

The changing nature and role of vocational education and training in Europe

WORK ASSIGNMENT 2

External factors influencing VET - Understanding the National Policy

Dimension: Country Case Studies

AO/DSI/JP/Changing_Role_of_Vet/009/15

Case study focusing on Italy

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The changing nature and role of vocational education and training – overall aims

The purpose of the Changing nature and role of VET-project is to improve our understanding of how VET is changing in the countries belonging to the European Union (as well as Iceland and Norway). Over a three-year period (2016-18) the project will analyse how vocationally oriented education and training has changed in the past two decades (1995-2015) and based on these results investigate the main challenges and opportunities facing the sector today and in the future. Work is divided into six separate but interlinked themes:

- (a) the changing definition and conceptualisation of VET;
- (b) the external drivers influencing VET developments;
- (c) the role of traditional VET at upper secondary level;
- (d) VET from a lifelong learning perspective;
- (e) the role of VET at higher education levels;
- (f) scenarios outlining alternative development paths for European VET in the 21st century.

The study takes as its starting point that vocationally oriented education and training is something more than the traditional VET delivered at upper secondary level (in the form of school-based education or training, apprenticeships, or combinations of these). Due to the requirements of lifelong learning, we are able to observe diversification of VET with new institutions and stakeholders involved. We also see an expansion of VET to higher education areas, partly through reform of existing institutions, partly through the emergence of new institutions. This has been caused by factors internal to the education and training system as well as by external pressures linked to demographic, technological and economic changes.

This particular case study, together with 9 other case studies, provides input to theme (b) of the project ('The external drivers influencing VET developments').

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Italy

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I. Introduction

Italy faces severe challenges to its economic performance and has been affected by a longstanding period of stagnation. In the last 12 years, it has been ranked in the bottom five amongst European Union Member States in terms of real GDP growth a total of nine times.¹ Skills mismatches and poor school to labour market transitions have contributed to the development of the present situation. The European Commission, through its initiatives over the last two decades, has tried to steer VET policies and provision throughout Europe. The effects of which became visible in Italy in the most recent definition of national standards and the categorisation of formal, non-formal, and informal learning; but the Italian VET system is not yet at the level of the most advanced Member States.

Legislative changes have affected Italian initial VET² since the system was first created in the 1950s, when training was targeted mainly at young people with low skill levels. The system was later decentralised (to the Regions), to take into account the differences that existed in the country (e.g. in terms of employment levels) and reflect what was originally envisaged in the Italian Constitution. Moreover, VET provision was increasingly diversified and the duration of apprenticeships was extended over the following three decades. Since the 1980s, Italy's VET system started to face economic challenges including de-industrialisation, the role of work for social inclusion, the adaptation to technological change, and the mission of providing life-long learning to avoid skills obsolescence. Regional VET, however, did not fully live up to these challenges, and in the 1990s it entered a period of decline which lasted until the 2000s, when it became part of the national training and education system and started to reflect its current form.

Regional VET is composed of three main segments (all of them available via apprenticeships as well as the school-based route):

- three and four year (3+1) programmes;
- post-secondary higher technical specialisation programmes; and
- post-secondary higher technical programmes.

Today the regional system covers a modest number of participants (both in absolute and in relative terms, compared with upper secondary national vocational programmes and national technical programmes), and it is strongly concentrated geographically. In comparison with other European countries, common factors that could affect the role of the system (such as demographic and macroeconomic challenges) seem to play a minor role. The major challenge faced is technological change, given that skills mismatch remains widespread in Italy. The VET system continues to focus on providing skills for the manufacturing sector (characterised by low to medium skilled workers) and SMEs, normally characterised by low R&D investment and a non-strategic approach towards innovation. For these reasons, internal factors such as the division of competences in the VET system at the regional and national levels remain amongst the most relevant in shaping it. The *La*

¹ Source: Eurostat.

² In accordance with WAI's conclusions, VET system in Italy will be identified with initial VET under Regions' and Autonomous Provinces' formal responsibility.

Buona Scuola reform (2015), although largely focused on upper secondary education, also gave regional initial VET the capacity to invest in strengthening the cooperation with companies; which is potentially the most important way to address its challenges.

2. What is meant by VET and the national VET system

The most direct VET definition for Italy is the *Istruzione e Formazione Professionale* (IeFP) system, which exactly translates to Vocational Education and Training. Yet, as explained in the deliverables linked with WAI of this project, a broader definition includes segments that relate to what is generally meant by VET at the European level. Following a broader definition, the current Italian system is composed of the following blocks: three and four year programmes, on one side, and post-secondary higher technical programmes (lasting 1-2 years depending on types), on the other. The final qualifications of all the above mentioned programmes may also be achieved through apprenticeships. In more detail:

- IeFP programmes (*Percorsi triennali e quadriennali di istruzione e formazione professionale*) last three or four years under the remit of the Regions and Autonomous Provinces, as a consequence of the latest reforms in 2011. They are characterised by national level standards concerning basic, as well as technical and vocational skills for both, Certificate (three years) and Diploma (one additional year), and for granting nationally valid final certifications. They are targeted at learners aged 14-17 years, and 17-18 years respectively; and
- post-secondary higher technical training, i.e. IFTS (acronym for *Istruzione e Formazione Tecnica Superiore* - High Technical Specialisation programmes) and ITS (*Istituti Tecnici Superiori* - Higher Technical Institutes³ which deliver higher training programmes). These programmes are organised by Regions and Autonomous Provinces in cooperation with the Ministry of Education following territorial plans updated every three years. They were last reformed in 2008⁴, and award a higher technical specialisation certificate and a higher technical education diploma respectively. They target people from 18 years onwards.

