

# EU SCHOLARSHIP PROGRAMME FOR THE TURKISH CYPRIOT COMMUNITY

## Skills Gap in the Turkish Cypriot Economy

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Ahmet Tarık Timur

Cem Tanova

Mustafa Besim



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## Executive Summary

The EU Scholarship Programme has been providing opportunities to Turkish Cypriots to participate in educational, training, and professional development activities in European Union member states since 2007. The programme has provided both direct benefits to the recipients through skills and knowledge development and indirect benefits to the economic development in the Turkish Cypriot community. Given the change in the demand for skills in the labour market due to both global and local developments, an assessment needed to be made to identify the skills gap in the Turkish Cypriot economy that would be utilized in the EU Scholarship Programme for the Turkish Cypriot community.

Identifying the skill gap may assist training providers, businesses, and policymakers, as well as individuals considering occupations, take the proper measures. The current study conducted a literature review on the skill gaps and identified the global trends in hard and soft skills that will become more important. An analysis of the labour market conditions in local economy based on available data was carried out. Following that, empirical data was collected from the EU Scholarship Programme alumni via an online questionnaire to ascertain their perspectives on the scholarship programme's impact and the future labour force specialities that would be required locally. Subsequently, focus groups were held with stakeholders such as trade unions, chambers of industry and commerce, artisans association, Human Resource Management Association, chamber of engineers and architects. More in-depth conversations were held during the focus groups to cross-check the data acquired from economic analysis and the questionnaire.

### Skill Gap

Skills are the ability and capacity to carry out processes and be able to use one's knowledge in a responsible way to achieve a goal. According to a study by McKinsey, a global management consulting company, 87% of human resource managers say they have major skills gap in their organisations. The life span of a skill used to be 5 years but it has now dropped to 2 years, which shows an important aspect of skill gap: employees might have the skill sets that they need to perform their jobs today but they will lack skills to continue to perform their jobs in the future (McKinsey, 2020). Furthermore, recent data shows that skill sets for jobs are expected to change by 30% by 2027 (World Economic Forum, 2022). Consequently, 1 billion people will have to be reskilled by 2030.

As trends, such as globalisation and advances in artificial intelligence as well as the concerns about environment, change the demands of the labour market and the skills needed for workers to succeed, people will need to rely not only on their technical skills but also on soft skills. We also observe that there are soft skills that employers are having difficulty in finding or developing among the workforce and the potential workforce. According to the World Economic Forum, technical skills such as technology usage, monitoring, and control as well as technology design and programming will be in demand. They also mention other crucial soft skills, such as analytical thinking, creativity, learning methodologies, resilience, adaptability, and problem solving.

Developing the necessary skills requires the employers, policy makers, and educational institutions to collaborate. Training and development initiatives that can lead to reskilling and upskilling are crucial for the sustainable availability of the needed skills. However, due to the unstable economy and inability to establish long-term plans, many companies across the world are being forced to rely more and more on temporary, contract, and freelance labour, sometimes known as "gig work."

### **Turkish Cypriot Economy**

The Turkish Cypriot economy can be classified as a micro-sized economy which produces nearly 3 billion US\$ in GDP yearly with per capita income of about 11 thousand US\$. Total value added is composed 70% of services: mainly tourism, education, trade, transportation, business, and personal and public services. Higher education with over 50 thousand students from abroad has also been an area that contributes significantly, as much as 8% on average. The remaining sectors are construction, light manufacturing and agriculture, which mainly produce 'niche' products and are complementary to the services sector.

The inactive working age population is high in the economy. Unemployment (especially among the young), low participation rates, informal employment, and skills mismatch problems result in an unbalanced labour market. On the one side, there are people who are having problems obtaining work, while companies are likewise having difficulty recruiting personnel to fill open positions. Especially, women and youth are disadvantaged in accessing job opportunities. However, a relatively high number of foreign labour are recruited in the Turkish Cypriot economy. This causes the waste of resources and labour productivity to be low, affecting the competitiveness of the economy overall. The dual economic structure continues even with doubled per capita income after 20 years. Findings indicate mismatch in the labour market of Turkish Cypriot economy resulting in skills gap.

### **The Perceptions of the EU Scholarship Recipients**

A survey was distributed via email to alumni of the EU Scholarship Programme. The survey data was collected 7 - 17 October 2022 with 148 useable responses collected from alumni that agreed to participate in the survey. The survey included questions related to the field of study, type, date, duration and the location of the scholarship; the perception of short term program recipients on the impact of the scholarship on their current job; the perceptions on the scholarship application process and procedures; the impact of the scholarship on how engaged the respondents feel in their workplace; impact on the soft and technical skills; the career related outcomes of the scholarship experience; the perceived impact of the scholarship program on the community; the specializations that are expected to become more important in the next decade; the study areas that will be needed over the next decade; the sectors of the local economy that will gain importance over the next decade; the process of choosing careers for the respondents.

The scholarship alumni that had participated in the short term training programme reported that they were able to transfer their learning to their organizations. All recipients were satisfied with the way that the scholarship program had been administered. The scholarship

also enhanced the level of job satisfaction through increased perceptions of self-efficacy, opportunities to share knowledge, and ability to carry out more independent work. The alumni reported that the scholarship helped them improve their communication skills, cultural adaptability, self-awareness, and creativity among soft skills. Foreign language capabilities, project management, information technology, and data analysis skills were among the most improved technical skills or hard skills. The participants also confirmed that the EU Scholarship Programme improved the knowledge of EU and member states, increased the EU values, contributed to the entrepreneurial skills and economic development in the community.

According to our findings, the majority of participants indicated a need for energy and power engineers. Perhaps this was triggered by the many disruptions in electricity supply in the community in the months preceding data collection, or perhaps the respondents saw the major energy supply issues that the EU is currently facing, as well as the high level of concern about sustainability when we rely on fossil fuels for energy. This was followed by an anticipated demand for data scientists as data volumes increased and the relevance of evidence-based management and decision making became evident. Agriculture was also one of the specialities identified as being in high demand. Perhaps as a result of the pandemic and the supply chain challenges that followed, more people are focused on being more self-sufficient and less reliant on imports. Agriculture, business and management, and computer science were named as the most significant subjects of study over the next decade.

### **The Focus Groups**

In order to cross validate the quantitative analysis of alumni surveys, focus group meetings were held with 37 participants from 7 stakeholder groups. Participants from different stakeholder groups presented their opinions on the reasons, components, and solutions for the skill gap.

The unfavourable working conditions in Turkish Cypriot community compared to the conditions in Greek Cypriot community and abroad coupled with the attractiveness of public institutions as attractive alternatives to the private sector were reported as a reason for the difficulty in finding qualified staff. The focus group members also believe that higher education institutions fail to teach practical skills that are valuable in the job market. Specifically, employability skills such as preparing job applications, CVs, researching jobs and job interview preparation were listed as lacking among applicants that had higher education degrees.

Generally, the employers seemed to be unwilling to provide training and development opportunities. Some recommended the provision of language training for specific purposes that would require a shorter duration instead of general-purpose language training. The focus group participants suggested that the EU Scholarship Programme may assist them through training the trainers which would lead to a larger impact and transfer of learning for the community. They also asked for shorter periods of training.

The focus group participants listed willingness to learn, interpersonal communication skills, ability to use initiative and follow through, leadership, and analytical and problem-solving skills as soft skills that are needed. In terms of hard skills, they listed digital literacy, data

analysis, accounting and financial analysis, and project management. Job-related software such as Python, C++, Logo Accounting, and AutoCad were also mentioned. The current demand seemed to focus on sales work in department stores, delivery staff, and jobs associated with the construction industry. The participants saw a growth in demand for construction related jobs, trade, distribution and sales jobs, software developers and data analysts. Financial analysts and staff to facilitate international trade were also listed.

### Priority list of soft and hard skills

The review on the global trends about demand for skills, the analysis on the economy and labour market of the Turkish Cypriot economy, the perception of both the alumni from the conducted survey and the stakeholder focus group meetings have enabled the research to produce the following priority list of hard and soft skills:

#### *Soft Skills*

- Continuous learning
- Initiative & Creativity
- Leadership
- Problem-solving
- Teamwork
- Interpersonal communication skills
- Organizational skills
- Self-awareness
- Critical thinking
- Resilience
- Cultural adaptability
- Conflict management

#### *Specializations*

- Data and information technology
- Finance
- Energy and Power
- Agriculture
- Environment
- Medical professionals
- Service management
- International trade experts
- Trade and crafts jobs (Technician & Operator)
- Construction and related jobs
- Visual designer

## 1 Introduction

Since its establishment in 2007, the EU Scholarship programme has provided a significant opportunity for Turkish Cypriots to participate in educational, training, and professional development activities in the European Union member states. In line with its programme objectives, the EU Scholarship Programme has signalled to the Turkish Cypriots that the EU is interested in their development, and it would be reasonable to expect that the programme has contributed to an increased appreciation of the values and goals of the EU. Furthermore, the programme also provided direct benefits to recipients through skills and knowledge development and indirect benefits to the economic development in the Turkish Cypriot community (TCC) through increasing the skills portfolio of the job seekers and employed



individuals as well as inspiring some to become entrepreneurs. At this point, an assessment needs to be made to identify the skill gaps to be utilized in the EU Scholarship process. Such an approach will ensure to identify the sectors and skills for which an actual need exists.

In this respect, this report employs a multi-level analysis in the needs assessment process. In the first section of the report global trends are studied to understand what kind of hard and soft skills are in need today and will be needed soon. This section also outlines some solutions to the skills gap problem at the global level. The second part of the report carries out a local level needs analysis. For this Turkish Cypriot economy and its labour market is studied to understand its structure and its evolution over time. The local level section outlines employment by sectors and occupations, significance of foreign labour and commuting workers and other components that are needed to help identify skills gap in the Turkish Cypriot economy. The third part of the report presents the results of the survey distributed to the alumni of the EU Scholarship Programme. In the last part, findings of the focus group meetings conducted with seven different stakeholder groups are supplemented. The last two section which are organisation and task level analysis have shed light on more specific needs of organizations and the demand for specific skills by different sectors in the Turkish Cypriot economy.

## 2 Overview of the Skill Gap Problem

### 2.1 Skill Gap Defined

Global competition requires companies to have a workforce that has required skill sets to perform current jobs and be ready for changes in the jobs in the future. The need for employees that could help companies create competitive advantage is more than ever. Companies' competitiveness and success are dependent upon having a workforce with right skills and qualifications flexible enough to adapt to changes in organisations and in the nature of work.

Skills are defined as "...the level of performance of an individual on a particular task or the capability to perform a job well which can be divided into technical elements and behavioral elements" (Noe et al., 2015). Skills, in general, are classified into two groups: Hard skills and soft skills. Hard skills refer to technical elements while soft skills are about communication and relationship elements and include attitudes and approaches employees display at work. According to Heckman and Kautz (2012) soft skills are personality traits, motivations, and preferences that are valued in the job market.

Skill gap is not a new issue and has important implications for employers, employees, productivity in the economy and the functioning of the job market. Skill gaps can adversely affect any economy. Both in developing and developed countries, employers can be concerned about unfilled positions in their organisations due to lack of skilled workers and the growing skill gap caused by the mismatch between sought skill sets and the skills job applicants possess. Thus, it is no surprise that the debate on skill gap has been going on for years. Both online and print media outlets publish stories in their business sections about difficulties companies face in finding employees they need. Reports and studies by scholars, labour and business organisations, non-governmental organisations, and governments have also been

produced emphasizing the importance of the issue and the need for a change in how we approach it. The call for change has been underlined in the 2020 report by the Adecco Group as well: “There needs to be a shift of focus that currently equates academic achievement to employability, to one that champions skills”.

By definition, the term skill gap underlies the need to adapt to changing demands of jobs caused by several factors such as developments in technology, changing customer demands, changing nature of work. Academics, government officials and businesspeople agree that rapid changes in industries result in new work demands, which in turn creates a mismatch between these new demands and current skill sets of employees. The debate on technological change, increased use of artificial intelligence, digitalization of data and work processes all point to large-scale structural changes in the near future, which might be an indication of skill gap in many industries.

Labour market analysts and researchers often use the phrase “skills gap” to reflect the struggle that employers have in finding qualified workers. More specifically, a skill gap is a fundamental mismatch between the skills employers rely upon in their employees and the skills job applicants possess. The term points to a situation in which employers have difficulty finding employees possessing skills required for successful completion of work. This might include technical (hard skills) or soft skills such as communication skills. However, when causes of skill gap are discussed, lack of basic skills is the most common complaint by employers (Cappelli, 2015), which is generally viewed as the failure of the education system. Other scholars argued that skill gap is related to higher education and the common assumption that university graduates will have skills required to be successful in their jobs is wrong (Harrington and Sum (2010).

Employers around the world report that they face difficulties in finding employees with the right skill sets to meet customer demand and increase their competitiveness. A skill gap in a labour market occurs when employers cannot find qualified workers to fill positions in their organisations under current market conditions. According to a McKinsey study 87% of human resource managers say they have major skills gap in their organisation. They state that the life span of a skill used to be 5 years but it has now dropped to 2 years, which shows an important aspect of skill gap: employees might have the skill sets that they need to perform their jobs today but they will lack skills to continue to perform their jobs in the future (McKinsey, 2020). Recent data shows that skill sets for jobs are expected to change by 30% by 2027 (World Economic Forum, 2022). Such a substantial change in skill sets means changes not only in jobs but in organisations as well. Consequently, according to the World Economic Forum’s estimates, 1 billion people will have to be reskilled by 2030.

According to a report by Association for Talent Development (2019) employees in the United States lacked soft skills such as communication, managerial, teamwork and leadership more than technical skills. A study conducted in Australia by Lindorff (2011) reported similar findings as well. Approximately 10,000 managers from different companies cited lack of leadership, management, and profession-specific skills as common problems caused by the skill gap (Lindorff, 2011). A report prepared by the UK Commission for Employment and Skills (2016) underlined that employees lacked people and personal skills related to workload management and teamwork. The findings of the survey conducted with 91,000 employers also showed lack of technical and job-specific skills. A report by the World Economic Forum (2020) states that

care, engineering and cloud computing, sales marketing and content, data and artificial intelligence, green jobs, people and culture, and specialized project managers will be the jobs in demand in the future. In the same report 10 future workplace skills that will be high in demand by 2025 are listed as well:

- Analytical thinking and innovation
- Active learning and learning strategies
- Complex problem-solving
- Critical thinking and analysis
- Creativity, originality and initiative
- Leadership and social influence
- Technology use, monitoring and control
- Technology design and programming
- Resilience, stress tolerance and flexibility
- Reasoning, problem-solving and ideation.

The changes in employer needs that resulted in increasing number of freelance and part-time jobs, technological change and automation of work processes, artificial intelligence, differences among the characteristics of generations, and changes in customer demand are also among the factors that change the nature of work and create more uncertainty in the workplace.

Numerous studies aim to explore the effect of these changes. Although the debate on the kinds and nature of these changes still continues, it could be argued that one change is almost certain: skills required in the new workplace are changing. With the post-pandemic challenges such the Great Resignation or Quiet Quitting still in the works, it could be argued that this “one certain change” makes the skill gap issue even more urgent and creates more challenges for all major stakeholders: employers, employees, governments and policymakers, and educational institutions. The most commonly voiced challenge underlines the complexity and multidimensionality of the issue: while millions of employees are either unemployed or underemployed, employers cannot fill vacancies/open positions in their organisations.

