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KOF Swiss Economic Institute

The KOF Education System Factbook:

Italy

Edition 1, December 2019

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List of Abbreviations

ANVUR	National Agency for the Evaluation of the University and Research System
CTP	Provincial Adult Education Centres
EPL	Employment Protection Legislation
EU	European Union
ESF	European Social Fund
GCI	Global Competitiveness Index
GDP	Gross Domestic Product
GER	Gross Value Added
GII	Global Innovation Index
GVA	Gross Value Added
IFTS	Higher Technical and Training Institutes
IMF	International Monetary Fund
INDIRE	National Institute for Documentation, Innovation and Educational Research
INVALSI	National Institute for the Evaluation of the Education System
ISFOL	Institute for the Development of Professional Training for Workers
ISCED	International Standard Classification of Education
ITP	Individual Training Plan
ITS	Higher Technical Institutes
KOF	Swiss Economic Institute
leFP	Three- and four-year Vocational Programs
MUIR	Ministry of Education, University and Research
MLPS	Ministry of Labour and Social Policies
NER	Net Employment Rate
OECD	Organisation for Economic Co-operation and Development
PECUP	Educational, Cultural and Professional Profile
PET	Professional Education and Training
POF	Educational Offer Plan
UNESCO	United Nations Educational, Scientific and Cultural Organization
SNV	National Evaluation System
TFA	Active Teaching Traineeships

VET	Vocational Education and Training
VPET	Vocational Professional Education and Training
VPETA	Vocational and Professional Education and Training Act
WEF	World Economic Forum
WGI	World Governance Indicators
YLMI	Youth Labour Market Index

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FOREWORD

The increasing competitiveness of the global economy, as well as high youth unemployment following worldwide economic crises, have put pressure on countries to upgrade the skills of their workforces. Consequently, vocational education and training (VET) has received attention in recent years, especially from policymakers. For example, the European Commission (EC) defined common objectives and an action plan for the development of VET systems in European countries in the *Bruges Communiqué on Enhanced European Cooperation in Vocational Education and Training for 2011-2020* (European Commission, 2010). In addition, a growing number of US states and other industrialised, transition, and developing countries (e.g., Hong Kong, Singapore, Chile, Costa Rica, Benin, and Nepal) have shown interest in either implementing VET systems or making their VET system more labour-market oriented.

The VET system improves the transition of young people into the labour market by simultaneously providing work experience, remuneration, and formal education degrees at the secondary education level. If the VET system is optimally designed, providers are in constant dialogue with the demand-side of the labour market (i.e., the companies). This close relationship guarantees that the skills learned are those in demand for the labour market. In addition to practical skills, VET systems foster soft skills, such as emotional intelligence, reliability, accuracy, precision, and responsibility, which are important attributes for success in the labour market. Depending on the design and permeability of the education system, VET may also provide access to tertiary level education (according to the ISCED classification): either general education at the tertiary A level or professional education and training (PET) at the tertiary B level. The latter (PET) provides occupation-specific qualifications that prepare students for highly technical and managerial positions. The VET and PET systems are often referred to together as ‘vocational and professional education training’ (VPET).

Few countries have efficient VPET systems. However, the Swiss VPET system is an example of an education system that successfully matches market supply and demand. Its efficiency in introducing adolescents to the labour market is reflected in Switzerland’s 2007-2017 average youth unemployment rate of 8.1%, compared to the OECD average of 14.8% (OECD, 2017c).

Though few countries have VPET systems comparable to that of Switzerland in terms of quality, efficiency, and permeability, many have education pathways that involve some kind of practical or school-based vocational education. The purpose of the KOF Education System Factbook series is to provide information about the education systems of countries across the world, with a special focus on VPET.

In the KOF Education System Factbook: Italy, we describe Italy’s vocational system and discuss the characteristics that are crucial to the functioning of the system. Essential

components include the regulatory framework and the governance of the VPET system, the involved actors, and their competencies and duties. The Factbook also provides information regarding the financing of the system and describes the process of curriculum development and the involved actors.

The Factbook is structured as follows. First, we provide an overview of Italy's economy, labour market, and political system. The second part is dedicated to the description of the formal education system. The third section explains Italy's VET system. The last section offers a perspective on Italy's recent education reforms and challenges to be faced in the future.

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The KOF Education System Factbooks should be regarded as works in progress. The authors do not assert the completeness of the information, though it has been collected carefully and in all conscience. Any suggestions for improvement are highly welcome!

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1. The Italian economy and its political system

A primary purpose of an education system is to provide the future workforce with the skills needed in the labour market. The particularities of a country's economy and labour market are important factors when determining this current and future demand. Therefore, these will be briefly described in the first part of this Factbook. In addition, this section provides an overview of Italy's political system, with an emphasis on the description of the country's education politics.

1.1 The Italian economy

Although Italy is a founder member of the OECD, it lags behind many other member countries in terms of economic performance, not only since the global economic crisis (World Bank, 2018a). While OECD countries grew by an average of 2.21 percentage points per annum in the years between 1990 and 2017, in the same time period, the Italian economy only grew by 0.76% per annum. In 2017, Italy's gross domestic product (GDP) per capita amounted to US\$ 34,098¹, compared to an OECD average of US\$ 38,868 (OECD, 2018a). The low growth rate was primarily caused by the heavy recession in the years of the 2008 financial crisis. Over the period of the crisis, the unemployment rate in Italy increased from 6.7% in 2008 to its peak of 12.6% in 2014. In 2017, unemployment was at 11.25%. The IMF expects further improvement (IMF, 2018).

As a consequence of the financial crisis, Italy accumulated a huge public deficit (in levels): from 110% of GDP in 2008 to 157.5% of GDP in 2015. This gross debt level is the third highest among the OECD countries, while the average gross debt level of all OECD members is 112% (OECD, 2017a). Although Italy has improved its fiscal balance through fiscal consolidation, the government's gross debt level remains high.

The KOF Globalisation Index measures the degree of globalisation in terms of economic, social, and political dimensions.² According to the KOF Globalisation Index (KOF, 2018a), Italy became much more open in economic, political, and social terms between 1970 and 2015. The value of the overall index amounted to 62.8 in 1970 and rose to 82.2 in 2015, while the average for high-income countries only grew from 56.9 to 76.6 in the same period. According

¹ Constant prices, constant purchasing power parity (PPP), reference year 2010.

² Through these three dimensions, the overall KOF Globalization Index tries to assess current economic flows, economical restrictions, data on information flows, data on personal contact, and data on cultural proximity within surveyed countries. The higher the index, the more open a country.

to the KOF Economic Globalisation Index,³ Italy was ranked 44 out of 178 countries in 2015 (KOF, 2018a).

The tertiary sector is the most important sector of the Italian economy, generating 74% of gross value added (GVA) in 2017, which is characteristic of a developed country. Moreover, 73.7% of all employees are employed in the tertiary sector, further highlighting its importance (Table 1).

The primary and secondary sector are less important for Italy's economy in terms of employment and GVA. In 2017, the contribution of Italy's primary sector to GVA amounted to 2.1%, which was higher than the EU-28 average of 1.6%. However, an employment rate of 3.7% for the primary sector was lower than the EU-28 average of 4.5%. This shows that the Italian primary sector has been more productive than the EU-28 primary sector (Table 1).

Table 1: Value added and employment by sector, 2017

Sector	Italy: Value added (%)	EU-28: Value added ⁴ (%)	Italy: Employment (%)	EU-28: Employment (%)
Primary sector	2.1	1.6	3.7	4.5
Agriculture, hunting and forestry, fishing	2.1	1.6	3.7	4.5
Secondary sector	23.9	25	22.8	21.6
Manufacturing, mining and quarrying and other industrial activities	19.2	19.6	16.8	15.3
of which: Manufacturing	16.4	16.3	15.5	13.8
Construction	4.7	5.4	6.0	6.3
Tertiary sector	74.0	73.4	73.7	73.9
Wholesale and retail trade, repairs; hotels and restaurants; transport; information and communication	24.8	24.2	28.2	27.8
Financial intermediation; real estate, renting & business activities	28.7	27.2	15.8	16.5
Public administration, defense, education, health, and other service activities	20.5	22.0	29.7	29.6

Source: Eurostat (2018a; 2018b).

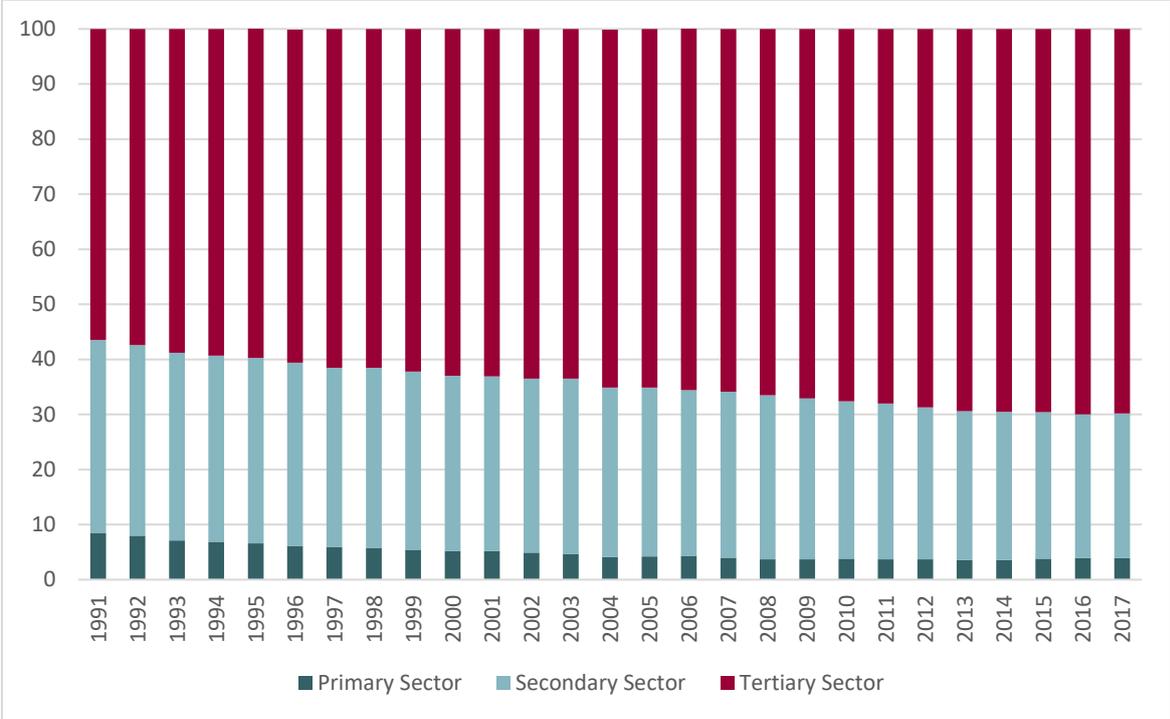
In contrast, productivity in the secondary sector to GVA was slightly higher in the EU-28 countries, as it achieved a higher GVA with a lower share of total employment. The GVA amounted to 25% (versus 23.9% in Italy), while employment was 21.6% (versus 22.8% in Italy) (Table 1).

³ The KOF Index of Globalisation measures the economic, social and political dimensions of globalisation.

⁴ Due to rounding differences, the sum of all sector falls below 100 percent.

Figure 1 shows the historical development of employment by sector from 1991 until 2017. The importance of the tertiary sector in terms of employment has increasingly grown over the previous 20 years: the share of employment in this sector rose from 56.5% in 1991 to 69.8% in 2017. At the same time, the share of employment in other sectors has shrunk.

Figure 1: Employment by sector (as a percentage of total employment), 1991-2017



Source: (World Bank, 2018b)

In the WEF Global Competitive Index (GCI) rankings for 2016-2017 (WEF, 2018a), Italy ranked 44 out of 138 countries. The GCI report indicates that the strengths of the Italian economy are its innovativeness and business adeptness. Furthermore, the GCI report states that the Italian macroeconomic position is improving, despite its high public debt, and that the frailest areas of the Italian economy are its labour and financial markets, as well as its institutions. Labour market reforms have been put in place, but the full profit has not yet emerged. Additionally, the required pension system reforms have further blocked access to the labour market for youth (WEF, 2018b).

The Global Innovation Index (GII) 2018 puts Italy 31 out of 126 countries. This is primarily due to its knowledge impact, ecological sustainability and trade, competition, and market scale. However, the GII urges Italy to perform better in investment, expenditure on education as a percentage of its GDP, as ease of obtaining credit (Dutta et al., 2018).

1.2 The labour market

The first part of this section describes the general situation of Italy's labour market. In the second part, we will focus on the youth labour market.

