“Presentation of the results of the first national survey among enterprises on training needs in the labour market”
case study Italy – the experience ISFOL professionioccupazione.isfol.it

“Mechanism to identify training needs in the labour market”
peer learning activity on EQAVET indicator 9
Roma, Palazzo Rospigliosi, 11 dicembre 2014

Massimiliano Franceschetti - Isfol
The Institute for the Development of Vocational Training for Workers (ISFOL) is a national research institute with a specific focus on vocational education and training (VET), employment and social policies and a strong commitment to promoting employment, social inclusion, skills and human capital development as well as at fostering growth and innovation.
1 Conceptual framework

2 How identify training needs

3 Some results - example
In Italy, but I should say in Europe, we need new policy to better manage the labour market.

The speed of changes in the labour market creates some difficulties in the process of relating the educational system to the new reality.
A Growing Need

to collect, assess, formalize and monitor professional and knowledge requirements
to address and evolve education and training system to give adequate answers to enterprise and country needs
The Ministry of Labour has faced this problem in order to increase opportunities for employment for people entering the labour market. The Ministry of Labour decided to build up a “National system for the observation of skill needs”.

The aim of this system, introduced as part of the institutional reforms in education, vocational education and the labour market, is to monitor changes in the fields of occupation and to better coordinate the educational system with the labour market.
In order to plan and to design training and education in line with the demands of the socio-economic system it is vital to identify and to quantify the occupations and skill needs and to determine the sectors and localities in which they can be useful.
How? The Ministry of Labour gave to social partners (bilateral bodies) and then to ISFOL the task of conducting national surveys on skill needs.

The Ministry of Labour gave also to ISFOL the task to set up the network among the surveys and to build up a “National system for the observation of skill needs”.
What? The “National system for the observation of skill needs” is seen as a clearinghouse generating a flow of qualitative, quantitative and forecasting information on the needs expressed by the economic system.

To know the “National system for the observation of skill needs” it is necessary to connect to the web site professionioccupazione.isfol.it. This web site was designed and implemented by ISFOL at the request and on behalf of the Ministry of Labour.
OCCUPATIONS

Occupations without secrets. Knowledge, skills, aptitudes and more information. All existing occupations in our country are grouped in approximately 800 Occupational Units and each of these is described on the basis of over 300 variables. Furthermore, under each Occupational Unit, you can consult the data provided by enterprises regarding the occupational requirements of workers. Navigate by choosing among the following four search modes:

Textual search

Search occupation

Search for classification

Search in OP2011

Search for Knowledges

Administration and Manager

Search

Search for Skills

Active Learning

Search

In Italy, the 33% of the private companies, much more than the average in reality, have stated to have a lack of suitable workers, in particular in the productive sector, as a factor they believe to be a major cause of their growth limitations. There is thus a growing interest in looking for solutions that can help in identifying and solving these problems.

The solution is to use the ISFOL tool, a system that allows you to carry out a precise analysis of the number of workers and skills needed in various sectors. By entering the type of occupation and the specific job requirements, the system will provide you with all the necessary information to plan and carry out the recruitment process.
The portal is a resource for stakeholders interested in understanding the dynamics and evolutions of occupations in the labour market, in order to define more effective and targeted policies in the areas of employment and training, organizational development and human resources management.

The portal is designed to support informed choices by decision-makers, as well as VET system, researchers, entrepreneurs, students and workers.
User has at disposal a broad spectrum of information in matter of occupations, vocational needs and employment.

Surfing this portal is a journey to discover the variety in the world of occupations. In fact, users can collect informations on:

- Description of the contents of the occupations
- Change and evolution of the contents of the occupations in the short term (description of each occupational need also in terms of knowledges and skills needed)
- Economic outlook and sectoral employment forecasts in the medium term
- Employment forecasts in the short and medium term at national and regional level

VET system
The link between the various types of information is based on official classifications of:

- economic activities (classification ATECO)
- occupations (international ISCO 2008 and national ISTAT CP 2011)
This web site is also a part of an integrated information system on the occupations jointly promoted by Isfol and Istat (Italian national bureau of statistics). It is fed by several public bodies that produce or deliver information and quantitative data on occupations, for example