## 2.2 Importance of Hard Skills and Soft Skills at the Global Level

De Weert (2007) argues that while a diploma from a higher education institution used to be sufficient to secure employment in the past because it showed that the degree holder had the basic hard skills to perform the job. The new environment that is more uncertain with rapid changes in different factors (markets, products, customer needs and wants, nature of jobs) requires employees to focus on both hard and soft skills and to continuously update their skills and increase competencies to overcome challenges they could face in the labour market. The unpleasant alternative is to accept lower-level jobs. Because a higher education diploma would not be enough to secure employment, job applicants need to work on combining their hard skills with soft skills (Clarke, 2017). As we witness changes in jobs and how we organize them, demand for new skills occur. As a result, from an organisational standpoint, recruiters focus more on both skill sets that will meet the requirements of jobs and less on degrees or diplomas.

A common misconception seen in the debate on skill gap is that every employee needs to develop highly technological, scientific or quantitative skills to be successful on both current

and future jobs. Such hard skills are necessary today and will be necessary for successful job performance in the future, but employees need to have skills for interacting with others in their environments, which include such skills as creativity, collaboration, communication, and interpersonal dynamics as well (Zahidi, 2020). The International Employee Barometer survey results underlined the importance of soft skills and showed that employers view soft skills more important than technical skills acquired in higher education (Archer and Davison, 2008). The World Economic Forum also classified soft skills competencies as crucial competencies in the 21<sup>st</sup> century (Deloitte Access Economics 2017). It is generally stated that soft skills help employees to adapt to environment, take initiative and contribute to organisational success (Harvey, 2000). Scholars argued that soft skills are related to employability of young graduates entering the labour market (Grugulis and Vincent, 2009).

Job applicants' lack of soft skills and its negative impact on employability is studied in the literature (Crossman and Clarke 2010; Clarke 2017). According to a survey conducted by Adecco (2022) in 40 countries, 82% of young leaders see soft skills as being the most important ones to develop for the future. Continuous learning that would help employees cope with changes in both internal and external environments (e.g., changing nature of jobs, globalization, emergence of knowledge economy, increased need for flexible work arrangements) has been proven to be crucial for increasing employability and performing successfully in organisations (Forrier and Sels 2003; Fugate, Kinicki, and Ashforth 2004). Recent changes in the labour market have contributed to widening the skills gap for both current and future members of the workforce. Continuous changes in the labour market and technological developments increased demand for new jobs and new ways of performing current jobs, which resulted in increased demand for new skill sets and combining hard and soft skills as well. For example, the increased use of computers and information technology in almost every industry requires workers to increase their computer literacy and use of applications at work (Royle and Laing, 2014). But these will not be enough for satisfactory or high performance without soft skills such as teamwork, creativity, problem-solving etc. Managers in different industries agree with that argument. Citing the changes in labour market caused by the use of artificial intelligence and automation of work processes, 92 % of human resource managers stated that job applicants with strong soft skills are increasingly important (LinkedIn Global Trends Report, 2019). Ninety-one percent of respondents stated that soft skills are especially important to the future of recruitment and human resource management. Experts argue that "... since soft skills are the skills that give real "power" at work, we should rename them into *power skills*" (TalentLMS and SHRM, 2022). Because they influence how people work together, employers focus more on these "behavioral skills" or "people skills". According to a survey by TalentLMS and SHRM (2022) soft skills such as communication, collaboration, leadership will be the training focus for 76% of companies in 2022.

Accordingly, there has been no shortage in attempts to identify key soft skills that could be used in different places and for different purposes in organisations. Top 10 soft skills that were listed in the Adecco survey are people management and leading teams, communication, critical thinking, emotional intelligence, complex problem-solving, ethics, adaptability, creativity, data driven decision-making, and cross-cultural and inter-generational awareness (Adecco, 2022). Soft skills such as emotional intelligence, social intelligence, teamwork, communication skills, initiative, creativity and leadership are demanded by employers regardless of their industry and considered important factors for success on the job. In a survey conducted by the National

Association of Colleges and Employers in 2019, employers reported problem-solving skills, ability to work on team, and a strong work ethic as the top three attributes that applicants should have. Communication skills were listed as the most important skill in the service sector in the same survey. According to a survey conducted by TalentLMS and SHRM (2022), the most in-demand soft skills in 2022 are time management, communication and collaboration, leadership, critical thinking, and problem-solving. According to the Global Trends Report of 2019, soft skills that companies need but have a hard time finding are creativity, persuasion, collaboration, adaptability and time management. Andrews and Higson (2008) synthesized various studies in the relevant literature and identified key soft skills and hard skills that would increase employability:

- Professionalism
- Reliability
- The ability to cope with uncertainty
- The ability to work under pressure
- The ability to plan and think strategically
- The capability to communicate and interact with others, either in teams or through networking
- Good written and verbal communication skills
- Information and Communication Technology skills
- Creativity and self-confidence
- Good self-management and time-management skills
- A willingness to learn and accept responsibility

### 2.3 Solution to the Skill Gap Problem

As organisations, internal and external environments, and nature of jobs change companies need to employ strategies to help their employees acquire new skills required for successful job performance. Companies all around the world show effort to close skill gaps. According to McKinsey Report (2020) all managers consider closing current and potential skill gaps as a priority for their companies. About 33% of these managers place skill gap among the top three priorities. But when asked whether their companies are ready to address the skill gap problem, only about 33% say their company is prepared. Twenty-eight percent of managers say their companies make effective decisions to deal with skill gaps. A major obstacle they face is lack of information on the skill levels of their current employees and not being able to predict future disruptions that could be produced by changes in their environments and consequently in skill sets required by jobs. According to the report, only 41% say that their organisations have a clear understanding of jobs, skill sets and possible disruptions.

Agrawal et al (2020) recommend the following general guidelines to employers to effectively address the skill gap problem:

1. Understand which skills you need: Use a systematic and empirical approach first to see which skills the existing workforce has, which skills will be needed in the future and the supply of each skill that the company needs. Then compare your findings with the strategic needs to identify which skills are needed. There is increasing need to better understand the characteristics of human capital in the organisations and in the labour market, including the skills and competencies, which are required for success in organisations. Employers usually argue that (and research evidence supports that argument) job seekers' skill level neither meets companies' expectations nor is enough for adequate performance.
2. Be strategic in how you close gaps: After identifying the skills needed now and, in the future, companies can use different tactics and strategies to address skill gap. A combination of methods can be used. But answers to the questions which method(s) will be used, how it will be used, who will be part of it are crucial. Company's strategic goals and objectives should be included in the process that will be used to formulate tactics.
3. Build training capabilities and partnerships: It is important for companies to establish a learning organisation culture. They need to provide their employees with a variety of learning resources such as in-class learning, online learning, mentorship, universities etc. to help them acquire new skill sets needed for successful job performance.

Companies can take steps for closing the skill gap during recruitment. In the hiring process both skill types, i.e., hard skills and soft skills, need to be assessed. For that purpose, practitioners and scholar try to identify work and career skills that are needed by all employers. Camara et al (2015) argue that four broadly defined categories of knowledge and skills are influential on work readiness: core academics, cross-cutting capabilities, behavioural skills, and education and career navigation skills. In its report, the National Network of Business and Industry Associations (2014) identified common entry-level skills needed by all employers. These "Common Employability Skills" were categorized into four groups: people skills, personal skills, workplace skills, and technical skills. There is no doubt that both hard and soft skills matter for successful job performance. But it should be noted that hard skills are relatively easier to be detected and evaluated. If a software programmer will be hired, then it is very clear that job applicants need coding skills. Or it is very clear that a cashier needs basic math skills, and they could be assessed using certain tests and chances that someone without required hard skills will be hired are not high. But soft skill assessments could be more complicated as they are not easily detected, and it takes time to discover these skills. Many employers state that most hiring and firing decisions come down to soft skills and yet they have difficulty finding formal processes to assess soft skills accurately. Eighty-nine percent of human resource managers think that "bad hires" are a result of poor soft skills as they are not easy to detect early in the hiring process (Global Trends Report, 2019). These managers state that soft skills are usually assessed without formal processes. In job interviews, questions about hard skills and evaluation of job experience are used to see if there is a fit between the person and the job. But the process is not straightforward for soft skills. Sixty-eight percent of managers state they assess soft skills using social cues in job interviews (Global Trends Report, 2019). Majority relies on interview questions and observe body language of interviewees. Utilizing behavioural

or situational questions has been proven to be effective to a certain extent but it should be noted that they are prone to bias and interviewees usually give well-rehearsed answers. According to the report, the most common ways companies use to assess soft skills are behavioural questions, reading body language, situational questions, projects, and tech-based assessments such as Koru, Pymetrics, and Plum that use AI to assess job applicants' soft skills.

There is a growing literature focusing on the challenges created by the skill gap in the labour market, potential solutions and the roles different stakeholders can play in dealing with the problem. Even when there is an agreement on the existence of skill gap and its causes, there are other questions that makes the issue more complex such as what kind of training will be provided, who will provide it, what the content of the training will be, who will finance the training etc. Answering these questions and ensuring collaboration among policy makers, employers, employees, and educational institutions could be a long and complex process. Scholars and practitioners agree the skill gap problem can be solved through collaboration among employers, policy makers and educational institutions. It is crucial that both the prospective and existing members of the workforce be equipped with skills required for individual and organisational success. The education system and training and development practices in companies should produce enough employees with skills relevant to the jobs in modern workplace. Unfortunately, when faced these challenges, many companies and institutions employed reactive strategies and focused on short-term solutions to solve their lack of qualified employee problem rather than investing in their employees or working with policymakers on larger scale training efforts. This short-term approach influenced actions of the other major stakeholders, i.e., the policymakers and educators, as they tried harder to meet the needs of employers and ignored a more systematic approach to bridge the skills gap. In addition to its impact on stakeholders and the nature of work, skill gap also creates the need to identify roles of governments, employers, employees and other relevant stakeholders in addressing the issue.

The European Commission (2016) proposes actions to assist skill development to overcome challenges in the labour market. Developing training programmes in collaboration with employers, associations and unions; promoting formal and informal training and learning; increasing cooperation between small and large businesses in training are among the initiatives proposed by the Commission. Other strategies could also be used to ensure ways to equip employees with required skills through collaboration among stakeholders (Shah, 2003; Sin, 2017). Governments can formulate policies and strategies aimed at creating a foundation of basic knowledge and skills. They can also encourage employees for continuous learning and provide them with opportunities to participate in particular type of training that they need. In other cases, employer-provided training can be used to update skill level of employees. McKinsey Report (2020) presented the actions companies are taking to address skill gap. The most common tactic used by 66% of organisations is hiring either contract or freelance employees. Fifty-six percent of the managers cited skill building through reskilling as the second most common tactic. A survey by TalentLMS and SHRM reports that over half of the companies will provide their employees with upskilling (59%) and reskilling (55%) training in 2022. As Roslansky stated "A focus on upskilling requires a mindset shift at the management level. Everyone from the top down needs to understand how critical ongoing learning and upskilling is, not only from an employee's growth perspective, but also for maintaining a

company's competitive edge. The organisations that keep their employees on top of new technologies are the ones that will see success in this new world of work”.

## 2.4 Summary

Companies' competitiveness and success are dependent upon having a workforce with right skills and qualifications flexible enough to adapt to changes in the rapidly changing environment. A skill gap in a labour market occurs when employers cannot find qualified workers to fill positions in their organisations under current market conditions. The debate on skill gap has been going on for years. It is argued that the skill gap problem has important implications for employers, employees, economy and the functioning of the labour market. Although hard skills are necessary for successful job performance soft skills are equally, if not more, crucial. A report by the World Economic Forum (2020) states that care, engineering and cloud computing, sales marketing and content, data and artificial intelligence, green jobs, people and culture, and specialized project managers will be the jobs in demand in the future. In the same report 10 future workplace skills that will be high in demand by 2025 are listed as well: Analytical thinking and innovation; active learning and learning strategies; complex problem-solving; critical thinking and analysis; creativity, originality and initiative; leadership and social influence; technology use, monitoring and control; technology design and programming; resilience, stress tolerance and flexibility; and reasoning, problem-solving and ideation. Skill development is advised to overcome challenges such as difficulties in finding employees with the right skill sets to meet customer demand and increasing competitiveness. Collaboration among the actors in an economy, hiring freelancers and contractors, training, upskilling and reskilling employees are the solutions proposed by scholars and practitioners. A synthesis of various studies in the relevant literature identified key soft skills and hard skills that would increase employability (Andrews and Higson, 2008):

- Professionalism
- Reliability
- The ability to cope with uncertainty
- The ability to work under pressure
- The ability to plan and think strategically
- The capability to communicate and interact with others, either in teams or through networking
- Good written and verbal communication skills
- Information and Communication Technology skills
- Creativity and self-confidence
- Good self-management and time-management skills
- A willingness to learn and accept responsibility



### 3 Turkish Cypriot Economy and Its Labour Market

In order to understand the skills gap in Turkish Cypriot economy there is a need to understand the structure and evolution over time of its economy and labour market. The economic context in which companies operate will inevitably influence employment practices and training & development efforts. Turkish Cypriot economy (TCe) with 382 thousand *de jure* population is an upper-middle-income economy that has a per capita income of about 11 thousand USD, producing nearly 3 billion USD in GDP yearly (Statistical Institute, 2022b). This micro-sized economy generates over 70% of its total value added from services. Being a service-based micro-economy, TCe has a large tourism sector and is a popular tourist destination. Other leading service sectors are trade, transportation, business, and personal services. Public services also contribute significantly (15.9% on the average) to the TCe (Table 3.1). Higher education with over 50 thousand students from abroad has also been an area that contributes significantly, as much as 8% on the average, to the TCe in the last two decades. Revenues from services enable TCe to finance its unbalanced external trade caused by imports for final consumption and intermediate goods. The remaining sectors are light manufacturing and agriculture, which mainly produce 'niche' products and are complementary to the services sector, comprising 15% of GDP (Statistical Institute, 2022b).

Table 3.1 Sectoral Distribution of Gross Domestic Product

	2016	2017	2018	2019	2020	2021
<b>1. Agriculture</b>	<b>5.6</b>	<b>4.5</b>	<b>6.2</b>	<b>5.5</b>	<b>6.0</b>	<b>8.3</b>
<b>2. Industry</b>	<b>9.2</b>	<b>9.7</b>	<b>8.4</b>	<b>7.8</b>	<b>9.6</b>	<b>7.5</b>
<b>3. Construction</b>	<b>4.4</b>	<b>5.8</b>	<b>5.9</b>	<b>5.8</b>	<b>9.6</b>	<b>7.5</b>
<b>4. Trade - Tourism</b>	<b>19.7</b>	<b>20.1</b>	<b>20.8</b>	<b>22.2</b>	<b>12.8</b>	<b>13.8</b>
4.1. Wholesale and Retail Trade	10.9	11.1	11.2	10.5	10.3	10.4
4.2. Hotels and Restaurants	8.7	9.0	9.6	11.7	2.5	3.4
<b>5. Transport and Communication</b>	<b>8.3</b>	<b>8.0</b>	<b>7.3</b>	<b>7.3</b>	<b>6.4</b>	<b>9.2</b>
<b>6. Financial Institutions</b>	<b>7.7</b>	<b>6.9</b>	<b>8.1</b>	<b>8.0</b>	<b>7.9</b>	<b>8.9</b>
<b>7. Ownership of Dwellings</b>	<b>4.6</b>	<b>4.5</b>	<b>4.9</b>	<b>5.2</b>	<b>6.3</b>	<b>7.3</b>
<b>8. Business and Personal Services</b>	<b>14.5</b>	<b>15.7</b>	<b>15.8</b>	<b>13.2</b>	<b>12.9</b>	<b>14.2</b>
8.1 Business and Personal Services	6.3	6.4	6.6	6.4	6.1	6.6
8.2 Higher Education	8.2	9.3	9.2	6.8	6.8	7.6
<b>9. Public Services</b>	<b>15.9</b>	<b>15.1</b>	<b>13.4</b>	<b>16.1</b>	<b>19.4</b>	<b>15.5</b>
<b>10. Import Duties</b>	<b>10.2</b>	<b>9.7</b>	<b>9.2</b>	<b>9.0</b>	<b>9.1</b>	<b>7.8</b>
<b>GDP</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

Source: Statistical Institute (2022)

Instability in prices, high cost of funds, large budget deficits and weak infrastructure are some of the structural problems that makes TCe to be vulnerable, economically uncompetitive, and not attractive for doing business. TC economy entered to COVID-19 pandemic with relatively low economic growth (0.2 %). When the COVID-19 pandemic first took hold, TCe experienced the most severe recession in its history, and also the most severe recession among the economies of Europe recording a contraction of 16.2% in GDP in 2020. Given its structural problems,

continued political uncertainty and external shocks made it very difficult for TCe to recover when compared to other economies, achieving only 3.9 % growth rate in 2021.

