance   | Public Sector  | Workshop(s)               |
| 34 | Ministry of Foreign Affairs   | Public Sector  | Workshop(s)               |
| 35 | Ministry of Labour, Welfare and Social Insurance                                | Public Sector  | Workshop(s)               |
| 36 | Ministry of Transport, Communications and Works                                 | Public Sector  | Interview and Workshop(s) |
| 37 | Mitsides Group  | Private Sector | Interview                 |
| 38 | Neapolis University Pafos   | Academia       | Interview                 |
| 39 | Office Commissionnaire of the Administration and the Protection of Human Rights | Public Sector  | Interview & Workshop(s)   |
| 40 | Pancyprian Labour Federation (PEO)  | Civil Society  | Workshop(s)               |
| 41 | PwC local and global network  | Private Sector | Interview                 |
| 42 | CYENS Centre of Excellence  | Academia       | Workshop(s)               |
| 43 | Androulla Vassiliou   | Civil Society  | Workshop(s)               |
| 44 | Social Workers Organisation   | Civil Society  | Interview                 |
| 45 | State Health Services Organisation  | Public Sector  | Workshop(s)               |
| 46 | Tenders Review Authority of Cyprus  | Public Sector  | Interview                 |
| 47 | The Cyprus Association of Cancer Patients and Friends (PASYKAF)                 | Civil Society  | Workshop(s)               |
| 48 | The Cyprus Institute  | Academia       | Interview                 |
| 49 | The Cyprus Land and Building Developers Association                             | Private Sector | Interview                 |

# List of organisations engaged (cont'd)

| #  | Organisation                       | Domain        | Engagement Type         |
|----|------------------------------------|---------------|-------------------------|
| 50 | Treasury of the Republic of Cyprus | Public Sector | Interview               |
| 51 | Troodos Development Company        | Public Sector | Interview               |
| 52 | UN Migration Agency in Cyprus      | Civil Society | Workshop(s)             |
| 53 | University of Cyprus               | Academia      | Interview & Workshop(s) |
| 54 | University of Nicosia              | Academia      | Interview               |

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## Case study: Singapore

Attracting and retaining talent in the Civil Service

The Singapore public sector employs around 127,000 officers in 15 ministries and more than 50 independent government agencies with around 76,000 officers. The three agencies that oversee the talent management are the Public Service Commission (PSC), PSD, and CSC. There are four key talent management schemes in Singapore.

### 1. Pre-Service Scholarships

The Singapore Government believes that offering pre-service scholarships is the best way to attract the best and brightest young men and women to serve the government. Since 1962, about 60 scholarships administered by PSC are granted annually to ensure talents in the succession pipeline. PSC scholarships are targeted at recruitment for critical high-level public service functions (Neo and Chen 2007). There are a variety of scholarships with no stringent restrictions in the field of study designed to cater to candidates with different abilities and interests and no quota on the number of scholarships to be awarded.

Candidates are assessed primarily, based on their high school academic results; leadership potential and the desire to serve the public are of secondary criteria. The candidates go through a few rounds of interviews and psychometric tests administered mainly by PSC. Scholars have to serve a 5 to 7 year bond to the government upon return and will be deployed throughout the Service through a 4-year Management Associate scheme before they are considered for the Administrative Service. Aside from the above, the Singapore government also binds those who receive scholarships from outside to work for the Singapore government. So for example those on the Japanese Monbusho scholarship are also obliged to serve the Singapore public sector upon their return.

### 2. Management Associate Program (MAP)

MAP is a career development program for scholars from 2002, which would give scholars a management track career in the Civil Service upon their graduation. The higher-tier PSC administered scholarship holders will automatically join the MAP and in-service officers, with less than two years of experience, could also be nominated for the program. There are also open recruitments to attract mid-career individuals to join the scheme.

The Management Officer (MA) typically spends the first two years in a parent Ministry to gain professional experience. This is followed by an external posting with a different Ministry to an Administrative Service-type job for two years. During this period, MAs will be given opportunities to participate in a wide range of training and development programs to broaden their perspectives on public sector issues and deepen their managerial and leadership capabilities. It also includes a three-month Foundation Course, which covers visits to ASEAN countries, cross-ministry project teams, policy forums, overseas conferences and study visits.

### 3. Administrative Service (AS)

This scheme marks the crème' of the crop of Singapore's civil servants. PSC appoints these Administrative Officers (AOs) while PSD manages their deployment designations and career paths. Although scholars only account for 10 percent to 15 percent of all division one officers, the majority of officers in the AS are scholars. At the end of the 4-year MAP, the MAs would be interviewed for entry into the Administrative Service. AOs are responsible for developing and implementing national policies in consultation with the political leadership. Apart from formal training, AOs are also exposed to a wide variety of jobs to maximise their experience and expertise, including working in private sector companies. Milestone programs are planned for AOs at every stage of their careers and are pushed to take leadership roles very early. Thus, directors of departments in Singapore are relatively young at the age of mid 30s when compared to Malaysia and Thailand. The top performing AOs would take up permanent secretary positions in the end. By their mid-30s if the AOs estimated potential is of less than deputy secretary of the ministry, he or she would usually be asked to leave the service (Neo & Chen, 2007). AOs are paid on a much higher pay scale than normal civil servants. The annual salary of an Administrative Officer in the entry Superscale grade is pegged to the annual salary of the 15th top earner aged 32 years belonging to the top six professions. In 2008, this was \$398,000 per year SGD (Public Service Division, 2007). Currently there are about 200 AOs in the service.

### 4. High Potential Program (HiPo)

The High Potential (HiPo) Program is for in-service officers.. The objective is to develop broader leadership capabilities across the civil service. As part of the Program, the officers will have opportunities to attend milestone-training programs, participate in inter-agency project teams, be posted to an external ministry or organisation, attend forums on leadership and governance, and undertake challenging assignments. Typically, officers would need to have at least 2 years of service before they are nominated for the program. There are no clear criteria that can be found in the public domain. Based on interviews, they also undergo stringent assessment and selection processes.

*Source: UNDP Global Centre for Public Service Excellence, Global & Regional Trends in Civil Service Development, 2016.*



### Case study: Austria

Digitalising the courts

Austria is a leader in the use of IT in its justice system.<sup>1</sup> Digitalisation efforts began all the way back in 1989 with the introduction of digital data collaboration between courts, parties and their representatives. Automation efforts have continued with the digitalisation of the land register, attestation register, commercial register, and the introduction of e-filing, electronic signatures and videoconferencing. The standardisation of IT architecture across departments has been instrumental.