As already highlighted, the previously mentioned programmes may also be undertaken through apprenticeships. In particular, the so called ‘Type 1’ apprenticeship (*Apprenticeship for vocational qualification and diploma, upper secondary education diploma and high technical specialisation certificate*⁵) allows the achievement of all the initial regional VET qualifications except those of the higher technical programmes, which may be obtained through the so-called ‘Type 3’ apprenticeship (*Apprenticeship for Higher Training and Research*⁶). Apprenticeships have been affected by legislative changes seven times since 2003, and are currently regulated by a legislative framework introduced in 2015.

Similarly, regional VET has seen several reforms in the past 20 years, often spurred by EU initiatives (see section 3 on the VET system’s historical development). These changes have led to a new role for VET, which has moved from being a part of active labour market policy, to part of the national education and training system. This has meant that VET students began to pursue learning objectives on top of employment ones. Reforms also led to a broader provision of training within regional initial VET, involving both public and private providers, thus allowing upper secondary schools to take

³ See below for details.

⁴ DPCM from 25th January 2008.

⁵ In Italian *Apprendistato per la qualifica e il diploma professionale, il diploma di istruzione secondaria superiore e il certificato di specializzazione tecnica superiore*.

⁶ In Italian *Apprendistato di Alta Formazione e Ricerca*.

part in VET provision. This horizontal expansion was coupled with a vertical one, which resulted in students spending more time within the system. This new framework of strengthened VET led to the broadening of the upper secondary provision of VET, and to the gradual activation of a post-secondary system which allows students to reach a further qualification level outside the university system, and is in strong cooperation with the business sector.

Finally, in regard to qualifications, the reforms of the last 20 years led VET to cover a wider range of categories within the European Qualification levels, namely: at level 3 - through three-year qualification programmes and apprenticeships; at level 4 - through VET Diploma programmes, apprenticeships, and Higher Technical Specialisation programmes; and at level 5 - through Higher Technical programmes and apprenticeships.

3. The historical development of VET in Italy

The most recent history of regional initial VET in Italy can be divided into three main periods:⁷

- From 1950 until the mid-1980s: in which initial vocational training developed as a specific training supply positioned outside of the mainly State controlled school system. The responsibility for programming and managing initial vocational training was transferred from the State to the Regions⁸ in order to increase the proximity of supply to local labour markets and to improve the response to the economic systems' needs.
- From the mid-1980s until 2000: in which the initial vocational training targeted at under-18s lost its relative weight, in terms of the share of participants, as a consequence of European Social Fund (ESF) funding. This funding allowed the Regions to widen their training supply to include new target-populations. One direction was targeting students to deliver an upper secondary education certificate through post-secondary level vocational training. Another direction was the involvement of *vulnerable target groups, such as early school leavers*. And the third direction – which has retrospective importance - was the involvement of employed and unemployed adults through continuous vocational training and lifelong learning schemes. This development was down to: the availability of large funding resources; the growing importance of meeting the training needs of new groups; and the need of Regions to strengthen their position in the institutional arena through increasing the volume of training activities under their direct responsibility.
- From 2000-present day: in this last period, many reforms affected initial vocational training and all of them were aimed – with different emphasis and solutions – at definitively placing initial vocational training within the national education system. In addition, all reforms have been oriented towards giving the initial regional vocational training a similar image and formal recognition to other education pathways implemented within the national education system. In this last period, the development and institutionalisation of tertiary level non-academic initial vocational training, in cooperation with upper secondary education schools, has and continues to receive a lot of attention.

⁷ Ghergo F., “La Formazione Professionale regionale iniziale: alla riscoperta di una identità”, in: Nicoli D. (Ed.), *L'intelligenza nelle mani. Educazione al lavoro nella formazione professionale*, Rubbettino, Soveria Mannelli, 2014, pp. 269-412.

⁸ The path was different for the Autonomous Provinces of Trento and Bolzano due to their specific institutional status (but their situation will not be here described in detail).

Focusing on the 1950-mid to 1980s period, the main steps in which the initial VET system evolved may be summarised as follows.⁹

- The starting point of initial so-called *out-of-school*¹⁰ vocational training is represented by Law 456/1951 which funds training targeted at young people. It drew on a fund, established in 1949, that was previously used only for adult vocational training. The reason for this shift was that “after the end of the Second World War [the] young [in Italy] were the most critical population in [the] labour market because they were used to very early entry [into the] labour market without professional skills and with a very low level of basic skills”¹¹ (education was compulsory for five years only at that time).¹²
- The courses targeted at young people were, for about 30 years, the main form of vocational training in Italy.¹³ The courses were practical in content and method, lasted, on average, from two to eight months, and could be followed-up with advanced courses of more or less the same length. Under the responsibility of the Ministry of Labour these courses were delivered by organisations or associations which were public as well as private (but different from State schools).
- Traditionally, vocational training targeted young people and the number of participants rose from about 100,000 in 1956 to 275,000 in 1970. Additionally, the duration of courses was extended to two to three years. Public vocational schools implemented vocational courses that were tailored to specific professional programmes and shaped by national vocational education programmes. Public funding became available and led to the establishment of a growing number of organisations fully dedicated to providing vocational education.

