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## **Specifications – Invitation to tender No VT/2011/007**

### **Framework contract for Services relating to the development, management and dissemination of the ESCO classification**

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#### **1. Title of the contract**

Framework contract for Services relating to the development, management and dissemination of the ESCO classification (VT/2011/007)

The contract is divided in three lots:

- Lot 1. Assistance and technical services relating to the development, management and dissemination of the ESCO classification
- Lot 2. Formulation and validation of occupation, skill/competence and qualification terms in various languages; translations
- Lot 3. Provision of external expertise on classifications, on semantic technology and on controlled vocabularies/terminology in the field of occupations, skills/competences and qualifications

Tenders may be submitted for one or several of the lots. Each lot will be evaluated separately.

For lot 1 a single framework contract shall be concluded with one economic operator.

For lot 2 a single framework contract shall be concluded with one economic operator.

For lot 3 multiple framework contracts with reopening of competition shall be concluded with a maximum of three economic operators (cf. ch. 5.3 for further details).

The contract will be signed for a period of 24 months, renewable once.

#### **2. Background**

##### **2.1. PROGRESS**

PROGRESS<sup>1</sup> is the EU employment and social solidarity programme, set up to provide financial support for the attainment of the European Union's objectives in employment, social affairs and equal opportunities as set out in the Social Agenda<sup>2</sup>, as well as to the objectives of the Europe 2020 Strategy. This new strategy, which has a strong social dimension, aims at turning the EU into a smart, sustainable and inclusive economy delivering high levels of employment, productivity and social

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<sup>1</sup> Decision No 1672/2006/EC of the European Parliament and of the Council of 24 October 2006 establishing a Community Programme for Employment and Social Solidarity — Progress, JO L 315 of 15.11.2006.

<sup>2</sup> Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions - Renewed social agenda: Opportunities, access and solidarity in 21st century Europe COM/2008/0412 final of 02.07.2008.

cohesion. The European Union needs coherent and complementary contributions from different policy strands, methods and instruments, including the PROGRESS programme, to support the Member States in delivering on the Europe 2020's goals.

The PROGRESS mission is to strengthen the EU's contribution in support of Member States' commitments and efforts to create more and better jobs and to build a more cohesive society. To this effect, PROGRESS is instrumental in:

- Providing analysis and policy advice on PROGRESS policy areas;
- Monitoring and reporting on the implementation of EU legislation and policies in PROGRESS policy areas;
- Promoting policy transfer, learning and support among Member States on EU objectives and priorities; and
- Relaying the views of the stakeholders and society at large.
- More specifically, PROGRESS supports:
  - The implementation of the European Employment Strategy (section 1);
  - The implementation of the open method of coordination in the field of social protection and inclusion (section 2);
  - The improvement of the working environment and conditions including health and safety at work and reconciling work and family life (section 3);
  - The effective implementation of the principle of non-discrimination and promotion of its mainstreaming in all EU policies (section 4);
  - The effective implementation of the principle of gender equality and promotion of its mainstreaming in all EU policies (section 5).

The present call for tenders is issued in the context of the implementation of the 2011 annual work plan which can be consulted at <http://ec.europa.eu/social/main.jsp?catId=658&langId=en>

## **2.2. *ESCO Classification***

Today, more than ever, skills matter. The crisis, that has struck European economies over the last years, has speeded up the pace of change in our economies and societies. Employers are becoming increasingly aware of the fact that formal qualifications do not always sufficiently describe what workers know, understand and are able to do in practice. Additionally, there is a growing need to describe transversal skills and competences, such as communication skills, the ability to learn and a sense of initiative in a systematic and standardised way.

Public and private employment services respond to this trend by gradually changing from an occupation-focused to a skills and competence-oriented approach and some have begun to complement their existing occupational classifications with skills lists.

At the same time, education and training systems are moving away from approaches defined around the time spent on learning and the formal level of the training. In line with the European Qualifications Framework (EQF), all Member States are in the process of developing National

Qualification Frameworks (NQFs) which describe qualifications in terms of learning outcomes which explicitly state knowledge, skills and competences.

This shared focus on skills provides an opportunity to bridge the gap between the worlds of education and employment and to help increasing the relevance and responsiveness of education and training provision to the needs of the labour market while at the same time improving the matching of labour market supply and demand.

In the framework of the New Skills for New Jobs initiative (2009), a group of independent experts recommended to develop 'a common language between education/training and the world of work'. The recommendation has been affirmed by Europe 2020 ('A European strategy for smart, sustainable and inclusive growth') as well as by the conclusions adopted by the Education Council on 13 May 2010 which called for a common language and an operational tool. This need is addressed by ESCO.

The objective of ESCO is to develop a multilingual, structured, easy-to-use terminology of skills/competences, qualifications and occupations. DG Employment, Social Affairs and Inclusion and DG Education and Culture have been entrusted with the joint coordination of the development of ESCO. The European Commission currently supports the development of ESCO with a secretariat responsible for the technical management, dissemination systems and other support.

The ESCO classification is based on the classification of occupations and skills/competences currently used on the EURES portal (<http://eures.europa.eu>). In its current state, ESCO consists of an occupations pillar and a skills/competences pillar. It is intended to add a qualifications pillar in 2011/2012. The current version of ESCO (pre-ESCO v0) contains approximately 5 000 occupation titles and 6 000 skill/competence terms – that are all translated into 22 languages (all official languages of the European Union except Irish).

It is envisaged, to revise all terms currently included in the classification and to establish direct links between the two existing pillars. This first revision of the classification will focus on establishing links between occupations and skills/competences terms and on enhancing the quality and adjusting the scope of the terms covered by ESCO.

Later on, a qualifications pillar will be added and linked to one or two of the existing pillars. Furthermore, an ongoing revision process will incorporate new developments on the labour market (e.g. new occupations, new skills profiles of existing occupations) into ESCO.

The European Commission has implemented technical means to manage and publish the ESCO classification. The main elements of this technical infrastructure are the ESCO portal and the ITM taxonomy management system.

For additional information on the ESCO classification and its management, please refer to the following annexes:

Annex III describes the state of play of the contents and methodology of the ESCO classification.

Annex IV describes the management structure of ESCO and how it is intended to organise the revision of the ESCO classification.

Annex V provides an overview of the main functionalities and technical features of the ESCO portal which allows users to browse and download the ESCO classification and to make proposals for changes.

Annex VI provides a short overview of the ITM taxonomy management system.

### 3. Subject of the contract

#### 3.1. Purpose and main tasks

The purpose of this framework contract is to provide services for the development, management and dissemination of the multilingual classification of European Skills/Competences, qualifications and Occupations (ESCO) or similar classifications.

Main tasks within this context are

1. implementing changes in the data model<sup>3</sup> of ESCO
2. managing the repository of concepts<sup>4</sup> of the ESCO classification
3. enriching and managing a repository of terms describing these concepts
4. managing the relationships between the concepts of the ESCO classification and with other taxonomies/classifications (e.g. mappings)
5. disseminating the ESCO classification and implementing it in pilot and other projects.

#### 3.2. Indicative volume of the contract

The indicative volume of the contract is:

Lot 1: 1 000 person-days per year

Lot 2: Per year:

Formulation and validation of preferred and non-preferred terms:	100 000 TFU (1 000 units)
Formulation and validation of non preferred terms (not synonyms):	400 000 terms (400 units)
Translation into three target languages:	150 standard pages
Consulting on linguistic aspects:	30 person days

Please cf. annex II for further explanation of these tasks/units.

Lot 3: 300 person-days per year

Please note that these volumes are purely indicative and do not impose any obligation on the European Commission to order services in this volume.

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<sup>3</sup> Here, the data model of ESCO is understood as the model that is used to describe occupations, skills/competences and qualifications as well as their relationships. The data model defines the types of elements that can exist in the classification, the attributes of these elements, the types and attributes of relationships, logical rules and restrictions, etc.

<sup>4</sup> A concept is a *thing, idea or shared understanding of something*. While "term" refers to the linguistic description of a concept, a "concept" is the actual meaning of the term.

## 4. Participation

Please note that:

- The competition is open to any physical person or legal entity coming within the scope of the Treaties and any other physical person or legal entity from a third country which has concluded with the Union a specific agreement in the area of public contracts, under the conditions provided for in that agreement.
- Where the Multilateral Agreement on Public Contracts concluded within the framework of the WTO applies, the contracts are also open to nationals of States that have ratified this Agreement, under the conditions provided for therein. It should be noted that research and development services, which come under category 8 of Annex II A of Directive 2004/18/CE, are not covered by this Agreement.

## 5. Tasks to be carried out by the contractor

### 5.1. *Lot 1 – Assistance and technical services relating to the development, management and dissemination of the ESCO classification*

#### 5.1.1. Managing the content of the ESCO classification

This subtask concerns updating the ESCO classification (or other classifications) according to the change proposals that have been accepted in the course of the revision process. Updates are implemented using the ITM tool. They include all kinds of changes to the contents of the classification, such as importing and adjusting data subsets from other classifications, adding, editing or deleting concepts, terms, relations and metadata in the classification.

Furthermore, it includes the provision of expertise on the operational management of the ESCO classification or on terminology in the fields of occupations, skills/competences and qualifications.

#### 5.1.2. Maintaining and updating the ITM taxonomy management system

The contractor shall maintain and update the ITM taxonomy management system used by the European Commission.

Over time the data model of classifications such as the ESCO classification can be changed. These changes have to be reflected in the ITM taxonomy management system. The ITM system should always represent the data model of the classification managed with it and needs to be updated accordingly. Such updates include e.g. defining new types of relationships, adding new types of concepts or adding fields used for storing meta data on existing concepts. The contractor shall adapt/configure the ITM system to reflect such changes in the data model of the classification.

On a regular basis the contractor shall manually check the ITM taxonomy management system to detect any anomalies concerning functionalities and contents. All findings and suggestions for improvements shall be reported immediately to the European Commission.

Maintaining and updating the ITM taxonomy management system shall not include tasks that could only be carried out by the producer of the software, in particular no tasks that require knowledge of the source code of the application. Such tasks shall not be part of this contract.

### **5.1.3. Developing, implementing, maintaining and updating information systems that are disseminating, testing or using classifications**

While the content of the ESCO classification is managed with the ITM tool, the classification will be published to external users on the ESCO portal. Maintenance of this portal shall be carried out by the contractor and includes the following tasks:

- Using already available tools, or any new or additional tools that may be necessary, the contractor shall monitor the performance and availability of the ESCO portal.
- During office hours, the contractor shall actively investigate and follow-up any performance problems in order to have them eliminated without delay. The contractor shall inform the European Commission immediately whenever there is a need for intervention.
- The contractor shall regularly check and repair any broken links to other sites as well as internally.
- On a regular basis the contractor shall manually check the site to detect any anomalies concerning functionalities and contents. All findings and suggestions for improvements shall be reported quarterly or, if urgent, immediately, to the European Commission.

At the same time, pilot applications using ESCO shall be developed or ESCO shall be implemented in existing applications as prototypes. These development tasks may concern all types of information systems in the areas of classification management and dissemination, web content and document management and collaboration. The Contractor could for example be asked to develop:

- new features for the ESCO Portal,
- demo, pilot and test applications,
- auxiliary applications,
- interoperability projects and mapping tools,
- pilot implementations of ESCO.

The contractor shall respond to all such request with a first analysis and, based on the priority of the request, an estimation of the time frame in which the requested new feature may be delivered. The contractor shall provide a detailed description of the procedures and organisation of the delivery, testing and final release of fixes, code modifications and new functionalities to be agreed with the European Commission. The contractor is responsible for the related project planning.

The price and specimen quotation form in Annex II contains two scenarios of sample development projects. The price indicated for carrying out these development tasks is part of the overall scenario price that is used for price comparison. These scenarios are as follows:

#### a) ESCO test application

In this scenario the contractor shall develop an online software application, which could be hosted at the European Commission data centre and which allows to compare and evaluate different versions of ESCO through testing.

ESCO is a meta tool that will usually not be used directly by the end user, but as a building block in software applications such as job portals. This also implies that the impact of changes in the ESCO classification is not immediately visible. Only when a changed version of ESCO is implemented in an application the effects can be assessed. For the people developing and revising the structure and the content of the ESCO classification, such as the Reference Groups, this means that an immediate feedback mechanism showing the impact of their decisions is lacking.

The purpose of the software application in this scenario is therefore to provide a test environment that allows to draw conclusions about the suitability of different versions of the ESCO classification for its various purposes. The software application should allow for testing different versions of the ESCO classification and comparing the results. It should be possible to conduct tests in at least English, French and German, preferably in all ESCO languages<sup>5</sup>. Results should be presented in a way that they can be easily understood by the members of the Reference Groups to assist them in their revision process.

Potential uses of ESCO that could be tested in the course of test runs in this software application include:

1. Structuring<sup>6</sup> unstructured or semi-structured data such as
  - Job vacancies
  - Curricula vitae (unstructured \*.pdf/\*.doc documents or semi-structured documents using e.g. the Europass format)
  - Educational curricula
2. Performing skills-based job matching, i.e. a matching of CVs and job vacancies on the basis of a match of skills profiles

#### b) Collaboration environment on the ESCO Portal

In this scenario the contractor shall develop an extranet (i.e. a dedicated area with restricted access) for the ESCO Portal allowing persons involved in the ESCO management structures (described in annex IV) to collaborate in an efficient way. To this end they should be able to exchange documents, information and their views on ESCO, e.g. in forums, wikis and other collaborative tools. Users should be able to access the extranet from all over Europe and to contribute to it according to their role in the project and the access rights they have been granted.

#### **5.1.4. Consulting on technical/IT related aspects of classification management**

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<sup>5</sup> Please refer to chapter 5.2.1 for an explanation of ESCO languages

<sup>6</sup> Structuring unstructured data here means that the content of the documents containing unstructured data is analysed and "structured" by the software application using the ESCO classification. The software is required to recognise a set of concepts (occupations, skills/competences and qualifications) that are part of the ESCO classification and that describe as exactly as possible the profile expressed in the original document.

This subtask concerns the provision of expertise on how information technology can be used to achieve the business objectives in developing, managing and disseminating the ESCO classification.<sup>7</sup>

It includes advice on the choice, implementation and further development of suitable IT solutions in view of the existing IT infrastructure and the business objectives of the ESCO project. These IT solutions will be used for example to:

- achieve interoperability including the mapping between classifications,
- manage classifications (in particular the ITM),
- disseminate classifications (in particular the ESCO portal).

#### **5.1.5. Administrative support for the development and revision of the ESCO classification**

Revision and development of the ESCO classification is carried out within the ESCO management structure involving experts, stakeholders and the European Commission (described in annex IV). This revision process will be supported by the contractor in the following way:

The contractor will contribute to the organisation of meetings/working groups of the ESCO Board, ESCO Maintenance Committee, and Reference Groups. To this end, the contractor will assist the European Commission in arranging reimbursement of participants of these groups and in organising the meeting (venue, equipment, catering etc.). In preparation of the meetings the contractor will assist in gathering the required documentation and in sending them together with invitations to the participants of the meeting. The contractor will liaise with the members of the management structures (or their secretariat) when required.

To assist the preparation of each meeting the contractor will collect relevant information (e.g. information on existing classifications, discussion notes, proposals of terms for review by the reference groups, etc.) and will in collaboration with the European Commission produce coherent documents as inputs to these meetings.

### **5.2. *Lot 2 – Formulation and validation of occupation, skill/competence and qualification terms in various languages; translations***

#### **5.2.1. Definitions**

For the description of tasks in Lot 2 of the contract the following definitions apply:

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<sup>7</sup> Please note: provision of expertise as subtask of lot 1 (chapter 5.1.4) is usually related to the other subtasks of this lot. It refers to concrete IT products (such as the ITM or the ESCO portal), the IT environment in place for the ESCO project and the further development of this IT infrastructure. The expertise to be provided in lot 3 (chapter 5.3.1, section 1) refers to a more general, strategic perspective on the use of different technologies for the implementation, management, dissemination of classifications. This can be illustrated by the following example: A study on different technologies that could be used for mapping ESCO to other classifications would be part of lot 3, while an assessment which mapping tool should be deployed and how it should be configured in view of the technical infrastructure used for the management of ESCO would be part of lot 1.



### ESCO languages

The ESCO languages are the languages in which the ESCO classification is published or is intended to be published. Currently these are the official languages of the European Union except for Irish, i.e.:

Bulgarian	Czech	Danish	German	Estonian	Greek
English	Spanish	French	Italian	Latvian	Lithuanian
Hungarian	Maltese	Dutch	Polish	Portuguese	Romanian
Slovenian	Slovakian	Finnish	Swedish		

Other languages may be added to that list at a later stage; however, it is not likely to add languages that are not official languages of the EU/EEA.

### Procedural languages of the European Commission

The procedural languages of the European Commission are English, French and German.

### Concept

A concept is a *thing, idea or shared understanding of something*. While "*term*" refers to the linguistic description of a concept, a "*concept*" is the actual meaning of the term.

### Preferred term

The preferred term is used to represent a concept in ESCO or other thesauri. Out of a group of terms with similar meaning the term should be chosen as preferred term that best represents the concept.

### Non-preferred term

Non-preferred terms can be synonyms (words with similar or same meanings) but can also be spelling variants, declensions, inflections etc. They are regularly used by the target group (jobseekers, employers, education institutions, etc.) to refer to concepts that are described in the classification with another term (the preferred term).