1.2.1 Overview of the Italian labour market

In recent decades, the Italian labour market has gone through a difficult period. In 1990, 9.8% of all Italians aged 15-65 were unemployed. This figure rose to its peak of 12.1% in 1998, then eased to 6.1% in 2007. The financial crisis hit the Italian labour market hard: in 2014, the unemployment rate rose again to a new peak of 12.7%. It has since decreased to 11.7% in 2016 (World Bank, 2018c).

The True Package reform in 1997 and the Biagi Law reform in 2003 led to a growth of employment, which was then stopped by the financial crisis in 2008. These reforms introduced changes in the use of temporary contracts. However, more than 50% of the new created jobs were of a temporary nature. While temporary contracts can ease entry into the labour market, they also have negative aspects, such as employment instability and lower wages (Dino Pinelli et al., 2017). Before the Jobs Act labour market reform in 2014-2015, Italy had a more restrictive employment protection legislation (EPL) for permanent contracts than for temporary contracts. Italy's level of EPL was higher than that of France and Germany, due to advanced restrictive requirements for collective dismissal. The Jobs Act revised the employment protections and announced three major changes, one of which is described above. According to Pinelli, this reflected bureaucratic procedures existing between trade unions and employers. For temporary contracts, EPL was more flexible than it was in France, but more restrictive than in Germany. Therefore, the Jobs Act amended EPL for permanent contracts and, at the same time, limited the use of atypical contracts, such as temporary contracts. A major component of the Jobs Act is that it permitted a temporary contract to be extended up to eight times, with a maximum duration of 36 months (Dino Pinelli et al., 2017).

The Italian labour market is one of the most highly regulated in the OECD. The OECD Index of Employment Protection is a multidimensional index that quantifies the strictness of EPL across countries. It is scaled between zero and six, where zero refers to a low level of EPL and six to a high level (OECD, 2015a). The 2013 OECD Indicators of Employment Protection gave Italy a score of 2.8 for permanent workers and 2.7 for temporary workers, placing it among the top ten most regulated countries.

Italy has no general statutory minimum wage. Rather, the minimum wage is sector-specific and regulated in collective agreements between social partners (Eurostat, 2018c). Trades union density in Italy accounted 34.4% in 2016 – in comparison to 17% in Germany.

Table 2 shows the Italian labour force participation and unemployment rates along with the OECD average for 2017. In 2017, the Italian labour force participation rate (15-64 years) was below the OECD average (65.4% versus 72.1%). The unemployment rate in the Italian labour force was nearly double the OECD average: 11.4% versus 5.9. However, the labour market youth integration (15-24 years) in Italy was lower than the OECD average: with 26.2% (versus 47.3%) either employed or actively searching for a job. With regard to the youth unemployment rate, the figures are worse: in Italy, 34.7% were searching for a job, nearly triple the OECD average of 11.9%.

Table 2: Labour force participation rate, unemployment rate by age 2017

Age Group	Labour force participation rate		Unemployment rate	
		OECD average		OECD average
Total (15-64 years)	65.4	72.1	11.4	5.9
Youth (15-24 years)	26.2	47.3	34.7	11.9
Adults (25-64 years)	72.5	77.7	9.9	5.1

Source: (OECD, 2017b)

According to the OECD (2018c), Italian policies should focus on female labour participation, as the country has a large share of older women who have never participated in the labour market. Furthermore, the OECD (2017d) urges Italy should to focus on its youth, as nearly 35% are unemployed.

Table 3: Labour force participation rate, unemployment rate by educational attainment 2015 (persons aged 25-64)

Education Level	Labour force participation		Unemployment rate	
	Country	OECD average	Country	OECD average
Less than upper secondary education	58.5	63.6	14.2	12.4
Upper secondary level education	76.9	80.1	8.9	7.3
Tertiary education	84.3	88.0	6.8	4.9

Source: (OECD, 2015b)

Table 3 shows that, in 2015, when disaggregated by education level, Italian labour force participation was below the OECD average and the unemployment rate above the OECD average.

1.2.2 The youth labour market

The KOF Swiss Economic Institute developed the KOF Youth Labour Market Index (KOF YLMI) to compare adolescent participation in the labour markets of various countries (Renold et al., 2014). The foundation for this index is the critique that a single indicator, such as the unemployment rate, is sufficient neither to adequately describe the youth labour market nor for a comprehensive cross-country analysis. To increase the amount of information analysed and to foster a multi-dimensional approach, the KOF YLMI consists of 12 labour market indicators,⁵ which are grouped into four categories.

Dimensions of the KOF YLMI
Activity state - Unemployment rate - Relaxed unemployment rate ⁶ - Neither in employment nor in education or training rate (NEET rate)
Working conditions Rate of adolescents: - with a temporary contract - in involuntary part-time work - in jobs with atypical working hours - in work at risk of poverty , ⁷ vulnerable unemployment rate ⁸
Education - Rate of adolescents in formal education and training - Skills mismatch rate
Transition smoothness - Relative unemployment ratio ⁹ - Long-term unemployment rate ¹⁰
Source: Renold et al. (2014).

The first category describes the *activity state* of the youth (those aged 15-24 years old) in the labour market. Adolescents are classified according to whether they are employed, in education, or neither (unemployed, discouraged and neither in employment nor education or training [see info box to the right]). The category *working conditions* and the corresponding indicators reflect the type and quality of jobs held by the working youth. The *education* category accounts for the share of adolescents in education and training and for the relevance of their skills on the labour market. The fourth category, *transition smoothness*, connects the other three categories by capturing the school-to-work transition phase. Each country has a score of 1-7 for each indicator. A higher score reflects a more favourable situation and a more efficient integration of the youth into the labour market.

A major drawback of the KOF YLMI is data availability. When data are lacking, a category may be based on a single indicator or omitted entirely if no indicator for that category exists in a given country. A lack of indicators can make comparisons across certain countries or groups of countries problematic and sometimes impossible.

⁵ The data for these indicators are collected from different international institutions and cover up to 178 countries for the time period between 1991 and 2015.

⁶ It is calculated as the number of unemployed and discouraged workers as a share of the entire labour force. Discouraged workers have given up the search for work (not actively seeking), although they have no job and are currently available for work (also: 'involuntary inactive').

⁷ Those who cannot make a decent living out their earnings, being at risk of poverty as a percentage of the working population.

⁸ Share of the employed population working on their own account or those working in their family business and thus contributing to the entire family income. Both are less likely to have formal work arrangements and are therefore less protected by labour laws and more exposed to economic risk.

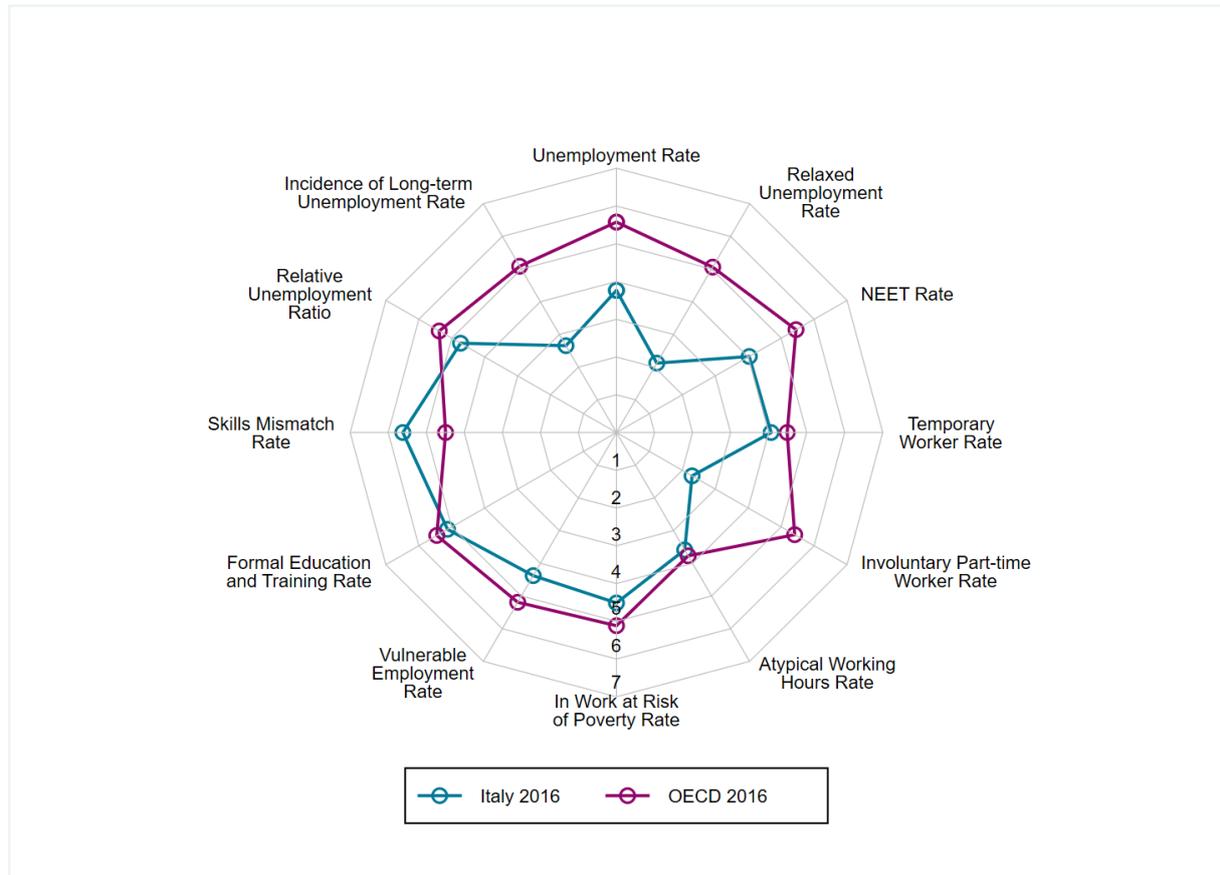
⁹ Is defined as the youth unemployment rate (15-24 years) as a share of the adult unemployment rate (25+). If the youth cohort is affected in the same way than the adult group with respect to unemployment, then the relative unemployment ratio will be equal to one. If the youth are relatively more affected, then the ratio will be bigger than one.

¹⁰ Those unemployed for more than one year (52 weeks) in the total number of unemployed (according to the ILO definition).

1.2.3 The KOF Youth Labour Market Index (KOF YLMI) for Italy

The scores for the Italian youth labour market are below the OECD average for almost every indicator, as shown in Figure 2. The only score above the OECD average is for the skills mismatch rate, which indicates that they are either overqualified for their job or underqualified. For every other indicator, the Italian youth labour market is below the OECD average.

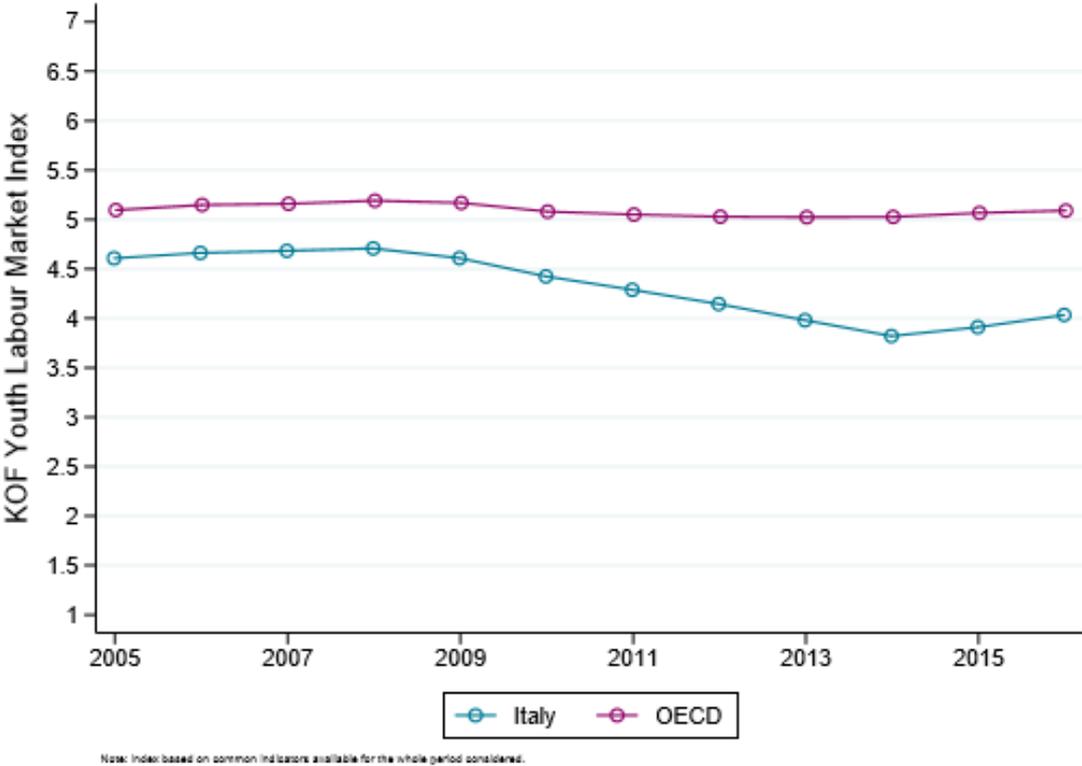
Figure 2: YLM scoreboard: Italy versus OECD average, 2016



Source: (KOF, 2018b)

Figure 3 illustrates the evolution of the aggregated KOF YLMI for Italy and the OECD average between 2005 and 2016. All 12 values of the Italian youth labour market are available for the period of 2005-2016. The Figure shows that the KOF YLMI for Italy has been below the OECD average since 2005, falling yet further after the 2008 financial crisis. However, it began to recover in 2014. Over the same time period, the OECD average remained more or less stable.

