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European Training Foundation

POLICIES FOR HUMAN CAPITAL DEVELOPMENT

TURKEY

AN ETF **TORINO PROCESS** ASSESSMENT

THE EU AGENCY SUPPORTING COUNTRIES TO DEVELOP THROUGH LEARNING

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PREAMBLE

The European Training Foundation (ETF) assessment process provides an external, forward-looking analysis of countries' human capital development issues and VET policy responses from a lifelong learning perspective. It identifies challenges related to education and training policy and practice that hinder the development and use of human capital, taking stock of them and making recommendations for possible solutions.

Such assessments are a key deliverable of the Torino Process, an initiative launched by the ETF in 2010 and aimed at providing a periodic review of vocational education and training (VET) systems in the wider context of human capital development and inclusive economic growth. In providing a high-quality evaluation of VET policy from a lifelong learning perspective, the assessment process builds on four key principles: ownership, participation, and holistic and evidence-based analysis.

For the ETF, human capital development means supporting countries in the creation of lifelong learning systems that provide opportunities and incentives for people to develop their skills, competences, knowledge and attitudes throughout their lives, with a view to improving their employment prospects and realising their potential, as well as contributing to prosperous, innovative and inclusive societies.

The main purpose of these assessments is to provide a reliable source of information to enable the planning and monitoring of national education and training policies with respect to human capital development, as well as offering a foundation for programming and policy dialogue in support of these policies by the European Union and other donors.

The ETF assessments rely on evidence collected by the respective countries using a standardised reporting template (the National Reporting Framework – NRF) within a participatory process involving a wide variety of actors with a high degree of ownership. The findings and recommendations of the ETF assessments have been shared and discussed with national authorities and beneficiaries. However, the ETF takes full responsibility for each assessment and for any errors and omissions contained therein.

This assessment report starts with a brief description of the strategic plans and national policy priorities of Turkey (Chapter 1). It then presents an overview of issues related to the development and use of human capital in the country (Chapter 2), before moving on to provide an in-depth discussion of the problems in this area that, in the view of the ETF, require immediate attention (Chapter 3). Chapter 4 offers overall conclusions resulting from the analysis.

The annexes provide additional information: a summary of the recommendations in the report (Annex 1) and an overview of the education and training system of Turkey (Annex 2). The National Torino Process Report compiled by the country itself can be found here: https://openspace.etf.europa.eu/trp/torino-process-2018-2020-turkey-national-report

EXECUTIVE SUMMARY

Context

This European Training Foundation (ETF) assessment provides an external, forward-looking analysis of the country's human capital development issues and VET policy responses from a lifelong learning perspective. It is based on evidence contained in Turkey's National Torino Process Report, which was compiled in 2019 using a standardised questionnaire (the National Reporting Framework – NRF) and additional information sources, including international analyses.

The report comes at the right time, as the Turkish Government has recently set ambitious goals to move from a middle-income to a high-income country and to enter the top-10 global economies. Policymakers are well aware that this can be only achieved if education and employment policies are able to transform and improve the country's human capital. The Education Vision 2023 aims to contribute to these goals and has set new priorities in all areas of education, including vocational education and training (VET).

However, despite the advanced level that Turkey's economy has already reached and the significant reforms that have taken place in education and training – with others still ongoing – substantial challenges in human capital development and use remain.

Findings on human capital

Turkey has made substantial progress in human capital formation, especially in improving access to various levels of education, as acknowledged by EU benchmarks or OECD policy reports. However, as far as most education and training indicators are concerned, wide gaps remain between Turkey and comparable countries in the EU and OECD.

As a large country in an age of digitalisation, Turkey is facing manifold human capital development challenges. In economic terms, the most pressing of these relate to making the transformation from low to advanced technology and from a middle- to a high-income country; boosting productivity and tackling the impact of automation; and mitigating the effects of the urban-rural divide in an increasingly urbanised society in order to provide career opportunities for a young population, as well as reskilling and upskilling the adult workforce, including a huge number of refugees.

Economic transformation calls for enhanced adult learning

The ETF assessment found that the economic transformation already happening, allied to the current ambitious policy goals, call for enhanced adult learning opportunities – in particular with regard to those people working in sectors at high risk of automation as well as for the low-skilled and groups vulnerable to social exclusion. While initial education and training will remain important as a foundation for all, the relative importance of adult learning is expected to increase as reskilling and upskilling for new jobs becomes more crucial for employability. However, adults in Turkey seem to be less prepared for the future than their peers in other countries.

While another source of increased demand for adult learning may come from the relatively low educational attainment of the population, there is strong evidence that the level of participation in learning and training provision in Turkey remains comparatively weak.

Skills mismatch calls for higher VET participation and more effective VET provision

In recent years two other interlinked phenomena can be observed which are exerting a negative impact on human capital development and use in Turkey. The first is the shrinking pool of skills supply for the economy, as evidenced by the decreasing VET participation rate, including apprenticeships. The second is the persistence of skills mismatches (both vertical and horizontal) that undermine the potential of human capital in the country. Paradoxically, VET is also affected by skills mismatch, indicating the need for more effective VET provision and career guidance.

Stagnating and comparatively limited opportunities for adult learning combined with decreasing VET participation and high level of skills mismatch are serious concerns for human capital development and constrain growth and employability in the country.

The ETF suggests that these areas should become an immediate policy priority. In particular, the working-age population in Turkey needs to be empowered to cope with the economic transformation that is already happening and is likely to accelerate in the near future.

Recommendations for action

Improving interlinkages between initial VET and continuing VET/adult learning

Initial VET and continuing vocational education and training need to be much more closely linked, and even dovetailed, since the importance of a lifelong learning perspective is steadily increasing in the context of digital transformation. This could offer people new and more competitive career perspectives, as well as making initial VET more attractive in comparison to general and higher education.

Tackling skills mismatch in VET as a key priority

The strong horizontal skills mismatch that exists for graduates from the VET system needs to be further researched and also monitored more frequently. Comparisons need to be made with graduates from apprenticeships, and the current VET fields and branches should be reviewed to assess whether they still correspond to present-day and anticipated labour market needs. This should be made a top priority, and carried out in cooperation with business organisations in the country. Valuable information gained from this undertaking could enrich Turkey's modern E-Graduate Monitoring Portal, managed by the Ministry of National Education (MoNE).

Expanding adult learning opportunities

Turkey needs a longer-term vision and strategy for adult learning which is more prominently positioned within a wider lifelong learning (LLL) strategy and the Education Vision 2023. To support the development of a longer-term strategy for adult learning, a comprehensive and holistic review of adult learning policies and practices in Turkey should be carried out. This could reveal if there was insufficient provision in certain areas, such as education and training for adults with low skills, or in particular regions. The current financing of adult learning and funding schemes should be revisited and the overall education budget gradually rebalanced in favour of adult learning.

Developing a system of career guidance

An expansion and redesign of the career guidance services is recommended, and a coherent national system should be developed. The Turkish career guidance services need to become more effective in order to make a real contribution to human capital development. The future career guidance system should include adult guidance services, especially for those most in need, including women who are not involved in education or the labour market, refugees and migrants, and other vulnerable groups.

1. INTRODUCTION

1.1 About this assessment

The present government of Turkey has set ambitious plans to move from a middle-income to a high-income country and to enter the top-10 global economies. Policymakers are well aware that this can be only achieved if education and employment policies are able to transform and improve the country's human capital.

Seen in this context, the ETF assessment comes into play at an important point, as in 2019 the 'Turkey Education Vision 2023' was launched, which sets out the new priorities in human capital development for the next five years. This coincides with preparations for the next generation of the EU Instrument for Pre-Accession Assistance (IPA) in 2021–2027. The assessment is expected to help with the prioritisation of reforms and the design of actions by providing input for policymakers in the domain of education and training. The assessment findings complement the monitoring of the Economic Reform Programme (ERP) from a sector point of view.

The assessment process included an extensive phase of desk research based on responses to a standardised questionnaire (the NRF), analysis of other relevant studies, and the preparation of an issues paper containing an overview of themes to be discussed in the present report, which were then finalised in consultation with the ETF country and thematic teams responsible for Turkey.

As with other ETF assessments, this paper is not meant to be exhaustive. The national report for Turkey covers a broad selection of problems around human capital development and use, while the focus here is on the challenges that the ETF recommends addressing as a matter of priority.

1.2 Country overview

Global player facing national and international challenges

With more than 80 million inhabitants (projected to reach over 100 million by 2040), Turkey is one of the largest ETF partner countries and in recent years has become a significant global economic and political player. Over the last three decades it has undergone a major economic transformation to become a G-20 country (boasting the eighteenth largest economy in the world), and despite a recent economic slowdown, in 2018 the growth rate of the economy (2.6%) remained higher than in the EU (1.9%). The EU has maintained its position as, by far, Turkey's number one trading partner. Turkey is the EU's fifth largest export market and sixth largest provider of imported goods (Eurostat, 2019). In the period 2002–2018 more than 70% of foreign direct investment into Turkey came from the EU (Daily Sabah, 2018b).

Despite its growing economic and political importance, Turkey is facing a number of serious challenges. Lately, Turkey's economy has been battling with double-digit inflation and a falling currency. Recent years have also seen a drop in public finances (CoEU, 2019a) and spending pressures are emerging which may impact on investment for human capital development. The latest Economic and Financial Dialogue between the EU and Turkey (May 2019) concluded that the current economic headwinds are likely to be long-lasting. Concerns have also deepened regarding the independence of key economic institutions and the functioning of the country's market economy (EC, 2019a). However, higher GDP growth (3.9%) is projected for 2020 and a rebalancing of the economy

is underway, albeit with large risks attached, according to the Spring 2019 Economic Forecast for Turkey (EC, 2019c).

Although Turkey has risen in the World Bank's *Doing Business* ranking by 26 places (World Bank, 2019c) since the last assessment, and now ranks 43 out of 190 economies for ease of doing business, the Small Business Act (SBA) assessment concluded that the business environment deteriorated slightly between 2016 and the end of 2018 (OECD, 2019a).

A long-lasting and challenging EU accession process

Turkey has been linked to the EU for more than 50 years (see, notably, the Association Agreement in 1964 and the Customs Union 1995) and remains a key partner of the EU. The 'waitinghood' for EC accession has lasted for some 20 years, with Turkey achieving candidate country status in 1999, and accession negotiations began in 2005. Since then, 16 chapters have been opened and only one has been provisionally closed. However, in 2018 negotiations came to a standstill – no further chapters are under consideration for opening or closing and no further work towards the modernisation of the customs union is currently foreseen (EC, 2019a). The latest EC background report acknowledged that Turkey has continued to align itself with the EU acquis, albeit at a limited pace. High-level political dialogue between Turkey and the EU continues (on foreign and security policy, energy, the economy and trade), although the pace of movement towards implementing jointly agreed actions is slow.

The EU's most serious concerns with regard to Turkey revolve around continued negative developments in relation to the rule of law, fundamental rights and the judiciary.

On the other hand, Turkey is well advanced in a number of areas, such as company law, trans-European networks, science and research. The country has also continuously shown a strong commitment to EU policies in the field of education and training, for example through participation in the ET2020 Working Groups, in the implementation and monitoring of the EU priorities for VET 2015–2020 (Riga Council Conclusions), in its commitment and pledges to the European Alliance for Apprenticeships (EAfA), via various IPA projects (i.e. building the qualifications framework), and through EU-Turkey cooperation in supporting refugees.

1.3 Strategic context

The latest national development plan aims to serve Turkey's goal of becoming one of the top-10 global economies. Covering a four-year period (2019–2023) five years ahead of its centennial, the Eleventh Development Plan[1] sets out to attain a GDP of $2 trillion, a rise in per capita income to $25,000 and exports worth $500 billion, as well as lowering unemployment to 5% and permanently reducing inflation to single digits. The intent is, further, to expand industrial growth by concentrating on the development of human capital. The plan includes education and employment policies for the transformation and improvement of human capital (Presidency of the Republic of Turkey, 2019b; Daily Sabah, 2018b).

Already in the previous National Development Plan (2013–2018) the overarching goal of Turkey's strategy was to achieve high, stable, sustainable and inclusive economic growth by creating a competitive and business-friendly economic environment and improving international competitiveness.

[1] Turkey's economic policies are set through *Development Plans* and *Medium-Term Programmes (MTPs)*. While Development Plans put forward a more holistic view of the social and economic priorities, the MTPs establish the specific actions and targets/indicators required.

Human capital and labour market reform, macroeconomic stability, technology and innovation, as well as institutional quality were seen as the preconditions for attaining this goal and the pillars on which it stood. A competitive, export-oriented and private-sector-led production structure was promoted, while enhancing productivity in manufacturing, improving public infrastructure and increasing the labour market participation of women and young people have been among the key commitments, which have been realised to only a limited extent.

The new plan is accompanied by 'Turkey's Education Vision 2023', a sector-wide strategy for education which highlights high-quality provision 'to raise science-loving, skilled, and ethical individuals who take an interest in culture and are willing to use present and future skills for the well-being of humanity' (MoNE, 2019b). The government advocates an approach to education that unites democracy and the economy, sees education as an 'ecosystem' and seeks to design all subcomponents of the system simultaneously. The strategy includes infrastructure reforms, a focus on particular priority areas (such as educational function, teachers and administrators, the school environment and governance) and sets concrete three-year targets. Two of the 18 areas of intervention are dedicated to vocational and technical education and to lifelong learning, and include specific goals (see sections 3.1 and 3.2).

2. HUMAN CAPITAL: DEVELOPMENTS AND CHALLENGES

2.1 Overview

Turkey is facing a number of human capital development (HCD) challenges. Most notably, these relate to: ensuring sustainable development (including high growth rates that are sustainable and inclusive); managing the economic transformation from low to medium and advanced technology as well as from a middle- to a high-income country; increasing productivity and tackling the impact of automation; mitigating the urban-rural divide in an increasingly urbanised society; providing opportunities for both a young population and also a growing number of adults to reskill and upskill in the context of the fourth industrial revolution; and dealing with the large number of refugees and migrants living in the country.

Most of these issues point to the necessity of having a more highly skilled, flexible and continuously educated and trained workforce. However, while some current policies seem to be effectively supporting HCD (e.g. improving early years education), others appear to have little or no effect. For example, the recent decline in initial VET participation – despite the government policy of promoting VET – poses the risk of shrinking the supply of skills available to the job market. In addition, the stagnating and comparatively limited opportunities for adult learning contrast with the ambitious goals of economic transformation in Turkey. The high and increasing rate of youth unemployment, the skills mismatch of VET graduates and the integration of a large number of migrants into the working population, mainly operating in the informal economy, need to be addressed by new and stronger policies that are more sharply focused and capable of producing actionable results within a relatively short timescale.

2.2 Sustainable development and human capital

Sustainable development – challenges for education, gender equality and health

To address the contemporary global challenges that all countries have to face, including those related to poverty, inequality, climate change, the environment, prosperity and peace, Turkey made commitments towards achieving the Sustainable Development Goals (SDGs) as part of the 2030 Sustainable Development Agenda adopted by all United Nations Member States in 2015. A recent OECD analysis and measurement of progress against targets[2] showed that Turkey has met 15 of the 89 targets for 2030 (i.e. on maternal, infant and neonatal mortality, and on strong GDP growth). Turkey even outperforms on goals related to food, climate and energy. A number of the remaining targets are within sight – however, a significant number of challenges remain, especially in the area of 'people' (i.e. education, health, gender equality, reducing inequality – see Figure 1 below). For instance, in Turkey there are relatively few physicians per capita, many students do not achieve the minimum proficiency level in mathematics, and there is a significant gender pay gap (OECD, 2019b).

[2] Based on 108 available indicators, allowing a coverage of 89 of the 169 SDG targets.

FIGURE 1: TURKEY'S DISTANCE FROM ACHIEVING 89 SDG TARGETS

Note: The figure shows the current level of achievement on each available target. The longer the bar, the shorter the distance still to be travelled to reach the 2030 target (dotted circle). Targets are clustered by goal, and goals are clustered by the '5Ps' of the 2030 Agenda (outer circle).

Sources: http://www.oecd.org/sdd/OECD-Measuring-Distance-to-SDGs-Targets-Metadata.pdf for detailed metadata. StatLink 2, http://dx.doi.org/10.1787/888933964146

Human development – steadily improving but inequality in the distribution

With respect to the key indicator for human development[3], Turkey steadily increased its score between 1990 (0.58) and 2018 (0.80) – see Figure 2 below. The country was ranked in the upper third of the human development index in recent years (at 64 out of 189 countries) and climbed up for the first time to the very high development category (at 59 among 189 countries) in 2018 (UNDP 2019).

As shown in Table 1, between 1990 and 2017, Turkey's life expectancy at birth increased by 13.1 years, the mean years of schooling rose by 3.2 years and expected years of schooling increased by

[3] The Human Development Index (HDI) is a composite index measuring average achievement in three basic dimensions of human development: a long and healthy life; access to knowledge; and a decent standard of living. In terms of scoring, 1 = the most developed. A long and healthy life is measured by life expectancy. Knowledge level is measured by mean years of education among the adult population (which is the average number of years of education received in a lifetime by people aged 25 years and older) and access to learning and knowledge by expected years of schooling for children of school-entry age, which is the total number of years of schooling a child of school-entry age can expect to receive if prevailing patterns of age-specific enrolment rates stay the same throughout the child's life (UNDP, 2018).

7.5 years. Turkey's gross national income (GNI) per capita grew by some 122% between 1990 and 2018.