- **Istat** (labour force),
- **Ministry of Labour** (supply and demand in the employment market "Cliclavoro web site"),
- **Unioncamere** (employment forecast in the short term),
- **Inail** (accidents in the workplace),
- **Regions** (observatories of the labour market and training)

Information can be consulted starting from the pages where the occupational units (800) are described. The 800 occupational units represent the whole Italian economy.
National system for the observation of skill needs - conceptual structure

- National components
  - Professional units inventory
  - Minimal standard description at national level
  - CPI2011
  - Sistan Istat Isfol

- Regional/local components
  - Professional needs analysis
  - Gap measurement between what is listed in the inventory and the demand expressed by enterprises

- Local & sectorial
  - VET systems
  - Education & training needs

- Feedback
  - Audit survey
  - Access education reference
  - Didactical design & planning

Knowledge and skill needs

Mechanism to identify training needs in the labour markets
The AUDIT SURVEY on occupational requirements has been carried out by Isfol ("Occupations" group within the "Employment and occupations" division) on behalf of the Ministry of Labour.

The main goal of the survey, conducted using the CATI technique (Computer assisted telephone interviewing), is to gather qualitative information on the requirements of businesses in terms of shortage/lack of specific knowledge/skills tied to the job roles present at private businesses (Public Administration has been excluded).
Was asked to entrepreneurs and human resources managers of large, medium and small enterprises in our country whether or not it will be necessary, in the coming months, to strengthen specific areas of knowledge and skills tied to the occupations exercised in their enterprises, in order to improve their working performance.

The businesses were therefore invited to think about and describe in great detail, not the type of vocational training carried recently, but rather the one that should be carried out in the near future to meet specific needs.

The information collected during the survey will be used to improve public policies and investments for the vocational training of workers and to reduce the existing gap between the current level of knowledge and skills of workers and what enterprises actually need to respond more efficiently to labour market requests.
The informations gathered through this survey may be consulted anonymously (without any reference to the enterprise that provided information) on the pages describing each Occupational Unit (OU) which may be navigated under the “Occupations” section, starting from the home page of the website.

*This survey analyses the thematic sections concerning knowledges and skills and provides elements to help develop vocational training pathways for currently employed workers, with particular reference to the actual requirements of businesses.*
OCCUPATIONS

Occupations without secrets. Knowledge, tools, apps, and more information. All existing occupations in our country are grouped in approximately 800 Occupational Units. Each of these is described on the basis of two variables.

You can consult the data provided by enterprises regarding the occupational requirements of workers. Navigate by choosing among the following four search modes:

1. **Textual search**
   - Search occupation
   - Search

2. **Search for classification**
   - Search in CP2011
   - Search

3. **Search for Knowledges**
   - Search

4. **Search for Skills**
   - Active Learning
   - Search

**INFORMATION SYSTEM ON OCCUPATIONS**

This website is a part of an Integrated System on the occupations promoted jointly by ISFOL and Istat and that involves several public and private bodies that produce or deliver information and data on occupations.

>>> SCARICA PDF <<<

**Accountants**

Accommodation technicians and rel...
5.2.2.1.0 - Hotel and restaurant cooks

- Cook, prepare and seasoning dishes
- Check food quality
- Seek and order raw materials
- Handle the presentation and garnishing of dishes
- Pack and store food
- Prepare or update the menu
- Turn on and fuel the stove
- Clean the machinery and equipment
- Start machinery and equipment
- Train staff
- Fix the prices of the food served

Importance and Frequency:
Occupational Units (OU) 800

5.2.2.1.0 - Hotel and restaurant cooks

Quality Control Analysis
Monitoring
Troubleshooting
Service Orientation
Critical Thinking
SAMPLING STRATEGIES

The reference sample used in the survey is formed by private enterprises having employees of all business sectors, excluding the Public Administration.

The first survey year, which was closed at the end of 2012, involved a sample of about 35,000 businesses scattered throughout the country.