Some very important legislative and institutional modifications occurred during this period: the first of which was the transfer of vocational training responsibility from the Ministry of Labour to the Regions (in 1972 and 1977); the second was the definition of the national-level framework legislation (in 1978). These two institutional changes are crucial for understanding the policy direction in initial VET in Italy and the consequences they had on the system in the following years. As for the transfer of responsibility to the Regions, this resulted from the Italian Constitution (Art. 117) which gives *ordinary* Regions the competence on “artisan and professional education”. The establishment of the regional vocational education system started in Italy in 1970 (25 years after the adoption of the Constitution) and the process – which was technically and politically very controversial – lasted for at least five years.

It is important to note that the Regions’ competence on “artisan and professional education” was limited to *out-of-school* vocational training only, and did not include the State-owned vocational schools. The division between the initial vocational training courses allocated to the Regions and the initial vocational education programmes allocated to the State’s responsibility, originated in a

⁹ Ghergo, pp. 308-309.

¹⁰ “Extra-scolastica” in Italian describes a system that is formally not included in the national education system.

¹¹ Ghergo, p. 308.

¹² It is important to highlight here that apprenticeship was introduced in Italy in those years (Law 25/1955) and it was defined as a channel for training young who were employed (training *through* work) while the just mentioned training was *before* entering work (in fact, in Italy it was called “formazione pre-lavorativa”).

¹³ Isfol, *La Formazione professionale come interfaccia tra scuola e lavoro*, Quaderno di Formazione, 1/1974, p. 5, Rome.

“dichotomy and parallelism between the two sectors”¹⁴ which continued throughout the history of Italian VET. This caused a “complex and confused situation” that led to the political influence of the vocational training or the vocational education system respectively, being altered. The outcome was – and largely still is – “a competition between the two systems which challenge[s] for the same spaces, funding and students [and] also leaning on the support of the two relevant Ministries” (Ghergo, p.285). The Ministry of Labour supports the regional vocational training and the Ministry of Education focuses on the national vocational education programmes/schools.

Moving on to the 1978 national framework legislation on vocational training (Law 845/1978), the main innovations were as follows.:

- Vocational training was defined as a measure belonging to active labour market policies aimed at supporting the quantitative and qualitative matching between labour demand and supply.
- Regions were made responsible for the programming of vocational training on the basis of labour market and employment data, as well as based on the socio-economic objectives established at both the national and regional levels.
- Interventions were implemented by a system of public and private training organisations.
- Regions were made to define the general framework for training content in accordance with some basic rules: pathways should be short and structured in training cycles (no more than four cycles, each lasting for no more than 600 hours); they should include alternance schemes; should be consistent with local labour markets’ needs; and should refer to occupational and/or professional qualifications.
- The target-populations of vocational training were not only to be young unemployed people or students who were not enrolled in the national education system, but also adults both employed and unemployed. In 1981, however, more than 75% of the participants in regional vocational training courses were under 18-years-old.

Finally, when analysing the period 1950-1980s, it is important to highlight that regional VET had to fulfil different roles in response to the socio-economic context of the time. In fact, in the 1950-1960s, initial vocational training was conceived as an instrument for social development and for multiplying employment opportunities; while in the 1970s, the crisis of the Italian economic system (mainly as a consequence of the *oil-shock*) gave vocational training the main task of supporting skills matching between labour demand and supply.¹⁵ Moving to the 1980-1990s, the role of vocational training continued to change and adapt to the modifications in the socio-economic context, for example:

- at the beginning of the 1980s, with de-industrialisation and the emerging so-called ‘knowledge-economy’, vocational training (also initial VET) was used to strategically support economic development;
- at the end of the 1980s, long-term unemployment emerged as a challenge together with the marginalisation of socially vulnerable groups in the labour market: vocational training was utilised as an instrument for achieving equal opportunities as well as social and occupational inclusion;

¹⁴ Ghergo, p. 284.

¹⁵ Ghergo, p. 310.

- in the mid-1990s, the economic system encouraged vocational training to “adapt” employees to the modifications derived from organisational and technological changes, on the one side, and from a *quality culture* perspective, on the other (the two elements are considered to be crucial to competition in global markets); and
- finally, at the end of the 1990s, vocational training focused on the *mission* to support individuals in developing lifelong knowledge and competences in order to improve employability and active citizenship.

In this period, an important element to mention¹⁶ is the development of a course targeted at young people with at least upper secondary education degrees, or students attending the last classes of their upper secondary education. It involves a segment of non-academic initial training, traditionally not available in Italy, consisting of courses that generally last no more than one year (if full time) and are highly specialised in terms of content and sector. The introduction of this additional supply since the 1980s is strictly linked to the *focus* of the experts’ debate on vocational training in those years, a focus which was on the “credibility and responsiveness”¹⁷ [to economic systems’ and participants’ needs] of vocational training itself. Another issue, linked with the *quality* of training outcomes, is represented by the differences that exist among regional systems in terms of general structure, the number of students, intervention architecture and duration (for the same final qualification), learning outcomes, final formal qualifications, and relevance of the cooperation with the economic system. The existence of such differences is a long-standing element of vocational training in Italy.¹⁸ The importance of flexibility and the adaptability of vocational training to local labour markets’ needs was stressed by the Regions, which were responsible for vocational training. This largely turned into a region-based *Tower of Babel* which was particularly evident in the under-18 target courses, in comparison to State upper secondary education.