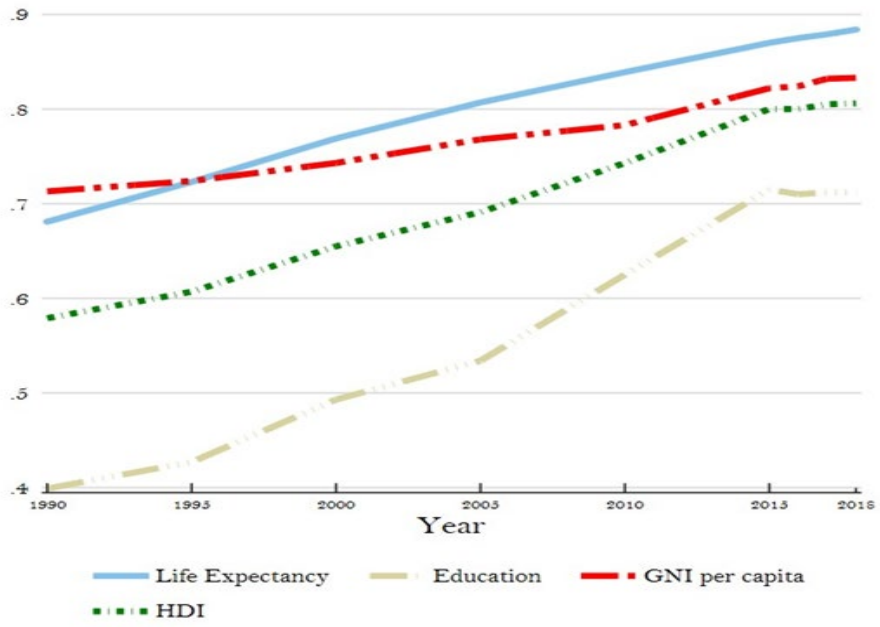
TABLE 1: TURKEY'S HUMAN DEVELOPMENT INDEX (HDI) TRENDS BASED ON CONSISTENT TIME SERIES DATA AND NEW GOALPOSTS (UNDP 2019)

Year	Life expectancy at birth	Expected years of schooling	Mean years of schooling	GNI per capita (2011 PPP$)	HDI value
1990	64.3	8.9	4.5	11 214	0.579
1995	67.0	9.6	4.8	12 089	0.607
2000	70.0	11.1	5.5	13 656	0.655
2005	72.4	11.9	6.1	16 129	0.691
2010	74.5	13.8	7.2	17 804	0.743
2015	76.5	16.2	8.0	23 048	0.800
2016	76.9	16.4	7.6	23 409	0.800
2017	77.2	16.4	7.7	24 702	0.805
2018	77.4	16.4	7.7	24 905	0.806

Source: http://www.hdr.undp.org/sites/all/themes/hdr_theme/country-notes/TUR.pdf

However, when adjusted by a coefficient for inequality in the distribution of human development across the country's population, the HDI falls to 0.675 – a 'loss' of 16.2% in human development due to inequality.

FIGURE 2: TRENDS IN TURKEY'S HDI COMPONENT INDICES (1990–2018)



Source: http://www.hdr.undp.org/sites/all/themes/hdr_theme/country-notes/TUR.pdf

With regard to the contribution of each component to Turkey's HDI since 1990, it can be observed that the input of education is lower than others, but this gap has been narrowing over recent years.

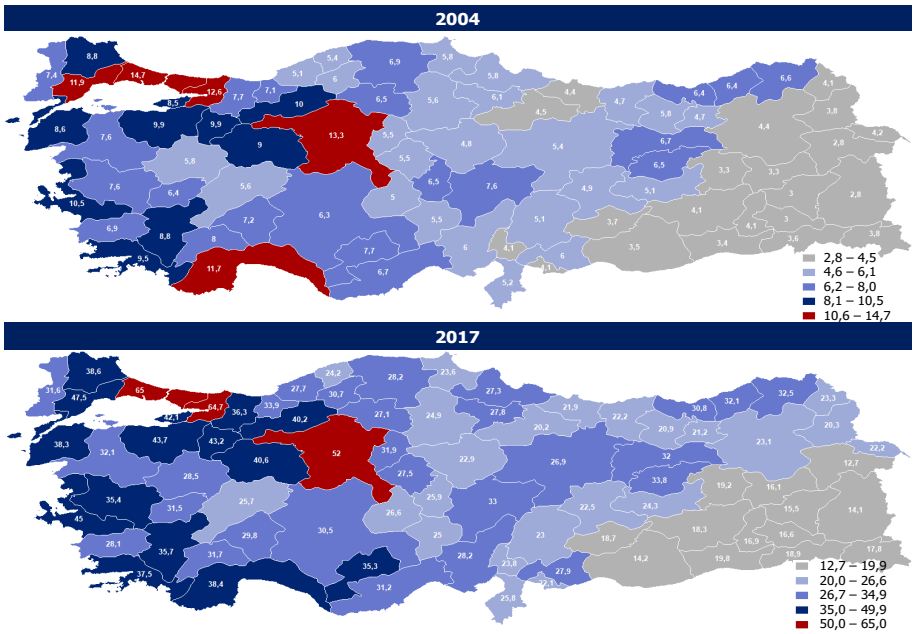
A number of other human-capital-related indicators show a deteriorating trend. For example, the Prosperity Index (with a score of 57.49 in 2018) fell to 2009/2010 levels, and Turkey ranked only 93rd out of 149 countries in 2018, close to countries such as El Salvador and India (Legatum Institute, 2018). In addition, in 2018 the country's position on the Happiness Index (with a score of 5.37) slid back to its 2014 level, ranking Turkey 77th out of 153 countries (United Nations, 2019). The level of perceived corruption in Turkey has also worsened, with a ten point drop since 2013, while between 2016 and 2018 the level remained nearly the same (Transparency International, 2019)[4]. The Corruption Perceptions Index, which measures the degree of corruption as perceived by business people and country analysts, ranked Turkey 78th out of 180 countries in 2018, assigning it a score of 41 (100 is very clean; 0 is highly corrupt).

2.3 Inequalities – reducing the potential of human capital

The description is composed by our digital data assistant.

Regional disparities and income inequalities

FIGURE 3: PER CAPITA GDP ON A PROVINCIAL BASIS, THOUSANDS TL (YEARS 2004 AND 2017)



Source: MoNE (2019), National Background Report, April 2019a.

The high and rapid urbanisation of the country – with the proportion of the population living in cities rising from 44% in 1980 to 75% in 2017 – has made a significant contribution to developing the

[4] In its latest progress report on Turkey's accession to the EU, the European Commission (EC, 2019) also stressed that the country is at an early stage in the fight against corruption. Legislative amendments envisaged in previous anti-corruption strategies have not been implemented. Public procurement legislation remains incompatible with the EU acquis and no permanent, functionally independent anti-corruption body exists.

economy but has also deepened regional disparities and inequalities in terms of wealth and human capital. Income distribution between the 81 provinces has not yet reached the desired level of equality (MoNE, 2019a) and a deep west-east divide persists (see Figure 3 above showing a comparison of GDP per capita between the years 2004 and 2017). Turkey has 22 cities which have a population of over 1 million, and which provide the engines of economic growth and social development.

The Gini coefficient for Turkey (OECD, 2019d), measuring the extent to which the distribution of income among individuals or households within an economy deviates from a perfectly equal distribution, was reported at 41.9 in 2016 (0 is complete equality; 1 is complete inequality).Turkey is among the top five OECD countries for the greatest inequality of income. The income share held by the highest 20% was reported at nearly 50% (48.3%) according to the World Bank (2016).

Both regional disparities and income inequalities have negative repercussions not only on the distribution of human capital but also on its generation and use. People from lower income groups and those living in remote areas have fewer opportunities to participate in employment, education and training and to further develop their human capital, thus slowing down and lowering the overall supply and level of human capital in the country. Large variations in educational attainment also lead to significant differences in income. Therefore, inclusiveness and access to quality education must be among the main issues to be addressed in the future if disparities and inequalities are to be reduced.

2.4 Changing demand for human capital

The transformation to high-tech production and to a high-income country

Turkey has managed to move up to the level of a middle-income country but is now facing the challenge of achieving high-income status. One of the bottlenecks here is the too slow transformation of the economy from low- and middle- to high-tech production. Currently only 3.5% of the country's output consists of goods that are the products of high-tech processes, 40% of its manufacturing industry is operating at a low technological level, and the rest is around the middle (MoNE, 2018).

A recent study on human capital and regional development in Turkey (Karahasan and Bilgel, 2018) highlights a rapid polarisation among Turkish regions, not only in terms of regional incomes but also regarding the development of education-based human capital, which constitutes one of the biggest socio-economic problems that the Turkish economy faces.

A key role will be played by digitalisation and Industry 4.0, with both featuring as top priorities in the Eleventh National Development Plan. The changes occurring through technological advances such as automation, advanced robotics, virtualisation and artificial intelligence are already influencing the demand for both technical and soft skills in a number of occupations in Turkey. Many national and international studies and surveys confirm that acquiring the right skills remains a challenge in the country. TUSIAD, the Turkish Industry and Business Association, has devised a roadmap entitled *Industry 4.0 in Turkey as an Imperative for Global Competitiveness* (TUSIAD and Boston Consulting Group, 2016). In the leading sectors, surveys on prospective technological capital investments are being carried out in order to identify the substituting and complementing effects of new technologies. Education and training needs to respond to these challenges in an effective and timely manner, and the Turkish Vocational Qualifications Authority (VQA) has already started to develop qualifications for Industry 4.0.

The new Automation Readiness Index, compiled by the Economist Intelligence Unit and assessing the extent to which the policy environment in participating countries is ready for the coming wave of

automation, sees Turkey in the bottom third for 2018 (15th out of 25)[5]. Turkey is in the relatively early stages of developing policies and actions[6]. This means that more engagement between government, industry, educational specialists and other stakeholders is required if policymaking is to keep pace with innovation and automation.

While there is room for improvement in terms of innovation and the competitiveness of the country's economy, some indicators appear promising. In the latest Global Competitiveness Index, Turkey ranks 61st out of 140 countries, and the 2018 score (61.6) went up by 0.29% from the previous year.

The youngest population in Europe – demographic dividend?

In comparison with countries in the EU, Turkey has the largest youth population, with half of its citizens under the age of 32 in 2017. The demographics of Turkey's population could have a positive impact on the country's economy in the future, representing a window of opportunity in many respects. The preponderance of young people is expanding the share of the working population, which could in turn spur production and consumption, while ultimately accelerating growth and shared wealth. This situation further results in there being fewer dependents to support (the total age dependency ratio was nearly 80% in 1980 and had fallen to 49% in 2017). This could expand the room for manoeuvre when it comes to financing human capital development, health care and social security.

The young and well-educated population of Turkey constitute a great asset for domestic and foreign investors who may face challenges elsewhere in Europe and other regions with ageing and shrinking populations (Presidency of the Republic of Turkey, 2019a). Indeed, the country's young people could generate a demographic dividend in the next decades if properly cultivated. Turkey therefore has a historic opportunity to invest in human capital and to make effective and telling choices in terms of priorities, in particular by focusing on early childhood development, VET and lifelong learning.

While on the one hand Turkey has a very youthful population, it should not be overlooked that the 25–64 age group makes up nearly 52% of the total population (CIA, 2018), thus creating a potentially huge demand for adult learning.

Refugees' integration in education and the labour market

The influx of over three million Syrian refugees since 2015 has created new and enormous social, economic and political demands, as well as placing a strain on education and training reform efforts. Turkey has maintained its commitment to provide massive and unprecedented humanitarian aid and support to more than 3.6 million registered refugees from Syria and around 370 000 registered refugees from other countries, thus hosting the largest refugee community in the world. In 2015, Turkey and the EU signed a Joint Action Plan aimed at ending the irregular migration from Turkey to the EU, and a special EU Facility for Refugees in Turkey was launched with a budget of €6 billion. Up to now, more than 80 projects have been launched and over €2.2 billion disbursed out of this facility (EC, 2019a).

[5] The world leaders in this area are South Korea, Germany and Singapore. The three key policy areas assessed are innovation environment, education policies and labour market policies.

[6] In 2019, Turkey, together with 41 other countries, adopted the new OECD Principles on Artificial Intelligence (AI), agreeing to uphold international standards to ensure that AI systems are designed to be robust, safe and trustworthy. Turkey also aims also to facilitate public and private investment in research and development to spur innovation in AI.

Given the extremely high number of refugees in the country, their education and training, as well as their integration into the labour market, has been a huge challenge for Turkey in the last seven to eight years. Turkey has taken a great step towards integrating the migrants by committing to the inclusion of all Syrian refugees in its national education system (public schools and temporary education centres) by 2020 (UNESCO, 2019). Since their arrival in Turkey, Syrian refugees have been engaged in a process of integration, with the incomers beginning to settle down in cities. Efforts in this area are ongoing, supported by the large-scale special EU Facility for Syrian refugees, and implemented by many international organisations, EU programmes, and public and private institutions.

The latest data show that the number of refugee school children (aged 5–17 years) increased to 1 080 000 in the school year 2019/20, and their enrolment rate currently stands at around 63–64%. The enrolment rate for primary school is nearly 96%, while it is much lower for upper secondary education (around 27%), mainly due to the attraction of informal labour. The apprenticeship pathway has been opened for refugees who want to follow a vocational track, although the overall number of participants (slightly above 1 000 in 2018) is still very small.

On average, refugees are less skilled than the native population; they do not have easy access to work permits and therefore mainly work in the informal sector, often in manual jobs, partially displacing local inhabitants and contributing to wage decline in the informal/low-skilled market. On the other hand, Syrian refugees have set up more than 10 000 businesses, creating job opportunities for around 100 000 Turkish people (EC, 2019d).

According to Tumen (2018), refugees can positively influence the school enrolment rates of local young people as they escalate competition for jobs with low skill requirements. However, young refugees face serious difficulties in terms of school attendance (e.g. language barriers and lagging behind in the curriculum) (Tumen, 2019). Apart from social integration, bringing refugees into the formal labour market remains the biggest challenge. Only 20 000 work permits were issued in 2017, while an estimated 1.5 million Syrians are in informal employment (EC, 2019d).

Making proper use of refugees' existing experience as well as allowing them to acquire the new skills required by the labour market are key factors for ensuring a successful transition into decent work. Investment in the large number of refugees can have a positive impact, not only for the hosting country but also for the country of origin in the future (UNESCO, 2019). Migrants who are fully integrated into the labour market can boost the per-capita income of Turkey by providing the labour and skills needed in critical occupations and sectors. When returning home, migrants at all skill levels also have the potential to make a positive contribution to their country's economic development by means of financial investment and also through the human and social capital they have acquired abroad, for example in terms of new skills, ideas and know-how.

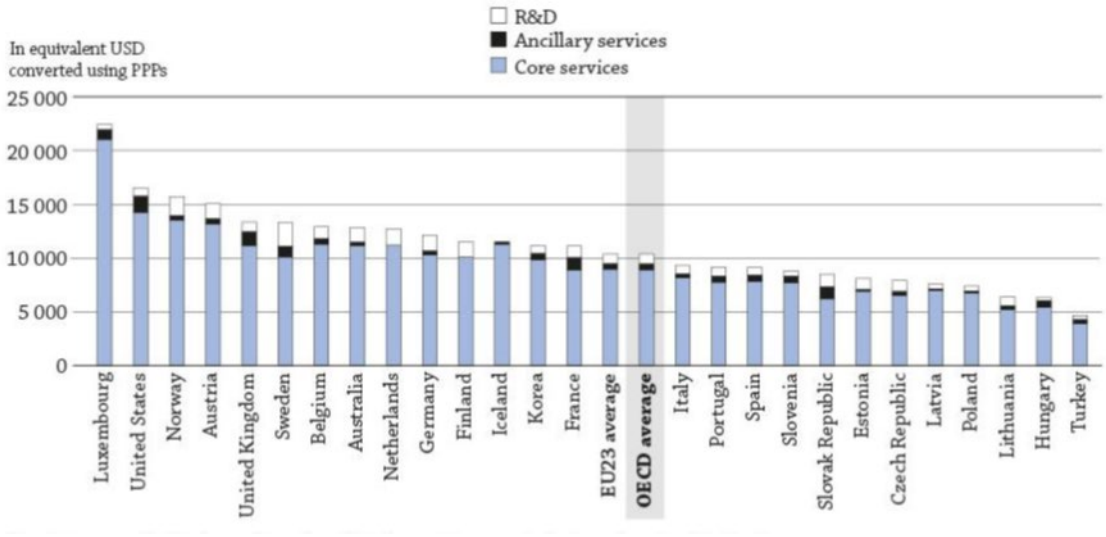
2.5 Educational and labour market challenges in human capital development

More strategic and efficient investment in education is needed

Although the contextual challenges described above would suggest a strong commitment to increasing, or making more efficient use of, investment in human capital, data suggest that public investment in education has decreased in recent years. The total expenditure on education in Turkey as a share of GDP dropped to 5.75% in 2017 from 6.2% in 2016 (ETF, 2019a). Tertiary education accounted for 31% of the total education expenditure in public institutions, while upper secondary

education received 26% of the budget. Although its overall spending is comparable to EU and OECD averages, Turkey spends less per student than any other OECD country (less than half per student on primary to tertiary institutions, see Figure 4 below). Particularly underfunded are secondary educational institutions at US$3 511 per student, which is only around one third of the OECD average of US$9 868 (OECD, 2018e).