The COVID-19 pandemic has affected most of the sectors but mostly the tourism and trade sector as there were lock downs and limitations to flights that led to contraction by more than 50% in these sectors. On the other hand, sectors such as agriculture and manufacturing gained attention and faced increased demand demonstrating their importance for self-sufficiency during times when supply chain disruptions could occur as had been experienced during the pandemic. This structural change in the demand for goods and services will in time have implications on labour markets as well. In this respect, there will have to be certain policy changes towards supplying more labour to these sectors that will require more human resources.

*Table 3.2 Growth and per capita income*

	2016	2017	2018	2019	2020	2021
GDP growth (%)	3.6	5.4	1.3	0.2	-16.2	3.9
GNP per capita (US\$)	13,902	14,187	13,277	12,649	10,055	11,129

Source: Statistical Institute (2022)

### 3.1 Labour Force in Turkish Cypriot Economy: Low participation rate

Job creation in combination with productivity growth is the key to income growth and prosperity. However, this will depend on how well labour markets can adjust to meet demand of emerging sectors and new challenges in terms of competitiveness. According to the latest household labour surveys (HLS), working age population (aged 15 and above) amounted to 311 thousand, of which only around 50 % is in the labour force (Table 3.3). Employment rate is reported to be 46% on the average for the last five years and decline to 40.4 % in 2021 (Statistical Institute, 2022a) . This means that, less than half of the total population has salary/wage income to provide for the rest - for children and for those of working age who are unemployed and inactive. The situation is even worse for women. Employment rates for women are significantly lower than the men in the TCe. This is because of lower participation rate and higher unemployment rate, being 38.2% and 9.6% respectively on the average for the last five years. Labour force participation rates overall are also well below the European Union average where for men it is 75% and 65% for women (Eurostat, 2022). The low participation rate for youth and women not only means that there are fewer people working and providing for the rest of the population, but also that the economy lacks the dynamism, diverse perspectives, and innovative ideas that could be contributed by youth and women that remain out of the workforce.

Table 3.3 Labour market statistics

	2017	2018	2019	2020	2021
Working age population	250,857	279,779	287,810	289,348	311,479
Labour force	128,451	142,283	147,755	147,835	136,385
Employed	120,999	132,411	138,438	132,885	125,739
Unemployed	7,453	9,873	9,317	14,950	10,646
Labour force participation rate (%)	51.2	50.9	51.3	51.1	43.8
Not in labour force (%)	48.8	49.1	48.7	48.9	56.2
Labour participation rate for women	39.0	40.3	39.7	37.9	34
Employment rate (%)	48.2	47.3	48.1	45.9	40.4
Unemployment rate (%)	5.8	6.9	6.3	10.1	7.8
Unemployment rate for women (%)	7.8	9.0	8.0	12.2	11.0
Unemployed rate among young (aged 15-24)	18.7	22.0	19.4	29.3	21.4

Source: Household labour surveys (2017-2021), Statistical Institute (2022)

One explanation for the low labour participation rate is informal employment, which does not appear in labour force statistics. Empirical findings indicate that the size of the shadow economy is as much as 29% of GDP and informal employment reaches 20% of the labour force in TCe (Besim, et al., 2015). In addition, a significant portion (over 30%) of the labour force comprises migrant workers, who tend to work informally (Besim et al., 2015; Employment Office, 2022).

A study by World Bank (2016) for TCe labour market finds other reasons for low participation in the labour market. The first is private sector not being attractive to work. Poor working conditions, long working hours, lack of flexibility for leaves and to an extent violation of employee rights are reported as the main cause for private sector not being attractive both for new entrants to the labour market and for those working. The private sector is discovering the importance of branding to attract customers, however, employer branding - developing a brand as a dependable employer that can attract talented employees - is currently not a familiar concept in most enterprises. The second reason is mismatch in skills. The same study states that skills needed by the TC private sector does not match with the existing skills in the labour market. Employers complain that they have difficulty in finding employees who will accept to work as semi-skilled and unskilled workers with current salaries. As a result, there is a dependency on foreign labour for employers. This is confirmed by the statistics from the Employment Office where number of work permits given for jobs that does not need skills are much more than those that does (Employment Office, 2022). Waiters /waitresses, unskilled construction workers and cleaners ranks the top whereas operators, international trade experts and technicians are at the bottom of the work permit statistics list showing the work permits given by the Employment Office from January 2022 to October 2022. This assessment basically indicates that there is overeducation and may be over skills for the sectors that demand certain type of labour and at the same time undereducation indicating skills mismatch problem overall in the labour market.

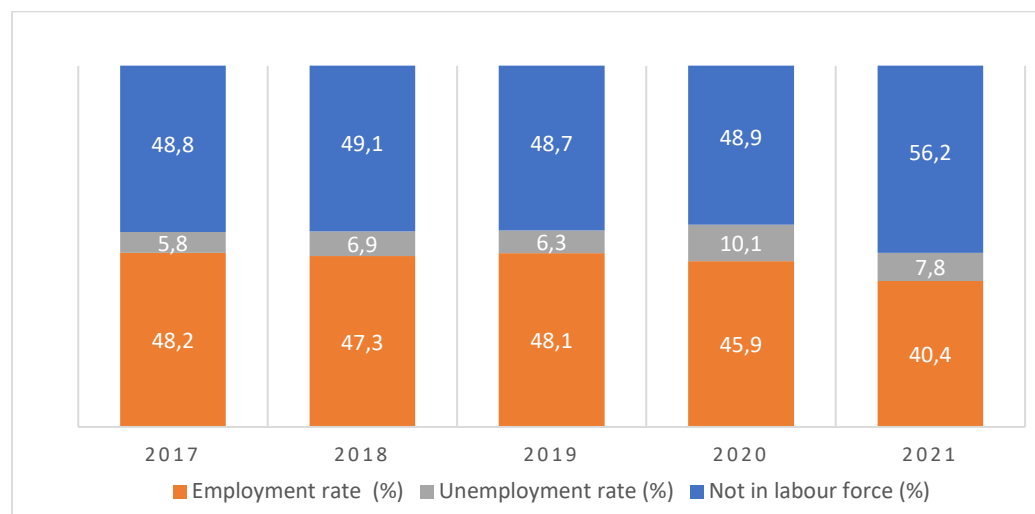
Low participation rate problem was also reported by World Bank back in 2006 (World Bank, 2006). Even though TC's economic growth has been quite high, doubling per capita income in the last two decades, labour participation and unemployment rates have continued to fluctuate

at around 50% and 7% respectively (Table 3.3 and Figure 3.1). Even the years where economic growth had been achieved not enough job opportunities had been created to attract discouraged labour and reduce the number of unemployed. The same problem continues today. This may be explained by presence of mostly structural unemployment, where labour demands of emerging sectors are met not by the domestic supply but through migrant workers. This shows that both the education system as well as the labour policies in place are not designed well to supply labour to the emerging sectors with appropriate education and skills. Yet the present mismatch problem in the skills causes loss of efficiency and leads to low productivity making the economy less competitive.

When unemployment rates are analysed in more detail, we observe that unemployment among younger age groups are relatively higher than the older age groups. In 2020, unemployment rate was 29.3 % for 15-24 age group and 10.1 for all. The descriptive statistics also show that more educated is less likely to be unemployed.

In summary, TCe labour market inactivity rate is high due to unemployment (especially among young) and low participation rates and informal employment. There is also skill mismatch problem causing resources to be wasted and labour productivity to be low. The descriptive statistics also indicate that women are at a disadvantage in accessing job opportunities.

Figure 3.1 Employment, unemployment, and inactive labour rates (2017-2021, %)



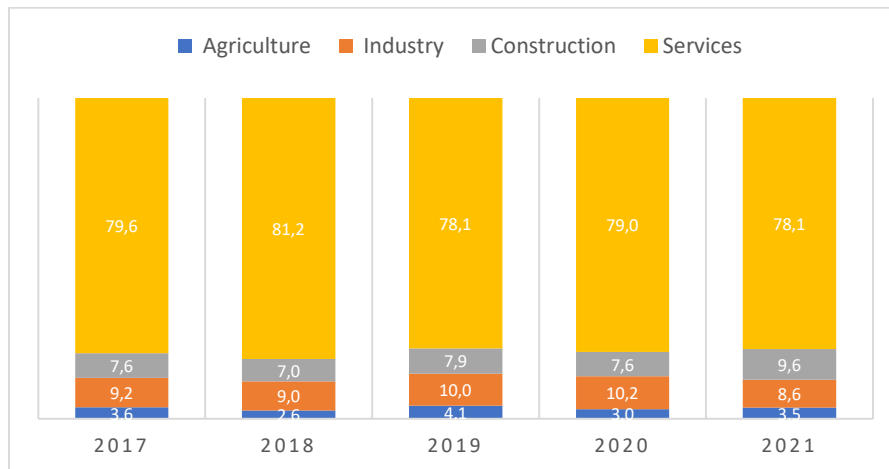
Source: Household labour surveys (2017-2021), Statistical Institute (2022)

### 3.2 Employment by sectors: Highest share of employment by services

Sectoral and occupational distribution of employment is an important indicator of the quality of the workforce. In the case of TCe, an overwhelming share of the workforce is employed in services. Parallel with the structure of the economy, over 70% and in some years 80% of those working is employed in the services sector (see figure 3.2) (Statistical Institute, 2022a). This clearly indicates that most household earnings come from the services sector. Services sector is followed by industry where the employment is around 8-10% though there has been a decline in 2021 due to pandemic. Construction sector has approximately the same share as

manufacturing fluctuating around 7-10%. As for agriculture, the share is very low, employing only 3% of the working population.

Figure 3.2 Employment by four main sectors



Source: Household labour surveys (2017-2021), Statistical Institute (2022)

When we analyse sectoral employment for the last 12 years, we observe that most striking change has been with the share of the public administration; declining from 16.8% in 2009 to 10.7 in 2021 (Table 3.4). This decline is a relative decline as the number of people employed in public administration has not changed much fluctuating around 16 thousand between 2009-2019. Growth in the labour force and in employment at other sectors have pushed its share down to 10.7%. From economics point of view, this may also be interpreted as an improvement in the productivity of the public administration as same number of public workers are supplying services to more populated community.

Other sectors that are services include wholesale-retailing trade which holds a share of around 17-18% in the period described. Employment in restaurants and hotels have steadily increased to 11% until 2019 but declined to 9.9 due to COVID-19 in 2021. However, the evolvement of the sector in the last 10 years indicates that tourism sector will continue to be a labour demanding sector. Housing, technical, and administrative services have also performed well increasing from 4.6% to 7.8% in the last 12 years indicating that job opportunities are becoming to be promising in this sector as well (State Planning Organisation, 2020; Statistical Institute, 2022a).

Table 3.4 Employment by sectors

Sectors	2009	2011	2013	2015	2017	2019	2021
1. Agriculture, Forestry, Hunting, Fishing	4.8	3.7	5	4.1	3.6	4.1	3.6
2. Mining, Quarrying	0.1	0.1	0.2	0.1	0.1	0.2	0.1
3. Manufacturing	8	7.2	6.1	8	7.7	7.6	7.4
4. Electricity, Gas, Water, Drainage, Wastewater Treatment	1	1.5	1.5	2.1	1.5	2.2	1.2
5. Construction	10.1	7.3	7.3	7.5	7.6	7.9	9.6
6. Wholesale-Retail Trade	17	18.7	17.1	17.2	16.8	18.1	18.1
7. Restaurants, Hotels	8	8.5	8.2	10	10.8	10.8	9.9
8. Transport, Storage, Communication and Publishing, Programming	5.3	5.6	6.3	5.7	6.1	5.5	5.4
9. Financial Institutions	4.1	3.6	3.5	4.3	3.5	3.4	3.4
10. Property, Renting, Technical and Administrative Services	4.6	5.9	6.1	6.9	8	7.4	7.8
11. Public Administration	16.8	18.3	19	12.3	12.1	11.2	10.7
12. Educational Services	11.1	10.2	10.3	10.5	11.7	9.9	9.4
13. Human Health and Social Services	2.8	3	2.9	3.4	3.8	3.9	5.1
14. Other Community Services	6.2	6.5	6.8	7.8	6.9	8	8.4
<b>Total</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>

Sources: State Planning Office (2020), Statistical Institute (2022)

Due to certain reasons arising from being a small economy, share of employment in the industrial sector is expected to be low compared to relatively bigger economies. In TC economy, this rate is 7.4% for manufacturing and 10% for the whole industry when mining, quarrying, electricity, gas and water treatment are included. When total share of employment is compared with the amount of GDP created by manufacturing (2.5%) and the whole industry (7.5%), it indicates a problem. Share of employed for the manufacturing industry is three times as the share of GDP generated by this sector. This indicates that productivity of this sector is one third of the average productivity. In other words, the productivity of the manufacturing industry is very low in the TCe. This may be because appropriate technologies are not adapted and/ or the sector relies more on low and unskilled labour.

### 3.3 Employment by occupation

When employment is analysed from occupation point of view, we observe that there have been some structural changes in the last 15 years. Managers and policy makers, the first group of occupations on the list has shown a decline from 11% to 7.6%. The share of managers was relatively high when compared to Turkey and Greek Cypriot economy first being 8.8 and the latter 3.4% until 2010 (TUIK, Eurostat). In the last three years the share has declined to 7.6% which indicates a direction towards EU average. Meanwhile, professionals have also shown a change but in the opposite direction reaching to 15.3% by 2021 (Table 4). A rise in the share of professionals may be interpreted as a good indication presenting a more skilled labour force. Clerical support workers have fluctuated around 13% in the last 15 years except for the last year where its share has declined to 10.8%. On the other hand, share of services and sales workers have been increasing since 2006. This confirms the sectoral increase in the last 10 year. One of the fundamental changes in employment by occupation has been the decline with

the craft and related trade workers. In fact, number of people in this profession has been around 18 thousand in the last three years but due to rise in the other occupations its share has declined relatively. In other words, occupation in this area – building, metal, machinery, electric and electronic, handicraft, printing trade workers has not been rising as other occupations. There is also a significant share by elementary occupations who are basically unskilled workers. In the period analysed, there has been increase in jobs that does not require skills – elementary occupations- overall.

