Case study Italy

The future of vocational education and training in Europe Volume 2

Delivering IVET: institutional diversification and/or expansion?

By Alberto Vergani, March 2021

AO/DSI/JB/Future_of_VET/003/19

Disclaimer: this text is presented in its original in its original form. It has neither been revised nor edited by Cedefop.

Please cite this publication as: Vergani, Alberto (2022). Case study Italy. The future of vocational education and training in Europe volume 2. Delivering IVET: institutional diversification and/or expansion Thessaloniki: Cedefop.

© Cedefop, 2022

Table of Contents

Chapter 1.	Introduction
Chapter 2: secondary level	Blurring of boundaries between general education and IVET at upper 6
Chapter 3. 22	Relationship of IVET at upper secondary levels with that at higher levels
Chapter 4:	The changing relationship between IVET and CVET27
Chapter 5.	Changing institutional arrangements
Chapter 6.	Conclusion: Harmonisation, diversification, pluralisation,
academic/vocation	onal drift32
References	37

Chapter 1. Introduction

Italy case-study will focus on regional system of Initial vocational education and training (IVET),¹ corresponding to IeFP (Istruzione e Formazione Professionale)² in Italian. Regional IVET falls under the responsibility of Regions and Autonomous Provinces (21 in total) but the national legislation in force sets the obligation for Regions and State (through the Government) to formally agree on common issues concerning system's architecture, structure, and functions. Regional IVET modifications in the last 25 years should be *read* and analysed together with those affecting State vocational education in the same period. The institutional positioning of two systems (one under Regions' responsibility and the other one under State's responsibility) with respect to each other target-population and learning-focus, is one of the elements driving regional IVET changes in 1995-2020 period.

As for regional IVET, "after 20 years of substantial stability, since 1997 a process started aimed at redefining boundaries, government responsibilities and functioning of the vocational training system" (Lozzi, 2000, p. 48). Following the 2001 Constitutional Reform,³ which redefined government and Regions responsibilities, the crucial *passage* for regional IVET programmes' structure, general profile, and contents was in 2003 with the starting of the process – finalized in 2011 – of formally including regional IVET in the upper secondary national education and training system.⁴

A comparison between 1995 and 2020 allows to highlight some main changes occurred in regional IVET at upper secondary level.⁵ The first one is the *movement* from a strictly

in regional IVET at upper secondary level.⁵ The first one is the *movement* from a strictly

1 For a clearer communication, we'll refer to Region(s) and "regional" also including Autonomous

Provinces (which in Italy are 2, Bolzano and Trento, and have the same role/competences of regions – even larger in some areas of policies).

2 Regional Lipper Secondary VET Programmes (Codefee 2020) but defined as EVT (Education and

² Regional Upper Secondary VET Programmes (Cedefop, 2020) but defined as EVT (Education and Vocational Training in Refernet Questionnaire, 2020, p. 3).

³ Implemented between 2"3 e 2008.

⁴ Many reforms, in addition to the mentioned, affected regional IVET in the 1995-2020 period. This may be (also) seen as an indicator of the difficulties of regional IVET to find its right place in upper secondary education system. Just to mention the most relevant: Law 196/1997 (which reformed apprenticeship, introduced the accreditation of regional IVET providers and strengthened the CVT system); Law 144/1999 (which for the first time included regional IVET within the national education system); Law 53/2003 and their implementing acts (which introduced, in upper secondary education in general, the obligation to achieve at least a 3-years qualification or to remain enrolled until 18 y.o., the so-called "Right-Duty to Education and Training". In addition, the law established that regional IVET courses should comply to national standards defined between State and Regions); Law 296/2006 which fixed compulsory education for at least 10 years; Law 40/2007 (which defined the actual structure of upper secondary education with a division between the regional IVET and the general, technical and professional education, 5-years curricula, under the State responsibility); 25/1/2008 Decree reorganising Tertiary non-academic programmes in Higher Technical Education and Training courses (IFTS in Italian) and Higher Technical Institutes (ITS in Italian); Decree of the President of the Republic 87/2010 (reorganizing the Technical and Professional schools and introducing the "subsidiary scheme"); Legislative Decree 13/2013 (developing the national system for competences' certification); Legislative Decree 81/2015 (reforming apprenticeship); the Law 107/2015 (which introduced compulsory schoolwork alternance in upper secondary 5 years curricula, then modified in 2019); 24/9/2015 State-Regions Agreement (defining Dual System for regional IVET).

⁵ It's important to point out that in Italy there is no direct relation between regional IVET Qualifications/Diplomas and occupational/employment qualifications. This is also valid for Upper Secondary Education Technical and Vocational 5-years Diplomas. Therefore, the structure and stratification of Qualifications and Diplomas is mostly internal to the regional/national education system and a product of its history. The main exception is the so-called "enabling-training" (in Italian "formazione abilitante") which is made of courses people have to attend by law in order to practise certain

regional to a (basically) national definition of common profiles and final learning outcomes for programmes targeted to 3-years Qualifications, 4-years Diplomas, and tertiary level non-academic training (that is, Higher Technical Education and Training as well as courses delivered by Higher Technical Institutes⁶). This movement implied a strong (although still under implementation) shift towards more homogeneity at national level. Another consequence was the possibility⁷ to link qualifications' profiles to the national repository of work and qualifications⁸ as well as the availability of a common national *perimeter* for programmes' contents and learning assessment.

The second modification consisted in an increase of regional IVET programmes length, from 2 years (with occasionally one more year) to 3-4 years.

The third change was the introduction in IVET programmes of more hours of general, cultural, basic contents - also related to transversal or key-skills - less strictly linked to a specific qualification. As a result, the *curricular* work-experiences became more important in developing professional contents and skills.

The fourth discontinuity was the attempt to vertically extend regional IVET also in non-academic tertiary programmes. This meant introducing Higher Technical Education and Training⁹ and Higher Technical Institutes¹⁰ at tertiary non-academic level (the first being a *bridge* for regional IVET graduates to access Higher Technical Institute).

The fifth, and final, relevant change relates to the structure of regional IVET provision and it's twofold. On the one side, there is the intervention of State Technical and Professional schools in providing regional IVET 3 and 4-years programmes under the so-called "subsidiarity scheme". This initiative was quite significant in numbers and evidencing a tighter connection between vocational national education and regional IVET. On the other side, there is the accreditation of regional VET (not only IVET) providers. This implied that training providers had to formally comply specific requirement to be allowed to receive public funding and deliver programmes belonging to the national system of education and training.

The professional profiles **Electrical Equipment Installer and Repairers** and **Sociosanitary Operator** (SSO) will be used as examples of the chances occurred in regional IVET programmes in 1995-2020, while being the second a hybrid in between the upper secondary education system and the tertiary non-academic education.

In addition, the movement towards a higher integration between regional IVET and the upper secondary vocational educational programmes should be analyses in relation to CVET as, the occurred changes, may have brought them closer to each other with regional IVET encroaching the "territory" of CVET.

occupations or activities and part of CVET system. Another partial exception, for example for accessing health professions, is the need for those who achieved a formal degree (also of academic level) to pass a specific exam for being allowed to practice the profession (in Italian "esame di abilitazione").

⁶ Respectively IFTS and ITS in Italian.

⁷ Under implementation.

⁸ atlantelavoro.inapp.org/

⁹ IFTS in Italian.

¹⁰ ITS in Italian (in Cedefop publications the acronym is HTE, Higher Technical Education).

In conclusion, some words must be said about the main differences between regional IVET at upper secondary level (3-4 years) and State Technical and Vocational school programmes (5 years¹¹). Upper secondary education in Italy includes:

- 1. upper secondary general programmes, 5 years, under the Ministry of Education;
- 2. Technical and Vocational school programmes, 5 years, under the Ministry of Education;
- 3. IVET 3-4 years programmes, under the responsibility of Regions/Autonomous Provinces (Refernet Italy 2014; Angotti, 2019).

The main differences among the three branches are:

- the institutional formal position (State *versus* Regions):
- the programs' duration (3-4 years versus 5 years);
- the final certifications (State Diplomas *versus* regional certifications ¹²);
- the balance of general/occupation-specific skills/knowledge in *curricula*/programmes (where occupation-specific contents are more relevant in regional IVET);
- the final learning outcomes' levels (*higher* and more complex in Technical and Vocational schools' programs, completely different in general 5-years programs);
- the number of students.¹³

On these differences, especially those more directly related to vocational education and training (at both State and Regions level), four points must be underlined (Causarano, 2015):

- a. the traditional polarization existing in Italy between "diplomas (general knowledge, also technical, targeted to professions and belonging to the education system) and qualifications (practical knowledge, targeted to jobs and belonging to vocational education and training)";
- b. the fact that for almost the entire last century "vocational training mostly concerned ... manual and low-qualified work" with "very limited, if not totally absent, theoretical contents";
- c. while in 1930 vocational education was "included in the (national) education system", until 1970 no public institution was involved in delivering vocational training but only private institutions (religious, philanthropic, trade unions,);
- d. after 1970, with Regions receiving the competence on vocational training, the "divergence" between vocational education (considered a "State professional school") and vocational training ("a rigorously out-of-school experience") increased and consolidated.

It is only with the reform of upper secondary education introduced in 2003¹⁴ that the *two professional branches* begun a long, and still largely incomplete, process of coordination and, for some parts, of integration. But the logic, the structure, and the contents of the two *curricula* remain, as we will also see below, very different and still heavily influenced by their different

¹¹ For a brief history of Italian education system: Morandi (2014), Causarano (2015), Bianchi (2020).

¹² As a consequence of the Government obligation to set national Minimal Performance Standards (LEP in Italian) for IVET courses (Refernet Questionnaire, 2020, p. 10) and because Government and Regions are required to formally agree on common training standards for 3-4 years programmes (which are EQF level 3 and 4 respectively), since 2010 regional certifications have a national validity.

¹³ See below for figures.

¹⁴ Law 53/2003.

histories. However, with the elimination of 3-years State Qualifications issued by vocational schools in 2015 and the vocational education reform of 2017¹⁵, a process of integration of vocational (5 years) and regional IVET programmes (3-4 years) has begun. This was achieved mainly through the consolidation of vocational schools' participation to regional IVET delivery and the possibility for the students who achieved a regional IVET Qualification to access the 4th year of vocational education programmes.

Chapter 2: Blurring of boundaries between general education and IVET at upper secondary level

Some preliminary clarifications are needed in order to answer the question as to whether and how general education has been incorporated in IVET curricula (at upper secondary level) in the period 1995-2020. The first clarification is on the meaning of "general education". In this regard:

- a. if "General education" is intended as a specific upper secondary education branch (that is "general 5-years programmes under the Ministry of Education"), different from both Technical and Vocational school programmes (5 years, under the Ministry of Education as well) and regional IVET 3-4 years courses, no significant blurring of boundaries occurred between these two blocks in 1995-2020;
- b. if "General education" is intended as contents of what we may call curricula or programmes (that is, subjects or areas of contents: see here below for details) different from vocational/technical contents, then:
 - 1. this distinction among contents concerns only for Technical and Vocational education programmes and regional IVET 3-4 years courses;
 - 2. the expression "general education" should be identified in the Italian experience not just with subjects like Italian, Maths, History, Geography (and so on), but mostly with the so-called "transversal skills/competences", "soft-skills/competences", "basic cultural skills", "key-competences", "personal, social, learning, entrepreneurial resources", "problem solving and relational skills, digital skills" (Refernet Questionnaire, 2020, pp. 2-3 and 18);
 - 3. within this framework, in the period 1995-2020 general education contents gained for sure more importance in terms of hours in the curricula, for both 5-years vocational and technical curricula and regional IVET 3-4 years courses (these second being our focus: see details below)16.

