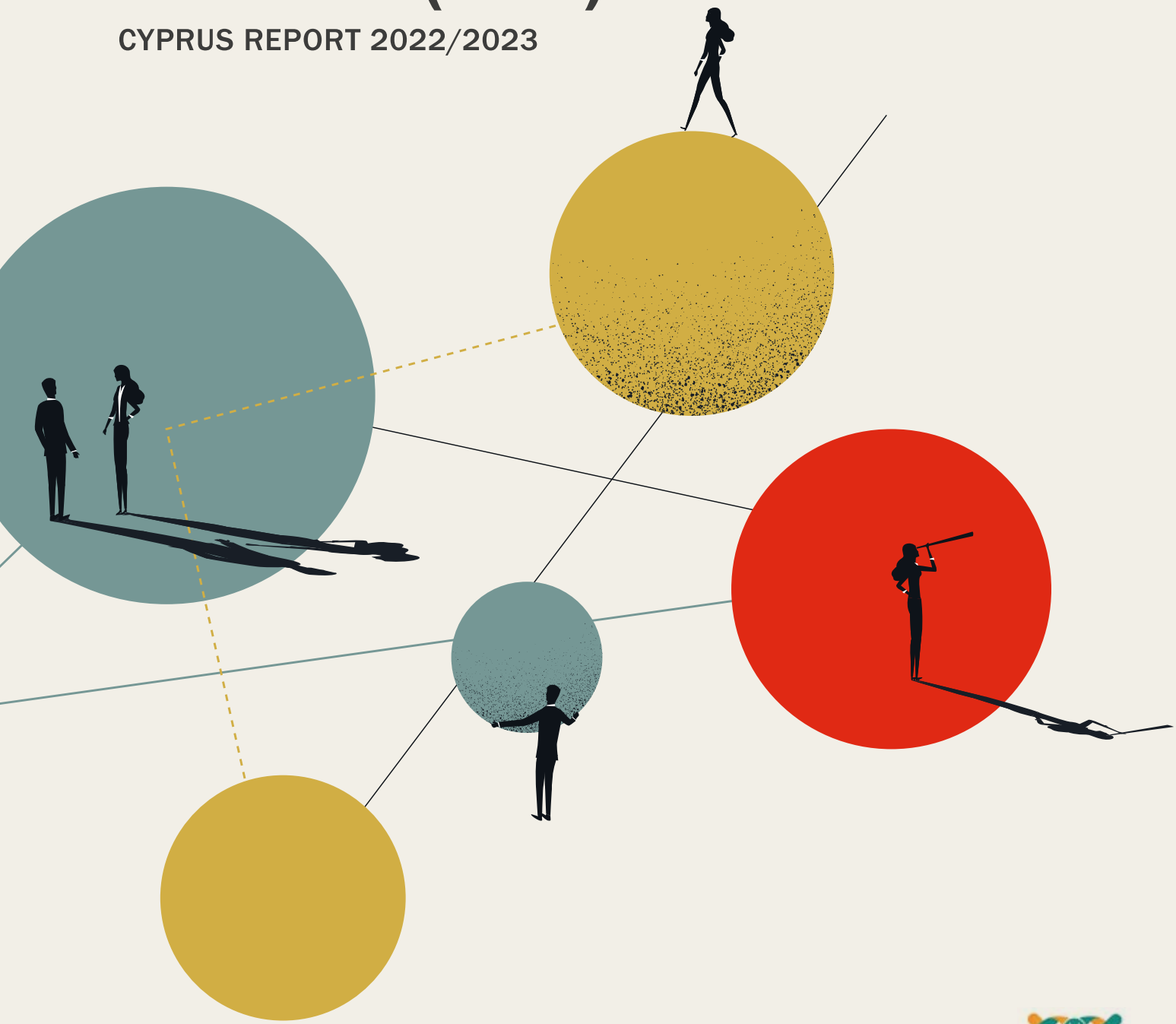
GLOBAL
ENTREPRENEURSHIP
MONITOR

GLOBAL ENTREPRENEURSHIP MONITOR (GEM)

CYPRUS REPORT 2022/2023



University of Cyprus

C4E
CENTRE FOR ENTREPRENEURSHIP

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FOREFRONT FROM THE DIRECTOR OF THE CENTRE FOR ENTREPRENEURSHIP

Supported and sponsored by the Ministry of Energy, Commerce, and Industry, the University of Cyprus's Centre for Entrepreneurship (C4E) has successfully prepared the National Entrepreneurship Report.

In its role as the National Coordinator and the representative of Cyprus in the Global Entrepreneurship Monitor (GEM), C4E is dedicated to fostering an entrepreneurial spirit across the nation.

This year's publication, marking the seventh year of continuous reporting, highlights our ongoing commitment to this task. The Report offers a unique perspective for tracking long-term entrepreneurial trends and positioning Cyprus's performance in relation to other nations. This comparison is particularly insightful when considering nations with similar economic structures or those with advanced entrepreneurial environments, whose success we aspire to imitate.

The report integrates findings from two key surveys: the Adult Population Survey and the National Expert Survey. These surveys provide valuable insights on Cyprus's recovery from the COVID-19 pandemic's effects and its progress toward economic and entrepreneurial resilience amidst new challenges, including social, environmental, and geopolitical which affected the global economy.

A highlight from the National GEM Report indicates a significant post-pademic recovery in public interest towards entrepreneurship, with the appeal and prestige of starting and managing new ventures reaching levels never before seen in past surveys. Despite these positive trends, challenges such as enhancing entrepreneurship education and increasing female entrepreneurial involvement persist, signaling areas where further national effort is required.

This year's report also presents the Digital Innovation HUB (DIGINN), illustrating its role as an initiative aimed at fostering the digital transformation of Cyprus with a focus on sustainability and inclusivity. DIGINN seeks to position Cyprus as a leading example of how digital technologies can drive sustainable and equitable economic growth.

The report serves as a important resource for policymakers, entrepreneurs and other stakeholders offering the necessary data to craft precise and strategic measures for promoting entrepreneurship at a national level. The support from the Ministry of Energy, Commerce, and Industry, along with PwC Cyprus's sponsorship of our outreach efforts, underscores the value of Cyprus' participation in GEM. Their ongoing support is deeply appreciated.

Panos Markopoulos

Director, Centre for Entrepreneurship

FOREWORD BY THE MINISTER OF ENERGY, COMMERCE AND INDUSTRY

As Minister of Energy, Commerce and Industry, I am honoured to address the 7th edition of the GEM report for Cyprus. Inter alia, the mission of our Ministry is to implement a comprehensive strategy aimed at fostering an ecosystem conducive to entrepreneurship, facilitating a green economy, promoting smart and environmentally friendly industries, strengthening trade and exports, and ensuring the sustainable development of our island's energy resources. Fully aligned with European values and strategies, our work is hopefully having a major contribution to guiding the economy of Cyprus towards a viable and sustainable future.

The Ministry's Industry and Technology Service in particular, is dedicated to supporting the competitiveness and technological advancement of enterprises, whilst also aiming to improve their access to finance and foster connections between industry and the service sector. To achieve these goals, it undertakes various activities such as formulating and implementing policy frameworks to enhance the business environment, executing targeted funding schemes, managing industrial areas, and coordinating the development of industrial zones. Furthermore, the Service ensures citizens and businesses are informed on everything pertaining to their rights and obligations in the single market, through European networks like "Your Europe" and the Internal Market Information System (IMI).

An important objective of the Industry and Technology Service is the implementation of our national Industrial Policy 2019-2030, which sets out to establish a robust, intelligent, and technologically advanced industry in Cyprus, according to the principles of the Green and Digital Transition established by the European Industrial Plan. The strategic pillars of the Industrial Policy include developing new infrastructure, improving the business environment, enhancing access to finance, fostering digitalisation, nurturing new skills and strengthening existing competencies, and promoting the internationalisation of industries and increasing exports. By fostering an environment conducive to entrepreneurship and innovation, our Industrial Policy contributes to the GEM's increasingly positive assessment of entrepreneurial activity and attitudes within our country.

The GEM Report holds immense importance as it provides valuable insights into the state of entrepreneurship in Cyprus. It not only measures and evaluates entrepreneurship indicators, but also encourages an entrepreneurial mindset and active participation. As such, the Report serves as an important tool for assessing the effectiveness of the Ministry's strategies in promoting entrepreneurship and fostering economic growth.

On this front, it is encouraging to note the significant progress in perceptions regarding entrepreneurship in Cyprus, as highlighted in the 7th GEM Report. More specifically, 51% of the population finds it easy to start a business and 64% believe that they possess the skills to initiate their own ventures.

Moreover, despite facing significant challenges in recent years, Cyprus' industrial sector has not only persevered, but has also strengthened its contribution to the Gross Domestic Product, reaching 8.5% in 2022 from 8.1% in 2020.The fact that employment within the sector has also risen to 9% of the workforce during the same period, up from 8.1% in 2020, is another key finding. These positive developments demonstrate the resilience and adaptability of our industrial landscape.

Overall, the results of the 7th GEM Report underscore the progress Cyprus has been making over the past few years in cultivating entrepreneurship and driving our industrial sector forward. In this context, the Ministry of Energy, Commerce and Industry remains committed to actively supporting the programme through an annual sponsorship and, as we continue to implement our policies and strategic initiatives, we are confident in our ability to further enrich our entrepreneurial ecosystem and propel sustainable economic development.

George Papanastasiou

Minister of Energy, Commerce and Industry

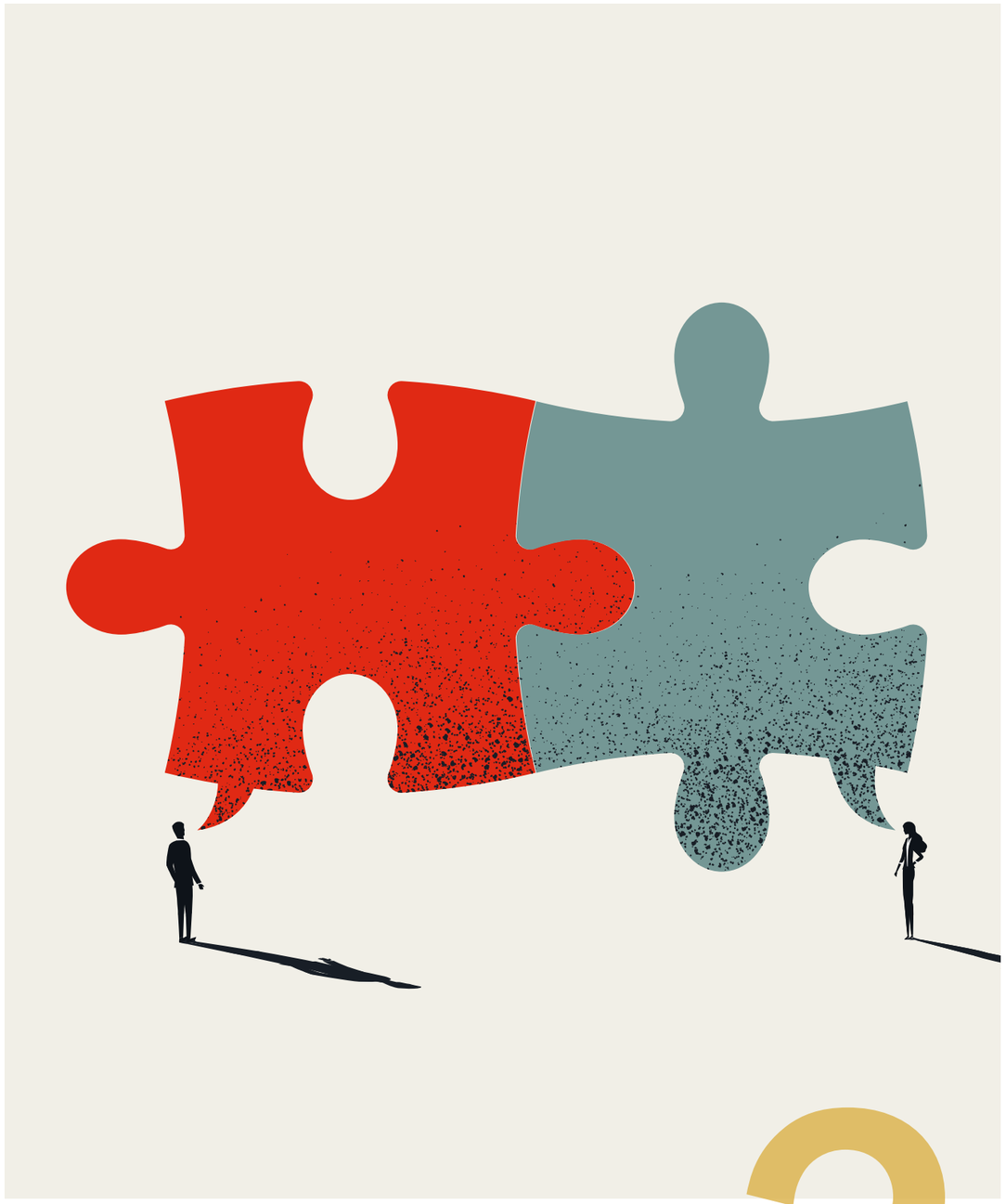
EXECUTIVE SUMMARY

1

Entrepreneurial endeavors contribute to economic growth, facilitate innovation which is necessary to capitalize on emerging opportunities, enhance productivity, and create new job positions. Moreover, they contribute significantly to tackling well-being, prosperity and other pressing challenges faced by society. As is the case with many economies worldwide, the promotion of entrepreneurship is central to Cyprus, especially considering the impacts arising by the COVID-19 pandemic and recent geopolitical conflicts in the region. The government in Cyprus, as well as other entrepreneurial stakeholders in Cyprus, need access to accurate, robust, and credible data which can inform policies aiming at stimulating entrepreneurial activity and promoting the development of healthy entrepreneurial ecosystems.

The Global Entrepreneurship Monitor (GEM) has consistently contributed to these initiatives as it collects data on various entrepreneurial indexes. These indexes can assist policy makers by providing valuable insights on how to effectively foster entrepreneurship in each economy as a means for propelling economic growth and societal prosperity. GEM is the leading global study on entrepreneurship, providing empirical insights on entrepreneurial endeavors and the dynamics of business ecosystems. The 2022/2023 report marks the 24th year of GEM's continuous global research on entrepreneurship. In 2022/2023, more than 170,000 individuals were interviewed across 49 economies, adding to the total of over 3 million individuals interviewed for the GEM Adult Population Survey (APS) over the past three decades. Overall, the 22 economies participating in this year's APS represent about 66% of the global population. Additionally, GEM's National Expert Survey (NES), a survey of national experts of each participating country, includes 51 economies in 2022/23.

GEM INTRODUCTION AND BACKGROUND



The conceptual framework of GEM combines both APS and NES. APS encapsulates indicators on entrepreneurship which enable the development of detailed profiles of entrepreneurship in each participating economy. APS collects data on societal attitudes and beliefs towards entrepreneurship, status of different types of entrepreneurial activity, the demographics of entrepreneurs, and expected impact of new entrepreneurial activity on job creation. NES focuses on collecting data on the conditions of each country's entrepreneurial ecosystem. The availability of longitudinal data, in addition to the identical methodology followed by GEM every year, enables the countries participating in GEM to compare their results with other economies participating in GEM as well as contrast the changes of entrepreneurial activity recorded across the years.

Cyprus is participating in GEM since 2016, marking 2022/2023 as the seventh consecutive year in which the country has been part of GEM's global map on entrepreneurship. This year, 2000 individuals (aged 18–64) participated in the APS in Cyprus through telephone interviews, whereas 36 national experts have responded to the NES. The 2022/2023 report aims to discuss the status of entrepreneurial indexes and ecosystem conditions as shaped by the pandemic and recent geopolitical conflicts. This version draws on data of the past two years to compare the 2022/2023 results and reflect on the changes recorded. In line with the approach in earlier GEM Cyprus reports, in the 2022/2023 report we compare Cyprus' index rates with the previous two years, with corresponding European average rates, as well as with the index rates of Greece and Luxembourg.

On the positive side, the APS results show that in 2022/2023, 82.4% of the population in Cyprus reports of personally knowing an entrepreneur. This index demonstrates an increase of 10% compared to last year's corresponding percentage (72.9%). This index rate has recorded an increasing trend compared to earlier years, demonstrating that population in Cyprus is becoming more familiar with entrepreneurship across the years. Similarly, the APS shows that the population in Cyprus is relatively optimistic with regards to the ease of starting a business, as approximately one in two Cypriots consider that it is easy to start a business in their area.

However, the populations' beliefs on perceived opportunities for initiating entrepreneurial activity have notably decreased compared to last year. In 2022/2023, 26.8% of the population believes there are opportunities to initiate a business, which is almost half of the same index in 2021/2022 (50.2%). This is also reflected in the perceived capabilities and fear of failure. In 2022/2023, 51.7% of the population in Cyprus highlight that they fear failure associated with entrepreneurial activity, which is similar to fear of failure rate recorded in 2021/2022 (50.1%). Also, 52.7% perceive that they possess the necessary capabilities for entrepreneurship, which is lower to the 64.1% recorded last year. Along these lines, more Cypriots report a strong decrease in household income. In 2022/2023, 22.6% of Cypriots experienced a strong decrease in their household income, which is higher compared to the 13.7% recorded in 2021/2022.

Total Early-Stage Entrepreneurial Activity (TEA) has been relatively stable across the past three years (8.3 in 2022/2023, 8.4 in 2021/2022, 8.6 in 2020/2021). However, TEA's pre-pandemic rate in 2019/2020 was 12.2%, signaling that the overall TEA activity has not yet begun to recover. GEM methodology further analyzes TEA in two groups: nascent entrepreneurs and new business owners. According to the results, nascent entrepreneurship has decreased compared to the previous year (4.5 in 2022/2023, 5% in 2021/2022), whereas new business ownership has experienced a slight increase, rising to 3.9% from 3.7% in 2021/2022. Beyond TEA, GEM also reflects on the rate of established businesses (businesses that have paid salaries, wages, or have made other payments to the owners for more than 42 months). This year's corresponding index rate has decreased compared to last year (5.7% in 2022/2023, down from 8.6% in 2021/2022). Results on this index rate show that beyond the pandemic, other factors have also negatively impacted established businesses in 2022/2023.

Concerning the profile of Cypriot entrepreneurs, the majority of TEA entrepreneurs in Cyprus are males, graduates and in the 18-34 age range. The ratio of female to male TEA involvement in Cyprus this year is 0.4, down from 0.6 in 2021/2022. These results show that the participation of women in entrepreneurial activity not only remains limited, but that the gender gap in Cyprus has widened.

Overall, entrepreneurial framework conditions in Cyprus demonstrate a less supportive environment for entrepreneurs in 2022/2023 compared to the previous years and also compared to other EU countries. The island's ecosystem is supportive with regards to the Physical Infrastructure and Commercial & Legal Infrastructure. Both these conditions facilitate entrepreneurial development in Cyprus across the years. Along the same lines, Ease of Entry on Market Dynamics and Government Policy on Taxes & Bureaucracy have been identified as strengths of the local ecosystem in recent years. However, the NES report identifies a number of entrepreneurial conditions as weaknesses of the ecosystem, acting as obstacles to entrepreneurial activity in Cyprus. The results show that Entrepreneurial Education, both at school as well as post-school education are limited, whereas Government Entrepreneurship Programs do not sufficiently reflect the needs of entrepreneurs at different levels of entrepreneurial activity. Additionally, lack of Entrepreneurial Finance is identified as an important obstacle for new and growing ventures. Similarly, insights on the ecosystem's Research and Development condition highlight that the collaboration between academia and industry is limited and that Social and Cultural Norms are not supportive for entrepreneurs. These conditions are limiting the development and growth of entrepreneurial endeavors in Cyprus. The report thus includes several policy recommendations aiming to facilitate a stronger entrepreneurial ecosystem.

