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Presentation fiche: ESCO, the forthcoming European Skills, Competencies and Occupations taxonomy

The needs which led the Commission to create ESCO:

There is wide recognition among Public Employment Services and brokers on labour markets that "skills, competencies and capabilities complement formal qualification-based approaches in dialogues with employers (notably for recruitment) and are increasingly able to provide a sufficient degree of specificity necessary for highly productive employment relationships"¹. In the light of this shift of paradigm one of the main deliverables of the Commission's New Skills for New Jobs Communication of 16 December 2008, is the development, at European level, of the first ever multilingual dictionary² linking skills and competencies to occupations. Named ESCO for the European Skills, Competencies and Occupations taxonomy, it will be made available free of charge in 25 languages to all labour market operators and brokers in 30 countries (EEA).

ESCO will significantly improve matching between labour demand (vacancies) and labour supply (job seekers) at all levels, from local or sectoral to national and European so as to support the creation of new jobs:

For each occupation the most relevant skills – hard and soft - and competencies will be listed and continuously updated according to market developments and the corresponding demand for new skills and competencies. ESCO is a taxonomy designed to be available to all labour market and education institutions/interested parties for use in and incorporation into their business models with the view to enhance matching of labour supply and demand, reduce skills mismatches and improve interoperability between the different labour markets and education systems in the Member States. Indeed, a good matching between skills, jobs and learning opportunities can only be achieved if there is a common, multilingual classification of skills and occupations with a high quality and continuous updating allowing for interoperability between labour markets actors and the education/training world (*i.e. allowing the right people to consider the right intelligence*)

¹ Opinion from the Public Employment Services (PES) network to the Employment Committee 'How can PES best deliver on the New Skills for New Jobs policy objective'

² "Develop as of 2009 a standard multilingual dictionary of occupations and skills, to enhance the quality and transparency of vacancy information to improve matching between job seekers and vacancies"

ESCO has the potential to become the European standard classification for skills and competencies building a bridge between labour markets and the world of education and training:

The development of a multilingual, common and open taxonomy of skills, competencies and occupations must be based on market needs and will be developed in close co-operation with relevant market players. It may be regarded as the logical consequence of the new labour market paradigm based on skills and competencies rather than on traditional educational input measurements (qualifications). Coupled with the new approach to output measurement of educational attainment based on the European Qualification framework (EQF) ESCO will as well be mapped to occupational groups contained in the International Labour Organisation (ILO) International Classification of Occupations (ISCO), ESCO has the potential to become the standard that will bring closer together the so far rather separated worlds of employment and education. ESCO could indeed replace or complement existing national or international as well as sectoral occupational classifications. Players on both the labour and educational markets can create around the ESCO standard enriched tools/applications that respond to the latest market developments and provide more and better options for matching, interoperability and up-skilling.

In the wider context of the EU 2020 strategy ESCO will be a tool that further facilitates the creation of dynamic labour markets characterised by smooth transitions mainly from job to job but also from education to the first job and training measures back to work:

ESCO will contribute to the recovery on the labour market after the current crisis through major improvements in areas such as up-skilling and the development of training courses according to labour market needs but on short-term it will improve the matching between job vacancies and CVs. In this respect, ESCO will support the development of skills oriented services which in turn will make possible for brokers on labour markets to adjust their services to quickly evolving market needs.

In a period of accelerated mutation of labour markets triggering more labour mobility and new types of jobs creation, ESCO will provide a rich resource to allow mobile jobseekers to identify skills and competences that are transferable. In such times, the concept of transferable skills becomes even more important as jobseekers seek out new routes back to work in both the national and also in the larger European labour market.