A second preliminary clarification refers to the number of students enrolled in upper secondary education and training in the period covered by the analysis (Tab. 1 below). According to data evidence, in 1995 students enrolled in State technical and vocational 5-years

¹⁵ Legislative Decree 61/2017, art. 8.

¹⁶ For the development in the period 2015-2019 see also Cedefop (2020, p. 25 and foll.) which dates back to 2007 the beginning of a growing attention to key-competences in relation to compulsory education (extended to 10 years of education, also in regional IVET).

programmes were 10 times as much those participating in regional IVET, but they are approximately 5 times more in 2020.

Table 1: Students in upper secondary education cycle, 1995 and 2020

Upper secondary education and training system(s)	Upper secondary general programmes (5 years)	Technical 5 years programmes	Vocational 5-years programmes	Regional IVET programmes
1995/1996	1,061,000	1,121,000	511,000	128,131 (2-years), 40,000 (1-year Specialisation) ¹⁷
2020/2021 ¹⁸ (2016/2017 for regional IVET)	1,327,423	830,860	476,807	297,000 (3- years) ¹⁹ , 18,000 /4- years)

We now focus the analysis on regional IVET, structured in 3-4 years programs, leading respectively to the *Qualification of Operator* and the *Diploma of Technician*.²⁰ Table 2 here below compares its main traits in 1995 and 2020. And Table 3 below explores the changes in regional IVET in relation with those occurred in vocational education 5-years programmes by comparing the main *changes steps* of the two systems between 1995 and 2020.

¹⁷ Also 400,000 apprentices are indicated in ISFOL Report 1997 as belonging to regional IVET but due to then existing regulation of apprenticeship they cannot be counted as students of IVET courses.

¹⁸ Ministry of Education, 2020.

¹⁹ Around 179,000 in 2010/2011.

²⁰ Please note that this is valid for Electrical Equipment Installers and Repairers (regional IVET at Upper Secondary level) but not for Socio-sanitary Operator (which is Tertiary non-academic level).

Table 2: Comparison in regional IVET (Upper secondary level)

	General structure	Position in the education system	Final qualification/ title	Learning outcomes composition	National level	Regional level	Training institution level ²¹
1995	2-years courses (Qualification); 1-year (max) Specialisation courses (after Qualification)	Separated system, region-based, differently regulated by each Region, no national dimension	Qualification or Specialisation (valid at regional level only)	80% ²² technical- professional skills, 20% general skills ²³	General regulation of the system but all the competences to Regions	Indication of annual length (in hours) of course; list of final Qualifications (2- years courses)	Definition of training contents (disciplines), sequences, and hours dedicated to each discipline
2020	3-years courses (Qualification); 1-year courses (4-years in total, Diplomas)	Region-based system but part of the national system of education and training; it allows the fulfilment of compulsory education and of the Right-duty to Education/training until 18 yo	Qualification and Diploma valid all over Italy (based on national profiles)	Basic competences (cultural area), technical- professional competences (divided, for each profile, in: recurrent ²⁴ , common to one profile, specific for each sub-profile)	General regulation of the system but also agreements on national profiles with common final learning outcomes	Minimum learning outcomes standards (in regional Repositories) for regional profiles related to national profiles	Definition of training contents, sequences, and training units' lengths (in accordance with the regional repositories)

²¹ In 2020 training institutions include both accredited vocational centres and upper secondary schools (these seconds operating in "subsidiarity regime").
22 Of total hours (about 2,000 in the two years but varying among Regions).
23 Basically Italian, mathematics, history and one foreign language (generally English).
24 That is common to all the profiles (Quality and Safety at work).

Table 3: Main changing steps in regional IVET and Vocational Education curricula/programmes (1995-2020)

	1995	(see here below)	(see here below)	2020
Regional IVET	No curricula, regional-based system (with regional Qualifications), 2-years Qualification courses with max 1-year additional Specialisation courses; contents based 80% on technical-professional skills and 20% on general skills	(2003-2006) 3-years and 4-years pilot-courses leading to national IVET Qualifications and Diplomas (but under Regions' responsibility); progressive definition of basic and professional final learning outcomes common to 21+21 national Qualification and Diplomas; courses' contents defined by training institutions according to Regions' indications	(2007-2011) In 2007 regional IVET was entitled to fulfil compulsory education (10 years of education) and basic and cultural contents were strengthened (in the first 2 years of Qualification courses); revision and final definition of both basic and technical learning outcomes for 21 Qualifications and 21 Diplomas (national level) but no definition of any curricula (at national, regional, and training	The same as in 2011 but with a new definition of final learning outcomes (in 2019) for both Qualifications and Diplomas (increased to respectively 26 an 29); cultural basic skills have been increased in number, especially those related to digitalisation, citizenship, and STEM; from the EU 2018 key-competences for LLL, a set of "personal, social, learning, and entrepreneurial resources" has been introduced
Vocational Education ²⁵	National 5-years curricula divided in 3+2 years leading to a national Diploma. The 3-years curriculum had 3 areas: basic general contents, branch-related contents, each-school specific contents. The 2-years curriculum had 3 areas of contents as well: basic-general, branch-related, and an area under Regions' responsibility	(1997) National 5-years curricula (3+2 years) leading to a national Diploma. Curriculum was structured in: one area common to all upper secondary education (with an increase of basicgeneral contents); one branchrelated area (mostly based on inschool workshops); one area strictly related to local economy profile. Two sectors (services and industry-craftsmanship) and 26 branches for 36 hours a week	institution level) (2010) National unified 5-years curricula leading to a national Diploma; abolition of 3-years Qualifications but possibility, for vocational schools, to deliver regional IVET courses ("subsidiarity scheme"). Two sectors (services and industry-craftsmanship) and 6 branches. Reduction of basicgeneral contents in favour of branch-related contents (respectively 20/12 in the first 2 years and 15/17 in the following: 32 hours of lessons a week). Growing relevance of dual schemes (especially in 3 rd and 4 th year)	(see below for details) National unified 5-years curricul leading to a national Diploma be divided in 2+3 years. The 2 initives have around 2,000 hour, 1,200 dedicated to basic-general contents (Italian, English, Math, History) and 900 to branch-related contents. The 3 following years (each one of 1,056 hours is made of 462 hours of general contents and 594 hours of branch-related contents. A total of 11 branches has been defined

²⁵ 5-years curriculum since 1969 (divided in 3+2 years with a formal Qualification after the initial 3 years).

Table 3 shows significant differences in structures, hours, and main contents of curricula/programmes between regional IVET and vocational education. But differences between the two sub-systems are not just a matter of balance (in term of dedicated hours) between general and professional contents, but also of final learning outcomes. On this point, the distance between the two blocks is smaller for the learning outcomes related to compulsory education until 16 y.o., while it increases for all the other outcomes, also considering the different length of the curricula/programs.

An example of the 2020 situation of the two sub-systems may be made for "general contents" and "professional contents", both defined as "competences" and in turn structured in knowledge and skills. The comparison between regional IVET and vocational education (Tab. 4) is possible because for both programmes the 3rd year learning outcomes are defined (although vocational education curricula are 5-years long). The comparison refers to the Electrical Equipment Installers and Repairers profile, which is envisaged, even if with different denomination, in both regional IVET and vocational education. The example considers one competence for general contents (that can be summarized in "Communication skills") and one for professional ones ("To implement ordinary and extraordinary maintenance of electric systems/equipment, also programmable, and motor vehicles"26). What can be seen in the table is that, for the general content, vocational education competence appears more complex and articulated than regional IVET. For the professional competence, regional IVET is more precisely focused on the electrical sector while vocational education is wider, not explicitly referred to the electrical sector, and less articulated in terms of related abilities and knowledge.27

²⁶ In addition: "Also programmable" and "Motor vehicles" for vocational education.

²⁷ But vocational education has 2 more years for completing curricula (thus reaching EQF4 while regional IVET Qualifications are EQF3).

Table 4: Comparison between 3rd year general and professional contents of regional and State vocational programmes for electricians

	Open and a automt (Ord)	Duete estand content (ord)
D : 111/FT	General content (3 rd year)	Professional content (3 rd year)
Regional IVET:	Expressing and communicating in	Implementing ordinary and
Electrical Operator	Italian in personal, professional and	extraordinary as well as preventive
	life contexts (some related	and predictive maintenance of electric
	abilities ²⁸ : Adopting specific reading	equipment/systems, identifying
	and communicative interaction	defects, malfunctioning and related
	consistent with the aim and	recovery interventions (8 abilities and
	typology of communication;	10 knowledges are linked to this
	Understanding oral texts, non-	competence. Examples of the abilities
	continuous and mixed with different	are: Using operation control
	levels of complexity, objectives, and	techniques; Using defects' detection
	typologies, originated by a plurality	techniques; Using techniques for
	of channels; Identifying information	ordinary and extraordinary
	and different points of views in texts	maintenance; Filling in the
	or sources of different nature)	maintenance register)
Vocational	Using the lexical and expressive	Implementing, under supervision,
Education:	asset of Italian language, in	technical assistance and
Maintenance and	accordance with the communication	ordinary/extraordinary maintenance
Technical	needs of different contexts (social,	interventions on simple
Assistance ²⁹	cultural, scientific, economic,	equipment/systems and parts of motor
	technological, and professional).	vehicles and similar (3 abilities and 5
	Some related abilities	knowledges are related to this
	(corresponding to those indicated	competence. Examples of the abilities
	for regional IVET here above ³⁰):	are: Implementing maintenance
	Grasping in a conversation or in a	standard procedures and techniques
	discussion the different points of	to simple systems/equipment,
	view or arguments in order to be	respecting users' safety regulations;
	able to take part with coherence	Controlling and recovering, during their
	and pertinence; Discussing and	life-cycle, simple systems and
	arguing his/her own idea or opinion	equipment's functioning in conformity
	on a specific issue, using consistent	with technical specifications)
	data, valid motivations and a	·
	wording appropriate to the topic	
	and situation	

Focusing on regional IVET, the main *changes* affecting the system between 1995 and 2020 with relation to programs/courses contents and internal balancing between the different types of contents may be summarised as follows (see also Tab. 2 and 3 above).

Before 2003 (which means in 1995-2002), regional IVET programmes proposed almost exclusively strictly professional contents. This was for two main reasons:

a. basic general contents were considered as fully covered by compulsory lower-secondary education (until 14 y.o.) and regional IVET could be entered with a lower-secondary education diploma;

²⁸ Out of a total of 4.

²⁹ A much wider focus than in regional IVET.

³⁰ Also note that for the 3 abilities of regional IVET courses, 5 abilities are identified for vocational education courses.

b. regional IVET has been always considered as the school for those who do not want or like going to school (or are thought not able to) and, therefore, so-called practical contents have traditionally been given the absolute priority.

Programmes were rigorously region-based and lasted for 2 years (basic programs) or for a maximum of one additional year (the so-called "post-qualification courses. They included relevant work-experiences period(s) and led to regionally-defined final qualifications. Programmes were based on Law 845/1978 (art. 7): they should be "structured in one or more period, in total no more than 4, each one lasting no more than 600 hours". Regions were responsible for defining the "general lines" for courses contents in compliance to the principles of "brevity and essentiality of courses and periods, also through a *modular* structure and the adoption of training and work-experience alternance schemes" (art. 7). As presented in Table 2, each Region identified very few elements: generally, the total duration of programs, in hours, and the list of final Qualifications so that training institutions were almost totally free to identify, for each course, contents, (articulated in disciplines), sequences, and hours dedicated to each discipline. As already said, the largest majority of hours was dedicated to professional skills (approximately 80%) while general skills/knowledge were strictly linked to professional contents (for instance: maths in electricians' programmes was different from maths in a course for plumbers).

