16th ESCO Board meeting
ESCO Project status update

7 April 2016

European Skills,
Competences,
Qualifications
and Occupations

ESCO (2016) SEC 012 DRAFT

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Purpose of the document

With this document the ESCO Secretariat (SEC) updates the ESCO Board (BOA) on recent developments in the ESCO project. Board members and permanent observers are welcome to ask questions via email to the SEC. The SEC will reply to the written questions either in writing before the meeting or at the beginning of the BOA meeting. On the meeting, the SEC will deliver a short overview of the questions and feedback received.

ESCO content development: status and planning

The European Commission will publish ESCO v1 at the end of 2016. To ensure that ESCO v1 is of high-quality, the SEC has adjusted the scope of the ESCO deliverables to support the main ESCO business cases (in particular the ones relevant for the EURES Regulation and the EURES Portal). The SEC has put some deliverables in the scope of ESCO v1.1 that is scheduled for delivery during the summer of 2017.

ESCO v1 scope

- ESCO occupations (OCC), with term sets in all supported languages[1]
- ESCO knowledge, skill and competences (KSC), with term sets in all supported languages
- ESCO qualification integration framework (software services that harvest qualifications from e.g. national qualification databases and automatically republish them as part of ESCO)
- The first set of harvested qualifications
- Re-published auxiliary taxonomies (ISCO-08, NACE rev. 2, and ISCED-F 2013) as Linked Open data (LOD), with preferred terms in all supported languages[2]
- Integration with the regulated professions database (using ISCO-08)
- ESCO Occupation collections[3], with term sets in all supported languages[4]
- ESCO Skill collections[5], with term sets in all supported languages[2]

Status and planning

The SEC is currently finalising the sets of OCC and KSC by having a second round of online consultation after the first round did not provide enough feedback on some parts of the classification. In parallel, we are performing a gap analysis with ISCO-08 and some national occupation classifications[6]. Additionally, the SEC is executing clean-up actions for the KSC in related skills will be linked and redundant skills will be removed. This work on the Occupation and Skills pillar is expected to be completed at the end of the summer (August 2016).

In parallel, the SEC co-ordinates the creation of the term sets for all the concepts in all the supported languages with DG Translation. This translation work is expected to be completed in November 2016. For this purpose a translation management platform is being developed to assist the Commission with translation of files.

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[1] Bulgarian, Spanish, Czech, Danish, German, Estonian, Greek, English, French, Irish, Croatian, Italian, Latvian, Lithuanian, Hungarian, Maltese, Dutch, Polish, Portuguese, Romanian, Slovak, Slovenian, Finnish, Swedish.

[2] The SEC engages with the owners of the auxiliary taxonomies to make their classifications available as Linked Open Data as to guarantee proper integration of these taxonomies with ESCO.

[3] Occupation collections are groupings of occupations that share a common feature. This feature will for instance support functionality in data-entry forms on portals that use ESCO.

[4] Inclusion dependent on the possibility to develop the asset in time for the release of ESCO v1.

[5] Skill collections are groupings of KSC that share a common feature. This feature will for instance support functionality in data-entry forms on portals that use ESCO.

[6] Currently, the SEC anticipates that the gap analysis will include the national occupation classification of France, Germany, Sweden, Spain, Hungary and Cyprus.

For the Qualifications pillar, the SEC is developing and piloting the software that will harvest and re-publish the qualifications. The development of this software is expected to be completed in September 2016). The Commission is also performing a number of country visits to Member States (MS) to gain more insight in the national qualifications database and support MS to publish them in LOD so as to be linked in ESCO.

Once the delivery of the ESCO v1 OCC, KSC and harvested Qualifications are guaranteed, the SEC will address the translation and re-publication of the auxiliary taxonomies like e.g. ISCO-08. The SEC is investigating if there is a way to include the occupation collections and skill collections into the ESCO v1 deliverables.

| | European Commission |

Update: EURES Regulation

Aim of the proposal

The proposal for a Regulation aims at enhancing the access of workers to mobility support services: easy access to all European job vacancies and job applications on line (EURES portal), clear information on where and how to find jobs in other EU countries, minimum support services to be expected when looking for assistance with job search and CV's, matching and recruitment. It also aims at improving the exchange of information between Member States on labour market shortages and surpluses to support a better coordinated intra-EU matching. This will be done by the provisions on the exchange of information on job vacancies, job applications and CVs. It also re-establishes and strengthens the European network of Employment Services, called EURES, the purpose of which will be to provide assistance with job search and recruitment across Member States.