When coming to the tangible functioning of labour markets, ESCO will impact labour and education markets in numerous fields:

- **Jobseekers** can use ESCO elements describing their skill set when developing a **CV that can be easily interchanged and used for various automatic matching purposes;**
- **Employers** may use ESCO on-line to define a set of skills and competencies required when they are **developing a job description** to be advertised with the Public Employment Services (PES) or other employment services;

- As ESCO will be included in the standard European formats for electronic interchange of vacancy information (EURES) and CVs (Europass/EURES) in HR-XML, **full syntactic and semantic interoperability between major labour market actors will be ensured.**
- ESCO will facilitate the **vocational guidance/action planning processes** where existing aptitude/ability tests, skills and interest inventories/tools can be enriched by the new Taxonomy;
- ESCO will add to standardised labour market skills and occupational **forecasting tools and processes** which results can immediately be used for the planning of education measures;
- **New skills requirements and skills shortages** can be identified through the wide use of ESCO which in turn can inform training and educational course design;
- ESCO will also ultimately **bridge between the labour market (Jobs and CVs) and learning/training outcomes in the context of the European Qualification Framework** which measures learning outcomes and the educational groups of the International Standard Classification of Education (ISCED);
- ESCO will improve the **interoperability of education and employment service providers, between public and private employment services and of course between different public employment services, hence providing a backbone for Europe-wide semantic interoperability and thus contributing to the creation of a true European labour and education market.**
- On European level ESCO will provide for a more accurate, granular and richer **matching of jobseekers to jobs through the EURES European Job Mobility Portal**, in the context of a more flexible and adaptable labour market where identification of competencies/skills is increasingly used in workers selection.
- Last but not least, ESCO could support **new labour market initiatives** with a European dimension e.g. **self-assessment tools, guidance tools...**

The Commission will kick-start the development of ESCO in 2010. It calls upon all interested stakeholders to contribute to ESCO. All relevant details will be presented at the ESCO stakeholders' conference on 17-18 March 2010 in Brussels.

Annex:

The technical implementation of ESCO:



ESCO objective:

The structure of the ESCO taxonomy and the systems to maintain and develop it will be as **simple** as possible. It will consist of several modules that could be used separately or all together to allow multiple usages. The participation in the development of ESCO will be **open** to any interested party, whether in the public or private sector. All interested stakeholders will be invited to contribute to the maintenance and further development by suggesting corrections, improvements and additions via a web-based proposal management tool.

The end product – the ESCO taxonomy – will be an open standard that can be used **entirely free of charge**. ESCO will be **flexible** enough to allow users to make customised adaptations and additions. Support will also be given to those who are not prepared to use the taxonomy as it is, but prefer to make high quality mappings to and from any other another classification, be it national or proprietary to a specific operator.

ESCO will be available **in all official EU languages**. It is expected that the ESCO project will produce tangible and usable outputs within 2011.

Starting point:

The taxonomy of skills and occupations currently in use at European level was developed originally by the Swedish PES and is a key tool of the jobs platform within the EURES **European Job Mobility Portal**. **It is the only skills and occupations taxonomy that is translated into 20 languages.**

The taxonomy contains **currently 6000 skill descriptions (each occupation has been analysed to establish the skills required in that occupation) and 5000 job titles**. These are mapped back to the 545 Occupational groups contained in the International Labour Organisation (ILO) International Classification of Occupations (ISCO). It is planned to enrich this existing taxonomy with additional occupations and skills, in particular soft skills and further develop it to become ESCO.

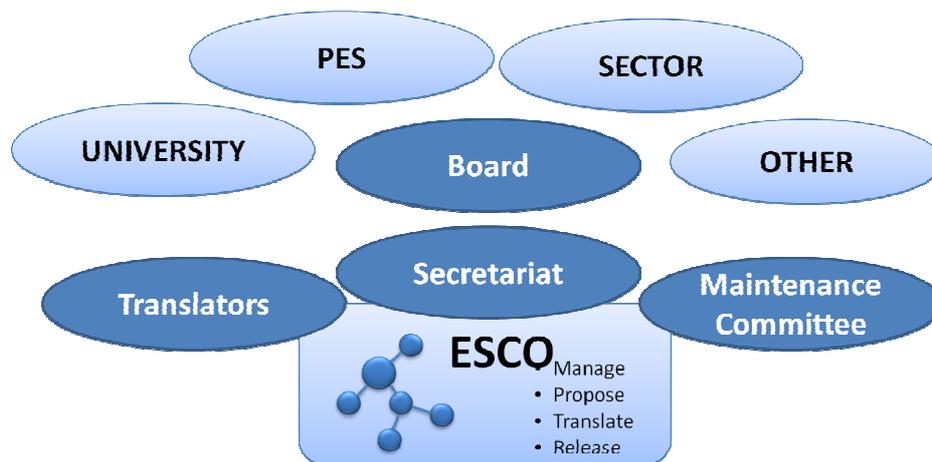
The current taxonomy is based on ISCO88 and needs therefore to be **upgraded to ISCO08**, the new version of ISCO recently published by the ILO. Furthermore, it does so far not contain soft skills. While the current multilingual taxonomy has proved to be a very useful tool, it has limitations in that it does not include competencies or synonyms for example, which will be addressed when ESCO is developed and replaces the current taxonomy.