It should be stressed again that regional IVET was a system completely isolated from upper secondary education, being - as a matter of fact - a (non)system made of 21 regional sub-systems,³¹ each one with different rules and practices. In addition, course contents' definition was completely left to each training institution, most of them private organisations, therefore causing differences for the *same* final Qualification also in the *same* city or province. Due to this fragmentation and to the fact that since 1995 IVET operational and administrative regulations for training providers changed many times, no documents (courses' projects, subjects' programs,) are available: therefore, no example of course structures and contents can be made here. It must be noted, that it is exemplar that neither programmes nor learning contents of regional IVET courses are mentioned, cited, or presented in the most important report on Italian training system, annually issued by ISFOL³² during the late 1990s.

A first important change occurred **in 2003-2005**.³³ Following a slow (but still incomplete today) convergence process by Regions and a bottom-up initiative of regional IVET training institutions for defining common learning standards, regional IVET was redesigned in the direction of a stronger link with upper secondary education, in particular the vocational one. As a primary step, Pilot-3-years Qualification courses were introduced in 2003³⁴ and then:

³¹ The number of Regions and Autonomous Provinces in Italy.

³² Its current name is INAPP (National Institute for public policies analysis).

³³ Ref. to Law 53/2003 and Legislative Decree 226/2005.

³⁴ According to State-Regions-Autonomous Provinces Agreement of 19/6/2003.

- in 2004³⁵ an important State-Regions Agreement on "Minimal (final) Training Standards" for 3-year courses was signed, including also basic competences structured in 4 Areas;36
- in the same year, some 4-year pilot Diploma courses started in some Regions;
- finally, in 2006, State and Regions signed an agreement on "Minimal (final) Training Standards" for "technical competences" in 3-year Qualification courses for 14 professional profiles.³⁷

The so-called *Educational, Cultural and Professional Profile* (PECUP in Italian) was the *instrument* to implement general education outcomes into regional IVET courses, covering the educational, cultural, and professional dimensions and being envisaged for all the different upper secondary education branches. However, regional IVET did not define any national curriculum based on regional IVET PECUP(S) but only final learning outcomes (competences, articulated in knowledge and abilities), common to all the programs, if *basic,* and qualification-specific, if *technical*. The "2003-2005 pilot-3-years-courses [...] originated a true innovative wave in regional IVET [...] mostly based on the assumption that regional IVET is not to be intended as mere *training*³⁸ but as a learning environment covering the educational, cultural, and professional dimensions" (Nicoli, 2008, p. 14). In spite of this (see below), in the following years regional IVET remained largely focused on technical-professional contents.

This process was completed and reinforced **in 2006**³⁹ with the introduction of the compulsory initial education for 10 years, therefore covering the two initial years/classes of upper secondary education.⁴⁰ Since 2007, the obligation could be fulfilled also in regional IVET which implied the adoption in their programmes of the so-called *cultural-axes*⁴¹ and *key-competences* common to all the national education system. The *cultural-axes* were the following: communication (Italian, one foreign language and information/communication technologies); mathematics; science and technologies; historical-social axis. On the basis of these axes, a certain number of basic-competences to be achieved at the end of compulsory education have been defined. In addition, with a clear EU connection, a set of *key-citizenship*

³⁵ 15/1/2004.

³⁶ That is: Languages; Scientific; Technological; Historical, Social, and Economical. For each *Area*, a number between 2 and 5 "minimum training standards" have been defined: for each standard, 1 or more descriptors are indicated (for example, one "minimum training standard" of the *Area of languages* is "To master expressive and argumentative instruments necessary for managing communication interaction"; one of the related descriptors is "He/she recognizes different communication codes in different messages").

³⁷ Regional IVET "minimum training standards" correspond to the so-called *Essential Performance Levels* (in Italian: *Livelli Essenziali delle Prestazioni*). They were introduced in 2005 (Legislative Decree 226/2005, art. 18) and identify the "acquisition …of linguistical, mathematical, scientifical, technological, historical, social, and economical competences". These competences are targeted "at achieving the learning outcomes indicated in the student's educational, cultural, and professional profile as well as the professional competences linked to each final qualification". Their definition could represent a great occasion for regional IVET to improve its connection with upper secondary education, on one side, and for structuring as a national system, but this chance was not fully exploited by Regions and training institutions.

^{38 &}quot;Addestramento" in Italian.

³⁹ Law 296/2006.

⁴⁰ Or apprenticeship since the age of 15.

⁴¹ Assi culturali in Italian.

competences have been identified as compulsory education targets, derived from 2006 EU Key-competences for lifelong learning: learning to learn; making projects; communicating; participating and cooperating; problem solving; etc. In regional IVET these indications were included only in national PECUP(S) because *curricula* - national or regional – did not exist.

Another significant change took place in **2009-2011**, with a "stabilisation" of regional IVET. In 2009, a revision of national-level profiles was finalized, bringing the profiles to 21 for 3-year programmes and also 21 for 4-year programs. Their related "minimum *common* standards for technical competences" were also revised. In 2011, then, the "technical competences specific of each profile" were redesigned.⁴² As for basic competences, the four *axes* of compulsory education were confirmed (see above). Beginning with the school year 2011/2012, the 3-year and 4-year regional IVET courses were fully operational.

Since its initial introduction in 2003 and still to this day, the decision not to define national curricula for regional IVET tasked each Region with the identification of courses' structures, namely Regions must decide the hours dedicated to the different areas of competences as well as the contents to be developed in work-contexts. In doing this, Regions indicated an annual course length of about 1,000 hours. On this basis, each accredited training institution⁴³ defines the structure of the courses it intends to implement, even if the final Qualification or Diploma is the same at national level. And the differences in courses' structures, managed by Regions, result in differences in final exams contents as well. The flexibility training institutions have in designing courses' contents is consistent with regional IVET historical system-flexibility and ties to the local context, especially in comparison with upper secondary education. This adaptability is also allowed by the formal organisation and legal status of teachers belonging to accredited vocational training centres. In fact, regional IVET teachers do not have to pass a national competition linked to specific and mandatory subject-classes to enter the profession. In addition, regional IVET teachers may cover different subjects without any formal restriction. In terms of teaching organisation, regional IVET courses are generally sequences of Training Units (Unità Formative in Italian),44 each one developing a specific competence through the integrated delivery of general and vocational contents consistent with that competence. However, especially for basic competences (both general and technical), the teaching organisation is still largely based on subjects/disciplines, being thus very similar to upper secondary education.

Two other important changes must be mentioned in the most recent years.

The first one happened in **2015-2016**, with the confirmation in 2015 of the possibility to achieve 3-4 years Qualifications and Diplomas through apprenticeship (the so-called *Type 1 Apprenticeship*: Cedefop, 2017) and the introduction in 2016 of the *Dual system national pilot-program*. This programme is particularly interesting for the purposes of this case-study because it implied, for regional IVET courses, an increase of the *curricular* hours to spend in working-contexts, also in apprenticeship or in the so-called "simulated companies". No less than 400 hours per school-year should be spent in working-sites, for both regional IVET

⁴² State-Regions Conference Agreement of 27/7/2011.

⁴³ Including also Vocational State schools (Istituti Professionali in Italian): see below for more details.

⁴⁴ But names are different in Regions: e.g., Learning or Competence or Teaching Units.

Qualifications and Diplomas: around 19,000 students were involved in 2016/2017.⁴⁵ Dual Diplomas' students were more than 50% of the total attending IVET Diploma courses, which makes evident that the dual scheme has been largely used for supporting training-work transition of regional IVET Diplomas' students. The Dual system programme too had a regional-based implementation, with different regulations issued by Regions: dual-system students may be part of a whole class (all in a dual-scheme) or individual students (who attend the dual-hours in summer traineeships).

As for Type 1 apprenticeship, which includes also upper secondary education Diplomas, around 5,400 apprentices were involved in regional IVET Qualification or Diploma courses (2017⁴⁶). According to the legislation in force, between 50% and 60% of training-year (starting from the 2nd year) is spent at school and the rest in in-company formal training.⁴⁷ All this sums up to around 1,000 hours of a study-year with another 700 hours reserved to *pure* work (for a total of 1,700 hours a year). Also for Type 1 apprenticeship leading to regional IVET Qualifications and Diplomas "there are no [...] specific training standards or curricula. Those foreseen for school-based VET programmes also apply to Type 1, for formal internal and external training. The Regions design VET programme curricula based on training standards established at the national level by the State-Regions Conference. Regional training centres belonging to the regional VET system have the autonomy to define the curricula to achieve such training standards" (Cedefop, 2017, p. 78).

The second and latest *change* is the 2019⁴⁸ update of basic *cultural skills/competences* for 3rd and 4th year, that is, the final learning outcomes for Qualification and Diploma programs. In particular (Refernet Questionnaire, 2020, pp. 2-3):

- a. competences related to 10-years Compulsory Education have been integrated by digital and citizenship competences;
- b. key-competences for lifelong learning have been modified as in Recommendation of 22/5/2018;
- c. digital competences, entrepreneurial spirit, and entrepreneurial competences have been added (DigiComp and EntreComp, 2016);
- d. an explicit link with Vocational Education reform of 2017, for general contents, has been formalized;
- e. soft-skills have been given increased relevance. In practice, cultural basic skills have been increased in number⁴⁹ and more deeply described, especially those related to digitalisation, citizenship, and STEM⁵⁰,although the focus on technical-professional competences is still prevailing.

In addition, a set of "personal, social, learning and entrepreneurial resources" has been introduced, deriving from the EU 2018 key-competences for *Lifelong Learning*. These *personal*

⁴⁵ Most updated figures (INAPP, 2019b).

⁴⁶ Most updated figures (INAPP, 2019c).

⁴⁷ Cedefop, 2017.

⁴⁸ State-Regions Agreement of 1/8/2019 (implemented by the Ministerial Decree 56/2020).

⁴⁹ Now they are 6.

⁵⁰ Science, Technologies, Engineering and Mathematics.

resources, whose implementation is on a voluntary basis for Regions in the period 2020-23, are defined as "skills which lie under cultural basic skills but in particular (under) technical skills". They are the following:

- Working efficiently in team;
- Managing his/her own learning and professional development;
- Behaving in innovative and entrepreneurial ways;
- Developing his/her own physical and emotional well-being.

Now, in the current repository, there are 26 Qualifications with 36 courses of study and 29 Diplomas with 54 courses of study.

With specific reference to Electrical Equipment Installers and Repairers, the profile suggested as example in the case-study Guide (see also tab. 4 above), according to the most updated figures (INAPP, 2019 but referred to year 2016/2017), around 21,000 students out of a total of 297,000 are enrolled in Electrical Operator programmes (regional IVET 3-years Qualification) and around 1,000 in Electrical Technician programmes (regional IVET Diplomas, out of a total of 18,000). Considering programs' contents (knowledge, skills, and competences), between 1995 and 2020 the modifications in the period went through the same milestones illustrated for regional IVET in general. More specifically, in 1995 only the 2-year Qualification programme was in force. 2-year' courses were structured in disciplines, mostly profession-related, with cultural disciplines (Italian, math, foreign languages, history) being strictly functional, in terms of contents, to professional skills. In 2020, 3-year Qualification courses cover both basic competences (Communication in Italian and in a foreign language; Math, science, and technology; History, geography, law, and economics; Digitalisation; Citizenship) and technical-professional competences, divided into 3 blocks: common to all national profiles, profile-specific, and sub-profile specific⁵¹). The structure is basically the same, obviously with different learning outcomes for the Electrical Technician Diploma.