Figure 3: YLM Index: Italy vs OECD, 2004-2016



Source: (KOF, 2018c)

1.3 The political system

To understand a country’s education system, it is crucial to know the basics of its political system, including the political goals of its education system. The first part of this section gives a general explanation of Italy’s political system. The politics and goals of the education system are discussed in the second part.

1.3.1 Overview of the Italian political system

The Italian state grew out of the kingdom of Sardinia-Piedmont, where the ancient king introduced Italy’s first constitution in 1848. The constitution was amended after the Second World War and entered into force on 1 January 1948. With the amended constitution, the political system was transformed from a monarchy to a constitutional republic, meaning that a constitution now limits and divides the power of elected officials across a number of branches. The three powers are the executive, the legislative, and the judiciary. The counsel of the ministers holds the executive power. It is presided over by the president of the counsel, also known as the prime minister. Parliament executes the legislative power and is divided into the Senate and the Chamber of Deputies. Together, they comprise the House and are principally identical. The most important function of the parliament is ordinary legislation. The third power

is that of the judiciary, which is held by the judges. The magistrate's duty is to implement the law (Britannica, 2018).

The executive branch is composed of the Council of Ministers and the president. The president is indirectly elected for a term of seven years by an electoral college, which consists of both houses of Parliament and regional representatives. Furthermore, the Council of Ministers is nominated by the president and proposed by the prime minister. The Italian people directly elect the legislative by proportional representation to serve for a term of five years. The judicial branch is divided into Supreme Court judges and constitutional court judges. Supreme Court judges are appointed by the High Council of Judiciary and may serve for life. Constitutional court judges serve up to nine years and are elected by the parliament and by selected higher courts and then appointed by the president (CIA, 2018).

According to the Worldwide Governance Indicators (WGI) 2016, Italy ranks among the top five national governments for 'voice and accountability', 'government effectiveness', and 'regulatory quality'. However, the WGI ranks Italy only in the top half out of all ranked countries for 'political stability', 'rule of law', 'regulatory quality', and 'control of corruption' (World Bank, 2017). The Economist regards Italian democracy as flawed, ranking Italy 21 of 167 countries, giving it an overall score of 7.98 (out of 10) in its 2017 index (Economist, 2017a). According to the Economist, the reason for the overall low score is the country's poor functioning of government, for which it is rated just 6.43 out of 10 (Economist, 2017b). According to the Corruption Perception Index, Italy has improved its score since 2012. Nevertheless, it is still ranked 54 out of 180 countries, together with Mauritius and Slovakia (Transparency International, 2017).

1.3.2 Politics and goals of the Italian education system

According to the Italian constitution, the state has the exclusive power to make general rules on education. In general, the state and the regions share legislative responsibility for education, with the exception the vocational education and training system, the autonomy of schools and other institutions, which remained the exclusive responsibility of the Italian state until 2001 (Italian Constitution, 2018). In the course of the constitutional reform of 2001, the role of managing the VET system was transferred from the state to the regions.

As mentioned in the previous report, young people in Italy of all educational levels are struggling to enter the labour market. It is difficult even for highly educated youth and skilled graduates to find jobs matching their skills. Often, they have to accept work for which they are over-skilled. This can lead to problems and is hindering Italy's competitiveness (OECD, 2017e).

Recent policies have focused on increasing education levels among young people to counter high levels of unemployment. A recent policy was the Good School Reform of 2015, which increased school autonomy and proposed hiring new teachers on better salaries, with a merit-based component. The main goal of the reform was to further improve the digital innovation skills of students. The EU supported the 2014 national operational programme, named '*Per la Scuola: competenze e ambienti per l'apprendimento*' ('For school: skills and learning environments'). The programme's objective was to improve educational equity, quality, lifelong learning, links between school and work, technical and vocational education, education infrastructure, administrative and institutional capacity, and resource management. The national system for evaluation of schools was set up to support these reforms and strengthen the work-based learning in upper secondary schools and at the level of vocationally-oriented tertiary education. In one example of its efforts to attain its objectives, Italy made internships for students at the upper secondary education level mandatory (OECD, 2017e).

2. Formal system of education

The Italian education and training system is divided into five levels: early childhood education and care and primary, secondary, post-secondary, and higher education. Early childhood education starts at the age of a few months and lasts for three years. During these three years, pupils attend individual nursery schools. From the ages of three to six, children attend pre-primary school. Compulsory schooling begins at age six and lasts until the child reaches the age of 16. It comprises primary school, which lasts five years, and lower secondary education, which lasts three years. From the upper secondary education level onwards, students can choose between a general education pathway (*liceo*) or a vocational pathway (MIUR, 2014).

An illustration of the Italian education system with its various education paths is shown Figure 4.

According to Articles 33 and 34 of the Constitution of the Italian Republic, it is the duty of the state to ensure access to education for all children in the country, regardless of their geographical residence. Hence, central and branch administrations of the state – as well as regional and communal administrations – have a shared competence to set up and operate educational establishments all over the country (Italian Constitution, 2018) (MIUR, 2014).

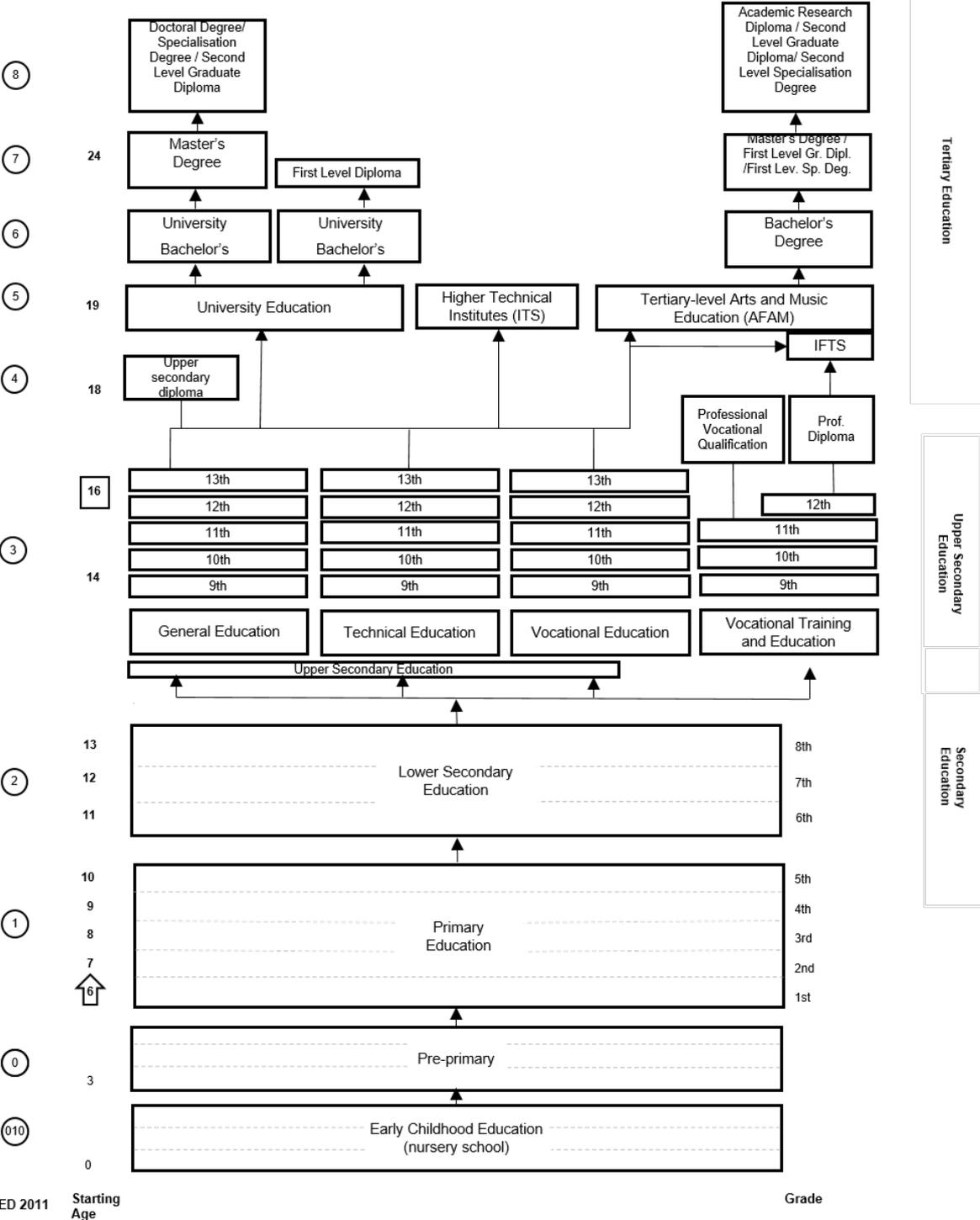
The school year is divided into terms of three or four months. Assessment of the student's performance takes place at the end of each term. In addition, pupils must undergo a final assessment at the end of each school year. The results of the final assessment determine whether the student can progress to the next level (MIUR, 2014).

The main source of funding for education institutions in Italy is public, being either the state or subnational government bodies funded through the Ministry of Education, University and Research (MIUR). School attendance is free of charge for the pre-primary, primary, and lower secondary levels. For post-compulsory upper secondary education, only marginal fees are paid by the students. These marginal costs are expected to be cancelled in 2018 or 2019 (OECD, 2017e).

Public funds provided by state bodies are distributed according to specific criteria, such as available human resources or the type of school. Schools are free to invest these funds as they see fit, unless the funds are reserved for a specific purpose – such as those donated for a specific innovation project (OECD, 2017e).

Public funds provided by subnational government bodies (i.e., regions and municipalities) provide funding for services and assistance for students, such as school transportation, textbooks, social and health assistance, canteens, financial aid, and building maintenance.

Figure 4: The Italian education system



Source: Own illustration (OECD, 2016)

Universities are also funded by study fees and funds from autonomous sources, such as voluntary donations (MIUR, 2014) (OECD, 2017e).

In 2013, the annual expenses per student (from primary to tertiary education) amounted to USD 9,238, which was lower than the OECD average of USD 10,493. Per student spending in

2013 was also lower at the pre-primary level, with USD 6,233 compared to USD 8,070 (OECD, 2017e).

Table 4 and Table 5 show the net enrolment ratio (NER)¹¹ and gross enrolment ratio (GER)¹² by education level for 2016. The NER quantifies the total number of enrolled students of the official age for each education level, expressed as a percentage of the total population in that age group. The GER quantifies the number of students enrolled at each level – irrespective of their age – as a percentage of the population of the official age for that level. For example, at the primary education level, the NER indicates how many students of typical primary school age are actually enrolled in primary school, while the GER indicates the actual number of students in primary education – irrespective of their age – in relation to those of the official age to attend.¹³

The NER for compulsory education in Italy is close to 100, which implies that almost all pupils of the right age are enrolled in compulsory education. Tables 4 and 5 are discussed further in subsections 2.1 to 2.4 below.

Table 4: Net enrolment rate (NER) and gross enrolment ratio (GER) in Italy, 2016 (in %)

Educational level	ISCED 2011	Net Enrolment Ratio	Gross Enrolment Ratio
Pre-primary education	020	92.86	98.20
Primary education	1	96.91	100.36
Secondary education	2 – 3	96.17	102.83
<i>Lower secondary education</i>	2	95.41	104.66
<i>Upper secondary education</i>	3	91.95	101.72
<i>Net enrolment rate of 15-24 year-olds enrolled in vocational secondary education</i>	2-3	22.51	n/a
Compulsory education age group	1 – 3	99.02	n/a
Post-secondary non-tertiary education	4	n/a	0.30
Tertiary education	5 – 8	n/a	63.02

Source: (UNESCO, 2018)

Figure 5 shows the distribution of people aged 25-34 and 55-64 who had attained upper-secondary or post-secondary education in all OECD countries for 2017. It highlights that approximately 48% (37%) of those aged 25-34 (aged 55-64) in Italy had attained upper-secondary or post-secondary education, compared with 41% (44%) in the OECD average.