The cornerstone of the digitalisation has been the automation of the court procedure system, which maintains a register of over 50 courts processes, some of which are handled entirely automatically. The system allows new court entries to be transmitted electronically and court fees to be collected electronically and cash-free. The uptake of digital services was encouraged by lower court fees for digital filing. In 2013, a new strategic initiative called Justice 3.0 was announced, outlining a vision for the justice system's entire IT landscape. It will produce a roadmap for digital transformation, with a goal of an all-digital handling of proceedings. VET is collaboration with the private sector – over a third of Swiss companies engage in apprenticeship training programmes, resulting in strong skills tailoring and matching.

*Source: McKinsey & Company, World Class Government: Transforming the UK public sector in an era of austerity: five lessons from around the world, 2015.*



### Case study: Romania

Digital audio recording (DAR) of court proceedings

Introducing audio recording is a relatively low-cost intervention, yet has been shown to achieve profoundly positive impacts across justice systems. Romania introduced audio recording in all courts in 2015, as part of the €110 million Judicial Reform Project supported by the World Bank. According to the Implementation Completion Report for this project, audio recording improved both the efficiency and accountability of Romanian judicial system.

Benefits for digital court recording include:

- **Increased efficiency:** real-time transcription allows judges and lawyers to view the transcript feed concurrently. This enables them to review recent testimony, and mark transcripts for review. This saves time and money for the court, lawyers and other parties. In addition, the transcripts will be available for review by trial participants
- **Increased accountability and transparency:** National Judicial Inspection can use the recordings to monitor judges' behaviour. The recordings have already been used in a variety of corruption and misconduct cases. Previously, only handwritten notes were kept by clerks, but these were unreliable for more formal complaints against misconduct. This can also help to prevent procedural abuse and corruption in the courts.
- **Civilising behaviour:** digital recording encourages more civilised behaviour in courtrooms, which in turn can improve demeanour, norms of behaviour, user experience and overall satisfaction with the judicial process
- **Increased access to justice:** real-time transcripts and audio amplification can help increase access to justice for people with hearing disabilities. It can also help improve the quality of translation and interpretation, opening wider access to justice for people with less fluency in the language of justice of the country.

*Source: World Bank Blogs, Harley G. and A. Said, E-justice: does electronic court reporting improve court performance?, 2018.*



## Case study: Hungary

Money Speaks!

The average Hungarian household is confronted with a vast, complex and fast-changing range of financial products. When combined with the issue of the majority of Hungarian society lacking sufficient financial knowledge, this results in huge risk-taking when investing. In order to address this issue, and mitigate financial stability risks arising from the low level of financial literacy in Hungarian households, the Central Bank of Hungary has expanded its efforts on providing financial education. This includes developing knowledge, surveys, analysis and theoretical solutions on financial literacy-related topics as well as enhancing financial culture in Hungary.

In 2006, the Central Bank launched a project aiming to integrate the teaching of financial basics in school education. Teaching is done through conferences and a special information booklet covering topics such as:

- Payment services: why is it worth opening a bank account? What kinds of joint services are available with bank accounts?
- Banking cards: what are the different types of services associated with bank cards? How can bank cards be used safely?
- Savings: why are personal savings important?
- Loans: which are the most important types of credit?

This booklet is distributed to all graduating high school students in Hungary. It is designed to meet the informational needs of 18-year-olds considering whether to continue their studies or enter the workforce. Several government institutions collaborated to create the booklet, e.g. Hungarian Financial Services Authority, Ministry of Finance, Ministry of Education and Culture).

Within a year, the booklets were distributed, free of charge, to around 107,000 students in almost 1,200 schools. Additionally, it sparked interest of other national actors to engage in the financial literacy issue in Hungary. For example, one of the countrywide commercial TV channels started a cartoon series, in cooperation with a commercial bank, with similar topics as the information booklet to promote basic financial knowledge.

Other measures taken by the Central Bank to promote financial literacy include:

- Visitor centre opened in March 2004
- Monetary competition for high school students launched in 2005
- Seminars provided for teachers twice a year since 2004

*Source: Evers Jung, Habschick, M., Seidl, B., and Dr. J. Evers. Financial Literacy Schemes in the EU27, 2007.*



## Case study: Denmark

Ease of doing business

In the World Bank's Ease of doing Business' report, Denmark maintains the position as number three in the world, only surpassed by New Zealand and Singapore, and its leading position in Europe.<sup>1</sup> The World Bank points to the efficiency in registering property, the low tax rate and the ease of resolving insolvency in Denmark as the main reasons for Denmark's prominent ranking in the report. There are a number of policies and government initiatives that contribute to its high performance, as follows:

- **Stakeholder collaboration in regulatory design:** Policymakers make significant effort to incorporate stakeholder views, including SMEs, into the regulatory process, ensuring regulation is aligned to business needs and the ease of doing business. This is done through a number of advisory bodies. The Business Forum and the Implementation Council are two of the most prominent of these advisory bodies. The Implementation Council was established in 2015 to oversee the implementation of EU legislation into Danish law, with specific attention given to minimising additional expense for Danish enterprises. In 2018, the Commission on Simplification of Danish Business Promotion was created to deal with the issue that SMEs were finding it increasingly complicated and costly to rely on government services that support business. The main task of the Commission is to suggest a revised structure that will bring more transparency, effectiveness and efficiency.<sup>2</sup>
- **Resolving insolvency:** In Denmark, it takes on average 1 year and 4% of a debtor's estate (compared to 9.3% for OECD high countries) to get 88.5 cents on the dollar recovered by secured creditors (compared to 70.2 for OECD high income countries). While foreclosure and liquidation are the proceedings most commonly used to resolve insolvency, Denmark amended its bankruptcy act in April 2011 to allow both debtors and creditors to file for reorganisation at the bankruptcy court in case of insolvency. This would allow business to continue operating by formally restructuring the company's debt.<sup>3</sup> Denmark also has an early warning system in place to help companies in distress. It is run by regional Business Development Centres, a group of highly qualified volunteer advisors who provide free, impartial and confidential advice to SMEs experiencing difficulties. The aim of the advice is to assist or accelerate turnarounds.

Source:

<sup>1</sup> *The Work Bank Group, Economy Profile of Denmark: Doing Business 2020, 2019.*

<sup>2</sup> *European Commission, SBA Fact Sheet: Denmark, 2018.*

<sup>3</sup> *The Work Bank Group, Resolving insolvency 2012, 2011.*



### Case study: Japan

Future Design: Policy-making for future generations

Societies today are facing intergenerational problems – problems that will affect the economies of countries, and livelihoods and wellbeing of communities and individuals for decades to come. Two of the biggest intergenerational problems to date are the sustainability of government debt and the impact of climate change. In order to address these issues, political systems must turn away from short termism and instead seek to sustain long term policy continuity.

Future Design is a way for policy-makers to achieve this continuity. It is a concept for a new political system that takes the needs of future generations into account. The basic idea around Future Design is to give future generations a voice in the decisions being made today. This will be achieved by creating a future generation group within the government as a permanent organisation. This future generation group will 'role-play' as members of the coming generations and act as an advocate for the needs of citizens in the ultra-long-term.