As already underlined, the distribution of the hours between the different competences are defined by each Region, generally indicating a range that training institutions⁵² have to adapt to their situations in terms of students and employment destinations. For example, the Lombardy Region indicates 990 hours as the duration of each programme year with the following range for the different contents:

- between 35% and 45% of the total hours of the 3 years for Qualification (or the one year of Diploma) dedicated to basic competences;
- between 55%-65% to technical-professional competences;
- between 20%-50% to training in workplaces.

In addition, between 0 and 30% of total hours (workplaces excluded) may be of "distance learning". Assuming these ranges, the comparison between 1995 and 2020 shows an important increase of the relevance of *basic competences*, mainly as a consequence of

⁵¹ For Electrical Operator, 4 national sub-profiles (courses of study) are defined (Deployment and cabling of electrical, electronic and fluid components; Deployment and maintenance of civil electrical equipment; Deployment and maintenance of industry and services electric equipment; Deployment and maintenance of safety and structured cabling special equipment).

⁵² As already mentioned, also upper secondary education schools are regional IVET providers.

recognizing to regional IVET the possibility to be a part of compulsory education since 2007. Another important difference between 1995 and 2020 is the progressive increase of the hours dedicated to workplace experiences⁵³ (also including in this trend the already mentioned Dualsystem pilot-program, since 2016, and new Type 1 Apprenticeship, since 2015⁵⁴). As a result of this, workplaces are no longer considered as places where to "practice" abilities developed during classes or workshops, but rather as places where to "develop and learn" specific skills or competences no longer taught in training institutions. These modifications caused, in general, the reduction in hours dedicated to workshops, a prominent part of programmes in 1995) and strictly profession-related theoretical contents.

Student-teacher relationships also changed in the period 1995-2020, not only because of the changes in contents but also, in regional IVET in general, for three other reasons. The first one is the introduction, since 2010 and following the accreditation of training institutions, of specific region-based requisites for becoming IVET teachers. These requisites generally defined stricter formal and substantial conditions for becoming a teacher.⁵⁵ The second is the change of students' profile: in 1995 students from a disadvantaged economic background prevailed, while in 2020 there is a dominance of students with social problems and with lower educational attainment. Finally, the third reason is that the *inclusion* in 2003 of regional IVET in the "national system of education and training" sparked a great debate in vocational training centres, with teachers⁵⁶ divided in two groups: those who saw the inclusion as an opportunity for regional IVET (and also for its personnel) to become more similar to upper secondary education and those who, on the contrary, wanted to keep regional IVET as radically different from upper secondary education. These changes, which imply teachers to act more as trainers or educators rather than as professors, do not have the same relevance throughout Italy and may present differences among training institutions,57 but are largely present in a sector perceived as industrial and somehow popular like the electrical one.

As for learning assessment, the change occurred in 1995-2020 – at least in the official legislative documents - from learning structured in self-standing disciplinary contents to final learning outcomes described in terms of competences and knowledge and abilities. This change did not produce a shift from disciplinary assessment, as it was in 1995, to a fully competence-based assessment, as it should be in 2020. Learning assessment is still largely discipline-based even if the instruments and the models used are generally more sophisticated than in the past.⁵⁸ In addition, the relevance assumed by workplace learning gives employers and/or companies' tutors the responsibility of assessing students' learning (and not only workplace behaviours as it was usual) instead of teachers/trainers, a change which is still at its initial steps in a country - like Italy - where micro-companies are the largest majority.

⁵³ In 1995 about 2 months in the second year of courses were dedicated to workplace experiences.

⁵⁴ See below for both of them.

⁵⁵ Even if they are less strict and formal than regulations concerning teaching in 5-years upper secondary education programmes.

⁵⁶ And, therefore, *not* upper secondary education schools' teachers.

⁵⁷ With some of them being less affected by these changes, having the reputation of being selective or "high-quality organisations".

⁵⁸ With the use, for example, of multi-criteria grids or of a wide range of tests/proofs.

In conclusion, the main changes affecting *Electrical Operator and Technician* regional IVET programmes in the 1995-2020 period are the following three:

- the increase of courses lengths (from 2 to 3 years for Qualification and one more year for Diploma);
- 2. the increase of hours dedicated to basic competences and workplace learning with a corresponding reduction of in-training-institutions-workshops and profession-related theoretical contents;
- 3. the possibility for Vocational State Schools59 to be part of the regional IVET for both 3- and 4-year courses.

The main reason for these changes is the inclusion, since 2003, of regional IVET in the national upper secondary education system with the possibility to fulfil compulsory education also in regional IVET Qualification courses.⁶⁰

Moving to **Socio-sanitary Operator** (SSO, that is nursing assistants in care/health facilities⁶¹), the second selected program, this is a "regulated profession" which means that its practice is formally linked to the acquisition of a specific and compulsory Qualification. SSO's training is under the responsibility of Regions but within a national level framework, issued in 2001 and revised in 2006 and 2018. As for the comparison between 1995 and 2020, SSOs did not exist in 1995: its origin comes from the redefinition, finalized in 2000-2001,⁶² of the *status* of nurse whose initial training was turned into a 3-year university degree. This important change called for a formal re-design and restructuring of all the non-medical professions in health and care structures and facilities, both public and private.

In Italy, the identification of boundaries (also formal) between health and medical professions, on one side, and supporting/aiding professions operating in hospitals, clinics, and retirement homes, on the other side, has always been a delicate and controversial question. For this reason, SSOs have been rigorously defined as a non-medical profession whose training, delivered only by private regionally accredited providers, is accessible only for people

Considering, for example, the Electric Operator for home automation and security equipment, the profile includes: 7 national-level competences; 12 competences related to compulsory education; 8 citizenship's key-competences; one guidance competence; one health-related competence; 9 regional IVET final basic competences.

⁵⁹ Istituti professionali.

⁶⁰ As an example, the Piedmont Region has traditionally a very structured system of IVET programmes standard (www.sistemapiemonte.it/vetrinaweb/secure/HomePage.do.). For example, the region offers 4 Electrical Operator qualification programmes under the *national* profiles and 3 under region-specific profiles. For each profile, the different schemes offered for achieving the qualification are presented (3-years program, 2 years programme with initial credits, dual-scheme program) as well as a very detailed (77 pages) description of:

final learning outcomes. Competences, articulated in knowledge and abilities. For each
competence also the structure in Training Units is presented. Different types of competences
are indicated: technical-professional; complying compulsory education learning standards;
citizenship's key-competences; concerning self-guidance and personal health; basic
competences specific for regional IVET);

[•] minimum contents (competence, abilities and knowledge) of each Training Unit, different for every year of programme(1st, 2nd, 3rd).

^{61 &}lt;u>atlantelavoro.inapp.org/dettaglio professione reg.php</u>?id professione=9

⁶² Its beginning was in 1992 with the Law on health system.

being at least 17 y.o. when entering training and with a lower secondary education diploma. The combination of such requisites results in a program, lasting around 1,000 hours, which is a kind of out-of-system hybrid being neither part of the upper secondary education system nor of tertiary non-academic education. In addition, SSO being a "regulated profession" leads to the paradox for which 5-years programme Health and Social Assistance graduates from upper secondary vocational education⁶³ cannot access the profession without attending the dedicated OSS course.

The national Agreement defining the profile and compulsory training for SSOs⁶⁴ identified:

- the teaching organisation: according to art. 8 "in modules and disciplinary areas", modules are divided into basic ones and professionalising ones. The basic module has a duration of minimum 200 hours; the professionalising module lasts for 250 hours minimum; traineeship must be 450 hours minimum; workshops/practical training is 100 hours minimum. In addition, some hours - not previously quantified - must be dedicated to participants motivation, guidance, and basic knowledge. Considering the very different contexts and target-populations65 a SSO may work with, 200 hours of specific training may be added;66
- the teaching subjects: they are organised in 4 areas, according to art. 10: socio-cultural, institutional and legislative; psychological and social; health and hygiene; technicaloperational;
- the final exam and qualification: according to art. 12, a qualification valid all over Italy will be released after passing the final exam. The formal title is a "diploma with the value of a Qualification".

The Agreement also identifies in detail (Annex B) SSO's competences (divided in "technical" and "related to the requested knowledge" and (Annex C) "Modules' objectives" and training subjects". It must be noted that Annex C contents are not fully consistent neither internally nor with the Agreement text. According to the document, modules' objectives are distinctly defined for the basic one (200 hours)⁶⁹ and for the second one (800 hours, including professional theory, practical activities, and traineeship⁷⁰); while subjects, for which there is no quantification of hours, are articulated in the areas above mentioned (socio-cultural, institutional and legislative; psychological and social; health and hygiene; technical-

⁶⁴ The Agreement was between Health Ministry, Social Solidarity Ministry, Regions and Autonomous Provinces (22/2/2001 and updated in 2006).

⁶³ The programme is active since 2018/2019.

⁶⁵ For example: people with disabilities, elder people, people with psychiatric diseases; hospitals, daycare centres, retirement homes, home-assistance,

⁶⁶ 100 in traineeship.

⁶⁷ For example: "Implementing work-plans", "Keeping tidy places, furniture and equipment", "Implementing activities related to patients' hygiene, mobility, underwear/cloths changings, ... ", "Supporting medical personnel in ... "

⁶⁸ For example: "Main typologies of patients and related problems", "Main risks conditions", "Social services organisation". As a matter of fact, the list in the Annex contains also abilities, if not competences, which makes the list itself and its denomination guite odd.

⁶⁹ There are 4 objectives, which include patients' needs analysis, care systems and services knowledge, health and safety at work, hygiene basic concepts.

⁷⁰ There are 6 objectives, without distinction among the different learning venues or types: however, they all cover the core-professional contents of SSO profile.

operational) and reduced to 3 instead of 4.71 No other national Agreement followed the one signed in 2001, which is therefore still the reference for Regions' interventions. In this respect, on the one side, after 2001 Regions issued dedicated acts in order to define and regulate SSO's profile and training and, on the other side, some Regions revised – between 2001 and 2020 – their acts concerning these two aspects. In general, no relevant modifications occurred in the composition of training contents.

An example is the Lombardy Region, whose Government issued in July 2001 a specific act implementing the national Agreement.⁷² In this act, two sets of competences were defined, the technical one and the relational one, together with one area of knowledge. Contrary to the national agreement, more relevance was given by the Region to "relational competences", such as working in groups; communicating with patients and their families; stimulating patients activation and communication; managing trainees. The act also included indications for teaching organisation, participants' access requisites, teaching subjects. These indications are exactly the same of the national agreement. Later, in 2007, also as a consequence of a national Law concerning "professional orders" for health professions, the Region deeply modified⁷³ SSO's competences' description together with the introduction of stricter entry requisites.⁷⁴ This happened for two main reasons:

- a. to increase SSO's skill levels in general, also in relation with the Law 53/2003 which reformed the Italian educational system giving more relevance to basic and cultural competences;75
- b. to give more importance to traineeship hours, whose positive outcome is required for acceding the Qualification final exam.