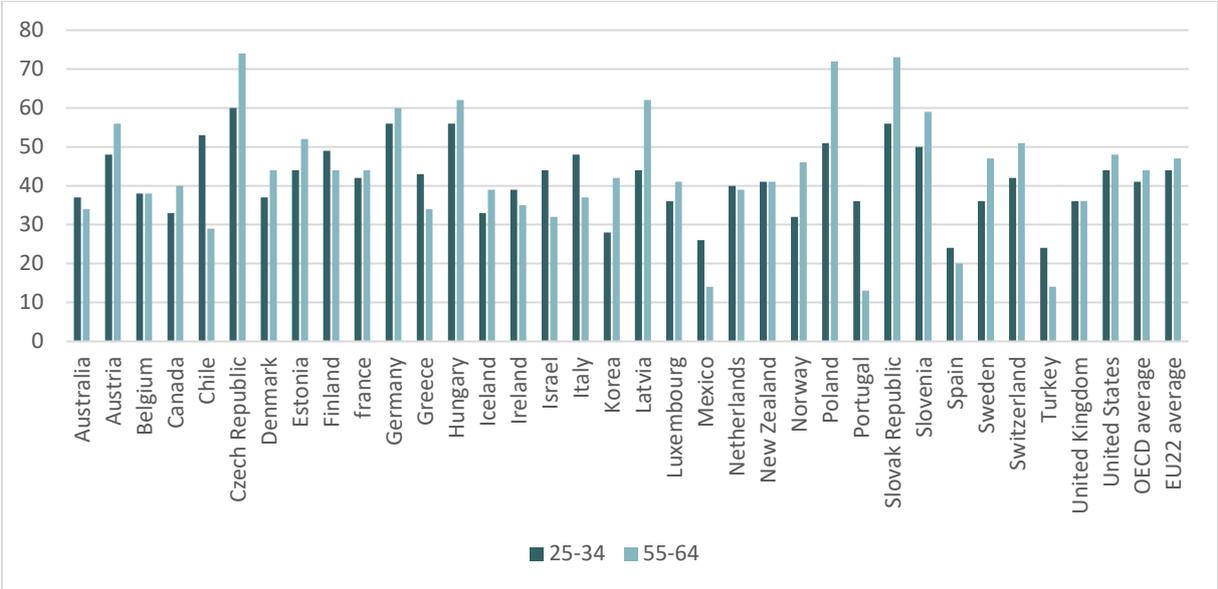
¹¹ The UIS (2017) defines the net enrolment ratio as the 'Total number of students in the theoretical age group for a given level of education enrolled in that level, expressed as a percentage of the total population in that age group.'

¹² The UNESCO Institute for Statistics (UIS) (2017) defines the gross enrolment ratio as the 'number of students enrolled in a given level of education, regardless of age, expressed as a percentage of the official school-age population corresponding to the same level of education.'

¹³ A gross enrollment ratio of 100 corresponds to a situation where each child in a given country is enrolled in the corresponding education level. A value above 100 could occur due to students who are older than the typical enrolment age for primary education (e.g. have to repeat grade, adult learners). A value below 100 implies that not everyone who is in the typical age for primary education is actually enrolled.

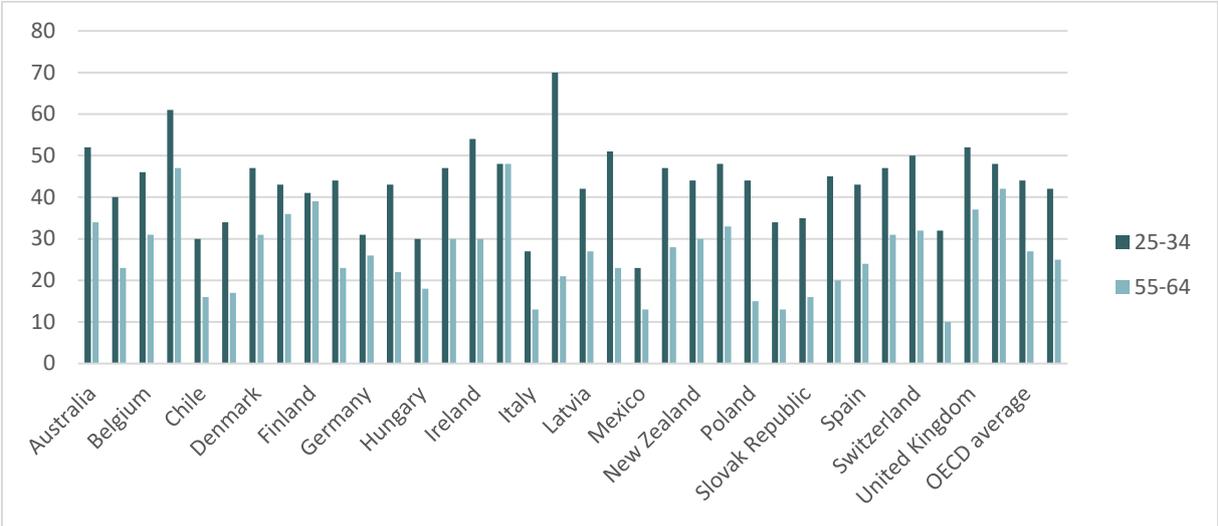
Figure 6 shows the distribution of people aged 25-34 and 55-64 who had attained tertiary education in all OECD countries in 2017. Approximately 27% (13%) of those aged 25-34 (55-64) in Italy had attained tertiary education, compared with an OECD average of 44% (27%).

Figure 5: Percentage of population that had attained upper-secondary or post-secondary non-tertiary education in OECD countries (2017)



Source: (OECD, 2018b)

Figure 6: Percentage of population that had attained tertiary education in OECD countries (2017)



Source: (OECD, 2018b)

2.1 Pre-primary education

Pre-primary education is designed for children aged between three and five years old. In 2016, the NER and GER for pre-primary education (Table 4) were 92.9% and 98.2%, respectively. The NER for pre-primary education indicates the proportion of children aged 3-5 currently enrolled in pre-primary education. Given that compulsory schooling begins at the age of six, a

rate of 92.9% attendance in pre-primary education is high. Parents who wish to enrol their children in pre-primary education are required to request this from the school in which they wish to enrol their child. The school can be chosen freely and only requires that it has an available place. Children in pre-primary education are not graded. However, teachers may advise parents on how they can improve the performance of their child (MIUR, 2014).

Pre-primary education is the responsibility of the MIUR because it is part of the general education system. Pre-primary schools receive a licence from the regional authorities, which are supervised by central authorities (OECD, 2017f).

2.2 Primary education

Primary education marks the starting point of compulsory education. It lasts five years and children are typically aged 6-11. Every child is obliged to enrol in primary education in the year in which they reach the age of six. Parents are free to choose the school to which they send their child (Eurydice, 2018a) (MIUR, 2014). The NER indicates that 96.9% of children of primary school age (6-11) are actually enrolled in primary school.

All teachers must follow the same national curriculum, which is set through national curriculum guidelines (*indicazioni nazionali per il curricolo*). The curriculum covers Italian, English, history, geography, mathematics, science, technology, music, art, and sports science, as well as Catholic religious education as an optional subject (MIUR, 2014).

2.3 Lower secondary education

Lower-secondary education is compulsory. It is offered by publicly subsidised schools and private institutions and through home education. Lower-secondary education lasts three years, typically for students aged 11-14 (Eurydice, 2018b) (MIUR, 2014). The NER indicates that 95.4% of 11-14 are enrolled at this level.

Admission to lower-secondary schools requires successful completion of primary school; and the allocation to specific schools depends on availability of places (MIUR, 2014).

Lower-secondary education is obligatory, and the curriculum again adheres to national curriculum guidelines. The obligatory curriculum covers Italian, English, a second foreign language, history, geography, mathematics, science, technology, music, art, and sports science, while Catholic religious education is again voluntary (MIUR, 2014).

At the end of lower-secondary education, students take a final examination, which is called 'the first-cycle state leaving examination' (*diploma di licenza conclusiva del primo ciclo di istruzione*). Students are only admitted to the final examination if they have at least 75% attendance. Students require a mark of six or more to pass the final examination, with grades scaled from 1 to 10 (MIUR, 2014).

2.4 Upper-secondary education

Upper-secondary education lasts five years, and the typical age of the students is 14-19. The NER indicates that 91.9% of students in the typical age are enrolled. The first two years of upper-secondary education are mandatory. At the age of 16, students receive the first-cycle state-leaving certificate for their lower-secondary education. With this certificate, the student can either progress to one of the six *liceos* or obtain the vocational pathway. The first two years of all paths cover the same subjects. The six different educational paths of general upper-secondary education are the following: art (*liceo artistico*), classical studies (*liceo classico*), science (*liceo scientifico*), languages (*liceo linguistico*), music and dance (*liceo musicale e coreutico*), and human sciences (*liceo delle scienze umane*). The duration of each path is five years (MIUR, 2014).

The national guidelines set out the specific learning objectives for each *liceo* and each *liceo* type. The guidelines also include the student's educational, cultural, and professional profile (PECUP), which comprises the knowledge and skills expected of a student by the end of their studies at one of the various *liceos* (MIUR, 2014).

Through their educational offer plan (*piano dell'offerta formative* [POF]), institutions can offer additional courses that must be compatible with the PECUP of each *liceo* (MIUR, 2014).

For assessment reasons, the school year is divided into terms of three or four months. Assessments take place at the end of each term and an annual assessment is held at the end of each year. At the end of the second year, students undergo an external assessment, conducted by the National Institute for the Evaluation of the Education System (*Istituto Nazionale per la valutazione del sistema di istruzione* [INVALSI]) (MIUR, 2014).

The final examination takes place after five years. This is sat by those students who have an overall average grade of at least 6 out of 10. Students who pass the final state examination receive the high school diploma (*diploma liceale*) (MIUR, 2014).

In Italy, three institutions offer higher education: universities, institutes of higher education of art and music (*alta formazione artistica e musicale*), and higher technical institutes (*istituti tecnici superiori*). The first two are autonomous bodies, while the higher technical institutes are not a part of the tertiary education system. Instead, they offer specialised programmes at the post-secondary level that are more oriented towards the needs of the labour market (Eurydice, 2018b) (Eurydice, 2018c).

Students wishing to enrol in a bachelor's programme at a university or institute of higher education of art and music (comprising 180 credits, typically lasting three years) are required to hold an upper-secondary school leaving certificate. As in the Swiss system, admission to some bachelor's programmes is limited. After the bachelor's programme, students may enrol

on a master's programme, which last two years, and later to a doctoral programme (Eurydice, 2018c) (MIUR, 2014).

The MIUR defines the relevant criteria to be met and the qualifying educational objectives, including the minimum number of credits that institutions should allocate to learning activities and study programmes, which may not exceed 66% or 60% of the total credits for universities and AFAM institutes. Nevertheless, these are only guidelines and every university and higher education art and music institute can define its own teaching regulations, procedures, and methods for assignments – though these regulations do require the approval of the MIUR (MIUR, 2014).

Students wishing to enrol in a higher technical institute need an upper-secondary degree. The programmes are one or two years; and at the end of each course, a final assessment is held, where the candidates sits in front of committee for assessment. Students who have successfully completed a programme and obtained a higher technical diploma (*diploma di tecnico superiore*) may enrol on a university course or progress directly into the labour market (MIUR, 2014).

2.5 Continuing education (adult education)

Adult education in Italy is aimed at young adults who dropped out of school, as well as adults who have left the school system and wish to re-enter (MIUR, 2014). Workers and unemployed people who left school after the first cycle of education are permitted to register for primary, lower-secondary, and upper-secondary classes (MIUR, 2014).

The continuing education landscape offers various paths. Adults can enrol on first-level education courses and literacy and Italian language courses, which are offered by provincial adult education centres (*centri territoriali permanenti* [CTPs]), and second-level education courses, offered by schools that provide vocational, technical, and artistic training. Those wishing to enrol in first-level education courses must be older than 16 years. For upper-secondary school classes with state examination, students must be older than 18 and need have a lower-secondary school qualification to be eligible to attend evening classes (MIUR, 2014).

The students enrolled in a CTP may obtain the first-cycle state leaving examination (*diploma di licenza conclusiva del primo ciclo di istruzione*), which marks the end of lower-secondary education, as well as a certificate of the credits they have obtained, for the opportunity to enrol in evening classes. Those who progress to evening courses may obtain an upper-secondary school leaving certificate or a vocational qualification diploma (MIUR, 2014).