Status

The proposal needed to be decided by the Council and the European Parliament (EP) in co-decision. The EURES Regulation was examined in the Social Questions Working Party in the Council throughout 2014. The Social Questions Working Party supported, in principle, the idea of adopting the European classification via implementing acts, whereby the Member State would have a formal say on the final shape of the system. The EPSCO Council adopted a general approach of 11 December 2014. The EP adopted the report of Mr Becker (PPE/AT) of the EMPL Committee on the 1/7/2015. The proposal was negotiated between the Commission, the Council and the European Parliament through 2015, and the three institutions reached an agreement in November 2015. It was voted in the European Parliament on 24/2/2016 and adoption by the Council is expected on 15/3/2016.

The Commission has established a small team to address questions on the EURES regulation both from content and legal perspectives. A dedicated functional mailbox for questions about the Regulation has been set up and questions can be sent to EMPL-EURES-REGULATION@ec.europa.eu

Relation to ESCO

Article 19 of the Regulation talks about the use of the European Classification:

- Highlights the responsibility of Member States to co-operate with each other and the Commission regarding between national systems and the European classification developed by the Commission. On its part, the Commission shall keep the Member States informed about the development of the European classification.
- The Commission shall adopt and update, by means of implementing acts, the list of skills, competences and occupations of the European classification.
- For the purpose of automated matching through the common IT platform, each Member State shall, without undue delay but no later than three years after the adoption of the Regulation, establish an initial inventory to map its national, regional and sectoral classifications to and from that list and, following the introduction of the use of the inventory on the basis of an application made

- available by the European Coordination Office, regularly update the inventory to keep it updated with the evolution of recruitment services.
- Member States may choose to replace their national classifications with the European classification, once completed, or maintain their interoperable national classification systems.
- The Commission shall provide technical and, where possible, financial support to Member States when they establish the inventory and to the Member States which choose to replace national classifications with the European classification.
- The Commission shall adopt, by means of implementing acts, the technical standards and formats necessary for the operation of the automated matching through the common IT platform using the European classification and the interoperability between national systems and the European classification.

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The EP adopted the report of Mr Becker (PPE/AT) of the EMPL Committee on the 1 July 2015.

The EP and the Council are proposing similar amendments to the Commission proposal, involving the introduction of an implementing act to adopt and update the list of skills / competences and occupations of the future European classification. Once such an act would be adopted, each Member State would have the obligation to establish an inventory, to map the national, regional and sectoral classifications to this European classification.

There has already been a first exchange of views in the Trilogue on these provisions on automatic matching.

Next Steps

The Regulation shall enter into force on the 20th day following that of its publication in the Official Journal, and it shall be directly applicable in all Member States. There are certain steps that Member States need to take in order to ensure compliance with the Regulation and an uninterrupted operation of the EURES network, such as nominating National Coordination Offices and representatives to the EURES Coordination Group. The Commission services will contact Member States on these issues. Furthermore, the Commission services will assist Member States in their preparations for an efficient and correct application of the new EURES Regulation.

Update: Member State Working Group (MSWG)

Introduction

To support the development of ESCO, the European Commission decided to set up a working group of national governmental experts and representatives of European social partners. This group will act as consultation and information forum between the Commission, Member States and social partners on ESCO. The EFTA and the candidate countries were also invited to participate as observers in the group. This cooperation with Member States will also cover topics on the use of ESCO in the framework of the proposed new EURES Regulation which will be voted upon in the European Parliament on the 23rd of April 2016, as well as stimulate the debate between employment and education at national level.

The first meeting of the MSWG took place in Brussels on 6th November 2015. During the meeting the Commission explained the mandate and role of the Board. The minutes of the meeting were sent to all members of the Board.

Status & planning

The Commission has recently extended the number of permanent members of the observer countries represented in the MSWG to two by country. These countries are: Albania, Turkey, Switzerland, Norway, the Former Yugoslav Republic of Macedonia, Serbia, Montenegro and Iceland.

Next steps

The second meeting of the MSWG will take place in Brussels on 26 April 2016. Main points of the agenda will include:

- The New Skills Agenda
- General ESCO overview and next steps until launching of version 1
- ESCO on-line consultation process (first and second round)
- ESCO pilot projects
- ESCO communications strategy
- Latest updates on ESCO Qualifications pillar, including pilot project and country visits
- Translating ESCO contents. Involvement of PES.