Research conducted in Japan shows that those assigned the role of the future generation will think differently from those in the present generation. In the experiment, residents of the city of Yahaba were assigned randomly into one of two groups: the current generation group or future generation group.

The groups together had to discuss the issue of water supply, which had been operating in surplus in the years prior to the experiment. The current generation proposed that water prices should be lower due to the surplus, while the future generation was more concerned with the long term sustainability of the water supply. They considered that, in the future, water supply infrastructure would need to be maintained and eventually replaced – therefore the surplus should be saved for use in the future.

In the end, the two groups concluded that the price of water should actually be increased in order to secure funds for future investments. Based on the results of the experiment, the local government of Yahaba actually raised water supply fees in reality.

The creation of a 'Ministry of the Future' in the central government of Japan has been proposed, alongside a 'Division of the Future' in each government agency and local municipality.

*Source; Tokyo Foundation for Policy Research, Future Design: A New Social Contract, 2019.*



### Case study: Singapore

Strategy Group and Centre for Strategic Futures

The Strategy Group in the Prime Minister's Office was set up in July 2015 to strengthen strategic alignment across Government. It expanded in August 2016 to include the National Population and Talent Division (NPTD) and National Climate Change Secretariat (NCCS).

The Strategy Group is responsible for creating the biennial Singapore Public Sector Outcomes Review (SPOR). SPOR takes stock of how Singapore has fared in key areas of national interest – both from the citizens' and business' perspective. These areas include sustainable living, ease of doing businesses, and growth and competitiveness, among others.

In addition to the NPTD and NCCS, the Strategy Group also includes the Centre for Strategic Futures (CSF). In 2009, CSF was established as a futures think tank to focus on issues that may be blind spot areas, pursue open-ended long-term futures research, and experiment with new foresight methodologies. On 1 July 2015, CSF became part of the new Strategy Group in the Prime Minister's Office, which was set up to focus on whole-of-government strategic planning and prioritisation, whole-of-government coordination and development and to incubate and catalyse new capabilities in the Singapore Public Service.

As part of its think tank-like functions, the key roles of the CSF are to:

- Promote a collective instinct for strategic thinking at the WOG level
- Develop and promote the use of tools and methodologies for strategic thinking and risk management throughout the government
- Be the focal point for cultivating networks between local government agencies and international partners to promote an active exchange of ideas
- Challenge conformist thinking
- Develop links with academia to support the development of interdisciplinary research work in areas like complexity studies and risk management

There is also a conscious effort to monitor issues that were not prioritised in the voting process, as these could be part of current organisational blind spots and prove critical in the future.

*Sources:*

*Strategy Group Singapore*

*Singapore Public Sector Outcomes Review*



## Case study: Denmark

National Research and Innovation Strategy 2017

In 2017, the Danish government launched a new research and innovation strategy, aimed at getting more value for money in government spending on R&D and the distribution of research, and increasing the quality of research.

- Nobel Pact:** The strategy includes a 'Nobel Pact' which aims to create a framework for a coordinated strategic effort to promote and recognise Danish research as of a Nobel prize-winning quality. As a central initiative to the pact, the Government will establish a number of special Nobel prize centres with a sufficiently ambitious financial framework and long-term outlooks, in order to create research results that can compete with the absolute best international research.
- Strengthened international cooperation:** The Government will work towards establishing new Danish innovation centres in the world's leading research and innovation hubs. Furthermore, an action plan will be drafted for Danish participation in EU framework programmes for research and innovation.
- New model of funding for universities:** The Government will introduce a new model for distribution of basic funding, which will advance the quality of Danish research and support in-demand education and research areas. The new model will also support universities' ability to take long-term action and be strategic in their research efforts.
- International knowledge transfer:** The Ministry of Higher Education and Science is setting up an international expert group that by 2019, will provide recommendations for how Denmark's efforts in knowledge-based innovation can rank among the global elite, and support stakeholders working effectively and in close cooperation towards common overall objectives. This panel of nine international experts was established in 2019, in consultation with the European Commission's Horizon 2020 Policy Support Facility. The terms of reference for the international expert panel are to illustrate with international case studies the use of instruments in innovation and make recommendations on how to improve innovation and research. It will also examine university efforts at technology transfer. The panel includes experts from across industry and academia, including stakeholders from Harvard Business School, Cambridge Enterprise, and the Swedish government innovation agency.
- Prioritisation of technological research:** The Government will prioritise significantly more funding for technological research. An action plan will be drafted to increase capacity to carry out technological research in new digital technologies, health technology and robotics technology, as well as improving integration of new technological opportunities in research. The Government will also establish a national centre across all of the Danish research institutions to support the development of the digital area and contribute to cross-disciplinary research in artificial intelligence, big data, Internet-of-Things, quantum computing, blockchain, interaction design, etc.



## Case study: Singapore

Pro-business legislation and investment

The Singapore government is continuously supplying the national economy with public investment to facilitate investment and innovation in the private sector. For example, the Research and Innovation Enterprise 2020 Plan committed to invest S\$19 billion between 2016 and 2020 to develop technological capabilities that support the competitiveness of manufacturing and engineering sectors, to develop a strong research and innovation community and to build a strong core of innovation enterprises that drive value creation.

Recent examples of government investment include:

- The government is allocating S\$8.3 billion between 2020 and 2022 to help companies scale up. Enterprise Singapore will run this two-year pilot programme, which will fund more than 10 trade associations and chambers covering all sectors of the economy to hire experienced executives that will provide advice to enterprises.
- An additional S\$300 million is being set aside to fund deep-tech start-ups, such as those in emerging technologies of med-tech and agri-tech. Under the scheme, the government will either co-invest with qualified third-party investors into start-ups, or invests in funds through fund-of-funds approach.
- The government is also launching the GoBusiness platform, a portal that streamlines transactions between the government and companies by creating a digitalised and simpler process for businesses to apply for licences, permits and certificates. It aims to save businesses time and reduce compliance costs. A key feature of the portal is the Guided Journey, which is a step-by-step guide that helps a business navigate the licensing landscape to determine the licences required, and the order to apply for them.

Singapore also has a strong intellectual property (IP) regime. The 2020 Bloomberg Innovation Index ranked Singapore third in the world. By promoting a progressive IP regime, the Singapore Government ensures that the right level of regulations protect business interests while enabling the free exchange of ideas, promoting investment, FDI and investment.