2.6 Teacher education

To become a pre-primary or primary education teacher in Italy, a university degree in primary school education is required. The training takes five years and, during this period, the student teachers must complete a 600-hour internship. In addition, the student teachers are required to write a final graduation thesis and a paper on the internship. To become a secondary education teacher, a master's degree, a period of specialisation, and training in school are necessary. Since 2010, training programmes have offered an alternative route to the necessary teaching qualifications. The training programmes (*tirocinio formativo attivo* [TFA]), are organised by local authorities in cooperation with universities. To obtain their teaching certificate, TFA students are required to pass a final exam and submit a report on their training (Time&Pirls International Study Center, 2015).

3. The vocational and professional education and training (VPET) system

This section of the Factbook describes the VET system at the upper-secondary level and the PET system at the tertiary level. Here, 'VPET' refers to a combination of both the VET and PET systems.

3.1 Vocational education and training (VET): upper-secondary education level

This chapter outlines the Italian VET system for upper-secondary education. State upper-secondary vocational education lasts five years, of which the first two years are compulsory. Typically, the students are aged 14-19. The only admission criterion is that the students have a first-cycle leaving certificate, which they obtain upon completing lower-secondary education (INAPP et al., 2016) (MIUR, 2014).

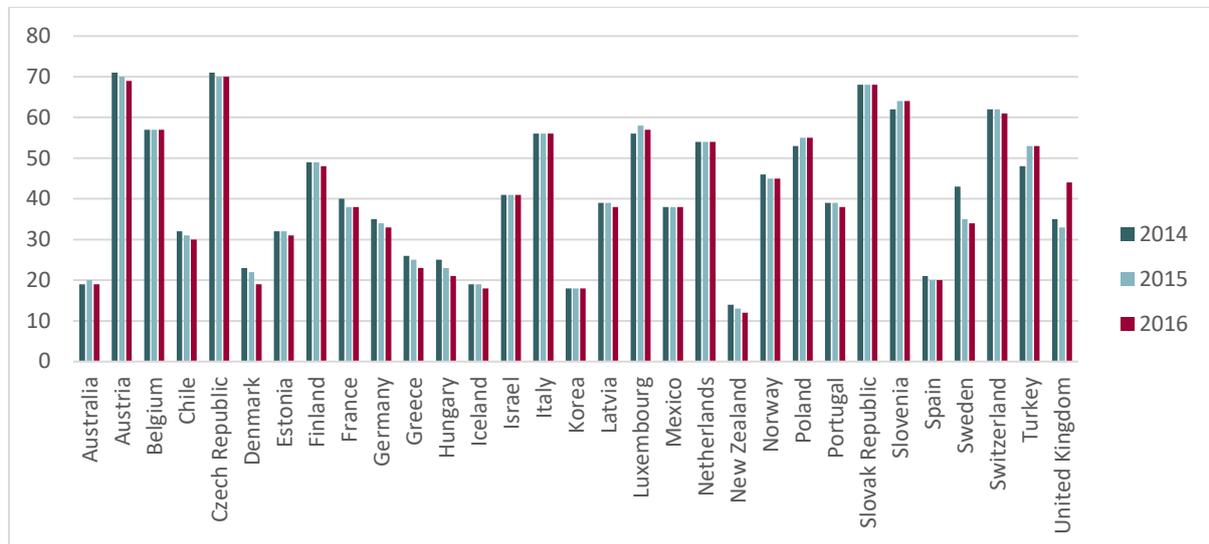
Pupils wishing to enrol in a vocational programme have several options. First, they can enrol in a technical or vocational school (*istituti tecnici* or *istituti professionali*). Both types of institute offer upper-secondary vocational education. Students who opt for a technical school may choose between 11 different programmes, which will be explained in more detail in section 3.1.1. In vocational schools, students can choose from six different programmes. During the five years of upper-secondary vocational education, students can work towards a *diploma di istruzione tecnica* or *diploma di istruzione professionale* (INAPP et al., 2016) (MIUR, 2014).

Another possibility is for the student to enrol in a three- or four-year vocational programme, 'leFP' (*percorsi triennali e quadriennali di istruzione e formazione professionale*). The three-year vocational programme offers 22 specialisations. During these three years, students benefit from a combination of classroom and on-the-job learning, while working towards the professional operator certificate (*attestato di qualifica di operatore professionale*). After earning this diploma, students have the opportunity to register for a further year, where they are offered 21 different specialisations and can obtain the professional technician diploma (*diploma professionale di tecnico*) (INAPP et al., 2016) (MIUR, 2014).

An additional option is to enrol on one of three apprenticeship-type programmes. The first of these programmes is for students in the typical age range of upper-secondary education. It is the professional operator and professional technician diploma (*apprendistato per la qualifica ed il diploma professionale*). The second type is the professional apprenticeship (*apprendistato professionalizzante o contratto di mestiere*), which usually last three years. Successful students obtain a local diploma. The final apprenticeship type-scheme is the higher education and research apprenticeship (*apprendistato di alta formazione e ricerca*). This apprenticeship-scheme differs from the others because it offers various qualifications that can be obtained

after graduating higher education. However, this apprenticeship scheme is rather unregulated. Graduates may engage in research activities of private companies or pursue traineeships required for professions in law, architecture, or business consultation (INAPP et al., 2016).

Figure 7: Share of students (15-19 years) enrolled in upper-secondary vocational education (2014-2016)



Source: (OECD, 2018d)

Figure 7 shows the rates of enrolment for students aged 15-19 in upper-secondary vocational education for most OECD countries, with Austria, the Czech Republic, the Slovak Republic, Slovenia, and Switzerland ranked top five. While these rates fell in many countries between 2014 and 2016, numbers remained stable in Italy. Figure 7 gives a figure of 56% for all three years, with Italy performing better than Germany or France.

3.1.1 Technical and vocational schools (*istituti tecnici* and *istituti professionali*)

Technical and vocational institutes (*istituti tecnici* and *istituti professionali*) offer vocational education at the upper-secondary level. Programmes offered by both types of institution last five years. Technical institutes offer two economics-based programmes and nine technology-based programmes; and these 11 programmes are shown in Table 5. In these programmes, students learn the skills and competencies to carry out technical and administrative tasks. In contrast, vocational institutes provide education in the service sector, industry, and the crafts sector (INAPP et al., 2016) (MIUR, 2014).

Table 5: Courses offered by technical and vocational institutes

Technical Institute courses	Vocational Institute courses
Management, finance and marketing	services for agriculture and the development of rural areas
Tourism	social and health services
Mechanics and energy	hotel and catering
Transport and logistics	commerce
Electronics and electrical engineering	industrial and craft products
ICT and telecommunications	maintenance and technical assistance
Design and communication	
Chemistry and biotechnology	
Fashion design	
Agriculture, food and agriculture and agroindustry	
Construction and environment	

Source: (MIUR, 2014)

During the first two years, the curricula are the same for all students of both vocational and technical institutes, as these two years comprise compulsory schooling and the MIUR thus defines the required knowledge and competencies. The curricula for the first two years cover languages, mathematics, science, technology, history, and social studies. In the remaining three years, students obtain more in-depth knowledge specific to their profession. Hence, the further curricula are set in accordance with the respective PECUPs (INAPP et al., 2016) (MIUR, 2014).

Students who successfully finish technical or vocational school obtain either the technical education diploma (*diploma di istruzione tecnica*) or a vocational education diploma (*diploma di istruzione professionale*). Both diplomas allow the student to continue studying at university or in a higher technical institute (see next section for more details). Alternatively, they can enter the labour market directly (INAPP et al., 2016) (MIUR, 2014).

3.1.2 Three- and four-year leFP programmes (*percorsi triennali e quadriennali di istruzione e formazione professionale*)

Three- and four-year leFP vocational programmes (*percorsi triennali e quadriennali di istruzione e formazione professionale*) are designed and organised by the regions. While the Ministry of Labour and Social Policies (MLPS) sets the framework for the programme, the regions and local authorities are autonomous in planning, organising, and providing these programmes. Training agencies and upper-secondary vocational institutes deliver the programmes. Regions can accredit training agencies in accordance with specific criteria, which are defined by agreement between the regions and the state (INAPP et al., 2016) (MIUR, 2014).

The specific criteria for the accreditation of training agencies are as follows:

- they are part of a non-profit institution that offers educational services to students
- their educational plan allows students to obtain certain defined competencies and skills

- the teachers hold the required qualifications to teach at the upper-secondary level
- they create networks and relationships within their territory of operation and with parents
- they guarantee periodic assessments and a certificate at the end of education
- they have suitable facilities and premises.

Unlike training agencies, vocational institutes can only offer one specific course for the leFP programmes, as the regions accredit only this course. Namely, an integrated subsidiary course for students who undergo a five-year upper secondary vocational course wanting to achieve a leFP qualification after three years of training (INAPP et al., 2016) (MIUR, 2014).

LeFP programmes combine in-classroom training and on-the-job training (e.g., internships). The three-year programme offers 22 specialisations and the four-year programme 21. The different specialisations are shown in Table 6. The main goal of the leFP programmes is to prepare students for their future professions. The students work on various projects and simulated business experiences, such as case studies. On-the-job training activities (especially internships) play a key role and they are carried out under the supervision of two tutors, one from the training centre and one from an enterprise. The three- and four-year programmes are primarily financed by the regions, through Ministry of Labour funds or their own financial resources (INAPP et al., 2016) (MIUR, 2014).

To be eligible for a three-year leFP programme, students must have successfully completed lower-secondary education and must be at least 15 years old. The students must therefore spend a year between the end of lower-secondary education and the start of the leFP programme in a vocational or technical school at upper-secondary level (INAPP et al., 2016) (MIUR, 2014).

After the three-year programme, students are awarded the nationally recognised, professional operator certificate (*attestato di qualifica di operatore professionale*) by the regions. The students can take either an additional specialisation year in the four-year programme or a third or fourth year in upper-secondary education, usually in a technical or vocational school (INAPP et al., 2016) (MIUR, 2014).

The programme professional operator certificate granted after the three-year leFP is the entry requirement for the four-year programme, which means that students spend another year (3+1) in school. At the end of the four-year programme, students receive the professional technician diploma (*diploma professionale di tecnico*). This is awarded by the regions and nationally recognised. After graduation, students can directly enter post-secondary higher technical institutes (IFTS; further explained in a later section) or spend a fifth year in technical or vocational school to obtain the upper-secondary school leaving diploma, which gives access to university or tertiary-level vocational education (MIUR, 2014) (INAPP et al., 2016).

Table 6: List of qualifications and diplomas in three- and four-year leFP programs

Three-year leFP qualifications	Four-year leFP diplomas
Clothing Operator	Building Specialist
Shoe Operator	Electrical Specialist
Chemical production Operator	Electronic Specialist
Building Operator	Graphic Specialist
Electrical Operator	Artistic works Specialist
Electronic Operator	Wood Specialist
Graphic Operator	Motor vehicles repair Specialist
Thermohydraulic plants Operator	Specialist in running and maintaining automated systems
Artistic works Operator	Industrial automation Specialist
Wood Operator	Beauty Treatment Specialist
Pleasure boats assembly and maintenance Operator	Catering services Specialist
Motor vehicles repair Operator	Enterprise services Specialist
Mechanical Operator	Sales Specialist
Wellness Operator	Agriculture Specialist
Catering Operator	Tourist-Sport entertainment and spare time services Specialist
Operator for tourist incoming and promotional services	Clothing Specialist
Secretarial administrative Operator	Hairstyle Specialist
Sales services Operator	Cooking Specialist
Logistics services and systems Operator	Thermal plants Specialist
Food processing Operator	Incoming and Promotional Services Specialist
Agricultural Operator	Food processing Specialist
Sea and fresh water Operator	

Source: (INAPP et al., 2016)

The total number of students enrolled in leFP programmes in 2013-2014 was 316,018, with 12,156 also enrolling in the fourth year, giving a total of 328,174 (MLPS, 2016).

3.1.3 Apprenticeship-type scheme

In Italy, apprenticeship-type schemes are intended to integrate youth as early as possible into the labour market. Apprenticeship training includes both on-the-job and classroom learning (INAPP et al., 2016). There are three types of apprenticeship scheme. Among these, just one is for those in the typical age range of upper-secondary education: the professional operator and professional technician diploma (*apprendistato per la qualifica ed il diploma professionale*). This programme is designed for students aged 15-25. Therefore, it is not possible to enter the programme directly after lower-secondary education. Those students aged under 15 who wish to enter this programme can spend a year in another vocational school at the upper-secondary level. This programme lasts three or four years. A national standard dictates that apprentices may work a maximum of 400 hours per year. Graduates can then earn a nationally recognised three- or four-year leFP certificate (INAPP et al., 2016).