The second year has concerned instead approximately 38,000 enterprises, of which 3,000 belonging to the welfare services, and included also a longitudinal share.
THE STRUCTURE OF THE QUESTIONNAIRE

The questionnaire called “Audit on skill needs” is broken down into three sections (A, B and C) which aim essentially at determining whether or not enterprises need to update knowledge and/or skills at this stage of the business cycle.

The Section A collects the details of the enterprise, helps create a favourable climate for the interview and retrieves the information needed to administer the other sections, especially the names (referable to the classification of Occupational Units) of the occupations requiring various updates.
A1. – **Enterprise details**

enterprise name

code and description of the business activity

address

place

province

A2., A3., A4. – **Reference market of the enterprise**

types of customers

location of customer businesses in Italy

propensity to export
A5. - Initiatives adopted to support the competitiveness of the enterprise during the crisis

new products or services
new facilities or new production techniques
new forms of work organisation
new ways of marketing and selling
use of social shock-absorbers
delocalization
A6., A7., A8., A9. – Organisation of employment (considering all employees with permanent contracts, fixed-term contracts, training and employment contracts, apprenticeship contracts and seasonal workers, excluding workers with temporary work contracts, project workers and training periods) number of employees age grading
A10./A11. – Presence of job roles (occupations) for which it is necessary to increase knowledge and skills to have better performance (it is possible to specify up to a maximum of 5 occupations)
- job title (and related codification)

N. B. – For each occupation, it is necessary to think about the average knowledge of the employees of the enterprise and not to specific individuals.

For each occupation, it is necessary to specify the main tasks or activities. For the description of tasks, at least 30 characters are required, is useful specify, if possible, one or more of the following aspects:

*the production process of the commodity or service;*
*the commodity produced or the service offered;*
*the materials used;*
*the means and technical tools used.*
Sections B and C are the most important part of the interview.

They have been conceived to accurately collect the information on knowledge and skill needs for each occupation specified in section A.
By “knowledge” we mean organised sets of information, principles, practices and theories needed to fulfil the job correctly. It may be acquired through formal processes (education, training and vocational training) and/or experience.

This section asks respondents to specify, for each occupation mentioned in question A11, whether it is necessary to strengthen some areas of knowledge in order to improve job performance.
By “skills” we mean the set of general cognitive procedures and processes that determine the ability to perform certain tasks tied to the occupation. These processes are learned over time and help efficiently apply the knowledge acquired to the job.

This section asks respondents to specify, for each occupation mentioned in question A11, whether it is necessary to strengthen some skills in order to improve job performance.
taxonomy and variables

some results for VET system
Audit survey - taxonomy

Knowledges

- business management (6 questions)
- production process (2 questions)
- engineering and technology (7 questions)
- mathematics and science (7 questions)
- health services (2 questions)
- education and training (1 question)
- arts and humanities (6 questions)
- law and public safety (2 questions)
### Audit survey – taxonomy

**Skills**

- **written and oral communication** (4 questions)
- **mathematics and science** (2 questions)
- **monitoring of activities and resources** (2 questions)
- **social skills** (4 questions)
- **problem solving skills** (5 questions)
- **resource management skills** (4 questions)
- **handling one’s professional development independently** (3 questions)
- **technical skills** (11 questions)
<table>
<thead>
<tr>
<th>GROUP</th>
<th>CLASS</th>
<th>PROFESSIONAL UNIT</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 - LEGISLATORS, ENTREPRENEURS AND TOP MANAGEMENT</td>
<td>3.1.1 - Technicians in quantitative, physical and chemical sciences</td>
<td>3.1.3.0.0 - Electronics technicians</td>
</tr>
<tr>
<td>2 - INTELLECTUAL, SCIENTIFIC AND HIGHLY QUALIFIED PROFESSIONS</td>
<td>3.1.2 - Consultants and experts</td>
<td></td>
</tr>
<tr>
<td>3 - TECHNICAL PROFESSIONS</td>
<td>3.1.3.1.0 - Mechanical technicians</td>
<td></td>
</tr>
<tr>
<td>4 - OFFICE SUPPORT WORKERS</td>
<td>3.1.3.2.1 - Ceramics technicians</td>
<td></td>
</tr>
<tr>
<td>5 - HIGHLY QUALIFIED PROFESSIONS IN BUSINESS ACTIVITIES AND SERVICES</td>
<td>3.1.3.2.2 - Mining technicians</td>
<td></td>
</tr>
<tr>
<td>6 - CRAFTSMEN, SKILLED WORKERS AND FARMERS</td>
<td>3.1.3.2.3 - Metallurgical technicians</td>
<td></td>
</tr>
<tr>
<td>7 - PLANT OPERATORS, STATIONARY AND MOBILE MACHINE OPERATORS AND VEHICLE DRIVERS</td>
<td>3.1.3.3.0 - Electrotechnicians</td>
<td></td>
</tr>
<tr>
<td>8 - UNSKILLED PROFESSIONS</td>
<td>3.1.3.4.0 - Electronics technicians</td>
<td></td>
</tr>
<tr>
<td>9 - ARMED FORCES</td>
<td>3.1.3.6.0 - Energy saving and renewable energy technicians</td>
<td></td>
</tr>
</tbody>
</table>
For example:

