The education question in Italy
between the European challenges and the regional dualism

Giovanna Filosa, Roberto Angotti, Simona Carolla
Summary

- Objectives, reference framework and expected outcomes.
- The European and Italian scenario in education and training.
- Regional gaps in the involvement in CVT: a SMOP analysis.
- Education and training impact on a Company’s core competencies: skill mismatch and overeducation.
- Training needs analysis and Training Supply: Isfol-OFP survey.
- Conclusions and policy proposals.
- Methodology, statistical sources, bibliography.
Introduction

Objectives:

• European and national initiatives and regulations on the subject of **lifelong learning** and skills development (scenario).
• The key role attributed to the development of specialized technical and technological skills.

☐ Reference Framework: **Continuing Vocational Training (CVT)**
☐ **Multidisciplinary review** of the relevant literature
☐ **Statistical Data** and **sources** employed
☐ Focus: regional training gaps (**SMOP methodology**)

OUTCOMES

✔ **Policy proposals**, particularly in the CVT field
✔ **Further hypothesis** and suggestions
The European scenario

Strategy for a knowledge-based development, role of Education and Training, and integration between lifelong learning, R&S and innovation (Lisbona, EU2020, I4.0, Skills strategy).

Quality assurance frameworks in vocational education and training (EQAVET, accreditation of training facilities, certification and acknowledgement of training credits).

Mismatch outputs in education and training activities.

Participation in Education and Training in EU countries compared to the ET 2020 Benchmark (aged 25-64, 2007, 2017)

Source: Inapp elaboration on Eurostat data (LFS).
The Italian scenario

Gaps in Training participation between North and South, due to Regional dualism:

Participation in Education and Training in Italian Regions compared to ET 2020 Benchmark (aged 25-64, 2008, 2017)

Source: Inapp elaboration on Istat data (RCFL).
**CVT participation: a SMOP analysis on key indicators**

**Worst performances** in 2015: six regions of the South, one of the Centre.

![Diagram showing CVT participation in various regions]

*Source: Inapp elaboration on Istat data (CVTS-5).*
CVT participation: a SMOP analysis on key indicators

**Best performances** in 2015: six regions of the North, one of the Centre, one of the South.

*Source: Inapp elaboration on Istat data (CVTS-5).*
CVT participation

But **enterprises dimension** influences propension to CVT more than geographical location.

*Source: Inapp elaboration on Excelsior-Unioncamere data, 2000-2016.*
CVT participation

Enterprises size also influences the investments in **Intangible Assets**.

From training to skills

- Small dimension of the enterprises is a **vulnerability factor** which undermines the company’s competitiveness within the Global market.
- This factor has a negative impact especially in the South, whose production base is characterized by the **scarcity of big enterprises** and its related industries (as for Melfi).
- Modest level of **educational attainment of small companies entrepreneurs** (only 14,6% has a tertiary education) and of their employed (Istat, *Rapporto sulla conoscenza*, 2018).
- **Skills** associated with education are elements determining enterprises **competitiveness** in knowledge and innovation (Istat, *Rapporto sulla competitività*, 2018).
- The **skill mismatch increases**: in 2016 underskilled are 21,9%, overskilled the 31,8% of the employed (35% in 2017) (Istat, *Rapporto sul mercato del lavoro*, 2018).
## Skill mismatch and overeducation

20 jobs with most **difficulties in recruiting**: 