FIGURE 4: TOTAL EXPENDITURE ON EDUCATIONAL INSTITUTIONS PER STUDENT, BY TYPE OF SERVICE (2015)



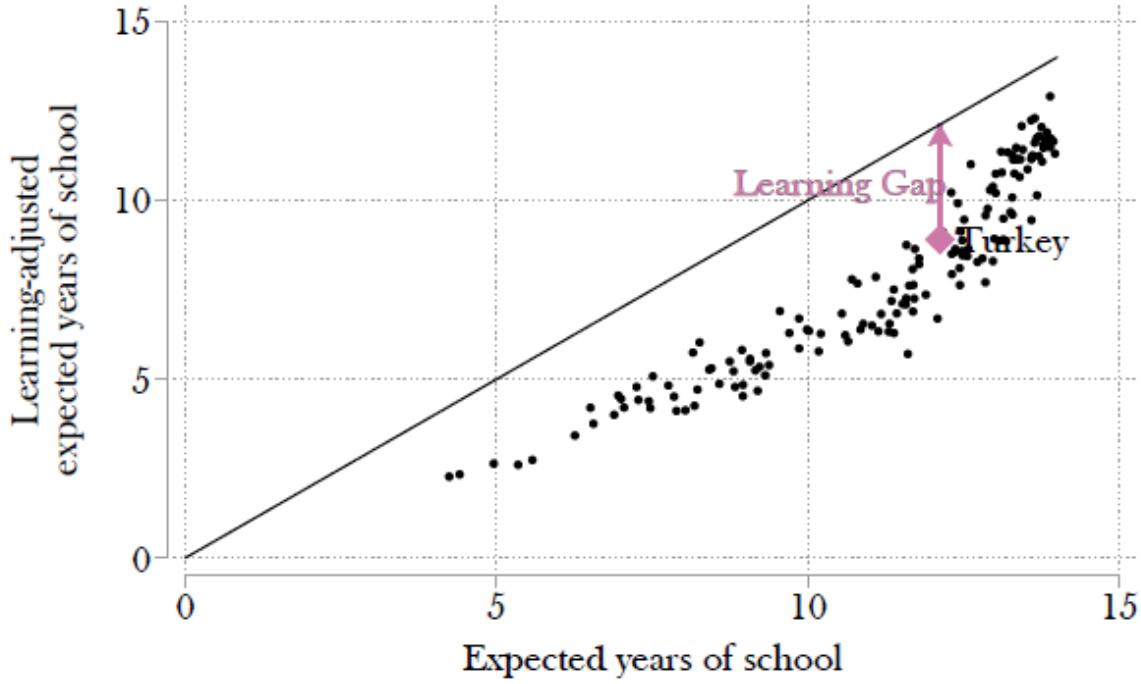
Notes: Countries are ranked in descending order of total expenditure per student on educational institutions. In equivalent USD converted using PPPs, based on full-time equivalents, from primary to tertiary education (OECD, 2018e). Countries are ranked in descending order of total expenditure per student in educational institutions.

Teachers in Turkey have one of the flattest salary scales among OECD countries. At the top of their scale they earn at most 27% more than when they started out, compared to an average of 76–80% across OECD countries (OECD, 2018e).The share of public funds expended on VET was only 0.65% of GDP in 2017, although it had been steadily increasing since 2011 (0.44%). However, this figure has been stagnating since 2016 (MoNE, 2019a). Incentive policies have been initiated to encourage VET institutes to generate income through products and services traded on the market (working capital activities and revenue generation).

Underdeveloped quality of education

A recent World Bank report claims that when the expected years of schooling are adjusted for quality of learning, a learning gap of 3.2 years appears. A child in Turkey who starts school at the age of four can expect to complete 12.1 years of school by their 18th birthday. However, the adjusted years of schooling is equivalent to only 8.9 years (see Figure 5 below). On the harmonised test scoreboard, students in Turkey score 459 on a scale where 625 represents advanced attainment and 300 represents minimum attainment (World Bank, 2019a). The shortcomings in the quality of education in Turkey represent a serious impediment to the further development of a high-tech and knowledge-based economy.

FIGURE 5: OVERALL HUMAN CAPITAL SCORE (NEW WORLD BANK INDEX)



Source: World Bank (2019a).

Other international data also highlight serious issues with the quality of education in Turkey. Notably, in the 2015 OECD PISA study, measuring scholastic performance in mathematics, science and reading, Turkish students, at the age of 15, were lagging far behind their peers in many other countries. In this test Turkey ranked in the last group, at position 50 out of 70 – on the same level as Moldova and Uruguay. However, in the last PISA round 2018 Turkey showed significant improvement in all fields, but remains still below the OECD average[7].

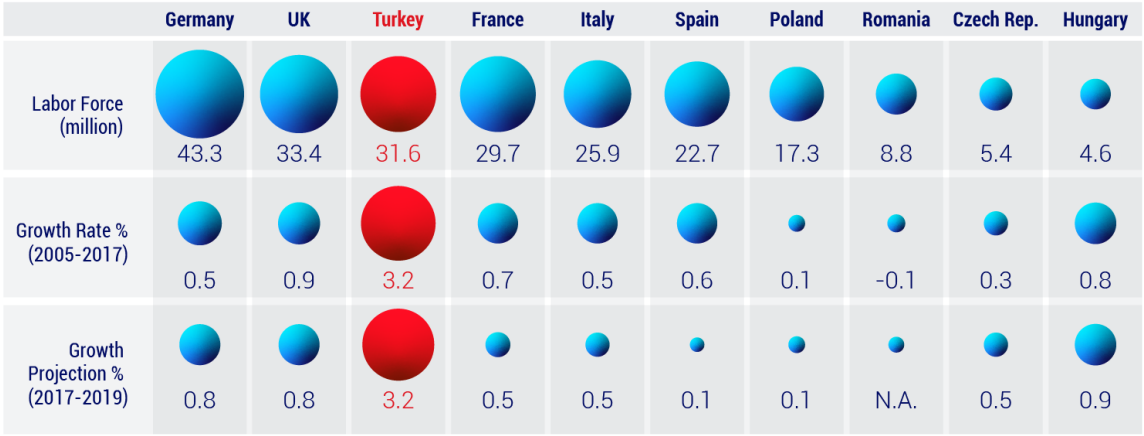
Similar results emerged from the PIAAC study (OECD, 2016), which showed that adults in Turkey have below-average proficiency in all three domains assessed (literacy, numeracy and problem solving in technology-rich environments) compared with adults in other OECD countries participating in the Survey of Adult Skills.

Underused labour potential of women and youth

Turkey has a strong asset in terms of labour potential; however, it is not being fully utilised. The country has the third biggest labour force in Europe (31.6 million people) – a workforce which, moreover, demonstrated the largest growth in relation to EU countries between 2005 and 2017. National forecasts also predict a rate of growth faster than that of EU countries for 2019 (see Figure 6 below).

[7] It has to be noted that Turkey experienced a period of rapid expansion of secondary education between 2003 and 2018. More than 400 000 students were added to the total population of 15-year-olds eligible to participate in PISA (OECD 2019f). The OECD states that it is likely that this expansion in education opportunities damped a more positive trend in student performance.

FIGURE 6: LABOUR FORCE, GROWTH RATE AND PROJECTION – COMPARISON WITH OTHER COUNTRIES



Source: Presidency of the Republic of Turkey Investment Office, www.invest.gov.tr/

On the other hand, one third of the workforce is affected by informal employment[8]. Furthermore, low activity as well as low employment rates remain chronic key challenges, leading to the underutilisation of the country's potential human capital. Primarily affected are young people (with a high and growing youth unemployment rate of 20%, rising to 25% for young women in 2018) and NEETs – those not in education, employment or training (24.4% of the 15–24 age group in 2018, with the rate increasing since 2015; ETF 2019a. The gender employment gap (38 percentage points) is significant, and the participation of women in the labour market continues to present a key challenge to human capital development. In rural areas in particular, a large part of the female population never enters the labour market. Hindering factors for the employment of women are the cultural divide between urban and rural communities regarding female education and labour and the lack of institutions and services to provide care for children, the sick and the elderly (EC, 2019a).

The overall unemployment rate in Turkey is only slightly above the EU average, but it remains stubbornly at the same level (nearly 11% in 2018) and has not dropped in the last three years. Moreover, growth-induced job creation lags behind demographic development. There are strong regional disparities in data on employment and unemployment, while an integrated policy framework is needed to address the issues of the low rates of labour market participation of women and young people, informal work, and the skills mismatch of the labour force.

Performance monitoring in the light of the European Pillar of Social Rights revealed that Turkey faces considerable challenges in terms of the indicators of the Social Scoreboard (CoEU, 2019b)[9].

[8] The Policy Guidance adopted at the Economic and Financial Dialogue between Turkey and the EU in 2018 stated that there has been no implementation progress with regard to the goal of reducing informal employment (with a focus on non-agricultural employment). The level of informal employment in the country has been around 33% since 2015 and inspection capacities have not sufficiently increased since then (CoEU, 2019a).

[9] The Social Scoreboard includes 14 headline indicators, of which 12 are currently used to compare Member States' performance. These 12 are also used for Turkey and the Western Balkans. In the field of equal opportunities and access to the labour market, the monitoring points to the high rate of early school leavers (31%), the significant number of NEETs, the gender employment gap, the at-risk-of-poverty rate (22.5%) and the income quintile ratio.

3. ASSESSMENT OF KEY ISSUES AND POLICY RESPONSES

This chapter focuses on two selected human capital issues and analyses them in more detail. These topics have been judged by the ETF to be the questions of most immediate concern in Turkey and as areas where the contribution of VET from a lifelong learning perspective can make a significant difference. The analysis that follows should be viewed in relation to the background described in Chapters 1 and 2.

The selected human capital issues are: (i) the economic transformation calling for enhanced adult learning; and (ii) the skills mismatch demanding higher VET participation and more effective provision. In both human capital issues the integration of migrants through education and training will be considered.

3.1 Economic transformation calls for enhanced adult learning

It is evident from the economic, social and labour market environment that strengthening adult learning is crucial for Turkey if it is to successfully manage the next phase of its economic transformation and reach the ambitious and longer-term goal of becoming a high-tech and high-income country. The ETF suggests that this must become an immediate policy priority. In particular, the working-age population in Turkey needs to be empowered to cope with the economic transformation that is already taking place and is likely to accelerate in the near future.

Some Turkish researchers share the view of adult learning as one of the most important components of LLL and a crucial element of human capital growth. In addition to the widely accepted argument that a higher economic growth would be achieved through school-age education, Dinzer et al. (2015) make the case that economic growth also influences adult learning.

High risk of automation

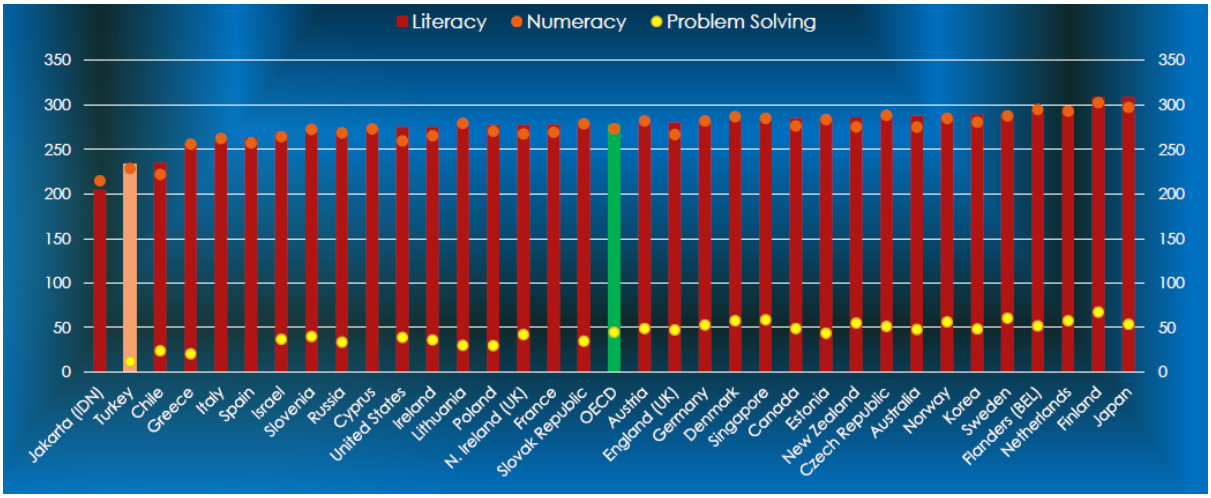
According to international studies (e.g. World Bank and EBRD), there is a higher risk of jobs becoming automated in Turkey compared to similar economies. According to the World Bank (2018), based on occupational distribution and developed country trends, about 55% of all occupations could be at risk of computerisation in the near future, while 40% are at low risk. The capacity of the Turkish labour market to sustain formal jobs creation has been prone to decline since 2017, even key sectors demanding high skills (e.g. finance and real estate) show falling productivity.

Another study confirms that there is a steady increase in the demand for skills to deepen technological capacity and accelerate productivity, but progress is seen as relatively slow. Despite higher educational attainments, workers need to upgrade skills (World Bank, 2019d).

Upskilling and retraining for new jobs will become much more important than in the past and pose a huge challenge for the country as adults in Turkey seem to be less prepared for the future than their peers in other countries. According to the PIAAC study (OECD, 2016), compared to adults in other OECD countries, nearly 50% of Turkish adults attain only the lowest level of literacy and numeracy as well as having below-average proficiency in problem-solving skills in technology-rich environments. Almost 40% of Turkish adults (compared to 15% in the EU) indicated that they had no prior experience with computers or lack basic computer skills. In terms of problem-solving skills in technology-rich

environment Turkey ranks at the bottom of the scale pf participating countries[10] (see Figure 7 below). In Turkey, higher levels of skills proficiency and educational attainment are not associated with labour market status, but the wage returns to qualifications are among the highest across OECD countries.

FIGURE 7: PIAAC STUDY RANKING BY LITERACY, NUMERACY AND PROBLEM-SOLVING SKILLS (2014/15)



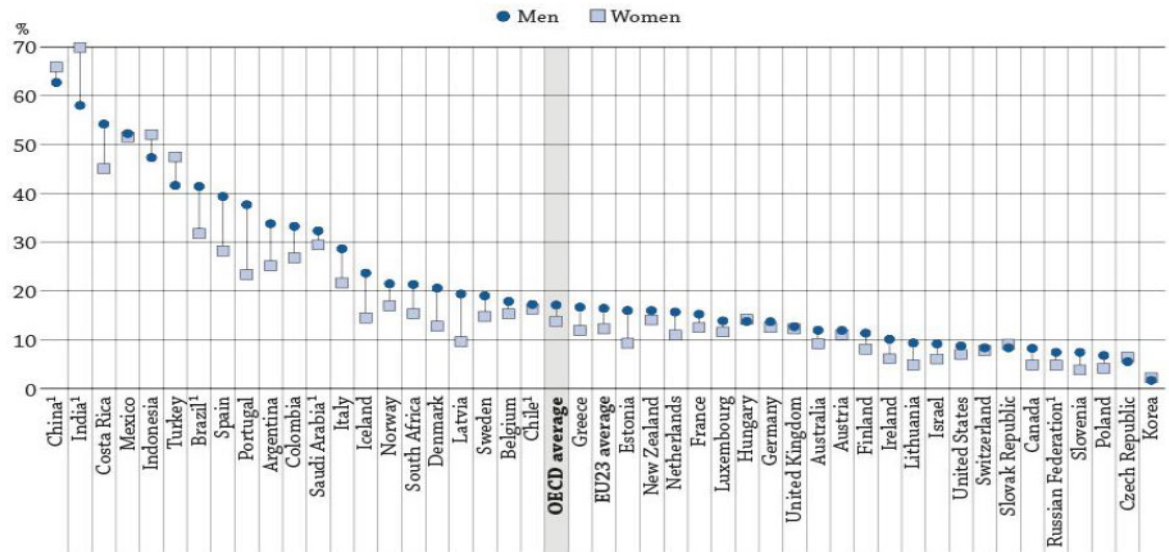
Source: World Bank (2018).

Low education attainment level

The educational attainment of the population in Turkey has improved in the last decade. In particular, the share of young adults without upper secondary education has fallen by 16 percentage points, the sharpest decline across OECD countries after Portugal, while the proportion of those with tertiary education increased by almost the same amount. However, it is a matter of great concern that a large share of young adults are still educated to below upper secondary level in Turkey: 44% of 25–34 year-olds, compared to 15% on average across OECD countries. This is one of the highest rates among OECD countries and nearly three times the OECD average. Women are less likely than men to attain upper secondary education. In contrast to nearly all the comparison countries, where men are more likely than women to have lower educational attainment, women in Turkey are at a disadvantage compared to men: 47% of 25–34 year-old women have not completed upper secondary education compared to 42% of men in the same age group (see Figure 8 below, OECD 2018a).

[10] Men are more proficient than women in all three areas. Gender-related differences in Turkey are among the largest across all countries surveyed when it comes to proficiency in information-processing skills. In general, workers in Turkey use information-processing skills at work and in their daily lives much less than workers in other countries.

