Approach of the continuous updating of ESCO

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Purpose of this document

With this document the ESCO Secretariat (SEC) will present to the BOA, the approach that the Commission plans to take for the continuous improvements of ESCO, after its first release. This document lays down the context of the future maintenance and update of ESCO V1.

The ESCO Secretariat (SEC) will present this document to the BOA, on the 7th of April for consultation.

Context

The first version of ESCO, to be published at the end of 2016, will reflect the current status of the labour market and education and training sectors. We developed this content, after consulting with the domain experts, internal stakeholders and Member States. Once published, we need to ensure that ESCO remains relevant, aligned with the labour market reality and also fit for purpose. For this reason, we are putting in place a process for continuous update.

After the release of ESCO v1, the Commission will continue to support the maintenance of ESCO and its future developments. ESCO is one of the building blocks of the New Skills Agenda[1] and a necessary element to fulfil the Commission's legal obligations under the new EURES Regulation.

Scope of updates

The updates of ESCO will reflect many aspects of the project:

- The **content** of ESCO includes concepts that describe occupations, skills/competences and qualifications. In this case, the updates will be about new concepts and changes in the composition of the occupational profiles and relationships between these concepts. The changes will be aligned with the labour market reality, the education and training.

- The content of ESCO will be available in 24 languages. Languages are also dynamic by nature and the translations of the ESCO classification need to reflect the natural evolution of the languages it is translated in. This treats mostly new lexemes[2].

- ESCO is supported by an IT Infrastructure which is mainly composed of the ESCO portal and the Taxonomy Management System. Apart from the normal maintenance of the IT tools, we need to update them in order to reflect the latest developments on the ESCO content and

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[1] http://ec.europa.eu/social/main.jsp?catId=958
[2] A meaningful linguistic unit that is an item in the vocabulary of a language. *Source: merriam-webster.com*

project in general. In this case of the latter, the publication of news items, events and new ESCOpedia articles will be necessary.

- To support Public Employment Services, Private Employment Services and other implementers of ESCO, we are developing a developers' toolkit which will address the technical needs for implementation of ESCO. This will not only have the necessary APIs[3] but also technical documentation which will need to be updated in line with the classification to ensure that the IT applications can use ESCO.

The update of the content of the classification is the first step of the process which brings along the update of other parts of the ESCO project including the IT systems. For the purpose of this document, we will mostly focus on the updates of the classification.

Why ESCO needs to be updated?

ESCO needs to reflect the labour market reality and the developments from the domain of education and training. Furthermore, we also need to ensure that ESCO is fit-for-purpose for the various IT applications and their end-users.

The Commission should focus on quality needs for ensuring that new updates comply with the methodology of the development of ESCO, as described in the ESCO guidelines, meet stakeholder's expectations and are consistent with the rest of the content.

The updates of ESCO are crucial for the development of the classification for the following reasons:

1. It is important for ESCO to monitor and capture changes in the labour market in terms of occupations and their skills in all economic sectors.

2. In the context of the new EURES Regulation, the Commission needs to present updates of the ESCO classification in implementing acts and provide the technical (and where possible financial) support to the Member States. Following this update, the Member States in return need to update the original mappings of their national classifications to ESCO.

3. The qualifications pillar in ESCO v1 will contain a number of qualifications, but it will not cover all qualifications from the current national qualifications frameworks (referenced to EQF) and international qualifications. Once the national qualifications databases from the Member States are developed or updated, they would need to be reflected in ESCO. Similar work needs to be with the international awarding bodies to publish their qualifications according to ESCO requirements. .

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[3] **API** (application program interface) is a set of routines, protocols, and tools for building software applications

The workflow on the ESCO continuous update

To implement a continuous update we plan to build a regular consultation with different stakeholders and implementers to receive feedback and information on:

- additions of new occupations, skills and qualifications;
- changes to current occupations, skills and qualifications;
- amendments to the national occupational classifications;
- improvements on translated content;
- improvements on the Application Programme Interface[4] API.

The continuous update process of ESCO, complements the feedback loop mechanism within the ESCO communication strategy, as well as the Quality Management document presented to the MAI on the 16th March 2016.

The figure below explains the steps we plan to adopt when updating the ESCO classification. This workflow is continuous as each new release of ESCO will create a new phase of feedback collection.
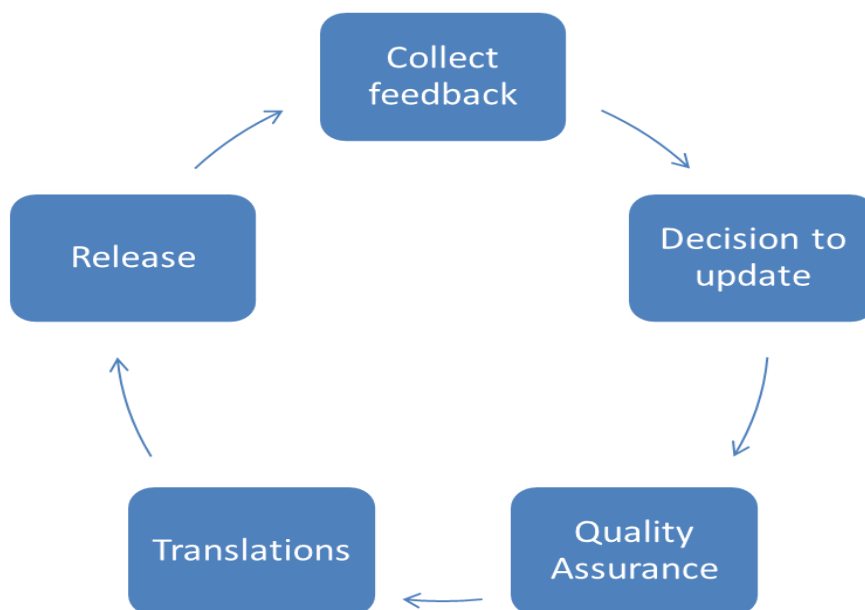

Figure 1: Workflow on the ESCO continuous update.