<table>
<thead>
<tr>
<th>Job Description</th>
<th>QUOTA % ENTRATE DI DIFFICILE REPERIMENTO</th>
<th>DI CUI % PER RIDOTTO NUMERO DI CANDIDATI</th>
<th>DI CUI % PER INADEGUATEZZA DEI CANDIDATI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Insegnanti di discipline artistiche e letterarie</td>
<td>65,6%</td>
<td>26,0%</td>
<td>35,1%</td>
</tr>
<tr>
<td>Analisti e progettisti di software</td>
<td>60,7%</td>
<td>43,2%</td>
<td>15,4%</td>
</tr>
<tr>
<td>Specialisti di saldatura elettrica</td>
<td>60,5%</td>
<td>24,2%</td>
<td>32,3%</td>
</tr>
<tr>
<td>Installatori, manutentori e riparatori di apparecchiature informatiche</td>
<td>60,2%</td>
<td>10,2%</td>
<td>49,9%</td>
</tr>
<tr>
<td>Agenti assicurativi</td>
<td>60,2%</td>
<td>24,0%</td>
<td>27,5%</td>
</tr>
<tr>
<td>Elettrotecnici</td>
<td>58,6%</td>
<td>32,1%</td>
<td>23,0%</td>
</tr>
<tr>
<td>Animatori turistici e professioni assimilata</td>
<td>57,9%</td>
<td>9,0%</td>
<td>47,2%</td>
</tr>
<tr>
<td>Tecnici programmatori</td>
<td>56,2%</td>
<td>35,0%</td>
<td>19,3%</td>
</tr>
<tr>
<td>Saldatori e tagliatori a fiamma</td>
<td>55,1%</td>
<td>27,1%</td>
<td>25,3%</td>
</tr>
<tr>
<td>Tecnici elettronici</td>
<td>54,0%</td>
<td>23,1%</td>
<td>27,2%</td>
</tr>
<tr>
<td>Attrezzisti di macchine utensili e professioni assimilate</td>
<td>53,8%</td>
<td>28,2%</td>
<td>23,5%</td>
</tr>
<tr>
<td>Meccanici e montatori apparecchi ind. termici, idraulici e di condiz.</td>
<td>53,4%</td>
<td>26,7%</td>
<td>25,8%</td>
</tr>
<tr>
<td>Ingegneri energetici e meccanici</td>
<td>52,4%</td>
<td>34,9%</td>
<td>14,3%</td>
</tr>
<tr>
<td>Operatori delle attività poligrafiche di pre-stampa</td>
<td>51,4%</td>
<td>44,9%</td>
<td>6,6%</td>
</tr>
<tr>
<td>Agenti immobiliari</td>
<td>51,4%</td>
<td>33,6%</td>
<td>13,2%</td>
</tr>
<tr>
<td>Ingegneri elettrotecnici</td>
<td>51,1%</td>
<td>40,4%</td>
<td>10,7%</td>
</tr>
<tr>
<td>Specialisti nei rapporti con il mercato</td>
<td>50,9%</td>
<td>16,5%</td>
<td>29,7%</td>
</tr>
<tr>
<td>Pellicciai, modellatori di pellicceria e professioni assimilate</td>
<td>50,5%</td>
<td>31,5%</td>
<td>17,4%</td>
</tr>
<tr>
<td>Rappresentanti di commercio</td>
<td>50,0%</td>
<td>23,4%</td>
<td>14,7%</td>
</tr>
<tr>
<td>Tecnici meccanici</td>
<td>49,9%</td>
<td>25,3%</td>
<td>22,6%</td>
</tr>
</tbody>
</table>

*Source: Unioncamere-ANPAL, Sistema Informativo Excelsior.*
**Skill mismatch and overeducation**

Geographical-based planned incomes of difficult recruiting ( % share of the total):

*Source: Unioncamere-ANPAL, Sistema Informativo Excelsior.*
Skill mismatch and overeducation

Enterprises that have not carried out training activities in 2015 mostly claimed they already internally owned the necessary skills. Only the il 6% complained about a lack of suitable CVT courses. There seems to be a lack of awareness regarding the necessity for analysis of the training needs, while the costs are not seen as a decisive obstacle. 15% of the enterprises prefer to recruit staff with the existing skills and competences that match the current needs.

Source: Inapp elaboration on Eurostat data (CVTS-5).
Skill mismatch & overeducation

Among the working-age population (25-64 years old), people with a higher level of education are more involved in the training and learning process. The Southern regions have the lowest ranking as far as **access to training and education** for people with a modest level of education.

Skill mismatch and overeducation

Distribution of employees by skill level highlights that the regions of the South have the increased presence of medium/low skilled jobs.

**Skill mismatch and overeducation**

Despite underqualified employees with a low level of education, the companies have not invested much in **Basic skills** (written communication, literacy, numeracy). CVT does not seem to have a complementary role compared to education.

*Source: Inapp elaboration on ISTAT data, Italy (CVTS-5, 2015).*
Skill mismatch and overeducation

What are the causes of this mismatch? A poor training system or an objective struggle of all stakeholders involved to understand and anticipate the vocational training and professional needs, in a rapidly changing world?

According to some, the main responsibility is to be found in a training system that struggles to align its offer, in the lack of a good practice to link up with the enterprises needs, in the struggle to design a structured plan that integrates all parties of the area, with the approach of a supply chain, by developing methods to acknowledge training credits and proven technical competences. According to others, responsibility lies on the enterprises, which fail to invest sufficiently in young people, in innovation and education and are incapable to implement the necessary connection with the Public training system.

To address these issues we will refer to quantitative and qualitative data taken from Isfol-OFP 2012 survey.
Training activities: Isfol-OFP

Main entities with which the training bodies have established a territorial network of systematic and consolidated connections:

- PA: 76,9%
- SME: 46,4%
- SPI: 34,6%
- Schools: 28,8%
- Micro-enterprises: 27,9%
- Training Agency: 26,0%
- Employer Associations: 20,1%
- University / Research Institutes: 18,5%
- Trade Unions: 14,6%
- Onlus: 14,4%
- Socio-sanitary services: 14,2%
- Camere di commercio: 13,9%
- Big companies: 11,1%
- Cultural / social associations: 9,1%
- Guidance centers: 8,7%
- Organismi bilateral: 8,0%

Training activities: Isfol-OFP

Procedures adopted in a sistematic way for the analysis of geographical-based training needs (% of the structure):

**Training activities: Isfol-OFP**

Sectors of training activities financed with public funds (% structures):