GEM Cyprus brings important annual research insights on the status of entrepreneurial activity and the ecosystem. The GEM Cyprus 2022/2023 report signals turbulence in Cyprus' entrepreneurial growth and highlights important weaknesses of the entrepreneurial ecosystem. At the same time, there is no doubt that the journey to economic recovery of businesses in Cyprus has been challenging so far. This highlights a pressing need for improving the island's entrepreneurial conditions and assisting entrepreneurs to adjust their business models and digitally transform their businesses. In this report's special section, we exhibit DiGiNN, a European digital innovation hub in Cyprus aiming to empower the island's green and inclusive digital transformation.

2 ABOUT GEM

Global Entrepreneurship Monitor (GEM) is the largest long-term collaborative research initiative focusing on measuring and monitoring entrepreneurship indexes worldwide. Inaugurated in 1999 by visionary academics from its founding institutions, Babson College in Boston, USA, and London Business School in the UK, GEM has evolved into the most extensive and enduring global study of entrepreneurship. What began with a few economies has grown into a comprehensive initiative. The 24th annual GEM Global Report, drawing insights from extensive surveys conducted in 51 economies worldwide, reflects the ongoing commitment to understanding and analysing entrepreneurial activities on a global scale. Evolving into a universally recognized research organization, GEM holds significance for entrepreneurship academics, experts, and policymakers.

The 2021/2022 GEM Cyprus National Report alongside the 2021/2022 GEM Global Report, demonstrated optimism regarding the economy's recovery from the COVID-19 pandemic's impact, anticipating challenges such as supply-side issues, rising costs and geopolitical events. These developments had a cascading effect, elevating household and business expenses significantly and brought consequences such as higher costs for energy-intensive products and services.

These challenges consequently have affected entrepreneurs in Cyprus and beyond as well as those initiating entrepreneurial ventures in 2022. Despite the challenges faced by adversely affected economies, crises and changes always present opportunities. Entrepreneurs, known for their adaptability, have demonstrated their ability to seize opportunities even under such challenging circumstances.

2.1 CYPRUS & PARTICIPATION IN GEM

Initiating and sustaining new businesses is valuable for Cyprus' economy. As in every economy, in Cyprus new entrepreneurial ventures are expected to contribute to the economy and society by generating new job opportunities, boosting income, providing added value, and introducing fresh ideas, technologies, products, and procedures. Along the same lines, not all new businesses will experience growth and prosperity and that failure is also part of the entrepreneurial process. This is also important for the economy and society, as failure can serve as a source of learning and growth for entrepreneurs. Consequently, measurements of entrepreneurial activity is an important indicator for Cyprus as it reflects the state of the economy and offers additional insights concerning its future projections.

This is the seventh year in which Cyprus participates in GEM. Such participation allows for the establishment of benchmarks for all participating economies, thus facilitating comparisons across different economies. Additionally, GEM's commitment to consistently defining and measuring the level of entrepreneurial activity enables the monitoring of evolvement of the entrepreneurial ecosystem in Cyprus across time. Cyprus' participation in GEM provides evidence regarding entrepreneurial intentions and activities, as well as national expert perspectives on the entrepreneurial environment.

The GEM methodology allows Cyprus to account for the intention of individuals to start a new business, reflecting on the individual's drive, competence and motivation, while it also sheds light on the social values and frameworks that may promote or hinder an entrepreneurial mindset, such as risk-taking. GEM accounts for the interaction of personal characteristics and the entrepreneurial environment. The GEM Conceptual Framework, illustrated in Figure 2.1, accounts for such relationships, thus also providing insights on the potential socio-economic development associated with entrepreneurial activity.

GEM 2022/2023 included 51 economies. GEM clusters participating economies by income and by region. The income criteria employed are those indicated by the World Bank in terms of Gross Domestic Product (GDP) per capita, modified by GEM's own income boundaries, in order to achieve a more even spread of participating economies, hence leading to more meaningful comparisons.

Figure 2.2 illustrates all economies participating in this year's GEM as clustered by GEM, into three income levels:

- Level A: economies with a GDP per capita of over $40,000
- Level B: economies with a GDP per capita of between $20,000 and $40,000
- Level C: economies with a GDP per capita of under $20,000

The clustering of GEM global has been based on world bank data for GDP/cap (and population), giving estimates for 2021. We note that compared to last year's GEM, in this year's GEM, Cyprus has moved up from the Level B cluster to the Level A cluster.

The population of the 51 economies participating in GEM constitutes over 64% of the global population. Level A encompasses 14 European economies, two in North America, three Gulf States, and also includes Japan, the Republic of Korea, and Israel. Level B economies are predominantly Latin American or Eastern European, along with Taiwan and Oman. Level C economies are more geographically diverse, spanning Latin America, the Middle East, East Asia, and Africa.

2.2 DATA COLLECTION & ANALYSIS

The GEM methodology provides a consistent definition of entrepreneurship across all economies participating in GEM while it also advances the means for measuring and assessing entrepreneurship. Each economy participating in GEM identifies a national team in charge of overseeing the collection of GEM data and reporting results based on the national dataset. In each economy, the national team is typically led by a top academic institution or other organization with expertise in entrepreneurship. Each GEM National Team manages the data collection, analysis and reporting process. In the case of Cyprus, the University of Cyprus oversees the country's annual participation in GEM. It is in charge of coordinating with GEM Global, to define the measurement model, coordinate the data collection and analyse the data, culminating in the country-specific National GEM Report.

The GEM methodology contains two surveys: the Adult Population Survey (APS) and the National Expert Survey (NES). In 2022, more than 173,000 people completed the GEM APS interview, adding to an existing GEM database of over 3 million respondents across 120 economies since the first APS survey in 1999. The APS evaluates the attitude and activity of approximately 2,000 adults aged 18–64 in each

Figure 2.1: GEM Methodology

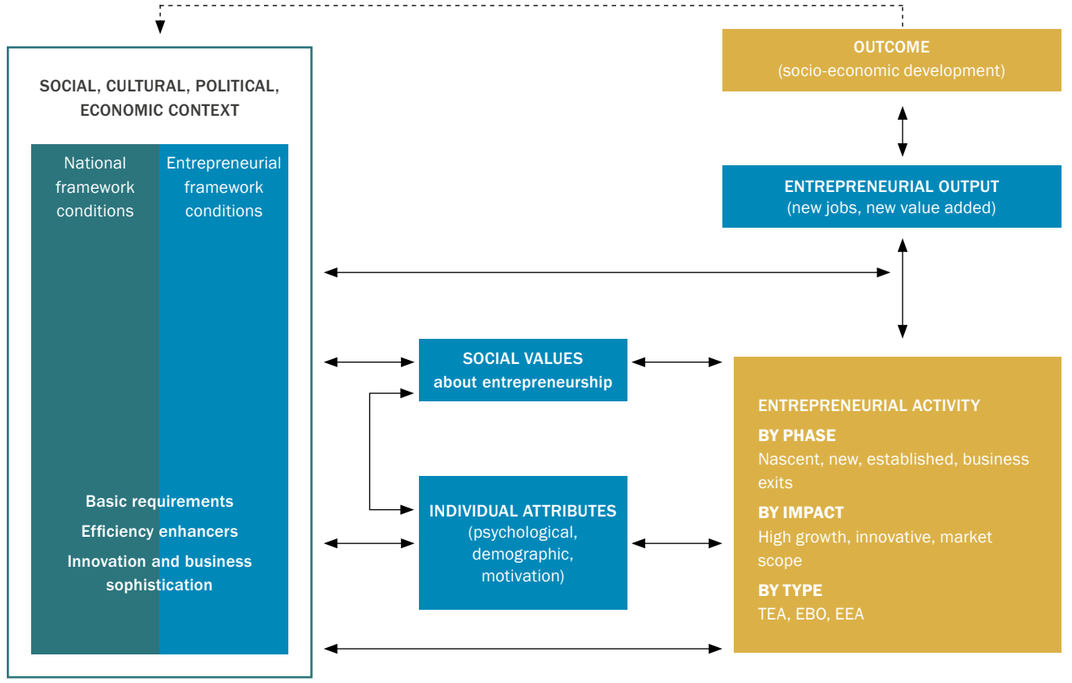
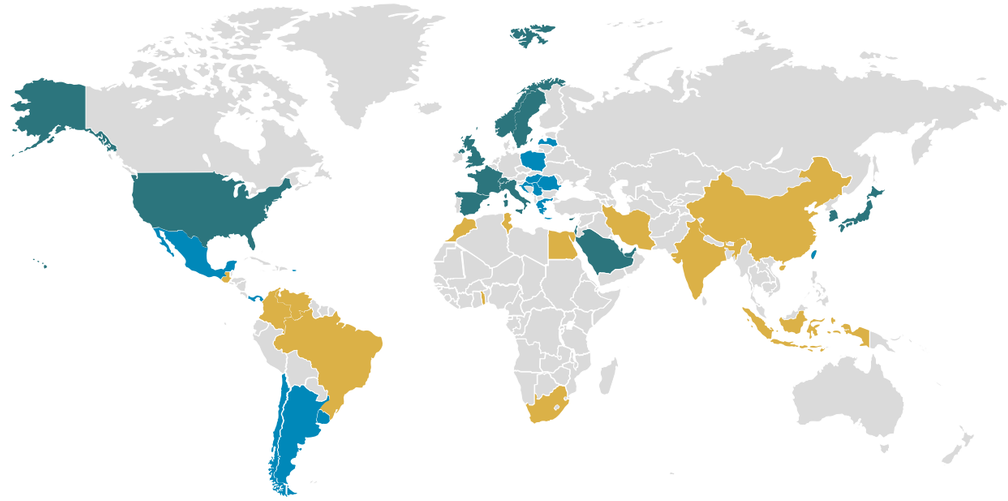


Figure 2.2: Economies participating in GEM 2021/2022



Level A >$40,000	Level B >$20,000 >$40,000	Level C >$20,000
Austria, Canada, Cyprus, France, Israel, Italy, Japan, Lithuania, Luxembourg, Netherlands, Norway, Qatar, Republic of Korea, Saudi Arabia, Slovenia, Spain, Sweden, Switzerland, United Arab Emirates, United Kingdom, United States	Argentina, Chile, Croatia, Greece, Hungary, Latvia, Mexico, Oman, Panama, Poland, Puerto Rico, Romania, Serbia, Slovak Republic, Taiwan, Uruguay	Brazil, China, Colombia, Egypt, Guatemala, India, Indonesia, Iran, Morocco, South Africa, Togo, Tunisia, Venezuela

participating economy, conducted through face-to-face or telephone interviews. Utilizing an identical questionnaire translated into native languages across economies, the APS enables GEM and participating economies to draw conclusions on entrepreneurship, covering aspects such as initiating or running businesses and entrepreneurs' attitudes, perceptions, and specific characteristics like age, gender, and education. The APS differs from business surveys and official government statistics by focusing on individual decisions to initiate or continue new or established businesses, illustrating the entrepreneurial journey from inception to development. The consistency of these questions and their use in estimating key variables allows for cross-economy and temporal comparisons. The APS can hence reveal impacts on entrepreneurial activity over time.

The second survey, the National Expert Survey (NES), focuses on the entrepreneurial environment influencing decisions to initiate and sustain a new business. The NES reflects on certain environmental conditions. It invites national experts to evaluate nine Entrepreneurial Framework Conditions, emphasizing aspects like entrepreneurial education, business services, financial access, and social support. At least 36 national experts participate in the NES, reflecting on the entrepreneurial conditions of the ecosystem.

The APS and NES surveys provide a comprehensive and current view of entrepreneurship in each participating economy. GEM's Conceptual Framework, as illustrated in Figure 2.2, outlines the connection between entrepreneurship and its national and regional environment. Entrepreneurship is influenced directly and indirectly by economic, social, and cultural factors that shape individual values. While the NES involves a small number of experts examining the entrepreneurial ecosystem, the APS requires a large, representative sample of the adult population to reflect on individual attitudes and beliefs, such as whether it is easy to start a business, whether there are good business opportunities, and whether fear of failure constitutes an obstacle. Other APS questions focus on whether that person initiates a new business or is running an already established business, as well as whether the individual is doing so on behalf of their employer, and what their motivations and ambitions are. In this regard, the APS covers all levels of the entrepreneurial process, as it examines a wide range of individuals, from those who have the intentions to start a business, to those actively starting but not yet trading (nascent entrepreneurs), to those running a new business (new business owners), as well as to those owning and running an already established business. Indicatively, regarding entrepreneurial activity, GEM captures data using indicators which describe the life cycle of a venture, including:

Total Early-stage Entrepreneurial Activity – TEA: Percentage of the adult population between 18 and 64 years, who are in the process of starting a business (nascent entrepreneurs) or are owner-managers of a business younger than 42 months' old.

Established business ownership rate: Percentage of the adult population between 18 and 64 years, who are currently owner-managers of an established business, i.e. owning and managing a running business that has paid salaries, wages, or has made other payments to the owners for more than 42 months.

Business discontinuation rate: Percentage of the adult population aged between 18 and 64 years (either nascent entrepreneurs or owner-managers of a new business) who have, in the past 12 months, discontinued a business, either by selling, shutting down, or otherwise discontinuing an owner/management relationship with the business.

Entrepreneurial Employee Activity – EEA: Percentage of the adult population aged between 18 and 64 years who, as employees, have been involved in entrepreneurial activities such as developing or launching new goods or services, or setting up a new business unit, a new establishment, or a subsidiary.

Beyond entrepreneurial activity, through NES, GEM examines the entrepreneurial ecosystems, and more particularly the entrepreneurial framework conditions. These include the following components:

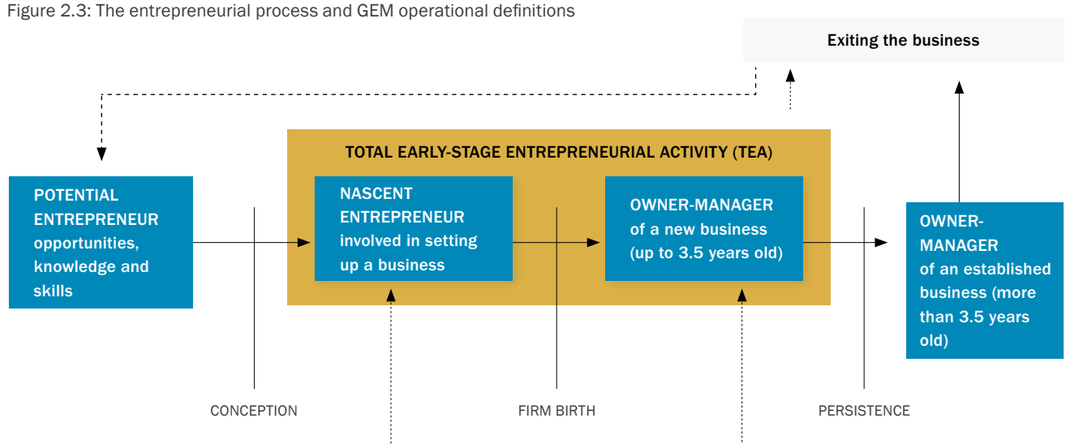
- Entrepreneurial financing
- Government policies: support and relevance
- Government policies regarding taxes and bureaucracy
- Government entrepreneurship programs
- Entrepreneurship education at primary and secondary school stage
- Entrepreneurship education at post-school stage and entrepreneurship training
- Research & Development (R&D) transfer
- Commercial and legal infrastructure
- Internal market dynamics
- Internal market burdens or entry regulations
- Physical infrastructure
- Cultural and social norms

The quality of the dimensions of the entrepreneurial framework is based on the average value of experts' perceptions, using a Likert scale ranging from 1 (highly insufficient) to 9 (highly sufficient).

Figure 2.3 sets out the GEM entrepreneurship indicators, according to the stages involved as the enterprise progresses, from conception to an established business. A key GEM indicator of entrepreneurial activity is the level of Total early-stage Entrepreneurial Activity (TEA), or the percentage of adults who are either actively engaged in starting a new business (nascent entrepreneurs) or owning and managing a new business (new business owners). Another important indicator is the level of Established Business ownership (EB), or the percentage of adults owning and managing an established business, defined above as having paid wages or salaries for 42 months or more. If the new business is successful, then it will evolve over time to become an Established Business (EB). Either the new business owner or the established business owner may exit the business at some stage, and that business may or may not continue without them. Moreover, former business owners are an important resource, as they can share their experiences by mentoring other entrepreneurs and/or can start another business.

GEM's methodology contains a set of basic entrepreneurship indicators which define the ranking for each participating country. Overall, this group of indicators may be regarded as a dashboard representing a broad and completed set of measures that collectively provide towards the impact entrepreneurship has on a society and the degree to which each society supports this activity.

Figure 2.3: The entrepreneurial process and GEM operational definitions



THE GEM METHODOLOGY IDENTIFIES FIVE CATEGORIES OF INDICATORS, AS FOLLOWS:

Societal values and perceptions:

Good career choice: Percentage of the adult population (18-64 years' old) who are of the belief that entrepreneurship is a good career choice.

High status to successful entrepreneurs: Percentage of the adult population (18-64 years' old) who believe that high status is afforded to successful entrepreneurs.

Media attention for entrepreneurship: Percentage of the adult population (18-64 years' old) who believe that there is a lot of positive media attention on entrepreneurship in their country.

Individual attributes of a potential entrepreneur:

Perceived opportunities: Percentage of the adult population (18-64 years' old) who believe there is good potential and visible opportunities to start a business in the area where they live.

Perceived capabilities: Percentage of the adult population (18-64 years' old) who believe they have the required skills and knowledge to start a business.

Entrepreneurial intention: Percentage of the adult population (18-64 years' old) (excluding individuals involved at any stage of the entrepreneurial activity) who are latent entrepreneurs and who intend to start a business within three years.

Fear of failure rate: Percentage of the adult population (18-64 years' old) who indicate that fear of failure would prevent them from setting up a business.

Entrepreneurial activity indicators:

Nascent entrepreneurs: Those who have taken steps to start a new business, but have not yet paid salaries or wages for more than three months.

New entrepreneurs: Those who are running new businesses that have been in operation for between 3-42 months.

The subsequent sections provide an overview of the findings from the GEM study conducted in Cyprus for the year 2022/2023. To facilitate meaningful comparisons, the results from previous years are included, and the entrepreneurial indexes of Cyprus are analysed in relation to those of Greece and Luxembourg. The selection of Greece and Luxembourg as comparative countries is based on considerations of cultural and geographical proximity (Greece) and population size similarity (Luxembourg), in line with the approach adopted in previous years. Additionally, the analysis incorporates average rates from other European countries, using those values as benchmark rates where applicable.

ENTREPRENEURIAL ACTIVITY IN CYPRUS IN 2022/2023

3

Cyprus has been actively involved in GEM since 2016. This section describes the outcomes of the 2022/2023 Adult Population Survey (APS) as arising by the data gathered through the GEM methodology. The results are compared across different years as well as to those of Greece and Luxembourg as well as to the European regional values, as explained in Section 2.

Since 2020, the GEM methodology has incorporated inquiries into the pandemic's impacts, including its effects on household incomes. Participants have responded using a 5-point Likert scale, ranging from "Strong decrease" to "Strong increase" in household income. Figure 3.1 encapsulates the insights from Cyprus and selected economies over the past three years. Comparing the findings to the preceding year, in 2022/2023, the percentage of Cypriot households experiencing a "Strong decrease" has surged from 13.7% to 22.6%. However, there has been a noteworthy decline in those reporting a "Somewhat decrease," with responses dropping from 27.1% to 22.1%. On a positive note, the percentage of households reporting an increase has risen from 3.7% to 4.5%. The majority (49.2%), have indicated "No substantial change" in their household income.