This situation was one of the two¹⁹ main reason for the decline of initial vocational training in the 1990s. About 170,000 students were enrolled in initial vocational training in 1989/1990 which decreased to around 100,000 ten years later. This decline was also, for some, initiated by the vocational training system reform introduced in 1997 (through Law 196/1997) which explicitly targeted the system toward the employed (adult or apprentices) and therefore towards continuous vocational training.

The last and most recent period, which started in 2000, is the one in which – in accordance with the three main reforms of the whole education system implemented between 1999 and 2008²⁰ - the regional initial vocational training:²¹

¹⁶ Hazon F., *Introduzione alla formazione professionale. Manuale per docenti e operatori*, La Scuola, Brescia, 1986.

¹⁷ Ghergo, p. 320.

¹⁸ Isfol (Ghergo F., ed.), *Caratterizzazioni regionali del sistema di formazione professionale*, Angeli, Milano, 1980 and 1990.

¹⁹ The other being the intense discussions related to initial vocational training during the 1990s in relation to the several projects of reforming upper secondary education (where one of the most controversial points was the so-called short cycle that is the provision in upper secondary education of both three-year and five-year courses with different final qualifications (with the three years courses being mainly those belonging to regional initial vocational training).

²⁰ The so-called reforms (from the names of the Ministries of Education in charge) Berlinguer (1999), Moratti (2003) and Fioroni (2007).

²¹ See also Isfol, *XIV Rapporto di Monitoraggio delle Azioni Formative realizzate nell’ambito del Diritto-dovere di istruzione e formazione*, Rome, 2016.

- fully and formally becomes a part of the national education and training system (being recognised as able to allow under-18s to fulfil, through the participation in its courses, the so-called *Right-Duty of Education and Training*)²²;
- increased the articulation of its structure in terms of both duration of training paths (and corresponding final qualifications to be achieved) and the entry level of students' qualification;
- defined, in 2011 and 2012, a national common framework, also in terms of learning outcomes, for the final qualifications to be achieved in the regional systems (solving in this way the problem represented by the regional differences in final qualifications, durations, learning outcomes);²³
- established regulations and mechanisms in order to improve the possibility of horizontal and (above all) vertical pathways from regional vocational training systems to upper secondary, tertiary and academic education;
- increased the relevance, in terms of curricula hours, of the alternative schemes as a way to qualify the methodological profile of training pathways as well as to improve the relation between training and working contexts, also with the aim of “formally recognising the value of the *work culture*”;²⁴ and
- included upper secondary schools in the group of organisations entitled, under specific schemes, to deliver regional initial vocational training courses.

In quantitative terms, there were about 330,000 (2015) students enrolled in both three and four year vocational training courses, according to the most recent available data. Among the modifications which affected regional vocational training in the last 10 years, the definition of nationally standardised upper secondary and post-secondary level training paths was probably the most relevant. As a result of this definition, the structure of the system (three-year certificate courses, four-year Diploma courses, Higher Technical Programmes²⁵, High Technical Specialisation courses²⁶) defines in principle, a vertically integrated technical-professional system in which work-based learning through alternance schemes – also in the form of apprenticeships – is central (covering between 30 and 50% of formal training hours depending on the segment). This system, which has been strongly promoted in recent years, mainly through Law 107/2015 (the so-called “Buona Scuola” law), is envisaged to progressively become the Italian way to a *dual system* in regional VET. This is particularly relevant because of the regional VET’s two main focuses:

- ensuring that the initial certification and diploma courses largely match, also when achieved through apprenticeship, the needs of young people (and their families) for strong professional training which is able to support short-term employment, but also the social inclusion needs (through training and then employment) of a significant number of young students who experienced educational failures in upper secondary education; and

²² In Italian *Diritto-dovere di Istruzione e Formazione*.

²³ 22 final qualifications were defined for 3-years courses and 21 for 4-years Diploma courses.

²⁴ Zagardo G., Riforma Moratti: che cosa era, che cosa è, in: *Confronti*, 1, gennaio-aprile 2007, pp. 31-32.

²⁵ Established in 2008, they have a duration of 2-3 years: they are under the joint responsibility of the Regions/AAPP and the Ministry of Education.

²⁶ Established in 1999, they have a duration of 800-1000 hours and refer to a set of national-level professional profiles. They also are the joint responsibility of the Regions/AAPP and the Ministry of Education.

- making sure that post-secondary level programmes (High Technical Specialisation and Higher Technical courses, also when implemented through apprenticeship) largely match the needs of companies and local economic systems to have a young and qualified workforce which is trained through a strong partnership with a training institution.

This implies, for all the segments, the following working directions:²⁷

- To improve the funding systems (at the moment from national, regional and EU funds) in order that it is directed towards training providers that can demonstrate their ability to deliver high quality and effective training.
- To continue improving the system through the progressive definition of training and service standards, training institution accreditation, the implementation of professional profiles repositories, through monitoring and evaluation systems (which are also relevant to funding and learning outcome related issues)
- Strengthening the matching between regional/local VET systems and regional/local needs (a matching which must have different forms and mechanisms depending on the segment of regional VET in question).
- To increase the knowledge and attractiveness of regional VET amongst adults who, being parents or decision makers in organisations, may support the enrolment of young people in VET courses.