## **5.2.2. Terms formulation in the ESCO languages**

Terms (occupations, skills/competences and/or qualifications) that have been revised by the Reference Groups and approved by the Maintenance Committee (see annex IV for a description of this process) need to be formulated also in the other ESCO languages. This is not done by translating the term directly, but by understanding the concept and finding the best suited preferred term in the target language. In addition, non-preferred terms have to be found. Non-preferred terms can be synonyms, but also variations in spelling (including common misspellings), gender, grammatical number, etc. This process of terms formulation is described in the following:

The Reference Groups will discuss concepts of the ESCO classification within their field of expertise. After being reviewed by the Maintenance Committee the output of this discussion will be one proposed preferred term per concept in English. Apart from that additional outputs may be: non-preferred terms in English, preferred terms and/or non preferred terms in other ESCO languages as well as supplementing information (definitions, scope notes, considerations that have been made by the Reference Group, skills/competences and occupation groups that are related to the term, etc.). This information is transmitted to the contractor, normally accompanied with a first direct

translation of the preferred terms into the ESCO languages that has been carried out by translation services of the European Commission or another competent organisation.

The information transmitted to the contractor therefore includes a list of concepts and for each concept:

1. always a preferred term in English
2. usually a first translation of the English preferred term into the other ESCO languages
3. sometimes non-preferred terms in English
4. sometimes preferred and non-preferred terms in other ESCO languages
5. sometimes supplementing information to better understand the concept (definitions, scope notes, considerations of the reference groups, context information)

This information is transmitted to the contractor in MS Excel or MS Word format or in another format agreed between the contractor and the European Commission.

The task of the contractor is to grasp the concept and to formulate new terms suited for labelling this concept in all ESCO languages. Relevant terms can be found e.g. by translating, by researching or by drawing from personal experience of the person conducting the terms formulation. The contractor will propose which one of the terms that have been formulated is to be used as preferred term (this can differ from the translation originally sent to the contractor).

When carrying out terms formulation the contractor shall

- a) take into account general terminological guidelines that will be provided by the European Commission
- b) take into account terminological guidelines that are specifically set up for the target language
- c) use specific terms that correspond to the scope of the concept
- d) avoid to use preferred terms that are already the preferred term for another concept in the ESCO classification (homographs)

Once the terms have been formulated in all ESCO languages, they need to undergo a quality check/validation. Purpose of the validation is to ensure, (i) that the terms were formulated according to the guidelines, (ii) that the terms are actually used in the respective language and geographical region to describe the concept on the labour markets or in the field of education, and (iii) that the terms correspond to the concepts they represent.

To this end, the contractor is required to establish a network of experts in the field of labour market related terms (occupations, skills/competences and qualifications). This network needs to cover all languages. Furthermore, it needs to be capable to consider differences in the use of a term in the same language in different EU member states where this language is an official language (except for regional official languages in countries where official languages on national level exist). This means, that the validation of terms needs to take into account for example the use of German terms in Germany and in Austria or the use of French terms in Belgium and in France.

Terms that are not validated in the quality check need to be reformulated before being transmitted to the European Commission.

The output of the terms formulation process that shall be carried out by the contractor will be for each concept:

- a) exactly one validated preferred term per language
- b) the validated non-preferred terms that could be found to refer to the same concept
- c) if relevant, feedback to the Reference Group or to the translators of the initial translation of preferred terms in English (lit. b in the list of inputs)

The result of the terms formulation and validation process is transmitted to the European Commission by e-mail. It will be submitted in MS Excel or MS Word format or in another format agreed between the contractor and the European Commission. For each of the target languages one file is to be provided.

The following examples illustrate the process of terms formulation and the inputs and outputs in the process. The examples are purely indicative and do not necessarily represent real ESCO terms, terminological guidelines, etc.

#### Example 1:

Input to terms formulation consists of

- The preferred term in English language: "English language teacher"
- A first translation into all other ESCO languages, for example "Engischlehrer" (German), "Professeur d'anglais" (French), etc.
- A short draft definition as supplementing information: "A person teaching students in their mother tongue".

Furthermore, in this example it is assumed that "*All preferred terms are formulated in singular.*" would be a rule in the terminological guidelines.

This example illustrates that there is a difference between formulating the term for a concept and making a direct translation. Obviously, the translated terms ("Engischlehrer", "Professeur d'anglais") is not necessarily referring to a person who teaches students in their mother tongue. Also the originally transmitted English preferred term "English teacher" is not in accordance with the definition, since English is not necessarily the mother tongue of an English student.

In this case the output of preferred terms/non preferred terms for English could include e.g.:

<b>Preferred term:</b>	Mother tongue teacher	
<b>Non-preferred terms:</b>	Native language teacher	<i>Synonym</i>
	Mother language teacher	<i>Synonym</i>
	Teacher for English as a mother tongue	<i>Narrower in scope but can be added as non-preferred term</i>
	Mother tongue teachers	<i>According to the terminological guidelines the plural cannot be a preferred term, nonetheless, it can be added as non-preferred term</i>

<b>Feedback to the Reference Group</b>	"The preferred term that has been proposed was not in line with the definition."	
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#### Example 2:

Input to terms formulation consists of

- The preferred term in English language: "Member of parliament"
- A first translation into all other ESCO languages, for example "Parlamentsabgeordneter" (German), "Membre du parlement" (French), etc.

Furthermore, in this example it is assumed that "*Abbreviations should be avoided as preferred terms.*" would be a rule in the terminological guidelines.

This example illustrates that terms formulation might not only vary by language but also by country. While for the UK "Member of the house of commons" could be a suitable non-preferred term, it might also be required to add terms for the specific situation in other English speaking countries in the EU. Thus, it might be necessary to also add "Member of the lower house" as a non-preferred term if it is a commonly used expression in Ireland.

In this case the output of preferred terms/non preferred terms for English could include e.g.:

<b>Preferred term:</b>	Member of parliament	
<b>Non-preferred terms:</b>	MP	<i>Abbreviation, thus should be avoided as preferred term according to the terminological guidelines</i>
	Member of the house of commons	<i>More specific, but can be non-preferred term</i>
	Member of the house of lords	<i>More specific, but can be non-preferred term</i>
	Member of the lower house	<i>More specific, but can be non-preferred term</i>
	Member of the upper house	<i>More specific, but can be non-preferred term</i>
	Member of parliament	<i>Misspelled term</i>

The contractor shall be capable of handling the terms formulation in all ESCO languages and validation for an amount of at least 6 concepts per work day under this contract.

The duration for terms formulation and validation of a group of concepts shall not exceed five working days plus the number of working days taking into account the above capacity. This is illustrated by the following example:

If terms formulation and validation for a group of 90 concepts is to be carried out, the maximum duration for this task is 20 working days (5 + 90/6).

If after 10 working days a new request for terms formulation and validation for a group of 60 concepts is made, the maximum duration would be 15 working days (5 + 60/6). However, since the capacity of the contractor is still used for the prior request, this duration will increase by 10 (20 working days as calculated above minus 10 working days that passed before the launch of the second request).

### 5.2.3. Translation of the ESCO languages into English, French and German

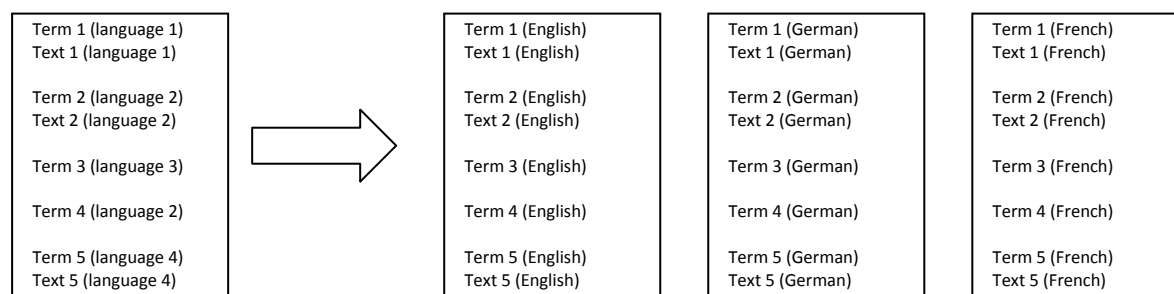
In addition to the terms formulation and validation, the contractor might be requested to occasionally carry out translations. The scale of this subtask is expected to be considerably smaller than the terms formulation and validation process. The nature of the texts to be translated and the process are described in the following:

In the course of the revision process of ESCO, proposals will be made by stakeholders, e.g. through the web proposal tool of the ESCO website, by e-mail or by regular post. These proposals will be forwarded to the relevant ESCO Reference Groups together with further input provided by the ESCO Secretariat (e.g. results of research conducted by the ESCO Secretariat). For this, they need to be translated into the three procedural languages of the European Commission. As proposals will be provided by users of the ESCO portal, it is not possible to exactly predict their content. However, usually proposals will consist of one or more terms proposed for ESCO and sometimes a short justification why it is proposed to include/change them. An example for such a proposal might be:

*"Term: Social pedagogue. Justification/explanation: The term social pedagogue should be included in ESCO as it is frequently used by jobseekers to describe professional profiles."*

For the translation process the contractor receives a MS Excel or MS Word file or another format agreed between the contractor and the European Commission by e-mail. It will contain proposals consisting of occupation, skill/competence or qualification terms as well as justifications, remarks or explanations. The proposals will be assorted in all ESCO or official EU languages (e.g. the file might include a Finnish proposal followed by two French proposals and an Estonian proposal).

The contractor will therefore recognise the source languages, and ensure that each term and/or explanatory remark is translated from the source language into the three target languages. This is illustrated by the following example:



The contractor shall be capable of translating an amount of up to 10 standard pages<sup>8</sup> within seven working days. If the amount of text to be translated exceeds 10 standard pages this time frame is increased by 0.5 working days per additional standard page.

The result of the translation process is transmitted to the European Commission by e-mail and in the same file format as the source file or in another format agreed between the contractor and the European Commission. For each of the three target languages one file is to be provided. The content (terms, supporting texts) of the files has to be in the same order as they were in the source file.

#### **5.2.4. Consulting on linguistic/terminological aspects of classification management**

This subtask concerns the provision of expertise and advice on linguistic/terminological aspects of classification management for the ESCO languages. In particular, it includes the drafting of specific terminological guidelines by interpreting the general terminological guidelines for each language and transforming them into sets of specific rules. These guidelines would include language specific rules for spelling variants, declensions, inflections, capitalisation, etc.

To illustrate this consider the following (purely indicative) example:

The general terminological guidelines could include the rule: *"All preferred terms need to be written in a gender-neutral form."*

This could be transformed into a specific rule for German, such as: *"Whenever possible, preferred terms for occupations are written in the male form to which the female suffix is added after a diagonal slash and a hyphen, e.g. 'Lehrer/-in'."*

This rule is not complete, but it illustrates how general guidelines need to be transformed into specific guidelines for each language in order to provide concrete guidance for terms formulation.

### **5.3. Lot 3 – Provision of external expertise on classifications, on semantic technology and on controlled vocabularies/terminology in the field of occupations, skills/competences and qualifications**

For lot 3 «Multiple Framework Contracts with reopening of competition» (in the following: MFWC) will be concluded with a **maximum of three** of the best ranked tenderers.

MFWC means a situation whereby separate but identical framework contracts are concluded between the Commission and the selected tenderers, setting out the general contractual terms (legal, financial, technical, administrative, etc.) that apply during their period of validity and that govern commercial relations between the Commission and the contractors.

Following the conclusion of MFWC, the Commission may invite the selected contractors to submit a bid for a specific assignment. For each assignment a specific contract will be concluded, following the evaluation of the respective bids. The award procedure for the MFWC is described in chapter 5.3.3 and 5.3.4 of these tender specifications.

#### **5.3.1. Fields of expertise**

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<sup>8</sup> Standard page means a page comprising 1 500 characters, excluding spaces, in the source language.

The contractor will provide external expertise to support the development, further enhancement, assessment or management of the ESCO classification or other classifications. The expertise that is to be provided by the contractor covers several or all of these fields:

1. Technical implementation, management and/or dissemination of classifications including the use of semantic technology and Linked Open Data<sup>9</sup>
2. Terminology in the fields of occupation, skills/competences and/or qualifications, as well as general expertise of terminology in controlled vocabularies, classification systems and taxonomies
3. Background information on existing international, national, regional and/or sectoral classifications/taxonomies in the field of occupations, skills/competences and/or occupations
4. Scope, structure, methodology, testing, quality management and/or revision of taxonomies and classification systems
5. Interoperability, use of classifications and taxonomies as (part of) standards, and/or mapping two different classifications to each other
6. Use of classification systems and/or taxonomies in potential fields of application of ESCO, such as online job matching, career guidance, creation of CVs or job vacancies, etc.
7. Background information/data on the actual use of classification systems and taxonomies by potential stakeholders to the ESCO project and/or their processes, constraints, needs, costs in the implementation of classifications and/or mappings to classifications
8. Communication about, dissemination of and/or marketing of taxonomies or classification systems

Please note, that not all fields of expertise necessarily have to be covered (however, higher coverage will result in a higher score in the award criteria; cf. chapter 14.3). Furthermore, specialisations within these fields of expertise are possible (e.g. specialisation on classification systems and terminology in the field of skills/competences only).

### **5.3.2. Forms of advice to be delivered**

The exact outputs of the provision of expertise and the deliverables will be defined in the specific contracts. However, as an indication some possible forms of the advice that is to be delivered are listed in the following:

- a) Collections of qualitative and/or quantitative data
- b) Analyses of qualitative and/or quantitative data
- c) Proposals for technical or methodological solutions
- d) Assessments/evaluations of technical or methodological solutions
- e) Comparisons of existing classification systems, technical solutions, standards, etc.
- f) Project plans, test plans, project implementation plans, quality management plans

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<sup>9</sup> Cf footnote no. 7.

- g) Updates of the above mentioned documents
- h) Presentations

### **5.3.3. Execution of the "Multiple Framework Contracts with reopening of competition"**

Each time the Commission will ask for advice under this MFWC competition will be reopened. An invitation to submit an offer will be sent by e-mail to all framework contractors of lot 3 simultaneously.

Within 5 working days the framework contractors shall express in writing by e-mail if they intend to make an offer for the services requested.

Within 10 working days after the date of sending the request for services, the contractors will provide the Commission with a written offer for the tasks required. The Commission services may allow a longer period for the submission of the offers in the request for services.

The offer shall consist of

a) a technical part detailing

- the methodology,
- the composition and skills of the team and
- a work programme indicating the time required for each deliverable

and b) a financial part detailing

- the total price on the basis of the «person-day» price as agreed in the MFWC (see price quotation form in Annex II) and
- the maximum budget for reimbursable expenses which will be reimbursed on the basis of the provisions defined in chapter 10.

The offers received will be evaluated according to the Commission's standard procedures for calls for tender and the bidders will be ranked on the basis of the best ratio quality/price (see chapter 5.3.4).

When the estimated value of the specific contract exceeds the threshold set out in Art. 129 (1) Implementing Rules (IR)<sup>10</sup> an opening and an evaluation committee will be formed to carry out the opening of offers and the evaluation.

For each specific contract the contractor and if applicable, the members of the group or association carrying out the task under the specific contract, will have to sign a declaration stating that they have no conflict of interest in carrying out the task.

The award of the specific contract will be conditioned by the availability of sufficient funds.

### **5.3.4. Award criteria for specific contracts**

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<sup>10</sup> COMMISSION REGULATION (EC, EURATOM) No 2342/2002 of 23 December 2002 laying down detailed rules for the implementation of Council Regulation (EC, Euratom) No 1605/2002 on the Financial Regulation applicable to the general budget of the European Communities



Specific contracts will be awarded under the MFWC according to the procedure set out in chapter 5.3.3 based on the following award criteria:

#### Quality criteria

- A) Quality and relevance of the methodology set out in the tender including, if applicable, the efficiency and effectiveness of the proposed data-collection methods (40 points)
- B) Adequateness and relevance of the proposed composition of the team and deployment of other resources for carrying out the tasks (40 points)
- C) Quality of the work programme and ability to fulfil the obligations of the contract in the timing required (20 points)

#### Price

The price criterion will be based on the total price (professional fees, direct costs, reimbursable expenses; cf. chapter 10) for the services.

The score for the tender is calculated in the following way:

Score for tender X = (cheapest price / price of tender X) · total quality score (out of 100) for all quality criteria.

The tender with the highest score (most economically advantageous tender) will be awarded the specific contract.

## **6. Guide and details of how the tasks are to be carried out**

### **6.1. *Modality of work/delivery and working methods***

#### **6.1.1. Languages and place of delivery**

The place of delivery is the Commission's premises in Brussels (Belgium) or – if explicitly stated in the service order/specific contract – any other place in the EU/EEA.

The required services must be provided in English language (except for translation and terms formulation where the result of the work is to be delivered in the respective target language).

#### **6.1.2. Place of work**

Depending on the lot of this framework contract and the request, work can be executed on the Commission's premises or it can be executed on the contractor's premises. The Commission indicates on the request form where and how the work has to be delivered.

#### Intra muros services:

The execution of *intra muros* services in the context of this contract must normally be performed at European Commission's premises in Brussels (Belgium) or in Luxembourg. The infrastructure will be provided by the European Commission. The personnel providing the service will use only the standard software packages in use at the DG or department concerned, and no other software may be installed or used without the written authorisation of the Commission.