- **3.1.3.4.0 - Electronics technicians**

Lymph for VET system
### Occupations for which it is necessary to increase knowledge and skills (%)

<table>
<thead>
<tr>
<th>Skill needs</th>
<th>Aggregated vision - group</th>
</tr>
</thead>
<tbody>
<tr>
<td>I - Legislators, entrepreneurs and top management</td>
<td>1</td>
</tr>
<tr>
<td>II – Intellectual, scientific and highly skilled professions</td>
<td>5</td>
</tr>
<tr>
<td>III – Technical professions</td>
<td>20</td>
</tr>
<tr>
<td>IV – Clerical support workers</td>
<td>18</td>
</tr>
<tr>
<td>V – Highly qualified professions in business activities and services</td>
<td>25</td>
</tr>
<tr>
<td>VI – Craftsmen, skilled workers and farmers</td>
<td>23</td>
</tr>
<tr>
<td>VII – Plant operators, stationary and mobile machine operators and vehicle drivers</td>
<td>5</td>
</tr>
<tr>
<td>VIII – Unskilled professions</td>
<td>36</td>
</tr>
</tbody>
</table>
## KNOWLEDGE NEEDS – coming months
### Technical professions - (%)


<table>
<thead>
<tr>
<th>Knowledge Area</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Computers and electronics</td>
<td>52</td>
</tr>
<tr>
<td>Customer and personal service</td>
<td>45</td>
</tr>
<tr>
<td>Foreign language</td>
<td>41</td>
</tr>
<tr>
<td>Italian language</td>
<td>40</td>
</tr>
<tr>
<td>Economics and accounting</td>
<td>33</td>
</tr>
<tr>
<td>Sales and marketing</td>
<td>33</td>
</tr>
<tr>
<td>Administration and management</td>
<td>32</td>
</tr>
<tr>
<td>Production and processing</td>
<td>30</td>
</tr>
<tr>
<td>Design</td>
<td>26</td>
</tr>
</tbody>
</table>
SKILL NEEDS – coming months
Technical professions - (%)

<table>
<thead>
<tr>
<th>Skill</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Risolvere problemi imprevisti</td>
<td>60</td>
</tr>
<tr>
<td>Risolvere problemi complessi</td>
<td>53</td>
</tr>
<tr>
<td>Gestione del tempo</td>
<td>52</td>
</tr>
<tr>
<td>Comprendere gli altri</td>
<td>49</td>
</tr>
<tr>
<td>Valutare e prendere decisioni</td>
<td>49</td>
</tr>
<tr>
<td>Orientamento al servizio</td>
<td>48</td>
</tr>
<tr>
<td>Senso critico</td>
<td>48</td>
</tr>
<tr>
<td>Adattabilità</td>
<td>47</td>
</tr>
<tr>
<td>Capacità di analisi</td>
<td>44</td>
</tr>
</tbody>
</table>

Skill needs – Business sector
Skill needs – Regional data
for your attention

read more:
web site professionioccupazione.isfol.it

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