Update: A European study related to ESCO

Introduction

The European Commission has recently launched a study on the feasibility of setting institutional arrangements at European level to ensure management and quality assurance of issues related to an extended scope of the European Qualifications Framework (EQF). The study will focus on setting out the procedures, quality criteria and quality assurance measures, as well as constructing and estimating the best and the most cost-effective management solution for the following five activities related to the EQF and the ESCO Classification:

- Management of relating international qualifications and sectoral qualifications systems and frameworks directly to the EQF;
- Management of contributing to a European quality assurance mechanism to base Common Training Frameworks on the EQF;
- Management of preparatory work for the alignment of third country frameworks with the EQF;
- Management of ESCO classification after the release of the first full version of ESCO. The study will evaluate which national or international organisations have the potential to carry out the management and maintenance of ESCO and the procedures and criteria to perform these tasks.
- Management of development, governance and continuous updating of European core profiles of qualifications. A European core profile should be a minimum set of knowledge, skills and competence which are 'core' for a certain qualification. These European core profiles will be based on ESCO occupational profiles (after launching of version1), relating it/them to the EQF and describing quality assurance principles, mechanisms and possible quality criteria for awarding qualifications forthcoming from it. The study will assess this working hypothesis.

Status & planning

The final report of this study is expected on June 2016.

Follow up actions from the 15th ESCO Board meeting

Sharing relevant documents for the Member States Working Group

The Commission shared the list of members of the ESCO Member States Working Group (MSWG), the agenda and minutes of the 1st MSWG meeting on 6 November 2015 with the ESCO Board (BOA). Shortly, the Commission will update the list of members with new observers from non-European countries participating in the EaSI-program and share it with the BOA. The Commission is finalising the agenda of the next MSWG meeting to take place on the 26th April and once finalised it will be shared with the members of the BOA.

Translation of ESCO v1

The Commission reviewed the translation process for ESCO v1.
PricewaterhouseCoopers (PWC) would still be responsible for the quality review and validation of the terms in English. The process will be supported by DG Translation (DGT) who will translate all ESCO v1 concepts in all supported languages[7]. Shortly, the Commission will share a document with the updated translation process with the BOA. As a result, the Commission will no longer share the PWC list of labour market experts involved in terms formulation.

ESCO Communication

The Commission finalised the ESCO Communication Strategy by implementing the BOA comments received during the written procedure and enriching it with the latest evolutions in the project. Although, the Commission does not refer to the communication with stakeholders about the quality of ESCO v1 as such, it addresses it implicitly throughout the entire document. The Commission will share the final version of the ESCO Communication Strategy with the BOA via email shortly after the 16th ESCO Board meeting. The Commission will publish the document on ESCOpedia as well.

Currently, the Commission is aligning the list of communication activities with the ESCO Communication Strategy and will share it with the BOA in the course of April 2016.
The Commission will share a proposal for the graphical representation of ESCO with the BOA for written procedure shortly after the 16th ESCO Board meeting.

Quality of ESCO v1

The BOA advised the Commission to define both quality criteria for ESCO v1 and criteria to measure ESCO v1 being fit-for-purpose for specific use cases. Therefore, the

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[7] Bulgarian, Spanish, Czech, Danish, German, Estonian, Greek, English, French, Irish, Croatian, Italian, Latvian, Lithuanian, Hungarian, Maltese, Dutch, Polish, Portuguese, Romanian, Slovak, Slovenian, Finnish, Swedish.

Commission presented the ESCO Maintenance Committee (MAI) with an overview of the actions taken during the development of ESCO to deliver a consistent and labour market relevant classification. In addition, it presented the vision for the evaluation and management of the quality of ESCO. The Commission included an update on ESCO quality management as a separate chapter in this document.

ESCO contribution to the Cedefop list of action verbs

The Commission made a detailed analysis on the use of action verbs in ESCO. Based on the results of this analysis, Cedefop and the Commission cooperated to add new action verbs to the initial list of action verbs in order to make it more complete and usable.
The Commission provided the updated list of action verbs to support the terminological work foreseen in the translation process:
- the formulation of English terms; and
- the formulation of terms in the remaining supported languages.