In contrast to Cyprus, Greece has experienced a higher impact, with a 28.7% of the population reporting a “Strong decrease” and 29.4% reporting a “Somewhat decrease.” Luxembourg, on the other hand, experienced a notably lower impact, with only 6.8% reporting a “Strong decrease.” European averages show 10.2% for “Strong decrease,” 22.3% for “Somewhat decrease,” and 57.6% for “No substantial change.” Examining the broader European geographical area, income increase opportunities seem to have raised. Approximately 8.2% of the European population experienced a “Somewhat increase” or “Strong increase” in their household income, showcasing a 3.9% increase compared to the previous year. This underscores that, for a segment of the population, the pandemic has brought about opportunities, and these have grown compared to the initial year of the crisis.

3.1 SOCIETAL VALUES & PERCEPTIONS ON ENTEPRENEURSHIP

The GEM methodology measures societal perceptions and values towards entrepreneurship. Related indexes provide indications of society’s views towards entrepreneurial opportunities, capabilities, and fear of failure as well as of how often the population has met an entrepreneur.

The perception of entrepreneurial opportunities has experienced fluctuations in Cyprus over the past three years. In 2022/2023, 26.8% of the population believes there are favorable opportunities to initiate a business in their area, marking a substantial improvement from 21.1% in 2020/2021 and a decline from the peak of 50.2% in 2021/2022 (Figure 3.2).

This trend is experienced also across the corresponding European average value. The European average has experienced fluctuations, but it reflects a broader positive trend. In 2022/2023, 47.9% of the population in Europe identified entrepreneurial opportunities, from 51.1% last year and 39.5% in 2020/2021. In Greece, good entrepreneurial opportunities are perceived by 36.4% of the population whereas in Luxemburg, approximately one in two individuals have been expressing belief in available opportunities in 2022/2023.

Overall perceived opportunities suggest a growing optimism among the population in Europe despite the challenges arising. Notably, a substantial 23.4% decrease in optimism among Cypriots in 2022/2023 is recorded compared to the previous year, which is possibly associated with the impact of changing circumstances leading to a rather negative outlook and a lack of willingness to explore entrepreneurial avenues.

GEM also examines the perceived ease of initiating a business in each country. In Cyprus, this index value has slightly decreased in comparison to the findings of the previous year. In 2022/2023, 48.4% the Cypriot population perceives the process of starting a business in Cyprus as easy. When juxtaposed with the data from 2021/2020, there is an overall decrease of 2.5% in the perception of how easy it is to start a business in Cyprus. As depicted in Figure 3.3, the index value for Cyprus is slightly lower compared to the European average (51.6%), surpassing that of Greece (31.9%) and falling below Luxembourg’s (64.2%).

The population’s perceptions also expressed a slightly decreased confidence in their abilities to initiate a new business. These capabilities encompass knowledge, skills, and experiences required for starting a new venture. As depicted in Figure 3.4, in 2022/2023, 52.7% of the Cypriot population believes they possess the necessary capabilities for entrepreneurship, reflecting a notable decrease from the corresponding value of 64.1% in the previous year. Cyprus’ index value on perceived capabilities is similar to that of Greece (53.8%) and Luxembourg (50%), as well as to the European average index value (51.5%). Notably, optimism regarding capabilities for launching new business ventures in Cyprus has remained consistent over the years.

The fear of failure is a crucial aspect in assessing the entrepreneurial landscape, and the data from 2022/2023 show that during this period, related perceptions remained relatively stable as approximately one in two Cypriots (51.7%) note that they fear failure associated with entrepreneurial activity. There’s a similar rate for fear of failure in Greece (49.5%) while Luxembourg’s rate stands at 44.1%. The corresponding European average (44.3%) is below that of Cyprus’.. Comparing this to the preceding year, Cyprus has seen a slight increase from 49.1% in 2020/2021 to 50.1% in 2021/2022 leading to 51.7% in 2022/2023. The European average has also remained stable across the past two years, up from 42.1% in 2021/2022.

In the 2022/2023 period, 82.4% of the population in Cyprus reports knowing an entrepreneur, consistent with a growing trend of being familiar with entrepreneurs. The index rate has recorded significant increase compared to the previous year (72.9%). This upward trajectory in personal connections with entrepreneurs aligns with the broader trend observed over the years. In 2021/2022, 68.1% of the population in Cyprus noted knowing someone who had initiated entrepreneurial activity. In 2020/2021 the corresponding value was 68.1% and in 2019/2020, 56% of the population was acquainted with an entrepreneur.

The index value in Cyprus is significantly higher compared to that of Greece (28.5%) and Luxembourg (43%), reinforcing the country’s robust entrepreneurial social network. Furthermore, Cyprus’ index value remains markedly higher than the European average rate, which is 50.2%. This consistent upward trend in personal connections with entrepreneurs reflects a growing awareness and engagement with entrepreneurial activities within the Cypriot population. Meanwhile, the European regional area’s average value has remained relatively stable across the years.

3.2 ENTREPRENEURIAL ACTIVITY

The GEM methodology offers more than just assessments of attitudes and perspectives; it sheds light on real entrepreneurial endeavors and their possible effects on the economic and social landscape. The Adult Population Survey (APS) classifies entrepreneurial actions into three distinct categories:

- Total early-stage Entrepreneurial Activity (TEA): Entrepreneurs starting or running a new business measured as a percentage of the adult population (% adults)
- Established Business Ownership (EBO): Entrepreneurs running an established business (% adults)
- Entrepreneurial Employee Activity (EEA): Entrepreneurs starting or running a business in the frame of their employer (% adults)

Figure 3.1: Perceived impact of the pandemic on household income (% adults)

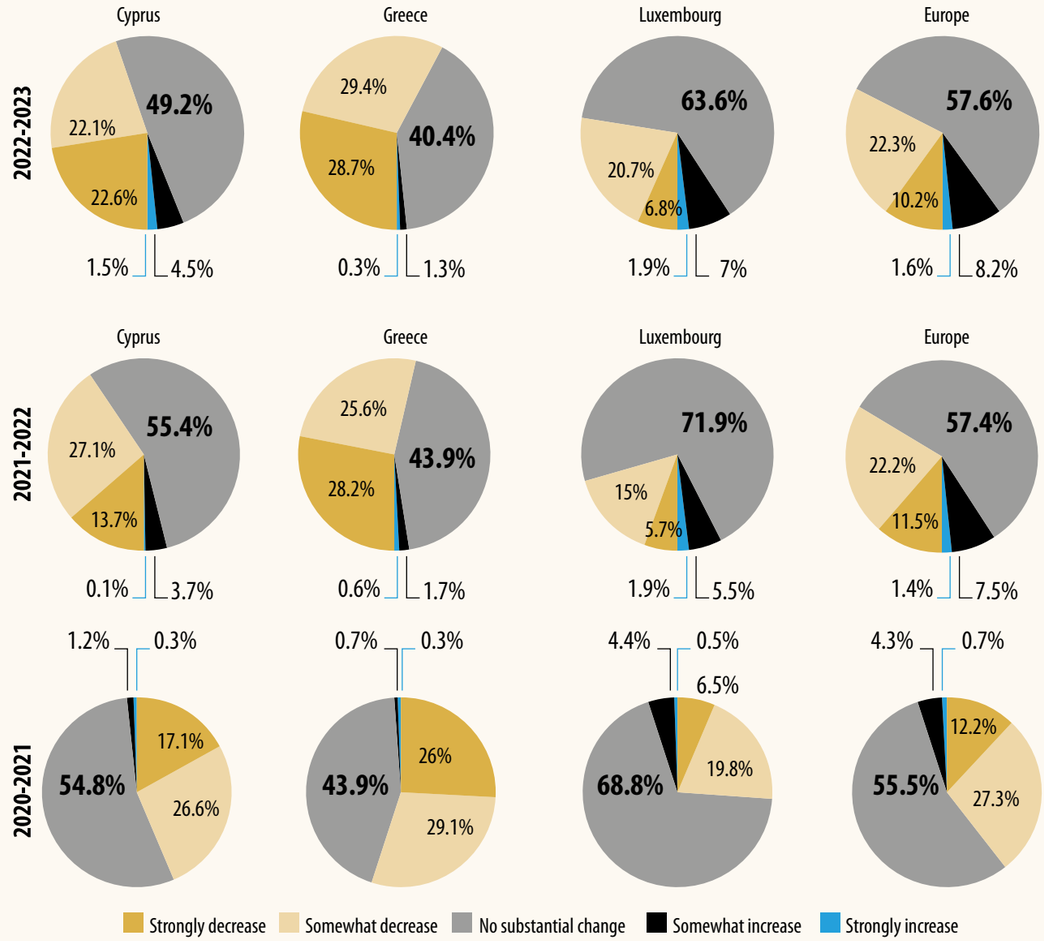
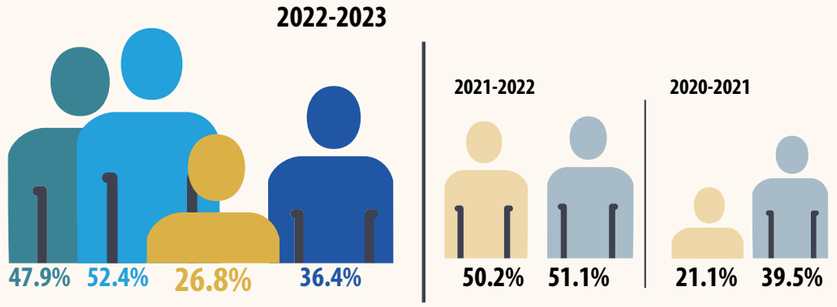


Figure 3.2: Perceived Opportunities: There are good opportunities to start a new business in my area (% adults)



3.2.1 Total early-stage Entrepreneurial Activity (TEA)

The TEA index gives a detailed view of recent entrepreneurial efforts. It is a significant measure because it signals which entrepreneurial activities have the potential to expand. The TEA index encompasses two specific types of entrepreneurs: those who are just starting their ventures and those who have recently become owners of new businesses.

Cyprus' Total Early-Stage Entrepreneurial Activity (TEA) index has demonstrated a relative stability (8.3% in 2022/2023, 8.4% in 2021/2022). In Europe TEA has slightly increased to 9%, up from 8.1% which was the average during 2020/2021. This pattern suggests that despite a reduction in entrepreneurial activity during the COVID-19 pandemic, there was a stabilization in the following years. Cyprus' current TEA index is slightly below the European average but remains higher than both Greece's 4.9% and Luxembourg's 7%. In comparison to non-European countries in close proximity, Israel's TEA rate stands at 9.6%. Further details on the TEA index across European and adjacent regions can be found in Figure 3.9.

Figure 3.3:Perceived Ease: It is easy to start a business in my country (% adults)

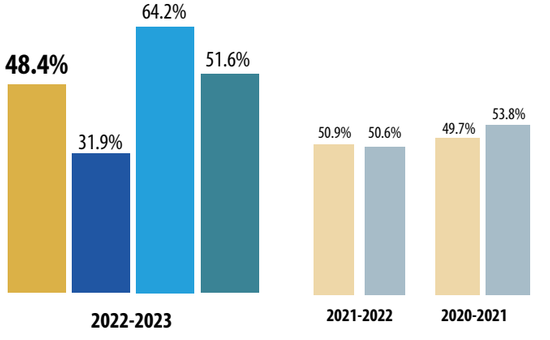


Figure 3.4: Perceived capabilities: You personally have the knowledge, skills and experience to start a new business (% adults)

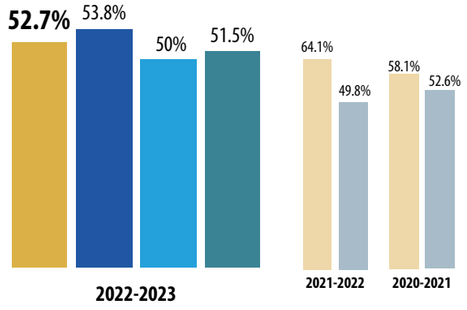


Figure 3.5: Fear of Failure: would not start a business for fear of failure (% adults)

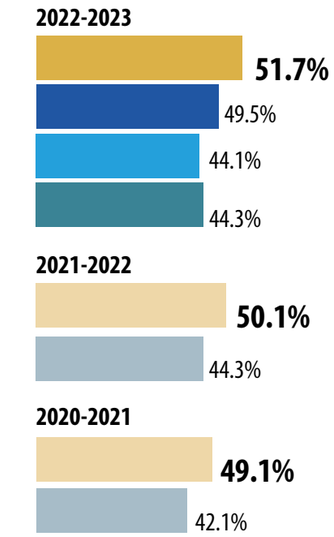


Figure 3.6: Personally know an entrepreneur (% adults)

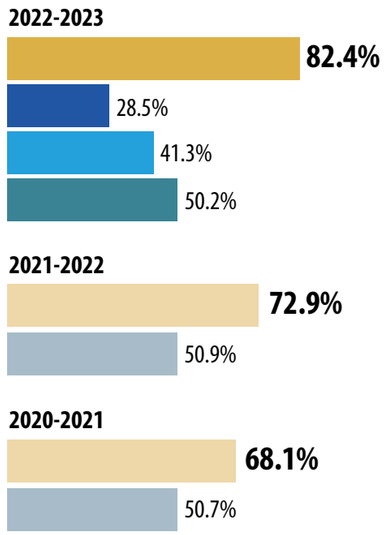


Figure 3.8: TEA index rates (% adults)

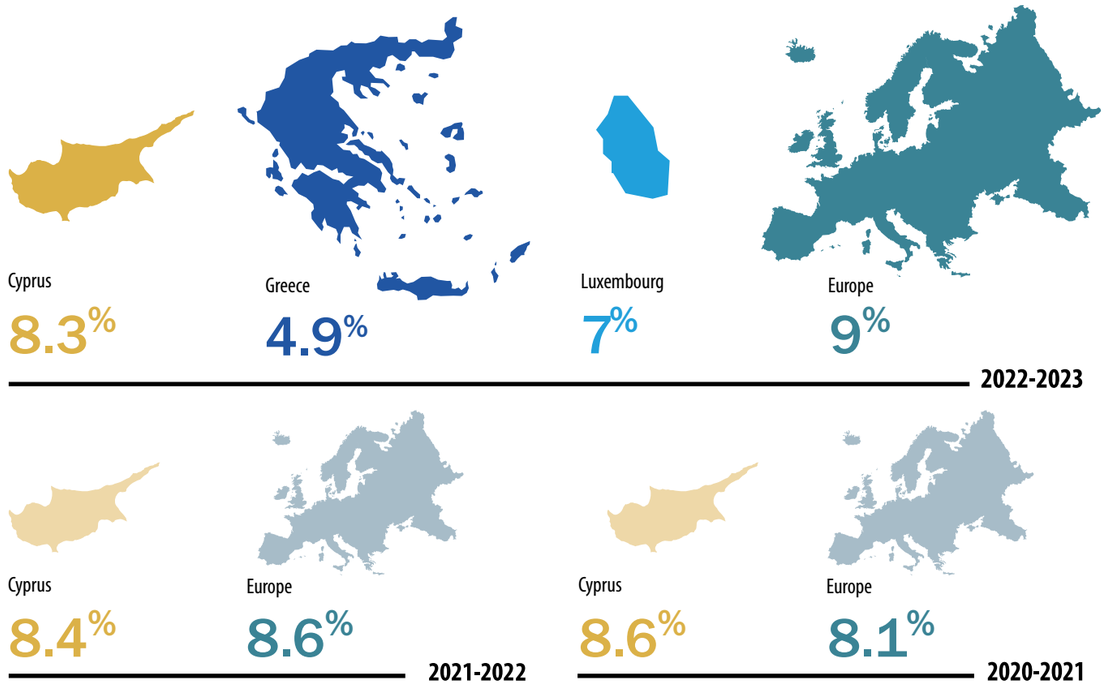


Figure 3.9: Cross-Country Comparison Total early-stage Entrepreneurial Activity (TEA)

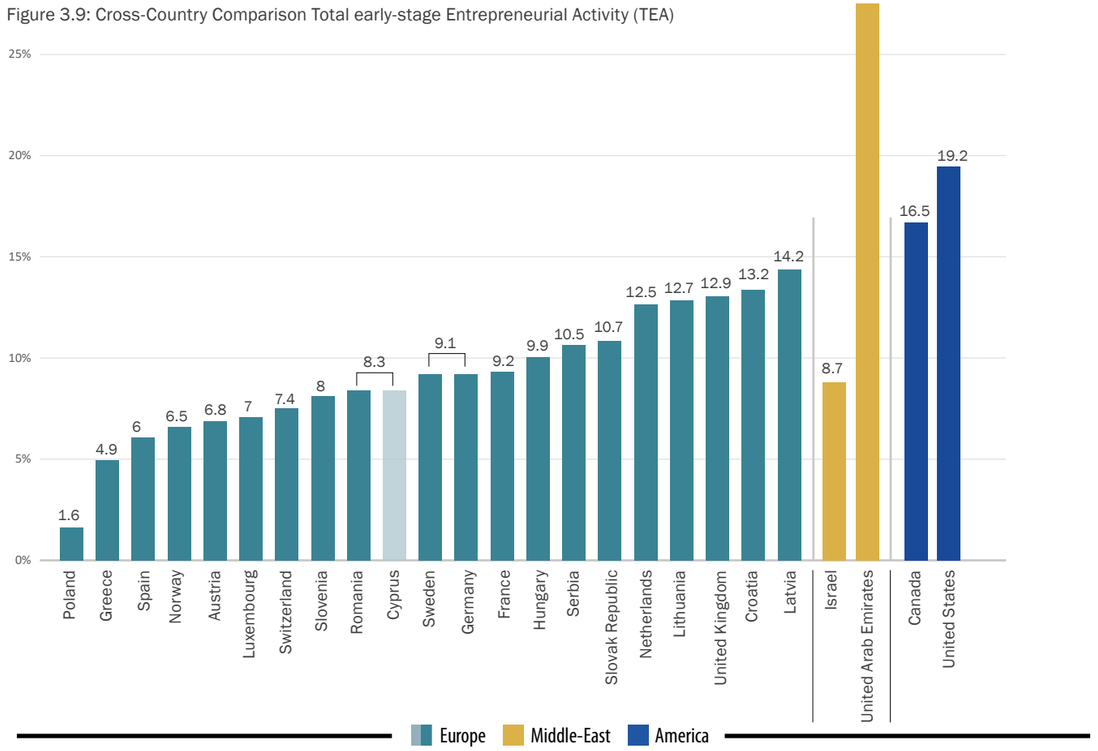


Figure 3.10: Nascent Entrepreneurs in Cyprus and Europe

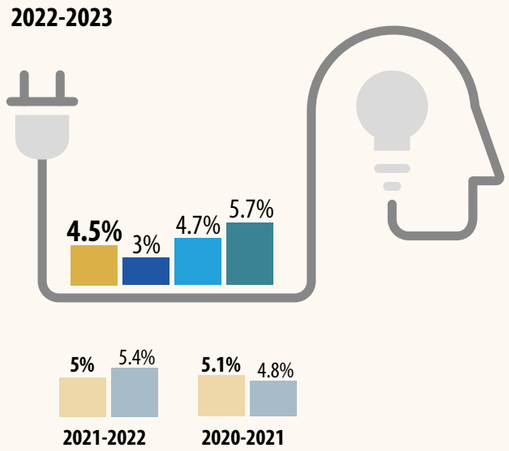


Figure 3.11: New business owners

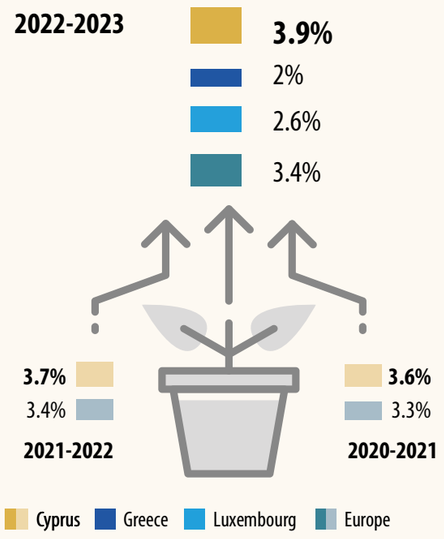


Figure 3.12: Established business ownership

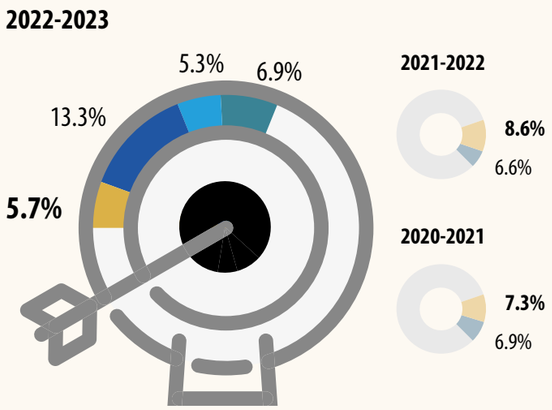
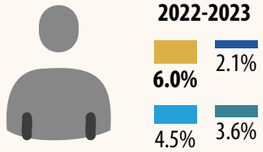


Figure 3.14: Informal Investors in Cyprus and Europe



Nascent entrepreneurs

Nascent entrepreneurship in Cyprus decreased slightly compared to the previous year (4.5%, down by 0.5%). As depicted in Figure 3.10, Cyprus' nascent entrepreneurship rate is higher compared to Greece's current rate of 3% and slightly lower than Luxembourg's 5.7%. Cyprus' rate is also below the European average of 5.7%. While the EU average for nascent entrepreneurship has shown a recovery trend after the pandemic, Cyprus rate has not yet indicated any signs of further recovery.