- Encourage the development and registration of Intellectual Property: The Singapore government encourages the development and registration of IP through generous financial incentives, such as Capability Development Grant (CDG), and the Inland Revenue Authority of Singapore (IRAS)'s Productivity and Innovation Credit (PIC). The Intellectual Property Office of Singapore (IPOS) also helps inventors, entrepreneurs and businesses create and protect their innovations more conveniently with an online platform to register new IPs and free hearing and mediation services for disputes. It is also currently developing in-house search and examination capabilities in key technological areas to reduce the cost of filing in Singapore.
- Defend intellectual property: The Singapore government has also vigorously defended IP by creating a specialised IP court with IP specialists to resolve disputes and an Arbitration and Mediation Centre (WIPO). Collaboration between IPOS and WIPO allows parties to settle IP disputes without resorting to litigation, which reduces the time, expense and frustration involved. Finally, the IP Academy Singapore offers a Graduate Certificate in IP Law, ensuring the country has attorneys and jurists trained to handle IP matters.



## Case study: UK

### GDS – Government as a Platform model

The UK Government Digital Service (GDS) is a centre of excellence in digital, technology and data and helps people interact with the government and supports the government to operate more effectively and efficiently. It was formed in April 2011 to implement the 'Digital by Default' strategy.

Its responsibilities include:

- Providing best practice guidance and advice for consistent, coherent, high quality services;
- Setting and enforcing standards for digital services;
- Building and supporting common platforms, services, components and tools;
- Helping the government choose the right technology, favouring shorter, more flexible relationships with a wider variety of suppliers;
- Leading the Digital, Data and Technology function for government; supporting increased use of emerging technologies by the public sector;

In early 2015, the GDS adopted the 'Government as a Platform (GaaP)' model as a part of furthering its digital transformation work. The GaaP model is a (re)organisation of the work of government around 'the culture, practices processes and technologies of the Internet-era' that aims to enable the government to operate 'as a Platform' fostering a vibrant ecosystem of stakeholders and facilitating exchanges between them that lead to the creation of value for all. The GaaP model was adopted to improve the public services, remove silos, digitally transform the way the government works and deliver a shared open infrastructure for anyone to build upon. It allows key issues to be solved for once, and the benefits to be shared with all through the creation of common, commodity-like components (or digital building blocks e.g. code, templates, etc.) that can be used by other ecosystem players. In this manner, digital services or solutions can be co-developed and delivered to market quicker than ever.

The GDS maintains and improves the following cross-government platforms and tools:

- **Digital Marketplace** – a platform to find people and technology for digital projects.
- **Government Digital Services (GDS) Academy** – trains public sector workers in how to work in an agile team and how to design a digital service.
- **GOV.UK** – A platform for publishing – used by hundreds of government departments and agencies
- **GOV.UK Design System** – To make your service consistent with GOV.UK by using components, styles and patterns.
- **GOV.UK Notify** – A platform for messaging – to help service teams keep users updated with emails, texts and letters.

- **GOV.UK Pay** – A platform for payments – a simple, secure way for people to pay for government services online.
- **GOV.UK PaaS** – A platform for hosting – so service teams can focus on building their service, not managing infrastructure.
- **GOV.UK Registers** – Canonical sources of data – authoritative datasets services can rely on.
- **GOV.UK Verify** – A platform for identity – a new way for citizens to prove who they are when they use government services
- **GOVWiFi** – A wifi authentication service allowing staff and visitors to use a single username and password to connect to guest wifi across the public sector.
- **Performance Platform** – Provides performance data of government services
- **Public Services Network (PSN)** – The government's high-performance network, which helps public sector organisations work together, reduce duplication and share resources.

In addition, GDS is administering the following standards:

- Cabinet Office spend controls for digital and technology,
- Digital Service Standard,
- Open standards,
- Technology Code of Practice

This model has been proved to be even more important during the COVID-19 crisis as using GaaP products (platforms and tools) has made it quicker, easier, and cheaper to create the essential services the public need. These are some examples:

- GOV.UK Notify has been used for NHS text message support for the extremely vulnerable and those isolating at home, business continuity messaging for public sector staff, and FCO travel alerts for those overseas (around 2 million SMS messages were sent on a single day in March).
- The service to offer coronavirus (COVID-19) support from your business like medical equipment; protective equipment for healthcare workers, such as masks, gowns, and sanitiser; and hotel rooms for frontline staff (the service was developed in 4 days using the Design System, GOV.UK PaaS and GOV.UK Notify)
- The Home Office has added GOV.UK Pay's standalone payment links to invoices to support payments typically taken over the phone by staff at the Shared Service Centre.

Sources:

[Gov.uk, How government as a platform is meeting challenges posed by coronavirus](#)

[Gov.uk, Government as a Platform blog](#)

[Medium, A working definition of Government as a Platform, 2019.](#)



### Case study: Guernsey

Recycling initiatives

In 2019, Guernsey achieved a recycling rate of 73%, one of the highest rates globally and a significant increase from a recycling rate of 50% in 2017. The main drivers behind this rapid improvement in recycling include the introduction of a separate food waste collection in 2018 and the pay-as-you-throw scheme in 2019.

- Separate food waste collection system:** A new food waste collection program was introduced in September 2018. Households received new recycling kits in the post containing lockable plastic bins to be used to set out food waste for collection every week. Food waste accounts for more than two-fifths of total waste in black bin bags. Collecting food waste separately allowed the collection of general waste to become less frequent, reducing the amount of general waste accumulated and increasing recycling.
- Pay-as-you-throw scheme:** From February 2019, Guernsey households were charged for each bag of general rubbish that they put out for collection. New pay-as-you-throw stickers were introduced, with each 90-litre bag costing £2.50 and each bag up to 50 litres capacity costing £1.40. Fines were levied on households failing to put these stickers on the rubbish they put out for collection. Households in Guernsey accepted the new scheme and reduced general waste at a faster rate than anticipated, leading to a deficit of £3 million to Guernsey Waste at the end of the first year of the operation.

In the first six months of 2019, approximately 2,125 tonnes of black bag waste was collected. This was a 58% decrease compared to the same period in 2018.<sup>1</sup>

<sup>1</sup> BBC News, Guernsey household waste halves under new system, September 2019.



### Case study: Sweden

Leader in climate change action

Sweden has long been a champion of combating climate change. It was the first country to establish an environmental protection agency back in 1967. Sweden also held the first UN conference on the environment, leading to the creation of the world's leading global environmental authority, the United Nations Environmental Programme (UNEP). Sweden was one of the first countries to introduce a carbon tax in 1995 and is one of the few industrialised countries that have managed to decouple economic growth and greenhouse gas emissions. Sweden's GHGs are one of the lowest in the EU and the OECD, whether measured on a per capita basis or as a proportion of GDP.