On the Commission's request, PWC only uses action verbs from the new list for the formulation of English terms, unless labour market reality requires the use of specific verbs. In addition, PWC reports to the Commission on these cases to further enrich the list of action verbs.

This list of action verbs can be found on ESCOpedia[8].

Background on the participants to the 1st round of the ESCO online consultation

The Commission consulted experts and stakeholders on the ESCO content for the remaining 17 economic sectors through an online consultation. The 1st round of the ESCO online consultation started 14 October 2015 and closed 31 December 2015.

1054 experts registered for the ESCO online consultation. In this first round of consultation, 412 registered experts actively participated submitting ratings and 3158 comments. The active experts come from 28 European Member States and 16 other countries. In order to improve the content of ESCO, the Commission took all comments into account and liaised directly with the experts on their implementation.

Following the request from the ESCO Board, the Commission provides a detailed overview of the country representation and sub-sector coverage during the 1st round of the ESCO online consultation in annex.

Currently, the Commission is organising the 2nd round of the ESCO online consultation to solve contentious cases and receive input on occupations that were not reviewed

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[8] The list of action verbs on ESCOpedia:
https://ec.europa.eu/esco/portal/escopedia/Action_verbs

during the 1st round. The Commission will close the 2nd round of the online consultation in April 2016.

Update: ESCO quality management

At the ESCO Maintenance Committee meetings, the SEC has presented and discussed the ESCO quality management[9]. The presentation can be found on ESCOpedia[10].
The SEC distinguishes between the quality management prior and post publication of ESCO v1.

Prior to publication, the SEC ensures quality for ESCO by:

- Compliance to ESCO guidelines
- Monitoring of concepts using performance indicators (e.g. the number of skills identified for an occupation)
- Business rule validation (e.g. for checking the logical consistency of the classification)
- Quality assurance by the SEC
- Process validation by the MAI
- Involvement of linguists
- Involvement of terminologists
- Involvement of sector experts
- Use of reference classifications
- Use of sector specific resources
- Verification with job vacancies and curriculum vitae
- ISCO-08 gap analysis
- Gap analysis with various national occupation classifications
- Submitting the classification to the Member States Working Group for their opinion

Once ESCO is published, the SEC will evaluate its features in the context of its actual use with stakeholders' applications (e.g. EURES, Europass, job matching applications, career guidance applications, statistical data aggregation, etc.).

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[9] At the 19th ESCO Maintenance Committee meeting, the SEC presented 'ESCO (2016) SEC 008 DRAFT ESCO Quality management' which is uploaded to ESCOpedia:
https://webgate.ec.europa.eu/escopedia/en/images/f/fc/07_ESCO_quality_management_plan_update.pdf
[10]Presentation 'ESCO quality management' on ESCOpedia:
https://ec.europa.eu/esco/resources//escopedia/20160323_171532/81d99794-e412-4e5d-bdb3-14d6c1cd1a5dESCO_Quality-Management.pdf

Update: ESCO Maintenance Committee

Written by Ms Gerd Goetschalckx, vice-chair of the ESCO Maintenance Committee, on behalf of the ESCO Maintenance Committee.

19th ESCO Maintenance Committee meeting, 16-17 March 2016

When evaluating the progress of the content development for the first 11 sectors in September 2014, the MAI expressed its concern about the quality and completeness of the content of ESCO. This being a precondition for using ESCO successfully in labour market services. (Everyone will remember the problems we encountered with the sector Health in this area.)

The main problems that the MAI members observed were:
- missing occupational profiles, specifically for less skilled people
- a lack of coherence (inconsistencies).

Although several attempts were made by the ESCO SEC to solve these problems, and more coherence was achieved by the clean-up operations, the concerns in both areas were severe enough to sound the alarm in meeting 17 of the MAI in September 2015 (and that we flagged up to the BOA on 25 October 2015).

As potential mitigation the MAI proposed a quick GAP analysis via mapping ESCO with ISCO-08, and the most important national occupational classification that are operational in Europe (such as Berufenet, ROME, the Swedish and Austrian classification).