#### Extra muros services:

The execution of *extra muros* services in the context of this contract will be performed at the contractor's premises. Project meetings are typically held in the locations of delivery mentioned above. Travel costs to the place of delivery are not reimbursed. The contractor shall provide all deliverables in the form and format specified in the order and shall guarantee their integration into the target informatics environment.

Services executed under Lot 2 (Formulating and quality checking occupation, skill/competence and qualification terms in various languages; translations) are always carried out at the contractor's premises.

#### **6.1.3. Normal working hours**

For Intra muros services, a normal working day corresponds to 8 hours 00 minutes per day (40 hours 00 minutes per week) with a minimum compulsory lunch break of 30 minutes per day.

The daily working time frame is between 07h00 and 20h00 and the presence is normally required between 09h30 and 12h00 and between 15h00 and 16h30 (16h00 on Friday).

#### **6.1.4. Working methods related to the development or maintenance of IT**

Whenever developing, maintaining or updating IT systems the contractor shall apply the following working methods unless agreed otherwise:

- The Contractor shall use the single ticketing tool hosted and maintained by the European Commission to enter, track and monitor all sorts of error reports, information requests and maintenance requests. The ticketing tool shall be the main instrument for reporting errors, keeping track of tasks, requesting information, needs for support and assistance etc. as well as for providing feedback, progress and status reports to all involved parties.
- All software provided shall be accompanied with relevant system documentation, manuals, etc. Any modifications to software made in the course of development projects, maintenance or updates shall be reflected in the documentation and manuals. These documents shall regularly be consolidated by the contractor and immediately made available to the European Commission.
- All new releases or software products shall be thoroughly tested by the contractor before being delivered to the European Commission including functionality and performance of the system. Every individual delivery shall be notified using the ticketing tool and include a description of its scope. It shall contain an impact analysis on availability, security and integrity to users.
- The contractor shall develop all software components/products in a way that they can be installed/hosted in the European Commission's IT environment. The contractor shall ensure that he possesses all information required for this and shall request from the European Commission any additional information he needs concerning the European Commission's IT environment. The European Commission will reply to these requests in due time.
- As an indication a high-level overview of the European Commission's information systems in July 2011 is given in the following (changes may occur during the duration of the contract): the information systems at the European Commission are developed using J2EE (Java 1.6) (and not for instance .Net or the open source PHP). The application server is Weblogic 10.3 (and not for instance Websphere or JBoss). The RDBMS is Oracle 11 (and not for instance Sql Server or mySql). In any case, the deployment at the Data Centre should not require a "root" access. A copy of the

source code produced in the context of this contract and of which the European Commission will eventually become the owner should regularly be uploaded in the Code Repository system of the European Commission (Subversion, in the CITnet environment of DIGIT). Deployment of new releases should be packaged in such a way that they are easily installed, including incrementally if necessary, easily uninstalled in case a rollback is necessary.

- All websites/internet applications that are intended for public use need to take the guidelines published in the Information Providers Guide (<http://ec.europa.eu/ipg/>) into account.

#### **6.1.5. Working methods related to translation and terms formulation**

When carrying out translations, the target texts delivered must be a faithful, complete, accurate and consistent rendering of the source text (no omissions or additions permitted). The contractor must pay particular attention that terminology is used in a consistent way. The formatting of the original shall be maintained.

When carrying out translation or terms formulation and validation the contractor shall consult any relevant reference material. Whenever appropriate the contractor shall send together with the deliverables a note indicating any problems encountered in translation or terms formulation/validation and/or explaining any possible questionable decisions taken.

#### **6.1.6. Late delivery in case of translation or terms formulation**

Possible delays in delivery of translations and terms formulation/validation have to be duly reported at least 24 hours before the deadline. Except in cases of *force majeure*, any delay in delivery will automatically incur a financial penalty of 5 % of the payment per calendar day of delay. Except in cases of *force majeure*, non-delivery of the target text / formulated terms may lead to termination of the contract.

### **6.2. Requirements on how the tasks shall be carried out**

The PROGRESS Programme aims to promote gender mainstreaming in all its five policy sections and commissioned activities. Consequently, the Contractor shall take the necessary steps to ensure that:

- Gender equality issues are taken into account when relevant for the drafting of the technical offer by paying attention to the situation and needs of women and men;
- Implementation of proposed activities includes a perspective informed by a systematic consideration of the gender dimension;
- Performance monitoring includes the collection and gathering of data disaggregated by sex when needed;
- Its proposed team and/or staff respects the gender balance at all levels.

Equally, needs of disabled people shall be duly acknowledged and met while executing the requested service. This will ensure in particular that where the Contractor organises training sessions and conferences, issues publications or develops dedicated websites, people with disabilities will have equal access to the facilities or the services provided.

Finally, the Contracting Authority encourages the Contractor to promote equal employment opportunities for all its staff and team. This entails that the Contractor is encouraged to foster an appropriate mix of people, whatever their ethnic origin, religion, age, and ability.

The Contractor will be required to detail in its final activity report the steps and achievements made towards meeting these contractual requirements.

### **6.3.        *Publicity and Information requirements***

In accordance with the General conditions, all contractors are under the obligation to acknowledge that the present service has received funding from the Union in all documents and media produced, in particular final delivered outputs, related reports, brochures, press releases, videos, software, etc, including at conferences or seminars. In the context of the European Union's Programme for Employment and Social Solidarity – PROGRESS, the following formulation shall be used:

*This (publication, conference, training session etc) is commissioned by the European Union Programme for Employment and Social Solidarity - PROGRESS (2007-2013).*

*This programme is implemented by the European Commission. It was established to financially support the implementation of the objectives of the European Union in the employment, social affairs and equal opportunities area, and thereby contribute to the achievement of the Europe 2020 Strategy goals in these fields.*

*The seven-year Programme targets all stakeholders who can help shape the development of appropriate and effective employment and social legislation and policies, across the EU-27, EFTA-EEA and EU candidate and pre-candidate countries.*

*For more information see: <http://ec.europa.eu/progress>*

For publications it is also necessary to include the following reference: "*The information contained in this publication does not necessarily reflect the position or opinion of the European Commission*".

With regard to publication and any communication plan linked to the present activity, the Contractor will insert the European Union logo and mention the European Commission as the Contracting Authority in every publication or related material developed under the present contract.

### **6.4.        *Reporting Requirements***

PROGRESS is implemented through a results-based management (RBM). The Strategic Framework, developed in collaboration with the Member States, social partners and civil society organisations, sets out the intervention logic for PROGRESS-related expenditure and defines PROGRESS' mandate and its long-term and immediate outcomes. It is supplemented by performance measures which serve to determine the extent to which PROGRESS has delivered the expected results. See in Annex the overview of PROGRESS performance measurement framework.

For more information on the strategic framework, please visit PROGRESS website <http://ec.europa.eu/social/main.jsp?catId=659&langId=en>.

The Commission regularly monitors the effect of PROGRESS-supported or commissioned initiatives and considers how they contribute to PROGRESS outcomes as defined in the Strategic Framework. In this context, the Contractor will be asked to dedicatedly work in close cooperation with the

Commission and/or persons authorised by it to define the expected contribution and the set of performance measures which this contribution will be assessed against.

The Contractor will be asked to collect and report on its own performance to the Commission and/or persons authorised by it against a template which will be annexed to the contract/service order/. In addition, the Contractor will make available to the Commission and/or persons authorised by it all documents or information that will allow PROGRESS performance measurement to be successfully completed and to give them the necessary rights of access.

## 7. Professional qualifications required

See Annex IV of the draft contract

Required professional qualifications for the key persons of each lot are fixed in the selection criteria in chapter 13. In addition to that the following professional qualification is required for persons rendering services under this contract:

For lot 1:

Profile	Experience and educational background required
IT development team member	Formal university level degree and at least one year of proven experience in the following domains or another completed post-secondary education and at least three years of proven experience in the following domains: Development, maintenance, customisation or implementation of IT systems
IT Consultant on semantic technology, open linked data and interoperability	Formal university level degree and at least one year of proven experience in the following domains: Consulting on semantic technology, linked open data or interoperability
Administrative assistant	Completed post-secondary education and at least one year of proven experience in the following domains: Office management, secretarial work, organisation of meetings or filing documents

For lot 2:

At least one person per ESCO language (based on the current list of ESCO languages; for a complete list of these languages refer to chapter 5.2.1.) with the following minimum qualification:

- a) Formal university level degree (or an equivalent qualification) in the field of translation, terminology, linguistics, business administration, human resources, or other related subjects
- b) One year proven experience in translation, terms formulation, revision/reviewing terminology or quality assurance for the respective target language (i.e. one person for each ESCO language)

For lot 3:

Profile	Experience and educational background required
Consultant	Formal university level degree and at least one year of proven experience in the following domains or another completed post-secondary education and at least three years of proven experience in the following domains:

	Consulting or preparation of studies in the fields of expertise listed in chapter 5.3.1
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## 8. Time schedule and reporting

See Article I.2. of the contract.

## 9. Payments and standard contract

In drawing up the bid, the tenderer should take into account the provisions of the standard contract comprising the "General terms and conditions applicable to service contracts".

### Pre-financing

Pre-financing shall only apply for service orders/specific contracts and only if the amount of the single service order/specific contract is above 60 000 EUR.

Within 30 days at the latest of the reception date of the relevant invoice (indicating the reference number of the service order/specific contract it refers to), a pre-financing payment of 30 % of the part A of the breakdown of prices of the service order/specific contract shall be made.

For pre-financing payments equal or above 150 000 EUR a duly constituted financial guarantee equal to at least the value of the invoiced pre-financing payment shall be submitted by the contractor.

In this case, the 30 days time limit for the pre-financing payment shall only start upon submission of the financial guarantee.

### Payment of the balance

After finishing the tasks the request for payment of the balance of the Contractor shall be admissible if accompanied by:

- the final technical report in accordance with the instructions laid down in Annex I of the draft contract,
- the relevant invoices indicating the reference number of the framework contract and of the service order/specific contract to which they refer,
- statements of reimbursable expenses in accordance with Article II.7 of the draft Contract provided the report has been approved by the Commission.

The Commission shall have 60 days from receipt to approve or reject the report, and the Contractor shall have 30 days in which to submit additional information or a new report.

Within 30 days of the date on which the report is approved by the Commission, payment of the balance corresponding to the relevant invoice shall be made.

## 10. Prices

Under the terms of Articles 3 and 4 of the Protocol on the Privileges and Immunities of the European Union, the latter are exempt from all charges, taxes and duties, including value added tax; such

charges may not therefore be included in the calculation of the price quoted. The amount of VAT is to be indicated separately.

The price must be stated in EUR(€), net of VAT (using, where appropriate, the conversion rates published in the C series of the Official Journal of the European Union on the day when the invitation to tender was issued), and broken down **according to the model in Annex III included in the attached standard contract.**

#### Part A: Professional fees and direct costs

Tenderers are required to submit their prices by using the price and specimen quotation forms in annex II. The prices submitted should cover all fees and administrative expenditure except for the reimbursable expenses referred to below.

#### Part B: Reimbursable expenses

Travel expenses (other than local transport costs)

Subsistence expenses of the Contractor and his staff (covering the expenditure incurred by experts on short-term trips outside their normal place of work)

Please note that travel costs to the place of delivery are not reimbursed.

Total price = Part A + Part B

## **11. Groupings of economic operators or consortia**

Tenders can be submitted by groupings of service providers/suppliers who will not be required to adopt a particular legal form prior to the contract being awarded, but the consortium selected may be required to assume a given legal form when it has been awarded the contract if this change is necessary for proper performance of the contract<sup>11</sup>. However, a grouping of economic operators must nominate one party to be responsible for the receipt and processing of payments for members of the grouping, for managing the service administration, and for coordination. The documents required and listed in the following points 12 and 13 must be supplied by every member of the grouping.

Each member of the grouping assumes a joint and several liability towards the Commission.

## **12. Exclusion criteria and supporting documents**

**1)** Bidders must provide a declaration on their honour, duly signed and dated, that they are not in one of the situations referred to in Articles 93 and 94 a) of the Financial Regulation.

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<sup>11</sup> These entities can take the form of an entity with or without legal personality but offering sufficient protection of the Commission's contractual interests (depending on the Member State concerned, this may be, for example, a consortium or a temporary association).

The contract has to be signed by all members of the group, or by one of the members, which has been duly authorised by the other members of the grouping (a power of attorney or sufficient authorisation is to be attached to the contract), when the tenderers have not formed a legal entity.

Those articles are as follows:

**"Article 93:**

*Applicants or tenderers shall be excluded if:*

*they are bankrupt or being wound up, are having their affairs administered by the courts, have entered into an arrangement with creditors, have suspended business activities, are the subject of proceedings concerning those matters, or are in any analogous situation arising from a similar procedure provided for in national legislation or regulations;*

*they have been convicted of an offence concerning their professional conduct by a judgement which has the force of res judicata;*

*they have been guilty of grave professional misconduct proven by any means which the contracting authority can justify;*

*they have not fulfilled their obligations relating to the payment of social security contributions or the payment of taxes in accordance with the legal provisions of the country in which they are established or with those of the country of the contracting authority or those of the country where the contract is to be performed;*

*they have been the subject of a judgement which has the force of res judicata for fraud, corruption, involvement in a criminal organisation or any other illegal activity detrimental to the Union's financial interests;*

*they are currently subject to an administrative penalty referred to in Article 96(1)<sup>12</sup>.*

*(...)*

**Article 94:**

*Contracts may not be awarded to candidates or tenderers who, during the procurement procedure:*

*are subject to a conflict of interest;*

*are guilty of misrepresentation in supplying the information required by the contracting authority as a condition of participation in the procurement procedure or fail to supply this information;(...)"*

**2)** The tenderer to whom the contract is to be awarded shall provide, within a time limit defined by the contracting authority and preceding the signature of the contract, the evidence referred to in Article 134 of the Implementing Rules, confirming the declaration referred to in point 1 above.

**"Article 134 of the Implementing Rules – Evidence**

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<sup>12</sup> "Article 96(1): The contracting authority may impose administrative or financial penalties on the following:

(a) candidates or tenderers in the cases referred to in point (b) of Article 94;

(b) contractors who have been declared to be in serious breach of their obligations under contracts covered by the budget.

(...)"



*§3. The contracting authority shall accept as satisfactory evidence that the candidate or tenderer to whom the contract is to be awarded is not in one of the situations described in point (a), (b) or (e) of Article 93(1) of the Financial Regulation, a recent extract from the judicial record or, failing that, an equivalent document recently issued by a judicial or administrative authority in the country of origin or provenance showing that those requirements are satisfied. The contracting authority shall accept, as satisfactory evidence that the candidate or tenderer is not in the situation described in point (d) of Article 93(1) of the Financial Regulation, a recent certificate issued by the competent authority of the State concerned.*

*Where the document or certificate is not issued in the country concerned, it may be replaced by a sworn or, failing that, a solemn statement made by the interested party before a judicial or administrative authority, a notary or a qualified professional body in his country of origin or provenance.*

*§4. Depending on the national legislation of the country in which the candidate or tenderer is established, the documents referred to in paragraph 3 shall relate to legal persons and/or natural persons including, where considered necessary by the contracting authority, company directors or any person with powers of representation, decision-making or control in relation to the candidate or tenderer."*

See Annex I (which may be used as a checklist) for the supporting documents accepted by the European Commission to be provided by applicants, tenderers or tenderers to whom the contract will be awarded.

**3)** The contracting authority may waive the obligation of a candidate or tenderer to submit the documentary evidence referred to in Article 134 of the Implementing Rules, if such evidence has already been submitted to it for the purposes of another procurement procedure launched by DG EMPL and provided that the issuing date of the documents does not exceed one year and that they are still valid.

In such a case, the candidate or tenderer shall declare on his honour that the documentary evidence has already been provided in a previous procurement procedure and confirm that no changes in his situation have occurred.

## **13. Selection criteria**

### **13.1. Economic and financial capacity of the tenderer**

#### **13.1.1. Documents to be provided concerning the economic and financial capacity**

The tenderer is requested to provide

- a) the balance sheets and profit-and-loss accounts for the past three years (2008, 2009 and 2010)
- b) the overall annual turnover of the past three years (2008, 2009 and 2010)

If, for some exceptional reason which the contracting authority considers justified, the tenderer or candidate is unable to provide the references requested by the contracting authority, the

tenderer/candidate may prove the economic and financial capacity by any other means which the contracting authority considers appropriate.

### **13.1.2. Evaluation of the economic and financial capacity**

The economic and financial capacity will be assessed on the basis of the documents provided by the tenderer (see chapter 13.1.1).

The minimum level of economic and financial capacity is set as follows:

The average annual turnover of the tenderer for the years 2008, 2009 and 2010 needs to exceed:

For Lot 1            1 000 000 EUR

For Lot 2            300 000 EUR

For Lot 3            350 000 EUR

## **13.2. Technical capacity of the tenderer**

### **13.2.1. Documents to be provided concerning the technical capacity**

The following documents must be provided by tenderers for assessment of their technical capacity:

- a) Curricula vitae of the key personnel/experts listed in chapter 13.2.2.
- b) Evidence that the company possesses the required experience (and technical equipment in case of lot 2) as listed in chapter 13.2.2.