*Table 3.5 Employment by occupation*

Occupations	2006	2010	2019	2020	2021
Managers	11.0	12.3	7.4	6.7	7.6
Professionals	11.7	10.5	14.9	16.2	15.3
Technicians and associate professionals	9.5	10.7	9.3	8.9	10.0
Clerical support workers	13.1	14.1	11.9	13.0	10.8
Service and sales workers	15.3	13.8	20.5	20.8	19.7
Skilled agricultural, forestry and fishery workers	3.4	4.8	3.9	3.1	3.8
Craft and related trades workers	19.2	14.7	12.9	10.7	14.4
Plant and machine operators, and assemblers	7.5	6.5	7.0	8.2	6.4
Elementary occupations	9.3	12.5	12.3	12.3	12.1

Source: State Planning Organisation, Statistical Institute (2022)

### 3.4 Distribution of employment by enterprise size

We have also analysed the statistical data provided by the Statistical Institute. The number of enterprises and the number of employees they employed show some variation based on the sectors. Although we need to take into consideration that the distribution may not be normal and possibly many enterprises exist that employ very small numbers and a few that employ large numbers of employees, the data still provides some indication of sectors where the firms have higher numbers of employees. For example, in “education” and “arts, entertainment and recreation” there is an average of 31 and 52 employees per enterprise whereas in “Transportation and storage” and “Human health and social work” the employee numbers per enterprise are 4 and 5.

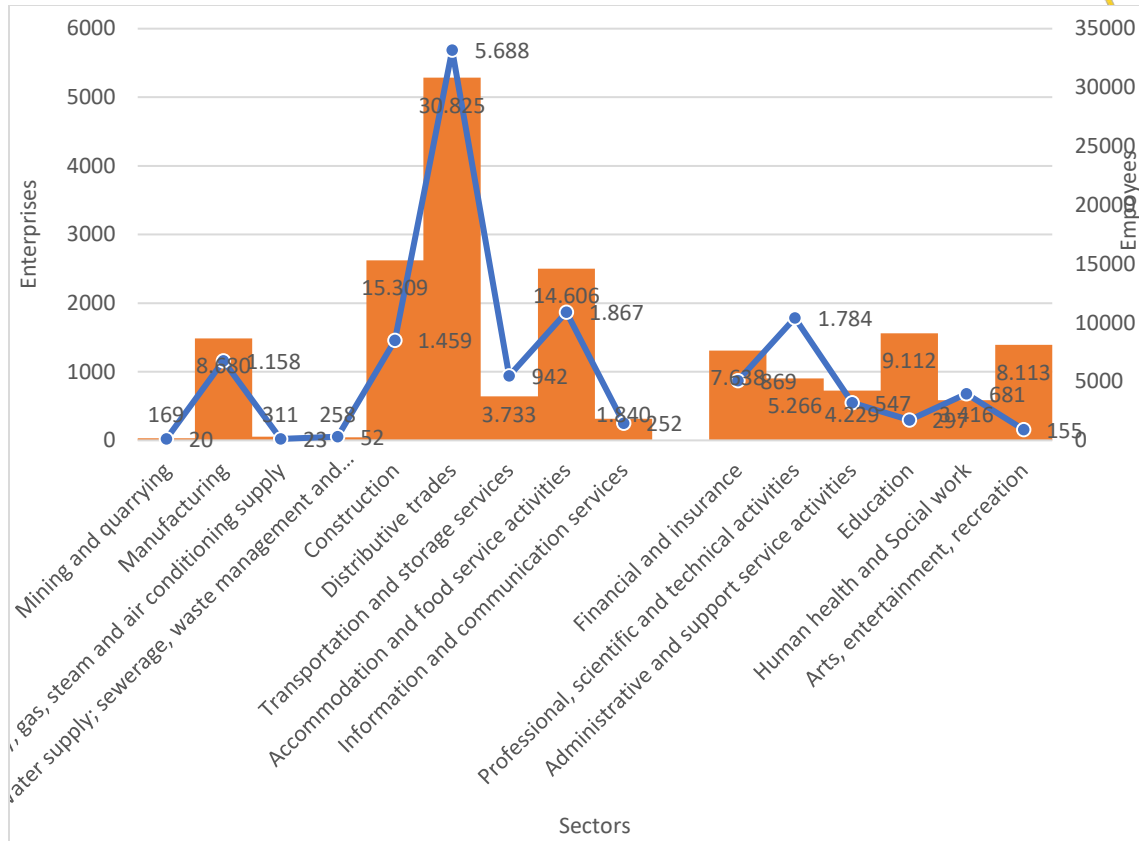


Figure 3.3 Sectoral distribution of Enterprises and Employment in the Enterprises

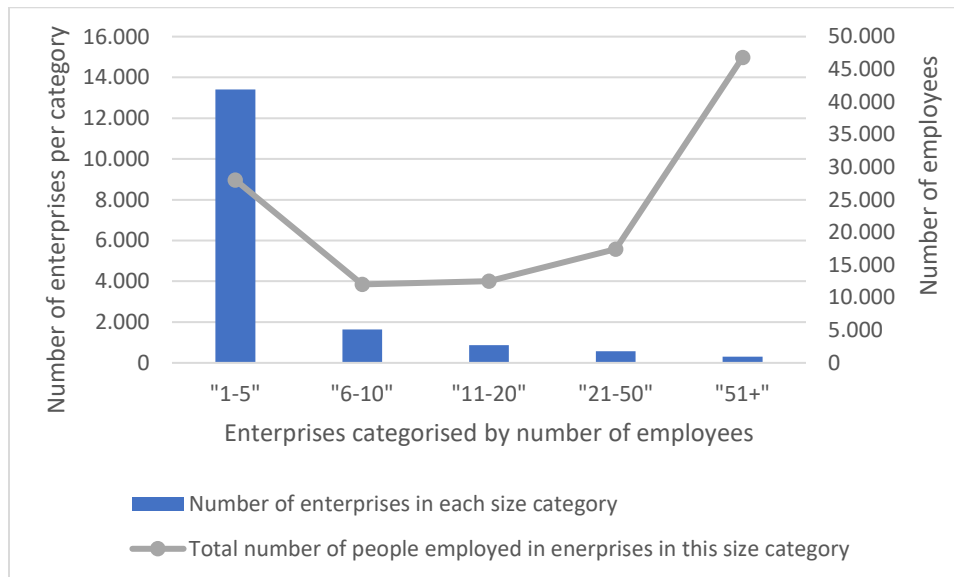


Figure 3.4 Enterprises categorised by number of employees and the numbers employed in each category



The figure shows that there are many micro-enterprises that have small numbers of employees, however, they account for a large portion of the employment. On the other hand, the number of enterprises that employ more than 51 people is small but these small numbers create employment for many employees. Thus, we see a “U” shaped distribution in terms of employment creation.

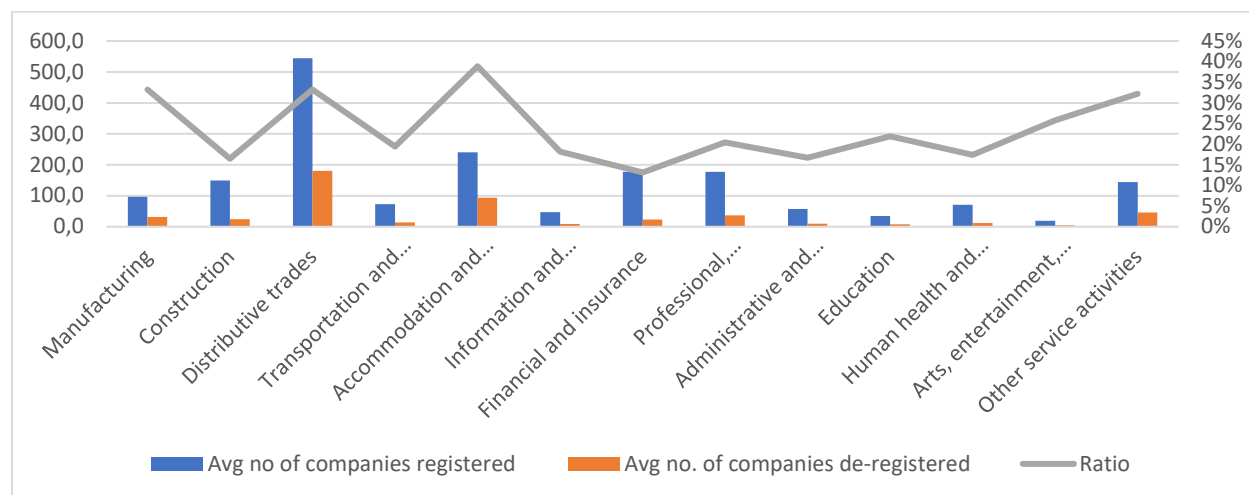


Figure 3.5 Average number of new enterprise registrations vs de-registrations annually

A check of jobs listings in the most popular jobs website in the community (<http://iskibris.com/>) reveals the following positions that are listed as vacant by employers. At the time of this report, largest category of vacancies is in sales, logistics and retail positions with 35, 49 and 101 vacant positions respectively. This was followed by accounting and finance-related positions with 64 vacant positions. Which was followed by 43 hotel, restaurant, and cafeteria positions. In the information technology field, there were 25 vacant positions.

### 3.5 Foreign labour force and commuting workers

There has always been foreign labour in the TC economy. The significance of the foreign workers had especially increased after 2003 when TCe started to enjoy double digit growth rates in its economy. Most of the foreign labour is from Turkey as TC economy presents a unique example for Turkish immigrants, as many traditional obstacles (language barrier, cultural and ethnic differences, and non-transferability of human capital) for immigrant laborers are not applicable since Turkish individuals have ethnic and cultural similarities to native citizens. According to a report prepared by PGlobal (2012), there were about 30 thousand registered Turkish labour in TCe between 2005-2010, where about 16 thousand were in services, 7 thousand in construction, 5 thousand in manufacturing and 2 thousand in other sectors. There were only around 2-4 thousand non-Turkish foreign workers in the same years.

After the opening of crossings on the island in April 2003, labour market had also got affected. Turkish Cypriots were able to find jobs that would pay higher wages/salaries for their skills in

the Greek Cypriot economy. The study by PGlobal, (2012) reports that the number of commuting workers reached to 4 thousand in years between 2004-2009 where more than half (55%) were employed in construction, 32% in services and 11% in manufacturing sector. Given the wage gap, especially in the first years of the crossing attracted many Turkish Cypriots to seek job in the Greek Cypriot economy. This dynamic had positive effect on the wages in the TCe which made it difficult for the demanders-employers to find workers to recruit. This problem and loss of labour to GCe were compensated and filled mainly by migrant workers from Turkey.

The increase in the mobility of foreign labour force in the world and the regional developments have also affected the composition of the labour force in TCe. According to Employment Office statistics there are now over 15 thousand foreign labour other than those from Turkey working with work permit in TCe (Employment Office, 2022). The same source shows that Turkish workers continues to hold the highest share (around 40 thousand workers) of foreign workers with work permits which is 68% on the average for the last three years. The same source reports that there are work permit holders from 120 different countries; Pakistan, Turkmenistan, Bangladesh, Kyrgyzstan, Philippines, Ukraine, Iran, Uzbekistan, Kazakhstan and Nepal are at the first ten on the list.

*Table 3.6 Work permit holders*

Years	Turkish	Other Nationalities	Total
January - October			
2022	44,886	19,871	64,757
2021	40,753	19,511	60,264
2020	32,245	15,656	47,901

Source: Employment Office, 2022

Foreign workers work permit applications are for all sorts of occupations though mainly for elementary occupations that does not require many skills. Waiters, unskilled labours, construction workers, cleaners, dealers, salespersons, cashiers, and gardeners are the most demanded occupations. The least demanded occupations would fall under technicians, operators professionals, and managers. The statistics clearly shows demand for foreign labour decreases as the skill requirement for those occupations increases.

The supply of foreign labour will continue as far as the wages and salaries are higher relative to the country foreign workers migrates from. In addition, TC employers will demand foreign labour as they would prefer to employ workers for lower wages than local individuals with similar skills. Even if all the local unemployed - 10 thousand - are employed, TC economy would still need additional labour force to meet the demand of emerging sectors i.e. tourism, construction. Following table present foreign workers who hold work permits and also registered to the social security fund.

*Table 3.7 Registered workers by nationality*

Years	Turkish Cypriot	Turkish	Other Nationalities	Work permit holders	Total
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04/2019 (SSY)	45,690	5,915	568	6,483	
04/2019 (SGY)	28,994	23,485	15,494	38,979	120,146
04/2020 (SSY)	25,902	1,255	156	1,411	
04/2020 (SGY)	18,097	5,553	4,817	10,370	55,780
04/2021 (SSY)	38,823	4,646	384	5,030	
04/2021 (SGY)	30,426	17,620	12,525	30,145	104,424
04/2022 (SSY)	38,627	5,099	417	5,516	
04/2022 (SGY)	33,148	28,431	16,081	44,512	121,803

Source: Employment Office, 2022

### 3.6 Job applications, vacancies and recruitments

Employment Office monthly activity reports provide some statistics on job applications, vacancies, and recruitments. According to published statistics, there were total of 3429, 3721 and 2226 job applications to the Employment office in year 2018, 2019 and 2020 respectively. The same report states that 24% in 2018, 16.2% in 2019 and only 8% in 2020 of the applicants were placed. These rates are very low given the fact that they were vacancies available as much as 2143 in 2018, 2598 in 2019 and 879 in 2020 (Employment Office, 2021). This shows that there are mismatches in skills and/or wages. When the statistics are analysed based on occupations, we observe that highest application are made for elementary occupations, clerical support workers, services and sales workers, and professionals. Among these applications those in elementary were recruited most, then services and sales, and clerical support. Recruitment for professionals is one of the lowest 8%, 2% and 1% in the period analysed respectively even though they had one fourth as much job vacancies. The situation is similar for other occupation that requires certain skills. In general recruitment rate for occupations with certain skills is relatively lower than those that require some or elementary skills.

Table 3.8 Job applications by occupations

Code	Occupational classification	2018			2019			2020		
		Job vacancies	Recruited	Job applications	Job vacancies	Recruited	Job applications	Job vacancies	Recruited	
1	Managers	92	45	15	23	32	3	13	6	2
2	Professionals	488	113	40	632	107	17	319	33	6
3	Technicians and associate professionals	193	70	22	165	74	11	119	15	2
4	Clerical support workers	724	408	185	767	274	78	412	107	20
5	Service and sales workers	579	667	191	667	947	221	397	369	29
6	Skilled agricultural, forestry and fishery workers	19	26	11	25	24	8	17	5	-
7	Craft and related trades workers	155	104	33	155	73	15	87	59	7
8	Plant and machine operators, and assemblers	257	140	87	252	161	45	169	45	6
9	Elementary occupations	922	570	265	1035	906	207	693	240	107
	<b>Total</b>	3429	2143	849	3721	2598	605	2226	879	179

Source: Employment Office, 2021

As for sectors most job application, vacancies and recruitments are in tourism, wholesale and retail, educational services, and other services. This is quite in line with the emerging sectors of the TC economy. Most of the job applicants are high school and college graduate followed by

primary school, then degree holders and vocational schools' graduates. The activity report of the Employment Office also reports that on the average 26% of primary and secondary school graduates, 28% of high school and 24% of vocational school graduates found job. As for university graduates only 20% of those who applied managed to be recruited. In other words, as the level of education increases, individuals are less likely to find a job, that is at least for those who apply Employment Office for a job.