Sweden's focus has been on long-term energy efficiency and renewable energy. Proactive and decisive government action is underpinned by strong public awareness and citizen engagement with environmental issues. There are a number of things the government has done to drive forward sustainable growth:

- Public support:** Government information on how to save energy is widely available. Each municipality has an 'energy adviser' who provides help and guidance to citizens. For example, topics include replacing windows, using low-energy lights and switching to different heating systems.
- Sustainable city planning:** Sustainability is fully incorporated into all aspects of city planning, from smart electric grids to public transport, bike friendliness and waste management.
- R&D:** Investments in environmental-related R&D have made Sweden an innovation leader for several clean energy technologies, including biofuels, smart grids and carbon capture and storage.
- Green incentives:** These include public funds for local climate investments and renewable energy, as well as tax incentives aimed at consumers to, for example, reduce the costs of solar panels, energy efficiency instruments and fuel efficient cars.



### Case study: Denmark

Conservation policy

**Reforestation:** The government's scheme for reforesting Denmark 'The Nature Fund' is a public-private partnership which supports projects expanding or improving natural areas. The government has pledged €6.5 million to two new LIFE projects in Denmark co-financed by the EU.

**Biodiversity – The Danish Nature Policy:** In 2014 the government launched Nature Plan Denmark. The key initiative is the development of a new Green Denmark map that will show where the Danish existing and potential valuable natural and endangered animals and plants can be found, the establishment of approximately 25,000 hectares of new nature and a ban on spreading manure and use insecticides around 35,000 hectares of protected nature areas.



### Case study: Slovenia

Green transport policy

Transport and transport infrastructure has seen concerted efforts to be more environmental. The Transport Development Strategy up to 2030 sets out rail transport and sustainable mobility measures. This will reduce the carbon footprint of the transport sector and unsustainably heavy road traffic.

**Railway upgrades and incentives:** Elements of this plan include upgrading railway infrastructure, promoting sustainable transport choices in the calculation of travel costs, reducing the need for private motor vehicle use, changing excise and toll policy to help divert freight transit transport to rail, organise and establish a digital platform that will promote all possibilities of public passenger transport, forms of co-travel and the creation and establishment of new sustainable mobility business models.

**Car transition policies:** An estimated 1% of cars in circulation will be electric cars by 2020 and this will rise to an estimated 16.9% by 2030. Recharging facilities are already in place, with one public recharging point for every 1.64 electric vehicles. Electric cars will also be supported by tax exemptions, benefits and incentives to buy and use electric cars. By 2023 Slovenia will have analysed the prospects for banning the sale of new and import of old vehicles that use liquid fossil fuels as motor fuels. Slovenia is also developing and testing innovative traffic management measures to reduce the energy and carbon intensity of transport, with the hope that plans will improve mobility, traffic safety, and reduce environmental harm.



### Case study: Macau (SAR)

Trade and Investment Promotion Institute

In 2002 the Macao Trade and Investment Promotion Institute (IPIM) established the Macao Business Support Centre (MBSC) to support foreign investors, particularly small to medium size enterprises (SMEs) considering undertaking FDI into Macau. The MBSC provides free office cubicles and related services, 'enabling foreign investors to become familiar with Macao's business environment and the relevant administrative procedures in a relatively short time, reducing their initial start up costs, as well as acting a channel for exchanges between local and foreign enterprises.' The MBSC provides support including applications for business start up service, overseas trade fairs and business visits, as well as provides business information service and Mainland Chinese market advisory service.

In terms of the impact of the MBSC on FDI into Macau, the MBSC claims to have helped over 1,000 businesses enter the Macau economy since 2002, receiving over 400 applications for the use of the cubicles by investors from Mainland China, Europe, Hong Kong, Southeast Asia, Taiwan and the USA. Applicants have also come from various industries, mainly Information and Technology, Biotechnology, Design, Cosmetics, Pharmaceuticals, Non-Staple Food Production, Financial Consultancy and Mechanical Products. Considering Macau's overall inward FDI, from 2001 to 2005 FDI into Macao's Cultural, recreational, gaming and other services sector grew by an average annual rate of 17.6%. In 2001 the sector captured 58% of inward FDI to Macao, which grew to 62% in 2005. FDI into Macao's hotels and restaurants sector also doubled over this period (however only accounts for around 5% of total inward FDI). Macao's annual FDI inflows increased from 1,065 million MOP (\$132 million) in 2001 to 18,519 million MOP (\$2,301 million) in 2007, with most of the increase in foreign investment entering the Tourism and gaming industries.



### Case study: Singapore

Various tax incentives for developing a business hub

In the last decade, Singapore has become a global trade, business and logistics hub and is known for being one of the easiest places to do business in the world. Singapore has offered a series of incentives aimed at encouraging MNCs to expand their capabilities in Singapore, with various tax incentives to taxpayers and corporations involved in specified activities or industries identified as being beneficial to Singapore's economic development.

For example, Singapore's Pioneer Certificate Incentive (PC) and the Development Expansion Incentive (DEI) allows corporations providing qualifying services to apply for tax exemption for five to 15 years for each qualifying project or activity under the pioneer tax incentive. Corporations may apply for their post-pioneer profits to be taxed at a reduced rate of 5% or 10% under the Development and Expansion Incentive.

The Economic Expansion Incentives Act that covers the Pioneer tax incentives, was amended in 2016 to further support 'pioneering activities'. Under the revised Act, firms that are awarded the 'pioneer certificate' by the government will be entitled to the maximum tax relief period of 15 years for each incentivised activity, instead of for the company as a whole. Previously, a firm enjoyed only one tax relief of a maximum of 15 years regardless of the number of Pioneer Certificates it has. The updated Act clarifies that a firm can be awarded multiple Pioneer Certificates when it anchors different qualifying economic activities in Singapore over time.

239 firms were awarded pioneer certificates in Singapore from 2006-2016. Between 2011 and 2015, 71 companies were awarded certificates. Total inward FDI to Singapore has grown from SGD 144 billion (\$106 billion) in 1998 to SGD 1.567 trillion (\$1.155 trillion) in 2017. High priority sectors have experienced extremely strong growth over the period. For example, Information and Communications has grown from SGD 769 million (\$566 million) in 1998 to SGD 30.5 billion (\$22.5 billion) in 2017. This reflects an increase of relative importance of inward FDI into Information and Communications, from 0.5% of total inward FDI to Singapore in 1998 to 2% of inward FDI in 2017.

Singapore also offers the Finance and Treasury Centre Incentive (FTC) to specifically encourage companies to use Singapore as a base for treasury management activities.<sup>1</sup> The FTC offers a reduced corporate tax rate and tax exemption from interest payments for specific activities for five years. To ensure that the arrival of MNCs also supports technology diffusion in Singapore, the Partnerships for Capability Transformation initiative encourages partnerships between MNCs and local SMEs. Hundreds of Singaporean SMEs have been able to upgrade their capabilities in this way, and the collaboration with MNCs has helped them access finance, gain market insights and achieve economies of scale.

<sup>1</sup> Singapore Economic Development Board, Finance and Treasury Centre Incentive, 2016.