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[4] **API** (application program interface) is a set of routines, protocols, and tools for building software applications.

A. Collection of feedback

The collection of feedback is the first step in this workflow. This is in line with the "Listen" phase of the ESCO Communications' Strategy were through multiple channels, the Commission receives feedback from stakeholders on ways of how to improve the classification. The collection of feedback comes from different sources:

ESCO Community forums

The Commission considers launching two ESCO Community Forums in order to support the constant communication with stakeholders and obtain feedback.

- The first forum will reflect the business side of ESCO. The purpose of this forum is to empower experts and users to share and discuss topics on the content of the classification, such as emerging trends relating to skills or occupations, improvements on the current content, new translations. Users in this user community would typically be:

    - Domain experts - The role of the domain experts will be to discuss features and short-comings of the concepts of the ESCO classification. They will need to high-light emerging trends and indicate omissions and quality issues with the concepts and terms defined in the classification.

    - Experts from national classifications systems - Experts from national and international classification systems have an interest to discuss changes in ESCO or to give feedback on its further development. The various classification systems are a major source for the continuous updating of the ESCO classification.

    - Taxonomy experts – Although the data model for ESCO is finalised for V1, it would be necessary for ESCO to still receive feedback for further improvement.

    - Employment services – Whether private or public employment service, it is very important to get feedback from users that are in constant contact with players in the labour market. These can provide important feedback on the usage of skills and competences and highlight any gaps between ESCO and the realities of the market.

    - Statistical organisations – These are also very important stakeholders that can provide valuable feedback on new emerging occupations and skills but also suggest changes to current ones.

- The second forum targets a more **technical audience** and it focuses mainly on IT issues and implementations. It would address issues on how to solve technical problems, such as missing features, key performance indicators and requirements for improving the classification. (Potential) ESCO's users would share and discuss implementation options including feature requests, best practices and practical issues related to ESCO such as how to use the ESCO classification in their systems.

The ESCO Community Forums, moderated by the Commission, will be an information source and virtual place for discussions on the ESCO classification. They would contribute to the continuous improvement process of ESCO.

Big data analysis

Tools and services such as EURES, Europass, the EU Skills Panorama, public and private job boards which will use ESCO can provide a lot of data with regards to job vacancies, CVs and jobseekers profiles. ESCO could analyse this data, in order to check if the occupational profiles of the classification are relevant to the labour market.

Changes in the national classifications

The degree of maturity in the national occupations classifications differs a lot between the Member States. Some Member States have a mature version of national occupations classification whilst others only use ISCO 08 as their reference taxonomy. Only a few have a national skills classification. ESCO will serve as a tool to increase interoperability in the labour market. In this context, updates of the national classification systems, may trigger updates in the ESCO classification.

Studies

Studies related to labour market intelligence, education, statistics, macro and microeconomics topics (like the ones published by CEDEFOP[5]), amongst others, are valuable input to the update of ESCO as these reflect the reality of the labour market and the education and training sectors.

Analysis from implementations

As we publish ESCO v1, we expect the number of implementations in IT applications will increase. By using ESCO in their applications and systems, the implementers can learn about the usability aspects of ESCO and how it compliments their user interface and in return provide us with valuable feedback upon which we can update ESCO.

From the mapping of classifications to ESCO, we can capture the information about the quality of the alignment of the concepts between the classifications. We will use this information to analyse how we can reduce information loss during the process which will result in a more accurate mapping.

B. Decision to update

Once the Commission gathers the necessary feedback from different sources as described above, the next step will be to analyse and evaluate the feedback together with internal stakeholders.

The Commission will provide the political direction for ESCO vis-à-vis the skills agenda and the relation to other tools and instruments around skills and qualifications. Furthermore, the Commission will have a moderating role and will consult the Member States Working Group and the various stakeholders involved, in order to agree on the way forward for the updates of ESCO.

The Member State Working Group has due to its composition and its role a special position in this process, since it represents the official position of the Member States.

Based on the aforementioned process and in order to comply with the EURES Regulation, the Member States will either map their national, regional and sectoral classifications to and from the ESCO classification, or adopt ESCO as their national classification.

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[5] European Centre for the development of vocational training - http://www.cedefop.europa.eu/

C. Quality Assurance

Quality assurance is an important step in the ESCO development and maintenance process. Therefore, following the ESCO guidelines, the Commission will ensure a process by which a due diligence is performed on the new content of ESCO. This will ensure that the changes reflect the same level of granularity of the remaining concepts as well as following the rules in the ESCO guidelines.

D. Translation[6]

The working language for the development and the maintenance of ESCO is English. After the finalisation and the approval of the ESCO version 1 in English, the Commission will be in charge to translate the new content into the remaining 23 languages. The Public Employment Services will also be involved in the validation of the translated terms, in order to ensure that the translated concepts are aligned with their national labour market.

E. Release

Following the translation, the Commission is responsible for the release of the new version of ESCO and the communication activities linked to this in line with the "Market" phase of the ESCO Communications Strategy.

Next steps

- The Commission is seeking the advice of the BOA on the above approach and welcomes any feedback.

- In order to be in line with the Commission's rules for the creation and management of the community forums, the SEC is currently being in contact with the Communication Unit of DG Employment, Social Affairs and Inclusion.

- The Commission will consult the Member States on the translation of the ESCO classification both before and after its first release.

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[6] For simplicity the SEC uses the word "translation" however it mainly means "terms formulation". For each ESCO concept (occupation or skill) the terminologists create different terms in different languages.