4. Changes in VET enrolment

As shown in the previous sections, Italy underwent a large number of changes which affected regional initial VET. A comprehensive tracking system for the number of people enrolled in the system is not in place. Additionally, the available information is fragmented; overlooks completion figures; and does not account for the changes that have happened in the last two decades. Moreover, going back to the 1990s, the information is only available in hard copy rather than online. With these limitations in mind, Figure 1 shows the participation in vocational educational in Italy during the period 2008-2013, where there are data for three-year certificates and four-years diploma programmes, and for apprenticeships.^{28,29,30,31}

Figure 1 also includes data for High and Higher Technical programmes for the four years available, figures that do not go above 2,000 units (while the number increases in the following years: see below). For these reasons, Figure 2 is presented on the number of people enrolled in VET certificate and diploma programmes.

²⁷ Isfol, 2016.

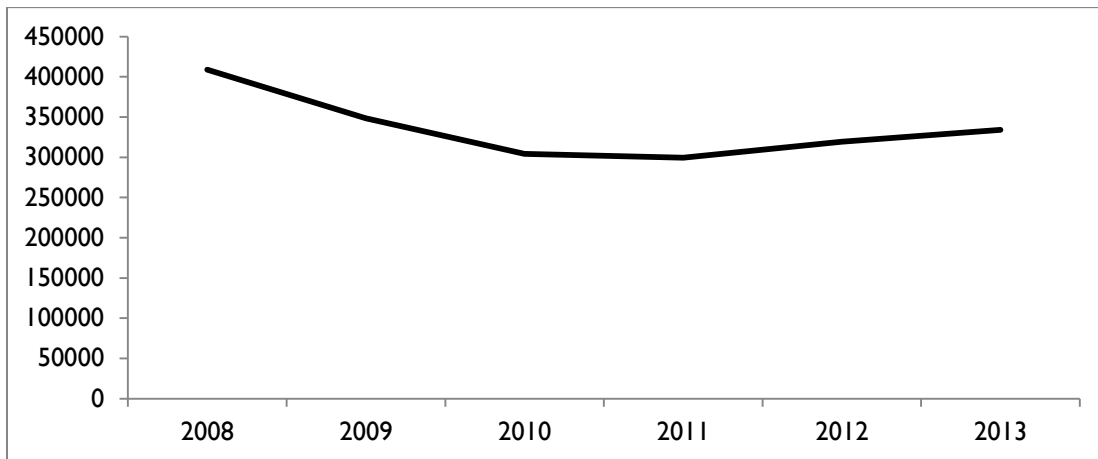
²⁸ Now INAPP.

²⁹ As for Type 3, relevant only for Higher Technical Programmes, there are exact figures only for 2013 and therefore before the actual legislative framework (in 2013 they were 508, out of an overall VET total enrolled of 334,197 apprentices in the same year).

³⁰ Legge 24 giugno 1997, n. 196 "Norme in materia di promozione dell'occupazione." (article 16). Available at: <http://www.camera.it/parlam/leggi/97196l.htm> Article 16 refers to the categorization in the apprenticeship system introduced by decree 276 of 2003 (Decreto Legislativo 10 settembre 2003, n. 276). "Attuazione delle deleghe in materia di occupazione e mercato del lavoro, di cui alla legge 14 febbraio 2003, n. 30"). Available at: <http://www.camera.it/parlam/leggi/deleghe/03276dl.htm>

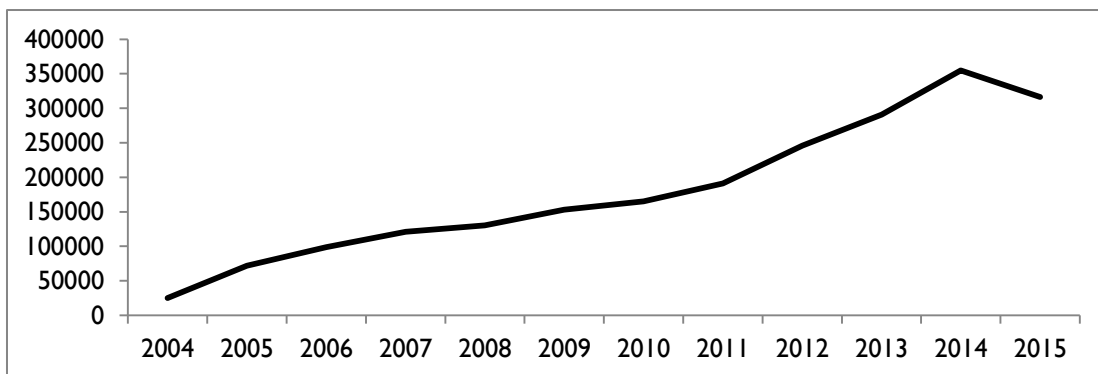
³¹ For 2013, the year for which we have the figure broken down in apprenticeship of type 1, apprenticeship of type 3, and contracts stipulated under law 196 from 1997, these are 3405, 508, and 37672.

Figure 1: Participation in regional vocational education in Italy 2008 - 2013



Source: own calculation based on data from ISFOL and Italian Ministry of Education.

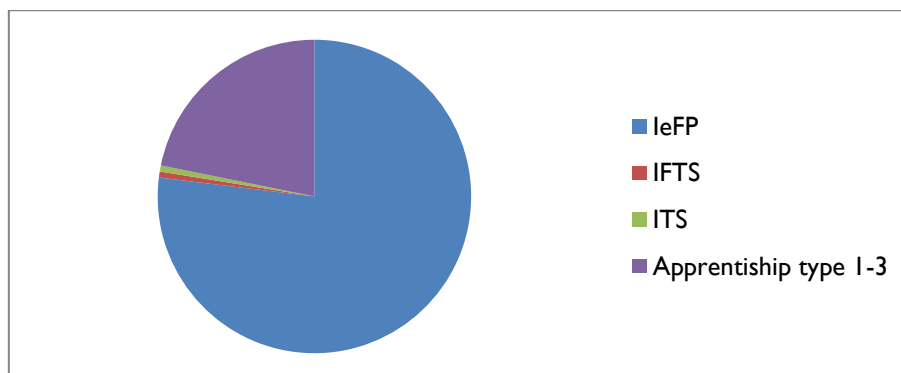
Figure 2: Participation in VET Qualification and Diploma programmes 2004 - 2015



Source: Isfol

As for the breakdown of the learners among the different forms of VET provision, Figure 3 shows the situation in 2012, the only year for which data are available for all regional VET segments, and the three different types of apprenticeships.