FIGURE 8: PERCENTAGE OF 25–34 YEAR-OLDS WITHOUT UPPER SECONDARY EDUCATION, BY GENDER (2017)

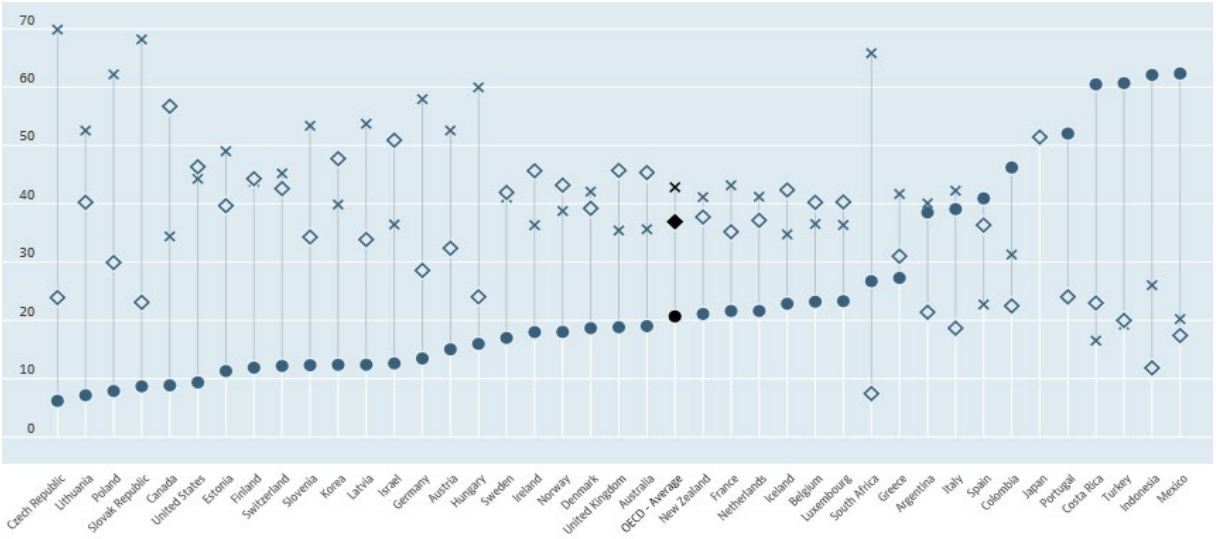


Notes: 1 year of reference differs from 2017. Refer to the source table for more details. Countries are ranked in descending order of the total percentage of 25-34 year old men without upper secondary education.

Source: OECD, Education at a glance 2018. Table A.1.2. See source section for more information and annex 3 for notes (https://www.oecd-ilibrary.org/education/education-at-a-glance-2018/sources-methods-and-technical-notes_eag-2018-36-en)

Similarly, the indicator on educational attainment of the 25–64 year-old population (or 'adult education level' – as defined by the highest level of education completed by this population, see figure 9 below) shows Turkey at the bottom of the scale, together with Costa Rica, Mexico and Indonesia in 2015 (OECD, 2019e).

FIGURE 9: ADULT EDUCATION LEVEL (2017 – BELOW UPPER SECONDARY/ TERTIARY/UPPER SECONDARY, % OF 25–64 YEAR-OLDS)



Legend: • below upper secondary; ◊ Tertiary; × upper secondary
Source: OECD (2019e).

There are considerable regional disparities within Turkey as the proportion of the population with less than upper secondary level education ranges from 33% in Ankara to 70% in Van, Muş, Bitlis and Hakkari. According to OECD, it can be expected that educational attainment will increase in the coming years due to the most recent reform measure, which extended the number of years of compulsory schooling from eight to 12.

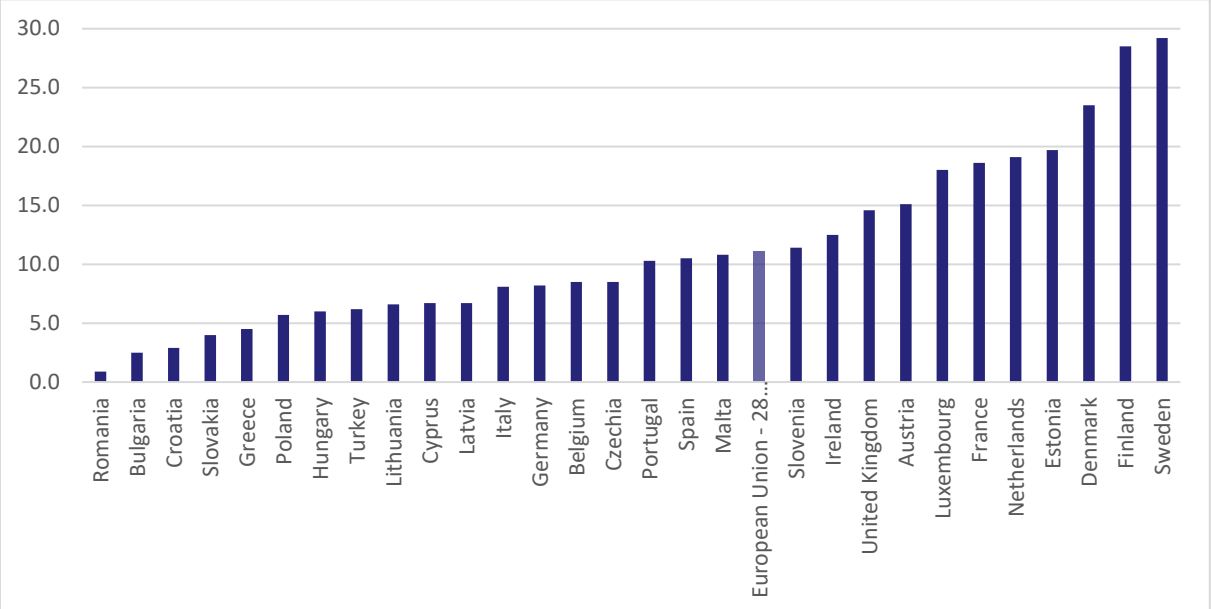
However, for the large number of young people over school age it is vital that they should have access to adult education, as well as other forms of adult learning, in order to attain a higher educational level or gain the appropriate skills to cope with the ever faster pace of change in labour market demands.

Demand and supply for adult learning

Given the above indicators, both the need and the potential for further education and training, for upskilling and reskilling adults, appear huge. But the demand has not yet been sufficiently met by supply, as other data suggest. Major international surveys and indicators confirm that Turkey is lagging behind most EU and OECD countries with regard to participation in adult learning, although it is ahead of the Western Balkans and some neighbouring countries.

The commitment Turkey made to achieve the EU benchmark of 15% (LFS data) of adult participation in lifelong learning by 2020 is far beyond its reach. Despite some considerable progress made in the previous decade, which saw a doubling of the participation rate, this figure has more or less stagnated since 2014 at around 6%, a level comparable to Poland or Hungary in 2018 (EU average was above 11%).

FIGURE 10: PARTICIPATION IN TRAINING/LIFELONG LEARNING (2018, % OF 25–64 YEAR-OLDS)



Source: Eurostat (2019), data from LFS 2018.

According to the last Adult Education Survey (2016), Turkey lags significantly behind most EU countries in the participation of adults in education and training. The proportion of working-age adults taking part in learning was 21% in 2016, compared to the EU average of 45% (for non-formal learning the figure was 18% compared to 43% in the EU). The participation rate for job-related non-formal

education and training (14%) was less than half of the EU average (36%), and the figure for informal learning (EU 61%, Turkey 32%) was even lower than most Western Balkan countries (Eurostat 2017.

In addition, the international survey of continuing training in companies (CVTS, Eurostat 2016) revealed that in 2015 a far smaller proportion of companies in Turkey (40%) were providing courses or other forms of continuing vocational training (CVT) for their employees than in the EU (73%).

The level of participation in learning and training provision remains worrying – especially when viewed against the background of the rapidly evolving fourth industrial revolution (characterised by digitalisation and automation), which is expected not only to change skills needs but also to result in a higher need for continuous reskilling and upskilling. Already today the share of adult workers who experienced changes in the workplace (e.g. in technologies used) is relatively high (CEDEFOP, 2018b), and it is evident that more supportive continuing vocational education and training will be needed in the future.

For example, the World Bank projects that medium-sized and larger firms will be demanding higher skills levels. In larger firms in particular, an increasing number of workers in skilled occupations has been observed in the last 10 years, whereas the demand for staff in mid- and low-level occupations (e.g. unskilled and plant workers, office services employees and craftspeople) is declining (World Bank, 2018). On the other hand, in 2016 in the European tourism sector, the majority of workers (83%) had medium or low qualifications, while the share of those with higher qualifications was quite limited at 17%. The proportion of workers with medium-level qualifications in this sector is predicted to remain essentially the same up to 2030, while the projected increase in higher qualified staff to 26% will take place at the expense of those with low qualifications (CEDEFOP, 2016b).

An equal cause of concern for policymakers as well as enterprises in Turkey should be not only the low demand for continuing learning but the major reasons behind it. The main obstacles to participation in education and training are the absence of a perceived need (skills correspond to the current needs of a company), high costs and recruitment strategies. In Turkey the share of people who search for information on learning possibilities is particularly low (6%) compared to the EU (22%) and worryingly low for people with low- and middle-level qualifications (Eurostat, 2017).

Policy responses

It should be acknowledged that Turkey has made strong efforts in this area, and clear progress can be seen in terms of tackling the gap in adult learning through developing, with the support of EU programmes, a lifelong learning system. However, while significant advances have been made (e.g. the participation rate in lifelong learning more than doubled from less than 3% to 6% between 2006 and 2016), a major breakthrough and long-lasting effects are still to come and will take time. A number of structural problems need to be tackled more vigorously (see the section on policy recommendations below). It is evident that further major efforts are required to address these issues, and Turkish policymakers are aware of this and the challenges that lie ahead.

Building on tradition and strengthening the institutional basis

One of Turkey's clear strengths is that it can build on a long history of adult education since 1920 when literacy campaigns and 'night courses' were introduced due to the adoption of a new alphabet (with Latin notation replacing the Arabic system). The country can also rely on institutional structures that were built relatively early in the country's history and have since been constantly developed. People's Houses, a type of community centres which replaced the religiously oriented non-formal

education centres, existed from the 1930s on, before being renamed Public Education Centres (PECs) in the 1950s. The building of these centres has expanded over years and there are now more than 1 000 centres all over the country, providing a cornerstone of the current adult learning infrastructure and catering for more than 2 million participants a year.

The Turkish system has some similarities with those of other European countries, such as Germany and Denmark. PECs offer courses in various categories, such as vocational training and personal development, information and computer technologies, foreign languages, visual and performing arts, music, handicrafts and sports. For years, one of the shortcomings of this system has been that the majority of educators in PECs are formal school teachers without training in adult learning.

Further to the well-established Public Education Centres (in Turkish 'Halk Egitimi Merkezleri'), which come under the umbrella of the MoNE, there are two other major providers of adult learning: universities, which operate Lifelong Education Centres, and municipalities, offering Municipal Education Courses. While the PECs and Municipal Education Courses predominantly offer vocational and technical courses aiming to give people marketable skills and prepare them for the labour market, the adult education courses provided by the universities exhibit a much wider variety of subjects and contents. The latter, however, are less well-suited to reach out to vulnerable people and communities, and participants tend to come from the middle classes and have a fairly high level of education (Erdogan et al., 2017). Some previous studies in Turkey have shown that young adults (aged 23–44) benefit most from adult education, and that the percentages of low-literate and literate individuals and five-year elementary school graduates participating in adult education were less than the respective percentages in the whole population (Miser et al., 2013).

The General Directorate of Lifelong Learning is preparing vocational and technical course programmes suitable for all age groups to be applied in non-formal education institutions. In order to give individuals basic skills and to improve their existing knowledge and aptitude, new programmes are being devised in line with the needs of individuals, sectors and other public institutions. Current course programmes are being updated and designed in a modular manner to allow flexibility and the completion of different course modules at different times. Updating started after the Non-Formal Educational Framework for Course Programmes entered into force in 2016.

A high number of courses (nearly 340 000 in 2017) are offered annually via distance learning, and the total enrolment in courses run by education institutions within the General Directorate of Lifelong Learning stands at around 7 million students per year. In 2017, nearly 43% of the courses were subjected to vocational and technical subjects and 47% of learners had enrolled in this type of programme. Women benefit more from adult learning courses than men, accounting for approximately 58% of the total participants (MoNE, 2019a).

As part of their active labour market policies, the public employment services of Turkey (ISKUR) provided courses and programmes for about half a million people in 2018, mainly targeted at the unemployed, jobseekers and, increasingly, refugees.

Policies to involve non-state actors

In the last recent, the MoNE has established strong links between various stakeholders, such as NGOs, local authorities, social partners, universities, employer associations, trade unions, professional organisations, companies and the private sector in general. The MoNE aims to improve this cooperation further, but it seems to be much stronger in the field of initial VET and less pronounced in

adult learning. In particular, there is room for improvement in the collaboration between Public Education Centres and University Lifelong Learning Centres, and in the national coordination of adult learning.

The Directorate General of Lifelong Learning (DG LLL) states that through cooperation with other official and private institutions and non-governmental organisations courses may be organised that contribute to lifelong learning activities aimed at improving the knowledge, skills and competences of individuals through a personal, social and employment-oriented approach, as well as programmes that further enhance quality and efficiency in the workplace. Such cooperation could also prevent the repetition of services and facilitate the combining of resources (MoNE, 2019a). However, no data on private providers and NGOs were available to analyse the extent of the implementation and effectiveness of this policy.

Recognition and validation of prior learning

Turkey is very committed to, and has made substantial progress in, developing and implementing a system of validation of non-formal and informal learning. Vocational Qualification Certificates, which are issued as a result of non-formal and informal learning or recognition of prior learning, are considered valid and reliable by employers, workers and other stakeholders. As of January 2019, Vocational Qualification Certificates had been issued for nearly half a million people (483 761) in 283 different professions by 187 accredited certification bodies. The Regulation on Lifelong Learning Institutions (2018) defines prior learning as 'learning outcomes acquired by an individual through formal, lifelong learning and/or informal learning' and provides measurement and assessment standards for the recognition of prior learning. Those who successfully complete the literacy and vocational courses organised by lifelong learning institutions are assessed within the scope of recognition of prior learning. For Syrian refugees, the recognition of competences acquired earlier but not documented, as well as skills gained through VET or working in Turkey, has become increasingly important, although the numbers of those who have benefitted from this system so far still seem to be low.

Introducing lifelong learning policies in line with the EU

Despite not being new to Turkey, the concept of lifelong learning has gained momentum in the last 15 years, starting with the first LLL policy paper (2006) in the context of an EU project.[11] The transformation of adult education in Turkey from public education to lifelong learning did not remain uncontested, in particular some part of academia blamed global neoliberal policies and practices for having radically influenced educational processes. While some authors claim that LLL has long been a familiar concept in Turkish culture (Gulmez et al, 2015), others assert that education has turned into a commodity and a tool of economic policy rather than a right for citizens at a time of capital accumulation crisis. Such critics also hold that the concept of 'public education' has become obsolete in Turkey, and refers to something that happened in the past that is remembered with nostalgia, while education for adults has begun to be defined in line with market demands and become more individualistic (Yildiz, 2012).

[11] Lifelong learning is defined as all learning activities undertaken throughout life with the aim of improving knowledge, skills and competencies within a personal, civic, social and/or employment context. It encompasses formal, non-formal and informal learning and there are no restrictions in terms of age, socio-economic status or educational level. Learning is lifelong and life-wide, as it not only takes place in schools, but also in other areas of life, for example at work and in civic, political, cultural and recreational life.

TUR

RECOMMENDATIONS

1. Develop a longer-term vision of adult learning as part of lifelong learning

Ensure that a longer-term meets the skills challenges posed by digitalisation and automation

Expand the lifelong learning section in the Education Vision 2023 with targets and specific measures.

Ensure alignment with the objectives set by the European Agenda for Adult Learning and the EU Upskilling Pathways policy.

2. Review adult learning policies and practices

Launch a review of adult learning policies and practices to identify gaps in provision, bottlenecks and priorities for the future.

3. Increase funding for adult learning

Develop the evidence base for the overall public funding of adult learning and compare it with other segments of the education system.

Revisit existing funding schemes and gradually expand funding for adult learning to priority target groups and sectors.

6. Tackle sk

Carry out
frequent r
VET gradu

Compare
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4. Develop better cooperation and coordination mechanisms

Improve cooperation and coordination both within organisations and among them

Review the role of the National Lifelong Learning Council and the National Adult Learning Coordinator.

7. Make vocational training more effective through quality work-based learning

Set clear and realistic targets for apprenticeships and boost supply.

Improve the quality of traineeships drawing on the Quality Improvement Plan for traineeships in IVET.

. Improve links between initial nd continuing VET/adult learning

Bring the two systems of IVET and CVET closer together.

Start in key sectors of the economy as well as in the fields which suffer most from the traditional image of VET problem.

kills mismatch

research, analysis and more monitoring of the skills mismatch of uates

with graduates from eships and general and higher .

rrent fields and branches to whether they correspond to current ipated labour market needs.

8. Develop career guidance system

Expand and redesign career guidance services nationally, including adult guidance. Better align and coordinate existing services.

Start guidance earlier and embed it into the curriculum, with an emphasis on career management skills.

Certainly in the last decade, lifelong learning has become a widely used term in Turkey (Kayman et al., 2012), often synonymous with adult education or adult learning, and the understanding is growing that formal education is not sufficient to impart the abilities, skills and knowledge necessary to cope with all the situations encountered in life (Gülmez et al., 2015). The obstacles that impede the development of LLL in Turkey may be financial, workplace or family barriers, as well as access and personal difficulties (Titrek, 2013). Some of these impediments were confirmed by the Adult Education Survey 2016 which highlighted the absence of a perceived need (with skills corresponding to the current needs of company), high costs and recruitment strategies the main factors behind non-participation in education and training.