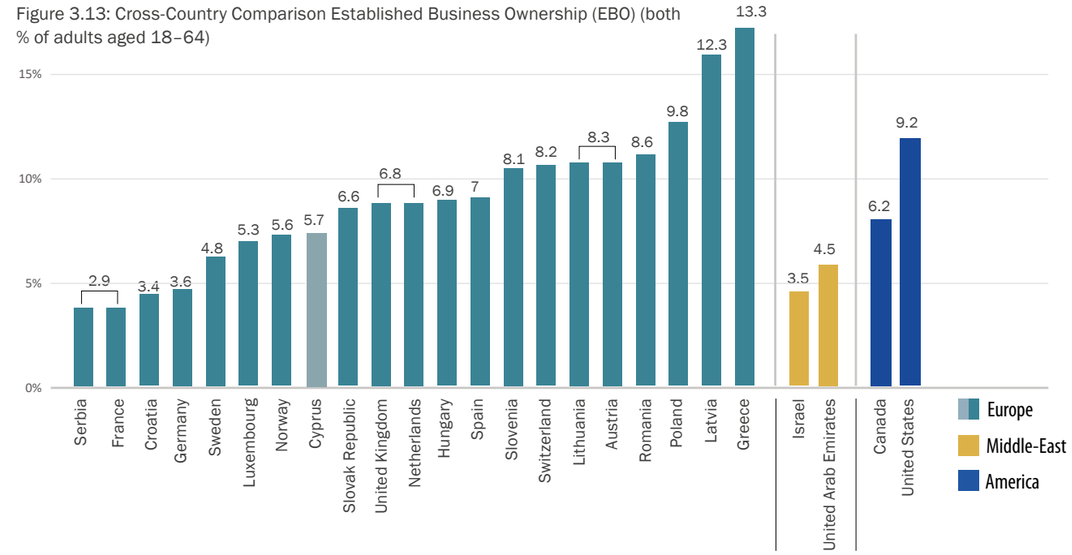
New business owners

In contrast with the slight decrease recorded in the rate of nascent entrepreneurship in Cyprus, new business ownership in Cyprus in 2022/2023 has seen a slight increase compared to the previous year, rising to 3.9% from 3.7% in 2021/2022. This reflects a recovery trend when also taking account the rate of 3.6% in 2020/2021. Cyprus' new business ownership is higher compared to Greece's rate of 2% and Luxembourg's rate of 2.6%. When compared to the European average rate of 3.4%, Cyprus' new business ownership rate is slightly higher. Overall, the results suggest that Cyprus' new business ownership rate has been resilient throughout the pandemic years while also showing modest signs of growth.

3.2.2 ESTABLISHED BUSINESS OWNERS

GEM also accounts for established business ownership rate. Established entrepreneurship in Cyprus has notably decreased compared to the previous two years (5.7%). The rate in Cyprus was 7.3% in 2020/2021 and 8.6% in 2021/2022. As illustrated in Figure 3.12, while Cyprus' established business ownership has been consistently higher compared to the European average rate across the previous years, it is lower than the current European average rate (6.9%). Cyprus' rate is slightly higher compared to Luxembourg's (5.3%) and lower compared to Greece's (13.3%). Compared to other countries beyond the European regional area, Cyprus' established business ownership rate is higher compared to Germany and Sweden. Greece's rate of established business ownership is higher compared to Europe's and Cyprus' as illustrated in Figure 3.13.

Figure 3.13: Cross-Country Comparison Established Business Ownership (EBO) (both % of adults aged 18–64)



3.2.3 INFORMAL INVESTORS

This year's GEM also measures informal investors in the population supporting TEA or established businesses. Cyprus informal investment rate has been 3.3%. As illustrated in Figure 3.14, Cyprus' rate is higher compared to Greece's (2.1%), but lower compared to both Luxembourg's (4.5%) and the European average rate (3.6%).

3.3 PROFILE OF ENTREPRENEURS IN CYPRUS

The GEM methodology, in addition to data on perceptions, intentions, and activities related to entrepreneurship, also sheds light on the demographic characteristics of entrepreneurs within each participating economy. This data is invaluable for analyzing how factors such as age, gender, and educational attainment correlate with entrepreneurial endeavors.

Age distribution

The most active age group in TEA is the 18-34 age cohort. This age group has consistently been the most active across the previous years. Currently, 12.4% of TEA can be attributed to the younger 18-34 age cohort, while the 35-64 age cohort accounts for 5.8% of TEA. This shift indicates a broader engagement in entrepreneurship among younger individuals. As depicted in Figure 3.15, Cyprus's TEA activity by age cohort is different compared to Greece, where the two age cohorts seem to have a more balanced participation in TEA. Also, in contrast to Cyprus, in Luxembourg the older cohort (35-64) has a higher participation rate of 7.4% compared to the younger cohort's 6.2%. The reduced involvement of the 35-64 age group in TEA in Cyprus may reflect specific national circumstances or priorities among this demographic.

Figure 3.15: Total early-stage Entrepreneurial Activity (TEA) by age group (% of TEA in each age group) 2022/2023

2022/2023

	Cyprus	Greece	Luxembourg	Europe
18-34 years	12.4%	5.1%	6.2%	11.8%
35-64 years	5.8%	4.7%	7.4%	7.6%

Gender distribution

The GEM methodology provides insights on the TEA activity demographics with regards to gender differences. In Cyprus, there has been a notable shift as 11.7% of the adult male population is now active in TEA, while the participation rate for females is 4.9%. This marks a change from the previously reported ratio of female to male involvement in TEA, which has decreased from 0.6 to 0.4. This is the first-time female to male involvement in TEA ratio in Cyprus is decreased as it has constantly stood at 0.6 since the first participation of Cyprus in GEM in 2016. This trend diverges from the European average, where the ratio has remained steady at 0.6 in the past year. In comparison, Greece's ratio has decreased to 0.5, also showing a relative decline in female participation against male TEA, while Luxembourg has seen an improvement, with the ratio rising to 0.6. This is also reflected in a decrease in the European average rate from 0.7 last year to 0.6 this year. These variations underscore the dynamic nature of gender participation in entrepreneurship across different economies. For Cyprus, the current figures suggest a widening gender gap in TEA activity, highlighting an opportunity to develop policies that encourage and support women's entrepreneurship to reduce this disparity.

1 Values have been rounded to the nearest 0.1.

Figure 3.16: Total Early-Stage Entrepreneurial Activity (TEA) rates and gender

2022/2023

	Cyprus	Greece	Luxembourg	Europe
Male TEA (% of adult male population)	11.7%	3.4%	8.5%	11%
Female TEA (% of adult female population)	4.9%	6.3%	5.4%	6.9%
Ratio of female/ male TEA	0.4	0.5	0.6	0.6

2021/2022

	Cyprus	Greece	Luxembourg	Europe
Male TEA (% of adult male population)	10.8%	6.5%	9.3%	10.2%
Female TEA (% of adult female population)	6.1%	4.6%	5.1%	7.2%
Ratio of female/ male TEA	0.6	0.7	0.5	0.7

Education

Drawing comparisons across different economies on the influence of education level on the likelihood of engaging in entrepreneurial activities within GEM-participating countries is complex. Nonetheless, patterns suggest that individuals with graduate tertiary education tend to lean more towards entrepreneurial ventures. To assess the connection between educational attainment and Total Early-stage Entrepreneurial Activity (TEA), we can consider the proportion of respondents who have at least a post-secondary degree (TEA graduates) against those without (TEA non-graduates). The latest figures indicate that in Cyprus, 10.4% of individuals involved in TEA are graduates, compared to 5.1% who are non-graduates, hinting at an educational influence on entrepreneurial engagement. This trend is also seen across Europe, where 11.2% of TEA participants are graduates and 7.1% are non-graduates, reinforcing the notion that educational attainment may play a role in entrepreneurial activity. Results are depicted in Figure 3.17.

Figure 3.17: % Total early-stage Entrepreneurial Activity (TEA) who are graduates and non-graduates

2022/2023

	Cyprus	Greece	Luxembourg	Europe
% TEA non-graduates	5.1%	4.4%	3.8%	7.1%
% TEA graduates	10.4%	5.3%	10.3%	11.2%

3.4 ENTREPRENEURSHIP & IMPACT

The GEM methodology also invites respondents to reflect on the expected impact of their entrepreneurial endeavors. These may be associated with expected job openings, impact on a specific sector of the economy or even on the target audience orientation of the enterprises. These aspirations associated with TEA activity can serve as indicators for the expected impact of TEA on the entrepreneurial ecosystem as well as on economic growth and social progress. This section reports on the potential impact of entrepreneurial activity.

Sectors

Selecting a sector for a startup is a critical decision with far-reaching effects on both the company itself as well as the broader economic landscape. The GEM APS invites TEA entrepreneurs to report on the sector of their business, categorizing the responses into four main sectors: Extractive, Transforming, Business Services, and Consumer Services. In Cyprus, the majority of Total Early-stage Entrepreneurial Activity (TEA) is relevant to Consumer Services, with over half of TEA entrepreneurs positioning their ventures in this category (54.8%). Meanwhile, 27.1% of Cyprus' TEA is in Business-oriented Services, while the Transforming sector comprises a smaller portion at 15.2%. This pattern aligns with trends in Greece and many EU countries where Consumer Services dominate. However, as illustrated in Figure 3.18, Luxembourg distinguishes itself with a more significant emphasis on Business-oriented Services which constitute 40.3% of its TEA, a rate that is substantially higher than that of Cyprus.

Job creation

New entrepreneurial activity illustrates the projections of an economy to generate job positions. GEM APS reflects on expected employment growth from TEA within the next five years. Figure 3.19 depicts these employment projections for new businesses. These projections span from those not anticipating any new jobs to those expecting between one to five, and those forecasting six or more new positions. In Cyprus, 3.8% of the adult population expects to create one to five job opportunities in the coming five years, while only 1.8% anticipate no new jobs. A further 2.7% predict six or more new jobs due to their entrepreneurial activities. The majority of TEA entrepreneurs in Greece expect one to five new job openings, while in Luxembourg the majority expects six or more jobs.

Figure 3.18: TEA Activity & sector (all % of TEA)

TEA Activity & Sector

	Cyprus	Greece	Luxembourg	Europe
Business-oriented services	27.1%	17.4%	40.3%	29.4%
Consumer-oriented services	54.8%	49.6%	49.2%	44.7%
Extractive sector	2.9%	9%	2.9%	5.2%
Transforming sector	15.2%	24%	7.6%	20.8%

Figure 3.19: Job growth expectations: Total early-stage entrepreneurs (TEA) expecting to employ an additional 0, 1–5, or 6 or more people in the next five years (all % of adults aged 18–64)

Job growth expectations

	Cyprus	Greece	Luxembourg	Europe
0 jobs	1.8%	1.8%	2.5%	3.9%
1-5 jobs	3.8%	2.1%	1.8%	3.5%
6 or more jobs	2.7%	1.0%	2.7%	2.0%

Figure 3.20: Adults starting a new business with products or services that are either new to their area, new to their country or new to the world (all % of adults aged 18–64)

Innovation

	Cyprus	Greece	Luxembourg	Europe
Local only	1.6%	1.6%	0.7%	2.6%
National	3.2%	1.1%	2.3%	3.4%
International	3.4%	2%	3.6%	3.1%

The majority of TEA in the broader EU area generally foresee no new job openings while 3.5% expects one to five new job openings. It is also noteworthy that Cypriots show greater optimism regarding the creation of more than six jobs, with their expectation (2.7%) surpassing the EU average (2.0%).

Innovation

Entrepreneurs have expectations on the innovativeness of their product and the extent to which it is new to their target audience and beyond. The GEM APS questions entrepreneurs about the newness of their offerings locally, nationally, or internationally. In Cyprus, the perception of innovativeness among new business starters has increased at all levels. In 2022/2023, 1.6% of the population embarking on new enterprises view their products or services as novel to the local market, 3.2% as novel for the national market, while 3.4% consider their offerings new to the international market. Compared to Cyprus, Greece has shown a balanced spread of innovation perception, with 1.6% of new entrepreneurs considering their products or services new to local audiences, 1.1% as new at national level, and 2% view their business as pioneering on the international front. Luxembourg has reported 0.7% of new businesses with local innovation, 2.3% at the national level, whereas a leading 3.6% believe their products or services are new internationally. Cyprus' current international orientation is above the EU average (3.1%).

Along the same lines, Cyprus' rate is higher than the EU average in terms of international business orientation, with 1.7% of adults starting or managing new ventures expecting to generate a quarter or more of their revenue from abroad. Luxembourg's international orientation is similar to Cyprus', whereas Greece's corresponding rate is 0.9%. The EU average for international revenue anticipation is 1.4%, suggesting that the region is performing well in terms of fostering businesses with a global outlook.

Figures 3.20 and 3.21 encapsulate these trends, highlighting the shifting landscape of business innovation and international orientation in Europe.

Innovativeness and Technology

The GEM APS includes metrics on the extent to which adults involved in TEA employ technology or processes that are novel to their immediate area, their country, or the global market. As illustrated in Figure 3.22, in Cyprus, 1% of the adult population regard their technology or processes as new to their local area, whereas 1.4% see their innovations as new to their country, and 0.8% consider their offerings as new to the international market.

In comparison, the EU average for those who consider their technology or processes new to their area stands at 1.3%, with 0.8% do so for the national level and 0.4% for the international scale. This contrasts with Greece, where 0.7% of entrepreneurs view their business technology or processes as new to both their local area and country, whereas none see it as new to the world. In Luxembourg, on the other hand, 0.8% of its business founders consider their technology or processes as new to their local area, 0.5% as new to their country, while another 0.5% perceive their offerings as innovative on a global scale.

Business exits

Business exits can stem from a range of reasons, both positive and negative. Negative reasons for a business exit are associated with insufficient sales or profitability, excessive taxation or bureaucracy, inability to access necessary resources, or changes in personal circumstances. In recent times, the COVID-19 pandemic has added another layer of complexity, potentially affecting businesses directly through illness, lockdowns, or other disruptions, or indirectly by impacting markets and supply chains. While business exits may lead to the closure of some enterprises, they can also result in structural changes that may free up resources for other ventures with broader market appeal.

On the flip side, there are positive motivations for exiting a business, such as the opportunity to sell the business or to pursue another business opportunity. According to the data shown in Figure 3.23, in the 2022/2023 period, Cyprus reported that 4.1% of the adult population experienced a business exit related to their entrepreneurial activity, with 0.5% attributed to positive reasons, 2.3% to negative reasons not including the COVID-19 pandemic, and 1.1% directly related to the pandemic's impact.

When compared to other regions, Cyprus had a lower exit rate than Luxembourg's 4.5%, with 1.9% attributed to positive reasons. The exit rates in Cyprus and Luxembourg both surpass the EU average rate of 3.4%. Notably, Cyprus had a significantly higher percentage of pandemic-related exits than Greece, which reported a mere 0.1% of such exits out of its total 2% exit rate.