The other two apprenticeship-type programmes are the following:

- Professional apprenticeships (*apprendistato professionalizzante o contratto di mestiere*):

Students aged 18-29 can enrol on a professional apprenticeship, which last three years or – in the case of the crafts sector – five years. Students who successfully complete this scheme obtain a local diploma. As the scheme includes classroom and on-the-job learning, the regions and autonomous provinces regulate the required skills. The learning content is defined by collective agreements (INAPP et al., 2016).

- Higher education and research apprenticeships (*apprendistato di alta formazione e ricerca*):

Students aged 18-29 can enrol in a higher education and research apprenticeship. This scheme differs from the others in that it offers various qualifications. However, it is largely unregulated. Graduates may engage in research activities for private companies or pursue the traineeships required to access professions in law, architecture, or business consultation (INAPP et al., 2016).

In 2015, there were 410,213 trainees of all kinds (young people employed on any type of training contract), accounting for 13.6% of all 15-29-year-olds in employment. This number was 8.1% below that of the previous year. The same year, 197,138 new training contracts were created, about 17% less compared to 2014 (Cedefop, 2017).

As apprenticeship-type schemes involve on-the-job training, a work contract must be signed. This must state the responsibilities of the involved parties, the qualifications to be obtained, occupation tasks, entry and final grade levels, probationary period, terms and conditions of the apprenticeship, and wage increases. Apprentices are regarded as employees and therefore entitled to specific employee benefits, such as occupational healthcare; ageing and disability support; maternity leave; household allowance; insurance against job injuries and accidents; and, since 2013, labour social security insurance (INAPP et al., 2016).

The main actors in the regulation of apprenticeship-type schemes are social partners, the regions, and the autonomous provinces. The social partners are responsible for defining the content, provisions related to specific occupations, and tools for performing training. They also define the qualifications that can be awarded, the assessment, and the necessary requirements for companies and teachers. The other actors – the regions and the autonomous provinces – manage the training provided to the apprentices (INAPP et al., 2016).

3.2 Professional education and training (PET): post-secondary level

This chapter outlines the Italian PET system at the post-secondary level. In Italy, PET is offered either in a higher technical education and training programme (*istruzione e formazione tecnica superiore* [IFTS]) or in a higher technical institute (*istituti tecnici superiori* [ITS]). Students enrolled in an IFTS programme have the option to work towards a higher technical specialisation certificate (*certificato di specializzazione tecnica superior*), while those on an

ITS programme can obtain a higher technical diploma (*diploma di tecnico superior*). Students on an IFTS are offered nearly 500 courses and enjoy PET for two semesters (equivalent to 800-1,000 hours). They can choose one of 20 possible specialisations. In contrast, ITS courses are at least four semesters (1,800-2,000 hours), with a course lasting up to six semesters. ITS students are offered 370 courses in six different professional fields. In addition, ITS and IFTS students spend 30% of their training period in an internship (INAPP et al., 2016) (ISFOL, 2018) (MIUR, 2014).

3.2.1 Higher technical education and training programmes (*istruzione e formazione tecnica superiore* [IFTTS])

Higher technical education and training programmes (IFTTS) last two semesters (800-1,000 hours) and they include theory, practice, and lab work. The training is planned by the regions and provided by a combination of schools, vocational training organisations, universities, and business sector organisations. To enrol, a professional technician diploma (corresponding to a four-year leFP programme) is necessary. Those who do not have an upper-secondary education leaving certificate can take an admission test. The IFTTS offers 20 specialisations in the following professional fields: agriculture, industry, and manufacturing; tourism; transportation; public services and private services of public social interest; and insurance and financial services. The common subjects include languages, science, technology, law, economics, communication, and relations (Eurydice, 2018b) (ISFOL, 2018) (INAPP et al., 2016) (MIUR, 2014). Students must spend 30% of the two semesters in an internship and at least 50% of the teachers work in the business world (ISFOL, 2018).

The autonomous regions and provinces define the ITFS programmes in terms of curricula, internships, and planning documents. The regions and public administration coordinate everything in three-year plans that integrate the needs of the enterprises in the region and the training needs of the authority (INAPP et al., 2016).

In 2013, a total of 5,690 students were enrolled in an IFTTS programme (ISFOL, 2015). As shown in Figure 8, a total of 1,703 students were enrolled on 75 IFTTS programmes in three regions in 2014 (the only three to send their data) (MLPS, 2016), though there are nearly 500 IFTTS courses available. Of the 1,703 students, 83% obtained a diploma. In 2015, 1,500 students were enrolled in one of 75 courses, thus the enrolment rate has fallen slightly from the previous year (INAPP et al., 2016) (MLPS, 2016).

Table 7: Enrolment rates by region (2014)

Region	Courses	Enrolled Students	Graduated Students	In %
Emilia Romagna (Study regulation, SR 2013)	29	639	473	74 %
Lombardia (SR 2013)	11	256	246	96%

Lombardia (SR 2004)	23	527	514	98%
Toscana (SR 2004)	12	281	185	66%
Total	75	1703	1418	83%

Source: (MLPS, 2016)

Upon successful completion of the IFTS, graduates receive the higher technical specialisation certificate (*certificato di specializzazione tecnica superiore*), which is recognised nationally and across the EU. The certificate does not provide access to other higher education programmes, but the credits earned in this programme can be transferred to other higher education certificates (Cedefop, 2014).

3.2.2 Higher technical institutes (*istituti tecnici superiori* [ITS])

Higher technical institutes (ITS) are highly specialised technical schools. Legally speaking, they are ‘foundations’ and composed of different institutions: (i) a higher secondary education institution (either private or public) belonging to a technical or vocational association, (ii) a training provider accredited by the region for higher education, (iii) an enterprise in one of the sectors covered by the ITS programme, (iv) an university department or other body, or (v) a local authority. To enrol in an ITS, candidates need to have at least successfully completed upper-secondary education. The programme lasts four semesters (1,800-2,000 hours), of which 30% must be spent working in an internship. If a ITS programme takes place in cooperation with a university, it may last six semesters (Cedefop, 2014) (INAPP et al., 2016) (MIUR, 2014).

The goal of these schools is to meet the labour market demands of the technical and technological sectors. Currently, there are 93 higher technical institutes, offering 370 courses, of which 97 courses were monitored in 2017. The 370 technical courses are offered in the following areas: energy efficiency, sustainable mobility, new life technologies, new technologies ‘made in Italy’, innovative technologies for cultural heritage activities, and information and communication technologies. Figure 9 shows these six technical areas and their respective numbers of monitored courses (INDIRE, 2017) (MIUR, 2014).

Table 8: The six technological areas and the number of monitored courses (2017)

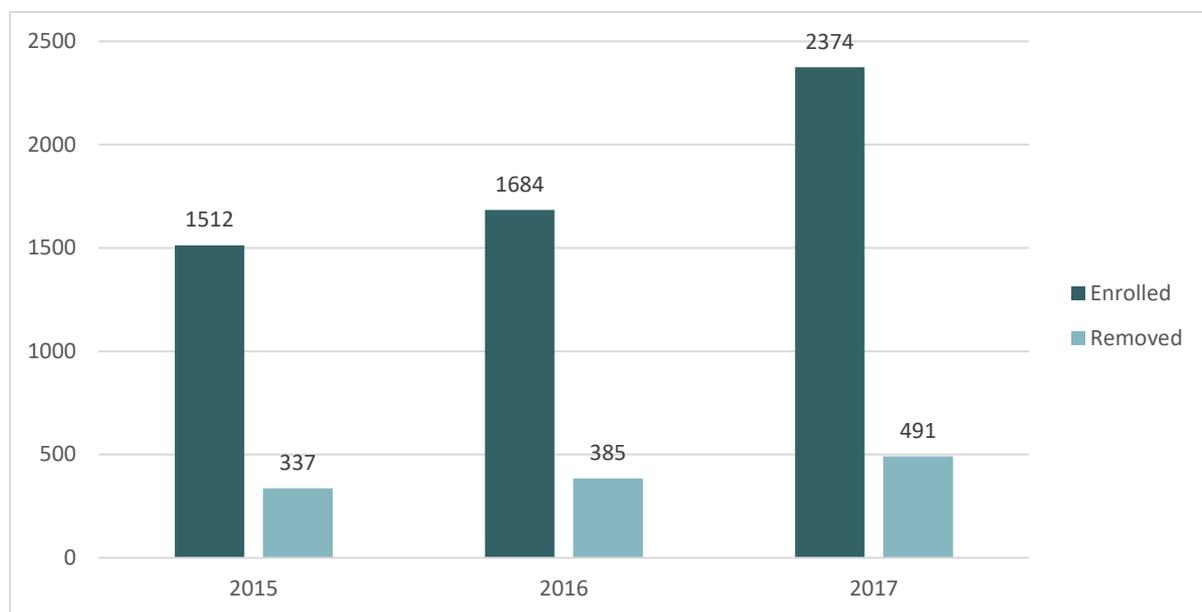
Technical Area	Number of courses
Energy efficiency	13
Sustainable mobility	19
New life technologies	3
New technologies for ‘made in Italy’	46
Innovative technologies for cultural heritage activities	8
Information and communication technologies	8
Total	97

Source: (INDIRE, 2017)

The curricula cover basic competencies, such as languages, communications and public relations, science and technology, law and economics, and organisation and management, as well as technical competencies. At least 50% of the teachers must come from the business

world or have practised in the relevant technical field (Cedefop, 2014) (MIUR, 2014). A total of 2,034 partners are involved in the definition of curricula and competencies. This figure includes business associations, companies, local authorities, training agencies, employers' associations, and more (INDIRE, 2017). In 2017, a total of 8,589 students were enrolled in the 370 courses. Of these, 2,374 were enrolled on one of the 97 monitored technical courses and, as shown in Figure 10, 491 had withdrawn. Compared to 2016 (1,684) and 2015 (1,512), more students were enrolled and fewer had withdrawn (INDIRE, 2017). In 2018, the number of enrolled students and courses offered increased. Currently, 10,447 students are enrolled in 429 courses (INDIRE, 2018).

Figure 8: Monitored students in the 97 monitored technical courses



Source: (INDIRE, 2017)

Upon successful graduation, students receive a higher technical diploma (*diploma di tecnico superiore*). This qualification gives direct access to the labour market or to university (MIUR, 2014) (INAPP et al., 2016).

3.3 Regulatory and institutional framework of the vocational and professional education training (VPET) system

3.3.1 Central elements of the vocational and professional education training (VPET) legislation

The national government plays a key role in the governance of the education system. According to the Italian constitution, the state has exclusive power to make general rules for education. The state and the regions have shared legislative responsibility for education, except of parts of the VET system and the autonomy of schools and other institutions (Italian

Constitution, 2018), where the role of managing the VET system was transferred from the state to the regions in the constitutional reform in 2001.

The legislation on VET in Italy is dealt with by the framework law 845/78. According to this, the regional authorities are exclusively responsible for the programme-planning process and are supported by the social and economic partners and local training institutions with advisory and promotional functions. In accordance with the guidelines established at national level, the tasks of the regional authorities include setting medium- and long-term goals by analysing the needs of the labour market and monitoring the efficiency and effectiveness of training measures. The regional authorities are exclusively responsible for both VET and PET. Occasionally this power is exercised by delegating or transferring a number of functions to the provincial authorities. The adoption of Law 236/93 was a step towards the acknowledgement of training as a strategic resource for young people, workers, and enterprises, and this enabled the structuring of a national professional training system. In addition, the collective agreement signed by the government and the social partners in September 1996 promised an open innovation strategy for the system (ISFOL, 2008) (ISFOL, 2015).

Law 144/99 later led to the reform of VET and launched the IFTS. According to Article 69 of this law, the IFTS is intended to expand the training offered to students (Italian Parliament, 1999). Law 388/00, amended in 2002 (Law 289/02), led to the establishment of joint-professional funds to support the VPET system for company, sectoral, and regional training plans that complement the work of the regional authorities in the VPET system. The social partners under the monitoring of the MLSP manage these joint professional funds, which are financed by a fee of 0.3% of the companies' payroll costs (ISFOL, 2008).

In 2003, Law 28/03 no. 53 was introduced. This regulates the delegation of powers to the government to establish general educational standards and essential performance levels in VET. The following year (*decreto interministeriale 3 dicembre 2004, n.86*), an inter-ministerial decree between the MIUR and MLPS regulated the approval of certification models for the recognition of credits for transition from the VET system and teaching to the education system (ISFOL, 2008).

The legislation on the VPET system was reorganised by a decree by the president of the Council of Ministers (DPCM) on 25 January 2008. The DPCM contains the guidelines for the reorganisation of VPET system and the establishment of the higher technical institutes. In addition, it is a regulatory framework that divides the professional education into two segments – the newly established ITS (*istituti tecnici superiori*) and the IFTS courses – with new standards of training defined through this decree (ISFOL, 2015).