Encouraged by the EU, a National Lifelong Learning Strategy was implemented in the period 2009–2013, and, as a follow-up, the LLL Strategy 2014–2018 aimed to increase the effectiveness and efficiency of the Turkish lifelong learning system. With its 29 measures, the latter aimed to foster a LLL culture in society, along with a wider awareness of its importance, and to increase access to LLL, including through the creation of a lifelong guidance and counselling system. A final report on the implementation of this latest strategy is currently being prepared, and shows some promising but also mixed results. A more targeted impact analysis may shed further light on the progress achieved in various fields, as well as on the key success factors and the challenges ahead.

New Education Vision 2023

The most recent education policy document ('Turkey's Education Vision 2023), adopted at the end of 2018, outlines an approach to education that unites democracy and the economy and which highlights four core elements of this vision, namely students, parents, teachers and schools. It aims to 'raise science-loving, skilled, and ethical individuals who take an interest in culture and are willing to use present and future skills for the well-being of humanity' (MoNE, 2019b).

The vision document dedicates only a short section (two pages out of 130) to LLL, which raises the question of whether LLL is regarded as a real priority in the forthcoming years compared to the other 17 areas of intervention outlined in this new strategy. The LLL section argues that the demand for learning exceeds the capacities of formal education institutions and that restructuring the concept of LLL and making it more socially prevalent (as a concept, structure, process and system) has become more important. Planned activities focus on raising awareness of, and enabling adults to acquire, competencies in 21st-century skills, including those required for addressing social issues and undertaking individual and vocational development. The goal is to increase both the quality of and access to LLL programmes. A number of recurrent issues from previous strategies appear among the nine key actions, such as awareness raising, establishing a National LLL Monitoring System, and including data on institutions operating in the field of LLL. It is also reiterated that distance-learning technologies will be used to reach out to different target groups, thus expanding access to learning.

The awareness raising actions highlight different target groups, such as community awareness of the LLL process; awareness of 21st-century skills; awareness-raising training in combating violence against children and women; and awareness training sessions for addressing all types of addiction across all segments of society, particularly children and young people.

Other actions target the updating of (diploma) curricula for citizens who fall outside of the formal education system due to their age (e.g. simplifying curricula, updating and diversifying LLL programmes for vocational, social and cultural skills). Skills training for 21st-century needs is further planned in multiple literacies (digital, financial, health, ecological, and social media among them).

In terms of LLL, this document reads more like an action plan than a long-term vision. While in line with the overall European vision on future education and training systems, namely the dual objectives of social inclusion and economic development, it misses out some other dimensions – for example, highlighting, as other core elements, the changing world of work and the role of companies in LLL, or striving for excellence and quality assurance in LLL. Nonetheless, the new Education Vision has ambitious plans to reach its goals in a relatively short time period of four years.

Policy recommendations

In conclusion, despite the fact that Turkey has a strong tradition in adult learning and has made substantial progress over the last decade, there have been signs of a certain stagnation in recent years. Provision of and access to adult learning, including continuing vocational education and training (CVET), are currently among the biggest challenges for developing human capital in Turkey. Given the fast pace of technological change in today's economy and society, the negative impact of this deficit will likely increase, becoming more profound and visible in the short term if no immediate actions are taken.

Longer-term vision of adult learning as part of LLL

Turkey needs a longer-term vision and strategy for adult learning which is also much more prominently positioned within a wider LLL strategy and the Education Vision 2023. The current vision of LLL falls too short, and although pragmatic in its approach, its actions still need to be fully fleshed out with specific targets and measures. It should be complemented by actions that look beyond the educational sphere to forge closer links with the business world and encompass the emerging skills requirements posed by digitalisation and automation. There is an apparent need for stronger alignment with the objectives set by the European Agenda for Adult Learning (EAAL) and the EU Upskilling Pathways policy, the latter calling for a three-step approach: assessing skills; providing adults with tailored training; and offering adults the choice of having their new skills validated and recognised.

Review of adult learning policies and practices

To support the development of a longer-term strategy for adult learning in Turkey, a comprehensive and holistic review of adult learning policies and practices should be carried out. This could then address the information and data gaps that need to be closed, while a joint review under the leadership of the MoNE and involving other ministries as well as public and private stakeholders, could reveal the main bottlenecks hindering further development and identify the priority interventions required. More specifically, such a review could identify the areas where there is insufficient provision, for example: education and training for adults with low levels of skills or qualifications, refugees and migrants; female entrepreneurship; environmental awareness; and democratic participation and human rights.

No longer the 'Cinderella' of the education system

Although data on the overall public funding of adult learning compared to other segments of education (e.g. early childhood, higher education, VET), or the trends in this process over time, do not exist or was not made available, it seems that adult learning is still the 'Cinderella' of LLL, including in terms of funding, given the low participation rate. The current financing of adult learning and funding schemes should be revisited and the overall education budget gradually rebalanced in favour of adult learning. Even within the EU Erasmus programme for Turkey, the budget allocation for adult learning is by far the lowest in relation to other areas, and was considered inadequate, as a recent evaluation report stated (MoEUA, 2017).

Better cooperation and coordination mechanisms

The implementation of lifelong learning and adult learning policies necessitates multi-dimensional cooperation and coordination. Or, as one Turkish researcher stressed, 'Just one organisation would not be enough for implementing LLL … it requires support from the state, media and local authorities' (Titrek 2013). Cooperation and coordination are important factors in the development of adult learning. They are needed both within organisations (e.g. the MoNE) and among them (e.g. between other ministries, providers and employer organisations, and between PECs and LLL Centres in universities). Effective coordination also means forging coherent links between various strategies and action plans (e.g. SME and industry strategies, the national science and technology strategy). The current role of the National LLL Council and of the National Adult Learning Coordinator in relation to the European Agenda for Adult Learning should be reviewed in terms of its functions and potential for the future.

Tackling recurrent issues more vigorously

There are several recurrent issues that have featured in previous policies and strategies, and which surfaced repeatedly in follow-up policies, for example the collection and use of data and establishing a monitoring and evaluation system (already in the 2006 policy paper) or a lifelong guidance system. It appears that some of these were not fully dealt with in previous reforms and therefore should be addressed more systematically and vigorously now. The UNESCO (2015) monitoring results on Turkey revealed that the country does not yet have an official definition of Adult Learning and Education. A recent TAIEX event concluded that tracking systems are needed to follow up adults who have undergone education and training. A systematic and regular identification of sectoral needs should also be carried out to inform demand-driven training and feedback mechanisms to monitor the effects of training.

Taking adult guidance seriously

The LLL section of the Vision 2023 document misses an opportunity in failing to refer to the need for providing guidance services to adults, although a special section in the document is dedicated to the establishment of a career guidance system which allows young people (from early childhood to the end of secondary education) to learn about professions and to consider career choices. However, nowadays and looking ahead to increasingly uncertain times, educational, training and employment choices are no longer made once in a lifetime. People have to face several critical transitions over the life course, and these are becoming more frequent, disruptive, complex and less predictable. Turkey's future career guidance system should include adult support services, especially for those most in need, including women who are not involved in education or the labour market, refugees and migrants, and other vulnerable groups.

3.2 Skills mismatch calls for higher VET participation and more effective VET provision

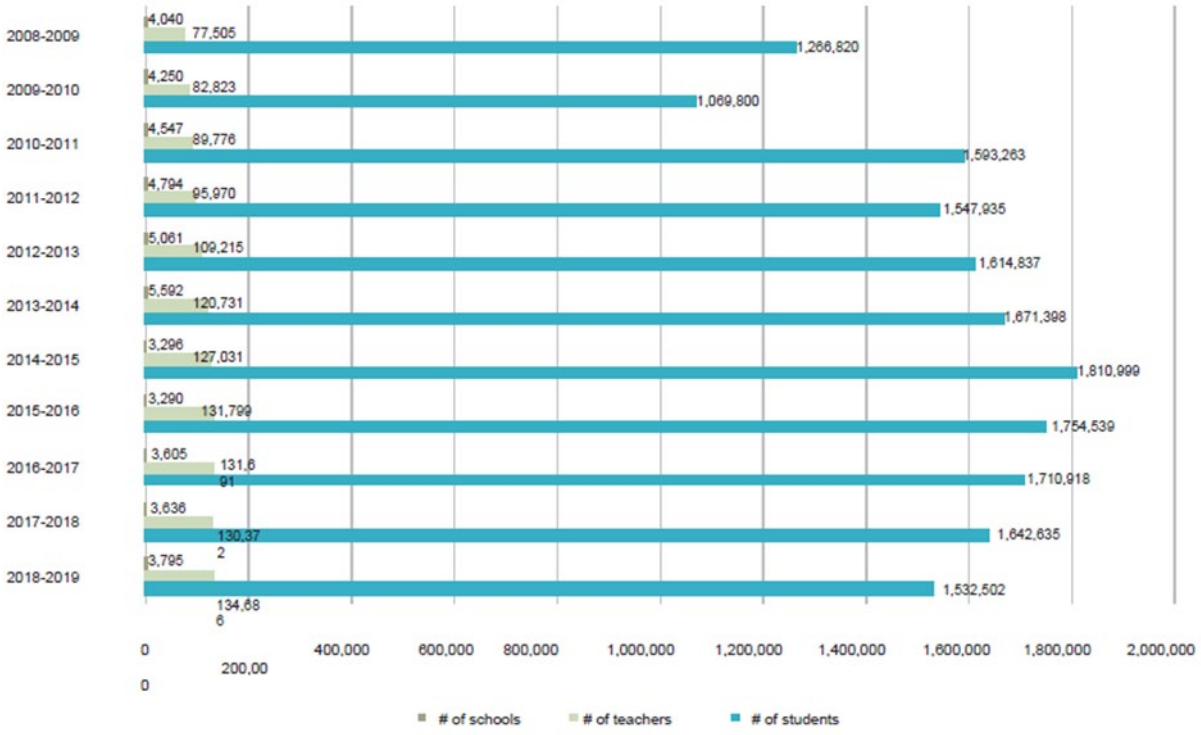
There are two other phenomena that can be observed in recent years – factors which are interlinked and have a negative impact on human capital development and use in Turkey. The first is the shrinking pool of skills supply for the economy, as evidenced by the decreasing trend of the VET participation rate, including apprenticeships. The second is a persisting skills mismatch, which is indicated by various pieces of labour market research. This situation is confirmed by the fact that a considerable proportion of employers experience difficulty in filling vacant positions or finding employees in certain professions.

In this context, a paradox has been uncovered, namely that while VET participation shows a decreasing trend, the numbers of VET teachers, as well as the amount of VET funding, have increased in recent years. As a result, the cost per student nearly doubled between 2013 and 2018. Although this development might open a window of opportunity for improving the quality of VET (the student–teacher ratio has improved from 18:1 to 13:1), the availability of skilled labour will be shrinking and is at risk.

The availability of skilled labour at risk through declining VET participation

Between 2005 and 2014 Turkey had the advantage of a continuously improving skills supply through increasing VET participation, which contributed to the strong economic development and growth seen

FIGURE 11: NUMBER OF VET INSTITUTIONS, TEACHERS AND STUDENTS (2008–2018)



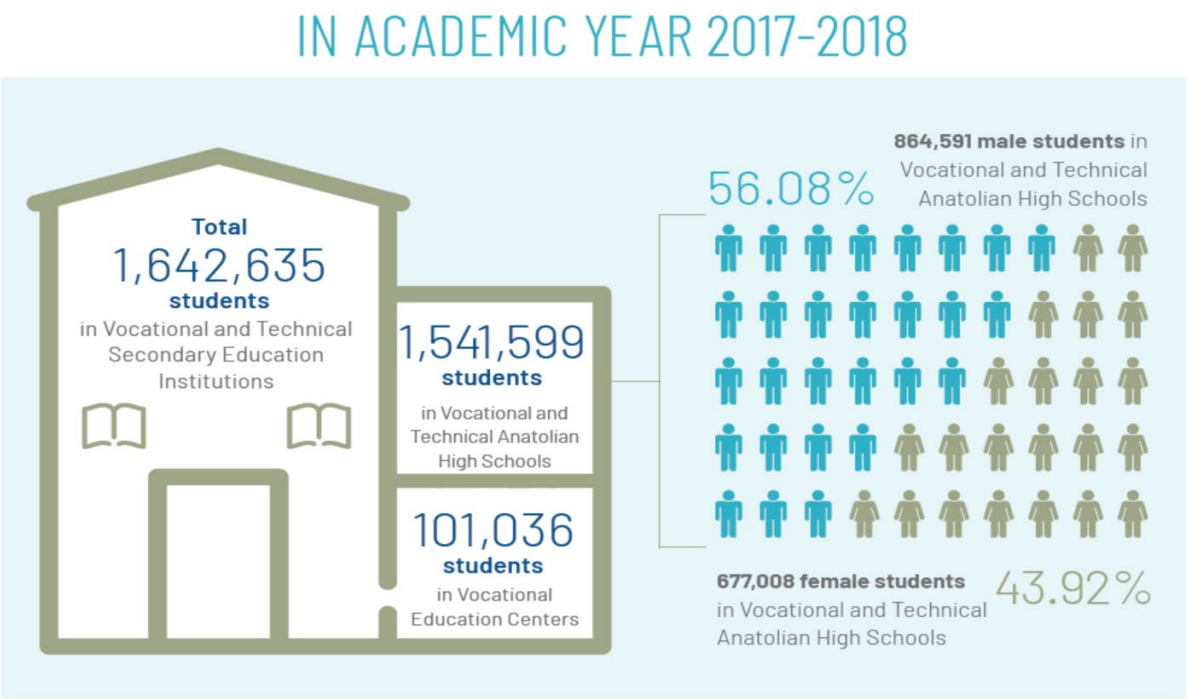
Source: MoNE (2019b).

in this period. Between 2008 and 2014, VET participation in vocational and technical schools increased by more than 500 000 students, reaching a peak in 2014 with a total of more than 1.8 million learners. However, in the last five years a reversal of this trend has been observed, with declining numbers of VET students reaching their lowest level in 2018/19 (MoNE, 2019b). In this short period, the Turkish VET system, and ultimately the Turkish economy, lost nearly 300 000 young people who potentially would have entered the labour market with vocational and technical qualifications. Apprenticeships reached a historic low in 2016, with the total number of participants reaching only around 70 000. If this trend is not reversed, it may result in a serious skills gap, in particular for low- and middle-level jobs, but also for certain higher-level occupations.

In addition, the share of those who enrolled in VET schools at secondary education level compared to general education took a downward turn. Fifteen years ago the proportion of such students was 30%; it reached a peak in 2014 at 49% and has now declined to 35% (ETF, 2017; MoNE, 2019b). The

proportion of female students improved up to 2014 but has remained at the same level (of 44%) since then.

FIGURE 12: ENROLMENT BY VET SCHOOLS AND VOCATIONAL TRAINING CENTRES (VTCS) BY GENDER (2017/18)



Source: MoNE (2019b).

There are differences in the gender distribution by occupational fields, with the proportion of male students in some cases being 90% or more in, for example, metal technology, metallurgy, installation technology, aircraft maintenance, industrial automation systems or agriculture. On the opposite side, there are fields in which female students represent 90% or more of the class, for example child development and education, handicraft technology, family and consumer services, patient and elderly care, beauty and hair care services, clothing manufacturing technology and photography (see MoNE, 2019b, annex).

With regard to refugees, participation in VET is very limited compared to general education. Out of the estimated 4 million refugees in Turkey, over 1 million are children aged 5–17 years. In 2019, nearly two-thirds (62%) of the refugee children were enrolled in Turkish schools and receiving the same education as native students. However, 400 000 children are still out of school. While nearly all (96%) are enrolled in primary schools, only 25% are registered in upper secondary education and less than 1% in VET.

TABLE 3: ENROLMENT IN VET SCHOOLS AND VTCS BY ORIGIN (2017/18)

	Syrian	Iragi	Afghani	Total
Grade 9	4 401	1 176	1 087	6 664
Grade 10	1 711	468	473	2 652
Grade 11	703	153	218	1 074
Grade 12	221	75	82	378
TOTAL	7 036	1 872	1 860	10 768

Source: MoNE e-School Database (24 June 2019).

Skills mismatch[12] undermining the potential of human capital

Findings from various sources indicate a considerable skills mismatch in Turkey. Experimental research on skills mismatch in Europe in 2017, conducted by the European Commission (Eurostat, 2017), considered Turkey to be a country where the vertical skills mismatch (over-qualification rate) is pronounced, since many workers in the labour market have higher qualifications than the current jobs require. According to data on the age groups 15–34 and 25–34, the horizontal skills mismatch (job mismatch by field of education) in both age groups is close to the EU-28 average[13]. Horizontal skills mismatch represents the proportion of those who do not work in a field related to their education (MoNE, 2019a). Recent research by the MoNE on the employment of VET graduates revealed a very strong horizontal mismatch (see Table 5).