Figure 3.21: The percentage of adults (aged 18–64) both starting or running a new business and anticipating 25% or more revenue from outside their country

New business expectations

	Cyprus	Greece	Luxembourg	Europe
Expecting 25% or more revenue from outside their country	1.7%	0.9%	1.7%	1.4%

Figure 3.22: The proportion of adults starting or running a new business using technology or processes that are either new to their area, new to their country or new to the world (all % of adults aged 18–64)

Proportions of adults starting or running a new business (technology or processes)

	Cyprus	Greece	Luxembourg	Europe
New to their area	1.0%	0.7%	0.8%	1.3%
New to their country	1.4%	0.7%	0.5%	0.8%
New to the world	0.8%	0%	0.5%	0.4%

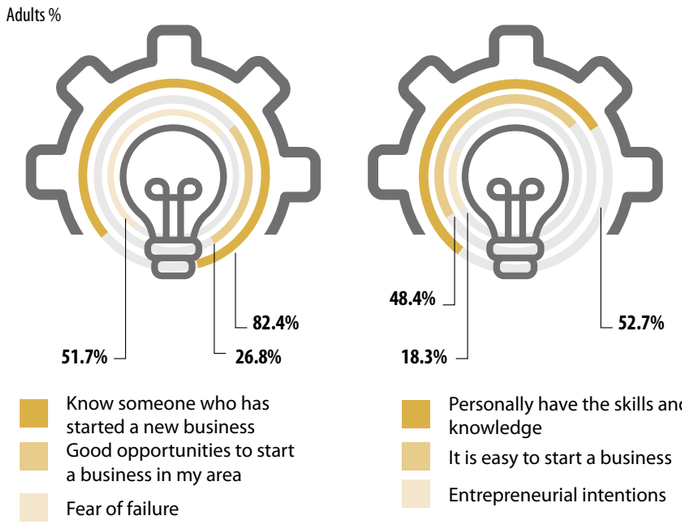
Figure 3.23: Reasons for business exit

Business exit reasons

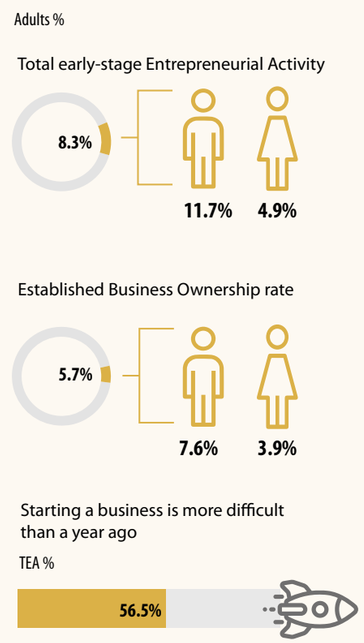
	Cyprus	Greece	Luxembourg	Europe
COVID-19 pandemic	1.1%	0.1%	0.2%	0.5%
Negative, not including COVID-19 pandemic	2.3%	1.4%	1.8%	1.7%
Positive	0.5%	0.4%	1.9%	1.0%
Total	4.1%	2.0%	4.5%	3.4%

ENTREPRENEURSHIP IN CYPRUS 2022/2023

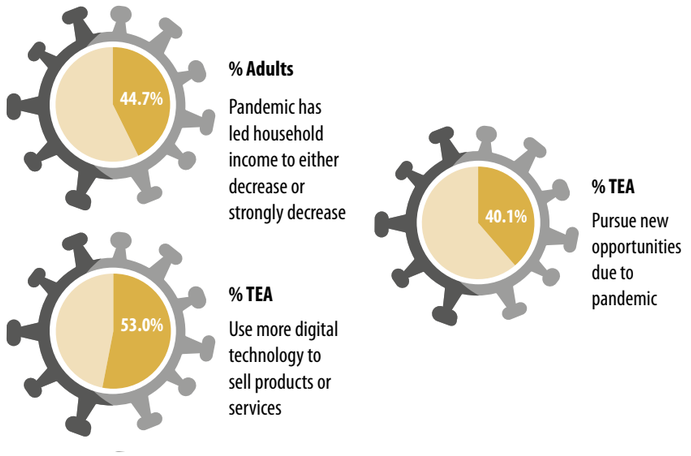
ATTITUDES AND PERCEPTIONS



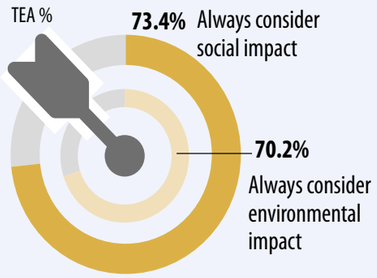
ACTIVITY



COVID-19-RELATED



ENTREPRENEURSHIP IMPACT



MOTIVES

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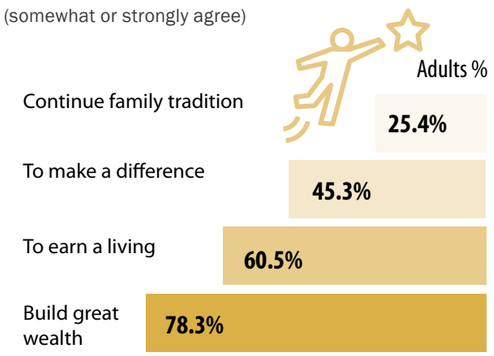
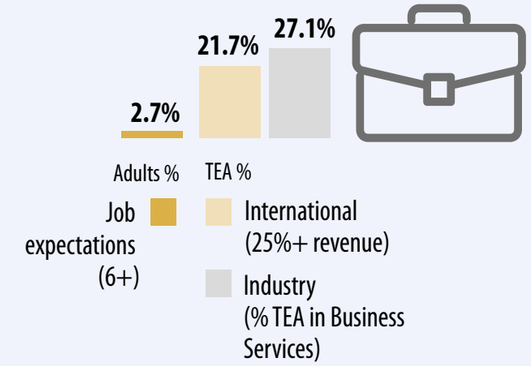
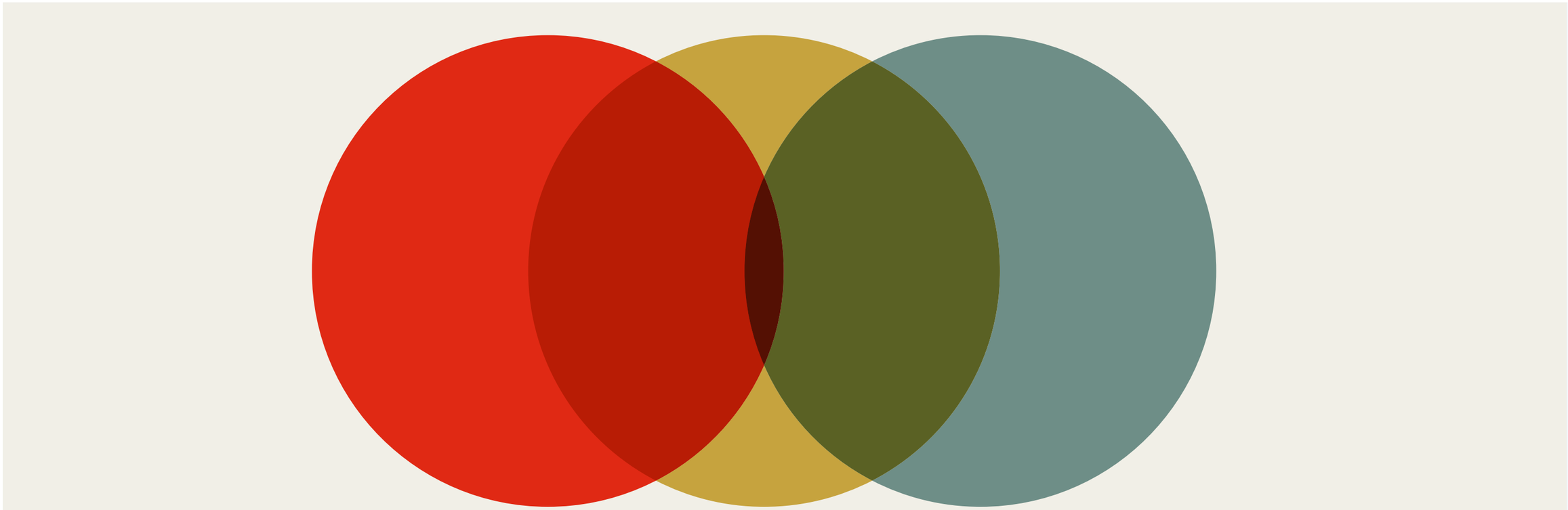




THE ENTREPRENEURSHIP ECOSYSTEM



4

The Adult Population Survey (APS) examines the individual's choice to embark on the entrepreneurial journey, alongside the broader population perceptions on entrepreneurship, entrepreneurial influences and outcomes. While this choice is inherently personal, it does not occur in isolation but is instead shaped by the surrounding entrepreneurial environment. The entrepreneurial environment influences the progression of entrepreneurial ventures from their inception through to becoming established businesses. Various elements, including family and friends, access to capital and resources, or even market dynamics, can either facilitate or prohibit the progress of entrepreneurial journeys. Along the same lines, market conditions vary widely; they might be open and accessible or dominated by a few large entities, making entry challenging and costly for small ventures. The COVID-19 pandemic has heavily impacted the business landscape worldwide, including the starting of new enterprises, with some entrepreneurs capitalizing on new opportunities while others have been forced to postpone or abandon their plans.

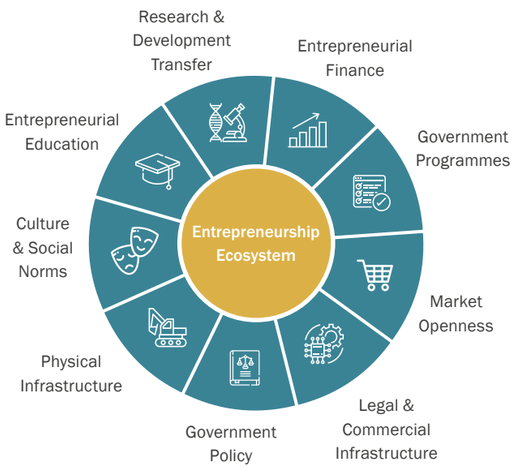
The National Expert Survey (NES) sheds light on the various strengths and weaknesses within the entrepreneurial ecosystem that can either promote or inhibit the progress of entrepreneurial activities. Entrepreneurship can thrive under even the most challenging conditions or struggle in what may seem like ideal circumstances. The Global Entrepreneurship

Monitor (GEM) evaluates the health of an economy's entrepreneurial ecosystem against a set of nine Economic Framework Conditions (EFCs) outlined in Table 4.1. These conditions, which have been a part of the GEM's analytical tools for over twenty years, are pivotal in assessing the key elements that influence entrepreneurial behavior and its success. The status of these EFCs can either encourage, limit, or completely hinder the initiation and growth of new businesses, as well as their evolution into stable entities that contribute sustained economic benefits and employment opportunities.

The National Expert Survey (NES) examines nine multidimensional conditions that collectively shape the entrepreneurial ecosystem within an economy. In each country participating in GEM, experts are invited to rate each condition of NES, which is structured to capture insights across these diverse areas that influence entrepreneurial activity. The Entrepreneurial Framework Conditions (EFCs) include Entrepreneurial Finance, Culture and Social Norms, Government Programs, Legal and Commercial Infrastructure, Government Policy, Physical Infrastructure, Entrepreneurship Education, Market Openness, and Research and Development Transfer. The 2022/2023 NES included questions on two new topics: recovery from the pandemic, and actions in support of the United Nations Sustainable Development Goals (SDGs).

In the 2022/2023 NES in Cyprus, 36 national experts were chosen for their expertise and familiarity with the local entrepreneurial scene, including some who participated in the previous year's study. This method is standard across all countries involved in the Global Entrepreneurship Monitor (GEM) to maintain consistency. In 2022/2023, 51 economies participated in the GEM. All experts completed the NES questionnaire by scoring their national economy against the extent to which they agreed or did not agree to questions about each framework condition. The EFCs are quantitatively assessed on an 11-point Likert scale in Table 6.1, where a score of 0 indicates that a condition is completely untrue, while a score of 10 indicates that it is completely true. Figure 4.1 includes the EFC ratings for NES in Cyprus for 2022/2023.

Figure 4.1: Entrepreneurial Framework Conditions (EFCs)



The findings of the NES research demonstrate both the positive aspects and the drawbacks of each nation's entrepreneurial econsystem. In Cyprus during 2022/2023, the robustness of the commercial and legal frameworks, coupled with the quality of physical infrastructure and government policies concerning taxation and bureaucracy, stand out as significant strengths within the country's entrepreneurial ecosystem.

ACCESS TO ENTREPRENEURIAL FINANCE
Are there sufficient funds for new startups? Are those funds easy to access?

GOVERNMENT POLICY
Support and Relevance: Do they promote and support startups? Taxes and Bureaucracy: Are new businesses burdened?

GOVERNMENT ENTREPRENEURSHIP PROGRAMMES
Are quality support programs available?

RESEARCH AND DEVELOPMENT TRANSFERS
Can research be translated into new businesses?

COMMERCIAL AND PROFESSIONAL INFRASTRUCTURE
Are these sufficient and affordable?

ENTREPRENEURSHIP EDUCATION AT SCHOOL
Do schools introduce entrepreneurship ideas?

ENTREPRENEURSHIP EDUCATION POST SCHOOL Do colleges offer courses in starting a business?

EASE OF ENTRY: MARKET DYNAMICS
Are markets free, open and growing?

EASE OF ENTRY: MARKET BURDENS AND REGULATIONS
Do regulations encourage or restrict entry?

PHYSICAL INFRASTRUCTURE
Is this sufficient and affordable?

SOCIAL AND CULTURAL NORMS
Does culture encourage and celebrate entrepreneurship?

Figure 4.2: Cyprus' EFCs in the last three years

Figure 4.3: Cyprus' and Europe's EFCs in the last two years

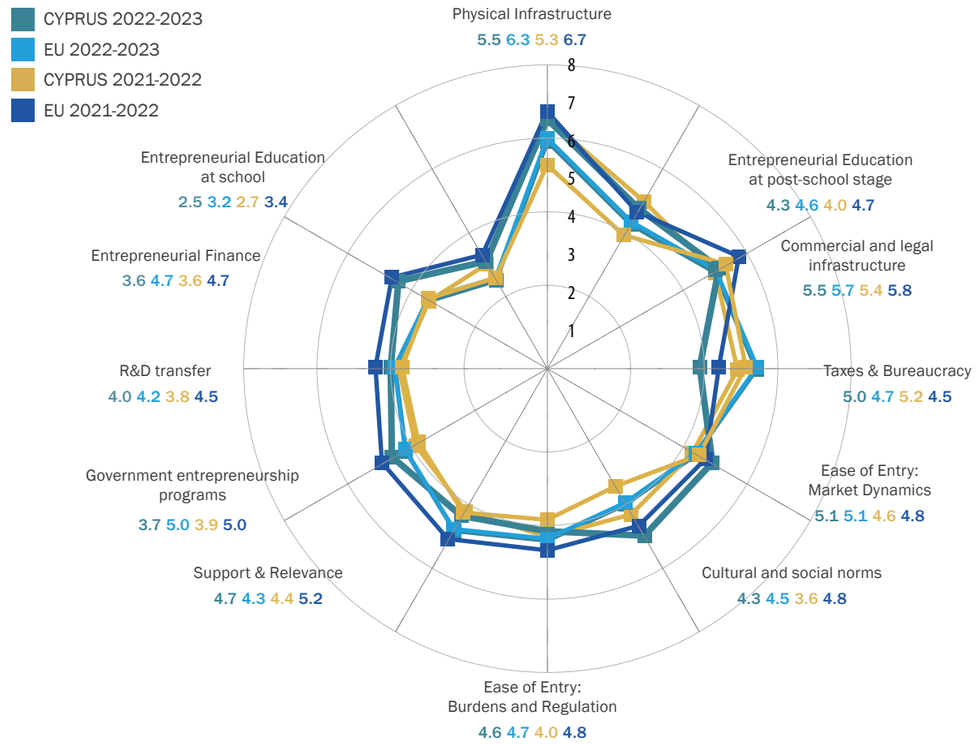


Figure 4.4: Entrepreneurial framework condition scores in Cyprus and Greece in 2022/2023

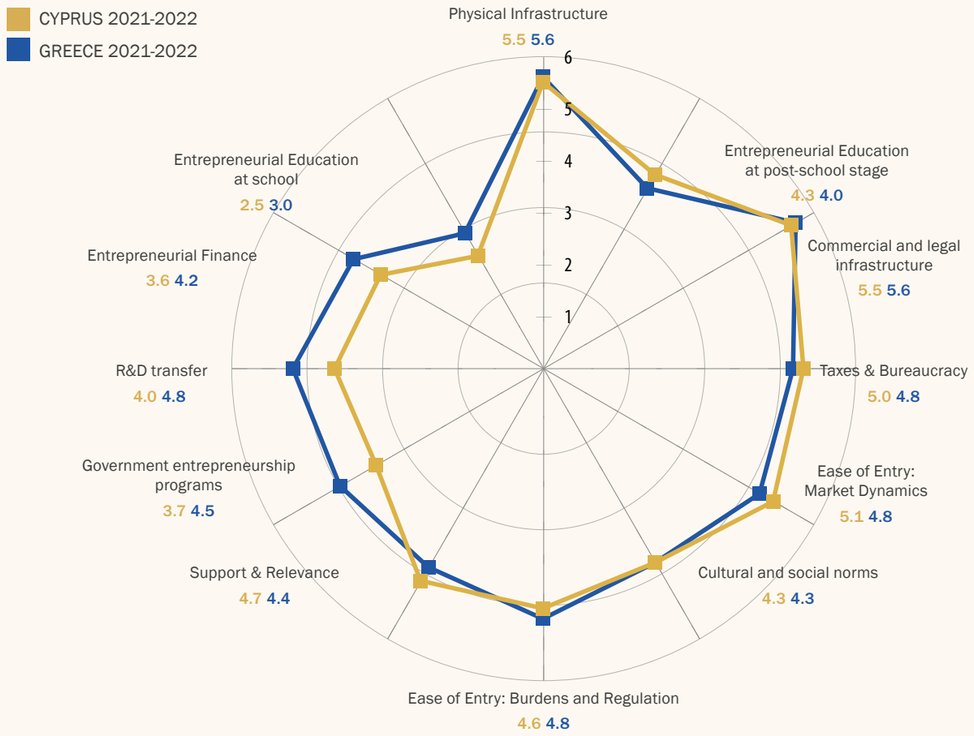


Figure 4.5: Entrepreneurial framework condition scores in Cyprus and Luxembourg in 2022/2023

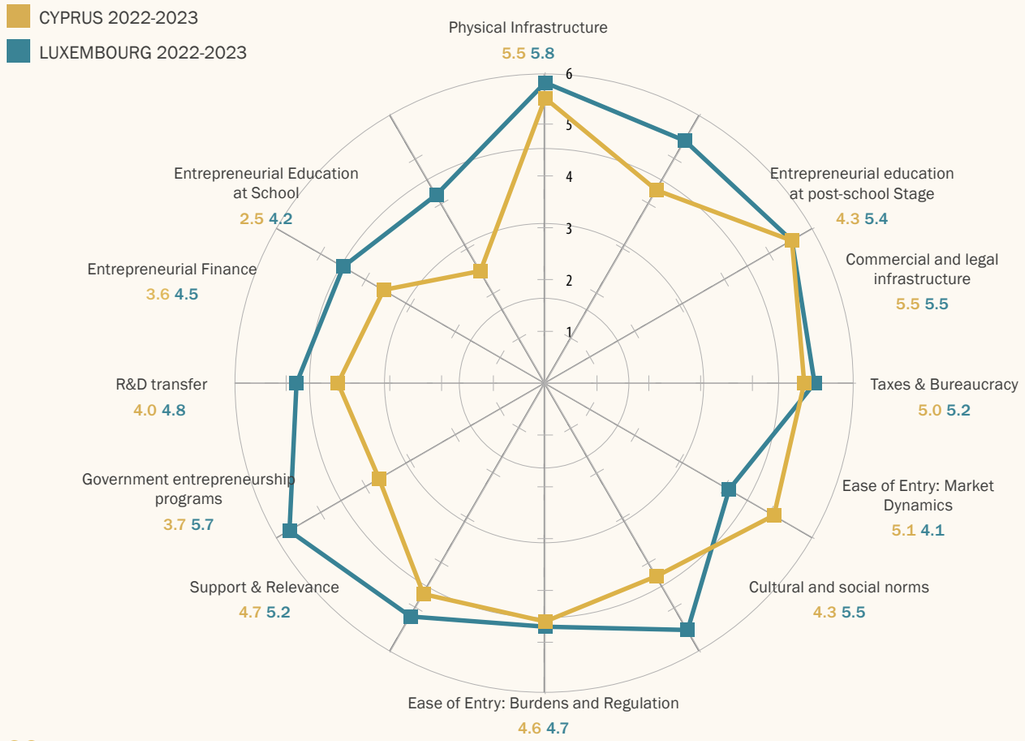


Figure 4.6: Entrepreneurial framework condition scores in Cyprus and other countries in 2022/2023