As for competences, they are still divided in technical and relational ones, but a set of capacities is introduced in the profile description. 76 In addition, 5 competences are defined for the 1,000 hours of course, therefore horizontally *encompassing* theory, external traineeship, and internal practice, and for each of them the related knowledge(s), abilities, and disciplinary areas are indicated. The 5 competences are the following:

- 1. to act his/her own role/position within the structure or service and cooperate with the other care profiles;
- 2. to act his/her own role/position within the Welfare network;

⁷¹ Examples of subjects are the following: national and regional welfare legislation; ethic and deontology; psychology and sociology; care intervention and assistance techniques; hygiene; social and health work methodology; social care.

⁷² Regional Government Deliberation 5428/6 July 2001 "Identification of figure and professional profile of SSO".

⁷³ Regional Government Deliberation 5101/18 July 2007 "Regulation of SSO training pathways".

⁷⁴ The new being: 18 years old (instead of 17) and, as minimum, a regional IVET 2-years Qualification (instead of Lower Secondary Education Diploma). In addition, also those who had other (lower) qualifications in social welfare professions were admitted to the course (if 18 y.o.).

⁷⁵ This law has been mentioned many times in the previous part of this report.

⁷⁶ These capacities include the following: capacity of operating respecting health and safety at work regulations; of organising socialisation occasions for patients; of using basic data/information processing instruments; of correctly managing patients' personal data.

- 3. to deliver indirect assistance through domestic support, hygiene, and environment comfort activities:
- 4. to deliver direct assistance to recipients;
- 5. to communicate/relate to the recipients, his/her family context, and the care colleagues.

The 2007 regulation is still valid in Lombardy: on this basis, accredited training institutions (which also have the requisites indicated in the same regional act⁷⁷) define the structure and architecture of their course supply. The architecture is based on the contents of the disciplinary areas linked to each competence and is a mix of disciplines for knowledge and training units for abilities.

Another regional example is *Campania*, whose first definition of the SSO's profile dates back to 2003, with a later revision in 2006. The Region divided the 450 hours of training as indicated in the national Agreement in:

- 100 hours dedicated to "cultural, institutional, and normative contents";
- 100 hours for "psychological and social contents";
- 250 hours dedicated to "hygienic, health, and technical contents".

For each area, a list of disciplines was indicated; for instance, for the last area: elements of hygiene; general dispositions for health and safety at work; environmental hygiene and accommodation comfort; patients-targeted care interventions; social and sanitary wok methodology; social assistance.

In 2019, an important revision of the SSO's profile was issued within the framework of the Campania Region Repository of Educational Titles and Qualifications. The profile has been structured in 4 Competence Units (without any indication of length, probably being implicit the reference to the 2001 Agreement), each one indicating the final expected outcome, the relevant indicators and evidences, the related abilities and knowledge. The Units' denominations are the following: Promotion of patient's psychological and relational well-being (Unit 1); Patient's primary needs care (Unit 2); Residential and living spaces care and maintenance (Unit 3); Patient's health care (Unit 4). The Campania Region defined also an upper level SSO profile (called SSO "with additional training") which is consistent with the possibility, introduced by the 2001 Agreement (point 8), to implement dedicated training modules (each one of max 200 hours) targeted to specific target-populations or interventionneeds. For the *improved SSO* profile, the Repository defines 5 Competence Units (again, with no indication of length in hours) with the same structure of those proposed for SSOs but with obviously different contents (e.g.: Unit 1 is "To be able to support obstetricians and nurses in their ordinary activities"; Unit 2 is "To be able to support operational, organisational and training activities"; ...78).

To sum up, for SSO no relevant changes occurred between 2001 and 2020 in program's contents. There has been just a progressive better definition and articulation of competences

⁷⁷ Annex B.

⁷⁸ It is not made explicit in the Repository but probably only one of the Competence Unit must be attended to be recognized as SSO-improved.

in terms of knowledge and abilities. As for learning sites balance, no relevant changes at all occurred and the same is for the teacher-students relationship, this second being strongly defined by the fact that adults also attend SSO's programs. Finally, learning assessment marked significant improvement in the final exam, which is related to a national-level recognized qualification: the tendency, in the years, was to make the exam more rigorous and severe, introducing stricter procedures and regulations.

Table 5: Key indicators (only regional IVET and Electrical sector)

	1995	2003-2006	2010	2020
Number of	Not available	At national level	21 Qualifications	26 Qualifications
Qualifications	neither at national	only "basic-	(3-years) and 21	(3-years) and 26
	level nor at	competence	Diplomas (4	Diplomas (4
	regional level	minimum	years) (national	years) (national
		standards" have	level)	level)
		been defined in		
		2004; 14		
		Qualification (3-		
		years) defined in		
		2006, no national		
		definition for		
		Diploma-related		
		profiles		
Of which referred	See here above	One profile for	One profile for	One profile for
to Electrical		Qualification	Qualification	Qualification
Equipment		(Installer and	(Electrical	(Electrical
Installers and		maintainer of	Operator, no	Operator, with 4
Repairers ⁷⁹		electrical	branches) and	branches) and
		equipment); no	one for Diploma	one profile for
		profile for	(Electrical	Diploma
		Diploma	Technician, no	(Electrical
			branches)	Technician, with
				2 branches)

Chapter 3. Relationship of IVET at upper secondary levels with that at higher levels

EQF5 IVET in Italy consists of Higher Technical Education (HTE) only. Introduced in 2008 and delivered by Higher Technical Institutes (HTI), HTE has been revised – according to the instituting Decree⁸⁰ - in 2013 and again in 2018, strengthening the link with Industry 4.0 Italian strategy. More precisely, EQF5 corresponds to 2-years courses while 3-years courses, very rare, are even EQF6.

HTE is under the responsibility of the Ministry of Education but Regions have an important role in defining programmes in relation to local economies and production systems' needs (Angotti, 2019). HTIs were originally introduced in strong connection with the national project called *Industry 2015*, which intended to support and develop Italian manufacturing as a whole. This means that HTIs were since the beginning deeply rooted in existing industrial areas, but this limited, in the following years, their possibility to develop in different areas.

22

⁷⁹ SOO not included because not formally belonging to upper secondary regional IVET.

⁸⁰ Prime Minister Decree 25/1/2008.

HTIs' idea was based on two main assumptions:

- offering tertiary level non-academic programmes to students with a Technical or Vocational Upper Secondary education 5-year diploma. This assumption came true, especially in the last years where the largest majority of students attending HTls had Technical education 5-year curricula. In the past also employed significantly attended HTls' programmes but their number has recently lowered down;
- being a viable alternative to technical academic courses. This assumption did not come true: the initial expectation was for 100,000 students enrolled in 5-6 years since 2010 but in the period 2013-2018 the total number of enrolled students is about 18,000, "1% of total VET learners in 2016": Angotti, 2019, p. 26). The relation with universities is still the main critical issue of HTIs: universities generally do not recognise credits to students having a HTI diploma, in spite of its being formally recognized as a formal education degree.81 Another problem, which in turn reflects on the low number of students, is the poor reputation HTI graduates still have for companies, as they are usually hired under the same conditions of Upper Secondary Education graduates.

HTIs did not exist in 1995. The first programmes started in 2010 and concluded in 2013: therefore, final participation figures are available starting from 2013: 1,512 students were enrolled in HTI courses in 2013). HTIs became 58 in 2011 and are now 107,82 almost all over Italy: students enrolled in operating course are 4,606 (201883). HTIs' Technological Areas (6 in total: see below) did not change since 2008, while they articulation in domains and national profiles has been revised every 5 years, the last time in 2018. HTI courses "are an ideal continuation of IVET courses, non-academic higher education courses which can be accessed by upper secondary school diplomas ... or after an assessment of entry competences" (Refernet Questionnaire, 2020, p. 7). They last 1800-2000 hours for two years (exceptionally 3 years, with more hours) and at least 30% of them (generally 800) must be in-company; 50% professionals of teachers/trainers must be belonging to companies or other production/services organisations. In general, teaching in HTI programmes do not require any formal qualification or status, differently from State schools or public universities: this makes HTI very flexible and adaptable. HTIs have the form of dedicated permanent Foundations (specific for these programs) which must necessarily include one school, one university, an accredited training provider and one company. However, and this is a problem especially for the competition with universities, Foundations do not have stable and continuous funding for their ordinary functioning: they get their funding from the programmes they achieve through calls/tenders managed by Regions.

HTI programs' applicants, both unemployed or employed, must have an Upper Secondary Education diploma (general or vocational: Angotti, 2019, p. 26). As already mentioned, courses are articulated in 6 "technological areas" (Energetic Efficiency; Sustainable Mobility; Life Technologies; New Technologies for Made in Italy; new Technologies for Cultural Assets and Activities; Information and Communication Technologies), 17 domains ("ambiti" in Italian), and

ี 21

^{81 &}quot;Titolo di studio" in Italian.

^{82 &}lt;u>www.indire.it/progetto/its-istituti-tecnici-superiori/numeri-its/</u> (accessed 8/2/2021).

⁸³ Most updated data (INDIRE, HTI Programmes National Repository).

29 national profiles ("figure" in Italian). Each Technological Area contains a certain number of *domains* to whom, in turn, refer(s) one or more profile(s). For example, the area called "New Technologies for Made in Italy" includes 5 domains (Agri-food system; Home/house system; Mechanics; Fashion; Services for companies); each domain is structured in 2 to 4 profiles (for instance, the Agri-food domain proposes 3 profiles).

As for contents, there are no national *curricula* for profiles but only:

- macro-indications for HTI programmes contents. Contents "are referred to linguistic, scientific, technological, law and economic, organizational, communication and relational competences, of different levels; [they are also referred to] specific technical and professional competences related to the profile, structured according to European Union indicators for diplomas/degrees and qualifications";,,⁸⁴
- macro-indications for the so-called Educational, cultural, and professional profile (in Italian: PECUP) of HTI graduates:⁸⁵ the profile defines the "general basic competences" which are common to all the "technological areas"⁸⁶ and the "technical-professional macro-competences" which are "common to the profiles belonging to each Area" or domain (depending on the Area).⁸⁷

On these bases, each programme is defined in detail by the single Foundation, especially for the technical-professional competences required in its specific implementation contexts, in accordance with the indications given by Regions through dedicated acts. In fact, Regions are responsible for approving and funding HTI programmes in the region and have generally defined standards for programs' contents and structures. This is the reason why the final national Diploma contains the indication of the national profile the programme refers to, but also an *addendum* with the technical-professional competences developed in the programme implemented by each Foundation. In a national perspective, therefore, HTI programmes may be defined as nationally "fragmented", with the pros and cons of this situation. The main justification for this is that "HTI programs' priority is graduates' employment⁸⁸ and not the training contents" This is also the reason for not having put constraints on teachers/trainers' formal status.

To give an example of HTI, the *Textile-clothing-fashion HTI in Piedmont (Biella)* offers programmes that are fully funded by the European Social Fund. Programmes target three subprofiles (Upper Technician in Technological Processes; Upper Technician in product, planning, and design; Upper Technician in Clothes Production and Knitting) which are all *under* the national profile of Upper Technician of Technological Processes in Textile, Clothing, and

⁸⁴ Prime Minister Decree of 25/1/2008 (art. 4).

⁸⁵ Legislative Decree of 7/9/2011 and following modifications of 2013 and 2016.

⁸⁶ They are grouped in *Areas*: Linguistic, communicative and relational; Scientific and technological; Juridical and economic; Organisational and managerial. For each Area, a number of competencies is indicated (from 2 to 7, expressed as e.g. "To master linguistic instruments and information and communication technologies in order to interact in life and work contexts").