The reorganisation progressed further until 2012 and included the following:

- the identification of the areas of reference within the technological areas (MIUR-MLPS Concert Decree of 7 September 2011)¹⁴
- the referencing process that, according to the indication contained in the aforementioned DPCM, implied that ITS and IFTS paths were correlated with the different levels of the European Qualifications Framework (EQF)
- the reorganisation of the five-year technical and professional status education, which ended with the definition of new training objectives and standards of competence.

In 2015, state regulatory measures for the labour market and education field were introduced. This included apprenticeship reform under the Employment Act (Legislative Decree 81/15) and school reform (Law 107/15 'Good School Reform'). These reforms confirmed the importance of technical training and provided an incentive for the development of the 'long chain of vocational training', or an integrated training system that made the leFP (*percorsi triennali e quadriennali di istruzione e formazione professionale*) coherent with IFTS and ITS. This enabled leFP graduates to continue their path of specialisation to a higher technical degree (INAPP et al., 2016).

3.3.2 Key actors

a) Vocational education and training (VET)

Government

The MIUR and the MLPS are the two main bodies responsible for the VET system, though the regions and autonomous provinces also have some responsibility (INAPP et al., 2016) (MIUR, 2014). The MIUR is responsible for the basic structure of the national school programmes for higher technical education, while the MLPS is forms the basic structure for regional education and vocational training courses. The regions and autonomous provinces are responsible for the planning, organisation, and provision of vocational and technical schools, as well as le-FP programmes and apprenticeship-type schemes (INAPP et al., 2016) (MIUR, 2014).

The MIUR includes several institutions and agencies operating at national level:

- the National Education Council (*Consiglio Nazionale della Pubblica Istruzione*), an advisory body that assists the Minister in planning and monitoring education policy

¹⁴ Decree of the Ministry of Education, Universities and Research in agreement with the MLPS, adopted pursuant to Law no. 144 of 17 May 1999, article 69, paragraph 1, containing general rules concerning ITS diplomas and related national reference figures, verification and certification of competences as per articles 4, paragraph 3, and 8, paragraph 2, of the Prime Minister's Decree of 25 January 2008.

- the National Institute for the Evaluation of the Education System (*Istituto Nazionale per la valutazione del sistema di istruzione* [INVALSI])
- the National Institute for Documentation, Innovation and Educational Research (*Istituto Nazionale di Documentazione, Innovazione e Ricerca Educativa, INDIRE*), which is in charge of monitoring higher technical education (PET) and adult education.

Representation and advisory bodies

Social partners are a heterogeneous group of trade associations and employers' associations that play a crucial role in vocational education in Italy. Law 845/78 recognises them as partners of the regions in training plans and training schemes (ISFOL, 2008).

The stable institutional bodies responsible for relations between the education system and the economy are essential, not only for the ratification of planning documents but also for the exchange of information on training and professional needs of the regions. The institutional commissions are also the preferred conversational partner for assessing the results. In all regions, for example, there are three-party commissions in which the social partners are involved in issues relating to work and vocational training. The powers and functions of the three-party commissions are generally advisory, but they sometimes have power of instruction over the actions of the executive. In addition, all regional administrations have long had monitoring committees including social partners and representatives of the MLSP and the EC for the planning and management of the European Social Fund (ESF). The social partners are also more closely involved in the decision-making phases and in the preparation of instruments for managing the system (MLPS, 2016).

Table 9: Responsibilities of social partners on different levels

	Responsibility
National Level	Definition of the institutional framework Management of Joint-professional funds
Regional Level	Definition of the institutional framework Management of Joint-professional funds Provision of learning opportunities
Enterprise Level	Definition of training activities Development of training plans

Source: (ISFOL, 2008)

Table 7 shows the responsibilities of the social partners. They are integrated on all levels, though the extent of inclusion can differ. In most cases, they hold an advisory role – for example, in the definition of the institutional framework on the national and regional levels. As mentioned above, they manage the inter-professional funds under the supervision of the MLPS at the national at regional levels, which is an important part of the funding for the VPET system; thus, they have a direct function. The same is true for the development of training plans at the enterprise level.

Education and training providers

In Italy, various institutes offer VET at the upper-secondary level. Students enrolled in technical school programmes (*istituti tecnici*) can acquire skills, knowledge, and competencies in technical tasks. In contrast, those enrolled in vocational school programmes (*istituti professionali*) can acquire practical and theoretical education to support careers in production fields of national interest. These institutes operate under the supervision of the MIUR (INAPP et al., 2016) (MIUR, 2014).

Another possibility is a three- or four-year leFP vocational programme (*percorsi triennali e quadriennali di istruzione e formazione professionale*). These programmes are designed and organised by the regions. While the MLPS sets the framework, the regions and local authorities remain fairly autonomous in planning, organising, and providing the programmes, which are then delivered by training agencies or upper-secondary vocational institutes. Regions can accredit training agencies in accordance with specific criteria defined by an agreement between the regions and the state. The Institute for the Development of Professional Training for Workers (*Istituto per lo sviluppo della formazione professionale dei lavoratori* [ISFOL]) is the reference point for research and monitoring, policy, and advice to the regions (Cedefop, 2014) (INAPP et al., 2016) (MIUR, 2014).

For the apprenticeship-type schemes, the regions and autonomous provinces, in agreement with the social partners and the public education and training centres, decide on the duration of contracts and the organisation of programmes and ensure that they are compatible with full school curricula. They also define the skills to be acquired through on-the-job training in the company. In the absence of a regional scheme, ad hoc agreements between training institutions and companies are possible.

b) Professional education and training (PET)

Government

The MIUR and the MLPS are the two main bodies responsible for the PET system. The MLPS sets the framework and the goals of the PET, while the regions and autonomous provinces are responsible for planning, organisation, and provisions of ITS and IFTS (INAPP et al., 2016) (MIUR, 2014). The MIUR is another actor involved in setting the framework for the ITS (INAPP et al., 2016).

Representation and advisory bodies

The goals of PET are set by the MLPS, with the activities managed by the regions, autonomous provinces, or social partners. Social partners play an important role in promoting company-level training plans (single companies or groups) to be financed by the regions or by joint inter-professional funds (Cedefop, 2014). As mentioned previously, the social partners under the

supervision of the MLPS manage the joint inter-professional funds for professional training (*Fondi paritetici interprofessionali nazionali per la formazione*) (Cedefop, 2014).

Education and training providers

As stated, the MIUR and the MLPS are involved in setting the framework for PET. The autonomous regions and provinces define the ITFS and ITS programmes in terms of curricula, internships, and planning documents. The regions and public administration coordinate everything in three-year plans that integrate the needs of the enterprises in the region with the training needs of the authority (INAPP et al., 2016) (MIUR, 2014).

3.4 Educational financing of the vocational and professional education training (VPET) system

The financing of vocational education is covered by various parties, including the EU, the MLPS, the Ministry of Education, University and Research, the regions, the local authorities, private companies, and other private institutions. The EU contribution comes primarily from the ESF. The Ministry of Labour is the central institution responsible for financing VET. As mentioned earlier, in the course of the constitutional reform of 2001, the role of managing the VET system was transferred from the state to the regions, which can delegate the operation of financial matters to the provinces. The Ministry of Labour has been the main player in financing vocational training, while the MIUR offers and finances schooling and VET in secondary schools (ISFOL, 2008). Moreover, social partners play an important role in promoting company-level training plans, which are financed either by the regions and autonomous provinces or by joint inter-professional funds. The regions and the autonomous provinces manage VPET and benefit from national funding and from the ESF. Social partners, under the responsibility of the MLPS, manage the joint inter-professional funds (*fondi paritetici interprofessionali nazionali per la formazione*), which are today the major funder of PET (Cedefop, 2014).

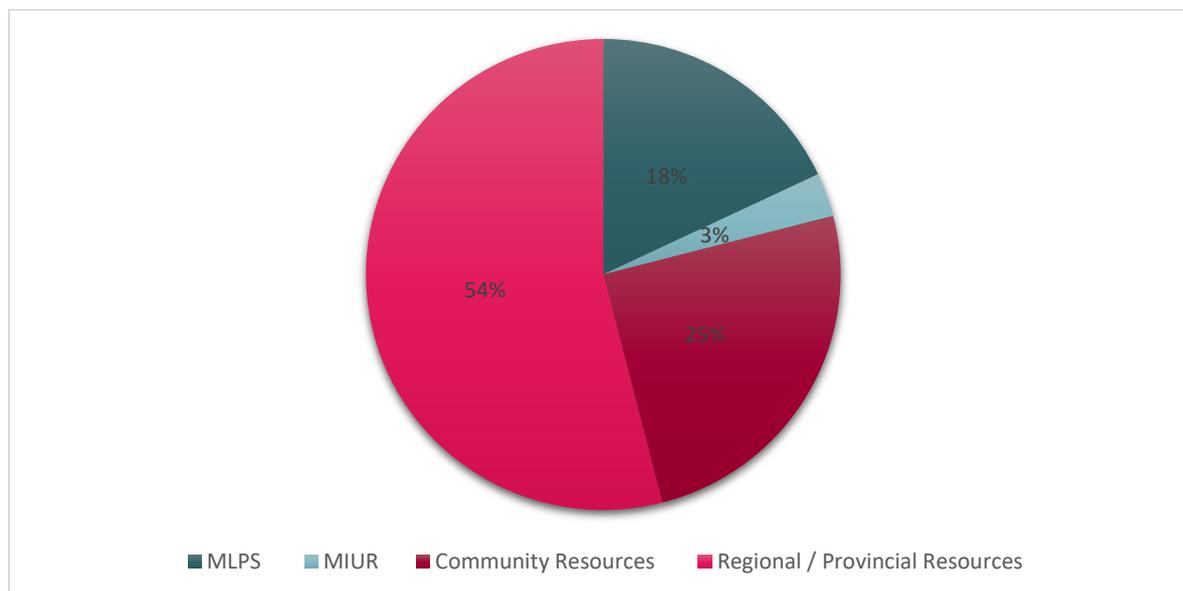
3.4.1 Educational financing of the vocational educational training (VET) system

LeFP

In 2014, a total of EUR 516,171, 765 was spent for this programme, a decrease of 20% as compared to 2013. National data suggest total funding of EUR 486,399,972, down 17% from the previous year. Figure 11 shows the partners involved in the funding of the leFP programmes and their respective shares. We can see that the regions and provinces are the primary actors, providing 54% of the funding. The other parties are the MLPS, the MIUR, and community resources. In 2014, the MLPS funded 18% of the required resources, while the MIUR funded 3%. The funding from these ministries has fallen over the years, with the support

of the community resources – which amounts to 25% – becoming increasingly important for providing the youth with leFP programmes (INAPP et al., 2016).

Figure 9: Funding of leFP courses in 2014 (%)



Source: (INAPP et al., 2016)

Apprenticeship-type schemes

The MLPS distributes financial resources to the regions for vocational training and monitors the implementation through its agencies, ANPAL and INAPP. By Legislative Decree 150/2015, 54 million euros were allocated to finance VET in 2015/2016 and 2016/2017. As in the leFP programme, the MIUR is generally responsible for the funding of schools (Cedefop, 2017).

Regions and autonomous provinces are responsible for planning and organising regional vocational training programmes, which they finance through MLPS funds and their own resources (Cedefop, 2017).

Technical and vocational schools (*istituti tecnici* and *istituti professionali*)

As these pathways are school-based, the MIUR finances schooling and VET in secondary schools (ISFOL, 2008).

3.4.2 Educational financing of the professional education and training (PET) system

The management of the PET system falls in the responsibility of the state governments and the social partners. Compared to the VET system, fewer resources are available for PET (INAPP et al., 2016).

From a financial point of view, the role of the regions has been weakened by the suspension or repeal of Laws 235/93 and 53/00 (which traditionally governed the financing of training,

introduced in pre-crisis times). The need to respond to the effects of the crisis has led to a significant reduction in funding of more than one billion euros in 2009-15. Even as the crisis-related economic emergencies came to an end, the reductions in public funding for PET were continued. In particular, the budget was reduced by 120 million euros from 2016 onwards. In this context, the joint inter-professional funds became increasingly important and are currently the only financial instrument at the national level to promote PET. In October 2015, around 930,000 companies and 9.6 million employees joined the inter-professional funds. In some regions and in some sectors, there is almost full representation of all active enterprises (INAPP et al., 2016).