<sup>2</sup> The Business Times, Kim, G. B., Collaborations key to going global, 2018.



### Case study: Canada

Investor support services

Montreal International (MI) is a non-profit organisation established in 1996 as a public-private partnership responsible for driving economic activity in Montreal to attract foreign investment. The mission of MI is to be Greater Montréal's strategic partner for foreign investment, international organisations and talent. It advertises itself as being a single point of access for personalised, free and confidential services. Services they offer include:

- Strategic and operational advice
- Financial and tax programs
- International Mobility
- Industry expertise
- Economic Data
- Network Access

MI is jointly funded by the private sector, the Governments of Canada and Quebec, the Montreal Metropolitan Community and the City of Montreal. MI helped 48 foreign companies locate or expand in Greater Montréal in 2017, facilitating a record \$2.025 billion (CAD) in FDI, an increase of over 50% compared to 2016. Nearly 40% of these investments were in the Digital sector including from firms such as Google, Facebook, DeepMind and Thales (CortAlx).

MI's other key achievements including:

- Attracting CAD\$15.5 billion in foreign direct investment to Montreal since 1996
- Creating and/or retaining 65,000 jobs
- Helped almost half of the 65 international organisations in Montreal establish themselves
- Helped over 650 foreign companies set up or expand their operations
- Helped more than 10,000 strategic international workers relocate to the region
- Greater Montréal also won FDI Magazine's (Financial Times) award for best foreign direct investment strategy in the Digital Economies of the Future ranking



### Case study: Singapore

Public-private partnerships with Singapore Corporate Laboratories

Singapore's National Research Foundation encourages public-private R&D partnerships between universities and companies through the establishment of Corporate Laboratories in universities. The aim to enable industry partners to tap into the university's scientific and technological capabilities to develop new products and services, while universities gain by developing cutting edge solutions for real-world problems faced by the private sector. The research conducted therefore has direct relevance for the economy.

To date, 14 Corporate Laboratories have been set up across several of Singapore's universities.<sup>1</sup> These include:

- Rolls Royce at the Nanyang Technological University:** Rolls-Royce co-funded the S\$75 million Corporate Laboratory, which was established in 2013 and now has around 180 staff and students. A subsequent joint investment for S\$88 million has since been announced. Research is focussed on electrical power and control systems, manufacturing and repair technologies and computational engineering. Rolls Royce also provide mentorship to students. A key technology transfer was achieved when the lab designed and constructed a 270V power system for installation in Rolls Royce Corporation in Indianapolis, US.
- Sembcorp at the National University of Singapore:** The S\$60 million Corporate Laboratory aims to develop new, competitive sustainable solutions in the areas of energy, water and waste. Research activities include solutions to optimise power generations while reducing emissions, improvements to industrial water and wastewater treatment systems, and to transform waste into high value products.
- HP at the Nanyang Technological University:** The S\$84 million Digital Manufacturing Corporate Lab will drive innovation and skills to advance the Fourth Industrial Revolution, focussing on digital manufacturing technologies, 3D printing, artificial intelligence, machine learning and new materials.

<sup>1</sup> National Research Foundation, Corporate Laboratories in Universities.



### Case study: UK

Retraining and upskilling adults

#### Get Help to Retrain in the UK

The UK Government announced the National Retraining Scheme in 2017, targeted at retraining adults who are already at work and do not have a qualification at degree level. The programme focussed on digital upskilling initially, with a goal to expand to other technical skills soon. The programme also provides live local labour market vacancies to bridge the gap between businesses and individuals. Full funding will also be made available for adults who do not currently have a level 3 qualification.<sup>1</sup>

#### UK CareerTech Challenge

The Department for Education in the UK partnered with Nesta (an innovation foundation) to launch the CareerTech Challenge in 2019. This challenge provides up to £5 million funding for innovators to develop advanced online training and career guidance solutions.<sup>2</sup> Solutions also need to be digitally-driven and designed to future-proof jobs of workers currently employed in sectors at most risk of automation. The prize-winning solutions will be implemented in 2021.<sup>3</sup>

#### Flexible Working Task Force in the UK

The UK Government partnered with business groups, trade unions and charities to launch the Flexible Working Task Force in 2018. The Task Force, co-chaired by the Department for Business, Energy and Industrial Strategy (BEIS) and the CIPD (professional body for HR and people development), aimed to increase the availability and uptake of flexible working across sectors in the economy. The Task Force believes that this will have the following benefits:

- Improving accessibility of work to older workers
- Boosting employee motivation and productivity
- Creating more opportunities for women to progress to senior roles

One of the main objectives of the Task Force is to increase the proportion of employers that advertise jobs across all pay grades as flexible. Employers participating in the Task Force are encouraged to use the strapline 'Happy to talk flexible working' in their job adverts.<sup>4</sup> Guidance for employers regarding how to improve flexibility at the workplace has also been released.

<sup>1</sup> UK Department for Education, *National Retraining Scheme: Key Findings Paper*, October 2020; available [here](#).

<sup>2</sup> Ibid.

<sup>3</sup> Nesta, *Unlocking employment opportunities for the future*, October 2019; available [here](#).

<sup>4</sup> CIPD, *Government and employers unite to kick-start flexible working*, January 2019; available [here](#).



### Case study: Republic of Ireland

Regional Skills Fora

Improving channels and opportunities for employers to have their say and actively contribute to local skills development is a key feature of Ireland's National Skills Strategy 2025.<sup>17</sup> The Regional Skills Fora, set up in 2016, are helping to foster stronger links between employers and to strengthen further and higher education and training provision as part of regional responses. The Skills Fora provide a number of key benefits to local employers and act as a single point of contact within the skills system. They generate more robust labour market information and analysis of employer needs to inform training and provide a ready structure for employers to become more involved in the skills system in promoting employment roles and opportunities for career progression in their sectors.

When the West Regional Skills Forum identified that there was a skills gap and lack of progression routes in cyber security in Galway and Mayo, they worked with local employers and international IT company Hewlett Packard Enterprise to address the problem. They completed a mapping exercise to spot gaps in the skills system and worked to deliver new courses through local education providers.



### Case study: The Netherlands

Techwise Twente – VET school and business cooperation

Techwise Twente is a cooperation between VET- schools and business organisations that started in 2013. The overall aim of the project is 'to facilitate the cooperation between education providers and business organisations to organise (higher) VET-training which respond to the needs of the manufacturing industry'. The partnership incorporates educational partners (secondary education, vocational secondary education and business training organisations), business associations and business organisations from the manufacturing industry.

The cooperation is mainly focussed on updating curricula, connecting supply and demand through new and currently qualified workers, raising the profile of VET through education in innovative technologies, and mobility of VET students in the region.