⁸⁷ For example, the Area "Information and communication technologies" includes 3 domains with one profile each. The final macro-competences are the same for all the profiles and includes, e.g., "Planning the use of information and communication technologies and assessing their impact" or "Using methods and processing for developing systems and applications".

⁸⁸ Which is actually very high according to INDIRE.

⁸⁹ As said by one interviewee.

Fashion. For each sub-profile, a specific programme is developed by the Foundation in accordance with Piedmont Region indications and standards, in turn complying the aforementioned national indications. For example, the Upper Technician in Technological Processes programme has a total of 1,800 hours, in 2 years, of which 850 of stage. Learning contents are structured in thematic blocks of hours (modules) ranging between 16 and 98 hours. The most consistent modules (in hours) are those related to technical contents like "Dyeing theory and process" (98h), "Textile printing" (70h), "Textile processes sustainability" (80h) and "Spinning and weaving technological cycles" (110h). General-contents modules, but however related to the profile, are those covering chemistry (30h), mechatronic (16h), mechanic and oleo-dynamic (28h), marketing and communication (40h).

Another example is the *Energy and Environment ITS in Tuscany* (based in Colle Val d'Elsa). One of its programmes is for Upper Technician of Energetic Systems in Circular Economy, which refers to the national profile of Upper Technician of Energetic Supply and Plants Building. The title of the programmes is indicated as a "specialisation" of the national profile. The total length of the programme is 2,000 hours, including 6 months in companies. The contents are articulated in a professional area and a *transversal* one. Each area is organized in Training Units: the transversal Training Units are 6 (including Project Management, Statistics, Business Economy) while the professional are 15 (including Energetic Systems, Renewable Sources Energy, Geothermic Energy, Efficiency and Savings in Energy) No indication is explicitly available on hours dedicated to each unit.

HTI programmes involve (as already underlined) a very low percentage of total VET students (about 1%: Angotti, 2019). Their popularity is growing very slowly because of the difficulty to both define a positive system-level relation with universities and to be regarded as a *credible* opportunity for employment by companies and potential participants. HTIs are generally attended by students with 5-year technical school diplomas who do not intend to continue in academic courses. Students with a regional VET diploma cannot directly enrol in HTI courses, as they have to successfully attend one-year HTET courses, IFTS in Italian. In recent times, also graduates of Upper Secondary general programmes are entering HTI courses. Due to the limited number of students, Higher Technical Education had no relevant implications for regional IVET at upper secondary level; mostly because, as just mentioned, regional IVET diplomas do not give direct access to HTI courses⁹⁰.

With the exception of some territories where HTIs developed strong relations with local companies interested in training high-level technician (e.g. in mechatronics, agri-food, or logistics or also within the framework of Industry 4.0), the importance of HTIs is more at "system-level", for its being ideally the crucial segment of a tertiary-level non-academic vocational training supply, a segment which has never existed for decades in Italy.

25

 $^{^{\}rm 90}$ This means that not even regional IVET attractiveness benefitted from HTEs' implementation.

Table 6: Key indicators: number of VET students at levels 3, 4, and 5 over time

	1995	2020
EQF3 (Regional IVET Qualifications +	Reg IVET Qual: 128,000	Reg IVET Qual: 297,000
Vocational education Qualifications)	(1995/96) + 40,000 (1-year	(2016/17)
	Specialisation)	Voc Educ Qual: no more
	Voc Educ Qual: 300,000	existing
	(est., 1995/1996)	
EQF4 (Regional IVET Diploma,	Reg IVET Dipl: not existing	Reg IVET Dipl: 18,000
Vocational education Diploma, HTET	Voc Educ Dipl: 511,291	(2016/17)
courses ⁹¹)	(1995/96 ⁹²)	Voc Educ Dipl: 476,807
	HTET courses: not existing	(2020/21)
		HTET courses: 2,700
		(2017)
EQF5 (Higher Technical Institutes, Post-	HTI: not existing	HTI: 18,000 (2020)
upper secondary IVET for adults)	Post-sec IVET for adults:	Post-sec IVET for
	77,000 (1995/96)	adults: 11,100 (2017)

Number of IVET occupational programmes at Level 593 which have a Table 7: Level 3 or 4 equivalent and change over time (please note that "equivalence" is not intended in formal way but in substantial terms⁹⁴)

1995	No	No IVET occupational programmes at EQF5				
2020	HTI (EQF5 or 6)	Regional IVET Qualifications (EQF3)	Regional IVET Diploma, Upper Secondary Education Diploma, HTET courses (EQF4)			
	29 national profiles have been defined for HTI: 18 of them have a correspondence with all EQF3/4 courses. the HTI profiles which do not have a full equivalence are those belonging to the following areas: New Technologies for Life, Tourism and cultural assets, Media, and audio-visual; Transports, logistics, and packaging	Correspondence with 23 HTI national profiles (no correspondence for Diagnosis/biomedical, Places and territories promotion, Artistic artifacts production, Communication and IT infrastructures, Vehicles, and infrastructures for transport)	- Regional IVET Diploma: the same as Regional IVET Qualifications with also Mobility and logistic infrastructures - Upper Secondary Education Diploma (only Vocational and Technical programs): total correspondence for Vocational Education except for Media/audio- visual and Transport/ logistics; total correspondence for Technical Education programmes with the exception of Artistic artifacts production - HTET: all the national HTI profiles have an equivalent in HTET so- called National Technical Specialisations ⁹⁵			

⁹¹ IFTS in Italian.

⁹² The number includes students attending all the 5 years of programmes and therefore also the estimated 300,000 enrolled in the first 3 years leading to a (no more existing) Qualification.

⁹³ Only HTI in Italy (ITS in Italian).

⁹⁴ Access to HTI course is not linked to the possession of a specific Diploma but to: a) the possession of any upper secondary education 5-years Diploma; b) the possession of a regional IVET Diploma and the attendance of an HTET one-year course. The source for the table is the Annex B to the State-Regions Agreement based on Law 35/2012, art. 52.

⁹⁵ In number of 20: they are the common references for regional-based courses (Cedefop, 2019).

Chapter 4: The changing relationship between IVET and CVET

According to Cedefop (2019, p.20), CVET "can be considered as education and training after initial education and training (or after the entry into working-life). It is undertaken for job-related purposes CVET is therefore distinguished from continuing education and training which is undertaken for personal, social, recreational, community, or domestic purposes". It is not easy, especially in recent times, to keep this distinction clear, but it may help in describing the 1995-2020 changes in Italian situation. On this basis, also with Angotti (2019, p. 32), adult education (that is formal education delivered by Ministry of Education's Centres for Adults' Education) will be excluded from CVET. 96 CVET is therefore non-formal in Italy, which means that it does not lead to any formal qualifications issued by the national or regional education and training system. For this reason, there are no *formal* qualifications which can be achieved through CVET with the only exception of Type 3 Apprenticeship, introduced in 2015.97 However, this Type involves only some hundreds of apprentices every year. All this means that the reconstruction of CVET being encroached by regional IVET must be done in substantial and not in institutional/formal terms.

On this basis, to understand the recent and actual relationship between CVET and (regional) IVET in Italy, one must bear in mind that they have traditionally been rigidly separated, in both formal (institutional and systematic level) and substantial (people's perception) terms. In addition, until around the end of the last century, CVET almost exclusively involved medium-high skilled and qualified full-time employees belonging to big-size organisations. It is only in the last 20-25 years that CVET experienced a visible development in Italy.

In 1995, CVET was mostly privately funded by companies/employers with an absolutely marginal part of learners-paid CVET (see below for data). In 2020 the situation is significantly different, although still largely characterized by employer-provided and funded CVET. In fact, in 2004 Interprofessional Funds were introduced, financed by private sector companies with a percentage of the payroll costs. ⁹⁸ In the 1993-2009 period, the contribution of public funds was also relevant but, since 2009, public funds largely shifted from active to passive measures in order to tackle the employment effects of 2008 crisis. In general, in Italy CVET has been and still is largely an instrument for adapting or developing knowledge and skills to modifications and changes in job contents and requirement. There have been historically very low level of participation to CVET in Italy (36% of employees trained in 2010, 46% in 2015:⁹⁹ according to

⁹⁶ In Italy adult education is delivered by Provincial Centres for Adult Education (CPIA, in Italian). CPIA were introduced in 2014 in substitution of the former Permanent Territorial Centres for adult education, established in 1997, and of the evening classes for adults delivered by ordinary schools. Formally, CPIA are part of the national education system offering first-level education pathways, literacy and Italian courses, upper secondary level technical and vocational programmes. 131 CPIA were operating in 2018 with a total of about 225,000 attendants (Angotti, 2019, p. 30 and foll.: note that Refernet Questionnaire, 2020, mentions CPIAs and the *Territorial LLL Networks* in answering Question 5 and not, for example, CVT).

⁹⁷ Type 3 apprenticeship leads to academic degrees or refers to structured academic research activities/projects.

⁹⁸ They are therefore a private source of funding.

⁹⁹ According to CVET survey, covering enterprises with >10 employees which represent 10% of Italian private companies). Italy was not involved in the previous editions of CVTS survey.

other data,¹⁰⁰ 1.24% of private employees took part in CVET in 1995, 1.54% in 1996, 9.1% in 2016, 8.5% in 2017. Therefore, the main issue was to increase – also through the contribution of public funding since 1993 – the CVET involvement of employed people both in the private and public sector, especially through short, focused courses.

It is no surprise that regional IVET encroached CVET in a very limited way and for a very limited number of recipients, mostly because the two *blocks* still remain largely separated and reciprocally isolated (this separation is clear also in Angotti, 2019, Fig. 8, p. 18). The most relevant examples of such encroaching are the following:

- a. compulsory training programmes for adults deriving from legal obligations (e.g. in health/safety at work, in personal data protection, food and beverage for public services):
- compulsory training programmes linked to the acquisition of qualifications needed for, e.g., using specific machineries, welding, working as tourist guide, and so on: these programmes correspond to the so-called "enabling training", an important driving force of CVET in Italy in the last 20 years.101

It must be also mentioned here that in its initial implementation (since 2010), Higher Technical Education and Training programmes and Higher Technical Institutes were attended also by employed adults, who however were absolutely marginal and reduced their participation in the recent years. The main reason for this reduction is that both programmes are one-year minimum and typically full-time.

In general, adults (employed but also unemployed) aiming at acquiring new skills for entering a new occupation do not attend IVET courses, as they are generally long in duration and tailored on *young full-time students* for organisation and structure. For this reason, they resort to CVET courses, typically accessing them on their own initiative, and frequently paying for the training. Largely the same can be said for employed adults experiencing difficulties in being involved in CVET: typically, this can be the case for subordinate employees, because elderly and/or low-skilled and/or low-qualified; if independent, difficulties may come from balancing work and training time. For them, opportunities (if any) are in CVET, also through *individual vouchers* or similar instruments for accessing training, and not in IVET which, being *formal*, does not actually represent a viable alternative (with the aforementioned exceptions).

A national comprehensive framework linking regional IVET and CVET, but primarily *initial* and adult education, is the so-called "lifelong learning" strategy established with Law 92/2012: this law set "citizens' individual right to have their learning (formal, informal, and non-formal) and skills recognized and validated". The same Law introduced the *Territorial Networks for Lifelong Learning*, made by public and private organisations, operating since 2014 on the basis of a national agreement. The Territorial Networks are in charge of the system implementation, being defined as its *cornerstones* (and formally they are), but no evidence is available on their activities and results (Refernet Questionnaire, 2020, p. 13). To boost the *Territorial Network* start-up and implementation a *National Plan for Guaranteeing the skills of the adult population*

.