Figure 3: Learners enrolled in 2012



Source: own calculation based on data from ISFOL, and Italian Ministry of Education

It is possible to have detailed data for 2013,³² from which the age composition of people attending regional initial VET in Italy can be derived. The age is 14-17 for three year programmes, and 17-18 for Diploma programmes; while apprenticeships cover people between 18 and 24 years old (52%), people between 25 and 29 (38%), and people over 30 (9%).³³

As for the balance between enrolments in different stages of the education path, regional VET in Italy is overwhelmingly focused on the upper secondary level. Assuming there is a stable figure for those enrolled in Higher Technical programmes (which are at the post-secondary level), this would represent 1-3% of the total of enrolments, leaving the rest in upper secondary (lower secondary being fully under the education system).

5. The interplay between external and internal factors shaping VET

To adequately frame the contents of this section, which analyses how the initial VET system has been able to respond to a range of challenges, it is important to highlight that the system discussed is limited in terms of participants, and is geographically concentrated in some areas (Regions) of Italy. Firstly, around 330,000 students (Isfol, 2016) were enrolled in regional VET Qualification and Diploma courses, while there were around 548,000 students enrolled in upper secondary national vocational education programmes and 849,000 in national technical programmes (Istat, 2017: data updated at 2015). As for the geographical concentration, almost 70% of Diploma course students are based in Lombardy (Isfol, 2016) and approximately 78% of students in Qualification courses are located in eight specific regions and almost 50% in four specific regions (Piedmont, Lombardy, Campania and Sicily).

The demographic challenge

The demographic challenge has had an indirect influence on shaping initial VET or, at least, this influence has always been in the background. The influence of demographic change is visible in the form of – generally hidden and undeclared - competition between upper secondary schools and VET providers for students interested in or oriented towards vocational education/training. With reference to this point, it must be highlighted that previously (around 2000), there were enough participants in the system aged 14-15 years old.³⁴ In recent years, however, the stagnation in enrolment rates experienced in national vocational education³⁵ (which since 2011 has not issued any more three-year certificates) has partly been compensated by the increase in regional VET three-year certificate courses.³⁶

Within this framework, the changes in the demographic structure of the Italian population at the macro level (Istat, 2016) is reflected in the following trend (focusing on most recent years):

- in 2002, the percentage of the population under 14 was 14.2% while it is 13.7% in 2016;
- the percentage of the population between 15 and 64 was 67.1% in 2002 but 64.3% in 2016; and

³² Please note that in 2013, before the latest reform, Type I apprenticeship was covering less people.

³³ ISFOL, “Verso il sistema duale – XVI Monitoraggio sull’apprendistato”, 2016. I libri del Fondo Sociale Europeo.

³⁴ Also because the attractiveness of regional IVET was much lower and mainly focused on students who failed in attending five-year national upper secondary education programmes.

³⁵ Whose number of students constantly reduced since 2002/2004 passing from about 560,000 to about 517,000 in 2014/2015 (Isfol, 2016).

³⁶ Whose students increased from about 25,000 in 2003/2004 to about 316,000 in 2014/2015 (Isfol, 2016).

- the population over 64 was 18.7% in 2002 but it is 22% in 2016.

These changes affected regional initial VET, only for certificate and diploma courses, and in a very marginal way. A demographic related modification which, on the contrary, is progressively affecting the regional initial VET at upper secondary level³⁷ is the the growing number of young immigrants - mostly second generation - entering the upper secondary education system (with the obligation, in accordance to the Italian legislation, to stay in the system until the achievement of a three-year regional VET certificate or to 18-years-of age). According to Istat (2017,), in 2015 students from immigrant families³⁸ in upper secondary education accounted for about 9% of the total population (651,000 out of 7,000,000), whilst there were 14% in VET certificate courses and 11% in diploma courses (Isfol, 2016 but 2015 data). Compared to conventional upper secondary education, regional initial VET, therefore, seems to be more attractive to young people who are from immigrant families

Regional initial VET dealt, especially over recent years, with the previously mentioned aspect through a strong investment in improving the levels of formalisation (mostly in terms of training and learning standards), institutionalisation (through the definition of national level frameworks and standards), external visibility (through the intense use of dual schemes), and vertical integration (that is a defining mechanism for students passing from VET Qualifications to Diploma, and then to post-secondary VET). The improvement of the connection between initial VET and local labour markets, as well as employment opportunities is another way initial VET is accounting for demographic challenges.

The technological challenge

In Italy, the expression “technological change” traditionally has a very specific meaning and focus in the context of regional initial VET courses (a meaning which has usually been, with some exception, quite far from the strategic and high-tech conception generally used in EU policies or in think-tank documents). Only in recent years, with the institutionalisation of the post-secondary VET segment,³⁹ has the issue of actively promoting and supporting technological innovation fully entered the regional VET system (the most recent example is the link between this segment and the so-called Industry 4.0 Programme, established in 2016 by the Italian Government).