### **13.2.2. Evaluation of the technical capacity**

Lot 1 - Assistance and technical services relating to the development, management and dissemination of classifications

The following criteria are set for the technical capacity of tenderers in lot 1:

#### **Company experience**

Tenderers need to prove that they have conducted at least two projects in the last five years that

- a) concerned the development, customisation or implementation of IT systems that are used for the management or dissemination of taxonomies, classification systems, thesauri or controlled vocabularies
- b) exceeded an overall project value of 50 000 EUR each.

#### **Qualification and relevant experience of staff:**

Number of persons required	Profile	Experience and educational background required
1	Taxonomist	Formal university level degree and at least one year of proven experience in the following domains or another completed post-secondary education and at least three years of proven experience in the following domains:

		Development or maintenance of controlled vocabularies, taxonomies, classifications and/or thesauri
2	IT project manager	Formal university level degree and at least eight year of proven experience in the following domains: IT project management including at least two years of experience in web projects and at least two years of experience in semantic technology
2	Senior IT development team member	Formal university level degree and at least five year of proven experience in the following domains: Development, maintenance, customisation or implementation of IT systems including at least two years of experience in web projects and at least two years of experience in semantic technology
1	Senior IT Consultant on semantic technology, open linked data and interoperability	Formal university level degree and at least five year of proven experience in the following domains: Consulting on IT projects including at least two years of experience in web projects and at least two years of experience in semantic technology, linked open data or interoperability

Lot 2 - Formulating and quality checking occupation, skill/competence and qualification terms in various languages; translations

The following criteria are set for the technical capacity of tenderers in lot 2:

**Company experience**

Tenderers need to prove that they have conducted translation or terms formulation projects in the last five years that exceeded an overall value of 200 000 EUR (for all projects together).

**Technical equipment**

Tenderers need to prove that they have at their disposal a translation memory system or any other system with the same functionality in order to ensure consistency of terms and overall translation quality.

**Qualification and relevant experience of staff**

A coordinator with the following minimum qualification is required:

- a) Formal university level degree (or an equivalent qualification) in the field of translation, terminology, linguistics, business administration, human resources, or other related subjects
- b) Five year proven experience in the coordination, management or quality assurance of translations, of terms formulation or of revision/reviewing terminology.

Lot 3 - Provision of external expertise on classifications, on semantic technology and on controlled vocabularies/terminology in the field of occupations, skills/competences and qualifications

The following criteria are set for the technical capacity of tenderers in lot 3:

**Company experience**

Tenderers need to prove that they have conducted at least three projects in the last five years that

- a) concerned consulting or the preparation of a study in the fields of expertise listed in chapter 5.3.1.
- b) exceeded an overall project value of 20 000 EUR each.

**Qualification and relevant experience of staff:**

Number of persons required	Profile	Experience and educational background required
2	Consultant	Formal university level degree and at least one year of proven experience in the following domains or another completed post-secondary education and at least three years of proven experience in the following domains: Consulting or preparation of studies in the fields of expertise listed in chapter 5.3.1

## **14. Award criteria**

Each lot will be awarded to the bid offering the best price/quality ratio, taking account of the following criteria:

### **14.1. Award criteria for Lot 1**

Quality of the offer:

A) Understanding of the relevance of semantic technology and Open Linked Data for the ESCO project (20 points)

B) Quality and relevance of the methodology set out in the tender concerning the management and updating of the classification, including adaptations of the ITM taxonomy management system (20 points)

C) Quality and relevance of the methodology set out in the tender concerning the development, implementation, maintenance and updating of information systems for managing, disseminating and testing the ESCO classification including the two development projects described as scenarios (40 points)

D) Adequateness and relevance of the proposed composition of the team (especially the proposed composition of IT development teams) and deployment of other resources for carrying out the tasks (20 points)

Please note that the contract will not be awarded to any bid that receives less than 70 % in the total points for all award criteria or less than 50 % in one of the award criteria.

Price-quality ratio:

The price quality ratio of the offer will be calculated based on the total scenario price indicated in price and specimen quotation form (see annex II) according to the formula:

Score for the tender X = (cheapest price / price of tender X) · 100 · 30% + total quality score (out of 100) for all award criteria of tender X · 70%

## **14.2. Award criteria for Lot 2**

### Quality of the offer:

A) Quality and relevance of the methodology set out in the tender concerning the terms formulation process and selection of the preferred term in the fields of occupations, skills/competences and qualifications (25 points)

B) Quality and relevance of the methodology set out in the tender concerning the validation of preferred terms and non-preferred terms (50 points)

C) Adequateness and relevance of the proposed composition of the team/network of experts and deployment of other resources for carrying out the tasks (25 points)

Please note that the contract will not be awarded to any bid that receives less than 70 % in the total points for all award criteria or less than 50 % in one of the award criteria.

### Price-quality ratio:

The price quality ratio of the offer will be calculated based on the total scenario price indicated in price and specimen quotation form (see annex II) according to the formula:

Score for the tender X = (cheapest price / price of tender X) · 100 · 40% + total quality score (out of 100) for all award criteria of tender X · 60%

## **14.3. Award criteria for Lot 3**

The following criteria will be applied for awarding the multiple framework contracts. They differ from the award criteria for the specific contracts as set out in chapter 5.3.4.

### Quality of the offer:

A) Quality and relevance of the methodology set out in the tender concerning the working methods for the provision of expertise in the forms listed in chapter 5.3.2. (30 points)

B) Adequateness and relevance of the proposed composition of the team and deployment of other resources for providing expertise in the following fields

- |     |  |             |
|-----|--|-------------|
| B1) | Technical implementation, management and/or dissemination of classifications including the use of semantic technology and Linked Open Data   | (10 points) |
| B2) | Terminology in the fields of occupation, skills/competences and/or qualifications, as well as general expertise of terminology in controlled vocabularies, classification systems and taxonomies | (15 points) |
| B3) | Background information on existing international, national, regional and/or sectoral classifications/taxonomies in the field of occupations, skills/competences and/or occupations               | (5 points)  |
| B4) | Scope, structure, methodology, testing, quality management and/or revision of taxonomies and classification systems  | (10 points) |
| B5) | Interoperability, use of classifications and taxonomies as (part of) standards, and/or mapping two different classifications to each other   | (10 points) |

- B6) Use of classification systems and/or taxonomies in potential fields of application of ESCO, such as online job matching, career guidance, creation of CVs or job vacancies, etc. (10 points)
- B7) Background information/data on the actual use of classification systems and taxonomies by potential stakeholders to the ESCO project and/or their processes, constraints, needs, costs in the implementation of classifications and/or mappings to classifications (5 points)
- B8) Communication about, dissemination of and/or marketing of taxonomies or classification systems (5 points)

The contract will not be awarded to any bid that receives less than 70 % in the total points for all award criteria.

#### Price-quality ratio:

The price quality ratio of the offer will be calculated based on the total scenario price indicated in price and specimen quotation form (see annex II) according to the formula:

Score for the tender X = (cheapest price / price of tender X) · 100 · 20% + total quality score (out of 100) for all award criteria of tender X · 80%

## **15. Content and presentation of bids**

### **15.1. Content of bids**

Tenders must include:

- all information and documents necessary to enable the Commission to appraise the bid on the basis of the selection and award criteria (see points 13 and 14 above), including the documents mentioned in chapter 13.2.1 and the questionnaire regarding the award criteria (annex VII);
- a bank ID form duly completed and signed by the bank;
- a "legal entity" form duly completed;
- the price;
- the detailed CVs of the proposed experts;
- the name and function of the contractor's legal representative (i.e. the person authorised to act on behalf of the contractor in any legal dealings with third parties);
- proof of eligibility: tenderers must indicate the State in which they have their registered office or are established, providing the necessary supporting documents in accordance with their national law.

### **15.2. Presentation of bids**

Please fill in the questionnaire provided in annex VII concerning the award criteria.

Please provide all CVs that are submitted as evidence for the fulfilment of the selection criteria (see chapter 13.2.1) in the Europass CV format.

Bids must be submitted in triplicate (i.e. one original and two copies).

They must include all the information required by the Commission (see chapters 10 to 15 above).

They must be clear and concise.

They must be signed by the legal representative.

They must be submitted in accordance with the specific requirements of the invitation to tender, within the deadlines laid down.

## **16. General information**

The framework contract specifies the basic conditions applicable to any assignment placed under its terms. Signature of the contract does not place the Commission under any obligation to place an assignment.

Assignments under the framework contract will be done by service orders (lots 1, 2) or specific contracts (lot 3). The framework contract does not preclude the Commission from assigning tasks in the areas set out above to other contractors working under another contract, or from having these tasks carried out by Commission staff.

## **17. List of Annexes**

Annex I	Exclusion criteria and supporting documents
Annex II	Price quotation forms
Annex III	Methodology and status quo of ESCO
Annex IV	Management structure and revision process of ESCO
Annex V	ESCO Portal
Annex VI	ITM Taxonomy Management System at the European Commission
Annex VII	Questionnaire regarding the award criteria
Annex VIII	Overview of Progress Performance Measurement Framework

## ***Annex I: Exclusion criteria and supporting documents***

<b>Exclusion criteria (Article 93(1) FR)</b>	<b>Supporting documents to be provided by applicants, tenderers or tenderers to who the contract will be awarded</b>		
	<b>Procurement (Article 93(2) FR; Article 134 IR)</b>		
<b>1. Exclusion from a procurement procedure, Article 93(1) FR :</b> <i>« Candidates or tenderers shall be excluded from participation in a procurement procedure if:</i>			
<b>1.1. (subparagraph a)</b> <i>they are bankrupt or being wound up, are having their affairs administered by the courts, have entered into an arrangement with creditors have suspended business activities, are the subject of proceedings concerning those matters, or are in any analogous situation arising from a similar procedure provided for in national legislation or regulations<sup>13</sup>;</i>	Recent extract from the judicial record <b>or</b> recent equivalent document issued by a judicial or administrative authority in the country of origin or provenance <b>or</b> Where no such certificate is issued in the country concerned : sworn or, failing that, a solemn statement made by the interested party before a judicial or administrative authority, a notary or a qualified professional body in his country of origin or provenance		
<b>1.2. (subparagraph b)</b> <i>they have been convicted of an offence concerning their professional conduct by a judgment which has the force of res judicata<sup>14</sup>;</i>	Cf. supporting documents for Article 93(1)(a) FR above		

<sup>13</sup> See also Article 134(4) IR : Depending on the national legislation of the country in which the candidate or tenderer is established, the documents referred to in paragraphs 1 and 3 shall relate to legal persons and/or natural persons including, where considered necessary by the contracting authority, company directors or any person with powers of representation, decision-making or control in relation to the candidate or tenderer .

<sup>14</sup> Cf. footnote n° 13.



Exclusion criteria (Article 93(1) FR)	Supporting documents to be provided by applicants, tenderers or tenderers to who the contract will be awarded		
	Procurement (Article 93(2) FR; Article 134 IR)		
<b>1.3. (subparagraph c)</b> <i>they have been guilty of grave professional misconduct proven by any means which the contracting authority can justify;</i>	Declaration by the candidate or tenderer that he is not in the situation described		
<b>1.4. (subparagraph d)</b> <i>they have not fulfilled obligations relating to the payment of social security contributions or the payment of taxes in accordance with the legal provisions of the country in which they are established or with those of the country of the contracting authority or those of the country where the contract is to be performed<sup>15</sup>;</i>	Recent certificate issued by the competent authority of the State concerned confirming that the candidate is not in the situation described  <b>or</b> Where no such certificate is issued in the country concerned : sworn or, failing that, a solemn statement made by the interested party before a judicial or administrative authority, a notary or a qualified professional body in his country of origin or provenance		
<b>1.5. (subparagraph e)</b> <i>they have been the subject of a judgment which has the force of res judicata for fraud, corruption, involvement in a criminal organisation or any other illegal activity detrimental to the Union's financial interests<sup>16</sup>;</i>	Cf. supporting documents for Article 93(1)(a) FR above		
<b>1.6. (subparagraph f)</b> <i>they are currently subject to an administrative penalty referred to in Article 96(1). »<sup>17</sup></i>	Declaration by the candidate or tenderer that he is not in the situation described		

<sup>15</sup> Cf. footnote n° 13.

<sup>16</sup> Cf. footnote n° 13.

<sup>17</sup> Article 96(1) FR: The contracting authority may impose administrative or financial penalties on the following:  
(a) candidates or tenderers in the cases referred to in point (b) of Article 94;  
(b) contractors who have been declared to be in serious breach of their obligations under contracts covered by the budget.

Exclusion criteria (Article 94 FR)	Supporting documents to be provided by applicants, tenderers or tenderers to who the contract will be awarded		
	Procurement	Grants	
<b>2. Exclusion from a procurement or grant award procedure Article 94 FR :</b>  <i>« Contracts may not be awarded to candidates or tenderers who, during the procurement procedure:</i>			
<b>2.1. (subparagraph a)</b>  <i>are subject to a conflict of interest;</i>	Statement by the applicant, tenderer or bidder confirming the absence of conflict of interests, to be submitted with the application, bid or proposal		
<b>2.2. (subparagraph b)</b>  <i>are guilty of misrepresentation in supplying the information required by the contracting authority as a condition of participation in the contract procedure or fail to supply this information»<sup>18</sup>.</i>	No specific supporting documents to be supplied by the applicant, tenderer or bidder It is the responsibility of the authorising officer, represented by the evaluation committee, to check that the information submitted is complete <sup>19</sup> and to identify any misrepresentation		

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<sup>18</sup> Cf. Article 146(3) of the FR Implementing Rules: « ...the evaluation committee or the contracting authority may ask candidates or tenderers to supply additional material or to clarify the supporting documents submitted in connection with the exclusion and selection criteria, within the time limit it specifies. » and Article 178(2) of the FR Implementing Rules: « The evaluation committee or, where appropriate, the authorising officer responsible may ask an applicant to provide additional information or to clarify the supporting documents submitted in connection with the application, in particular in the case of obvious clerical errors »

<sup>19</sup> Cf. footnote n°18.

## ***Annex II: price quotation forms***

### **Price quotations for Lot 1**

The price quotation form (1) is used to set the unit prices which are fixed for the duration of the framework contract. These serve also as a basis for the calculation of the scenario price in the specimen quotation form. For each unit you are requested to provide a separate price for carrying out the task "intra muros" and "extra muros".

The specimen quotation form (2) is used for price comparison. To this end it includes indicative amounts of quantities that could be ordered of each unit as well as the two scenarios for possible development projects. Please copy the unit prices quoted in form 1 and indicate the effort required for carrying out the development projects in scenarios a) and b). Please state the price for each section by multiplying the unit price with the quantity and calculate the total sum for the whole specimen quotation.

Please note that the scenarios described and the quantities indicated are purely indicative and used for price comparison only. They do not impose any obligation on the European Commission to order the described services.

Form 1: Price quotation form Lot 1					
Description of Tasks/Profiles	Unit	Unit price [€] "intra muros"	Unit price [€] "extra muros"		
Managing the content of the ESCO classification (see chapter 5.1.1)					
Taxonomist	Person-day	A01:	€	A51:	€
Maintaining and updating the ITM taxonomy management system (see chapter 5.1.2)					
ITM administrator	Person-day	A02:	€	A52:	€
Developing, implementing, maintaining and updating information systems that are disseminating, testing or using classifications (see chapter 5.1.3)					
IT project manager	Person-day	A03:	€	A53:	€
Senior IT development team member (web/semantic technology)	Person-day	A04:	€	A54:	€
Junior IT development team member (web/semantic technology)	Person-day	A05:	€	A55:	€
Consulting on technical/IT related aspects of classification management (see chapter 5.1.4)					
Senior IT consultant on semantic technology, open linked data and interoperability	Person-day	A06:	€	A56:	€
IT Consultant on semantic technology, open linked data and interoperability	Person-day	A07:	€	A57:	€
Administrative support for the development and revision of the ESCO classification (see chapter 5.1.5)					
Administrative assistant	Person-day	A08:	€	A58:	€

Form 2: Specimen quotation form Lot 1				
Description of Tasks/Profiles		a) Unit price [€]	b) Scenario: quantity	c) Scenario price [€] (= a · b)
<b>Managing the content of the ESCO classification (see chapter 5.1.1)</b>				
Taxonomist (intra muros)		A01: €	400 person-days	€
Taxonomist (extra muros)		A51: €	40 person-days	€
<b>Maintaining and updating the ITM taxonomy management system (see chapter 5.1.2)</b>				
ITM administrator (intra muros)		A02: €	5 person-days	€
ITM administrator (extra muros)		A52: €	15 person-days	€
<b>Developing, implementing, maintaining and updating information systems that are disseminating, testing or using classifications (see chapter 5.1.3)</b>				
IT project manager (intra muros)		A03: €	5 person-days	€
IT project manager (extra muros)		A53: €	15 person-days	€
Senior IT development team member (intra muros)		A04: €	5 person-days	€
Senior IT development team member (extra muros)		A54: €	15 person-days	€
IT development team member (intra muros)		A05: €	5 person-days	€
IT development team member (extra muros)		A55: €	15 person-days	€
<b>Scenario a)</b> Developing an ESCO test application	IT project manager (extra muros)	A53: €	person-days	€
	Senior IT development team member (extra muros)	A54: €	person-days	€
	IT development team member (extra muros)	A55: €	person-days	€
<b>Scenario b)</b> Developing and implementing an extranet on the ESCO Portal to enhance collaboration of the members of the ESCO management structures	IT project manager (extra muros)	A53: €	person-days	€
	Senior IT development team member (extra muros)	A54: €	person-days	€
	IT development team member (extra muros)	A55: €	person-days	€
<b>Consulting on technical/IT related aspects of classification management (see chapter 5.1.4)</b>				
Senior IT consultant on semantic technology, open linked data and interoperability (intra muros)		A06: €	5 person-days	€
Senior IT consultant on semantic technology, open linked data and interoperability (extra muros)		A56: €	15 person-days	€
IT Consultant on semantic technology, open linked data and interoperability (intra muros)		A07: €	5 person-days	€

IT Consultant on semantic technology, open linked data and interoperability (extra muros)	A57:	€	35 person-days	€
Administrative support for the development and revision of the ESCO classification (see chapter 5.1.5)				
Administrative assistant (intra muros)	A08:	€	300 person-days	€
Administrative assistant (extra muros)	A58:	€	30 person-days	€
TOTAL Price Specimen Quotation				€

### Price quotation form based on a scenario for Lot 2

In this price quotation form the price per unit for the task of terms formulation and quality checking is based on "terms formulation units" (TFU).