Table 3.8 Job applications by sectors

Code	Sectors	2018			2019			2020		
		Job applications	Job vacancies	Recruited	Job applications	Job vacancies	Recruited	Job applications	Job vacancies	Recruited
A	Agriculture, Forestry, Hunting	198	118	66	173	46	28	181	1	-
B	Fishing	-	-	-	1	-	-	1	-	-
C	Mining, Quarrying	3	1	1	-	-	-	-	-	-
D	Manufacturing	94	45	23	105	95	4	55	62	1
E	Electricity, Gas, Water, Drainage, Wastewater Treatment	7	19	4	8	13	2	5	4	-
F	Construction	68	36	27	73	20	-	46	18	-
G	Wholesale-Retail Trade	416	300	184	408	768	81	242	290	43
H	Restaurants, Hotels	493	1109	252	496	1176	338	226	369	27
I	Transport, Storage, Communication	70	65	58	234	31	17	151	17	2
J	Financial Institutions	50	24	16	57	27	2	26	29	-
K	Property, Renting, Technical and Administrative Services	26	41	11	58	12	2	30	13	2
L	Public Administration	25	-	-	44	-	-	38	-	1
M	Educational Services	273	127	58	282	113	2	165	14	-
N	Human Health and Social Services	72	41	38	85	36	2	100	26	-
O	Other Community Services	240	198	92	324	261	127	255	35	103
P	Domestic workers	6	1	1	27	-	-	9	1	-
Z	First time job seekers	1388	18	18	1346	-	-	696	-	-
<b>Total</b>		<b>3429</b>	<b>2143</b>	<b>849</b>	<b>3721</b>	<b>2598</b>	<b>605</b>	<b>2226</b>	<b>879</b>	<b>179</b>

### 3.7 Mismatch in Turkish Cypriot Labour Market

Higher labour turnover rates argued to be mainly caused by mismatch in the labour market. One of the most direct mismatches is unemployment where demand is not equal to supply of labour. More specific type of mismatch is related with skill / education mismatch where an employee is overeducated /over-skilled for the position s/he is working at. There are also mismatches if a person is not satisfied with the working hours and/or wages, just as on the other side of the coin, the employer is not happy with the performance of the employee because the person is under skilled (Desjardins & Rubenson, 2011; Lambert et al., 2001). If these mismatch problems are not mitigated, they may cause inefficiency in economies in the long run.

A study by Besim et. al (2017) finds that unemployment duration is very long in TCE compared with other economies. There is young, low-educated supply of potential workforce with some prior work experience who is currently out of labour force but willing to enter if an

opportunity rises. The same study also finds that TCe economy suffers from overeducated workforce where high educated individuals are working in position that requires less education. These findings indicate that most of the mismatch is related to differences in required and actual formal education levels, work hours, and salaries. These results also indicate that there is significant waste of human capital resources which have a negative impact on overall competitiveness of the economy.

### 3.8 Summary and main findings

In summary, labour market inactivity is high due to unemployment (especially among young), low participation rates, informal employment, and skills mismatch problem. In addition, women are at a disadvantage in accessing job opportunities. This causes waste of resources and labour productivity to be low, affecting the competitiveness of the economy overall. This is confirmed by the Competitiveness reports of TCe where “unskilled labour force” is observed as one of the most problematic factors in competitiveness calculations (Besim M et al., 2017).

The labour market now, as is the case in other economies, is undergoing changes caused by the global warming, technological developments and the recent COVID-19 pandemic which opened up both risks and opportunities. This without any doubt will have implications on the TCe labour market which in a way have already started with the pandemic. In fact, TCe had experienced such a change with the opening of crossings over the Green Line back in 2003 which allowed movement of individuals as well as goods and services across the island. This development then coupled with positive regional and global economic developments that enabled TCe to enjoy high growth rates. In those years TCe labour market had similar problems i.e., low participation rate, high unemployment level. The shock in the first and second half of 2000s did not really force TCe to develop lasting solutions to the existing problems. In fact foreign labour (most unskilled) tapped in to meet the rising demand for labour.

The situation is no different today as nearly 40 percent of those working are from abroad and still the labour participation rate is low and unemployment is high. Strained public finances in the TCe does not allow the public sector to act as an employer of last resort for skilled workers anymore. In anyway, Turkish Cypriots should not perceive public sector as the only best employer. The dual economic structure with more expensive Turkish Cypriot labour queuing up for jobs in the public sector and those who can in the Greek Cypriot economy, and low-skill sectors relying on cheap foreign labour, continue to a significant extend even today. The significant decline in the value of Turkish lira against hard currencies in the recent years has made Greeks Cypriot economy to be more attractive for young population in TCe and has increased the number of commuting workers especially among young. With public sector employment contained, TCe thus faces the challenge of making its skilled and unskilled workforce more attractive to its own private sector.

## 4 Perceptions of the EU Scholarship Programme Recipient

### 4.1 The Alumni Survey

To gather primary data related to the perceived skill gap in the TCe, we collected data from the EU Scholarship Programme recipients. We directed questions related to hard and soft skills that they considered were important and the perceptions related to expected future demand for specializations and fields of study. The EU Scholarship Programme alumni would form a group that has knowledge about the local conditions as members of the local community and they would be expected to have a degree of familiarity with the conditions outside their community since they have had experience in EU countries through their scholarship. Thus, we believe that this feedback from this group would help to assess the skills, fields of study, and specializations that are expected to be in high demand.

A survey was distributed via email to alumni of the EU Scholarship Programme. The survey included questions related to the field of study, type, date, duration and the location of the scholarship; the perception of short term program recipients on the impact of the scholarship on their current job; the perceptions on the scholarship application process and procedures; the impact of the scholarship on how engaged the respondents feel in their workplace; impact on the soft and technical skills; the career related outcomes of the scholarship experience; the perceived impact of the scholarship program on the community; the specializations that are expected to become more important in the next decade; the study areas that will be needed over the next decade; the sectors of the local economy that will gain importance over the next decade; the process of choosing careers for the respondents.

The survey data was collected between 7 - 17 October 2022 with 148 useable responses collected from alumni that agreed to participate in the survey. We compared the responses collected and the total number of scholarships for the years 2014 to 2021 and found that the actual distribution of the scholarships by year and type is reflected also in the collected

responses. Even though the recipients from more recent years were more likely to respond, the sample can be considered to represent the scholarship recipients in the sampling frame.

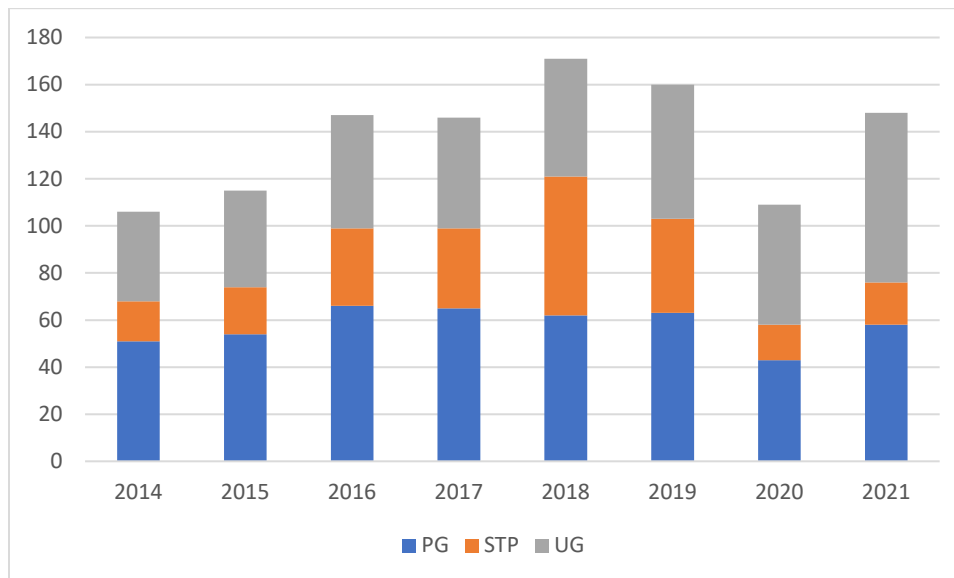


Figure 4.1 Distribution of scholarships over time

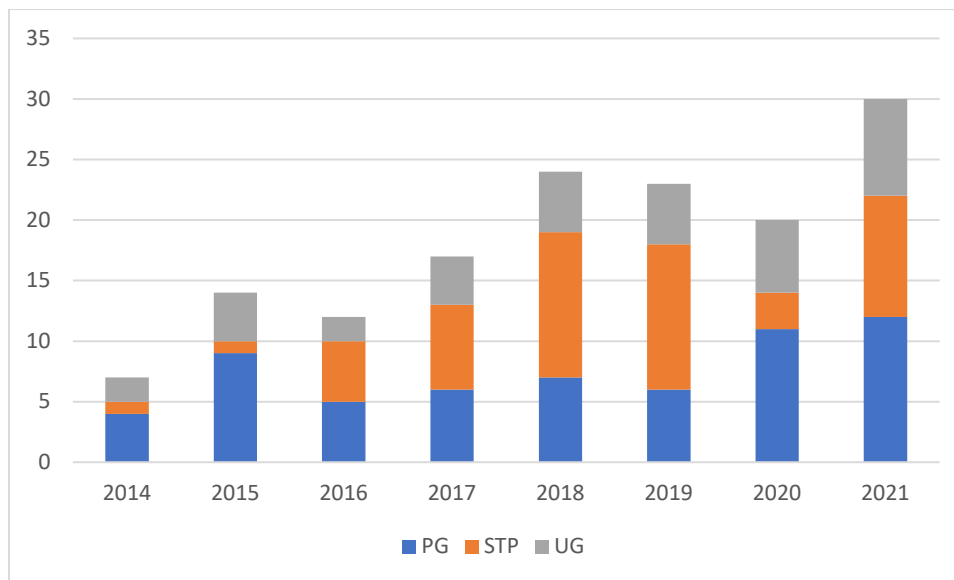


Figure 4.2 The year that survey respondents received their scholarships

We find that a very large portion of the respondents used the scholarship for languages. When we investigate the raw data from the actual scholarship recipients, we also see that learning a European language has been a very common use for the grant. This was followed by biology and health. Further investigation of the raw data from scholarship records indicates that this

represents health-related specializations. The third in the list were physical sciences and engineering fields.

*Table 4.1 Study fields of survey respondents*

<b>Field of study</b>	<b>Number</b>
Languages, literature & linguistics	45
Biology and health	30
Physics, chemistry and engineering	25
Social sciences	6
Art & performing arts & design	8
Business, accounting, and economics	9
Agriculture and veterinary science	2
Psychology	6
Education	4
Sport Science	3
Archaeology	2
Communication & media	2
Law	2

## 4.2 Transfer of learning through the scholarship

It is important that learning through the scholarship experience can be transferred and applied in the workplaces of the recipients. The transfer of learning to the job would ensure that the time and other resources that have been invested indeed has significant returns. Concerning the perceptions of the scholarship recipients about the impact of their scholarship experience on their current place of work, we found that the perceptions were mostly positive. The greatest perceived impact had been on the efficiency and quality of the work followed by increased capacity to develop new products or services. Gaining a competitive advantage over the competition and increased institutionalization requires more top-level strategic involvement in organizations, thus the improvements perceived in these aspects were lower in comparison to the aspects that the scholarship recipients could directly and individually impact.



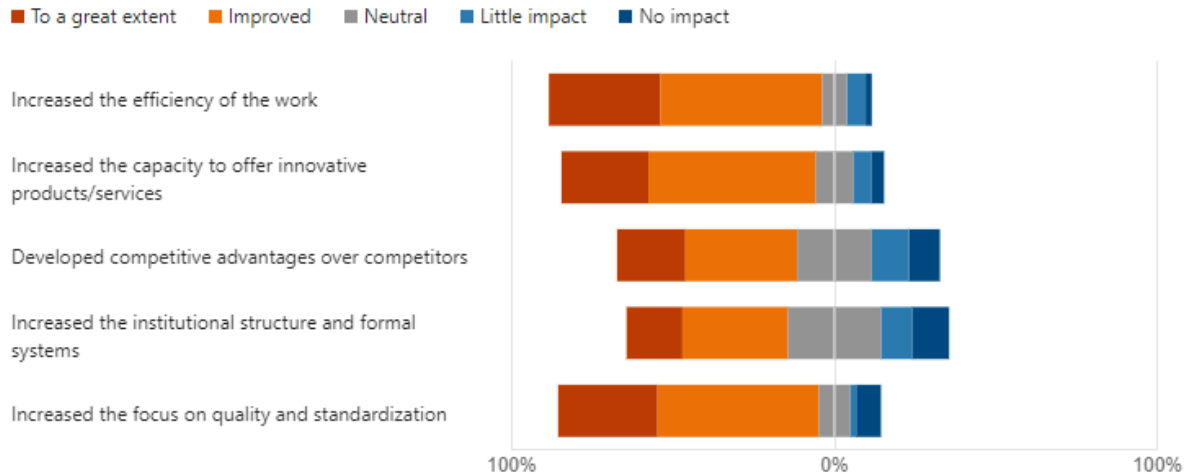


Figure 4.3 What has been the impact of your short-term training on the organization that you are currently working for?

### 4.3 Perceptions of the EU Scholarship Programme Application and Implementation Process

We assessed the perception of the respondents about the scholarship program application and associated administrative processes. Overall, the respondents reported satisfaction with the process.