These considerations pertain to a national situation where “skill mismatch... is widespread” (OECD, 2016).⁴⁰ The most recent national survey of hiring programmes by companies (covering the first quarter of 2017)⁴¹ reports that 22% of hiring will include high-skilled profiles (managers, specialised occupations, technicians), 41% with intermediate profiles (clerks and services/trade occupations), and 37% with low-skill profiles. In terms of formal qualifications, university graduates will form 17% of total hiring, upper secondary education graduates 41%, and VET graduates 16%.⁴² For those with no specific qualifications, the figure is the remaining 26%. Finally, focusing on hiring sectors, the most relevant for those with VET qualifications are tourism and food services, personal services, construction, trade and metal industries. For upper secondary education graduates, the sectors are largely the same but the ranking is different, with trade in the first position and *transport and logistics* as fifth instead of the metal industry.

³⁷ And therefore excluding Higher Technical Programmes and High Technical Specialisation courses.

³⁸ That is with both parents not Italian.

³⁹ Which not casually is shared between Regions/AAPP and the Ministry of Education.

⁴⁰ OECD Skills Strategy, *Building an Effective skill strategy for Italy*, Scoping WS Briefing Pack, 2016.

⁴¹ Excelsior, *2017 First Quarter Bulletin*, Unioncamere, Rome, 2017.

⁴² Here only three-years VET courses are included: it is not clear where VET Diplomas owners and post-secondary VET qualified are counted.

As already underlined, the meaning of “technological challenge” for the regional initial VET system has always been very peculiar in consideration of the prevalence of micro and small companies in the Italian economic system (95% of Italian companies have less than 10 employees and 81% of Italian employees work in a SMEs). In these companies, with some exceptions, informal and non-strategic innovation tend to take place. In addition, Italy has a longstanding weakness in terms of both dedicated funding and public policies, in developing and supporting technological innovation. The cases of worldwide manufacturing companies that excel in innovation are using private investment provided by the companies themselves. Only in recent years have dedicated instruments been put in place by the Government (national programmes supporting innovation, funding for innovation in SMEs, Industry 4.0 Programme, Italian research and young talents programmes)⁴³ but the distance between Italy and the other countries covered by the *Ambrosetti Innosystem Index*⁴⁴ is still relevant for funding and “innovative environment”. A regional based analysis of innovation, using the same index, shows that only Lombardy – among all Italian regions – is listed in the top-20 European Innovative Regions while three others (Emilia-Romagna, Piedmont and Latium) are in the first-50.

The regional initial VET’s answer to the technological challenge is based, at least since 1999, on the development and implementation – in accordance with the Ministry of Education - of High Technical Specialisation courses and of Higher Technical Institutes. In fact, with a focus on Higher Technical Institutes, they are institutionally dedicated to six technological areas which are considered to be strategic for Italy. These areas are as follows: Energy Efficiency; Sustainable Mobility; New Technologies for Life; New Technologies for Made in Italy (mechanics, fashion, food, houses, and company services); Innovative Technologies for cultural assets and activities; and Information and Communication Technologies.

5.3. The macroeconomic environment (the economic cycle)

In Italy, the main macroeconomic feature affecting regional initial VET is youth unemployment. The rate of unemployment for 15-24 year olds rose from 21.2% in 2008 to 40.1% at the end of 2016 (with a split between regions: 54.1% in the South and 30.6% in the North). In addition, 24.3% of Italians aged under 30 years were not in education, employment or training (NEET with a big difference (again) between northern and southern regions (16.9% in North and 34.2% in South), thus making Italy the worst performing country after Turkey and Greece⁴⁵. The *question* of youth unemployment is partly linked with a long-standing issue of regional VET’s target-populations and especially relevant in low/middle class populations where there is a shortage of training opportunities which are *able* to support entry into employment.

Other macroeconomic issues experienced in Italy can also be mentioned, but their interplay with regional initial VET is very indirect (mainly for the volumes and the profile of the VET system). The most important are:⁴⁶ the low growth, in recent years, of the Italian economy (caused by rigidities in the product and labour markets; insufficiently developed capital markets; a structure of taxation weighing excessively on productive factors, especially labour; the weaknesses in corporate governance and management as well as in public administration; and civil services inefficiency); the stagnation, since 1990, of labour productivity (“wages do not reflect sector productivity and tend to

⁴³ Ambrosetti/The European House, *L’ecosistema per l’innovazione. Quali strade per la crescita delle imprese e del Paese*, Milan, 2017, p. 29

⁴⁴ Which includes Canada, Chile, South Korea, Finland, France, Germany, Japan, Israel, United Kingdom, Singapore, Sweden, Swiss, United States, Estonia and Spain

⁴⁵ OECD, 2016, p. 13.