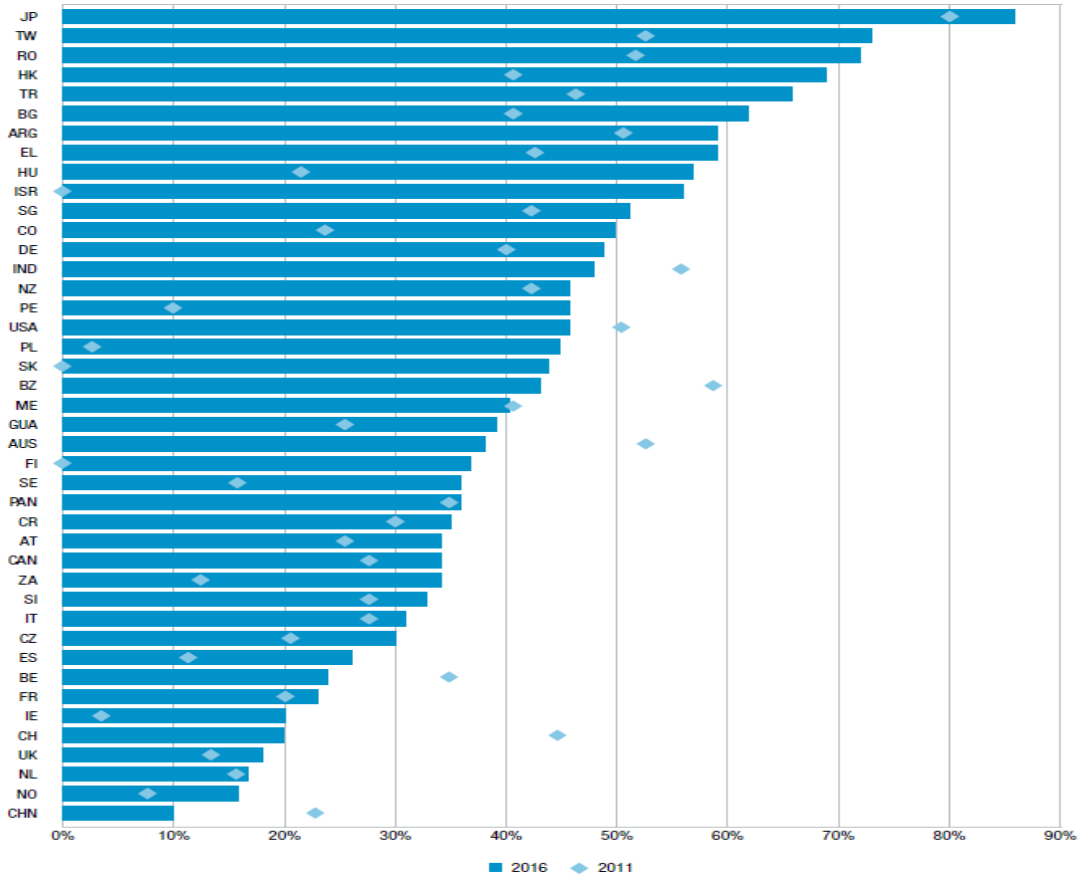
There is also a quantitative dimension to skills mismatch in Turkey. According to results from a study conducted worldwide by the Manpower Group, Turkey ranks among the top ten countries experiencing talent shortages (see Figure 13 below).

Two out of three Turkish employers who participated in this survey stated that they have difficulties in filling vacant positions in their company, compared to the global figure of 45%. Moreover, the problem appears to have worsened, from 50% of employers in 2011 to 66% of employers in 2016 (CEDEFOP, 2018a). The major reasons for failing to find suitable staff for positions such as welders, masons, plasterers, electricians are lack of applications (29%), lack of experience (20%), lack of technical skills (19%), the high expectations of applicants (12%) and lack of social skills (8%) (MoNE, 2019a).

[12] There are four basic dimensions of skills mismatch – vertical, horizontal, quantitative and qualitative. The vertical dimension refers to over-education (over-qualification) and under-education (under-qualification), to over-skilled and under-skilled. Over-education means that the education level exceeds the level required for a particular job, whereas under-education is the opposite (the education level attained is lower than the job requires). In similar terms over-skilled means that the level of skills exceeds the job's requirements and under-skilled is the opposite. Over-skilling often co-exists with vertically matched education-occupation levels, namely the worker has attained the required educational level but does not have the full set of skills required to carry out that occupation. The horizontal dimension of skills mismatch consists of one type – 'field of occupation to education mismatch' – which means that the field of study does not match the occupational area of the job. The quantitative dimension of skills mismatch is equivalent to skills shortage (or over-supply), indicating that certain skills are in short supply (or over-supply), typically expressed as an insufficient number of jobseekers to fill the available jobs (or vice versa). The qualitative dimension of skills mismatch is referred to as skills gap, meaning the level of available skills in the workforce is lower than the required level to perform a specific job – often associated with changing economic context or changes in technology (ETF, 2019c).

[13] The experimental research of Eurostat refers to the horizontal mismatch among medium and tertiary educated workers taken together (ISCED 3–8), no disaggregated data on VET are available. However the data seem consistent as Eurostat calculations on horizontal mismatch for Turkey reveal very high rates (around 60%) among graduates of certain fields of education (particularly, engineering and industry-related subjects).

FIGURE 13: PERCENTAGE OF EMPLOYERS REPORTING DIFFICULTY FILLING JOBS (2011 AND 2016)



Source: CEDEFOP (2018a).

Recent results from labour market research (IPA) conducted by the Turkish Public Employment Services (ISKUR) in 2018 shows a lower level of mismatch. In this study only slightly more than one in five firms in Turkey (20.9%) reported having difficulties in finding employees. The most prominent reasons given were the 'lack of qualified professional skills or qualified staff' and the 'lack of staff with sufficient work experience'. The report also reveals a similarity in the professions demanded by employers (open positions) and the professions of unemployed people registered with ISKUR. This demonstrates that such mismatches are not merely skills related, but that other factors such as low mobility, the unattractiveness of certain jobs, wages, regional disparities, and so on, may play a role.

Higher employment prospects through VET

VET graduates in Turkey are fortunate in terms of enjoying higher employability compared to their peers from general secondary education. The last Torino Process report (ETF, 2017) highlighted that VET graduates from upper secondary education (ISCED 3–4 combined) in Turkey are highly employable and that in 2015 their employability was greater (59.3%) compared to graduates from general secondary programmes (47.4%), although lower than the then EU average of 75%. There is a pronounced gender-related difference in Turkey, with men having much better employment prospects (71.4% in 2015) than women (only 47.5%).

The latest data from the TURKSTAT Labour Force Statistics confirm these features. VET graduates (both women and men) show higher labour force participation and employment rates than general education graduates by around 10 percentage points (see Table 4 below). The same difference exists between VET graduates and higher education graduates, in favour of the latter.

TABLE 4: LABOUR FORCE PARTICIPATION, EMPLOYMENT AND UNEMPLOYMENT RATES BY EDUCATION (2016–2017)

	2016			2017		
	Labour force participation (%)	Employment (%)	Unemployment (%)	Labour force participation (%)	Employment (%)	Unemployment (%)
Non-literate	17.8	16.8	5.7	18.8	17.7	5.8
Below high-school level	48.4	43.5	10.2	48.9	44.1	9.8
High school	54.4	47.2	13.4	54.8	47.6	13.3
Vocational or technical high school	65.9	58.2	11.6	66.1	58.2	11.9
Higher education	79.7	70.1	12.0	80.2	70.1	12.7

Source: TURKSTAT (MoNE, 2019a).

A Turkish study (Torun and Tümen, 2017) questions whether graduation from VET school increases employability compared to general high schools. According to this study, moving beyond descriptive data and involving cause-and-effect relationships and town-specific variables, VET graduates are not significantly more employable than general education graduates. The authors stress that there is an inconclusive debate on the differences between the labour market outcomes and that the empirical evidence is rather mixed.

In Turkey, according to official data, the labour force participation and employment rates correlate positively with education level (the higher the education level the greater the employment opportunity). The opposite is the case with the unemployment rate. The lowest unemployment rates are found for those with low educational status (although the labour force participation rate for this group is relatively small). Graduates from higher education have a higher unemployment rate than those from VET, thus indicating a rapid increase in university take-up not matched by labour market demand.

However, higher education continues to offer superior employability prospects compared to VET – the employment rate of university graduates is around 12 percentage points higher, a gap that remained stable between 2016 and 2018[14]. This phenomenon is widespread around the world, especially in a context of oversupply of tertiary graduates, which means that a large proportion of those with higher education qualifications are working in occupations below their level of education, mostly in jobs that could have been taken by VET graduates.

In Turkey, a huge difference of nearly 30 percentage points exists in the workforce participation rates of female graduates from VET (43%) and from higher education (72%), indicating large work

[14] Data for June 2018 show that both VET and higher education graduates shared the same unemployment rate of 13.1%. In September 2018 this figure changed in favour of VET graduates: 12.6% versus 13.7% (population 15+ years).

inefficiencies of the female working-age population in relation to VET schooling. Compared to other countries, Turkey's figures reveal a sizable difference between the employment rates of higher education graduates and those from other levels. In Germany, Brazil, Mexico and South Korea the difference between university and college graduates is much less pronounced (MoNE, 2019b).

Is VET a major cause of horizontal skills mismatch?

Another indication of inefficiency in the VET system was uncovered in a survey conducted by the Turkish National Statistics Institute (TUIK), published in the 'Report on Workforce Qualifications Needed in Industry' by the Turkish Ministry of Industry and Technology in 2017. About half of the VET graduates surveyed (47%) believed that the education they received did not contribute to their work life.

TABLE 5: EMPLOYMENT OF VET GRADUATES BY FIELD OF STUDY (2008–2014)

Field (Area of profession)	Rate of VET graduates employed in their field (%)	Rate of VET graduates employed out of their field (%)
Transportation services	2.00	41.27
Aircraft maintenance	17.91	39.52
Textile technology	5.57	46,04
Agriculture	1.73	35.15
Rail systems technology	4.74	54.17
Plastics technology	3.7	53.07
Motor vehicle technology	8.09	50.70
Metal technology	6.59	54.66
Machine technology	6.1	50.51
Laboratory services	18.28	55.76
Chemistry technology	1.89	46.31
Construction technology	7.85	42.58
Electric & Electronic technology	9.30	44.83
Marine	4,61	34.98
Biomedical device technology	2.10	40.32

Source: Özer (2019).

In fact, the majority of VET graduates appear to work outside their subject areas. The MoNE conducted research on VET graduates' employment between the years 2008 and 2014 to find out whether the jobs they went into related to their field of study. The examples in Table 5 above show a worryingly low share of VET graduates employed in their specialised field of study (less than 10% in most fields), indicating a strong horizontal skills mismatch. This phenomenon to a certain extent weakens the 'capital' that VET enjoys through the relative high employability of its graduates.

The low status of VET coupled with a strong belief in the return of investment in higher education

As in many other countries in the world, Turkey faces the same problem of VET having a lower status than general secondary and higher education in the minds of both parents and young people. This vertical segmentation in the perception of Turkish society is closely connected to opportunities for improving one's standard of living. As micro data from the Turkish Household Labour Force Survey 2016 show, people's average income increases with their level of education. Those who have completed postgraduate Master's and Doctoral programmes can expect a monthly income of around TL4 700 (about €740), while graduates with ordinary degrees (taking 2–4 years) generally earn around TL2 800. However, graduates from vocational high schools and general high schools are being paid only around TL1 800 (€290), constituting about 40–65% of the two other categories. Since the monthly income of those with general and vocational education is basically the same, it can be argued that the main driver behind the low status of VET is the attractiveness of higher education in terms of a return on investment that results in better economic opportunities and living conditions after graduation. The fact is that more than half of the VET graduates who are working are earning the minimum wage or less (MoNE, 2019a).

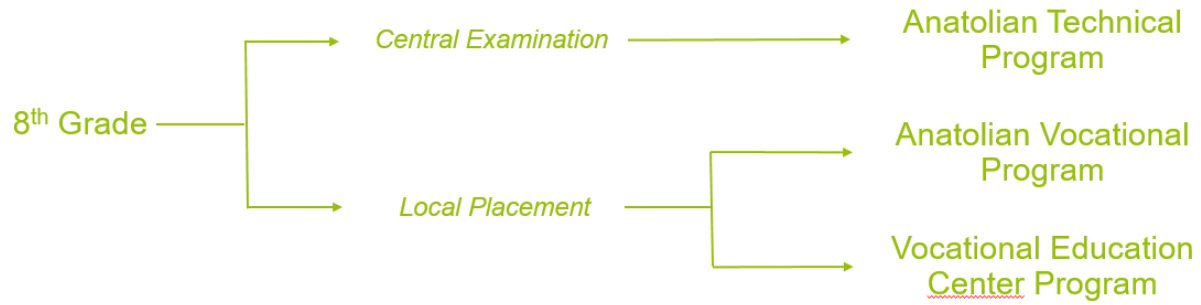
Further evidence for this state of affairs is the relatively high proportion of VET graduates who continue on to higher education as well as those who aspire to do so. In its monitoring report on VET of 2017, the MoNE Directorate General of VET (DG VET), using data from graduates and employers, found that 53.6% of graduates who were not in employment after graduation were not working for reasons attributable to education. More than half of these either attended a higher education institution (29.6%) or were preparing for the university entrance examination (24%). The percentage of unemployed VET graduates who declared that 'they did not want to work' was 12.3%, while 11.6% did not work because they could not find a job in the field/branch in which they had studied. These findings seem to confirm that a great majority of VET students strongly believe that a university education is required in order to participate in the labour market and achieve a good standard of living. It is rather the pull effect from higher education and not the labour market and potential scarcity of jobs in vocational and technical occupations that limits the output and effectiveness of VET. This effect in turn also exacerbates the horizontal skills mismatch outlined above. Finally, the extent to which graduates are reluctant to work in their fields because the wages do not meet expected levels needs to be further explored.

The admission system reinforces the low status of VET

In addition to the problems associated with the exit from VET, major challenges exist at the point of entry to VET. Firstly, VET schools are known as the pathway for students who demonstrate lower academic achievement and as a 'second choice'. This in turn negatively affects those students who may be talented or inclined to follow VET but decide differently due to their higher academic attainment. Ozer (2019) argues that VET suffers a lot from issues in primary education and therefore spending efforts on solutions only in the context of VET will not be effective. It is key that the intake of students to VET needs to come along with higher levels of academic and general skills.

Secondly, students have limited free choice and are not guided but rather directed into VET by a point system based on school marks. A central examination process is involved for technical schools and a local placement procedure applies for vocational schools and education centres.

FIGURE 14: THE VET PLACEMENT PROCESS IN TURKEY



Source: MoNE (2019b).

Those with higher scores at 8th grade are allowed to proceed to general secondary schools and the others are streamed into VET provision (see figure 14), with access to specific study fields also depending on the number of points pupils obtain (technical education having a higher ranking than Vocational Education Centre programmes). It is obvious that such a system of allocation may be efficient in terms of ease of managing student populations at key transition points. However, it does not appear effective in terms of making the best use of a country's human capital.

Policy responses

The key driver of policies to improve VET access and participation in recent years has been the Vocational and Technical Education Strategy Paper and Action Plan 2014–2018. Based on this strategy, the DG VET has implemented major reforms, some of which have had an immediate effect while others appear promising but it is far too early to assess their impact. The MoNE has shown a strong commitment to the EU VET policy goals, as adopted by the EU Council in Riga in 2015, which outlined five top priorities for European VET[15].

Fostering apprenticeships – making it part of the formal education system

In 2016, major breakthrough occurred when apprenticeships were included as part of compulsory education in Turkey in a bid to attract more young people onto this VET pathway. As a result, Vocational Education Centres (VECs), which deliver the theoretical aspect of apprenticeships, also fell within the scope of compulsory education. Before this, apprenticeships and VECs were considered non-formal VET. In addition, responsibility for this pathway moved from the DG LLL to the DG VET in 2017.

This new policy had an immediate effect in 2017, as can be seen in Table 6 below.

[15] The EU Riga Council Conclusions were adopted by the Ministers of EU and EU candidate countries responsible for VET, the Latvian Presidency of the Council of the EU, the European Commission and the EU-level cross-sectoral social partners. It established five top EU priorities in VET for the period 2015–2020: 1. Work-based learning; 2. Quality assurance; 3. Access to VET and qualifications; 4. Key competences in VET; 5. VET teachers and trainers.

TABLE 6: NUMBER OF APPRENTICES IN TURKEY (2012–2018)

Year	Number of apprentices
2012	91 622
2013	89 311
2014	76 244
2015	75 129
2016	74 203
2017	133 450
2018	120 564

Source: MoNE (2019c).

In 2017 and 2018 the number of apprenticeships increased substantially – by nearly 70% – reaching a peak of over 130 000 in 2017 after a historic low in 2016 (around 74 000). However, in 2018 a drop of 10% occurred, which may indicate problems with the sustainability of this reform. However, there needs to be a full analysis of the possible causes in order to further raise the attractiveness of apprenticeships for learners, as well as to motivate employers to offer apprenticeship places. Current numbers are still far below those seen 10–15 years ago (around 200 000 apprentices in total each year), even though the potential of the steadily growing Turkish economy to offer such training places must be much higher. Also, the number of refugees involved in apprenticeships remains very low (around 1 300 in 2019). There seem to be very recent plans to expand the network of Vocational Training Centres (VTCs) for apprentices and to increase the share and investment of the private sector in VET (Ozer, 2019).

Turkey has made significant progress in apprenticeship, and is an active member of the European Alliance for Apprenticeships (EAfA). All VET students have to undergo an obligatory traineeship in the last year of schooling which is organised in an alternating fashion, similar to dual education (three days in a company and two days in school in the last grade). A 2018 survey of more than 5 000 companies, 10 000 VET teachers and 30 000 VET students revealed a number of quality issues which are being addressed by the MoNE (ETF, 2019b).