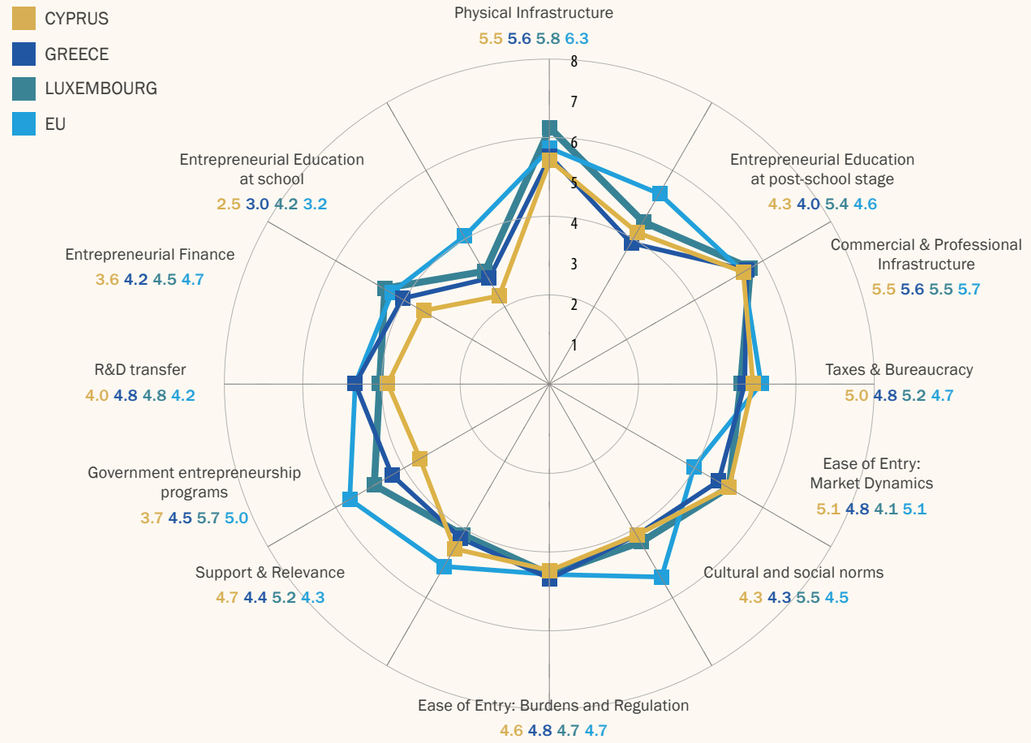
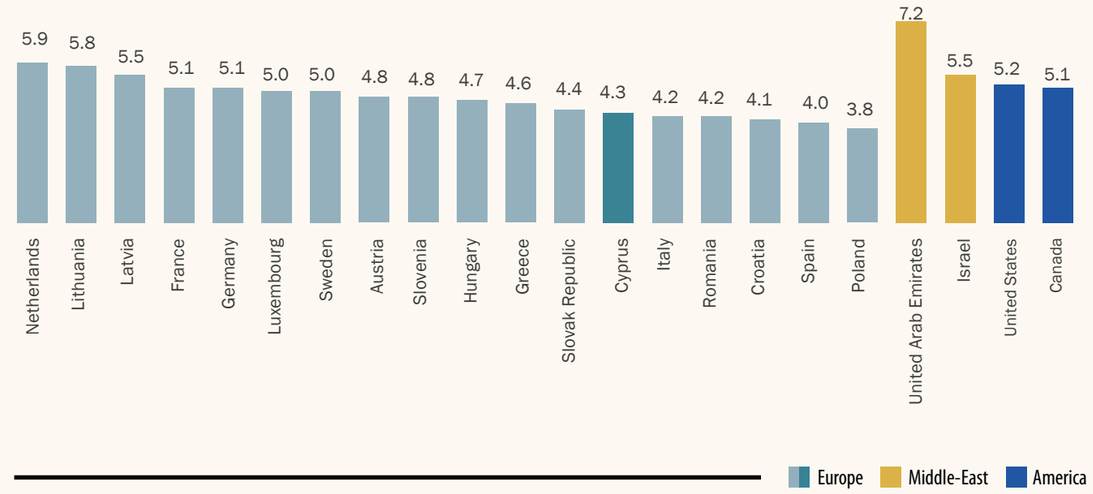


Figure 4.7: NECI values for countries of European regional area and other selected economies



In Cyprus, the entrepreneurial ecosystem is supportive, especially in terms of Commercial & Legal Infrastructure (5.5) and Physical Infrastructure (5.5). Other conditions including Ease of Entry: Market Dynamics (5.1) and Government Policy: Taxes & Bureaucracy (5.0) are also considered as stimulants of Cyprus' ecosystem. On the downside, the most important weaknesses of the ecosystem are Entrepreneurial Education at School (2.5), Entrepreneurial Finance (3.6), and Government Entrepreneurial Programs (3.7). These results are similar to the ecosystem's weaknesses identified in the previous years and demonstrate areas where further improvement is needed.

Over the span of three consecutive years—2020/2021, 2021/2022, and 2022/2023—Cyprus' entrepreneurial landscape has shown a mix of improvements and fluctuations across various dimensions (Figure 4.2). Compared to last year Physical infrastructure has increased (from 5.3 in 2021/2022 to 5.5 in 2022/2023). Conversely, Entrepreneurial Education at Post-School exhibited a fluctuating trend (4.4, 4.0, and 4.3 for 2020/2021, 2021/2022, and 2022/2023 respectively). The Commercial & Professional Infrastructure demonstrated a slight improvement from 5.1 to 5.4 to 5.5 over the three years, indicating an improvement in the support for commercial and professional endeavors across time. Along the same lines, Ease of Entry: Market Dynamics: has also exhibited gradual improvement, with scores rising from 4.5 to 4.6 to 5.1, indicating an increasingly favorable environment for market entry, while the scores on Ease of Entry: Burdens and Regulation remained relatively stable around 4.5-4.6 over the three years. On Government Policy: Support & Relevance, the scores fluctuated between 4.4 and 4.9, indicating a limited support to entrepreneurship by government policies. Along the same lines, on Government Policy: Taxes & Bureaucracy the scores decreased from 5.5 to 5.2 to 5.0 over the three years, suggesting a slight decrease on the support of government policies related to taxes and bureaucracy. Meanwhile, challenges persisted in accessing entrepreneurial finance, with scores remaining constant at 3.6. Furthermore, entrepreneurial education at the school level remained a concern, with relatively low scores (2.5-2.7), indicating room for improvement on this critical aspect of entrepreneurship. Overall these results highlight the need for organized efforts to address the ecosystems weaknesses and leverage strengths to foster a more robust entrepreneurial ecosystem in Cyprus.

The GEM NES methodology facilitates a comparison with the European average values, as depicted in Figure 4.3. In 2022/2023, the scores of entrepreneurial ecosystems in Europe are overall higher compared to Cyprus' ecosystem. For instance, on framework conditions such as Physical Infrastructure, Commercial & Professional Infrastructure and Entrepreneurial Education, Cyprus' rates are lower compared to the EU average. However, Cyprus framework conditions of Government Policy on Taxes & Bureaucracy and Support & Relevance have scored higher compared to the EU average rate. This trend is further reflected in Cyprus' NECI index score, indicating a less supportive environment for entrepreneurs in 2022/2023 compared to EU countries. Efforts may be needed to address these disparities and enhance Cyprus' entrepreneurial ecosystem to elevate the entrepreneurial conditions of the island's ecosystem.

NES results also enable comparisons with specific countries. In this report, Greece was employed as a benchmark country for Cyprus. When compared to Greece (Figure 4.4), Cyprus demonstrates higher scores in several entrepreneurial dimensions. Notably, Cyprus has received higher scores on Entrepreneurial Education Post-School (4.3 to 4.0), Ease of Entry: Market Dynamics (5.1 to 4.8) and Government Policy on Taxes & Bureaucracy. However, Greece has received higher scores compared to Cyprus in certain conditions. For instance, Greece surpasses Cyprus on Physical Infrastructure and Commercial & Professional Infrastructure (5.5 to 5.6). When compared to Luxembourg, Cyprus demonstrates both similarities and differences across various entrepreneurial dimensions. Cyprus closely matches Luxembourg in Commercial & Professional Infrastructure (5.5 for both countries) and Government Policy: Taxes & Bureaucracy (5.0 for Cyprus, 5.2 for Luxembourg). However, Luxembourg outperforms Cyprus in Entrepreneurial Education Post-School (5.4 to 4.3), Social and Cultural Norms (5.5 to 4.3), Government Policy: Support & Relevance (5.2 to 4.7), Government Entrepreneurial Programs (5.7 to 3.7), R & D Transfer (4.8 to 4.0), and Entrepreneurial Finance (4.5 to 3.6). Nonetheless, Cyprus holds an advantage in Physical Infrastructure (5.5 to 5.8), Ease of Entry: Market Dynamics (5.1 to 4.1), and Entrepreneurial Education at School (4.2 to 2.5). Figure 4.6 summarizes the ecosystem conditions between Cyprus, Greece, Luxembourg and the EU average. These comparisons offer insights into areas where Cyprus may need to improve and learn from or adopt practices from other entrepreneurial ecosystems.

GEM measures the overall arithmetic mean of that economy's EFC scores and summarizes the average state of the ecosystem for entrepreneurship in each economy indicated by the National Entrepreneurship Context Index (NECI). According to Figure 4.7, Netherlands (5.9) and Lithuania (5.8) are the countries of the European regional area with the most supportive entrepreneurial ecosystems. Conversely, the countries of the region with the lowest NECI scores are Poland (3.8), Spain (4.0) and Croatia (4.1). These results signal the need for addressing the challenges of the entrepreneurial ecosystem in Cyprus to better facilitate and support entrepreneurship.

The NES methodology for 2022/2023 also assessed specific areas of interest, aiming to shed light on the recovery of the Post-Pandemic business environment, and the commitment of businesses in Cyprus to Social Responsibility and Sustainability. Cyprus, demonstrates levels of recovery and partial commitment to social responsibility and sustainability. According to Figure 4.8, Greece leads in Post-Pandemic Recovery with a score of 5.1, followed closely by Luxembourg at 5.0. The corresponding rate for Cyprus is 4.7, which is lower compared to the EU average value of 6.0. Compared to Cyprus, entrepreneurs in Greece and Luxembourg prioritize Social Responsibility more, as the relevant rate is 5.1 and 5.4, respectively. Cyprus' score on this condition is 4.4 demonstrating a lower follows suit with a to social responsibility further need for improvement. In terms of Sustainability, Luxembourg's rate is 5.9, followed by Greece's (5.6). These results show that entrepreneurs in these countries hold more robust commitments to environmental sustainability compared to Cyprus. Cyprus' rate is 4.5, demonstrating a slightly lower level of sustainability focus compared to Greece, Luxembourg and the EU average rate.

The rest of this Section discusses the results of each of the core framework conditions measured by GEM NES in detail.

4.1 STRENGTHS AND WEAKNESSES OF THE ENTREPRENEURIAL ECOSYSTEM IN CYPRUS

Physical Infrastructure

The quality of Cyprus' present infrastructure has been reflected in the Physical Infrastructure framework condition score. Indeed, this framework condition has been regarded by the experts as one of the most important benefits of the island's entrepreneurial ecosystem, and scored higher compared to last year's results. Experts perceive that the island offers good access to communications (telephone, internet, etc.) (6.6 and to utilities (gas, water, electricity, sewer) (6.3). Physical infrastructure for new and growing firms (regarding roads, utilities, communications and water disposal services) is also perceived as positive (6.5). These factors are perceived as benefits by the experts, the score has improved compared to the previous year and are overall higher compared to the corresponding European average scores. According to the experts, physical infrastructure in Cyprus lacks sufficient infrastructure in terms of affordable office spaces (4.3) and production spaces to rent for new and growing firms (3.9). As shown in Table 4.1, scores are lower compared to the corresponding European average values for affordable office spaces (5.8) and production spaces (5.2).

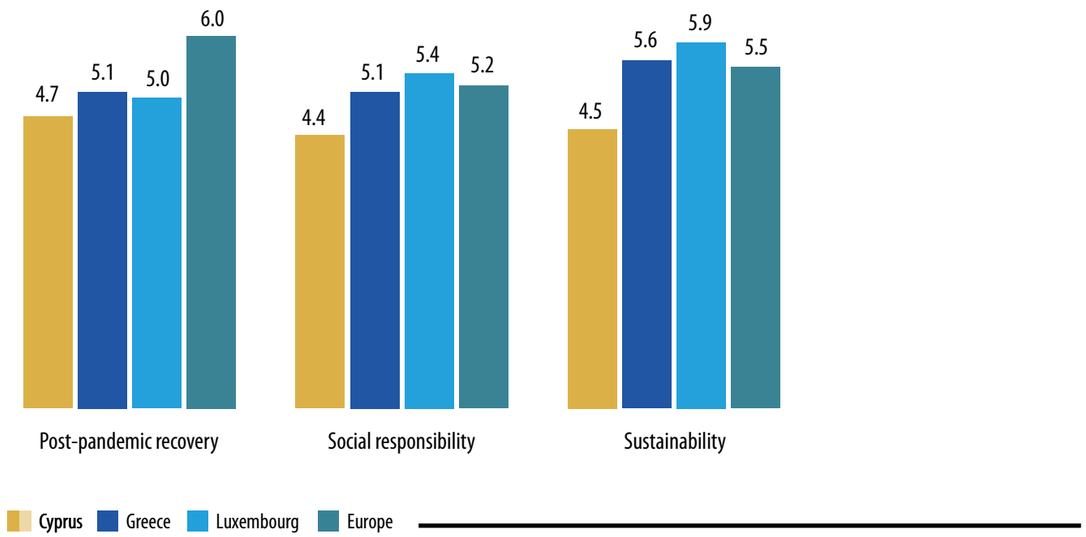
Commercial and Services Infrastructure

Access to good commercial and services infrastructure is important for new and growing businesses. This particular framework condition is one of the most important strengths of the Cyprus ecosystem in 2022/2023. Experts highlighted that there are enough subcontractors, suppliers, and consultants to support new and growing firms (5.4). Experts also perceive that it is easy for new and growing firms to get good, professional legal and accounting services (6.6). Despite the good quality of service offered, the experts perceive that the cost of using subcontractors, suppliers, and consultants is marginally affordable for new and growing firms (4.5), despite the score being higher compared the EU average rate of 4.3, which indicates that such services are more affordable in Cyprus. These results are aligned with the corresponding scores in Greece (4.1) and Luxembourg (4.2). In Cyprus, it is easy for new and growing firms to get good banking services (checking accounts, foreign exchange transactions, letters of credit) (5.5). Experts also believe that new and growing firms in Cyprus can get access to cloud computing services at affordable prices (6.4). This score is lower than the corresponding EU average (6.7) and higher compared to Greece's (6.1) and Luxembourg's (6). Table 4.2 includes the detailed scores on all items under this framework condition.

Government Policies

Cyprus' government has placed emphasis on formulating legal and tax regimes which can further support the growth of the island's entrepreneurial activity. This is also reflected in the score of the framework condition on Government Policy: Taxes & Bureaucracy for 2022/2023. Experts in Cyprus perceive that the amount of taxes is not a burden for new and growing firms (6.2). This score is higher compared to Europe (4.3), Greece (4.4) and Luxembourg (5.4). Experts also consider the fact that taxes and other government regulations in Cyprus are applied to new and growing firms in a predictable and consistent way, a strength of the island's ecosystem (6.3) which is higher compared to the European average score (4.5). Furthermore, entrepreneurs can register new firms/businesses at reasonable cost (6.3). However, according to

Figure 4.8: Additional entrepreneurial framework conditions measured in 2022/2023



Cyprus Greece Luxembourg Europe

Table 4.1: Physical Infrastructure*

	2020/2021	2021/2022	2022/2023			
			Cyprus	Greece	Luxembourg	Europe
The physical infrastructure (roads, utilities, communications, water disposal) provides good support for new and growing firms	6.1	5.5	6.5	5.3	6.4	6.2
It is not too expensive for a new or growing firm to get good access to communications (phone, Internet, etc.)	5.4	5.0	6.6	5.2	6.3	7.3
A new or growing firm can get good access to communications (telephone, internet, etc.) in about a week	7.3	6.1	5.4	6.4	6.4	7.2
New and growing firms can afford the cost of basic utilities (gas, water, electricity, sewer)	5.6	5.8	5.4	5.4	6.1	5.9
New or growing firms can get good access to utilities (gas, water, electricity, sewer) in about a month	7.5	6.3	6.3	7.2	6.7	6.4
There are plenty of affordable office spaces to rent for new and growing firms	–	3.8	4.3	5.7	4.5	5.8
There are plenty of affordable production spaces to rent for new and growing firms	–	4.9	3.9	5.5	4.3	5.2

Table 4.2: Commercial and services infrastructure*

	2020/2021	2021/2022	2022/2023			
			Cyprus	Greece	Luxembourg	Europe
There are enough subcontractors, suppliers, and consultants to support new and growing firms	5.6	5.4	5.4	6.1	6.3	6.0
New and growing firms can afford the cost of using subcontractors, suppliers, and consultants	3.9	3.8	4.5	4.1	4.2	4.3
It is easy for new and growing firms to get good subcontractors, suppliers, and consultants	4.6	5.1	4.6	5.3	5.6	4.9
It is easy for new and growing firms to get good, professional legal and accounting services	5.9	6.0	6.6	6.1	6.2	6.1
It is easy for new and growing firms to get good banking services (checking accounts, foreign exchange transactions, letters of credit)	5.7	6.2	5.5	5.7	4.8	6.0
New and growing firms can get access to cloud computing services at affordable prices	–	–	6.4	6.1	6.0	6.7

Table 4.3: Government policies*

	2020/2021	2021/2022	2022/2023			
			Cyprus	Greece	Luxembourg	Europe
Government policies (e.g., public procurement) consistently favor new firms	5.0	4.1	4.3	4.1	4.4	3.7
The support for new and growing firms is a high priority for policy at the national government level	5.8	5.3	5.3	5.0	5.6	4.6
The support for new and growing firms is a high priority for policy at the local government level	3.9	3.6	4.4	4.1	5.5	4.5
Entrepreneurs can register new firms/businesses at reasonable cost.	–	6.0	6.3	6.5	5.6	7.0
New firms can get most of the required permits and licenses in about a week	2.9	2.9	2.4	4.6	4.0	4.1
The amount of taxes is NOT a burden for new and growing firms	7.3	7.1	6.2	4.4	5.4	4.3
Taxes and other government regulations are applied to new and growing firms in a predictable and consistent way	7.2	6.1	6.3	4.2	60	4.5
Coping with government bureaucracy, regulations, and licensing requirements is not unduly difficult for new and growing firms	4.5	4.2	4.0	4.3	4.9	3.8

*(scale: 1=completely false, 9=completely true)

Table 4.4: Entrepreneurial Education & Training*

	2020/2021	2021/2022	2022/2023			
			Cyprus	Greece	Luxembourg	Europe
Teaching in primary and secondary education encourages creativity, self-sufficiency, and personal initiative	2.9	2.9	2.8	3.3	4.2	3.5
Teaching in primary and secondary education provides adequate instruction in market economic principles	3.0	2.9	2.4	2.9	4.2	3.2
Teaching in primary and secondary education pays adequate attention to entrepreneurship and new firm creation	2.3	2.2	2.2	2.8	4.2	3.0
Colleges and universities provide adequate preparation for starting up and growing new firms	4.9	3.8	4.3	4.1	5.6	4.5
The level of business and management education provides adequate preparation for starting up and growing new firms	4.1	4.2	4.2	3.8	5.4	4.8
The vocational, professional, and continuing education systems provide adequate preparation for starting up and growing new firms	4.1	3.7	4.5	4.2	5.1	4.5

Table 4.5: Government entrepreneurship programs*

	2020/2021	2021/2022	2022/2023			
			Cyprus	Greece	Luxembourg	Europe
A wide range of government assistance for new and growing firms can be obtained through contact with a single agency	4.1	3.5	3.5	4.1	5.5	4.3
Science parks and business incubators provide effective support for new and growing firms	4.4	2.1	1.8	4.3	5.5	5.1
There is an adequate number of government programs for new and growing businesses	5.0	4.7	4.3	4.9	6.2	5.8
The people working for government agencies are competent and effective in supporting new and growing firms	3.6	3.3	4.6	5.2	6.0	5.4
Almost anyone who needs help from a government program for a new or growing business can find what they need	3.9	3.9	3.7	3.6	5.9	4.8
Government programs aimed at supporting new and growing firms are effective	4.9	5.0	3.7	4.3	5.4	4.6