¹⁰⁰ ISTAT (whose data refer to the training participation in the 4 weeks before the survey).

¹⁰¹ No official data are available on this topic.

has been approved in 2016 (Ibidem) but also for this plan there are no evidence of outputs and results.

A potential contribution in narrowing the distance between initial education and training (including regional IVET) and CVET might also come from the existing legal framework on prior learning recognition, an *instrument* which could be used for the acquisition of formal initial degrees/qualifications based on non-formal and informal learning validation. Unfortunately, the implementation of the system, is proceeding very slowly not only for technical and methodological reasons but also because formal education and training system(s) tend to be very resistant to changes (see Angotti, 2019, p. 49-51 but also Cedefop, 2020, p. 20 and foll.). In addition, the relationship between regional IVET and CVET is also influenced by CVET investment trends which are "characterized by [a] growth which is still slow, compared to the rest of Europe [...] Despite a considerable financial investment from public resources, there has not been yet a real cultural shift in updating and developing the competences of personnel. This situation requires a review of the relevant policy framework" (Angotti, 2019, p. 35).

Table 8: Key-indicator: % people aged 25+ (or 34+ if data are available) on IVET courses

According to ISTAT, 8.1% of 25-64 adults in Italy attended a "lifelong learning" activity in 2018 (most recent year) but the percentage includes both formal and non-formal learning as well as initial and continuous. An ISTAT report (2018, data 2017) isolates adults' participation in formal learning (which includes IVET, both regional and national)¹⁰² and the rate of participation for 18-74 adults is 5.3% (5.8% in 2012). This rate includes also university courses attendance and initial education/training not belonging to vocational domains, resulting therefore very overestimated with respect to IVET stricto sensu. In addition, 25-34 y.o. participation rate is 10.3%, while this is much lower for older age classes.

Chapter 5. Changing institutional arrangements

IVET settings in 1995, including not only regional IVET but also vocational education 5-year programs, were the following:

- State vocational schools, providing only 3- and 5-year vocational programmes and, in some regions of Italy, regional vocational training courses in integration with training institutions;
- training institutions (mostly private), providing regional IVET courses;
- workplaces, but only as part of regional IVET courses and, marginally, of vocational education programmes.

In addition, workshops in schools/training institutions were traditionally an important learning setting for IVET in general.

¹⁰² The report refers to AES survey data for Italy.

A relevant *marker* in State schools institutional design happened in late 90's when, together with the introduction of the so-called "schools' autonomy", ¹⁰³ the number of schools was reduced on the basis of a minimum number of students between 500 and 900 for each one. This progressively led, among other changes, to the definition in 2009 of the *Upper Secondary Education Institutions* ¹⁰⁴ that is, schools deriving from the merger of different types and branches of upper secondary schools: for example, a vocational school and a technical school or, more rarely, a lyceum. These new institutions offer, depending on each school, separate technical and vocational programmes or separate general, vocational and/or technical programmes. In some cases, they also provide regional IVET courses (see below). The *rationale* for the implementation of *bigger* educational institutions was to create, where possible and feasible, *places* able to offer a wider range of programmes and opportunities also with the aim of making it easier for students to move from a programme to another. Another reason, especially for technical and vocational programmes, was the possibility to improve the availability and quality of internal technological equipment, workshops spaces, extra-curricular activities and opportunities.

Moving on regional IVET, two, already mentioned, milestones are particularly relevant for institutional arrangements in 1995-2020. The first one was the possibility, originally introduced in 2003 and consolidated in 2005, for State Technical and Professional schools to deliver regional IVET 3- and 4-year courses. In 2016/2017 (most updated figures), courses delivered under the so-called "subsidiarity scheme" (that is, by State schools) concentrated the majority of students attending regional IVET 3-year courses. This possibility is that of a significant and quite solid step in the direction of a tighter connection – if not integration – between national education and regional IVET, by acting on courses and not on structures/organisations.

The second marker was the accreditation of regional VET (not only IVET) providers. Introduced in 1997 but implemented in 2001 and fully operational in 2003, it meant that training providers (mostly private) had to formally comply with specific requirements to be allowed to receive public funding and deliver courses belonging to the national system of education and training. Accreditation is managed by Regions within a national general regulation; the process was revised in 2008 in order to make it less bureaucratic and more responsive to the "needs of territorial contexts" (Refernet Questionnaire, 2020, p. 19). As indicated above, the main reason for its introduction is that private not-for-profit/Third Sector institutions has always been dominant in regional IVET, and accreditation was seen as a form of guarantee for both training quality and public funding management by institutions which are mostly "wholly devoted to vocational provision", especially for 3-4 year IVET courses. Ten years after the 2008 reform, "accreditation is the main instrument Regions and Autonomous Provinces use for guaranteeing the quality of the (training) services provided" (MoL-INAPP, 2019, p. 34).

The (slow) movement in the direction of a higher integration between regional IVET and upper secondary vocational educational programmes has another institutional *drive* in the compulsory participation of regional IVET providers and State Technical and Professional

¹⁰³ With State schools having the possibility to take in autonomy some types of decisions, becoming formally independent from the Ministry of Education (while before they were structures/offices of the Ministry).

¹⁰⁴ In Italian: Istituzioni Scolastiche Secondarie di Secondo Grado.

schools (5 year curricula) in tertiary non-academic programmes and organisations (HTIs and HTET). Again, we are in front of a system-level coordination/cooperation, in this case limited to a specific *segment* of the system, by institutions which remain profoundly different and separated.

In 1995-2020, learning settings within workplaces acquired a growing relevance (see also Chap. 2 above), especially since 2015 with the latest revision of apprenticeship and the introduction of the so-called *Dual System* in 2016. As for apprenticeships, which leads to a regional IVET Qualification since 2003¹⁰⁵ (but with a very limited diffusion), the reform strengthened the possibility to achieve a regional IVET Qualification or Diploma under the socalled Type 1 Apprenticeship (Cedefop, 2017). Before 2015, another reform in 2011 (Leg. Decr. 167/2011) set at 400 hours per year the amount of formal training to achieve a regional IVET Qualification, without defining how many of them off and on-the job. In 2017¹⁰⁶ (INAPP, 2019c), 91% of the Type 1 apprentices participated to a regional IVET Diploma or Qualification course: the total number of Type 1 apprentices was 5,915 (very small, but scoring a +22% in comparison to 2016). Since 2016, also the implementation of Dual-system in IVET (see Chap. 2 above) highlights the growing importance of in-workplace formal learning: its basic scheme envisaged 400 hours (out of about 1050 in total for one year) of in-company training "as part of Type 1 Apprenticeship or of an in-company internship" or "simulated business training" (Refernet Questionnaire, 2020, p. 7, but also Angotti, 2019, p. 19). It goes in the same direction, but only for upper secondary education, 107 the introduction in 2015 of compulsory School-work Alternance in upper secondary education (included general education programmes¹⁰⁸).

These modifications to institutional settings are very marginally linked to modifications in regional IVET. It may be the case for the participation of vocational and technical upper secondary schools to regional IVET, being their involvement related to the redesign of regional IVET in 3 and 4-year programmes fulfilling compulsory education (an involvement which was full finalized in 2010). The increased relevance of formal learning in workplaces may also be linked to the increase of cultural and basic contents in regional IVET programs, an increase which *moved* a part of the more professionalizing contents *out of the* training centres. It is instead largely (if not totally) independent from modifications in regional IVET, the introduction of *Upper Secondary Education Institutions* and the accreditation of training providers: these two *innovations* were, in fact, basically responding to administrative issues internal to the two sub-systems (respectively, the State education and the regional IVET). All the processes here above mentioned experienced however very long and slow implementation pathways which means they had (and still have) a very limited and confined impact capacity.

_

¹⁰⁵ Leg. Decree 276/2003.

¹⁰⁶ Most updated data available.

¹⁰⁷ Because regional IVET courses includes traineeships and work-experiences as ordinary.

¹⁰⁸ Originally introduced in 2005 but only in technical and vocational school 5-year programmes. It has been reinforced in 2015 (defining it as compulsory for 200-400 curricular hours in the last 3 years of the programmes) but in 2018 it was modified and reduced in duration (up to 200 hours in technical and vocational programmes).

Table 9: Key indicators: number of different types of schools and relative share of students' population

2020/2021 (only State national education system) ¹⁰⁹	Vocational schools	General schools	Combined schools offering separate general and IVET programmes	Combined schools offering integrated general and IVET programmes
Number of schools ¹¹⁰	1,416 (+1,888 Technical schools)	2,083	1,444 ¹¹¹	This type is not present in Italy
Number of students	476,807 (+ 830,860 in Technical programmes)	1,327,443	No data on students because they are counted in the attended programme	See here above

Note: in addition, training institutions accredited by Regions/Autonomous Provinces (and providing regional IVET Qualifications and Diplomas courses) are 6,696 (MoL-INAPP, 2019) but only 50% of them are focused to initial VET.

Chapter 6. Conclusion: Harmonisation, diversification, pluralisation, academic/vocational drift

The focus of the case study has been on regional IVET, particularly at upper secondary level: this sub-system is formally part of the *national system of education and training* but it is under the primary responsibility of Regions. Nevertheless, regional IVET should be analysed – especially for programs' contents and structure – in relation to State Vocational schools 5-year programmes. In fact, in recent years, the relationships between these two *blocks* improved and consolidated. However, in 1995-2020 no significant changes occurred as to *boundaries* between general and vocational qualifications at regional or State level if we consider the whole national system. Indeed, the division (first of all in terms of *institutional* responsibilities) between general education 5-years programs, on one side, and all the technical and vocational programmes (5 and 3-4 year, under State's and Regions' responsibilities) persisted for all the period.

The main modification, occurred since 2003 but very slow and still under implementation, locates itself *within* the field of technical and vocational education and training with the *encroachment* of regional IVET by technical and vocational schools belonging to the national education system. In the framework of the "subsidiary scheme", these schools were allowed to deliver 3 and 4-year regional IVET programs. As for regional IVET programmes contents, what happened in 1995-2020 was an increase of the annual total hours dedicated to basic, cultural, *transversal* (INAPP, 2019) and key-competences (different labels are used for indicating *general contents*). This increase, which took place in programmes which also extended in length from 2 (1995) to 3-4 years (in 2020), was mainly due to the formal inclusion of regional IVET in the *national* system of education and training. This inclusion, finally

¹⁰⁹ Ministry of Education, 2020.

^{. .}

¹¹⁰ To be intended as "structures where education is provided" (generally, several physical structures are administratively organized in one educational institution).

¹¹¹ Included in the total numbers of schools indicated in the here left cells.

formalized in 2006, implied that regional IVET became valid for fulfilling both compulsory education (until 16 y.o.) and the so-called *Right-duty to Education and Training* (until 18 y.o. or the acquisition of a regional IVET Qualification).