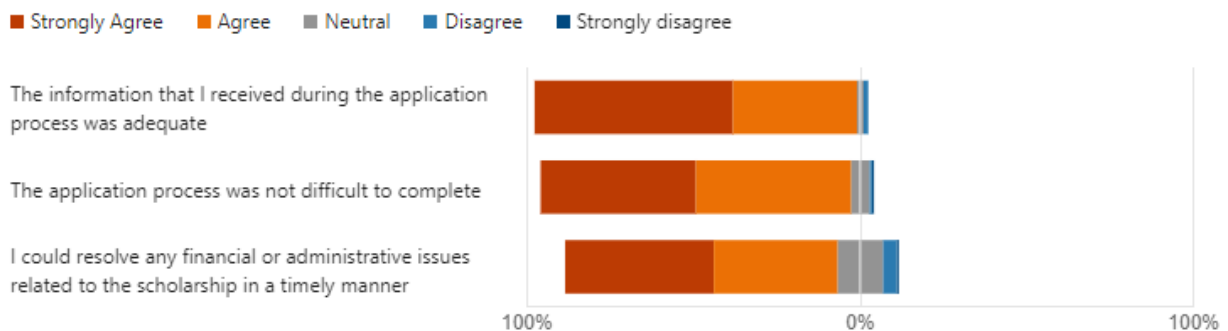


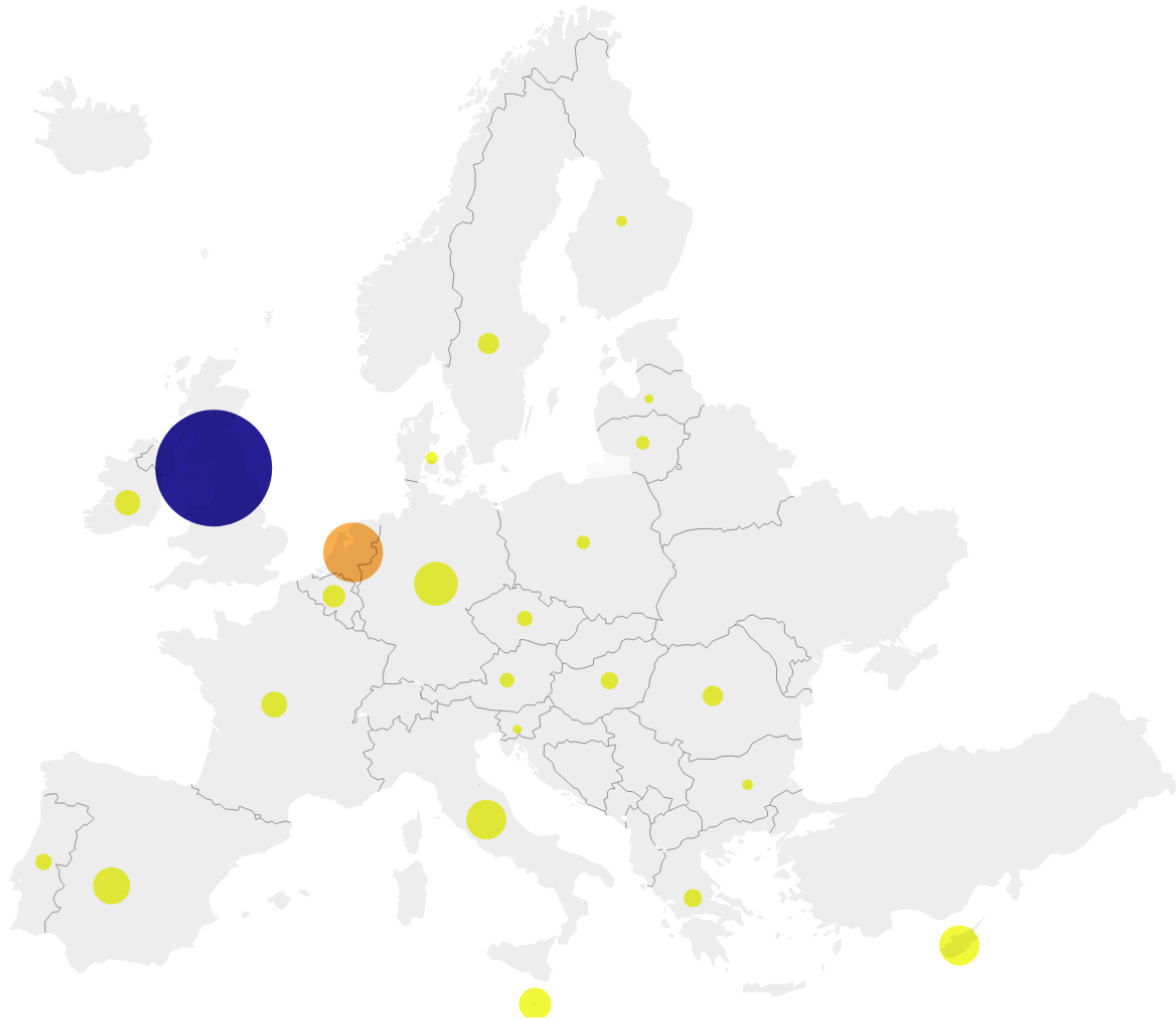
Figure 4.4 How would you rate the following statements about the EU Scholarship programme?

### 4.4 Scholarship destinations

While the United Kingdom was a member of the European Union, a large portion of the recipients had preferred it as a study destination. The map below shows the total number of recipients by the study destinations and the chart shows how the trends with the study destinations have changed between 2018-2021.

## Distribution of the total scholarships

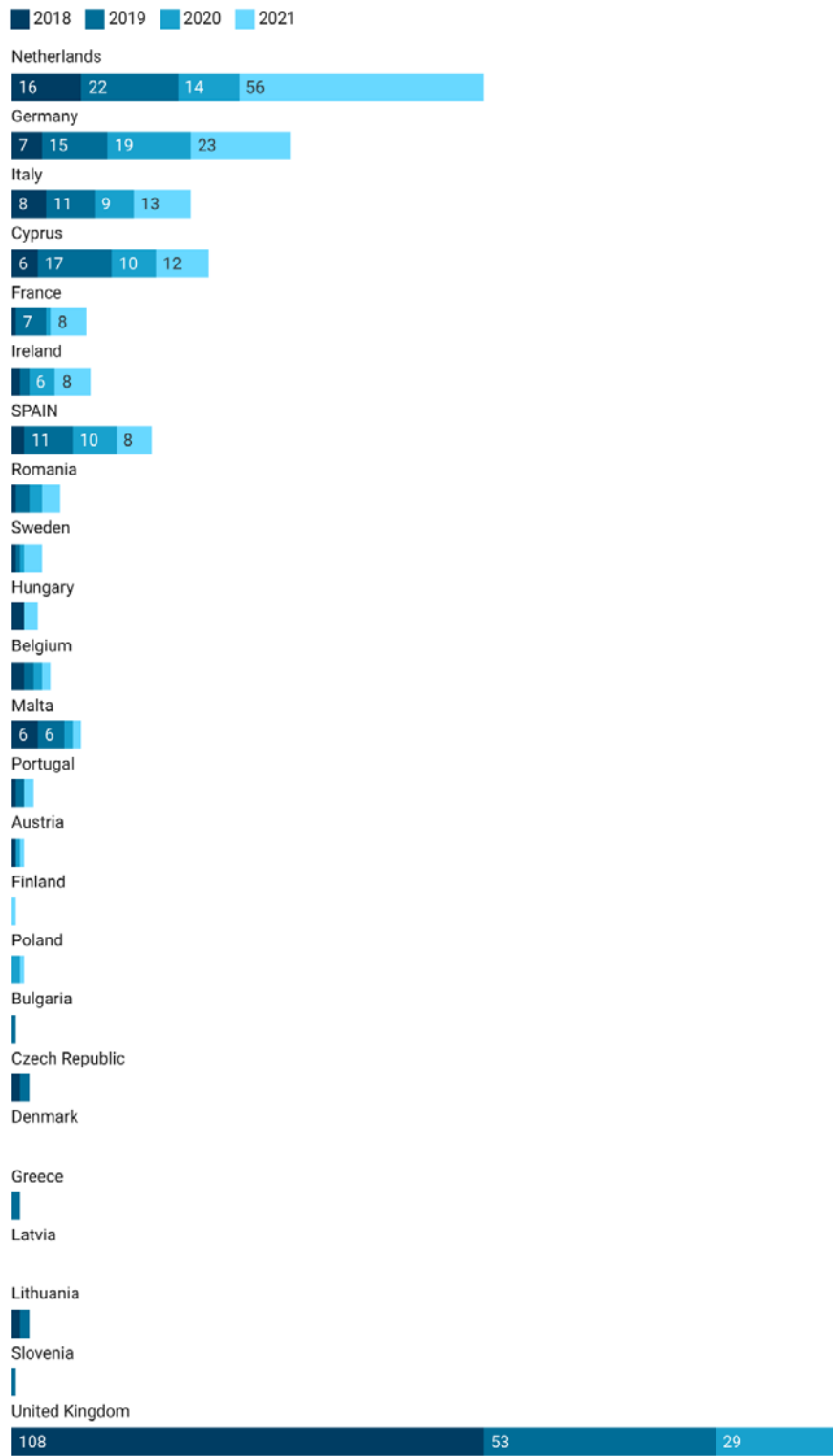
< 113   113–225   225–338   338–450   ≥ 450



Created with Datawrapper

Figure 4.5 Total scholarships by country

## Scholarships by country 2018-2021



Created with Datawrapper

Figure 4.6 Scholarships by country 2018-2021

#### 4.5 Autonomy, Relatedness and Competence due to the scholarship experience

The lack of engagement among the workforce is seen as a major issue. A Gallup study (Gallup, 2022) finds that only 21% of employees globally report that they are engaged at work. This means that 79% may be working without finding meaning in their work. The issue of employee disengagement has become a major concern for managers worldwide, and numerous management development programs aimed to address it. Through the increased awareness of the issue, there were indicators of increased participation and well-being prior to the COVID 19 pandemic, however, the situation appears to have deteriorated since then.

The term “Quiet quitting” has been introduced to describe the workplace attitude that only performs the minimum necessary to keep a job. The employees who “quiet quit” feel no ambition and no drive to perform beyond the requirements of what is specifically stated in their job description in a narrow way. Thus, they would not demonstrate any extra role behaviours such as making suggestions for improvement, innovative solutions to problems, or helping out to develop or train colleagues. The period during the pandemic seems to have led many salaried employees to reconsider their relationships with their jobs and the organizations that employ them. Many seem to have felt that what they considered as a relationship may in fact had been a transaction. In a relationship mindset, we think of the link that connects us with our employer as a long-term bond where sometimes we give more and sometimes we give less and similarly sometimes we take more and other times we take less, but in the long term we can achieve balance. On the other hand, in a transaction mindset we focus on achieving balance in the short term. Thus, if we view our connection to the employer merely as a transaction, we do not give extra effort when we do not receive immediate rewards.

According to the Self Determination Theory, employees will be more engaged if they (1) have more autonomy, (2) feel related to and connected with a community, and (3) feel that they are competent in their work. In a study using the European Working Conditions Survey (Nikolova and Cnossen, 2020), it was found that work meaningfulness could be explained by autonomy, competence and relatedness to a much larger extent than extrinsic factors such as income, benefits, or performance pay in 28 EU countries plus Norway and Turkey. Similarly, we wished to investigate if the alumni’s job satisfaction could be linked to the factors of autonomy, relatedness and competence. Furthermore, we investigated whether the respondents were able to exercise a greater amount of autonomy, relatedness, and competence as a result of their scholarship experience. Our results demonstrate that indeed the respondents reported high levels of autonomy (I am given more authority in how to get things done in the workplace & I am able to perform unsupervised / independent work), relatedness (my relationships in the workplace have improved & I have been able to share my knowledge and skills with those around me) and competence (I feel that the scholarship has enhanced my knowledge & I feel more confident in the work I perform). The overall job satisfaction for the respondents in their workplace was also high. Our results demonstrate that job satisfaction was in fact correlated with autonomy, relatedness, and competence. Additionally, we discovered that competence was considerably more crucial to job satisfaction. Because competence would predict job satisfaction regardless of the degree of autonomy and relatedness a person reported.



Figure 4.7 Impact of the scholarship experience on engagement with current work

#### 4.6 Soft skills

According to the Future of Jobs report of World Economic Forum (2020) soft skills are expected to become more important in the coming years. The report lists critical thinking, analytical thinking and problem solving as important soft skills that will be needed to be effective over the next decade. This was also reinforced by the Focus Group meetings that was conducted in the current study. Active learning, resilience, stress tolerance which can be grouped as self-management skills are also highlighted as important skills. The Future of Jobs report argues that those that are already employed need to focus on developing mindfulness and meditation skills. On the other hand, those seeking employment are expected to focus more on hard/technical skills such as data science, Python programming, data storage technologies, computer networking, product marketing, digital marketing, advertising, customer experience, and cloud computing. The report also expects that much of the focus will be on the job training and mostly informal learning instead of off-the-job training and formal learning programs. Especially, the development of soft skills may require implicit knowledge that is gained through actual immersion into the work. This means that the evaluation of the scholarship programme's impact should not only focus on the explicit knowledge, specializations and fields of study, but what soft skills that the participants gained as they were immersed in a new culture, experiencing a new way of doing things, and moving out of their comfort zone.

The soft skills that our respondents have reported to have been improved to a large degree are communication skills, cultural adaptability, self-awareness, creativity, and problem-solving. These can be viewed as natural outcomes of an international experience with a specific focus. The scholarship experience provides this type of immersive international experience. Although

going to study destinations that are distant in terms of travel and culture may seem daunting to the individual, the experience can indeed be very valuable in terms of the skills gained. Since soft skills are more difficult to measure, much of the discussion about returns to the training and development programs focuses on the technical skills that are needed or the technical skills that are developed. However, although more difficult to measure, soft skills such as teamwork, leadership, negotiation and empathy perhaps are critical for the effective execution of what has been learnt.

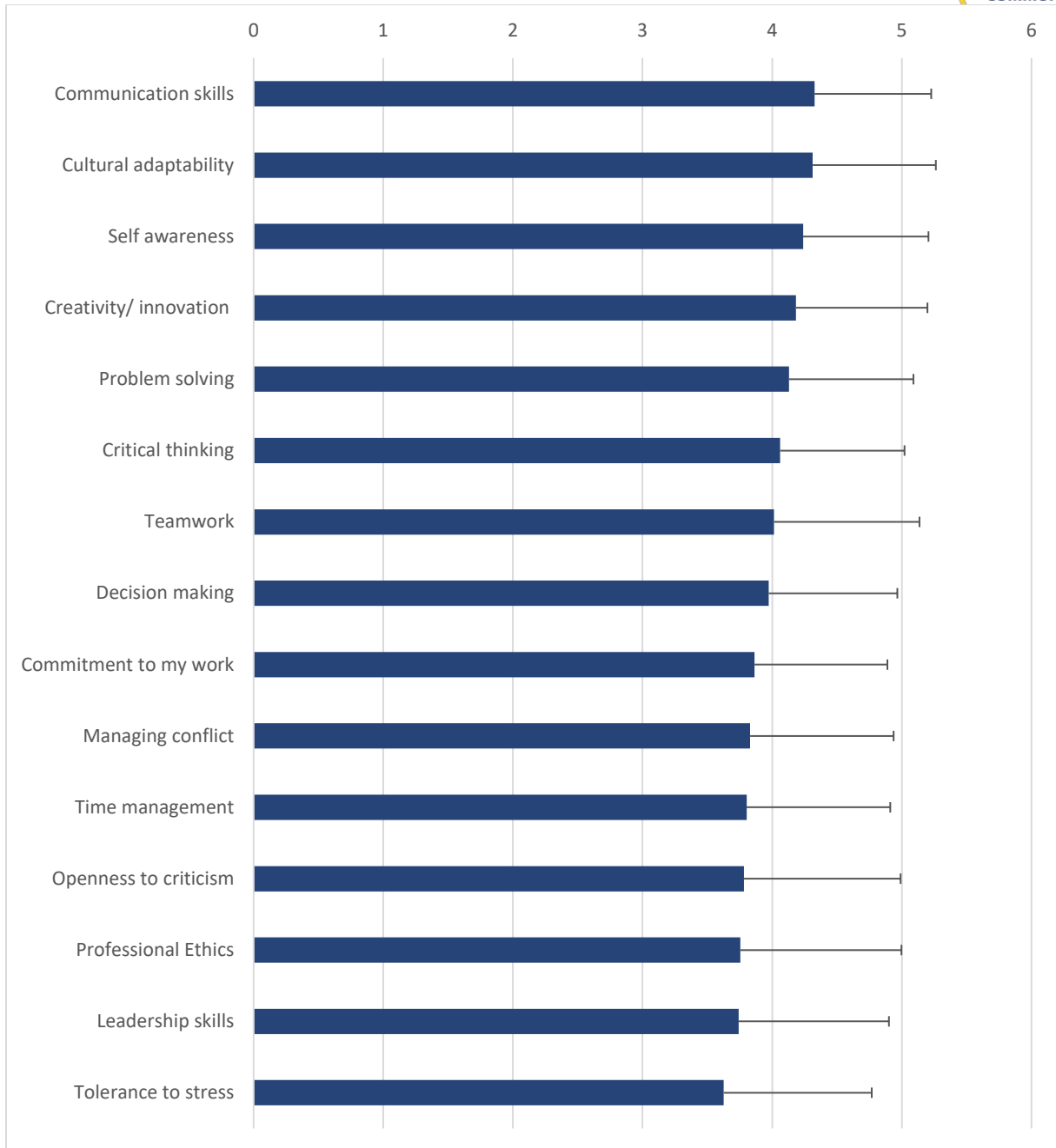


Figure 4.8 Contribution to Soft Skills

#### 4.7 Technical / Hard Skills

In terms of technical skills, a large portion of the respondents reported improvement in their foreign language skills as expected. The mean value for project management, IT and data analytics also scored relatively higher.