The various kinds of VET schools have been reduced to one type (with the title 'Vocational and Technical Anatolian High School'), while at the same time specialisation has been increased via 20 thematic VET schools (e.g. focusing on renewable energy technologies) in 13 provinces. The DG VET, with the support of provincial directorates and provincial VET and Employment Councils, closed 446 VET programmes and opened or merged 226 others in 3 588 schools in 81 provinces (MoNE 2019a).

Changing access conditions from VET to higher education

As of 2017, due to various legal amendments, the right of VET graduates to enrol in higher education institutions without taking examinations was revoked due to a strong tendency for VET students to continue in higher education and not enter the labour market. This had an immediate and drastic effect on the number of new entries to higher education, with the potential result of increasing the skills supply to the labour market through vocational qualifications. While in 2015 nearly half of all VET graduates went on to higher education, this number dropped to slightly more than a quarter in 2017 (see Table 7 below). Most of the 28.4% of VET graduates who were successful in the Higher Education Institutions Exam and became eligible for a place at a higher education institution were

entitled to enrol in two-year associate degree schools, while a minority achieved a score that allowed them to take up four-year higher education, according to data from the Council of Higher Education (MoNE, 2019a).

TABLE 7: RATE OF PLACEMENT OF VET GRADUATES IN TERTIARY/HIGHER EDUCATION INSTITUTIONS (%)

TYPE	2015	2016	2017	2018
Associate Degree	29.81	26.50	15.08	17.08
Undergraduate	6.83	6.09	6.05	4.98
Open Education Faculty	9.92	8.75	5.51	6.39
TOTAL	46.56	41.33	26.64	28.45

Source: MoNE (2019a).

Although this policy has evidently been successful in the short term, it may have negative side-effects and repercussions in relation to the mid- and long-term image of VET. The permeability of VET to higher levels of education and training is generally a key pillar of its attractiveness in many countries.

Policies to improve the demand and image of VET

A variety of measures have been implemented to tackle the decreasing demand for VET and to improve its attractiveness. The effects of these remain to be seen. To raise the status of VET certificates, all graduates are awarded the title of 'technician' and those from four-year VET schools are awarded a certificate equivalent to the Mastership document, entitling them to open their own business to practise their profession. The Organisation for Small and Medium Industry Development (KOSGEB), in cooperation with the MoNE, introduced a TL50 000 grant and a TL100 000 interest-free loan for vocational education graduates who start their own business.

In the exam for transition from VET to post-secondary VET, additional points are given to graduates who wish to study in their field. Graduates from VECs are given a journeyman certificate after 11th grade and a Mastership certificate upon successful completion of 12th grade. Moreover, the age limit for admission to Mastership education (apprenticeship has been abolished[16]. Legal amendments in 2017 now allow students of VECs to enrol in Open High Schools/Open Vocational High Schools.

As of 2017, a significant financial incentive was introduced to foster work-based learning. The state will contribute an amount equal to one third of the 30% of the minimum wage payable to VET students by enterprises during the period of skills training (traineeship, apprenticeship). If the enterprise has fewer than 20 employees, the contribution rises to two-thirds of the 30%. In the years 2017 and 2018 state incentives were paid to enterprises to cover a total of 4.2 million students. In addition, a series of awareness-raising activities were launched, especially regarding apprenticeship and entrepreneurship,

The scope of incentives for private VET schools (introduced in 2012/13) was expanded beyond Organised Industrial Zones (OIZs) to schools outside these areas, and the number of occupational

[16] It is now considered sufficient to have graduated from an eight-year primary school or from a junior secondary school. Iindividuals over the age of 18 who have signed a contract with an employer can remain enrolled throughout the year. Unlike other forms of education, a student enrolled in a Vocational Education Centre will not be dismissed from school if he/she marries (MoNE, 2019a).

fields from 10 to more than 20. In 2018/19, government incentives were offered to private VET schools in OIZs in 20 fields and in 26 fields for such schools outside these areas.

The Turkish culture of signing protocols with various bodies has been reinforced. The number of cooperation protocols signed between Ministries, with business organisations and other stakeholders in VET has reached around 100, with an annual increase of 20 protocols signed in 2017 and 2018. Such protocols generally relate to scholarships, internships and training places, the employment of graduates, teacher training, joint studies or research, pilot projects and programme development, with some of them periodically renegotiated. For example, in the field of machine technology the milling branch was added as of the 2018/19 school year, new courses related to the defence industry in the field of electronics are being considered, and efforts to develop a curriculum related to the field of nuclear energy are in progress (MoNE, 2019c).

For target groups that require a special policy (e.g. people with disabilities, children of nomadic families, ex-convicts), mainstreaming as a form of inclusive education is being promoted, which includes an Individualised Education Programme (IEP). The proportion of mainstreaming students attending formal VET or secondary schools in 2017/18 was 90% in rural areas and 80% in urban areas. Scholarships and free-of-charge boarding are provided for disadvantaged students at all levels.

New VET vision for 2023

As mentioned in section 3.1, at the end of 2018 the Turkish Government adopted an ambitious new vision for education covering the period 2019–2023. This vision pays much more attention to VET than to LLL and establishes seven priority areas with respective actions. The initial goals are targeted at enhancing the perceived value of VET and improving guidance and counselling in this sector. Others focus on strengthening education-employment-production linkages in VET and developing the learning environment and human resources. The MoNE's aim is to develop a new generation of flexible and modular curricula, and two very specific goals are related to the training of staff members to meet the needs of businesses investing abroad and the development of the human resources required by the local and national defence industry (MoNE, 2019b. Some goals are overambitious given the short time frame, and links to LLL are missing or very weak. However, it should be acknowledged that the MoNE attributes a high priority to VET within the new education vision.

One of the most important measures with regard to improving the skills mismatch in the country relates to career guidance. Earlier initiatives and projects on career guidance have been relatively unsuccessful or have not yet yielded results (e.g. the Preference Advisory Commissions that were set up to inform and help students on programmes and placements). The new policy therefore aims to establish a comprehensive career guidance system at all educational levels to help students to choose professions in line with their skills, interests and abilities. Students will be enabled to create a career profile, and counsellors will receive a new task and function structure, which should also address the questions raised by the needs of refugees. Tools will be developed to measure features such as interest, talent or career belief.

Linked to this is the plan to move students' subject choices from the 10th to the 9th grade (one year earlier than before). This may allow students to make better decisions with regard to their vocational pathway (field of study and later specialisation) and subsequently their area of employment after graduation.

Policy recommendations

Improving interlinkages between initial VET and continuing VET/adult learning

Initial VET and continuing vocational education and training need to be much more closely linked, and even dovetailed, since the importance of LLL is steadily increasing in the context of digitalisation. Skills and qualifications need to be able to adapt more quickly than in the past, and the two systems (IVET and CVET) should not remain separated but rather constitute two phases of a lifelong learning process, with the latter following smoothly on from the former. Such a concept could offer people new and competitive career perspectives, as well as making initial VET more attractive in comparison to general and higher education.

Although not articulated strongly, a first step in this direction can already be found in the new Education Vision of Turkey. It is planned to provide graduates of VET institutions with 'the chance for continuous self-development in new knowledge and skills' through various training programmes, such as certification-training schemes funded from different sources, nano-credit courses, and courses accredited jointly by industry and academia.

Developing a more systematic approach is recommended, starting with the key sectors of the economy as well as the fields which suffer the most from VET's traditional image problem.

Tackling skills mismatch in VET as a key priority

As the analysis has shown, VET is not merely part of the solution, it has also become part of the problem. However, VET can make an important contribution to tackling the country's skills mismatch, although it cannot do this alone. Addressing such a problem requires the joint efforts of other stakeholders and a wider set of policies (e.g. proper wage mechanisms, good working conditions, mobility of people, more even distribution of employment opportunities and special development programmes).

There are still information gaps that need to be closed. The large horizontal skills mismatch that exists for graduates from the VET system must be further researched and analysed, as well as monitored more frequently. Comparison is also required with graduates from apprenticeships and from general and higher education to assess the wider extent of, and reasons behind, this problem. The current VET fields and branches should be reviewed to assess whether all of them still correspond to current and anticipated labour market needs. This should be made a top priority and close cooperation on this topic should be sought with the country's various business organisations. The valuable information gained from such an exercise could enrich Turkey's modern E-Graduate Monitoring Portal (managed by the MoNE).

More effective VET provision through quality work-based learning (WBL)

Turkey should continue to foster WBL in VET. Skills supply through apprenticeships, the type of VET closest to the labour market, is still underdeveloped, especially in terms of participant numbers. Additional measures are needed to boost the supply of apprenticeships, while setting clear and realistic targets on apprenticeship numbers would help policymakers to make VET provision more balanced and effective. This could also help in making decisions on VET financing, taking into account the role of the private sector.

Analysing the real potential for apprenticeship places in Turkey is recommended, as well as reviewing if the current number and capacities of Vocational Training Centres (VTCs) are sufficient to cater for more apprentices. It should also be reviewed whether the current traineeships in initial VET constitute

a competing scheme that hinders the development of apprenticeships, since companies' absorption capacities have their limits.

The existing quality challenges of traineeships in VET should be addressed immediately. Among these challenges are: the appropriate use of trainees in companies; trainees being better prepared before they enter a company; the effective integration of learning in schools and enterprises; reducing the administrative burden for companies; addressing the overloading of coordinating teachers; and establishing an adequate information and support system for trainees. Many of these issues may require a review of the existing roles and functions allocated to key players in WBL. The main actions in the recently proposed Quality Improvement Plan for traineeships in IVET in Turkey should be implemented (ETF, 2019b). Current processes for monitoring the quality of VET (e.g. self-assessment, quality audits and quality indexes of schools) do not yet fully include the WBL taking place in companies.

System development of career guidance needed

An expansion and redesign of the career guidance services is recommended, and a coherent national system should be developed. The Turkish career guidance services need to become more effective in order to make a real contribution to human capital development through assisting both young people and adults in their education, training and employment choices throughout the life course – especially in the light of the new challenges posed by rapid and fundamental changes in the world of work and the ambitions of Turkey to become a high-tech and high-income country.

Firstly, the current services provided by the major players (different MoNE directorates, ISKUR) need to be better aligned and coordinated. Secondly, career guidance should start at an earlier stage than it currently does. The planned moving of field selection from the 10th to the 9th grade is a step in the right direction, but it needs to be preceded by setting up complementary services that start at least in the 7th grade. Thirdly, strengthening the role of guidance in the school curriculum ('career education') prior to VET and within VET to foster the empowerment of young people is highly recommended. The planned focus within VET on the transition of VET students to higher education is understandable given the strong demand, however, it should be at least equally important for guidance services to support the transition from school to work. Fourthly, an over-emphasis on measurement instruments should be avoided and instead the focus should be on providing more opportunities to learn about and explore the world of work and different occupations before choices for VET fields or branches are made. OECD data confirm that young people's career aspirations are often high, narrow and unrealistic, and their research shows that 50% of students are interested in three sectors – health; science and engineering; and legal, social and cultural professions (OECD, 2018b). Special career guidance services should be also developed for refugees.

4. CONCLUSIONS

> 'The end of words, the beginning of action … in short, we expect to ceaselessly question, critique, and improve Education Vision 2023 as it is implemented.' (Statement in the Education Vision)

With the new Education Vision 2023 the Turkish Government believes it is sowing the seeds of the country's future success. Whether this success will materialise depends first and foremost on effective implementation but also on other factors and issues related to human capital. It is clear that the topics presented in this report play an important role. If skills supply is not sufficient, or even shrinking, the economy will suffer or not develop as it could. If skills mismatches become severe or persist for too long, the country will fail to utilise its human capital and its economic potential will not be realised. And if this is combined with limited opportunities for adult upskilling and reskilling, then human capital development and use in Turkey may become caught in a vicious circle.

This ETF assessment has provided an overview and analysis of selected challenges regarding human capital development and use in Turkey and offered recommendations on how education and training can contribute to their resolution.

The assessment has acknowledged the substantial progress Turkey has made in human capital development, especially with regarding access to primary, secondary and tertiary education, and including the integration of a huge number of young refugees into the education system. As a key player in human capital development, the Ministry of National Education has triggered a number of ambitious reforms, some of which are still ongoing and appear promising. These include the two critical areas of improving participation in both initial VET and in adult learning, which were selected as a particular focus of this assessment. Despite the progress achieved, substantial challenges remain in both areas and need to be addressed immediately if Turkey is to succeed in its ambitious economic and social policy goals for the next decade.

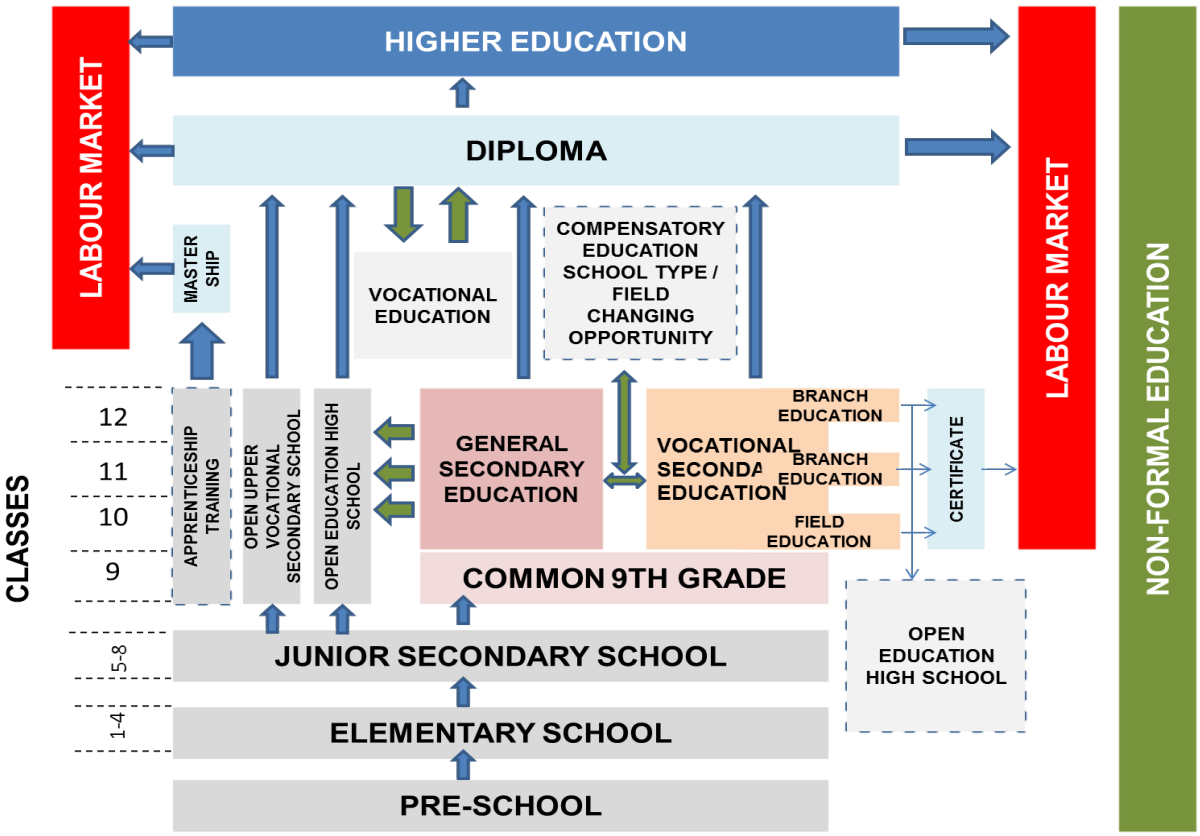
The analysis in this report concluded with a number of recommendations for tackling these challenges with a view to strengthening the contribution of education and training to human capital development in the country. A summary of the key recommendations can be found in Annex 1. It is hoped that these will be useful for Turkey in the implementation of its Education Vision 2023, as well as in planning future EU and other donor projects.

ANNEX 1 – SUMMARY OF RECOMMENDATIONS

Human capital development and use problem	Recommendations	
	Recommendation	**Description**
Economic transformation calls for enhanced adult learning	Longer-term vision of adult learning as part of lifelong learning (LLL)	The development of a longer-term vision and strategy for adult learning, which also meets the skills challenges posed by digitalisation and automation, is recommended. The LLL section in the Education Vision 2023 falls too short and should be expanded and fully fleshed out with targets and specific measures. Stronger alignment appears to be needed, with the objectives set by the European Agenda for Adult Learning (EAAL) and the EU Upskilling Pathways policy.
	Review of adult learning policies and practices	Launching a comprehensive and holistic review of adult learning policies and practices to identify gaps in provision, development bottlenecks and priority interventions for the future. This review could also be beneficial for the development of the longer-term strategy.
	Improve funding for adult learning	Improving the evidence base for the overall public funding of adult learning and analysing its share compared to other segments of the education system. Revisiting existing funding schemes and gradually expanding the funding for adult learning to priority target groups and sectors.
	Better cooperation and coordination mechanisms	Cooperation and coordination both within organisations (e.g. MoNE) and among organisations (e.g. various ministries, providers such as PEC and LLL Centres, universities and employer organisations) need to be enhanced. The role of the National LLL Council and the National Adult Learning Coordinator should be reviewed.
Skills mismatch calls for higher VET participation and more effective VET provision	Improving interlinkages between initial VET and continuing VET/adult learning	The two systems of IVET and CVET should not remain separate but should be more closely linked, or even dovetailed. Such a concept could offer people new and attractive career perspectives, as well as making VET more attractive. A more systematic approach could start in key sectors of the economy as well as in the fields which suffer most from the traditional VET image problem.
	Tackling skills mismatch in VET as a key priority	Further research, analysis and more frequent monitoring is needed with regard to the large horizontal skills mismatch of VET graduates, including comparison with graduates from apprenticeships and general and higher education. Current VET fields and branches should be reviewed to ascertain whether they correspond to current and anticipated labour market needs.