Table 4.6: Access to finance*

	2020/2021	2021/2022	2022/2023			
			Cyprus	Greece	Luxembourg	Europe
There is sufficient equity funding available for new and growing firms	4.1	4.1	3.9	4.7	5.2	4.9
There is sufficient debt funding available for new and growing firms	4.7	4.6	3.9	4.0	4.3	5.3
There are sufficient government subsidies available for new and growing firms	5.4	5.5	5.0	5.0	5.2	5.5
There is sufficient funding available from informal investors (family, friends and colleagues) who are private individuals (other than founders) for new and growing firms	4.2	4.3	4.6	4.9	5.0	4.9
There is sufficient professional Business Angels funding available for new and growing firms	3.4	3.7	3.3	4.1	4.6	4.7
There is sufficient venture capitalist funding available for new and growing firms	2.6	2.7	2.6	4.8	4.4	5.0
There is sufficient funding available through initial public offerings (IPOs) for new and growing firms	2.6	1.9	2.3	3.3	4.2	3.8
There is sufficient private lenders' funding (crowdfunding) available for new and growing firms	2.1	2.2	2.5	2.9	3.5	4.4
In my country it is easy: to get debt funding (bank loans and similar for new and growing firms)	–	–	3.2	3.6	4.0	4.2
It is easy to hire financial support services at reasonable cost for new and growing firms	–	5.2	4.8	4.8	4.7	5.0
It is easy for nascent entrepreneurs to get enough seed capital to cover start-up and early-stage expenses of a new business	–	4.4	4.0	3.9	4.6	4.4
It is easy to attract investors / funds to make a new business grow once the start-up phase is completed		3.5	3.7	4.3	4.8	4.7

*(scale: 1=completely false, 9=completely true)

Cyprus Greece Luxembourg Europe

Table 4.7: Cultural and social norms*

	2020/2021	2021/2022	2022/2023			
			Cyprus	Greece	Luxembourg	Europe
The national culture is highly supportive of individual success achieved through own personal efforts	4.7	4.1	4.8	4.7	5.7	4.7
The national culture emphasizes self-sufficiency, autonomy, and personal initiative	4.4	3.8	4.5	4.4	5.6	4.5
The national culture encourages entrepreneurial risk-taking	3.2	2.7	3.7	3.6	4.8	3.8
The national culture encourages creativity and innovativeness	3.8	3.6	4.0	4.0	5.6	4.7
The national culture emphasizes the responsibility that the individual (rather than the collective) has in managing their own life	4.5	4.0	4.3	4.6	5.6	4.6

Table 4.8: Internal market dynamics and burdens *

	2020/2021	2021/2022	2022/2023			
			Cyprus	Greece	Luxembourg	Europe
The markets for consumer goods and services change dramatically from year to year	4.7	4.5	5.1	5.1	3.6	5.3
The markets for business-to-business goods and services change dramatically from year to year	4.8	4.7	5.1	4.9	3.8	5.1
New and growing firms can easily enter new markets	4.0	4.0	5.0	4.4	5.0	4.9
New and growing firms can afford the cost of market entry	3.6	3.3	4.4	4.5	4.7	4.4
New and growing firms can enter markets without being unfairly blocked by established firms	4.4	4.3	4.5	5.1	4.2	4.7
The anti-trust legislation is effective and well enforced	5.4	4.8	4.8	4.9	5.1	5.0

Table 4.9: Research and development transfer*

	2020/2021	2021/2022	2022/2023			
			Cyprus	Greece	Luxembourg	Europe
New technology, science, and other knowledge are efficiently transferred from universities and public research centers to new and growing firms	3.9	3.8	3.2	4.5	4.9	4.2
New and growing firms have just as much access to new research and technology as large, established firms	4.3	4.1	4.3	4.6	4.7	3.8
New and growing firms can afford the latest technology	3.4	2.9	4.2	5.7	4.2	3.7
There are adequate government subsidies for new and growing firms to acquire new technology	3.9	3.8	4.7	5.0	5.1	4.3
The science and technology base efficiently supports the creation of world-class new technology-based ventures in at least one area	4.7	4.3	4.2	4.6	5.5	4.7
There is good support available for engineers and scientists to have their ideas commercialized through new and growing firms	3.8	3.7	3.4	4.5	4.6	4.5

*(scale: 1=completely false, 9=completely true)

the GEM NES results, although the perceptions of the experts on this topic have improved compared to the previous year (6), the cost is less reasonable compared to Greece (6.5), as well as compared to the European average score (7). Despite the positive views on the legal and tax strategy implemented by the government, experts perceive that in Cyprus, the support for new and growing firms is not a high priority for policy at the local government level (4.4). However, their perceptions on this topic have improved compared to the previous year (3.6). Table 4.3 summarizes the findings on this entrepreneurial framework condition.

Entrepreneurial Education and Training

Entrepreneurial education in Cyprus has consistently been viewed as a challenge for the nation's entrepreneurial environment over time. GEM examines both entrepreneurial education during school years and beyond. Experts have specifically emphasized the inadequacy of entrepreneurial education at the school level. They consider that teaching in primary and secondary education does not sufficiently encourage creativity, self-sufficiency, and personal initiative (2.8). Along the same lines, the experts perceive that education in Cyprus does not provide adequate instruction in market economic principles (2.4) and does not pay adequate attention to entrepreneurship and new firm creation (2.2). Entrepreneurial education at school level is notably lower compared to the corresponding European average scores as well as countries employed as benchmarks for all indexes under this framework condition.

GEM NES also reflects on entrepreneurial education provided at post-school level. Overall, experts perceive that education at post-school level in Cyprus is more supportive towards entrepreneurship compared to the education offered at school level. However, they also consider that post-school entrepreneurial education is a weakness for Cyprus entrepreneurial ecosystem. They perceive that colleges and universities do not provide adequate preparation for starting up and growing new firms (4.3). This score is lower compared to the European average rate (4.5) and lower compared to the scores of Luxembourg (5.6). Experts also consider that the level of business and management education does not provide adequate preparation for starting up and growing new firms in Cyprus (4.2). This score is also lower compared to Europe (4.9) and Luxembourg (5.6). Experts also consider that Cyprus lacks sufficient vocational, professional, and continuing education systems which could provide adequate preparation for starting up and growing new firms (3.7). This score is lower compared to the European average score (4.5). Perceptions on this topic demonstrate an improvement compared to the previous year (3.7). Table 4.4 provides an overview of the perceptions of national experts on entrepreneurial education.

Government Entrepreneurship Programs

According to the experts, Government Entrepreneurship Programs in Cyprus are not sufficiently supportive for entrepreneurs. The score on this framework condition demonstrates a decreasing trend across the last three years. Compared to the corresponding scores in Europe, Greece, and Luxembourg, Cyprus scores notably lower. This suggests an urgent need to enhance and strengthen governmental initiatives supporting entrepreneurship in Cyprus. Experts consider that there is lack of government programs for new and growing businesses (4.3). Cyprus' rate on this topic is lower compared to Europe (5.8), Greece (4.9) and Luxembourg (6.2). Experts also view that government assistance for new and growing firms can not be easily obtained through contact with a single agency (3.5) and science parks and business incubators do not provide effective support for new and growing firms (1.8). The corresponding European average scores are higher regarding both single agency availability (4.3) and science parks and business incubators support (5.1). Compared to the previous years, we note that Cyprus' score on the topic relevant to science parks and business incubators providing support to new and growing businesses is notably lower. Experts also view that in Cyprus, it is difficult for someone who needs help from a government program for a new or growing business to find what they need (3.7). They view that the people working for government agencies are to some extent competent and effective in supporting new and growing firms (4.6). Perceptions on this topic demonstrate an improvement compared to the previous years, however, they are lower compared to EU average rate and the rates of benchmark countries. Experts highlight that the effectiveness of government programs aimed at supporting new and growing firms is limited (3.7). Overall, the results on Government Entrepreneurship Programs highlight the pressing need for establishing more solid and targeted programs for new and growing firms, whereas the establishment of a science park could further contribute to assisting entrepreneurs.

Financial environment for entrepreneurship

Access to funding plays a crucial role in fostering entrepreneurial expansion. Despite endeavors to enhance the financial landscape for entrepreneurship in Cyprus, this year's NES findings suggest that, according to experts, no significant improvements have been noted in this regard. Experts view that there are sufficient government subsidies available for new and growing firms (5.0). This score is equal to the corresponding score of Greece and lowerr compared to Luxembourg (5.2) and the EU average value (5.5). They also perceive that it is relatively easy to hire financial support services at reasonable cost for new and growing firms (4.8), a score which is slightly higher compared to Luxembourg (4.7), and slightly lower compared to the EU average rate (5). Access to finance in terms of equity funding and debt funding is not sufficient. Experts consider that there is not sufficient perceived as equity funding available for new and growing firms (3.9), whereas the availability of debt funding for new and growing firms is marginal (3.9). Compared to the previous years, experts' perceptions are less optimistic on the sufficiency of equity funding and debt funding. This is also reflected in their perceptions on funding from professional Business Angels (3.3) and venture capitals (2.6) whose availability is considered to be very limited. This year's GEM NES also included a question on the ease of accessing debt funding for new and growing business. In Cyprus, the experts consider that it is difficult to access debt funding (3.2) and this is more difficult compared to Europe (4.2), Greece (3.6) and Luxembourg (4).Access to funding from informal investors (family, friends and colleagues) may be easier compared to Business Angels or venture capitals, however it is still limited (4.3). Moreover, overall access to funding from different types of investors is more difficult for new and growing businesses in Cyprus (4.6) compared to Europe (4.9), Greece (4.9) and

Luxembourg (5). GEM NES 2022/2023 also reflects on access to finance with regards to startup maturity stage. Experts view that although difficult for nascent entrepreneurs to get enough seed capital to cover start-up and early-stage expenses of a new business (4), it is even more difficult to attract investors / funds to make a new business grow once the start-up phase is completed (3.7). Table 4.6 summarizes all items employed for measuring this framework condition.

Cultural and social norms

Experts view that the Cultural and Social Norms is a framework condition which acts as a burden for the island's entrepreneurial ecosystem. Although the score of this framework condition has improved compared to last year's results, it is considered still as a weakness of the ecosystem in Cyprus. Experts perceive that the national culture in Cyprus discourages entrepreneurial risk-taking (3.7). However, this perception has improved compared to last year (2.7). In Luxembourg, the experts perceive that the culture is more encouraging towards risk-taking (4.8). According to the experts in Cyprus, the culture does not sufficiently encourage creativity and innovativeness (4), especiallywhen compared to Luxembourg (5.7) and Europe (4.7). The national experts also report that Cyprus' culture is slightly supportive of individual success achieved through own personal efforts (4.8) and a score which signals an improvement from the previous year (4.1). Table 4.8 summarizes the scores on each of the items relating to cultural and social norms for Cyprus and other countries.

Ease of Entry

In the evolving landscape of consumer and business markets, the NES explores the Ease of entry for new and growing businesses. On examining the Ease of Entry for new and growing firms, the survey focuses particularly on internal market dynamics and regulatory burdens within each economy. In Cyprus, experts perceive the effectiveness and enforcement of anti-trust legislation for new and developing firms to be satisfactory (4.8). The score has remained unchanged compared to the previous year although it marks a decline from the 202/2021 while at the same time falling below the current European average value (5). On the affordability of market entry for new and growing businesses, experts view that it is still difficult for new and growing firms to affort the cost of market entry (4.4), making an improvement compared to the previous year (3.3). This is aligned with the corresponding EU average value for this year (4.4), however it is lower compared to Greece (4.5) and Luxembourg (4.7). Similarly, in Cyprus, experts are more optimistic on the ease with which new firms can enter new markets (5), which is slightly higher compared to the EU average score (4.9) and Greece (4.4). On their perception of the markets for consumer goods and services changing dramatically from year to year, experts in 2022/2023 are optimistic (5.1). This score falls below the European average (5.3) and exceeds Luxembourg's (3.6). Table 4.8 provides a summary of these findings regarding internal market dynamics, burdens, and entry regulations.

Research and Development (R&D) Transfer

Research and development (R&D) is vital for driving innovation and economic growth of each economy, as it leads to the creation of new products, processes, and technologies, enhancing competitiveness and productivity. Additionally, R&D holds an important role in addressing societal challenges and advancing technological progress, ultimately improving standards of living and fostering long-term prosperity. Overall, the R&D transfer in Cyprus is perceived as a weakness of the ecosystem. The experts in Cyprus perceive that the latest technology is not affordable for new and growing businesses (4.2). Although the perceptions on this topic have improved, this is notably lower compared to Greece (5.7). Experts also view the support score available for engineers and scientists to have their ideas commercialized through new and growing firms as not sufficient (3.4), which is lower to the corresponding European average score (4.5) as well as Greece (4.5) and Luxembourg (4.6). Regarding new technology, science, and other knowledge transferred from universities and public research centers to new and growing firms, experts in Cyprus perceive that the level of transfer is limited (3.2) which is lower compared to EU average rate (4.2), Greece (4.5) and Luxembourg (4.9). However, perceptions on the adequacy of government subsidies for new and growing firms to acquire new technology have improved (4.7) compared to the previous year (3.8). Overall, results demonstrate that the R&D transfer in Cyprus is lower than that of Luxembourg, Greece and of other European countries and that no significant improvement has taken place across the years.

The findings of the GEM NES study reveal that Cyprus' entrepreneurial ecosystem offers advantages that can boost new and growing business, particularly in terms of Commercial and Services Infrastructure, Physical Infrastructure, and Ease of Entry on Market Dynamics and Government Policy with regards to Taxes & Bureaucracy. Despite positive efforts of to enhance and support entrepreneurial activity, Cyprus' NECI index indicates a low level of Entrepreneurial Framework Conditions (EFCs). This is associated to persistent burdens within the entrepreneurial ecosystem of the island, including issues with Entrepreneurial Finance, R&D Transfer, Entrepreneurial Education and Government Entrepreneurial Programs. Overall, the NES results indicate a deterioration in Cyprus's EFCs over recent years, with the NESI index value lower than that of many European countries, including Greece and Luxembourg. These findings underscore the necessity for enhanced public and private initiatives to address identified challenges. The following Section responds to these limitations with specific policy recommendations.

EXISTING POLICIES AND FUTURE POLICY RECOMMENDATIONS

5

The Global Entrepreneurship Monitor (GEM) report serves as a valuable tool for policymakers and entrepreneurs, offering comprehensive insights into the state of entrepreneurship. This year's data offer insights on the factors shaping the island's entrepreneurship and the conditions of the entrepreneurial ecosystem. The insights arising in this report as well as the cross-country comparisons can contribute to guiding policy makers in creating effective policies and initiatives aimed at fostering entrepreneurship so as to drive economic growth and facilitate the creation of new jobs. Along the same lines, entrepreneurs can gain valuable insights into market conditions, regulatory environments, and emerging trends, helping them make informed decisions and navigate challenges.

The 2022/2023 Cyprus report signal the need for the development and implementation of supportive policies to foster entrepreneurship in the post-pandemic period, with the goal of enhancing Cyprus' entrepreneurial ecosystem and strengthening the resilience of its businesses against future disruptions. Drawing on this year's insights, along with previous policy recommendations outlined in the GEM Cyprus reports, this Section outlines policy recommendations clustered in four categories: Education & Culture, Government & Policies, Financial Support and Business Support.

EDUCATION AND CULTURE

This year's findings highlight that entrepreneurial education at school and at post-school levels is limited. Following the trend of the previous years, the GEM NES results highlight that school-based entrepreneurial education is lagging behind compared to the majority of European countries. This regards education on creativity, self-sufficiency, personal initiative, economic principles, and new firm creation. Along the same lines, education at post-school level in Cyprus does not provide sufficient preparation for starting up and growing new firms with regards to business and management education as well as continuing education.

These limitations are also reflected in the GEM APS results demonstrating that there exists a prevalent risk-averse attitude towards entrepreneurship.

The GEM Cyprus results for 2022/2023 suggest several policy recommendations concerning education and culture.

Primary and Secondary Education:

- Enhancing educational opportunities at school level with approaches that encourage creativity, self-sufficiency, and personal initiative
- Integrating financial literacy in primary and secondary education to provide training in market economic principles
- Encouraging project-based learning
- Encouraging female involvement in STEM
- Training educators on different learning approaches to entrepreneurial culture in different courses
- Encouraging educators to involve more students in entrepreneurship activities (e.g., competitions, training camps)

Tertiary Education:

- Encouraging colleges and universities to enhance all curricula with courses on financial literacy and on managing new firms
- Enhancing all academic programs to include courses and activities on entrepreneurship and innovation
- Encouraging collaboration and interdisciplinary teamwork among students from different academic disciplines
- Providing the opportunity to university students to pause or adjust the pace of their studies while embarking on entrepreneurial journeys alongside their studies
- Facilitating internships, co-ops, or experiential learning opportunities with startups, small businesses, or entrepreneurial organizations. incubators or accelerators on campus to support student startups
- Providing ongoing support and resources for alumni who have launched their own businesses
- Creating entrepreneurial centers or institutes that serve as hubs for entrepreneurship education, research, and outreach
- Offering short courses to university graduates interested in starting up new businesses or transforming existing firms
- Including research commercialization lectures as part of the taught courses targeted at doctoral and post-doctoral researchers
- Enhancing the collaboration between academia and industry through industrial doctorate programs

Culture and social norms:

- Promoting entrepreneurial role models, celebrating their achievements and share their stories through media, events, and educational programs
- Encouraging female entrepreneurs to mentor female students interested in entrepreneurship
- Promoting entrepreneurial success stories through awards ceremonies and media campaigns to showcase local entrepreneurs and their contributions to the economy and society

GOVERNMENT PROCESSES & POLICIES

The outcomes for 2022/2023 show that overall, on government policies, support for new and growing businesses is a priority at national government level. This is also reflected in the NES results showing that entrepreneurs in Cyprus can register new firms/businesses at reasonable cost and that the amount of taxes is not a burden for new and growing firms, while taxes and other government regulations are applied in a predictable and consistent way. However, the time required for new firms to acquire all relevant permits and licenses remains a burden for new businesses. Experts also highlight government bureaucracy, regulations, and licensing requirements as obstacles for new and growing firms. These challenges demonstrate a pressing need for further enhancements. Additionally, the APS shows that the 'gender gap' 'gender gap' in TEA, not only persist across the years but has also increased this year, signaling for the need for further policies to address female participation in entrepreneurship. The GEM findings prompt recommendations for government processes, policies, and structures:

Government processes:

- Elevating the services of the Business Facilitation Unit support to optimize operation and digitilize all procedures for companies operating in Cyprus or international companies wishing to operate in Cyprus
- Monitoring and reducing the time required for new businesses to acquire the necessary permits and licenses

Government policies:

- Enhancing the support offered to new and growing businesses and entrepreneurs at local level
- Boosting the offering of shared office spaces and hot desks for entrepreneurs and new businesses through incentives at local level
- Implementing additional policies to support entrepreneurship among minority and underrepresented groups, such as women. This can include targeted support programs, mentorship initiatives, and policies that promote diversity and inclusion in entrepreneurship
- Improving infrastructure including access to network and affordable energy so as to lower the cost of doing business and facilitate market access

Government structures & schemes:

- Building structures which make female entrepreneurs eligible to government-funded childcare
- Implementing schemes to enhance intrapreneirship and research and development activities in existing businessess