<table>
<thead>
<tr>
<th>Training activities</th>
<th>Totale</th>
<th>Area geografica</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Nord-ovest</td>
</tr>
<tr>
<td>Informatica</td>
<td>44,4</td>
<td>55,1</td>
</tr>
<tr>
<td>Attività imprenditor./comm.</td>
<td>39,7</td>
<td>47,6</td>
</tr>
<tr>
<td>Servizi alla persona</td>
<td>34,5</td>
<td>35,7</td>
</tr>
<tr>
<td>Salute e sicurezza sul lavoro</td>
<td>29,1</td>
<td>26,3</td>
</tr>
<tr>
<td>Assistenza sociale e sanitaria</td>
<td>26,6</td>
<td>22,4</td>
</tr>
<tr>
<td>Lingue straniere</td>
<td>23,7</td>
<td>30,3</td>
</tr>
<tr>
<td>Meccanica, manutenzione impianti</td>
<td>20,5</td>
<td>26,1</td>
</tr>
<tr>
<td>Alfabetizz., svil. pers., form. formatori</td>
<td>20,4</td>
<td>25,5</td>
</tr>
<tr>
<td>Agro-alimentare</td>
<td>18,2</td>
<td>12,4</td>
</tr>
<tr>
<td>Elettricità ed energia</td>
<td>16,9</td>
<td>13,2</td>
</tr>
<tr>
<td>Arte, informazione, comunicazione</td>
<td>13,7</td>
<td>16,6</td>
</tr>
<tr>
<td>Elettronica, elettrotecnica, automaz.</td>
<td>12,1</td>
<td>10,8</td>
</tr>
<tr>
<td>Edilizia, architettura, ingegneria civ.</td>
<td>11,6</td>
<td>16,5</td>
</tr>
<tr>
<td>Tessile</td>
<td>10,4</td>
<td>4,8</td>
</tr>
<tr>
<td>Materiali e design</td>
<td>10,0</td>
<td>7,6</td>
</tr>
<tr>
<td>Protezione dell'ambiente</td>
<td>9,9</td>
<td>13,0</td>
</tr>
<tr>
<td>Trasporti e logistica</td>
<td>6,8</td>
<td>6,6</td>
</tr>
<tr>
<td>Artigianato artistico</td>
<td>6,1</td>
<td>8,7</td>
</tr>
<tr>
<td>Chimica e biotecnologie</td>
<td>3,2</td>
<td>5,5</td>
</tr>
</tbody>
</table>

Qualitative and the quantitative data of the survey, both confirm that:

- Great part of the acknowledged training activities is not isolated or self-referential, but it’s **constantly linked** with the stakeholder, including SME (46,4%).
- More than 60% of the training institutions adopt a systematic procedure to detect the **companies’ vocational needs**, and accordingly fits the activity to suit such needs.
- However, these procedures seem to be characterized by an excessive **fragmentation**: it lacks a single national db of a professional supply/offer.
- EQAVET, and other **European Organisations** that promote the development of guidelines and criteria for quality assurance, common principles, reference frameworks (acknowledgements, certifications etc.) and support territorial mobility, have a positive impact on the quality of vocational training, which counts many outstanding examples.
- Regional systems are struggling to guarantee higher levels of **cooperation and synergy** among the training policies and the work dimension.
- However there is still a lack of a **national common strategy** that aims to properly address all territorial stakeholders in a fast developing employment market.
Conclusions

• The enterprises’ dimension seems to be a «latent variable» that impacts on the geographical gaps between North and South, and on the investment in vocational training and on other intangible assets.

• Regional gaps are linked with skill mismatch (overeducation and underskilling).

• Even if the training offer, with the support of the EU Organisations, together with shared solutions in the development of increased collaboration with the enterprises, tend to adapt to fast-paced today’s society, in a context in which education, training and employment are increasingly synchronized and interrelated, the implementation of a common national strategy, consistent with the European framework, is necessary.
Policy and research proposals

• **Technological hubs** and enterprise **networks** with training structures, schools, universities, research institutes, etc., within industrial policies with strengthening synergies and European cooperation.
• **A national common database** with training and professional supply/offer.
• **Implementation of a common national strategy** founded on a cultural approach: R&S and knowledge *not exclusively* techno-qualified.
• **Complementary role of** training (also in enterprises) and education.
• Training of enterpreneurs, public and private **management**, etc.
• Training not only for a conscious employer, but also for a conscious consumer and for a conscious (European) **citizen**.

Research

• Interdisciplinarity and **complexity**: a counterfactual method?
• Brain drain and waste of human potential.
• Rising phenomena: **high skilled Neet e skilled working poor**.
Annex 1: SMOP methodology

The SMOP rate (Surface Measure of Overall Performance) is an indicator used to assess the overall performance of a statistical unit with reference to a predetermined set of indicators. It’s given by the surface area of a polygon (radar chart) formed by the joined lines of performance indicators represented in each dimension of the chart. The radial lines quantify the performance in relation with the goals to achieve, called benchmark.

Scorings are standardized according to a scale in which the highest rate is 1 and the lowest is 0. The highest rate is given to the statistical unit that scores the best performance, while the lowest is given to the unit with the lowest performance. The other units establish ranges within the two above mentioned rates confined between the two extremes depending on their performance, with reference to the specific indicator taken in consideration for the analysis.
Annex 2: data sources

Bibliography