Structure of ESCO and management of ESCO at European level

A full time Secretariat resourced by the Commission will manage the day to day operation of ESCO. A Maintenance Committee will work with the Secretariat to advise for example on new skills coming into play in the context of new jobs. Redundancies will also be recommended to the Board for deletion by the Committee.

The Board will include representatives of all important interested stakeholders. It will have supervisory and advisory functions and will inter-alia approve a package of amendment, additions, and deletions from time to time as required. It will also provide policy direction to ESCO.

One or more reference groups will be set up, representing users and other interested parties, to take part in the maintenance work and to give advice on specific issues. Reference groups could for instance be set up to develop subsets of ESCO for particular sectors.



On conceptual level, the taxonomy management process can be described as follows:

- **External Parties & Reference Groups** can create **proposals** for changes and new concepts for the ESCO taxonomy (via a web-based proposal management tool);

- These proposals are **evaluated by the Secretariat**, a team of taxonomy editors. And they **enter (or import) the approved data** in the Taxonomy Management System (TMS). Proposals made by reference groups are validated jointly by the reference group and the editorial team; proposals from other external parties are screened (more thoroughly) by the secretariat alone. The secretariat also **elaborates & documents** the changes, which then will enter the **approval** process.
- Depending on the nature of the change (can it be mapped to focus of existing reference group?); the documented changes are sent to the **reference group maintenance committee or the general maintenance committee**. These committees **discuss the proposals and take decisions** on the further actions:
 - They can **reject** the proposal; in that case the proposal and its data are deleted from the TMS and Proposal Management Tool (PMT)
 - They can mark the proposal as not finished (**pending**); the proposal will be sent back again to the editorial team or impacted reference group
 - Or they can **accept** the change; accepted changes by reference group based committees are sent for approval to the general committee; changes approved by the general maintenance committee are pushed through to the translation process
- The **general maintenance committee** evaluates whether approved changes **need translation or not**.
 - If translation is required; a **notification** (via mail or TMS) is sent to the **translation department** with the request to translate the approved concepts & changes.
 - If no translation is required, the change is stored and **ready for adoption** by the **Board**.
- All changes that require translation are sent back to the **general maintenance committee** which decides (together with reference group based maintenance committees, if needed) to **accept or reject the translation**.
- Depending on the release calendar of the ESCO taxonomy; a **Board** meeting is scheduled. During this meeting the Board formally **adopts the changes** that can be inserted in the next release of the ESCO taxonomy.
- The last step of the process is the **release** of a new version of the taxonomy by the **Secretariat**. They will create a new stable release in the TMS and execute consequent publication activities (update website; extract XML, PDF;... formats of the ESCO taxonomy)

ESCO stakeholders:

All organizations interested in contributing to the development of ESCO will be invited to participate in the technical work. Their exact role and responsibilities will be further discussed at the forthcoming **ESCO Stakeholders conference on 17-18 March 2010 in Brussels.**

DG EMPL will organize this conference in order to kick start the development of ESCO. Participants at this conference are: DG EMPL, DG EAC, DG Translation, CEDEFOP, ILO, OECD, PES, PRES, promoters of other classifications, social partners, training and education providers, academics, etc.

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