At the MAI meeting in March 2016 we observed that:
- The cross check with ISCO-08 was completed in one direction, meaning that all the ESCO OCC could be mapped to an ISCO-code. The reverse check whether all the ISCO-08 codes are represented in ESCO has shown however that 27 ISCO units were missing. Example given occupational profiles such as: employment agent, building construction labourer.
▪ The list of the 27 missing units will be validated by the SEC and used as a basis for completing the content in dialogue with the ILO.
- The cross checks with the main national occupational classifications has not yet started. This due to the fact that the SEC has linked the quick mapping exercise for the GAP analysis, to a full mapping exercise with use of the tool that is under development.
▪ As such the GAP analysis can easily be performed without the mapping tool, and can go quickly because the NOC mentioned were already selected as key sources for the development of the draft content (cfr guidelines). So why not put this forward as top priority? A full mapping of the NOC by the PES will have to wait anyway until the content of ESCO v1 is sufficiently complete and stable, and translated in the language of the member state concerned.
▪

The project timing shows differently. This means that the content for ESCO v1 will not be finalized (nor validated by the PES), before the translation from English to all the other languages will start. This will have a huge impact on the quality and coherence of the translations. An accurate and labour market relevant translation is however crucial for success.

The members of the MAI with experiences in translation of occupational classifications have clearly stated that the complexity of the translation from English to the other

languages is under estimated. DGT has no labour market related translation memory, and will therefore also have to perform labour market checks to find the appropriate terms specific to the sector. A proper validation of the translation by the PES cannot be done on the fly.

Therefore it is essential to define a plan B for the translations in which also the necessary resources and budget will be allocated for the PES to do this work.

Bottom line is that the message that the MAI gave to the BOA end of October 2015 is still valid.

"According to members of the MAI there's a considerable degree of concern that ESCO v1 cannot be delivered by the end of 2016 in multiple languages, with a content and tree structure that has enough quality and stability to be implemented in operational labour market services.

The SEC has done very well to get the draft final 16 sectors to where they are now, but there is concern that additional input will be needed to deliver a fit for purpose ESCO by the end of next year." (read 2016).

In addition the MAI:

- Advised the SEC to end the exercise of linking ESCO to NACE, that is only designed for economic statistics. It is a problem to organize occupations according to economic activities, because the occupations often exist in several areas of NACE. It also risks to produce confused statistics.
▪ This matter will therefore be reconsidered by the SEC.

- Asked to distribute the detailed report of the mapping pilot, together with all the minutes of the respective workshops, in order to have a better understanding of the set up and results of the mapping pilot.

Annex: Requested figures on the 1st round of the ESCO online consultation

Number of registered and active experts

The ESCO Secretariat opened the OCP from 14 October to 9 December 2015. However, the Secretariat decided to extend the consultation until 31 December 2015.

The table below summarises the experts' participation to the OCP:

Experts' participation:	
Registered experts:	1054
Active experts:	412
Coming from:	28 Member States and 16 other countries

Overview of the registered experts per type of organisation

Number of experts registered per organisation type:		
Education / Training Institute	249	■■■■■■■■■■■■■■■■■■■■■■■■■
Professional Association	244	■■■■■■■■■■■■■■■■■■■■■■■■
Employer / Private Company	106	■■■■■■■■■■
Industrial Association	81	■■■■■■■■
National or Regional Public Administration	75	■■■■■■■■
Trade Union	63	■■■■■■■
European Institution	61	■■■■■■■
Employment Service	49	■■■■■
Sector Skills Council	28	■■■
Statistical Organisation	1	■
Other	85	■■■■■■■■■

Country representation of the active experts

The following table provides an overview of the experts' participation per country per sector, based on the nationality that the experts that were active in the sectors indicated in the registration phase:

	BUSI	CHEM	CONS	GOOD	EDUC	ELEC	ENER	META	FINA	HEAL2	MACH	MEDI	PERS	PUBL	SCIE	MTEQ	WOOD	SUM
Belgium	11	3	10	2	11	2	2	0	5	13	4	2	3	6	17	2	3	96
Bulgaria	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
Czech Republic	0	0	0	0	1	0	0	0	0	2	0	0	1	0	0	0	0	4
Denmark	2	0	0	0	1	0	0	0	4	3	0	0	1	1	0	0	0	12
Germany	4	4	3	3	5	2	3	3	2	12	3	2	6	2	7	2	2	65
Estonia	0	0	2	0	1	0	0	0	0	1	0	0	0	0	1	0	0	5
Ireland	1	1	2	0	5	1	2	1	1	4	0	1	2	1	3	0	0	25
Greece	2	0	0	0	3	0	1	0	0	0	0	1	2	1	3	0	1	14
Spain	9	3	5	6	10	5	3	4	3	4	4	2	7	4	8	5	5	87
France	4	1	1	2	5	1	0	1	2	2	0	1	3	2	1	2	1	29
Croatia	2	1	3	3	3	2	1	1	1	2	1	3	1	1	4	1	2	32
Italy	6	0	1	0	3	1	3	1	3	5	1	0	1	2	6	1	0	34
Cyprus	1	0	1	1	2	1	0	0	0	2	1	0	1	1	1	1	0	13
Latvia	3	1	1	0	1	1	1	1	1	2	1	1	0	0	1	0	0	15
Lithuania	1	0	1	1	0	0	0	0	0	0	0	0	0	2	2	0	1	8
Luxembourg	2	0	1	0	1	0	1	0	0	1	0	0	2	2	1	0	0	11
Hungary	7	2	2	2	11	0	1	2	1	1	1	1	2	0	5	2	1	41
Malta	3	1	1	0	3	0	2	1	2	0	0	1	4	2	2	0	1	23
Netherlands	4	1	3	2	5	0	1	0	2	7	0	2	2	1	7	0	0	37
Austria	1	0	1	0	4	0	0	1	0	1	0	0	2	0	3	0	0	13
Poland	1	0	0	0	0	0	0	0	2	2	0	0	0	0	3	1	0	9
Portugal	1	0	1	0	4	0	1	1	0	7	0	1	2	2	5	2	0	27
Romania	3	2	1	1	4	0	1	2	3	1	1	0	2	2	3	0	0	26
Slovenia	6	3	1	1	4	0	2	2	3	0	1	1	5	2	2	0	2	35
Slovakia	1	0	0	0	2	0	0	0	0	0	0	0	1	0	1	0	0	5
Finland	2	0	0	0	2	0	0	0	2	2	0	0	1	2	0	0	0	11

Sweden	4	0	2	1	1	1	0	0	1	2	1	0	1	2	2	0	1	**19**
United Kingdom	3	3	3	4	8	1	4	2	1	12	3	3	7	3	13	1	2	**73**
Iceland	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	**2**
former Yugoslav Republic of Macedonia, the	0	0	1	0	1	0	0	0	0	0	0	1	0	0	0	0	1	**4**
Albania	1	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	**3**
Serbia	0	0	0	1	1	1	0	1	0	0	1	0	0	0	0	0	0	**5**
Turkey	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	1	0	**3**
Australia	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	**2**
China	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	**2**
Egypt	1	0	0	0	0	0	0	0	1	0	0	1	1	1	0	0	1	**6**
Norway	1	0	0	0	0	0	0	0	1	4	0	0	0	0	1	0	0	**7**
Switzerland	2	0	0	0	1	0	0	0	0	1	0	1	2	0	0	0	0	**7**
Ukraine	0	0	1	1	1	0	0	0	0	0	0	0	1	0	1	0	1	**6**
USA	1	1	2	0	1	1	1	0	1	0	0	0	1	1	2	1	0	**13**
Other	3	2	2	1	1	0	3	0	1	2	2	1	3	0	4	0	0	**25**
SUM	94	29	53	32	107	20	34	24	43	101	25	26	68	43	109	22	25	

Overview of the sub-sector coverage per sector

Business administration		
sub-sector	**share of OCC with/no activity**	
Accounting and audit activities	4	0
Accounting management and consulting activities	5	0
Administrative services and office support activities	6	0
Financial activities and fiscal consulting	12	0
Human resources management and consulting	4	0
Legal documents consulting and supporting activities	7	0
Legal representation activities	7	0
Management activities	51	17
Advertising activities and consulting	4	0
Advertising creative activities	4	0
Advertising distribution activities	2	0
Call centre activities	4	0
Communication and representation activities	3	0
Market research activities	4	0
Marketing management and support activities	6	0
Official management and consulting services	4	0
Operations activities	4	0
Purchasing activities	2	0
Sales activities	3	0
Strategic and planning managerial activities	2	0

Chemical industry

sub-sector	share of OCC with/no activity	
Chemical and non-metallic mineral manufacturing management	5	0
Chemical and non-metallic mineral manufacturing specialists	9	0
Nitroglycerin products operations	0	4
Soap production operations	5	0
Various chemical products operations	15	0
Manufacture of asphalt, cement and concrete	3	6
Manufacture of porcelain, ceramic and clay	14	0
Stone processing	2	5
Manufacture of glass	0	7
Manufacture of plastic and composite materials	10	8
Manufacture of rubber	9	6
Pharmaceutical products operations	1	3