⁴⁶ See e.g. OCDE, 2016, p. 5 and foll. (see also the references presented in the document).

rise in sectors in which productivity falls in relative terms, generating an *allocative failure*");⁴⁷ and the under-utilisation of labour (with Italy displaying “very low participation rates despite the increased flexibility of labour market regulation” and the penalisation of “specific target-groups of the population” namely women, young people and the long-term unemployed).⁴⁸

Taking into account these macro-economic issues, regional initial VET answers both the supply and demand side. On the demand side, which means on the side of companies, the main strategy is to formally include companies in organising the delivery of VET courses (the most evident and structured example is represented by the Foundations to be established for the design and implementation of Higher Technical Programmes also considering that, as already highlighted, these Foundations are progressively implementing also High Technical Specialisation courses). Within this, the definition of course architectures characterised by a relevant number of hours (between 30% and 50% depending on cases) is to be implemented in real workplaces using work-based learning methodologies with the responsibility given to companies to manage and develop *curricula* content and learning outcomes. This point is relevant also on the supply side, which considers courses and students in workplaces which are recognised as *another* learning environment that is as relevant as a training institution. Another supply side relevant strategy at the institutional level is to constantly adapt the contents of VET courses –within the framework of nationally valid repositories of final formal qualifications – to locally relevant and significant changes and trends in skills and qualifications demand.

Other relevant factors

There are three other relevant factors that must be briefly mentioned. The first one is represented by the institutional (formal) structure of initial VET. The most recent (and important) reforms that also cover upper secondary education, which date back to 2001 and 2007, were assigned to the State in the form of *Upper Secondary Education* (five-year programmes belonging to lyceums, vocational schools, technical schools) and to the Regions in the form of *Vocational Education and Training*.⁴⁹ This structure, which left the State with the responsibility for five year vocational training programmes (a solution not fully consistent with the nature and the profile of these courses), finally defined a clear and stable boundary for regional intervention in the upper secondary education segment. A second factor is the relationship between regional initial VET and upper secondary education, on one side, and universities, on the other. Here the question is whether regional VET historically played an important role in managing early school leaving through, especially for certificate and diploma courses, giving students who dropped out a *second chance*. In the same way, post-secondary initial VET is expected to significantly contribute to the improvement of the technological skills and competences of young people who do not attend university or do not meet university entry requirements. On this issue, regional VET has always shown – and partly still demonstrates – a kind of ambivalence. In fact, by developing a *second-chance* system through regional VET, a sense of inferiority in comparison with State upper secondary education and attending university develops. Regional VET, however, has developed the capacity to successfully work with challenging and vulnerable groups as well as the reputation of being an important resource for individuals, local communities and the economy (it must be mentioned that early school leaving is mentioned by OECD as one of the obstacles in “developing skills in Italy”).⁵⁰ Finally, the last factor is the reduction

⁴⁷ OECD, 2016, p. 6.

⁴⁸ OECD, 2016, p. 6.

⁴⁹ “Istruzione e Formazione Professionale” (IeFP) in Italian.

⁵⁰ 2016, p. 9.

of funding dedicated to regional initial VET: the most recent data refers to 2014⁵¹ and shows a 20% reduction of allocated funding (mainly due to the reduction in national and EU funding). This reduction resulted in the closure of many training institutions, especially in the less affluent and prosperous areas of Italy, which therefore caused additional damage to the young people who live in those areas. In other areas, mainly in Northern and Central Italy, Regions (and Autonomous Provinces) tried to compensate for the loss of national and/or EU funding and, in some cases, linked part of the funding to the achievement of pre-defined learning and employment outcomes. As for training institutions, the quest for a higher efficiency – also through the increase of training volumes and vertical integration among different VET segments – becomes an important survival strategy.

6. Conclusions

The Italian VET system has been affected by a considerable number of reforms since its creation. This has become even more apparent over the last two decades, during which the EU and the internal *social demand* exerted a growing pressure to modernise the system and take into account the drivers of change that are currently affecting advanced economies.

Yet the system's changes seem to be more concerned with internal factors inherent to its history, such as the concurrence between the state and the regional level in providing VET, the perceived second-rate status surrounding the system in comparison with the general educational pathway, or the reduction of funding affecting it in recent years (also linked with the shrinking of the younger cohorts, the ones most interested by VET provision in Italy). Taking into account the demographic, technological and economic challenges presented in the previous section, two alternative scenarios for the future could be developed.

If the regional initial VET system continues along its current trajectory, the most likely outcomes will be the following:

- a concentrated system (in terms of students) in some areas of Italy; mostly involving those around the age of 18; whose growth in terms of participants will be possible only in the post-secondary segment;
- the development of post-secondary segment will be largely dependent on local situations and on the availability of adequate funding; a system in which the strong cooperation with companies and production/services organisations in general will progressively become the distinguishing feature;
- a system where apprenticeship is going to develop mainly with reference to three-year certificate and four-year diploma;
- a system which will continue to be unstable and poorly institutionalised because it lacks continuous, long-term funding.

If regional initial VET is strongly and fully implemented, the responses to the challenges mentioned in Section 5 (responses which largely identify more or less recent reforms), the most likely outcome will be a system largely structured in accordance with a *real* dual scheme (although with Italian features) in which apprenticeships may also find a stable place and relevance as one of the schemes to implement *duality*; which, thanks to its strong and structural cooperation with companies and production/services organisations, may offer concrete employment opportunities to young people who prefer not to enter upper secondary education or university programmes. Alternatively, they could involve the maintenance and improvement of training/learning standards, service and delivery

⁵¹ Isfol, 2016, p. 14

standards, repositories and inventories that would lead to an increased qualitative level of programmes where the vertical integration within the different regional VET segments would mean, for students, the possibility to go through vocational and locally rooted training paths which start with the three-year certificate programmes, continue with the one-year diploma and end up with post-secondary High/Higher Technical programmes. This could contribute to the effective implementation of a life-long learning system in Italy, which could also be effective in its horizontal connections with upper secondary education (especially technical and vocational programmes), on the one hand, and with continuous and adult vocational education, on the other.