### Case study: UK

Investments in nursing

In 2018, the Barking, Havering and Redbridge University Hospitals NHS Trust (BHRUT) trust implemented a set of interventions to strengthen its existing nursing supply and improve recruitment. It had been suffering from chronic problems of nursing shortages and high nurse turnover rates. The interventions, described in more detail below, were targeted at improving career progression for nurses and increasing the number of routes into nursing roles.

- Nursing Career Pathway:** This pathway shows how new joiners can progress from apprentice to advanced clinical practice or ward manager. Providing staff with clear career pathways has positively impacted staff engagement, experience and morale.
- Nursing associates:** Together with Health Education England, the BHRUT implemented a new role for 'nursing associates' – which sits between a health care assistant and registered nurse. This new role involves two years in a working and learning environment, with one day per week at university and four days in a healthcare setting.
- Nursing degree apprentices:** The BHRUT was one of the first trusts in England to appoint nursing degree apprentices. The apprenticeship is delivered in partnership with Anglia Ruskin University. The NDA is a 42-month degree which combines full-time work-based learning and placement time. To recruit for the apprenticeship, matrons and clinical staff from the Trust support the interviews alongside the university.

As a result of these interventions, the BHRUT improved staff retention and widened participations and routes into nursing for the trust.

Source: *NHS Employers, Barking, Havering and Redbridge University Hospitals NHS Trust: Strengthening Your Nursing Supply, 2018.*



### Case study: Canada

Medical and Related Sciences Discovery District

Canada has undertaken Public-Private Partnership (PPP) investment in infrastructure to support the development of industry clusters. For example, the Medical and Related Sciences (MaRS) Discovery District opened as North America's largest 'urban innovation hub' in downtown Toronto in 2005 to help create successful global businesses in science, technology and social innovation. MaRS holds 1.5-million square feet of real estate in 'one of the lowest vacancy corridors in North America.'

The MaRS complex was developed in three phases, with funding for the buildings provided by various sources including University of Toronto, grants from the Ontario and Canadian Governments, private bond issue and private donors. The Government of Ontario, Government of Canada and City of Toronto are all listed as founding supporters of MaRS and by 2014 grants, mostly from the Ontario Government, exceeded CAD \$160 million since MaRS was created. MaRS is also registered as a charity.<sup>1</sup> Examples of tenants housed in the MaRS district include Facebook, Airbnb and Autodesk.<sup>2</sup>

By 2014 (9 years after commencing operations), MaRS reports they had supported companies create cumulative CAD \$1 billion in GDP impact.<sup>3</sup> In survey of businesses in the MaRS 'network' in 2017, findings report that of the 1,200 ventures in the MaRS network:

- They employed over 12,800 people in 2017
- They have raised over \$4.8 billion in capital (2008-2017)
- They have generated over \$3.1 billion in revenue (2008-2017).<sup>4</sup>

Although the specific level of FDI into MaRS is not publicly available, in September 2018 it was reported that Toronto received \$900m (CAD) of foreign investment into the tech sector alone.<sup>5</sup> This was from firms established in Toronto including Microsoft, Uber, Intel, Pinterest, Instacart and WeWork labs.

<sup>1</sup> Financial Post, Gallant, P. MaRS, the Ontario government's very own money pit, 10 June 2014.

<sup>2</sup> The Globe and Mail, Silcoff, S., Toronto's MaRS lands private financing, repays Ontario loan, 14 April 2017.

<sup>3</sup> MaRS Discovery District, Impact Report, 2018.

<sup>4</sup> MaRS Discovery District, Our Results.

<sup>5</sup> Sheppard, V., September brought over \$1.4 billion in international investment for Toronto's tech ecosystem MaRS, 2018.



## Case study: Australia

Independent Commissioner Against Corruption (ICAC) of South Australia

The Commissioner's office and the OPI have been established to promote and preserve integrity in South Australian public administration. The OPI receives and assesses all complaints and reports made under the ICAC Act. It also oversees the assessment and investigation of complaints and reports about South Australia Police, including referring some police complaints to the ICAC for investigation.

The most well known function of the Commissioner's office is to identify and investigate corruption in public administration. However, the Commissioner has other important functions. These include assisting agencies to identify and deal with misconduct and maladministration, and delivering an education program designed to prevent or minimise corruption, misconduct and maladministration in public administration.

Also serving the Commissioner's prevention function is the ability to conduct an evaluation of the practices, policies and procedures of an agency. The purpose of an evaluation is to assist agencies to advance systems that will prevent or minimise inappropriate conduct and practices.

### Purpose

ICAC's purpose is to preserve and promote integrity in public administration through proactive prevention and educational initiatives, the investigation of corruption in public administration, and the investigation or referral of misconduct or maladministration in public administration.

### Enablers of success

- Collaboration with SA Police to investigate corruption within the Police departments and utilised police officers to assist in cases where ICAC did not have the resources.
- Corruption investigations, Maladministration investigations and referrals to another agency for investigation or action
- Deliver education and prevention initiatives to public officers
- Acknowledge, in writing, the receipt of any complaint or report within two working days or less
- Assess all complaints in an average time of 25 working days or less

### What were the impacts or successes of the ICAC's interventions?

- As a result of a joint investigation with the South Australian Police into Operation Mantle, charges of theft and abuse of public office were laid against six police officers.
- An employee of the public sector was arrested and charged with abuse of public office, 233 counts of theft and 114 counts of dishonest dealing with documents.
- A man, previously employed in the public sector was charged with six counts of abuse of public office between February and July 2013. His alleged offences related to the improper use of information for personal gain.
- A Chief Executive from a South Australian government agency was charged with two counts of abuse of public office.
- Charged five men from the Department of Transport engaged in the misappropriation of goods purchased with government credit cards.
- Annual Reports of ICAC were published and presented to Parliament.
- Public Statements by ICAC commissioner if ICAC believes a particular matter is of public interest e.g. maladministration for sale of public land.



## Case study: Australia

Independent Commissioner Against Corruption (ICAC) of New South Wales

The Independent Commission Against Corruption (ICAC), an independent agency of the Government of New South Wales, is responsible for eliminating and investigating corrupt activities and enhancing the integrity of the public administration in the state of New South Wales, Australia. The Commission was established in 1989, pursuant to the Independent Commission Against Corruption Act, 1988 (NSW), modelled after the ICAC in Hong Kong.

The Chief Commissioner is required to submit a report on the activities of the Commission to the Parliament of New South Wales and whilst independent of the politics of government, reports informally to the Premier of New South Wales. The commission is charged with educating public authorities, officials and members of the public about corruption.

The Inspector of the Independent Commission Against Corruption is an independent statutory officer whose role and functions is to hold the ICAC accountable in the way it carries out its function. The Inspector's role are set out in Part 5A of the ICAC Act. The Inspector is not answerable to ICAC in any way and is located in physically separate premises from the ICAC. The Inspector's role includes: undertaking audits of the ICAC's operations to ensure compliance with the law; dealing with complaints about the conduct of the ICAC and current and former officers; and assessing the effectiveness and appropriateness of the ICAC's procedures.