When carrying out the terms formulation, the quality checking/validation and the selection of the validated preferred term these TFU are calculated according to the number of validated non-preferred terms that have been formulated in addition to the preferred term for each language. This includes only validated non-preferred terms, that are synonyms (different words with the same or a similar meaning), but not non-preferred terms that are spelling variants, declensions, inflections, abbreviations, or rearrangements of the word parts etc.

This can be illustrated by an example:

Preferred term:	Stewardess
Non-preferred terms (synonyms):	Air hostess, flight attendant, cabin crew member, cabin attendant, air stewardess, airline stewardess
Non-preferred terms (spelling variants):	Flight attendant, flight attendants, stewardesses, steward, air steward, cabin crew

The following table indicates the number of TFU depending on the number of non-preferred terms (synonyms) that have been formulated:

Number of preferred terms	Number of non-preferred terms (synonyms)	TFU
1	0	1.0
1	1	1.7
1	2	2.3
1	3	2.8
1	4	3.2
1	5	3.6
1	6	4.0
1	7	4.4
1	8	4.7
1	9	5.0
1	10	5.3

Number of preferred terms	Number of non-preferred terms (synonyms)	TFU
1	11	5.6
1	12	5.9
1	13	6.2
1	14	6.5
1	15	6.8
1	16	7.0
1	17	7.2
1	18	7.4
1	19	7.6
1	20	7.8
1	> 20	8.0

For the formulation of non preferred terms that are not synonyms (spelling variants, declensions, inflections, abbreviations, re-arranging of words etc.) the number of terms is used as basis for price calculation.

Please note, that the calculation is per language, i.e. if 1 preferred term and 5 non-preferred terms for a concept have been formulated in each of the 22 languages, this equals 79.2 TUF (= 3.6 \* 22). If five spelling variants have been formulated in each of the languages, this corresponds to 110 terms.

The price and specimen quotation form is used to set the unit prices which are fixed for the duration of the framework contract and to calculate a scenario price for price comparison. For calculating a scenario price indicative amounts of quantities that could be ordered of each unit are given below. Please state the scenario price by multiplying the unit price with the quantity and by calculating the total sum for the whole scenario.

Please note that the scenario described is purely indicative and used for price comparison only. They do not impose any obligation on the European Commission to order the described services in the quantity mentioned.

Price and specimen quotation form Lot 2				
Description of Tasks/Profiles	a) Unit	b) Unit price in EUR	c) Scenario: quantity ordered	d) Scenario price in EUR (= b · c)
<b>Terms formulation in the ESCO languages (see chapter 5.2.2)</b>				
Formulation and quality-checking/validation of preferred terms, non-preferred terms (synonyms) and selection of the preferred term	100 TFU	€	650 units (65 000 TFU)	€
Formulation and quality-checking/validation of non-preferred terms that are not synonyms (spelling variants, misspellings, gender, grammatical number, etc.)	1 000 terms	€	230 units (230 000 terms)	€
<b>Translations of the ESCO languages into English, German and French (see chapter 5.2.3)</b>				
Translation of documents written in one or more source languages (which are ESCO languages) into three target languages (en, fr, de)	Standard page <sup>20</sup>	€	100 standard pages	€
<b>Consulting on linguistic/terminological aspects of classification management (see chapter 5.2.4)</b>				
Linguistics/terminology consultant	Person-day	€	55 person-days	€
<b>TOTAL Scenario Price</b>				€

<sup>20</sup> Standard page means a page comprising 1 500 characters, excluding spaces, in the source language. Please note that the unit price that is to be indicated covers a translation of the documents into all three target languages, and is not a price per target language.



### Price quotation form based on a scenario for Lot 3

The price and specimen quotation form is used to set the unit prices which are fixed for the duration of the framework contract and to calculate a scenario price for price comparison. For each unit you are requested to provide a price for carrying out the task "intra muros" and "extra muros" separately. For calculating a scenario price indicative amounts of quantities that could be ordered of each unit are given. Please state the scenario price by multiplying the unit price with the quantity and by calculating the total sum for the whole scenario.

Please note that the scenarios described are purely indicative and used for price comparison only. They do not impose any obligation on the European Commission to order the described services in the quantity mentioned.

Price and specimen quotation form Lot 3				
Description of Tasks/Profiles	a) Unit	b) Unit price in EUR	c) Scenario: quantity ordered	d) Scenario price in EUR (= b · c)
<b>Provision of expertise</b>				
Senior Consultant (intra muros)	Person-day	€	25 person-days	€
Senior Consultant (extra muros)	Person-day	€	125 person-days	€
Consultant (intra muros)	Person-day	€	25 person-days	€
Consultant (extra muros)	Person-day	€	125 person-days	€
<b>TOTAL Scenario Price</b>				€

## Annex III: Methodology and status quo of ESCO

### State of play: Pre ESCO- v0

In its current version, which can be referred to as pre-ESCO v0, the ESCO classification contains about 6 000 skill/competence concepts and about 5 000 occupation concepts. For each concept in pre-ESCO v0 one preferred term exists in all official languages of the European Union except for Irish. While 800 of the skills/competence concepts in pre-ESCO v0 are actually describing qualifications, a separate repository of qualifications concepts and terms has not yet been established. Thus, even though it is intended to cover three separate pillars with ESCO (occupations, skills/competences, qualifications) currently only two exist (occupations, skills/competences)

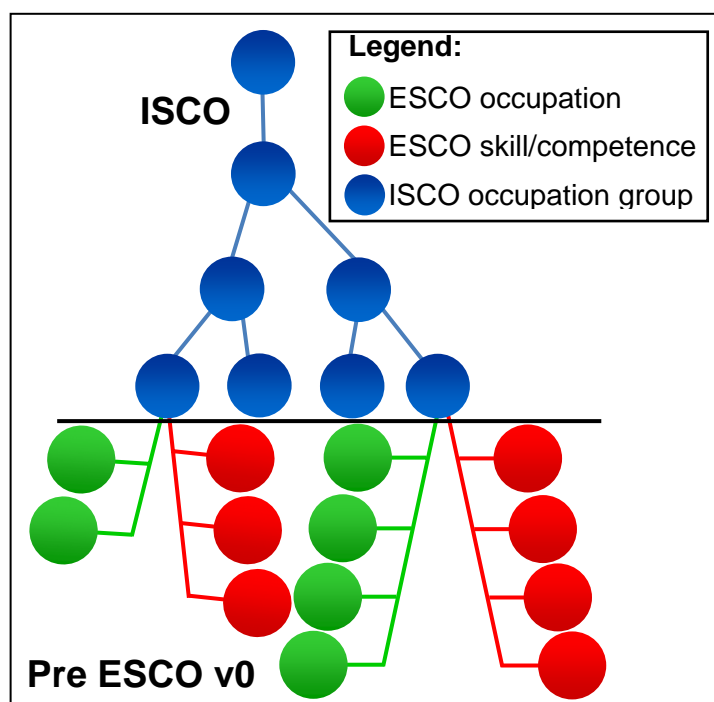


Diagram 2: pre ESCO v0

When being released publicly, ESCO will build on ISCO-08, the newest version of ISCO. The ISCO classification consists of a hierarchical 4-level structure describing occupation groups.

An example for the ISCO-08 structure:

**ISCO Level 1 (Major group):** Professionals (ISCO code: 2)

**ISCO Level 2 (Sub-Major group):** Legal, social and cultural professionals (ISCO code: 26)

**ISCO Level 3 (Minor group):** Social and religious professionals (ISCO code: 263)

**ISCO Level 4 (Unit group):** Philosophers, historians and political scientists (ISCO code: 2633)

In the pre ESCO v0, Occupations and Skills/Competences are both linked with ISCO Level 4 occupation groups (unit groups). Occupations and Skills/Competences are therefore only indirectly linked with each other via the parent Occupation Group.

Example pre-ESCO v0:

**ESCO Occupations** linked to ISCO level 4 occupation group (unit group) 5112 (Transport conductors):

Chief conductor; Conductor; On board service personnel; Person in charge on board; Person responsible on board; Train host; Train master.

**ESCO Skills/competences** linked to ISCO level 4 occupation group (unit group) 5112 (Transport conductors):

Cashier experience; Head guard education (railway); Railway guard, professional experience; Service sector, experience.

### **Mid term further development of ESCO**

Several steps will be conducted in the coming months to further develop the content and structure of ESCO. These tasks include inter alia:

- Reviewing terms and translations
- enriching the data with additional skills/competences, whereas a crucial input will come from the European Dictionary of Skills and Competences (DISCO) which contains around 10 000 skills and competences per language and exists in seven languages
- developing a structure for the skills/competences pillar of ESCO

Further information on this process can be found in annex IV.

### **Long term perspective for the development of ESCO**

It is envisaged that ESCO will be structured around three pillars: i) occupations, ii) skills/competences and iii) qualifications (building on the work done in the context of the NQF's related to the EQF) and will link these in a systematic way whilst enabling different entry points to serve a wide range of applications. This is illustrated in the image below.

The exact scope, structure and methodology of ESCO is not yet finalised and will be developed in the coming months. On the ESCO Board meetings it was decided that a direct relationship between ESCO skill/competence terms and ESCO occupations should be established. If and how these relationships will be classified will be decided at a later stage. Also still under development is the methodology for the qualifications pillar, its link with the EQF and for an internal (hierarchical) structure of the skills/competence pillar.

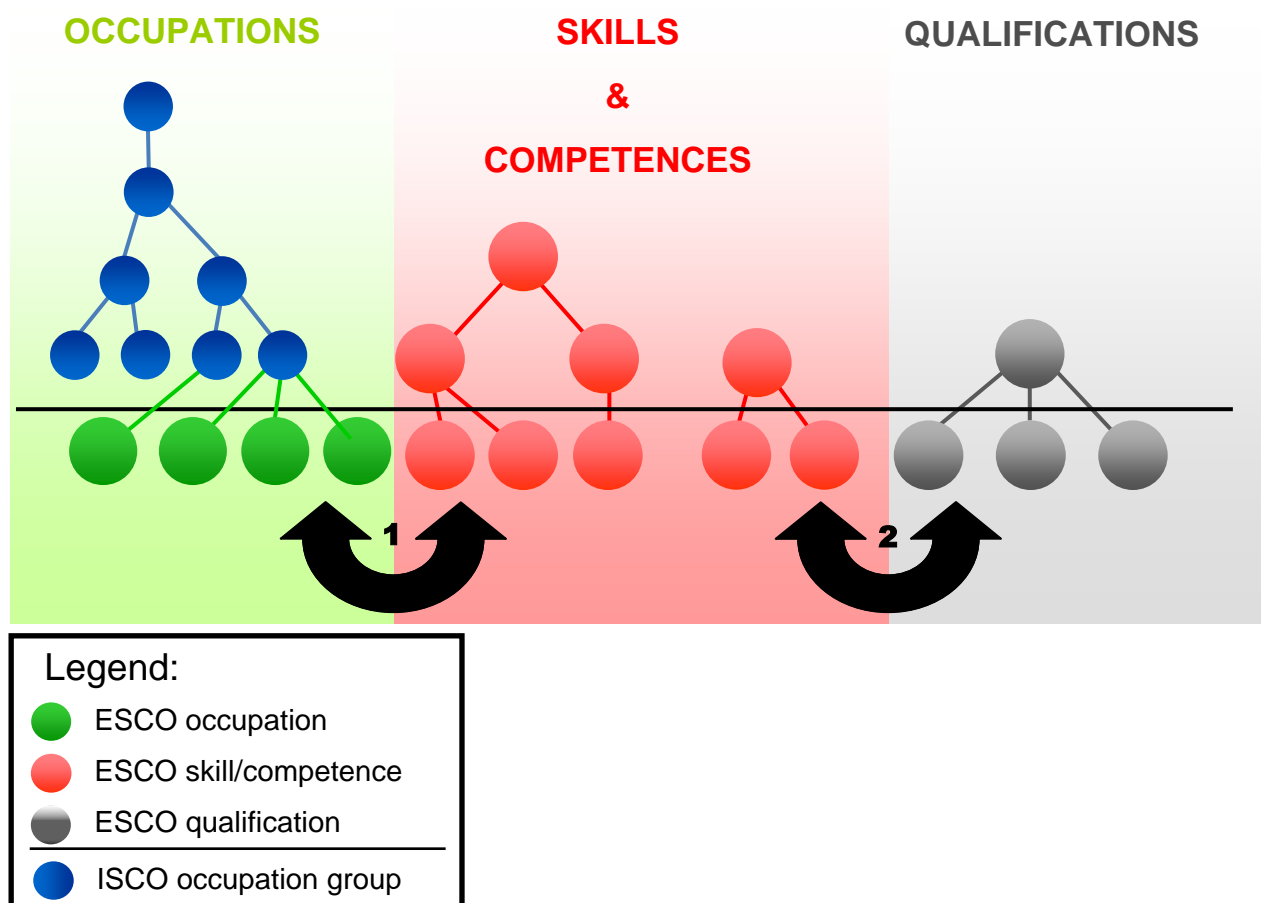
In a process of continuous revision (described in annex IV) it is envisaged to update and enrich ESCO continuously in line with market developments and the corresponding demand for new skills.

ESCO will improve information exchange and facilitate co-operation between education/training and employment service providers, between public and private employment services and between public employment services of different countries. It will allow electronic interchange of vacancy information (e.g. with the EURES network) and CV's (e.g. between Europass and EURES) as it will be fully compatible with these systems and easily understood by major labour market and education actors.

Work on ESCO is still in the early developmental stages. Constructing an operationally useful European standard terminology of skills/competences, qualifications and occupations is a long-term project and can only be achieved gradually, step by step. It is essential to work in close partnership

with the relevant stakeholders to ensure it is based on real needs. Actors from the worlds of work/labour market and education/training must be able not only to link their existing classifications to ESCO, but also to create enriched tools/applications that reflect the latest market developments and provide more and better options for matching, up-skilling and exchanging information and for co-operation around the ESCO standard.

## Long term structure of ESCO



### Data currently included in pre-ESCO v0

In order to provide an overview of the content that is currently covered by pre-ESCO v0, an example for each type of concepts is shown in the following:

#### 1. Occupation groups

The occupation groups used to structure ESCO are ISCO occupation groups and therefore not part of the ESCO classification. The translations of ISCO into the ESCO languages are however managed in the course of the ESCO project.