In combination with the increase of annual hours dedicated to *general* contents, but also as a consequence of it, the 1995-2020 period also brought about a significant increase of regional IVET programs' hours spent in workplaces which therefore became *formal learning* venues (also due to the introduction, in 2015, of the *Dual Scheme*¹¹²). This trend, far from being consolidated and equally diffused in all the regions, is consistent with the changes which affected in 1995-2020 the definition of learning outcomes in regional IVET. They were defined in 1995 basically in terms of operational abilities for each regionally-specific final qualification. However, since 2003, they are described, also within a national common framework, as final competences, articulated in knowledge and skills, to be achieved. In spite of this, programs' delivery – especially in training institutions, less in workplaces – is still largely subject-based and the same is for learning assessment, with the exception of summative practical tests specifically designed for assessing several skills or a competence. At the same time, the growing involvement of companies¹¹³ in delivering formal contents gives companies' tutors the responsibility to *formulate* students' assessments valid for training institutions. On this point, the situation is still under development and far from being finalised.

What has just been mentioned for workplaces is relevant for the 1995-2020 changes occurred in regional IVET institutional arrangements. But two other *events* are even more relevant: on one side, the, just recalled, possibility for technical and vocational (State) schools to deliver regional IVET programmes (progressively consolidating since 2005) and, on the other side, the accreditation of regional VET providers (introduced in 1997 but fully finalized in 2003). The main reason for the first change was to improve the local coordination (if not the *integration*) between regional IVET and State technical and vocational 5-years programs. The reason behind the second change was assuring a higher quality to regional IVET which was, and still is, largely based on private – albeit mostly not-for-profit – providers.

In 1995-2020 regional IVET remained constantly and strongly linked to labour market influence. The changes occurred in workplaces, processes, and contents, on one side, and the political decision (particularly evident in 1999-2003) to keep *all* the students in upper secondary education for longer (from 14 y.o. to 16 and then 18 y.o.¹¹⁴), on the other side, produced changes in regional IVET programs' lengths, contents, and structure. These modifications, which may include also the implementation of tertiary level non-academic programs¹¹⁵, are moving regional IVET "from a *minor-player* role to a *leading* role", according to INAPP (2019, p. 29). As evidence of this trend, INAPP (*Ibidem*) mentions the recent State vocational educational reform introduced in 2017, which "adopts all the *plus* which characterized regional IVET in the last years [...]: active learning methodologies, in-workshops

¹¹³ And other types of organisations in general.

¹¹² INAPP, 2019 and 2019b.

With the only exceptions of apprentices and those who get a regional IVET Qualification (which means being 17 y.o. if regular).

¹¹⁵ Higher Technical Education and Training (IFTS in Italian) and Higher Technical Institutes (ITS in Italian), not relevant in number of students but important for the vertical development of VET (fully absent in Italy until 2000).

learning, competences-approach, programs' personalisation, enhanced cooperation among different learning venues". It is, in our opinion, a somehow optimistic position, which cannot be applied to all the IVET regional systems, but it undoubtedly contains a *kennel of truth* especially for the territories where regional IVET is more consolidated and developed. *Pluralisation* appears to be, as in the past years, the distinctive feature of regional IVET – also in its relationship with State Vocational education – even if some weak and incomplete signals of *harmonisation* are visible but only within the boundaries of vocational education and training (State and regional: see also below for this point).

The changes that affected regional IVET programmes in 1995-2020, particularly at upper secondary education level, are generally consistent with a *vocational drift* pattern rather than an *academic* one (Cedefop, 2020b, p.71). However, the *Italian model* is not fully respondent to all the elements characterizing *vocational drift* and presents some internal contradiction among the elements related to each perspective used for describing the drift (epistemological/pedagogical; education system; socio-economic/labour market). In detail, regional IVET 1995-2020 trends seems:

- coherent with all the indicators of *vocational dri*ft in the epistemological/pedagogical perspective;
- partially coherent with the indicators of vocational drift in the education system perspective (only the indicator "Increasing relative enrolment ... " is consistent with the regional IVET recent trend while the other two116 are not);
- partially coherent as well with the vocational drift as for the indicators related to socioeconomic/labour market perspective ("Fostering employment engagement" and "Improving responsiveness to LM" are consistent with regional IVET trends while "Strengthening the role of social partners" and "Increasing attractiveness of vocational education in terms of public opinion" are not).

The distance from the *academic drift* is also confirmed by the development, since 2000, of tertiary-level VET which is explicitly and intentionally non-academic (which is, incidentally, one of the main reasons for which this segment is not working). The non-academic tertiary-level IVET comprises the only EQF 5 IVET programmes which are active in Italy, delivered by Higher Technical Institutes. However, these programmes are very marginal in terms of enrolled students at the national level and prove attractive only in some industrial areas with long-term ties among schools, training institutions and local companies. For this reason, Higher Technical Institutes' programmes had no relevant implications for regional IVET at upper secondary level, also because HTIs' students actually almost totally come from 5-year Technical education programs.

Almost the same situation occurs for the relationship between IVET and CVET. In fact, regional IVET could be for sure a potential source of CVET (especially 4-year Diploma and non-academic tertiary level programs) but if we focus on non-formal CVET.¹¹⁸ regional IVET

¹¹⁶ That is "Increasing relative enrolment in professional HE and higher VET ..." and "Increasing esteem of VET".

¹¹⁷ ITS in Italian.

¹¹⁸ Excluding adult formal education.

and CVET still remain two *blocks* largely separated and reciprocally isolated - with the exceptions, mentioned in Chap. 4, of adult training programmes originated by legal obligations or specific requisites for using certain technologies or machineries. The only mentionable reduction of boundaries between IVET and CVET in 1995-2020 concerns regional accredited VET providers which normally provide both IVET and CVET programs: the reduction therefore happened, especially since 2005, at training institutions level rather than at a systemic level.

Finally, considering the main changes in the epistemological and pedagogical perspective of regional IVET in Italy in 1995-2020, the increasing relevance of cultural, transversal, and basic knowledge and skills less strictly linked to the professional domains of training programmes went together with the *externalisation* of parts of learning contents to (learning) sites different from classrooms or in-training institutions' workshops. These *different sites* are, as already mentioned, companies or external organisations in general. Regional IVET, whose programmes length changed from 2 year in 1995 to 3 and 4 year progressively since 2003, remains focused on *specialised knowledge* (exemplified by the final Qualifications or Diplomas which may be achieved) and *applied science* (where sciences' application fields or domains are, again, clearly testified by the denominations of the Qualifications and Diplomas, respectively *Operator of* and *Technician of*). In terms of epistemological guiding-view (tacit knowing *versus* cognitive), regional IVET has always been strongly *tacit-knowing* oriented but:

- more implicitly than explicitly, being regional IVET very weak and marginal in its epistemological status,
- more de-facto than intentionally, almost obliged by the students' typical profile, different in 1995 and 2020 but equally challenging,
- more acted that theorized, mostly because of the separation history of regional IVET in Italy with its consequences, for instance, on teachers/trainers profiles, controversial relation with State vocational education, difficulties in being fully considered part of the national system of education and training.

All this means that the *tacit-knowing* view has been always implemented, more neatly in 1995 but still in 2020, albeit less relevant for 4-year Diplomas and Higher Technical Institutes programs, in a sort of *low-profile* version.

To conclude, three final considerations:

- a. using the "variants/features" of the different dimensions of the epistemological and pedagogical perspective presented in the Case Study Guide (tab. 1, p. 16) to visualize regional IVET at upper secondary level in Italy makes sense only if we refer the proposed concepts only to regional IVET and Vocational education 5-year programmes and not to all the national education and training system;
- b. for some dimensions two variants/features indicated in the table coexist for regional IVET (for example, both disciplines and job tasks are present for the "Curricula design" dimension; both occupation/profession specific and broader vocational field are present for "Learning outcomes" dimension; the same is for the "Control over learning" dimension, where student-centred and teacher-centred variants coexist, depending on

- learning sites and contents; for "Learning environment" both digital/simulated and physical/real environment coexist);
- c. on the contrary, the dimensions for which *one* variant/feature is suitable for describing regional IVET are "Theoretical knowledge" (where regional IVET is "Specialised/structured according to applied disciplines"), "Practical knowledge" ("Specialised/structured by contextual purposes"), "Learning sites" ("Multiple") and "Teacher/learner relationship" ("Different types of instructors") and "Teacher role" ("Facilitator, coach, moderator, adviser").

References

Ambrosini, M. (ed.) (2000). Un futuro da formare. Verso un nuovo sistema di formazione professionale: tendenze, valutazioni e proposte. Brescia: La Scuola.

Angotti R. (2019). *Vocational education and training in Europe: Italy*. Cedefop ReferNet VET in Europe reports.

Bianchi, P. (2020). Nello specchio della scuola, Bologna: il Mulino.

Causarano, P. (2015). La formazione professionale fra relazioni industriali e regolazione pubblica. *Annali di storia dell'educazione*, 22, 2015, pp. 233-252.

Cedefop (2003). *The Vocational Education and Training System in Italy. Short description.* Luxembourg: Publications Office of the European Union. Cedefop Panorama Series, n. 77.

Cedefop (2014). *Vocational Education and Training in Italy. Short description*. Luxembourg: Publications Office of the European Union.

Cedefop (2017). Apprenticeship review: Italy. Building education and training opportunities through apprenticeship. Luxembourg: Publications Office of the European Union. Thematic Country Reviews.

Cedefop (2019). Continuing vocational training in EU enterprises (Developments and challenges ahead). Luxembourg: Publications Office of the European Union, 1831-5860.

Cedefop (2020). *Developments in vocational education and training policy in 2015-2019. Italy*, Luxembourg: Publications Office of the European Union.

Cedefop (2020b). *Vocational education and training in Europe, 1995-2035: scenarios for European vocational education and training in the 21st century,* Luxembourg: Publications Office of the European Union, Cedefop reference series; no 114.

Cedefop (2020), Refernet Questionnaire Annex 1.

Cortellazzi, S., Nicoli, D., Vergani, A. (1994). *La formazione professionale: problemi e prospettive*. Brescia: La Scuola.

Hazon, F. (1986). *Introduzione alla Formazione professionale. Manuale per docenti e operatori*. Brescia: La Scuola.

INAPP (2019). Rapporto annuale sul sistema di IeFP (2016/2017). Roma: INAPP.

INAPP (2019b). Rapporto annuale sulla sperimentazione del sistema duale nella IeFP. Roma: INAPP.

INAPP-INPS (2019c). L'apprendistato tra continuità e innovazione. XVIII Rapporto di monitoraggio. Roma: INAPP.

ISFOL (1996). Rapporto Isfol 1996. Milano: Franco Angeli.

ISFOL (1997). Rapporto Isfol 1997. Milano: Franco Angeli.

ISFOL (2014). Apprenticeship-type schemes and structured work-based learning programmes. Italy, Roma: Isfol.

Lozzi M. (2000). Il Quadro normativo della formazione professionale. Ambrosini M., *Un futuro* da formare. Verso un nuovo sistema di formazione professionale: tendenze, valutazioni e proposte, pp. 47-64.

Morandi, M. (2014). Istruzione e formazione professionale in Italia: evoluzione

dell'ordinamento e prospettive culturali. Historical Education, 33, 2014, pp. 95-107.

Ministry of Education (2020). Focus: Main Figures on Education (educational year 2020/2021). Rome: Ministry of Education, Information and Statistics Office.

Ministry of Labour and Social Policies-INAPP (2019). *Relazione annuale sulla attuazione della legge 845/1978. Anno 2017.* Roma: INAPP e MoLSP.

Nicoli, D. (2008). L'istruzione e formazione professionale nel sistema educativo italiano: sfide e criticità. *Rivista ISRE*, 1-2008, pp. 7-32.

Zagardo, G. (2019), *La leFP nelle Regioni. Tra consolidamento e stasi*, CNOS-FAP and Italian Ministry of Labour and Social Policies, Quaderno n. 9.