### Purpose

The goal of the NSW ICAC is eliminating and investigating corrupt activities and enhancing the integrity of the public administration in the state of New South Wales, Australia.

Undetected and unchecked corruption in the public sector can cause serious damage including:

- Undermining public trust in government;
- Wasting public resources and money;
- Causing injustice through advantaging some at the expense of others;
- Inefficiencies in operations; and
- Reputational damage which makes it difficult to recruit and retain quality staff or obtain best value in tender processes.
- It may also be more difficult to attract business investment, adversely affecting prosperity.

### Interventions

The ICAC reduces corruption risks by ensuring that motivation to act corruptly is recognised and managed, that the opportunity to engage in corrupt behaviour is limited by the structures and systems of the organisation, that the risk of detection is heightened through supervision and reporting, and that the integrity and good repute of public administration is promoted.

Through the receipt, analysis and assessment of complaints and reports of alleged corruption, referrals by the NSW Electoral Commission of certain possible criminal offences under election funding, election or lobbying laws, and the conduct of investigations, compulsory examinations and public inquiries into serious and systemic corruption.

The ICAC conducts training workshops, speaking engagements and educational events to help minimise corruption in the NSW public sector.



## Case study: UK

Enabling flexible working in Transport for London (TfL)

Transport for London updated its flexible working policies in 2014, 2015 and 2018. These updates to their 'Smart Working Policy' have led to a good level of uptake of flexible working arrangements throughout TfL. The Policy encourages employees across the organisation to work flexibly where appropriate. Types of flexible working commonly adopted at TfL include working from home, job shares, reduced hours and condensed hours, among others. There are also possibilities for other temporary forms of flexibility, such as career breaks.

### Impacts of flexible working

- Improved mental health and well-being – flexible working gives workers more time for out-of-work responsibilities, whether that's hobbies, caring duties or spending time with friends and family.
- Returners – flexible working makes easier the transition back into the labour market for those who have previously left employment, e.g. mothers and fathers.
- Efficient timekeeping – flexible working encourages workers to manage their time carefully and pro-actively, as they may have different schedules to their co-workers
- Team dynamics – flexible working encourages teams to trust each other to manage workload and work output
- Productivity – flexible workers often go beyond the call of duty, because they are afforded the trust and benefits of flexible working by their employer
- Retention – flexible working enables people to work better over the time of their career. Staff retention also offers a significant financial gain, as it allows the organisation to avoid hiring and severance costs

### Challenges faced

- Increased pressure – for some, flexible working can increase pressure on the individual, e.g. pressure to get more done in one day as there is a blurrier separation between work and home. It is important for workers with flexible arrangements to keep open communication with their line manager and team in order to manage workload efficiently.
- Difficult to implement in operational roles – in roles where flexible arrangements can result in more demanding work loads, managers must take on the responsibility to manage employee expectations and hold a transparent discussion around whether flexible working is right for that person
- Lack of resources – the Smart Working Policy assumes that workers have the sufficient technology at home (e.g. monitor screens, fast broadband connections) in order to work remotely. However, this is not always true – and workers may sometimes have to spend out of pocket to purchase additional equipment that is otherwise offered in the office.

### Enablers of flexible working success

- Gain senior and line manager buy-in – this can be done, for example, by highlighting positive outcomes and benefits of flexible working, improving knowledge around flexible working and how it has worked in other organisations, and the financial benefit which comes from being able to hire more talent for the same pay (i.e. 2 part-time roles for the same cost as 1 full time role).
- Give additional support to roles which are trickier to adapt to flexible working – there tends to be less support for flexible arrangements for workers in operational roles, as senior management will see that contact time/office time is necessary to deliver customer service. Indeed, managers in the operational side of TfL felt that they were less supported by colleagues to take on flexible working arrangements. More support should be given to workers in these roles, e.g. further guidance from HR to make flexible working possible and easier to implement.
- Make use of collaboration and networks – the successful implementation of flexible working depends on collaboration and networks in the business.
- Highlight the employee-line manager relationship – this was marked by interviewees from TfL as a key enabler of flexible working's success. There has to be a level of maturity, understanding and trust between a manager and employee. When working remotely, managers are not able to monitor when and how their employees are working and instead must trust that their employees are working in accordance to deliver results and meet targets.
- Use technology – TfL allows flexible workers to join meetings using conference calling. This promotes inclusivity across the team.

*Source: CIPD UK, Enabling Flexible Working: Cross-sector case studies and practice highlights, 2019.*

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## Eurostat data

| Data set code | Description  | Data set code           | Description   |
|---------------|--|-------------------------|---|
| rd_e_gerdtot  | GERD by sector of performance  | Experimental statistics | Over-qualification rate by economic activity for the period 2008 to 2019. Rate of horizontal skills mismatch by field of education for the period 2014 to 2019. |
| TIN00073      | Households with broadband access   | educ_ueo_grad04         | Graduates in tertiary education, in science, math., computing, engineering, manufacturing, construction, by sex – per 1000 of population aged 20-29             |
| T2020_30      | Greenhouse gas emissions, base year 1990   | trng_lfs_02             | Participation rate in education and training (last 4 weeks) by sex, age and educational attainment level  |
| nrg_ind_ren   | Share of energy from renewable sources   | sdg_04_60               | Adult participation in learning by sex  |
| TRAN_HV_PSMOD | Modal split of passenger transport   | hlth_ehis_un1e          | Self-reported unmet needs for health care by sex, age, specific reasons and educational attainment level  |
| t2020_rt110   | Landfill rate of waste excluding major mineral wastes %  | hlth_sha11_hf           | Health care expenditure by financing scheme   |
| cei_wm011     | Recycling rate of municipal waste %  | tesem060                | Gender employment gap   |
| SDG_06_60     | Water exploitation index, plus   | ilc_mddd15              | Severe material deprivation rate by broad group of citizenship (population aged 18 and over)  |
| sbs_na_sca_r2 | Annual enterprise statistics for special aggregates of activities (NACE Rev. 2)                                  | ilc_di12                | Gini coefficient of equivalised disposable income   |
| fats_g1a_08   | Foreign control of enterprises by economic activity and a selection of controlling countries (from 2008 onwards) | ilc_li02                | At-risk-of-poverty rate by poverty threshold, age and sex   |
| Ifsi_neet_a   | Young people neither in employment nor in education and training (NEET), by sex and age – annual data            | NASA_10_KI              | Key indicators, gross household saving rate   |
| GOV_10A_EXP   | General government expenditure by function (COFOG), spending on education  | isoc_ec_eseln2          | E-commerce sales  |

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