The main objectives of inter-professional funds, introduced by Law 388/2000 (in force since September 2003), are as follows:

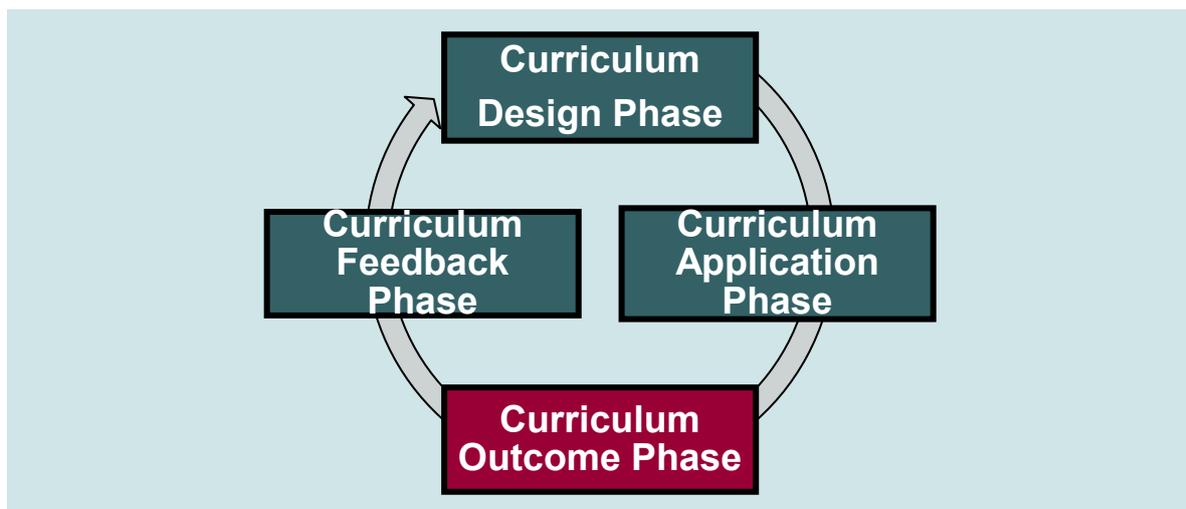
- promotion of professional training practices in Italian companies through structured and established policy;
- subsidising training initiatives that provide workplace relevant training;
- use the contribution paid by companies and employees (one-third, 0.3% of their salary/payroll, is paid by the employee and two-thirds by the company) to cover all expenses related to the implementation of the training programmes.

From a business point of view, inter-professional funds are set up as associations through inter-confederal agreements between the social partners and are approved for operation by the Ministry of Labour. From 2004 to 2015, the inter-professional funds collected around 5.2 billion euros, with an average annual sum of 450 million euros. Approximately 85% of this was allocated to training, with the remaining 15% used to cover administrative costs. The annual contribution depends on two factors: contract dynamics (as it is a percentage of salary) and level of employment. As the performance of these two variables has declined over the last five years, a decrease in the annual fund volume has been recorded (INAPP et al., 2016) (ISFOL, 2013). Moreover, 400 million euros was paid by the ESF to support the PET. The MLPS, the regions, and the provinces are the authorities responsible for the ESF and Laws 236/1993 and 53/2000 (ISFOL, 2013).

3.5 Curriculum development

The curriculum is a central element in the functioning of a VPET system, defining its framework and (quality) standards. The development of a curriculum is a three-step process, comprising the phases of curriculum design, application, and feedback. This theoretical concept is known as the 'curriculum value chain' (CVC) and it is depicted in the image below (for more detail, see (Bolli, et al., 2016)).

Figure 10: Curriculum value chain (CVC)



Source: (Bolli, et al., 2016)

In the curriculum design phase, the relevant actors decide upon the VET curriculum content and qualification standards. The discussion in the section below focuses on the degree and amount of stakeholder participation in curriculum design in Italy. The curriculum application phase revolves around the implementation of the curriculum. As learning environments differ substantially between countries – especially with respect to the prevalence of workplace learning – the curriculum application phase subsection of this Factbook focuses on those learning environments. Specifically, it addresses where learning takes place and whether the curriculum dictates both school and workplace learning or just one of the two. Finally, curriculum outcomes are collected and analysed in the feedback phase. This evaluation process is important as it may render a more refined curriculum design than was initially possible.

3.5.1 Curriculum design phase

The design phase is crucial for the curriculum process as a whole. To ensure that the skills taught in the VPET programmes correspond to the needs of the labour market, experts from various companies are involved in defining the qualification standards and learning content of the curricula.

Apprenticeship-type schemes

The regions design the curricula for vocational training programmes based on the training standards established at the national level by the Conference of Countries and Regions (Cedefop, 2017).

The MIUR defines the national learning outcomes for the state system education programmes that schools use to design curricula. The allocation of training content and learning outcomes

to educational institutions and enterprises is defined in the individual training plans (ITP). The ITP is designed in accordance to the curricula of the school programmes which grant the same degree, describing curricular training standards in the form of learning outcomes. In the official format, each learning outcome should refer to a 'learning unit' (i.e., a competency or subject, as described in the relevant qualification) and possibly to the national list of qualifications (Cedefop, 2017).

The ITP should also indicate which training delivery mode is associated with each learning unit: classroom, workplace, action learning, e-learning/distance learning, individual exercises, group exercises, company visits, or other form. Learning units are usually translated into a plan of activities, tasks, and operations for each year, which includes both internal and external formal training. As the name suggests, the individual training plan is highly individualised and usually depends on the trainee's entry profile. The entry profile contains the age, last completed formal qualification, number of training years completed, and the gap between the learning outcomes required for the final qualification, as well as the knowledge and skills required to work in the company, which depends on company-specific tasks and activities (Cedefop, 2017).

Technical vocational schools and three- and four-year leFP programmes

To ensure that education and training are the same for all types of school (general and vocational), the MIUR defines the knowledge and competencies that all pupils must acquire through their compulsory education. These are integrated into the upper-secondary curricula, which are specific to each type of school (Eurydice, 2018b). The curricula of technical and vocational schools are then defined in the national guidelines (*linee guida*), which are issued separately for technical and vocational studies (Eurydice, 2018b). The national guidelines define the specific knowledge and skills that a student must acquire for each sector and branch of specialisation in each subject included in the curriculum. In addition, the guidelines include the student's PECUP, which is what the student must know by the end of their technical or vocational training (Eurydice, 2018b).

To some extent, the MLPS is part of the curriculum design, as students enrolled in three- and four-year leFP programmes engage in school- and work-based learning. The regions, local authorities, and social partners are also involved, as they know the needs of the labour market of the region (INAPP et al., 2016) (MIUR, 2014).

Istituti tecnici superiori (ITS) and istruzione e formazione tecnica superiore (IFTS)

The MLPS sets the framework and the goals of the PET, while the regions and autonomous provinces are responsible for the planning, organisation, and provisions of the ITS and IFTS (INAPP et al., 2016) (MIUR, 2014). The MIUR is involved in setting the framework for the ITS

(INAPP et al., 2016). According to this framework, the regions and autonomous provinces develop their curricula. The social partners are also involved, as they provide the regions with advice on the needs of the labour market. Thus, in accordance with the national framework, the regions and autonomous provinces define the curricula together with the ITS and IFTS providers. In addition, the social partners influence the curricula by offering internships (Cedefop, 2014).

3.5.2 Curriculum application phase

The way in which a curriculum is implemented – especially with respect to learning environments – is important to ensure the intended learning outcome. As described in section 3.1.2, while vocational training in vocational institutes (*istituti tecnici* and *istituti professionali*) is entirely school-based, vocational training in leFP programmes and apprenticeship-type schemes contains school-based and work-based components. PET programmes include school- and work-based components, as the students must complete at least 30% of their education in an internship; thus, they are similar to the VET programmes (MIUR, 2014).

3.5.3 Curriculum feedback phase

The Autonomous National Institute (*Istituto nazionale per la valutazione del sistema educativo di istruzione e di formazione* [INVALSI]) appraises the quality and effectiveness of vocational training in vocational institutes (*istituti tecnici* and *istituti professionali*). Every three years, INVALSI receives the strategic priorities on which it will base its appraisals; and the results of the evaluation are transmitted to the MIUR, which informs the Italian parliament (OECD, 2017e).

The National Institute for Public Policy Analysis (INAPP) is responsible for the monitoring of the standards of the three- or four-year leFP programme (OECD, 2017e).

School evaluation is conducted through the national evaluation system (*sistema nazionale di valutazione* [SNV]). This three-year process, which began in 2014/2015, comprises self-assessments, a combination of internal and external information on school performances and improvement actions. Additionally, the schools' Board of Auditors takes control of the administrative and financial processes; and, at the school level, school managers and teachers' assemblies supervise quality assurance (OECD, 2017e).

Quality management of the PET programmes is conducted through internal and external evaluations by the National Agency for the Evaluation of the University and Research System (*Agenzia Nazionale di Valutazione del Sistema Universitario e della Ricerca*, [ANVUR]). The aim of ANVUR is to evaluate higher education institutions and increase meritocracy in Italian research (OECD, 2017e).

3.6 Supplying personnel for the vocational and professional education training (VPET) system (teacher education)

Vocational education for teachers is strictly regulated by the Ministry of Education. Universities provide initial teacher training on behalf of the Ministry and in cooperation with schools. To become a teacher in the VPET system, a five-year academic degree master's degree in a selected subject area is required, along with a one-year internship in a school (*tirocinio formativo attivo* [TFA], an active teaching traineeship). This includes face-to-face learning, workshop activities, and practical work experience in schools under the supervision of a teacher (tutor) (ISFOL, 2013).

4. Major reforms

Recent policies have sought to increase education levels among the youth and to counter high rates of unemployment. One recent policy was the Good School reform of 2015 (*La buona scuola*), intended to improve educational outcomes by increasing school autonomy and attracting new teachers with better salaries, including a merit-based component. The main goal of the reform was to further improve students' digital innovation skills. The EU helped to fund the national operational programme for 2014-2020, '*Per la Scuola: competenze e ambienti per l'apprendimento*' ('For school: skills and learning environments'). The objective of the programme is to improve educational equity, quality, lifelong learning, links between school and work, technical and vocational education, education infrastructure, administrative and institutional capacity, and resource management. Furthermore, the programme aims to reduce regional performance differences by decreasing the early school-leaving rate of 18-24-year-olds. The national system for evaluation of schools was launched to support these goals. It aims to support the reforms and strengthen work-based learning at the upper-secondary school level and in vocationally oriented tertiary education. As part of its efforts to achieve its objectives, Italy has since made internships mandatory for students at the upper-secondary level (OECD, 2017e).

Moreover, Italy was reforming its VET system at the time that this Factbook was being written (2018). This reform could lead to improved employment prospects for VET graduates. A Legislative Decree in April 2017 made changes to state vocational institutes, creating more synergy between the different VET systems at the regional and national levels. From the 2018/19 school year, all state vocational institutes' curricula will include more study pathways. Curricula will be organised according to the sector priorities expressed by regional governments, and VET providers will be embedded in a national network (*rete nazionale delle scuole professionali*). In 2017, an extra 25 million euros will be allocated to apprenticeship-

type schemes; and the existing tax incentives for private employers to facilitate youth employment will be extended to 2018 (European Commission, 2017).

The Jobs Act (2015) amended the apprenticeship system. As part of this change, apprenticeships leading to a vocational qualification or diploma were integrated into regional vocational training systems with a duration of 3-4 years, as a dual system for schools and companies. With an additional year of training, they now provide access to vocational higher education (OECD, 2017e).

4.1 Major challenges

The educational completion rates in Italy are below the EU average. The tertiary education rate for 30-34-year-olds is the lowest in the EU (25.3% in 2014), slightly below the national target of 26-27% for Europe 2020. In addition, the dropout rate (14.7% in 2015) remains well above the EU average (11%), although it is below the national target of 16% for Europe 2020. Work-supported learning has increased in recent years, but it remains insufficiently developed; and entry into the labour market is difficult for young people, including the highly skilled (OECD, 2017e).

The career prospects of vocational teachers are limited. There is just one career path, with fixed salary increases depending exclusively on length of service. The legal wage level of Italian teachers at all career levels is below the OECD average and is low compared to other workers with higher education. Limited career prospects, combined with relatively low wages compared to other highly skilled occupations, may make it difficult to attract the best-qualified graduates to the teaching profession (OECD, 2017e).

A major school reform adopted in 2015 could improve school outcomes. The reform gives schools more autonomy and introduces limited performance-related elements into teachers' salaries. The introduction of the national school evaluation system will support the reform by strengthening the social responsibility of schools. The school reform also strengthens work-based learning in upper-secondary and higher vocational education. In the last three years of upper-secondary education, there are compulsory work placements for pupils. The EU sees this measure as a step in the right direction, as it could contribute to improving education and training and thus to better meeting the needs of the labour market (OECD, 2017e)

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