#### **Example: Medical equipment operators**

Hierarchy:

3 Technicians and associate professionals (Bt 3)

31 Computing, engineering and science associate professionals (Bt 2)

313 Optical and electronic equipment operators (Bt 1)

ISCO code:

3133

Language equivalents:

bg Оператори на медицинско оборудване

cs Obsluha vysílacího telekomunikačního zařízení

da Personer, der betjener medicinsk udstyr såsom scannings- og narkoseapparat  
samt maskiner til optagelse af røntgenbilleder og elektrodiagrammer

de Bediener medizinischer geräte

et Meditsiiniseadmete tehnikud ja operaatorid

el Χειριστές ιατρικών συσκευών και εξοπλισμού

en Medical equipment operators

es Operadores de aparatos de diagnóstico y tratamiento médicos

fr Techniciens d'appareils électromédicaux

it Tecnici di apparecchi elettromedicali

lv Medicīnas iekārtu operatori

lt Medicininės įrangos operatoriai

hu Orvosi műszaki berendezések kezelői

mt Operaturi tat-tagħmir mediku

nl Bedieningspersoneel medische apparatuur

pl Operatorzy aparatury medycznej

pt Técnicos de diagnóstico e terapêutica

ro Tehnicienii de aparate electromedicale

sk Operátori lekárskeho prístrojov

sl Operaterji/operaterke medicinskih naprav

fi Lääketieteellisten laitteiden käyttäjät

sv Sjukhusingenjörer och sjukhustekniker

## 2. Occupations

### **Example: Hospital engineer**

Hierarchy

3 Technicians and associate professionals (Bt 4)

31 Computing, engineering and science associate professionals (Bt 3)

313 Optical and electronic equipment operators (Bt 2)

3133 Medical equipment operators (Bt 1)

Language equivalents

bg Болничен инженер

cs Nemocniční inženýr

da Hospitalsingeniør

de Krankenhausingenieur/in

et haiglainsener

el Μηχανικός νοσοκομείων

en Hospital engineer

es Ingeniero hospitalario

fr Ingénieur des services hospitaliers

it Ingegnere clinico

lv Slimnīcas inženieris

lt Ligoninės technikas

hu Kórházi mérnök

mt Inginier ta' sptar

nl Ziekenhuisdeskundige

pl Inżynier szpitalny

pt Engenheiro hospitalar

ro Inginer clinic

sk Nemocničný inžinier

sl Bolnišnični inženir/bolnišnična inženirka

fi Sairaalainsinööri

sv Sjukhusingenjör

3. Skills/competences

**Example: Selling experience, markets and fairs**

Language equivalents

bg Опит в продажбите, пазари и панаири

cs Zkušenost s prodejem na trzích a veletrzích

da Salgserfaring, torve og markeder

de Verkaufserfahrung, Marktplatzverkauf  
 et müügikogemus (turud ja laadad)  
 el Εμπειρία πωλήσεων, αγορές και εκθέσεις  
 en Selling experience, markets and fairs  
 es Experiencia de venta, mercados y ferias  
 fr Expérience de la vente sur les marchés  
 it Esperienza di vendita, mercati e fiere  
 lv Pārdošanas pieredze, tirgi un gadatirgi  
 lt Pardavimų organizavimo patirtis - turgavietės ir mugės  
 hu Értékesítési tapasztalat, piacok és vásárok  
 mt Esperjenza ta' bejgħ, swieq u fieri  
 nl Verkoopervaring, markten en beurzen  
 pl Doświadczenie w sprzedaży, rynki i targi  
 pt Experiência de vendas, mercados e feiras  
 ro Experiență în vânzări, piețe și târguri  
 sk Predajná prax, trhy a veľtrhy  
 sl Izkušnje s prodajo, tržnice in sejmi  
 fi Myyntikokemus, tori- ja markkinamyynti  
 sv Försäljningsvana, torg- och marknadsförsäljning

#### 4. Relationships

In pre-ESCO v0, relationships between ISCO unit groups and ESCO occupations as well as between ISCO unit groups and ESCO skills/competences exist

#### **Example: Concepts related to "Food and beverage tasters and graders" (ISCO code 7415)**

Related occupations:

Inspection assistant  
 Meat classifier  
 Milk evaluator  
 Quality rater, food  
 Sample taster  
 Taster  
 Wine taster

Related skills & competences:

Europ classification

Food hygiene

Quality rating, food

Wine testing, chemical analysis

Wine testing, tasting

Please note, that these examples are illustrations of the current content of ESCO only and will not necessarily be part of the first official ESCO dataset.



## ***Annex IV: Management structure and revision process of ESCO***

### **Stakeholder involvement in the ESCO project**

The development of the ESCO (European Skills/Competences, qualifications and Occupations) project is driven by the needs of major players from both the education/training and employment sectors. Its main stakeholders therefore include public, private and third sector employment services, the social partners, national education, training and qualification authorities and institutions, as well as sector skill councils. All stakeholders or groupings of stakeholders committed to provide an active contribution to the development of ESCO need to have a say in how ESCO will be designed.

The Commission carried out a survey<sup>21</sup> among ESCO stakeholders and invited them to describe their expectations towards ESCO, their envisaged level of co-operation in the ESCO project and to put forward candidates that might be suitable to contribute to the development of ESCO. Different levels and forms of stakeholder involvement in ESCO are possible including: participation in the ESCO Board (for senior representatives of the stakeholders most directly concerned); or in the ESCO Maintenance Committee (for technical classification experts); or in the Reference Groups (for experts on labour market, skill and qualification needs and related terminology); or sending proposals via the web-based tool or mapping national/sectoral classification systems to ESCO.

The Commission has carefully analysed the replies and the proposed candidatures for the ESCO management structures and drawn-up preliminary proposals for further discussion with the ESCO Board.

### **Organisational structure of ESCO**

At this stage, taking account of stakeholder feedback through the survey and the outcome of the first ESCO Board meeting, it is foreseen that the management structure of ESCO will be composed of:

ESCO Secretariat

ESCO Board

ESCO Maintenance Committee

ESCO Reference Groups

#### **ESCO Secretariat**

The Secretariat is resourced and funded by the Commission and is located in Commission premises. It is the permanent central resource that will enable the establishment and day-to-day maintenance/editing of ESCO. It will respond to inputs from Reference Groups and external parties and evaluate whether to recommend to the Maintenance Committee the inclusion of proposals in ESCO. It is responsible for maintaining the database and the web tools used by the Reference Groups and Maintenance Committee. It liaises with other external groups and interested parties as

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<sup>21</sup> The final analysis of the contributions to the ESCO stakeholder survey can be found at: <http://ec.europa.eu/social/BlobServlet?docId=6654&langId=en>

necessary to refine elements of ESCO. In conjunction with the Board it undertakes promotion of ESCO as required (e.g. by sending newsletters). At a later stage, it will have a key role in assisting owners of other taxonomies/classifications to develop linking/mapping schemas and models so that automatic mapping and updates can be put in place for those classifications, if required.

The ESCO Secretariat comprises staff of the Commission Directorate Generals for Employment, Social Affairs and Inclusion and for Education and Training. It is envisaged that it will be assisted by specialists (skills expert, taxonomist, logistic expert, etc.) under the direction of the Commission. The ESCO Secretariat has been gradually put in place since the beginning of 2010 and has started preparatory work.

## **ESCO Board**

The ESCO Board is the decision taking body within the ESCO organisational structure. It has been established and held its first ESCO Board meeting on 11 February 2011. The composition of the ESCO Board reflects parity of representation from the spheres of education/training and employment/labour market as well as involvement of the Social Partners and other relevant stakeholders. The ESCO Board provides strategic guidance and take decisions related to ESCO policy, approach, direction and operations including releases of major updates. Furthermore, it promotes the use of ESCO and drives the establishment and maintenance of ESCO, in collaboration with the European Commission. It is supported by the ESCO Secretariat which provides the day to day management of ESCO.

It is envisaged that the Board would meet twice per year; in the start up phase of ESCO it might be necessary to meet more often to underwrite the policy direction of ESCO. In the interests of operational efficiency, it is recommended to limit the board to around 13 members plus 4 permanent observers. All ESCO Board meetings are held in English only. As a general rule, documents and agendas would be provided at least two working weeks in advance of meetings.

The Commission will, via the ESCO Secretariat, cover travel costs (and in case of private experts accommodation) of Board members for the meetings.

## **Proposed main tasks of the ESCO Board**

- Setting out the strategy for the development of ESCO, revisable annually, taking into account the progress so far;
- Defining the annual ESCO work programme to be subsequently implemented by the ESCO Secretariat, the Maintenance Committee and the Reference Groups;
- Approving the conceptual specifications of ESCO as proposed by the ESCO Secretariat and Maintenance Committee such as: the definition of the scope of ESCO's skills and competences part; the relationship between the skills/competences pillar and the qualifications and occupations pillars.
- Deciding on the setting up of the structure under which ESCO is operationally developed; in particular appointing members of the Maintenance Committee and endorsing requests and proposals for activation of Reference Groups and their members;
- Deciding on the release of enriched and updated ESCO versions (overall content and changes for next release, decide upon exact date for next release, etc.)

- Driving the approval process in which they discuss all proposals, previously approved by the Maintenance Committee and formally adopt it to be part of the next release of the ESCO taxonomy/classification;
- Approving the ESCO communication plan;
- Actively promoting the development and use of the ESCO taxonomy/classification;
- Deciding on all questions of a strategic nature that have an impact on the further ESCO development;
- Endorsing the annual ESCO progress report to be presented to the Employment Committee, Education Committee and others.

In general, ESCO Board decisions should be taken by consensus. However, in the event of disagreement it is proposed that matters be put to a vote. All permanent members of the ESCO Board would have one vote; permanent observers participating in the Board meetings would not have voting rights. The practical details for voting and its corresponding internal procedures need to be unanimously agreed by the Board members at the first Board meeting.

The decisions of the ESCO Board would determine the implementation of the ESCO project. However, in the event that a decision taken by the Board ran counter to the financial and political interests of the Commission or was in contravention of the provisions of the 'Financial Regulation and implementing rules applicable to the general budget of the European communities' the Commission reserves the right not to follow such decisions.

#### **Chair of the ESCO Board**

The role of the chair shall be undertaken by one of non-European Commission members of the Board. His/her main tasks are:

- Determining the agenda of the ESCO Board after proposal of the ESCO Secretariat;
- Chairing meetings of the Board;
- Preparing meetings together with the ESCO Secretariat;
- Representing the ESCO initiative.

The chair shall not have any special voting rights. He/she would be deputised by a vice chair.

#### **Appointing of ESCO Board members**

For the first ESCO Board the European Commission appointed 12 members plus 4 permanent observers of the ESCO Board for a term of two years. For the appointing decision, the European Commission took into account the candidatures that were proposed through the ESCO stakeholder survey. However, it was not limited to these candidatures. The decisive criterion for the appointment of the ESCO Board members was their expertise and experience.

Even though personal competence and commitment was the primary factor for the nomination of ESCO Board members, the European Commission aimed to achieve a balanced stakeholder representation. The first ESCO Board consists of representatives of the following groups:

- 3 Employment/Labour Market representatives (2 from Public Employment Services, 1 from a Private Employment Service)

- 3 Education/Training representatives
- 4 Social Partners representatives (2 from Federations of Employers, 2 from Trade Unions)
- 2 European Commission representatives

In view of their specialist knowledge, expertise and active contribution to the implementation of ESCO, one representative each of Eurostat, DG Translation, DG Informatics and CEDEFOP have permanent observer status in the Board without voting rights.

This composition of the ESCO Board might change in the future. Members of the ESCO Board represent the interests of their group of stakeholders and do not serve as a national representative of a certain member state. The European Commission takes into account geographical balance but there is neither a quota for nationalities, nor a direct representative of each member state.

The chair and the vice-chair of the ESCO Board were proposed by the Commission and have been appointed for two years by the ESCO Board by consensus.

The chair of the ESCO Maintenance Committee may participate in ESCO Board meetings as an observer without voting rights. The ESCO Board may invite members of the different ESCO management structures or other experts to report to the board.

## **ESCO Maintenance Committee**

### **Main tasks of the ESCO Maintenance Committee**

The Maintenance Committee would have a major role in the conceptual work and in technical decisions concerning the acceptance or rejection of documented proposals that come from the Reference Groups and Secretariat. It is proposed that the size of the Maintenance Committee be between eight and twelve members. After validation of proposals, the Maintenance Committee would recommend them for final approval to the Board. In ESCO's inception period, its main role would be to oversee the consolidation and upgrading of the existing classification to ISCO-08 and to oversee the work of the contractors. It would be responsible for ensuring that decisions are in line with the overall direction and content of the ESCO classification. It is proposed that Maintenance Committee meetings will not exceed 6 per year; if necessary additional meetings could be organized virtually (e.g. via phone, video or e-conference). As a general rule, documents and agendas would be provided at least two working weeks in advance of Maintenance Committee meetings.

The Commission would, via the ESCO Secretariat, cover travel costs (and in case of private experts accommodation) of Maintenance Committee members for meetings.

### **Appointing of members for the ESCO Maintenance Committee**

It is proposed that members for the ESCO Maintenance Committee, including its chair, are appointed by the ESCO Board. The ESCO Secretariat would propose a list of candidates to the ESCO Board. The ESCO Board can propose candidates through the ESCO Secretariat.

In its appointing decision, the ESCO Board would take into consideration the expertise and experience of the candidates with regard to the profile described above.

In case of long-term unavailability or resignation of a member of the Maintenance Committee, the ESCO Board would appoint new members following the same procedure as described above.

## **ESCO Reference Groups**

### **Main Tasks of the ESCO Reference Groups**

The main tasks of the different Reference Groups would be to suggest, update, and validate the skills and competences sets and formal qualifications related to each occupation. Its members would ensure that changes in labour markets and occupational demands/qualifications/skills/competences sets are brought to the attention of ESCO and incorporated in the continual updating envisaged for ESCO. Reference groups might be organised on industrial sector level and/or on organisation-type level. Other groups may also be needed to deal with horizontal/cross-sectoral issues, such as a learning methodology group for transversal skills/competences. Reference groups would meet regularly to discuss their proposals and, some parts of their tasks could be done via virtual meetings. The size of each reference group should be such that the group can function efficiently and effectively (e.g. up to 15 members). The members of the Reference Groups might have access to the ESCO updating/editing tool where changes could be proposed to the Maintenance Committee. The ESCO Secretariat would provide technical and logistical support to the Reference Groups.

The Commission will, via the ESCO Secretariat, cover travel costs (and in case of private experts accommodation) of Reference Group members for the meetings that will take place in Brussels.

### **Appointing of ESCO Reference Groups**

It is proposed that Reference groups (members and chair) be appointed by the ESCO Secretariat, endorsed by the ESCO Board. Endorsement can be given by the board via written procedure. Reference groups would be appointed usually for the duration of one specific task, such as the revision of a sector of the ESCO classification and would cease to exist on completion of their task.

### **What will the practical work of a Reference Group look like?**

As a first step the existing ESCO version will be updated to ISCO-08, enriched and quality-checked. The Reference Group(s) would then define skills, competences and relate them to qualifications and occupations. Using the relevant specifications in existing national/sectoral/etc. classifications/taxonomies they would bring together the knowledge available so far on the market. The Reference Group(s) would follow the general instructions established by the ESCO Board to construct the classification of the skills/competences pillar and the qualifications and occupations pillars in such a way that they can be accessed independently to enable the preparation of skill profiles and qualifications descriptions not directly linked to specific occupations and relate them to show the relevance of skills, competences and qualifications to occupations to enable skill and job matching.

The work of the Reference Groups could be started on a sectoral basis, subject to the approval of the ESCO work plan by the ESCO Board. In the beginning, preference could be given to those sectors where substantial preparatory work has been carried out by social partners organisations e.g. in agriculture and hotel, restaurant and catering (HORECA). The meetings of the Reference Groups would be facilitated by the ESCO Secretariat which, for example, would put at the disposal of the members the relevant examples of national classifications/taxonomies.

The meetings of the groups would be held in English, without interpretation. The master version of ESCO would be established in English and subsequently, after approval by the Maintenance Committee and endorsement by the Board, translated into all official EU languages.

## **Revision of ESCO**

### **Pre-ESCO v0 – initial quality check**

ESCO is based on a classification of occupations and skills/competences that initially has been developed by the Swedish PES. It has been translated into 22 languages. While this is a solid basis to build on, the classification still has some flaws such as missing or poor translations and terms that are specific to the Swedish economy, labour market or educational system. Thus, the ESCO classification requires an initial quality check to clear out existing obvious errors and inconsistencies before being released. After this initial quality check the classification will be released as "pre-ESCO v0".

### **ESCO v0 - detailed quality check and adapted structure**

After this initial quality check a more detailed quality check will be conducted in a second step. For this, all terms of the pre-ESCO v0 classification in all languages need to be checked concerning the quality of their translation (more than 200 000 terms in total). Furthermore, the occupations pillar needs to be upgraded from the ISCO-88 occupation groups structure to using ISCO-08 instead. The skills/competences pillar will be enriched by importing transversal skills from DISCO and a semantic structure will be added to it. After these changes the updated classification will be released as "ESCO v0".

### **ESCO v1 onwards – continuous revision**

After release of ESCO v0 a process of continuous revision will begin. Reference Groups that are composed to cover specific industry sectors or fields of economic activity will review the occupations and the related skills/competences within their field of expertise. Once all occupations have been revised the classification will be released as "ESCO v1", after a second complete iteration as "ESCO v2" and so on. Intermediate results can be released adding a minor version number (e.g. "ESCO v1.1").

In parallel to the sectoral revision of occupations and the skills/competences they are linked to, other parts of the classification can be reviewed by specialised Reference Groups. These could for example cover qualifications once they are implemented in the classification or transversal skills.

### **Continuous revision process of ESCO**

It is envisaged that the continuous revision of ESCO v0 will follow the described process. However, the ESCO Board might decide to change this process at any stage of the project:

1. The ESCO Board adopts a work plan for a given time period indicating the priorities and areas to be covered by the revision work during the time period in question. Priority areas are described as industry sectors or fields of economic activities. The NACE classification is used to define these sectors in the manner explained below.
2. Thematic Reference Groups are created gathering multilingual expertise within the relevant sectors. The ESCO Secretariat starts preparing the revision work that will be conducted by sector. Once it has been finished it can be presented to the ESCO Board for approval.
3. Based on the current version of ESCO, the ESCO Secretariat makes a first check if the ESCO occupation names in the relevant sector include proposals for new, modified or deleted terms that may have been submitted via the ESCO Portal. The ESCO Secretariat also researches all relevant

sources, such as national and sectoral classifications to find new or alternative terms for occupations in the sector.

Proposals made through the website and the list of terms produced by the ESCO Secretariat are quality-checked and translated into English, French and German before being submitted to the Reference Group.