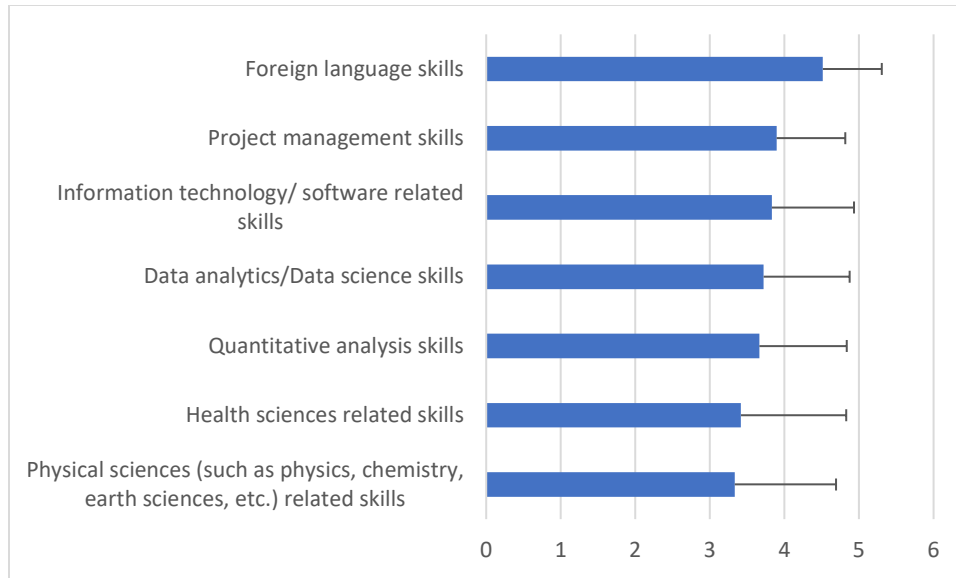


Figure 4.9 Contribution to technical skills

#### 4.8 Career related impact of the scholarship

Many of the respondents had experienced career-related changes after the scholarship experience. A total of 28 reported that they received a salary increase, 25 reported changing their jobs, 22 reported changing their occupation and 22 reported receiving a promotion. The number reporting that they started a business was 16.

<span style="color: blue;">●</span> I received a salary increase	28
<span style="color: orange;">●</span> I received a promotion	22
<span style="color: green;">●</span> I started my own business	16
<span style="color: red;">●</span> I changed my occupation	22
<span style="color: purple;">●</span> I changed my job	25



Figure 4.10 Career development as an outcome of the scholarship experience

#### 4.9 The impact of the scholarships on the community

The general perception of the respondents about the benefits of the Scholarship Programme on the community is very positive. The highest scores were provided for improving knowledge of the EU and the member states and the increase in the awareness of EU values.



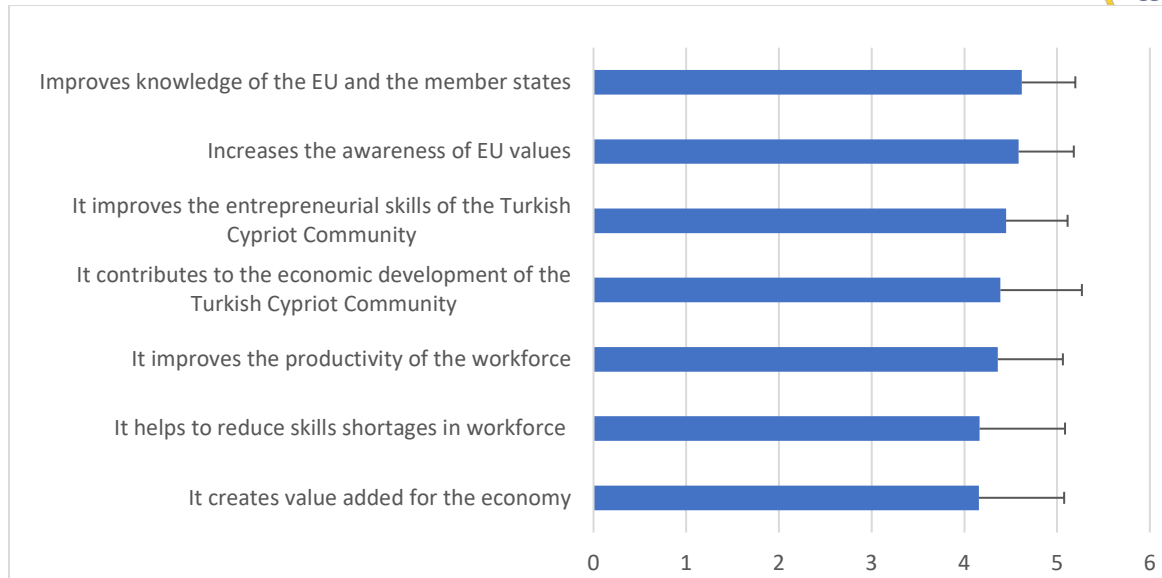


Figure 4.11 Perceived benefits of the Scholarship Programme on the community

#### 4.10 Specializations and study fields of the future

The respondents report that they expect Energy & Power Engineers, Data Science & Data Analysts, Agriculture Specialists, Environmental Specialists, Artificial Intelligence & Machine Learning Specialists, and Software Engineers will be the specialists that will be needed in the next ten years. When we check if the recipients of different types of scholarships have differing forecasts for the specialisations that will be needed, we do not see a significant variation in the prioritized lists.

Table 4.2 The list of specializations that are believed to gain importance

Specialization	Frequency
Energy & Power Engineer	75
Data Science & Big Data Analysts	65
Agriculture Specialist	60
Environmental Scientist	53
Artificial Intelligence & Machine Learning Specialist	49
Software Engineer	47
Medical professionals	47
Sustainable Development Specialist	45
Hydrology & Water Management Specialist	36
Digital Marketing and Strategy Specialist	36
European Law Specialist	33
Ecologist	31
Urban Mobility Specialist	30

Entrepreneurship & Business Innovation Specialist	29
Digital Transformation Specialist	26
Financial professionals	22
Art Therapist / Psychotherapist	18
Natural Science	15
Business Development Professionals	14
Emergency Specialist	10
Food Scientist	10
Creative Drama Specialist	9
Sound Engineer	5
Geographical Information Systems	5

The specializations that have been prioritized by our respondents seem to also have some alignment with the list produced by the World Economic Forum (WEF) Future of Jobs Report (2020). The WEF Report predicts increasing demand in Data Analysts, AI & Machine Learning Specialists, Big Data Specialists, Digital Marketing, Process Automation, Business Development, Digital Transformation, Information Security, Software Developers and Internet of Things Specialists. In addition to the IT related professions, our respondents reflect the current issues of our time and list energy, environment, and agriculture related specializations.

*Table 3 The list of fields of study that are believed to gain importance*

<b>Field of Study</b>	<b>Frequency</b>
Agriculture & Forestry	57
Business & Management	56
Computer Science	51
Geology, Environmental, Earth & Marine Sciences	49
Languages, Literature & Linguistics	45
Medicine & Dentistry	45
Economics & Econometrics	44
Politics & International Studies	33
Communication & Media	32
Biological Sciences	29
Psychology	28
Electrical & Electronic	26
Education	24
General Engineering	23
Accounting & Finance	22
Law	21
Art & Performing Arts & Design	18
Sociology	16

Other Health	15
Archaeology	14
Civil Engineering	14
Mathematics & Statistics	13
Mechanical & Aerospace	12
Architecture	11
Chemical Engineering	11
History, Philosophy & Theology	10
Physics & Astronomy	9
Veterinary Science	6
Sport Science	4
Chemistry	1
Geography	1

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Although we think of skills, specializations and fields of study interchangeably, in reality these concepts should be distinguished from each other. The fields of study that are offered in educational institutions may lead to a variety of specialisations and there may not be a specific field of study for each different specialization (although some educational institutions do develop different titled fields of study to match specializations also). For example, there may be a large number of specializations that an individual may end up in after studying business administration or a large number of specializations that may be associated with computer science. On the other hand, certain specializations such as law, pharmacy or medicine may require a certain field of study to be completed. The Sankey diagram below shows the relationships between the fields of study and the specializations that our respondents evaluated in the questionnaire.

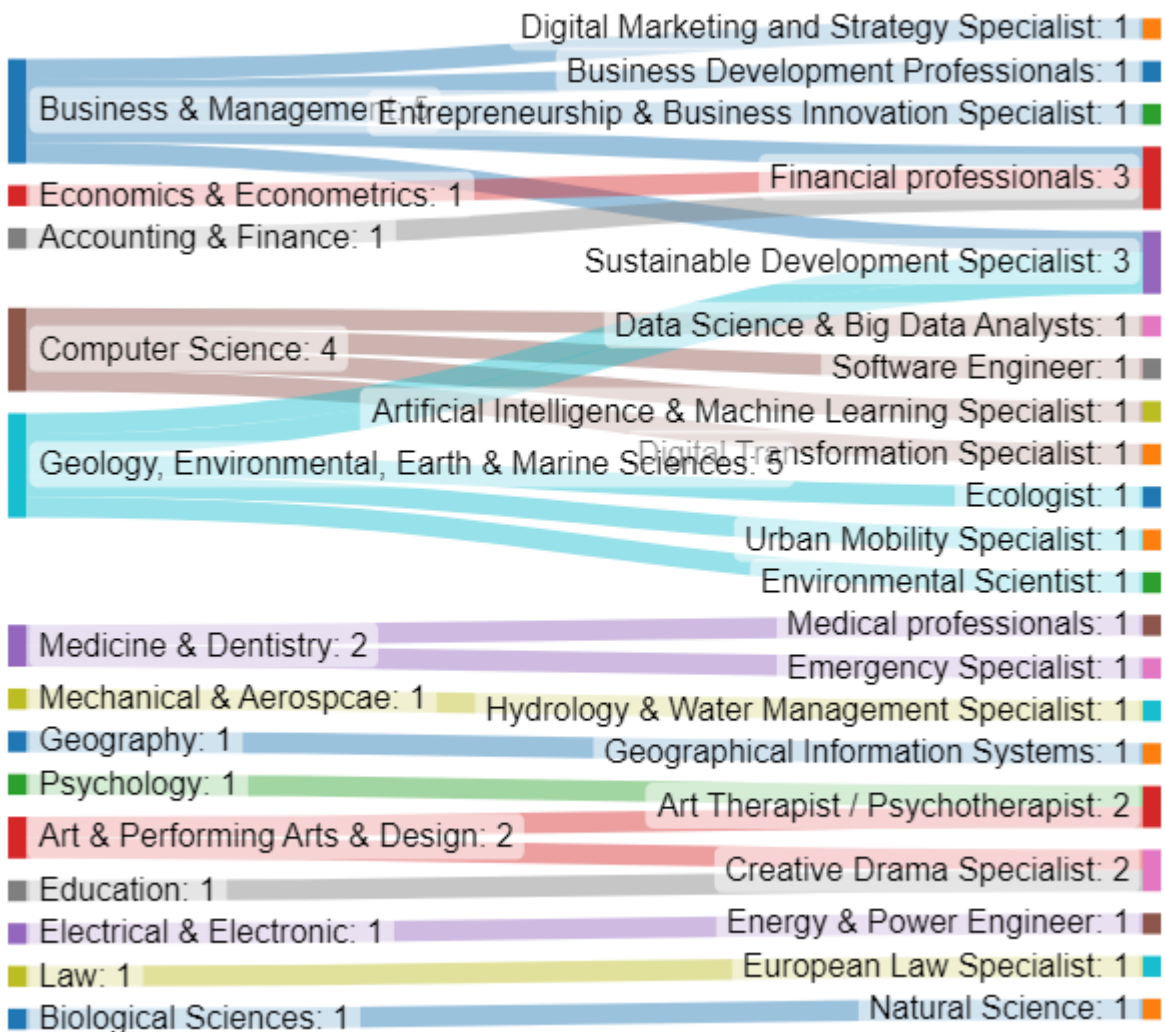


Figure 12 A Sankey diagram showing the relationships between fields of study and specializations

#### 4.11 Factors influencing career choice

How we choose our careers is a complex process that is influenced by many aspects of our lives. Our abilities, interests, resources and opportunities would influence what we may study and what we may do with our careers. Today the concept of person-environment fit, our need to find a fit between our characteristics and the environment where we will spend our working career, has become a key component of career counselling. Thus, career choice is not merely a search for opportunities that will deliver the best pay and benefits, but also an honest look at our personal preferences and characteristics. In the questionnaire, the respondents were asked to respond to a variety of factors that may have had an influence on their career choice. We found that the highest impact had been based on prior education and training and personal assessment of skills. The strong emphasis on prior training and education may be the result of some occupations that require a very specific educational program to be followed which seems

to dictate the career. However, this response also indicates a degree of inflexibility in terms of looking at careers. Another popular response was the quality of life associated with the career. Although, understandable, this may not reflect the fit between individual characteristics and preferences and the experience that one may find in each career.

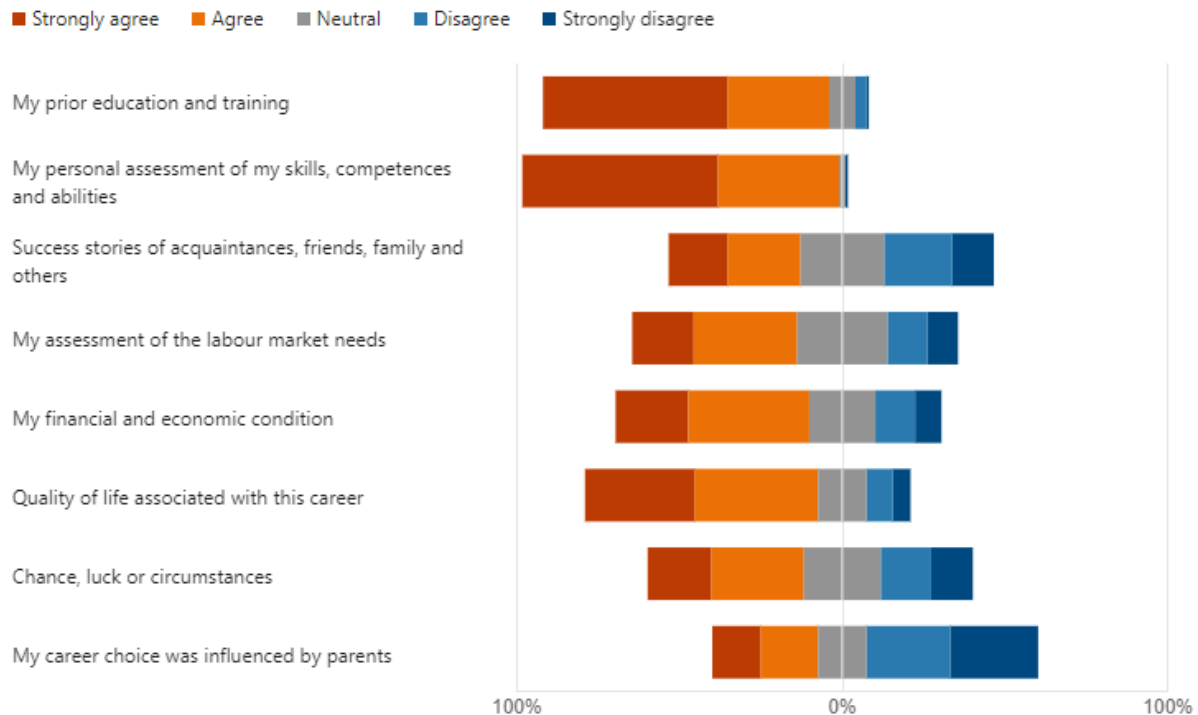


Figure 13 Factors that influence study choice

From the table below, we see that those that reported that they were influenced by perceived quality of life with the career were also likely to report that their financial condition influenced their career choice. This indicates that concerns with current financial condition are correlated ( $r=.57$ ) with career choices being influenced with perceived quality of life in the career rather than focusing on personal abilities or perhaps desires.