	More effective VET provision through quality work-based learning	Clear and realistic targets for apprenticeships should be set and additional measures are needed to boost apprenticeship supply. The existing quality challenges of traineeships in VET should be addressed immediately, drawing upon the recently proposed Quality Improvement Plan for traineeships in IVET.
	System development of career guidance	An expansion and redesign of the career guidance services is recommended and a coherent national system should be developed, including adult guidance. The current services must be better aligned and coordinated. Career guidance needs to start at an earlier stage and should also be embedded in the curriculum, with an emphasis on career management skills.

ANNEX 2 – THE EDUCATION AND TRAINING SYSTEM OF TURKEY



LIST OF ACRONYMS

AI	Artificial Intelligence
CPD	Continuous Professional Development
CVET	Continuing vocational education and training
CVTS	Continuing Vocational Training Survey
DG	Directorate General
EAAL	European Agenda for Adult Learning
EAfA	European Alliance for Apprenticeships
EC	European Commission
ELE	Early Leavers from Education
ERP	Economic Reform Programme
ETF	European Training Foundation
EU	European Union
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit
GDP	Gross domestic product
GNI	Gross national income
HCD	Human capital development
HDI	Human Development Index
IEP	Individualised Education Programme
IPA	Instrument for Pre-accession Assistance
IPMG	Integrated Policy Management Group
ISCED	International Standard Classification on Education
ISKUR	National Public Employment Services in Turkey
IVET	Initial vocational education and training
KOSGEB	Organisation for Small and Medium Industry Development
LFS	Labour Force Survey
LLL	Lifelong learning
MEUA	Ministry for EU Affairs
MFC	Multifunctional (VET) Centre
MoNE	Ministry of National Education
MTD	Medium-Term Deliverable
MTP	Medium-Term Programme
NAVETQ	National Agency for VET and Qualifications
NEETs	Not in education, employment or training

NRF	National Reporting Framework
OECD	Organisation for Economic Co-operation and Development
OIZ	Organised Industrial Zone
PEC	Public Education Centre
PES	Public Employment Service
PIAAC	Programme for the International Assessment of Adult Competences
PISA	Programme for International Student Assessment
SDG	Sustainable Development Goal
SEE	South East Europe
TAIEX	Technical Assistance and Information Exchange Instrument of the EC
TEPAV	Economic Policy Research Foundation of Turkey
TL	Turkish Lira
TUIK	Turkish National Statistical Institute
TURKSTAT	Turkish National Statistical Institute
TUSIAD	Turkish Industry and Business Association
UNDP	United Nations Development Programme
VEC	Vocational Education Centre
VET	Vocational education and training
VQA	Turkish Vocational Qualifications Authority
VTC	Vocational Training Centre
WBL	Work-based learning

BIBLIOGRAPHY

CEDEFOP, 'Learning from Cedefop's European skills and jobs survey', *Insights into skills shortages and skills mismatch* (3075), Cedefop, Thessaloniki, 2018a. Available at: https://www.cedefop.europa.eu/en/publications-and-resources/publications/3075

CEDEFOP, 'The future of skills: What does data tell us? Sectoral skills for the future – Blueprint in the spotlight', Presentation at the European Commission, DG EMPL, 15 November 2018, Brussels, 2018b.

Central Bank of the Republic of Turkey, 'Turkey Foreign Direct Investment 1992–2019', Ankara, 2019. Available at: https://www.ceicdata.com/en/indicator/turkey/foreign-direct-investment

CIA, 'Turkey Age structure', *World fact book*, 2018. Available at: https://www.indexmundi.com/turkey/age_structure.html

Council of the European Union (CoEU), *Joint conclusions of the economic and financial dialogue between the EU and the Western Balkans and Turkey*, General Secretariat of the Council 9474/19, 17 May 2019, Brussels, 2019a. Available at: http://data.consilium.europa.eu/doc/document/ST-9474-2019-INIT/en/pdf

Council of the European Union (CoEU), *Economic reform programme of Turkey (2019–2021), Commission assessment.* Commission Staff Working Document SWD (2019), 164 final, Council of the European Union, Brussels, 2019b. Available at: https://data.consilium.europa.eu/doc/document/ST-8549-2019-INIT/en/pdf

Council of the European Union (CoEU), *Conclusions of the economic and financial dialogue between the EU and the Western Balkans and Turkey,* General Secretariat of the Council, Council of the European Union, Brussels, Brussels, 12 April 2019.

Daily Sabah, (a) 18 November 2018; (b) 21 February 2018. Available at: https://www.dailysabah.com

EAEA, *Country report on adult education in Turkey,* European Association for the Education of Adults, Helsinki, 2011. Available at: https://eaea.org/wp-content/uploads/2018/01/turkey_country-report-on-adult-education-in-turkey.pdf

Economist Intelligence Unit, *Automation readiness index*, The Economist Intelligence Unit,London, 2018. Available at: https://www.automationreadiness.eiu.com/static/download/PDF.pdf

Erdogan, A., Unutulmaz, O., Erdogan, M., Decker A., Güzin S., Bıyıklh, E., 'Adult education in Turkey', *Broad research on adult education in the EU*, pp. 326–44, EduMap, June 2017.

European Training Foundation (ETF), *Skills vision 2020 Turkey,* Working document, Office for Official Publications of the European Communities, Luxembourg, 2016-09-27. Available at: https://op.europa.eu/en/publication-detail/-/publication/fbf2fab8-9ab2-11e6-868c-01aa75ed71a1/language-en/format-PDF/source-114799961

European Training Foundation (ETF), *Torino process report Turkey*, Office for Official Publications of the European Communities, Luxembourg, 2017.

European Training Foundation (ETF), *Work-based learning in Turkey*, Factsheet, 2018.

European Training Foundation (ETF), *Facts and figures Turkey,* ETF STATS Team, Turin, 2019a.

European Training Foundation (ETF), *Proposal for a quality improvement plan of traineeships in initial VET in Turkey*, Working document, Turin, 2019b.

European Training Foundation (ETF), *Skills mismatch measurement in ETF partner countries*, Office for Official Publications of the European Communities, Luxembourg, 2019c. Available at: https://www.etf.europa.eu/en/publications-and-resources/publications/skills-mismatch-measurement-etf-partner-countries

European Commission (EC), *Turkey 2019 report*, Commission Staff Working Document, Accompanying the document *Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, 2019 Communication on EU Enlargement Policy*, COM (2019) 260 final, 29 May 2019, Brussels, 2019a. Available at: https://ec.europa.eu/neighbourhood-enlargement/sites/near/files/20190529-turkey-report.pdf

European Commission (EC), *Key findings of the 2019 report on Turkey*, 'Countries insights', European Commission, Brussels, 2019b. Available at: https://ec.europa.eu/commission/presscorner/api/files/document/print/en/country_19_2781/COUNTRY_19_2781_EN.pdf

European Commission (EC), *Spring 2019 economic forecast for* Turkey, European Commissionm 2019c. Available at: https://ec.europa.eu/info/sites/info/files/economy-finance/ecfin_forecast_spring_070519_turkey_en.pdf

European Commission (EC), *Turkey: Active labour market policies for Syrian refugees are also supporting the local population affected by the refugee influx*, ESPN Flash Report 2019/15, European Commission, 2019d.

Eurostat, *Continuing vocational training survey 2015*, Luxembourg, 2016.

Eurostat, *Adult education survey 2016,* Luxembourg, 2017.

Eurostat, Experimental statistics on skills mismatch, Luxembourg, 2017.

Eurostat, 'Turkey-EU – international trade in goods statistics', Eurostat, Data extracted in March 2019, 2019. Available at https://ec.europa.eu/eurostat/statistics-explained/index.php/Turkey-EU_-_international_trade_in_goods_statistics

Eurydice, National reforms in vocational education and training and adult learning, Brussels, 2018.

Gülmez, Alaattin, Titrek, Osman and Özkorkmaz, M. Ali, 'The situation of lifelong education in Turkey', International Journal on Lifelong Education and Leadership, Vol. 1, 2015, pp. 21–31, https://www.researchgate.net/publication/321260187_The_Situation_of_Lifelong_Education_in_Turkey

Hanemann, U. (ed.), *Functional adult literacy and women's support programme, Turkey*, UNESCO Institute for Lifelong Learning, Editions/AED 81/2014: Communities/Community Learning in Turkey, 2017. Available at: https://uil.unesco.org/case-study/effective-practices-database-litbase-0/functional-adult-literacy-and-womens-support

Helliwell, J., Layard, R., & Sachs, J., *World Happiness Report 2019*, Sustainable Development Solutions Network, New York, 2019. Available at: https://worldhappiness.report/ed/2019/#read

Karahasan, Burhan Can and Bilgel, Firat, 'Economic geography, growth dynamics and human capital accumulation in Turkey: Evidence from regional and micro data', ERF Working Paper N. 1233, 2018. Available at: https://theforum.erf.org.eg/2018/10/22/human-capital-regional-disparities-turkey/

Kayman, E. A., Ilbars, Z., Artuner, G., 'Adult education in Turkey: In terms of lifelong learning', *Procedia – Social and Behavioral Sciences*, Vol. 46, 2012, pp. 5858–61. Available at https://www.researchgate.net/publication/271398706_Adult_Education_in_Turkey_In_Terms_of_Lifelong_Learning/fulltext/55e0b17908aede0b572f117c/Adult-Education-in-Turkey-In-Terms-of-Lifelong-Learning.pdf

Kersh, N. and Toiviainen, H. (eds), *Broad research on adult education in the EU*, EduMap, 2017. Available at: https://www.voced.edu.au/vital_node_create/ngv_77906

Knoema, *World data atlas: Turkey human development index*, 2019. Available at: https://knoema.com/atlas/Turkey/Human-development-index

Legatum Institute, *The Legatum Prosperity Index 2018*, London, 2018. Available at: https://www.prosperity.com/

MEUA (Ministry for EU Affairs in Turkey), *National report of Turkey on the implementation and the impact of Erasmus+ and predecessor programmes: Lifelong learning, youth in action*, June 2017. Available at: https://ec.europa.eu/programmes/erasmus-plus/sites/erasmusplus2/files/el_national_report/TR_National%20Report.pdf

Miser, R., Ural, O., Ünlühisarýklý, Ö., 'Adult education in Turkey', *Adult Learning*, Vol. 24, No. 4, 2013, pp. 167–74. Available at: https://doi.org/10.1177/1045159513499553

MoNE (Ministry of National Education), *Outlook of vocational and technical education in Turkey*, No.1, November, 2018. Available at: https://unevoc.unesco.org/network/up/TURKEY_MoNE-_Outlook_of_Vocational_and_Technical_Education_in_Turkey-_Series_of_Education_Analysis_and_Assessment_Reports_No_1_November_2018.pdf

MoNE (Ministry of National Education), *Turkey Torino process report 2018–2020,* May, 2019a, https://openspace.etf.europa.eu/trp/torino-process-2018-2020-turkey-national-report

MoNE (Ministry of National Education), *Turkey's Education Vision 2023,* Ankara, 2019b. Available at: https://2023vizyonu.meb.gov.tr/doc/2023_VIZYON_ENG.pdf

MoNE (Ministry of National Education), *Riga policy reporting questionnaire, reporting period 1 March 2018–31 January 2019,* Ankara, 2019c.

OECD, *PISA 2015 key findings for Turkey,* OECD Publishing, Paris, 2015. Available at: https://www.oecd.org/turkey/pisa-2015-turkey.htm

OECD, *Skills matter: further results from the survey of adult skills. Country note Turkey*, OECD Publishing, Paris, 2016. Available at: http://www.oecd.org/skills/piaac/Skills-Matter-Turkey.pdf

OECD, *Government at a glance 2017. Country fact sheet, Turkey*, OECD Publishing, Paris, 2017. Available at: www.oecd.org/gov/govataglance.htm

OECD, *Country note, Turkey. Education at a glance*, OECD Publishing, Paris, 2018a. Available at: http://gpseducation.oecd.org/Content/EAGCountryNotes/TUR.pdf

OECD, *Working it out: Career guidance and employer engagement*, OECD Education Working Paper No. 175, OECD Publishing, Paris, 2018b. Available at: http://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=EDU/WKP(2018)11&docLanguage=En

OECD, *OECD Economic Outlook*, Volume 2019 Issue 1, OECD Publishing, Paris, 2019a. Available at: https://doi.org/10.1787/b2e897b0-en

OECD, 'Measuring distance to the SDG targets – Turkey', in *Measuring Distance to the SDG Targets 2019: An Assessment of Where OECD Countries Stand*, OECD Publishing, Paris, 2019b. Available at: https://doi.org/10.1787/893507e1-en

OECD with ETF/EU/EBRD, 'Turkey: Small Business Act profile', in *SME policy index: Western Balkans and Turkey,* pp. 883–963, OECD Publishing, Paris, 2019c. Available at: https://doi.org/10.1787/f565e33c-en

OECD, *Income inequality (indicator)*, 2019d. Available at: https://doi.org/10.1787/459aa7f1-en (accessed 05 February 2020).

OECD*, Adult education level* (indicator), 2019e, https://doi.org/10.1787/36bce3fe-en (accessed 05 February 2020)

OECD, *Country Note, Turkey. Programme for International Student Assessment (PISA). Results from PISA 2018,* Paris 2019f. Available at: http://www.oecd.org/pisa/publications/PISA2018_CN_TUR.pdf

Ozer, M., 'Reconsidering the Fundamental Problems of Vocational Education and Training in Turkey and Proposed Solutions for Restructuring', 39(2): 1-19, Istanbul University Press, 2019.

Poyraz, H. and Titrek, O., 'Development of lifelong learning in Turkey', 2015.

Presidency of the Republic of Turkey, Investment Office, *Invest in Turkey. Investment guide,* 2019a. Available at: http://www.invest.gov.tr/en-US/investmentguide/investorsguide/Pages/DemographyAndLaborForces.aspx

Presidency of the Republic of Turkey, Investment Office, *Eleventh development plan (2019–2023)*, Unofficial translation in English, 2019b.

Titrek, O., 'The development of lifelong learning in Turkey', Sararya University, Faculty of Education, 2013.

Torun, H., Tumen, S., 'Do vocational high school graduates have better employment outcomes than general high school graduates?', Discussion Paper Series No. 10507, IZA Institute of Labour Economics, Bonn, 2017. Available at: http://ftp.iza.org/dp10507.pdf

Transparency International, *Corruption perceptions index 2018,* Transparency International, 2019. Available at: https://www.transparency.org/cpi2018

Tumen, S., 'The impact of low-skill refugees on youth education', IZA Discussion Paper No. 11869, 2018. Available at: https://ssrn.com/abstract=3273708

Tumen, Semih, 'Inclusion of young refugees through education', Presentation at the Conference in Istanbul, October 2019.

TUSIAD and Boston Consulting Group, *Industry 4.0 in Turkey as an imperative for global competitiveness*, TÜSİAD-T/2016-03/576, TÜSİAD and BCG, 2016. Available at: https://tusiad.org/tr/tum/item/download/7847_49fa245cf57d64611148ac42c0de4a7e

UNDP, *Human development indices and indicators: Statistical update 2018, briefing note for Turkey*, UNDP, 2018. Available at: http://www.hdr.undp.org/sites/all/themes/hdr_theme/country-notes/TUR.pdf

UNDP, *Inequalities in Human Development in the 21st Century. Briefing note for countries on the 2019 Human Development Report,* 'Human Development Report 2019'. Turkey, UNDP, 2019. Available at: http://hdr.undp.org/sites/all/themes/hdr_theme/country-notes/TUR.pdf

UNESCO, *3rd global report on adult education and training,* UNESCO Institute for Lifelong Learning, Hamburg, 2016. Available at: https://unesdoc.unesco.org/ark:/48223/pf0000245913

UNESCO, *Migration, displacement and education: Building bridges, not walls.* 'Global Education Monitoring Report', UNESCO Publishing, Paris, 2018. Available at: https://unesdoc.unesco.org/ark:/48223/pf0000265866

Unluhisarcikli, Ozlem, 'Adult education in Turkey', Presentation at VALUE Conference, Middle-East Technical University, Ankara/Turkey, 8–9 June 2011.

World Bank, 'The future of jobs and automation', Presentation, Ankara 14 November 2018 World Bank, 2018.

World Bank, *World Development Report 2019: The Changing Nature of Work*, World Bank, Washington DC, 2019a. Available at: https://doi.org/10.1596/978-1-4648-1328-3

World Bank, *Trading economics*, Washington DC, 2019b. Available at: https://tradingeconomics.com/turkey/gini-index-wb-data.html

World Bank, *Doing business 2019*, International Bank for Reconstruction and Development, World Bank, Washington DC, 2019c. Available at: https://www.worldbank.org/content/dam/doingBusiness/media/Annual-Reports/English/DB2019-report_web-version.pdf

World Bank, *Firm Productivity and Economic Growth in Turkey. Country Economic Memorandum*, World Bank, Washington DC, 2019d. Available at: https://openknowledge.worldbank.org/handle/10986/31931

Yildiz, A., 'Transformation of adult education in Turkey: From public education to life-long learning', *Neoliberal transformation of education in Turkey*, pp. 245–257, 2012. Available at: https://link.springer.com/chapter/10.1057%2F9781137097811_19

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