FINANCIAL SUPPORT

The GEM 2022/2023 results show that the entrepreneurial finance is a weakness of the entrepreneurial ecosystem in Cyprus. According to the NES results, access to finance is insufficient and this regards many different sources of finance for new and growing businesses including debt funding, equity funding, funding from business angels, venture capital funding as well as funding from private lenders (crowdfunding). The results regard entrepreneurs at different levels, including nascent entrepreneurs seeking for seed funding as well as new business owners seeking for funding to grow their businesses once the start-up phase is completed. Similar issues are also reflected in the framework condition on government programs which are aimed at supporting new and growing businesses as experts perceive government programs as a weakness of the ecosystem. In particular, existing government programs aimed at supporting new and growing firms are considered as limited, while engineers and scientists tare considered as not having sufficient support for commercializing their research results. Entrepreneurial finance is important for initiating and expanding new enterprises, as highlighted in the 2022/2023 GEM findings, underscoring the necessity for enhancing available financial resources for entrepreneurs. Policy recommendations related to financial support for entrepreneurship could include:

Investors

- Promoting the existing scheme of tax incentives to encourage private individuals to invest in innovative businesses
- Establishing government-backed venture capital funds or co-investment programs that match private investment in startups
- Creating seed funding programs that provide grants to investors who support early-stage startups
- Providing resources and networking opportunities for investors to connect with entrepreneurs and learn about investment opportunities
- Educating informal investors about the benefits and risks of investing in startups
- Encouraging frequent local events aimed at fostering connections and partnerships between investors and entrepreneurs to facilitate networking and matchmaking opportunities
- Providing incentives for established businesses to participate as angel investors, thereby fostering investment in startup ventures
- Creating tax incentive programs specifically designed to attract angel investors and venture capital from global sources, thereby stimulating investment in entrepreneurial ventures

Government entrepreneurship programs:

- Offering different funding schemes dedicated to the growth of businesses at different stages (nascent, new businesses, established businesses)
- Enhancing existing programs to financially support the exploitation of research results especially for engineers and scientists
- Developing programs to targeted to the development of synergies between academia and industry in Cyprus
- Introducing targeted programs for investments in specific sectors or industries that are strategic priorities for economic development (i.e., Smart Specialization Strategy)
- Developing programs aiming at the formation of investor networks where multiple investors pool their resources to support start-ups

BUSINESS SUPPORT

Aligned with the results of previous years, Cyprus provides a good physical infrastructure and commercial and services infrastructure for new and growing businesses, while market entry requirements have improved. However, the NES results highlight the lack of affordable production spaces to rent for new and growing firms, whereas the support provided by science parks and business incubators is not sufficient for new and growing firms. New technology, science, and other knowledge are not efficiently transferred from universities and public research centers to new and growing firms in Cyprus. This year's insights also show that the creation of world-class new technology-based ventures is not sufficiently supported, and that the latest technology is not affordable by new and growing businesses. Findings on business support also arise by the APS results highlight that only few TEA entrepreneurs in Cyprus consider the technology or processes used as new to the world or consider their product or service as innovative. These findings result in policy recommendations aimed at enhancing the assistance accessible to new and growing businesses:

Technology enhancement:

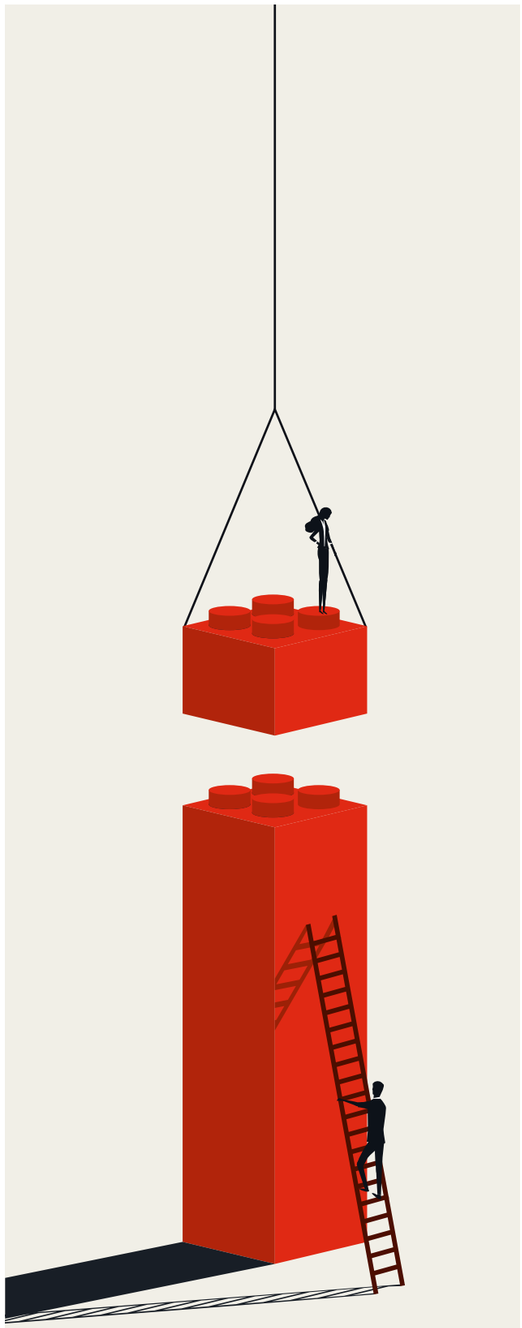
- Incentivizing the upgrading of new and growing firms to the latest technologies
- Establishing programs or facilities that offer mentoring, training, and access to cutting-edge technologies for startups to accelerate their technological development
- Providing technology vouchers or grants that new businesses can redeem for specialized technology services, consulting, or training from approved vendors or service providers. (e.g., digital transformation strategy vouchers)
- Investing in infrastructure and policies to ensure widespread access to high-speed internet connectivity
- Providing training to entrepreneurs and their teams with the digital skills necessary to leverage technology effectively in their businesses models
- Facilitating the transfer of technology from research institutions, universities, and large corporations to new businesses through licensing agreements, joint ventures, or technology commercialization initiatives

Supportive Environment:

- Offering public production spaces for new and growing firms at discounted prices
- Incentivizing the private sector to create more shared office spaces
- Providing workshops to assist engineers and scientists in assessing the exploitation potential of their research work
- Establishing science parks to serve as hubs for universities, research institutions, technology companies, startups, and entrepreneurs converge to collaborate, exchange ideas, and commercialize research findings

Extroversion:

- Organizing matchmaking events through which engineers and scientists could meet firms interested in commercializing research results
- Facilitating mentorship opportunities in which international entrepreneurs can provide guidance, advice, and support to new entrepreneur targeting international customers
- Promoting partnerships and collaborations with businesses, organizations, and institutions in other countries aiming to help entrepreneurs expand their reach, and leverage local expertise and resource
- Supporting entrepreneurs in Cyprus to participate in international startup events, trade exhibitions and business delegations to explore business opportunities in foreign markets



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6

DiGiNN: EUROPEAN DIGITAL INNOVATION HUB IN CYPRUS

Empowering the Green & Inclusive Digital Transformation of Cyprus

INTRODUCTION

We live in a connected and rapidly changing environment, where disruptive technologies continuously transform the way we work and interact with organisations and people around us. In today's business world, to stay ahead of the game in this dynamic environment, all organizations need to embrace digital transformation. SMEs are the backbone of the European economy, driving innovation and job creation. However, they often face challenges in adopting new technologies due to a lack of awareness and relevant expertise, as well as limited resources. Moreover, the public sector plays a critical role in enabling national business and societal ecosystems to become more sustainable and resilient towards the well-known climate crisis risks. Through the adoption of digital technologies, organisations can streamline processes, reduce costs, provide better services to the public and SMEs and improve the quality of life of citizens.

The European Digital Innovation Hubs (EDIHs) are the European Commission's answer to addressing all challenges faced by SMEs and the public sector in Europe regarding their digital transformation. A significant number of EDIHs (151) have been formed across Europe, supported by the Digital Europe Programme in 2023. The mission of EDIHs is to become one stop shops supporting companies and public sector organisations to respond to digital challenges and become more competitive.

The Digital Innovation Hub in Cyprus (DiGiNN) was formed in early 2023 and is the sole EDIH on the island. It combines expertise in research, innovation and development in the technical fields of artificial technology, high performance computing, advanced digital technologies and cybersecurity as well as innovation and entrepreneurship. National industrial representation bodies and sectoral associations are also part of the Hub, thus establishing the direct interface between state-of-the-art offer and broad demand. Moreover, the consortium includes, as partners, the most active local business incubators to guide and support early-stage start-ups in terms of their business training upskilling, networking and access to funds for improving and scaling up their products and services. Finally, DiGiNN coordinates a number of economy sectoral working groups and sustainable development clusters, to orchestrate all DiGiNN activities through the lens of green transition and inclusiveness, ensuring that the appropriate conditions for sustainable digital development are met and that no-one is left behind.

Beyond the role of 'a one-stop shop service provider', the vision of DiGiNN is to develop and promote a strong "Digital culture" amongst local economic actors, bridging the gap between the accessibility of state-of-the-art products & services and the digital transformation needs of the local industrial and business ecosystem. To this end, the hub fosters strong working relationships with experts to ensure sustained demand for digital innovation.

DiGiNN's unique strength lies in its powerful network of partners and collaborators that have the potential to propel the country towards state-of-the-art and cutting-edge advancements. Moreover, with local ambassadors and physical representation offices strategically positioned in all cities, DiGiNN ensures a cohesive and inclusive approach to Cyprus' digital transformation, aligning seamlessly with the National Digital Strategy and Smart Specialization Strategy 2030.

DiGiNN offers four categories of services without cost to all Cypriot SMEs and public sector organizations. Since DiGiNN is part of an EU-wide network of 151 EDIHs, its offered services are widely available to the entire European digital ecosystem for experimentation with and testing of new products/ services. This is achieved through the guidance of dedicated local experts and collaborations in the form of clusters and/or signed MoUs.

DiGiNN CYPRUS

EUROPEAN DIGITAL INNOVATION HUB

Provided Services

The aim of the DiGiNN services is to help companies improve their operational /business /production processes and products & services through the use of digital technologies. This support is materialised by:

- providing access to testbeds, infrastructure, testing, technical expertise and training on technologies and state-of-the-art tools and/or
- providing services, such as innovation and entrepreneurship training, advice for financing and finding investment, development of skills critical for successful digital transformation and/or
- leveraging the use of digital technologies for tackling environmental challenges, sustainability and circularity.

Four distinct categories of services have been identified and created by DiGiNN. These are:

1. 'Test before Invest' Services

DiGiNN offers 'test-before-investing' services that provide SMEs and public organizations with valuable digital expertise, access to technologies/infrastructure/tools, pilot and test environments related to artificial intelligence, high performance computing, cybersecurity and other advanced digital technologies (IoT, advanced digital tools). The concept 'test before invest' enables end-users to test a demonstrated technology/tool, evaluate its value addition with respect to their needs and make an informed decision about its full-scale adoption and further investment in it. The technology sectors offered under the 'test before invest' category are:

- Artificial Intelligence Services

The recent unlocking of the potential of AI technology brings the revolutionization of industries even closer and opens up unthought-of opportunities for businesses, organizations, and individuals. The incorporation of AI into everyday business operations facilitates the identification of patterns, offers valuable insights, and supports informed decision-making and automation of actions derived from such insights. In essence, harnessing AI enables the enhancement of efficiency, cost reduction, and the ability to remain competitive in the dynamic landscape of today's business environment.

Examples of AI services provided through DiGiNN include access to technologies and solutions such as:

- Machine Learning Model Development and Deployment
- Natural Language Processing (NLP) Services
- Computer Vision and Image Recognition Solutions
- Predictive Analytics and Forecasting Services
- Virtual Assistants and Chatbot Development
- Deep Learning and Neural Network Solutions
- Cognitive Computing and Decision Support Systems
- Sentiment Analysis and Opinion Mining Services
- Fraud Detection and Prevention Solutions

- Cyber Security

In today's complex and heavily interconnected environment, cyber-attacks, particularly within businesses and governmental organizations, are presenting a critical threat not only for business continuity purposes but also for severe disruption of critical infrastructures and supply chains that support whole societies. Regulatory frameworks worldwide are addressing these issues by imposing cyber-hygiene and cybersecurity measures and actions across organizations. Therefore, cybersecurity services enable businesses to react against cyber-threats, attacks and vulnerabilities, minimizing the risk of severe operational disruptions. Examples of Cybersecurity services provided through DiGiNN are:

- Access to cryptography solutions.
- Consultancy services such as policy guidance on cybersecurity.
- Digital maturity assessments on cybersecurity.
- Designing business continuity and disaster recovery procedures.
- Access to Block chain and Distributed Ledger Technologies.

- HPC Services

High-performance computing (HPC) involves processing data and executing intricate calculations at rapid speeds, facilitating advancements in science, technology, business, and manufacturing. DiGiNN's HPC solutions empower users to visualize, analyze, and optimize the most demanding workloads, driving them towards their next breakthrough. Examples of HPC services provided through DiGiNN include:

- Access, Testing and Experimentation to Custom HPC applications.
- Remote access to HPC computing and storage resources with expert support.
- HPC Infrastructure Design and Implementation: support in procurement and deployment to build bespoke HPC infrastructure.
- HPC Technologies Demonstrators: use of lab facilities to perform live demonstrations of technologies and opportunities.
- HPC deployment and sharing operation best practices.

- Advanced Digital Technologies Services:

The DiGiNN Hub offers access to other advanced digital technologies and environments such as Makerspaces and Fablabs, utilizing digital tools for the testing, experimentation and prototyping of digital technologies and applications.

2. Upskilling & Training

DiGiNN offers a rich selection of training services targeting employees in various industries to meet today's needs for upskilling and reskilling. The approach to training delivery is individualized according to the digital maturity status of each organization. The DiGiNN training portfolio covers a wide range of technology areas, including High-Performance Computing, Artificial Intelligence, Cybersecurity, and Other Advanced Technologies. Several types of training opportunities are available, such as workshops, online and face-to-face courses, talks, webinars, hackathons, and boot camps, each of which introduces varying degrees of detail and specialization in each topic. Individuals and organizations are assisted in staying up to date with the latest technology advancements and remaining competitive in the digital landscape.

3. Support to find investment

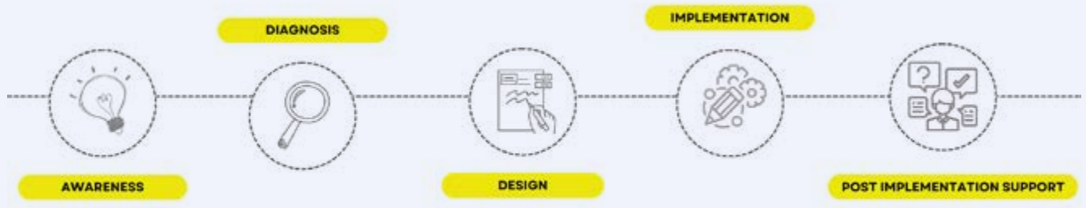
DiGiNN is operating as a point of information for a diverse range of financing options, providing a suite of services to assist SMEs and public entities in securing external funding for investing and adopting digital technologies. As the business landscape continues to undergo transformative shifts, DiGiNN stands as a reliable partner, committed to empower entities with the tools and insights needed to thrive in an increasingly dynamic economic environment.

4. Innovation ecosystem & networking

DiGiNN introduces a comprehensive series of activities aimed at supporting a vibrant ecosystem of SMEs and start-ups centred on digital technologies, facilitating the seamless flow of information and activities of the business and entrepreneurial ecosystem in a quintuple helix framework. These multifaceted initiatives are designed to bridge the existing gap between businesses and public organizations that have a demand for cutting-edge technology products or services and the innovative companies ready to deliver market-ready solutions, while aligning with local and regional green transition and sustainable development goals initiatives. The overarching goal is to facilitate connections and foster collaborations that go beyond mere transactions. By doing so, these activities aim to not only expand the value chains of the involved entities but also cultivate an extensive network, creating a fertile ground for mutual growth and advancement within the ever-evolving landscape of digital innovation.

DiGiNN Customer Journey

DiGiNN is committed to providing an end-to-end experience to SMEs and public sector organisations regarding their digital transformation. This is provided through the DiGiNN Customer Journey Process. Initially, the digital maturity of an organization is assessed and the specific customer needs are identified and matched to specific DiGiNN services. The DiGiNN service provision is then closely guided and monitored to align with each customer's digital transformation vision.



The DiGiNN customer transformation journey consists of five steps:

1. Customer Awareness

Initiating the process, this step involves creating awareness to interested organizations through targeted marketing and communication campaigns, as well as leveraging the capacity of the regional Chambers of Commerce offices to serve as local information points. The primary goal is to disseminate information about DiGiNN's objectives and offerings, while enlightening SMEs and public authorities about the digital challenges and opportunities they may encounter. This initial phase guides customers to engage with the Hub, outlining the necessary steps, including contact initiation and registration through DiGiNN's portal.

2. Diagnosis

This plays a crucial role in identifying the customer's needs and assessing their current digital maturity and innovation landscape. Conducted through a Digital Maturity Assessment (DMA), this step evaluates the customer's current level of digital adoption, the utilization of digital technologies in their operations and their capacity for change implementation. The DMA serves as a tool to gauge the potential customer's digital maturity, informing the determination of suitable services to be offered.

3. Design

Following the completion of the digital maturity assessment (DMA) questionnaire, the design phase involves evaluating the customer's needs identified in the DMA during the diagnosis step. This assessment serves as the foundation for designing personalized digital technology roadmaps. The design phase includes the provision of essential on-boarding information by and to the customer, facilitating the development of group or customized bundled services tailored to each entity's specific needs. The result is a roadmap (plan of activities) that aligns with the customer's unique requirements, setting the course for initiating digital transformation.

4. Implementation

Following the approval of the roadmap and consensus with the customer, the phase of service provision is initiated. This is focused on practical execution, incorporating specific milestones and deliverables. Direct communication with the customer is key during this stage, facilitating the hands-on implementation of digital transformation roadmaps. DiGiNN's approach emphasizes on efficiency, ensuring that the agreed-upon roadmap is put into action. This implementation phase is characterized by a commitment to achieving tangible results, maintaining a practical and collaborative stance to meet the outlined objectives.

5. Post Implementation Support

Concluding the customer journey, this step involves ongoing monitoring of customer satisfaction levels and reassessment of their digital maturity status. This crucial phase occurs at intervals of 12- and 24-months since the completion of the initial Digital Maturity Assessment (DMA). The objective is to ensure progressive success by actively monitoring customer satisfaction and evaluating the impact of the implemented activities. This iterative approach allows for adjustments as needed, fostering an environment of continuous improvement and adaptability in response to evolving business needs.

Partners and Affiliations

DiGiNN is a consortium of eleven (11) partners with rich expertise in research, development, innovation and entrepreneurship. DiGiNN brings together under one roof in a structured service framework, Cyprus' leading expertise in Artificial Intelligence, High Performance Computing and other advanced digital technologies by engaging the country's two prestigious national Universities, two Centres of Excellence, a leading research and innovation organization with expertise in Climate and Atmospheric science, Energy, High Performance Computing and Cultural heritage, two national experts in Cybersecurity and the most active business/start-up support service organizations in Cyprus.

DiGiNN has also significant strategic affiliations with important national and EU ecosystem stakeholders such as Enterprise Europe Network and the Cyprus Digital Security Agency (DSA).

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EDIH European Digital Innovation Hubs Network

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DISCLAIMER

Although GEM data were used in the preparation of this report, their interpretation and use are the sole responsibility of the authors.

ATTRIBUTION

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