Table 4 Interrelationships between career influences

	Chance	Parents	QoL assoc w/ career	My financial cond	Market needs	Success stories	Skills	Prior education
Chance	1.00	-	-	-	-	-	-	-
Parents	0.40	1.00	-	-	-	-	-	-
QoL assoc w/ career	0.31	0.19	1.00	-	-	-	-	-
My financial cond	0.19	0.16	0.57	1.00	-	-	-	-
Market needs	0.25	0.22	0.40	0.35	1.00	-	-	-
Success stories	0.33	0.29	0.24	0.21	0.23	1.00	-	-
Skills	-0.08	0.03	-0.02	0.02	0.16	0.01	1.00	-
Prior education	0.15	0.14	0.14	0.08	0.04	0.18	0.16	1.00

#### 4.12 Summary of findings

Our findings show that the participants mostly reported a need for energy and power engineers. Perhaps this may have been triggered from the many disruptions in electricity supply in the community during the months before the data collection or may be that the respondents saw the major energy supply issues that EU is currently facing and the high amount of concern about sustainability when we are dependent on fossil fuels for energy. This was followed by an expected need for data scientists as the amount of data increases and the importance of evidence-based management and decision making becomes clear. Agriculture was also among the specializations that was rated to become more needed. May be as an outcome of the pandemic and the supply chain issues that arose, more individuals are focusing on becoming more self-sustainable and less dependent on imports. The fields of study that were rated as important for the next decade were listed as agriculture, business and management, and computer science.

## 5 Stakeholder Perceptions

### 5.1 Focus Groups

This section supplements the quantitative analysis by using the findings of focus groups conducted with 37 participants from 7 stakeholder groups. The approach in focus groups aimed to gain insights into the skill gap problem in different sectors in TCc. Participants from different stakeholder groups presented their opinions on the reasons, components, and solutions for the skill gap. While the findings cannot be seen as representative of all organizations different sectors, they were useful to gain a deeper understanding of the problem and explore its implications in real business settings. This section proceeds as follows: It first provides an overview of the approach, the stakeholders participated in focus groups and the questions used to guide the interviews. It then presents the findings of the analysis of qualitative data collected in focus groups.

This stage of the project consisted of open-ended interview questions conducted in face-to-face meetings. The main objective of running focus groups with different stakeholders was to gain deeper insight into skill gap phenomena than is available through surveys or official data provided by public institutions. For example, focus groups, in addition to identifying which soft or hard skills are required for jobs in different organizations, helped answer the “why” question and guided participants towards suggesting alternative solutions. In focus groups, information on whether skill gap exists, areas where it exists, reasons for the gap, and solutions to address the gap from the participants’ perspectives were gathered. Although we employed a pre-identified set of questions (please see Table 5.1) to conduct semi-structured interviews, we provided enough flexibility to the participants to raise any issue that they saw relevant.

Table 5.1 Areas explored in focus groups

<b>AREAS EXPLORED IN FOCUS GROUPS</b>
1) Definition of skills gap (from the participants’ viewpoint)
2) Difficulties (if any) faced in recruitment process
3) Problems related to skill gap observed in their respective sectors
4) Views on three most valuable and three least valuable skills in the labor market
5) Views on three most valuable and three least valuable skills in the future in the labor market
6) Alternative solutions for the skill gap problem
7) Top five industries today
8) Top five industries in the future
9) Top five jobs today
10) Top five jobs in the future
11) Their expectations from the EU Scholarship program/Office and other relevant stakeholders

## 5.2 Themes Identified

As a result of content analysis of the data collected in focus groups, common themes were identified as follows:

- 1) Unfavourable working conditions in TCc compared to the conditions in the GCc and abroad
  - a. Difficulties in retaining employees due to better pay, benefits and regulated environment in GCc and other European countries. Turkish lira/Euro exchange rate has recently made it more difficult to recruit and retain qualified employees.
- 2) Higher education institutions' failure in teaching practical skills that are valuable in the job market. These institutions are successful in providing theoretical knowledge but students graduate without practical skills, specifically soft skills, required for jobs.
- 3) Employers' unwillingness to provide training and development opportunities
  - a. Given the current situation, they argue that the cost is more than they could bear. The current economic and financial situation locally made it even more difficult.
  - b. Employers have concerns about employees leaving after completing the training program. In other words, they try to avoid the risk of no or minimum return on their investment. Employees demand immediate reward right after training. Absence of expected immediate rewards leads to high turnover rates.
  - c. Difficulties in finding employees with potential that they can train and provide with a career path in their organizations. The participants argue that these employees prefer to work abroad.
- 4) Public institutions as attractive alternatives to the private sector
  - a. Pay and benefits are better
  - b. Working hours are better
- 5) Lack of public policies to regulate and control the labour market. Companies that comply with laws, rules and regulations are at a disadvantage because noncompliance does not lead to any penalties or negative outcomes
- 6) Demand for professional/vocational foreign language
  - a. It could help employees follow the most recent developments in their fields and improve their performance. It suits the needs of both employers and employees.
- 7) Higher education graduates' lack of skills in writing CVs, filling out job applications, preparing for job interviews.

## 5.3 Views of Stakeholders

Participants in the focus groups agreed that there is a skill gap in the TC labour market. Some participants argued that the problem is labour shortage and cited lack of willingness to live in TCc as a major reason. In their view, skilled employees choose to work either abroad or in southern part of the island "... for obvious reasons". But, in general, participants cited a lack of skilled people and inadequate supply of suitable candidates as the reason they could not fill vacancies in their organizations. Participants also cited young graduates applying to jobs and their lack of experience. They also noted that what makes the situation worse is that they do not have the right attitude and expect to be successful and get promoted early in their careers whereas they do not have required decision-making and problem-solving skills due to lack of



experience. Participants stated that new employees needed hands on experience before making progress in their careers and as one participant stated “...maybe it is a generational thing but they want to have everything now, but they do not show us they have what it takes to demand such quick rewarding”.

Some participants cited the absence of managerial skills. In their view, this skill gap arose because some individuals had earned promotion to managerial positions due to lack of suitable candidates and these managers are yet to have all skill sets (e.g., ability to plan, setting priorities, taking initiatives, being proactive, problem solving) required for successful performance in their managerial jobs.

Several participants expressed their frustration when they observed that job applicants lack skills in understanding job advertisements, writing CVs, filling out job applications or getting ready for job interviews “... which is not a good start for them. And for us, it means we need to try harder to find the person we need”. They argued that higher education institutions need to guide students and help them improve their skills in reading job advertisements, writing resumes and interviewing.

Another finding presented by the qualitative part of the project is that relying on educational credentials, degrees and/or diplomas as an indicator for skill sets possessed by an individual might be an imperfect measure as technical skills and theoretical knowledge cannot always be linked to practical skills required to perform a particular job. Similarly, inadequacy of measures for soft skills has also been found. It has been observed that stakeholders rely on their subjective and personal opinions for measuring soft skills and their measures are specific to the jobs in question.

When asked about what kind of skills they expect their employees or job applicants need to have, participants focused on skills specific to jobs they have in organizations. For example, they argued that an accountant should have IT and digital skills, be knowledgeable about accounting software programs such as Logo or salespeople need to have marketing and driving skills for distribution of products. Other skills they have listed are as follows: data analysis, research, accounting, operations analysis, (risk understanding of business processes and administration, financial analysis, planning, project management, and job-specific software (e.g., Python, Logo, C++, AutoCAD), process improvement, policy and regulation knowledge management, compliance), programming languages and statistical analysis (SAS, SPSS, data analysis) Participants also agreed on soft skills being the primary area where skills needed to improve. Willingness to learn was a key attribute cited by participants. Other soft skills listed were interpersonal skills, self-initiative skills, leadership, organizational skills, learning, communication skills, problem solving, ability to work in a team, consciousness, and willingness to help.

Participants also mentioned that expectations in the business world and jobs in the world of work have changed and underlined the need for change in higher education system to meet these expectations. Application based learning and practical training found their place at the top of their list. The need for more practical training was underlined by all participants. Representatives from different organizations emphasized the imbalance between theoretical and practical training, which is currently in favour of the former. All of the stakeholders participated in the focus groups listed lack of initiative, computer literacy, and ability to work

in a team as areas that need improvement. This finding underlines the need for investment in developing both soft and hard/technical skills to ensure employability of future workers. Achievement of this goal depends on providing potential workers with access to high quality education and training.

The most frequently mentioned solution for skill gap was more collaboration between higher education and industry. One participant stated that the collaboration could even be about “... employers telling universities what to focus on, what to teach”. Participants also stated that higher education institutions should develop curricula after consulting with industry experts. Career days or being invited to classes as guest speakers were mentioned as opportunities to discuss with students the practical, real world skills, jobs, and how people function in their respective industry. Internships were also recommended as an effective way of partnership between higher education institutions and industry. All participants agreed that internships allow students to gain experience, understand jobs, explore how jobs are done in organizations decide he/she is a fit for that job. Soft skills seemed to be important for all participants who emphasized the need to integrate these skills into curricula of higher education institutions.

Apprenticeships was another suggestion made to equip future employees with relevant occupational skills and theoretical knowledge.

It should be noted that all participants indicated an increasing reliance on digital skills for jobs in their organizations. According to UNESCO (2018) “Digital literacy is the ability to access, manage, understand, integrate, communicate, evaluate and create information safely and appropriately through digital technologies for employment, decent jobs and entrepreneurship. It includes competences that are variously referred to as computer literacy, ICT literacy, information literacy and media literacy”. Participants emphasized that these skills would become even more important in the medium term and that future new employees who do not have digital literacy/digital skills will have little chance of finding a job. By the same token it will be very difficult for employers to be competitive if they cannot find digitally literate employees. Although the level of digital literacy required varies among sectors, participants indicated that workers had to possess, at a minimum, basic digital skills for employment in their organizations. Participants also provided examples for the use of digital skills: Using tablets to take orders in restaurants, using different software programs to track orders and stocks in companies, entering and analysing data using software packages such as Microsoft Excel, online management of human resources practices such as payroll, training, annual and medical leaves, shifts etc.

Participants listed construction, tourism, higher education, service sector, and sustainable energy as the sectors important today. As for the sectors of future they added information technologies, corporate finance, environment/climate change and workplace safety and health to the list. The jobs that are important in the current environment -as cited by participants- are department store employees and delivery staff, construction jobs, architects and trade jobs. The jobs of the future as listed by participants are constructions and related jobs, trade jobs, software developers, data analyst, financial analyst and international trade experts.

#### 5.4 Expectations from the EU Scholarship Office

In terms of expectations from the EU Scholarship Office, participants made the following remarks:

- 1) A suggestion made by participants was to train the trainers in the TCc. It was stated that such an arrangement would eliminate the barrier of medium to long-term absence of employees, which employers view as an important problem. To further develop the idea, participants proposed establishment of a training centre in TCc by utilizing financial support by the European Union. Employers would be more willing to let their employees participate in training programs at this centre rather than the ones abroad, which would mean employees would be away for at least 3 months. Such long periods of leave might mean losses in production. None of the participants stated that they would allow their employees to leave for such long periods of time. In the beginning, trainers from EU countries can train local trainers, who will take over when they are ready and continue to run the centre. Participants view that a more feasible and practical solution that would help employees get training for specialization in their jobs.
- 2) Not speaking a foreign language is a major obstacle for both applying to the EU Scholarship and success on the job. The “language requirement” discourages especially small business owners and trades people. They do not even consider applying because “how can I learn anything if I do not speak the language?” They recommend language courses organized in TCc to overcome this obstacle. Additionally, the number of third country nationals in TCc is increasing rapidly. Business owners need employees who can speak such languages as Arabic, Russian and Farsi.
- 3) Participants expressed the view that scholarships should be provided for longer periods than 1 year.
- 4) Participants stated that it is important to make sure that scholarship recipients will stay in the TCc and contribute to the economy and society. Otherwise, the scholarship is used as a springboard and young people move abroad after they finished their training or program.

## 5.5 Summary

Participants in the focus groups agree that there is a skill gap in TCc. The soft skills they seek in job applicants are willingness to learn, interpersonal skills, self-initiative skills, leadership, organizational skills, learning, communication skills, problem solving, ability to work in a team, consciousness and willingness to help. In terms of hard/technical skills participants mentioned digital literacy as a crucial skill for success. Data analysis, conducting research, accounting, operations analysis, understanding of business processes and administration, financial analysis, planning, project management, using job-specific software (e.g., Python, Logo, C++, AutoCAD), process improvement, policy and regulation knowledge management, compliance), programming languages and statistical analysis (SAS, SPSS, data analysis) are also listed. The analysis of the data collected in focus groups revealed common themes. Participants in the focus groups agree on the unfavourable working conditions in TCc. They also argued that higher education’s failure in teaching practical skills played a role in creation of the skill gap problem. Interestingly enough, participants stated that they were not willing to provide training to employees to help them acquire new skills. Graduates’ lack of skills in job application process is also stated. Public institutions’ attractiveness for job seekers is also noted as a reason for not being able to find employees they need. All participants emphasized the importance of collaboration among stakeholders to solve the skill gap problem. While construction, tourism, higher education, service sector and sustainable energy are listed as the important sectors today, information technology, corporate finance, environment/climate

change and workplace safety and health are added to the list as the sectors of future. Important jobs in the current environment are department store employees and delivery staff, construction jobs, architects, and trade jobs. The jobs of the future as listed by participants are constructions and related jobs, trade jobs, software developers, data analyst, financial analyst and international trade experts. Participants also shared their expectations from the EU Scholarship Programme: financial support for a training centre in TCc, supporting foreign language training and providing scholarships for longer than 1-year periods.

## 6 Conclusion: Priority list of hard and soft skills

This report attempts to identify the skills gap in the Turkish Cypriot economy. For this purpose, literature on the topic has been reviewed and also global trends in skills have been identified. The report had also analysed the Turkish Cypriot economy and specifically its labour market which was expected to serve as context for analysis. Additionally, a survey was conducted among the alumni of the EU scholarship programme to understand their perception. The study also carried out series of focus group meetings with stakeholders including different sector representatives and experts in this area.

Based on the global trends about the demand for skills, the analysis on the economy and labour market of the Turkish Cypriot economy, the perception of both the alumni from the conducted survey and the stakeholder focus group meetings have enabled the study to produce the following priority list. This list consists of both soft skills and specialization areas.

### *Soft Skills*

- Continuous learning
- Initiative & Creativity
- Leadership
- Problem-solving
- Teamwork
- Interpersonal communication skills
- Organizational skills
- Self-awareness
- Critical thinking
- Resilience
- Cultural adaptability
- Conflict management

### *Specializations*

- Data and information technology
- Finance
- Energy and Power
- Agriculture
- Environment
- Medical professionals
- Service management
- International trade experts
- Trade and crafts jobs (Technician & Operator)
- Construction and related jobs
- Visual designer

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