4. The Reference Group has a first preliminary discussion on the proposed occupation names and their translations, the result of which is submitted to the ESCO Secretariat

5. Based on the skills and competences linked to each occupation in the current ESCO version the ESCO Secretariat undertakes a first analysis comprising the following steps:

- a. The ESCO skills and competences are compared to DISCO with the aim to achieve highest possible similarity in the descriptions/translations.
- b. The proposed terms are assigned to a group within the skills/competences structure
- c. The Secretariat researches all relevant sources, such as national or sectoral classifications, to find and study descriptions of skills/competences related to the occupations in question. The Secretariat also studies the proposals for new, modified or deleted skills/competences terms and the links to occupations that have been submitted via the ESCO Portal
- d. Based on this work the Secretariat makes a proposal containing
  - i. New, modified or deleted skills/competences terms
  - ii. The link between each occupation (as they appear after the first preliminary considerations by the Reference Group) and the skills/competences
  - iii. The group within the semantic structure of the skills/competences pillar to which the skill/competence should belong

The resulting list of skills is quality-checked and translated into English, French and German before it is submitted to the Reference Group.

6. The Reference Group proceeds to its final considerations on the proposal comprising all occupations, skills/competences and relations in the relevant sector. If the Reference Group cannot reach a unanimous decision there should be a vote concerning only the individual proposals where there are disagreements.

7. The ESCO Maintenance Committee reviews the proposal for a revision of the whole sector and either approves it or sends it back to the Reference Group.

8. The proposal is translated into all languages of the ESCO classification. This process includes finding preferred terms and synonyms in all languages, translating possible definitions and quality checking the terms.

9. The ESCO Secretariat introduces the proposal as decided by the Reference Group into the taxonomy management system and prepares the proposal to be submitted to the ESCO Board.

10. The ESCO Board decides to adopt the proposal (unanimously or by vote) or to remand it for further consideration by the Secretariat and/or the Reference Group.

In parallel with this procedure the ESCO Secretariat and Reference Groups could undertake revisions on skills/competences by group of skills without deciding on the link to individual occupations (e.g. for transversal skills) and on qualifications. These are submitted to the ESCO Board for approval using the same procedure *mutatis mutandis*.

The Reference Groups and the ESCO Maintenance Committee will regularly report to the ESCO Board on their experience with this continuous revision. They can make proposals to the ESCO Board on how to create the efficiency of the revision process and on the changes to the methodology that they consider desirable. Based on this information the ESCO Board will continue developing management structures and processes that help to achieve the overall aims of ESCO.

### **Review by sectors or fields of economic activity for continuous revision of ESCO**

In order to review in a structured and efficient manner, the workload might be divided based on economical sectors. In the following the method to divide the workload is described in general; a more detailed description will be developed once the upgrade to ISCO-08 is finished.

The method of sectoral revision uses NACE, the Statistical Classification of Economic Activities in the European Community, as a tool to regroup the approximately 11 000 concepts. NACE consists of four levels, from general to specific: section, department, group and class level. The section level contains 21 sections:

- A      Agriculture, forestry and fishing
- B      Mining and quarrying
- C      Manufacturing
- D      Electricity, gas, steam and air conditioning supply
- E      Water supply; sewerage; waste management and remediation activities
- F      Construction
- G      Wholesale and retail trade; repair of motor vehicles and motorcycles
- H      Transporting and storage
- I      Accommodation and food service activities
- J      Information and communication
- K      Financial and insurance activities
- L      Real estate activities
- M      Professional, scientific and technical activities
- N      Administrative and support service activities
- O      Public administration and defence; compulsory social security
- P      Education
- Q      Human health and social work activities
- R      Arts, entertainment and recreation
- S      Other services activities



T Activities of households as employers; undifferentiated goods - and services - producing activities of households for own use

U Activities of extraterritorial organisations and bodies

Every ISCO-08 unit level occupation group (550) has been matched with at least one NACE section based on the ISCO-08 group definition. For example, agriculture, forestry and fishing (NACE section A) has been linked to 29 different ISCO-08 unit level occupation groups:

- 1311 Agricultural and forestry production managers
- 1312 Aquaculture and fisheries production managers
- 2132 Farming, forestry and fisheries advisers
- 3142 Agricultural technicians
- 3143 Forestry technicians
- 6111 Field crop and vegetable growers
- 6112 Tree and shrub crop growers
- 6114 Mixed crop growers
- 6121 Livestock and dairy producers
- 6122 Poultry producers
- 6123 Apiarists and sericulturists
- 6129 Animal producers not elsewhere classified
- 6130 Mixed crop and animal producers
- 6210 Forestry and related workers
- 6221 Aquaculture workers
- 6222 Inland and coastal waters fishery workers
- 6223 Deep-sea fishery workers
- 6224 Hunters and trappers
- 6310 Subsistence crop farmers
- 6320 Subsistence livestock farmers
- 6330 Subsistence mixed crop and livestock farmers
- 6340 Subsistence fishers, hunters, trappers and gatherers
- 7544 Fumigators and other pest and weed controllers
- 8341 Mobile farm and forestry plant operators
- 9211 Crop farm labourers
- 9212 Livestock farm labourers
- 9213 Mixed crop and livestock farm labourers
- 9215 Forestry labourers

Where a NACE section is matched with too many ISCO-08 unit level occupation groups to remain workable for the Reference Groups, the occupation groups will be linked with NACE departments (NACE level 2), or where necessary even on a group level (NACE level 3). For example 89 ISCO-08 unit level occupation groups have been matched with NACE section C ("Manufacturing"). Even without knowing the exact amount of terms represented by these 89 occupation groups, it can be assumed narrower matching on the NACE department level will be needed, such as:

- C10 Manufacture of food products
- C11 Manufacture of beverages
- C12 Manufacture of tobacco products
- C13 Manufacture of textiles
- C14 Manufacture of wearing apparel
- C15 Manufacture of leather and related products
- C16 Manufacture of wood and of products of wood and cork, except furniture; manufacture of articles of straw and plaiting materials
- C17 Manufacture of paper and paper products
- C18 Printing and reproduction of recorded media
- C19 Manufacture of coke and refined petroleum products
- C20 Manufacture of chemicals and chemical products
- C21 Manufacture of basic pharmaceutical products and pharmaceutical preparations
- C22 Manufacture of rubber and plastic products
- C23 Manufacture of other non-metallic mineral products
- C24 Manufacture of basic metals
- C25 Manufacture of fabricated metal products, except machinery and equipment
- C26 Manufacture of computer, electronic and optical products
- C27 Manufacture of electrical equipment
- C28 Manufacture of machinery and equipment n.e.c.
- C29 Manufacture of motor vehicles, trailers and semi-trailers
- C30 Manufacture of other transport equipment
- C31 Manufacture of furniture
- C32 Other manufacturing
- C33 Repair and installation of machinery and equipment

Based on the amount of terms sorting under a NACE department, several departments may be clustered cross-department and cross-group, e.g.: The food, beverages and tobacco manufacturing sector may cluster "C10 - Manufacture of food products", "C11 - Manufacture of beverages", "C12 - Manufacture of tobacco products", "G46.1.7 - Agents involved in the sale of food, beverages and tobacco", "G46.3 - Wholesale of food, beverages and tobacco".

Most likely, preference will be given to those sectors where substantial preparatory work has been carried out by social partner organisations and by European organisations, e.g. on the matter of regulated professions: Agriculture/Fishery/Forestry, Healthcare, Hotel/restaurant/catering, Information Technology

## ***Annex V: ESCO Portal***

The ESCO Portal is the main tool for publishing and disseminating the ESCO classification. It intends to make the ESCO classification available in four different formats: XHTML to be displayed on the ESCO Portal and XML, SKOS and Microsoft Excel for download. The portal is based on a Liferay solution and it will be available in 22 languages. For the time being, the ESCO Portal is not yet accessible for the public.

The classification, which is managed with the Mondeca ITM taxonomy management system, can be imported into the portal in SKOS format.

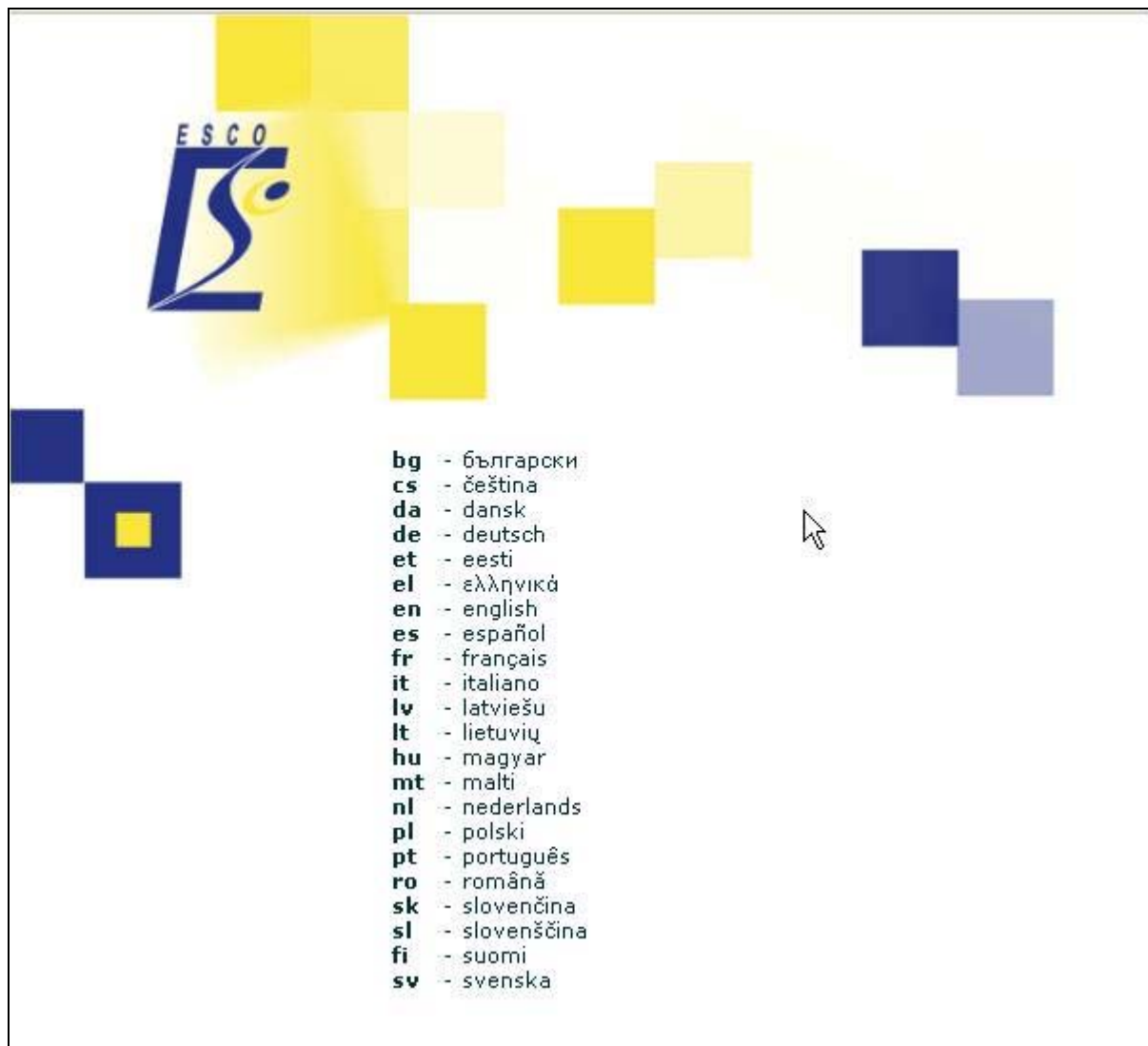
There is a limited number of functions that require the user to identify: the 'download' function and the 'proposal' function. The webmaster/administrator can define the access to menu items and if need is implement extra restrictions using Liferay functionality. Apart from the public (anonymous) user profile, the public registered user and the webmaster/administrator there are no other profiles.

The Portal follows some standard layout principles:

- It uses the Commission Standard Template as the basis for the design,
- The interface language is selectable via a selection field at the right top end in the banner,
- The ESCO content is always displayed in the central content zone. Within that content zone there can be subzones which each display a subsection of the data,
- Where applicable each content zone can be displayed in a separate language which can be selected via a dedicated language selection button at the right side of the screen at the level of the applicable content subzone.
- The portal can be displayed with standard browsers such as recent versions of Mozilla Firefox or Microsoft Internet Explorer.

### **Elements of the ESCO Portal**

As a starting point, the ESCO Portal displays a "landing page" where the user of the portal can choose the display language from the list of the 22 ESCO languages:



The content of the ESCO classification can be browsed using different entry points.

A search function allows to search the classification for a string. An advanced search enables the user to narrow down the search by defining the language, the category (occupation group, occupation, skill/competence), the fields that shall be searched in and the position of the search string in the term used. Furthermore, it can be decided to apply stemming to the search. The advanced search screen is illustrated in the following:

European Commission > Employment, Social Affairs & Equal Opportunities > ESCO > Advanced search

SEARCH

ADVANCED SEARCH

BROWSE HIERARCHY

BROWSE ALPHABET

PROPOSAL

DOWNLOAD

CONTACT

LOGIN/LOGOUT

ABOUT ESCO

### Advanced Search

Argument

Results per page

30

Content language

English (en)

Apply

☐ Stemming

Type of search

☒ Exact

☐ Begin with

☐ End with

☐ Containing

☐ ISCO code

Concept to search

☒ Occupation groups

☒ Occupations

☒ Skills

Fields to search

☒ Preferred term (PT)

☒ Non preferred term (NPT)

☐ Scope note

☐ Definition note

Search

Reset

[Top](#)

The 4 level hierarchy of ISCO allows browsing ESCO occupations and skills/competences by occupation groups. By drilling down the user can display the ESCO occupations in the hierarchical tree with the ISCO occupation groups. By opening the detailed view of one occupation group (or occupation) a user can see which skills/competences are directly (indirectly in case of occupations<sup>22</sup>) related to the occupation group. This allows to access skills/competences through the ISCO hierarchy as well.

The hierarchical tree for occupations group 4223 ("Telephone Switchboard Operators") is shown below:

<sup>22</sup> In the current version of ESCO skills/competences are indirectly linked to ESCO occupations through occupation groups, i.e. a skill/competence and an occupation that are linked to the same occupation group (ISCO level 4) are considered to be indirectly linked to each other.


European Commission > Employment, social affairs & equal opportunities > esco > browse hierarchy

**SEARCH**  
  
**ADVANCED SEARCH**  
**BROWSE HIERARCHY**  
**BROWSE ALPHABET**  
**PROPOSAL**  
**DOWNLOAD**  
**CONTACT**  
**LOGIN**  
**ABOUT ESCO**

### Browse the thesaurus hierarchical

- + 0 Armed Forces
- + 1 Legislators, Senior Officials And Managers
- + 2 Professionals
- + 3 Technicians And Associate Professionals
- 4 Clerks
  - + 41 Office Staff
  - 42 Customer Service Staff
    - + 421 Cashiers, Tellers And Related Clerks
    - 422 Client Information Clerks
      - + 4221 Travel Agency And Related Clerks
      - + 4222 Receptionists And Information Clerks
      - 4223 Telephone Switchboard Operators
        - Foreign connections telephonist
        - Switchboard operator
        - Taxi telephonist
- + 5 Service Workers And Shop And Market Sales Workers
- + 6 Skilled Agricultural And Fishery Workers
- + 7 Craft And Related Trades Workers
- + 8 Plant And Machine Operators And Assemblers
- + 9 Elementary Occupations

All occupation groups, occupations and skills/competences can also be accessed via an alphabetical list of the preferred terms:



# ESCO

The European taxonomy of Skills, Competences and Occupations

[European Commission](#) > [Employment, Social Affairs & Equal Opportunities](#) > [ESCO](#) > [Browse alphabet](#)

**SEARCH**  
   
**ADVANCED SEARCH**  
**BROWSE HIERARCHY**  
**BROWSE ALPHABET**  
**PROPOSAL**  
**DOWNLOAD**  
**CONTACT**  
**LOGIN/LOGOUT**  
**ABOUT ESCO**

## Browse the thesaurus by alphabet

A B C **D** E F G H I J K L M N O P Q R S T U V W X Y Z

Occupation Group Occupation Skill

D

ISCO code	Term
6121	Dairy and livestock producers
8272	Dairy-products machine operators
7413	Dairy-products makers
4113	Data entry operators
4215	Debt-collectors and related workers
3471	Decorators and commercial designers
6153	Deep-sea fishery workers
3225	Dental assistants
2222	Dentists
3223	Dieticians and nutritionists
1210	Directors and chief executives
121	Directors and chief executives
913	<u>Domestic and related helpers, cleaners and launderers</u>
9131	Domestic helpers and cleaners
9152	Doorkeepers, watchpersons and related workers
9113	Door-to-door and telephone salespersons
3118	Draughts persons
83	Drivers and mobile-plant operators
9332	Drivers of animal-drawn vehicles and machinery

[Top](#)

For making a proposal or for downloading the ESCO classification a user has to register. In the early phase of ESCO (i.e. before the release of an official ESCO version which has been endorsed by the ESCO Board), browsing the classification will also require a registration or identification procedure that is still to be defined. The login screen is shown below:



# ESCO

The European taxonomy of Skills, Competences and Occupations

[European Commission](#) > [Employment, Social Affairs & Equal Opportunities](#) > [ESCO](#) > [Login/Logout](#)

**SEARCH**  
   
**ADVANCED SEARCH**  
**BROWSE HIERARCHY**  
**BROWSE ALPHABET**  
**PROPOSAL**  
**DOWNLOAD**  
**CONTACT**  
**LOGIN/LOGOUT**  
**ABOUT ESCO**

Email Address  
  
  
Password  
  
  
Remember Me ☐  
  
  
[Create account](#) [Forgot Password](#)



In order to be able to login a user has to register first:



The screenshot shows the ESCO (European Skills, Competences and Occupations) website interface. At the top, there is a blue header with the European Union flag and the text "ESCO The European taxonomy of Skills, Competences and Occupations". Below the header, a breadcrumb trail reads: "European Commission > Employment, Social Affairs & Equal Opportunities > ESCO > Login/Logout".


On the left side, there is a vertical menu with yellow buttons for "SEARCH", "ADVANCED SEARCH", "BROWSE HIERARCHY", "BROWSE ALPHABET", "PROPOSAL", "DOWNLOAD", "CONTACT", "LOGIN/LOGOUT" (highlighted in blue), and "ABOUT ESCO".

The main content area contains a registration form with the following fields:

- First name \***: A text input field.
- Middle name**: A text input field.
- Last name \***: A text input field.
- Screen name \***: A text input field.
- Email Address \***: A text input field.
- Text Verification \***: A box containing a distorted image of the number "6889" for captcha verification, with an adjacent empty text input field.

At the bottom of the form is a "Save" button. A mouse cursor is visible near the email address field.

A logged in user may make a change proposal in order to propose e.g. to introduce a new concept, to rename a concept or to remove a concept. These proposals are forwarded to the ESCO Secretariat for further treatment. In the process of revising ESCO they will be an important input to the work of the Reference Groups.



European Commission > Employment, social affairs & equal opportunities > ESCO > proposal

**SEARCH**  
   
**ADVANCED SEARCH**  
**BROWSE HIERARCHY**  
**BROWSE ALPHABET**  
**PROPOSAL**  
**DOWNLOAD**  
**CONTACT**  
**LOGIN**  
**ABOUT ESCO**

### Proposal Mail

language  
(en) English ▼

type of concept  
occupation ▼


type of proposal  
new ▼

preferred term

proposal message (max 500 characters)

proposal

Users can also send an email to the ESCO Secretariat using the contact form:



European Commission > Employment, social affairs & equal opportunities > ESCO > contact

**SEARCH**  
   
**ADVANCED SEARCH**  
**BROWSE HIERARCHY**  
**BROWSE ALPHABET**  
**PROPOSAL**  
**DOWNLOAD**  
**CONTACT**  
**LOGIN**  
**ABOUT ESCO**

### Contact Us

name

email

message

Logged in users have the possibility to download the ESCO classification in the desired format:



When browsing the ESCO classification, users can display the single entries (concepts). These consist of

- a tree structure, showing the hierarchical situation of the element (currently only occupations and occupation groups)
- an attribute zone showing the characteristics of the entry
- a relation zone showing direct and indirect links (note: even though currently direct links between skills/competences and occupations do not yet exist they will be displayed on the ESCO once they are established)
- a button to switch between a simple view and an expert view. The expert view includes more information on the entry, e.g. the preferred term in all ESCO languages.

Standard layout when displaying an entry:

**Receptionists and information clerks**  
[OccupationGroupDetails](#)

**HIERARCHY**

- 4 Clerks
- 42 Customer service staff
- 422 Client information clerks

**TERM DETAILS**

preferred Receptionists and information clerks  
 isco code 4222

**RELATED OCCUPATIONS, SKILLS AND COMPETENCES**

Related occupations

- Boarding house host
- Bookings clerk, hotel
- Bookings manager, hotel
- Chief receptionist
- Conference host
- Conference hostess
- Conference manager
- Course hostess
- Floor hostess
- Floor manager
- Hotel host
- Hotel hostess
- Hotel porter
- Hotel receptionist
- Night porter
- Night receptionist
- Office receptionist
- Office telephone operator
- Porter
- Receptionist, telephone operator
- Youth hostel director

Related skills & competencies

Required (0) Recommended (0) Optional (0) **Unclassified (46)**

- A335, Telephone switchboard
- A345, Telephone switchboard
- Account coding experience
- Adaltec, telephone switchboard
- AV tools, familiarity with
- Bibbo hotel reservations system
- Book-keeping experience
- Budget responsibility
- COT hotel reservations system
- Conference services, experience
- Doro, telephone switchboard
- Fenix, telephone switchboard
- Fidele hotel reservations system
- GoldStar, telephone switchboard
- Guesthouse manager, experienced
- Hotel reservation system

Tree zone, shows the tree structure (not applicable for skills).

Attribute zone, shows the characteristics of the entry on display.

Relations zone, shows the relations (links) with other entries like occupations and skills.

Expert

Content language: English (en)

Example for the simple view of the entry "Accountant, unemployment benefits" (occupation):

> Employment, social affairs & equal opportunities > ESCO > occupation

**Accountant, unemployment benefits**  
[Occupation details](#)

**HIERARCHY**

- 3 Technicians And Associate Professionals
- 34 Finance, Sales And Administrative Associate Professionals
- 344 Customs, Tax And Related Government Associate Professionals
- 3443 Government Social Benefits Officials

**TERM DETAILS**

preferred Accountant, unemployment benefits

**RELATED COMPETENCES**

Via unitgroup Government Social Benefits Officials

Required (0) Recommended (0) Optional (0) **Unclassified (11)**

- ALFA cash register
- Behavioural science
- Investigations experience
- Labour legislation issues, familiarity with
- OAS education
- Occupational injuries investigations
- Political science
- Rehabilitation investigations
- Staff economics
- Trade union, experience
- Unemployment benefit issues, familiarity with

Via occupation Accountant, unemployment benefits

Required (0) Recommended (0) Optional (0) **Unclassified (0)**

expert

(en) English

Example for the expert view of the entry "Telecom, specialization for officers" (skill/competence):

European Commission > Employment, social affairs & equal opportunities > ESCO > skill

ARCH

▼

ADVANCED SEARCH

DWSE HIERARCHY

DWSE ALPHABET

DPOSAL

DWLOAD

NTACT

CIN

DUT ESCO

## Telecom, specialization for officers

[skill & competency details](#)

simple

TERM DETAILS

(en) English ▼

pt	Telecom, specialization for officers
qualifier	---
release	N/A
npt	---
scope note	---
definition note	---
editorial note	---
history note	---

LANGUAGE EQUIVALENTS

(en) English ▼

bg	Далекосъобщения, специализация за офицери
cs	Spoje, důstojnická odbornost
da	Telekommunikation, specialisering for officerer
de	Fernmeldewesen, Ausbildungsspezialisierung für Offizier
el	Τηλεπικοινωνίες, ειδικευση για αξιωματικούς
en	Telecom, specialization for officers
es	Telecomunicaciones, especialización para oficiales
et	kaugside (ohvitserikoolitus)
fi	Tietoliikenne, upseerien erikoistumisala
fr	Télécommunications, spécialisation officiers
hu	Távközlés, tiszttek
it	Telecomunicazioni, specializzazione per ufficiali
lt	Telekomunikacijos - karininkų (specializacija)
lv	Telekomunikācijas, virsnieku specializācija
mt	Telekomunikazzjoni, speċjalizzazzjoni għall-uffiċjali
nl	Telecommunicatie, specialisatie voor officieren
pl	Telekomunikacja, specjalizacja oficerska
pt	Telecomunicações, especialização para oficiais
ro	Telecomunicații, specializare ofițeri
sk	Telekomunikácie, špecializácia pre dôstojníkov
sl	Telekom, specializacija za častnike
sv	Tele, specialisering för officer

RELATED OCCUPATIONS AND LEAFOCCUPATIONS

(en) English ▼

Required for (0)
Recommended for (0)
Optional for (0)
Pending for (0)

- Air force officer (occ)
- Army officer (occ)
- Naval diver (occ)
- Naval helicopter pilot (occ)
- Naval officer (occ)
- Regular air force officer (occ)
- Regular army officer (occ)
- Regular naval officer (occ)

## ***Annex VI: ITM Taxonomy Management System at the European Commission***

The content of the ESCO classification is managed using the taxonomy management "Mondeca ITM". For a detailed description of the product and its features please refer to <http://www.mondeca.com/Products/ITM>.

The ITM tool allows adding new items (concepts, terms, relationships) to the ESCO classification, to delete items and to edit items. It is used to manage and update all parts of the ESCO classification, i.e. for the time being occupations, skills/competences and their relation with occupation groups. It also allows labelling ISCO occupation groups in the 22 ESCO languages. Furthermore, it is prepared to manage the workflow in classification management.

In the ITM the structure (data model) of ESCO is defined. This definition consists inter alia of the types of concepts, the relationships between them, the attributes of these concepts and relationships including the type of meta data stored, rules, etc.

The ESCO classification that is managed with the ITM can be exported in SKOS format, which allows it to be imported to the ESCO Portal for a new release.

## ***Annex VII: Questionnaire regarding the award criteria***

### **Information related to the quality of the offer of Lot 1**

Please provide information on the following points when submitting an offer for lot 1:

#### **Quality criterion A**

A1) Please describe how the use of semantic technology and Open Linked Data can contribute to managing and disseminating the ESCO classification.

Please provide at maximum three A4 pages.

A2) Please describe how the use of semantic technology and Open Linked Data can leverage the use of classifications for job matching in the European Union and for the exchange of CVs and vacancy data.

Please provide at maximum three A4 pages.

A3) Please describe what contribution classifications such as ESCO can make to the development of the semantic web.

Please provide at maximum two A4 pages.

#### **Quality criterion B**

B1) Please describe your approach to management and updating of the ESCO classification and in particular to adapting the ITM to changes of the data model of ESCO.

Please provide at maximum three A4 pages.

B2) Please describe your approach to quality management and quality assurance, in particular concerning data quality and integrity when managing the ESCO classification.

Please provide at maximum two A4 pages

#### **Quality criterion C**

C1) Please describe your methodology for the development, implementation, maintenance and updating of information systems for managing, disseminating and testing the ESCO classification. The description should include information on your approach to project management planning and to quality, risk and time management.

Please provide at maximum four A4 pages.

C2) Please describe elements and features of your proposed software application described in scenario a (ESCO test application) and how these can contribute to testing the ESCO classification and how they can support the process of developing and revising ESCO. Please be aware that the proposed solution corresponds with the prices quoted for scenario a in the specimen quotation form (annex II).

Please provide at maximum four A4 pages.

C3) Please describe elements and features of your proposed software application described in scenario b (Collaboration tool) and how these can contribute to the collaboration of the members of the various ESCO management structures on the development of the ESCO classification. Please be aware that the proposed solution corresponds with the prices quoted for scenario b in the specimen quotation form (annex II).

Please provide at maximum four A4 pages

#### **Quality criterion D**

D1) Please describe the composition of the proposed team for the development, implementation, maintenance and updating of information systems. Please be aware that in the price quotation form three different profiles are foreseen: IT project manager, senior IT development team member (web/semantic technology) and junior IT development team member (web/semantic technology). The information provided should therefore allow understanding the proposed composition of such IT development teams and how this composition refers to the three profiles.

Please provide at maximum three A4 pages.

D2) Please describe the composition of the proposed team for consulting on semantic technology. Please be aware that in the price quotation form two different profiles are foreseen: senior IT consultant on semantic technology, open linked data and interoperability and junior IT consultant on semantic technology, open linked data and interoperability. The information provided should therefore allow understanding the proposed composition of such IT consulting teams and how this composition refers to the two profiles.

Please provide at maximum two A4 pages.

D3) Please describe how you will manage, supervise and develop the proposed team and explain how you will ensure that the relevant expertise and resources are attributed to the specific tasks to ensure high-quality, cost- and time-efficient work.

Please provide at maximum two A4 pages.

#### **Information related to the quality of the offer of Lot 2**



Please provide information on the following points when submitting an offer for lot 2:

**Quality criterion A**

A1) Please describe your methodology concerning the terms formulation process and the selection of preferred terms in the field of occupations, skills/competences and qualifications.

Please provide at maximum four A4 pages.

**Quality criterion B**

B1) Please describe your methodology concerning the validation of preferred terms and non-preferred terms in the field of occupations, skills/competences and qualifications.

Please provide at maximum four A4 pages.

B2) Please explain how you will establish/manage a Europe-wide network of experts for carrying out the terms validation.

Please provide at maximum four A4 pages.

**Quality criterion C**

C1) Please describe the composition the proposed team for carrying out the proposed tasks.

Please provide at maximum three A4 pages.

C2) Please describe how you will manage, supervise and develop the proposed team and explain how you will ensure that the relevant expertise and resources are attributed to the specific tasks to ensure high-quality, cost- and time-efficient work.

Please provide at maximum three A4 pages.

**Information related to the quality of the offer of Lot 3**

Please provide information on the following points when submitting an offer for lot 3:

**Quality criterion A**

A1) Please explain your working methods for the provision of expertise in the forms listed in chapter 5.3.2. Please include information on your approach to project management planning and to quality, risk, HR and time management as well as to your selection and application of appropriate research methods.

Please provide at maximum four A4 pages.

### **Quality criterion B**

Please describe for each of the fields of expertise listed in the award criteria how you will ensure that the relevant expertise and resources are attributed to the specific tasks to ensure high-quality, cost- and time-efficient work:

- B1) Technical implementation, management and/or dissemination of classifications including the use of semantic technology and Linked Open Data
- B2) Terminology in the fields of occupation, skills/competences and/or qualifications, as well as general expertise of terminology in controlled vocabularies, classification systems and taxonomies
- B3) Background information on existing international, national, regional and/or sectoral classifications/taxonomies in the field of occupations, skills/competences and/or occupations
- B4) Scope, structure, methodology, testing, quality management and/or revision of taxonomies and classification systems
- B5) Interoperability, use of classifications and taxonomies as (part of) standards, and/or mapping two different classifications to each other
- B6) Use of classification systems and/or taxonomies in potential fields of application of ESCO, such as online job matching, career guidance, creation of CVs or job vacancies, etc.
- B7) Background information/data on the actual use of classification systems and taxonomies by potential stakeholders to the ESCO project and/or their processes, constraints, needs, costs in the implementation of classifications and/or mappings to classifications
- B8) Communication about, dissemination of and/or marketing of taxonomies or classification systems

Please provide at maximum two A4 pages per field of expertise.

## ANNEX VIII: OVERVIEW OF PROGRESS PERFORMANCE MEASUREMENT FRAMEWORK

### PROGRESS Ultimate Outcome

*Member States implement laws, policies and practices in a manner that contributes to the desired outcomes of the Social Agenda*

PROGRESS works towards its ultimate outcome by helping strengthen the EU's support for Member States' efforts to create more and better jobs and to build a more cohesive society. PROGRESS seeks to contribute to (i) an **effective legal regime** in the EU in relation to the Social Agenda; (ii) **shared understanding** across the EU with regard to Social Agenda objectives; and (iii) **strong partnerships** working towards Social Agenda objectives.

In operational terms, support provided by PROGRESS facilitates (i) provision of analysis and policy advice; (ii) monitoring and reporting on the implementation of EU legislation and policies; (iii) policy transfer, learning and support among Member States; and (iv) relaying to decision-makers the views of the stakeholders and society at large.

#### Legal Regime

##### Outcome:

*Compliance in Member States with EU law related to PROGRESS areas.*

##### Performance Indicators

1. Transposition rate of EU law on matters related to PROGRESS policy areas
2. Effectiveness of application in Member States of EU law on matters related to PROGRESS policy areas.
3. EU policies and legislation are grounded in thorough analysis of situation and responsive to conditions, needs and expectations in Member States in PROGRESS areas
4. Extent to which PROGRESS-supported policy advice feeds into the development and implementation of EU legislation and policies
5. Cross-cutting issues are addressed in PROGRESS policy sections
6. EU policies and legislation display a common underlying logic of intervention in relation to PROGRESS issues
7. Gender mainstreaming is systematically promoted in PROGRESS

#### Shared Understanding

##### Outcome:

*Shared understanding and ownership among policy/decision-makers and stakeholders in Member States, and the Commission, of objectives related to PROGRESS policy areas.*

##### Performance Indicators

1. Attitudes of decision-makers, key stakeholders and general public regarding EU objectives in PROGRESS policy areas
2. Extent to which national policy discourses or priorities reflect EU objectives
3. Extent to which principles of good governance (including minimum standards on consultation) are respected in policy debate
4. Extent to which the outcomes of policy debates feed into the development of EU law and policy.
5. Greater awareness of policy-and decision-makers, social partners, NGOs, networks regarding their rights/obligations in relation to PROGRESS policy areas
6. Greater awareness of policy-and decision-makers, social partners, NGOs, networks regarding EU objectives and policies in relation to PROGRESS policy areas

#### Strong Partnerships

##### Outcome:

*Effective partnerships with national and pan-European stakeholders in support of outcomes related to PROGRESS policy areas.*

##### Performance Indicators

1. Existence of common ground/consensus among policy and decision-makers and stakeholders on EU objectives and policies
2. Identification and involvement by the EU of key actors in a position to exert influence or change at EU and national levels
3. Effectiveness of partnerships in relation to outcomes related to PROGRESS policy areas.
4. Number of individuals served or reached by networks supported by PROGRESS.
5. Extent to which advocacy skills of PROGRESS-supported networks have improved
6. Satisfaction of EU and national authorities with the contribution of networks
7. Extent to which PROGRESS-supported networks take a cross-cutting approach