Construction

sub-sector	share of OCC with/no activity	
Construction planning and management	7	0
Construction site preparation	12	1
Crane operations	5	0
Engineering and design activities in construction	8	0
Power lines construction	2	0

Rail construction	1	2
Road construction	8	0
Sewer construction	1	2
Water recovery	2	0
Concrete and cement work	3	0
Construction metalwork	4	0
Construction woodworking	3	0
Roofing work	3	0
Structural stone work	4	0
Glass panes installation	2	0
Insulation installation	2	0
Plastering	2	0
Stone covering installation	4	0
Various materials surface covering installation	8	0
Underwater and height construction	4	0
Doors and windows installation	2	0
Electrical systems installation	5	0
HVAC installation	3	0
Piping and plumbing	7	0
Prefabricated structures installation	6	0
Telecommunications installation	3	0

Education and training

sub-sector	share of OCC with/no activity
Adult education	6 0
Corporate training	2 0
Early childhood education management and support services	2 0
Early childhood education teaching activities	3 0
Education management and support services for several education levels	17 0
Higher education management and support services	9 0
Arts conservatory education	2 2
Healthcare sciences education	1 5
Humanities education	9 0
Natural sciences education	4 0
Physical sciences education	3 1
Social sciences education	5 5
Cultural instruction	3 2
Sports and outdoors instruction	2 5
Primary education management and support services	2 0
Primary school teaching activities	4 0
Public protection instruction	0 6
Vocational teacher	14 6
Secondary education management and support services	3 0
Secondary school teaching activities	15 0

Special education management and support services	0			3
Special education teaching activities	4			0

Energy and water supply, sewerages and waste management

sub-sector	share of OCC with/no activity	
Production of electricity	8	0
Renewable energy	6	3
Transmission and distribution of electricity	7	0
Energy sales	7	0
Distribution of gaseous fuels	2	3
Manufacture of gas	1	1
Steam and air conditioning	5	0
Sewerage	10	0
Materials recovery	4	0
Remediation activities	6	0
Waste collection	3	0
Waste treatment and disposal	5	5
Water supply	8	0

Finance, insurance and real estate sector

sub-sector	share of OCC with/no activity	
Banking	11	0
Business financial assistance	8	0

Credit and loan activities	10	0
Funds and investment activities	14	0
Securities, commodities and foreign exchange markets	15	0
Insurance risk and damage evaluation	9	0
Insurance and reinsurance	8	0
Pension funding	3	0
Real estate activities	14	1

Human Healthcare – sections for online consultation

sub-sector	share of OCC with/no activity	
Audiology, speech and language therapy	2	0
Chiropody	2	0
Dietetics	2	0
Laboratory medicine	7	0
Medical administration services	8	0
Occupational therapy	2	0
Operating room services	2	0
Optics and optometry	3	0
Orthoptics	1	0
Osteopathy	1	0
Paramedical practice	4	0
Pharmacy	4	0
Prosthetics	2	0

Psychology	4	0
Psychotherapy	1	0
Radiography	2	0
Recreational therapy	4	0
Traditional and complementary medicine	4	4

Manufacturing of electrical equipment, computer, electronic and optical products

sub-sector	share of OCC with/no activity	
Assembly supervision	3	0
Electrical equipment assembly	9	0
Electronics equipment assembly	8	0
Optical equipment assembly	2	0
Computer engineering	2	0
Electrical engineering	4	0
Electromechanical engineering	5	0
Electronics engineering	14	0
Mechatronics engineering	6	0
Optical engineering	6	2
Inspection of electrical equipment, computer, electronic and optical	9	0

Manufacturing of fabricated metal products

sub-sector	share of OCC with/no activity

sub-sector	share of OCC with/no activity	
Metal assembly	8	0
Metal cutting	17	0
Coating and painting	3	3
Metal smoothing and polishing	5	2
Precision metal work	4	0
Casting and moulding	9	0
Forging	5	1
Metal pressing and drawing	5	0
Metal inspection, supervision and engineering	6	0
Specific process manufacture	7	0

Manufacturing of machinery and equipment

sub-sector	share of OCC with/no activity	
General-purpose machinery assembly	10	0
Special-purpose machinery assembly	7	0
Machinery assembly and maintenance supervision	6	0
Machinery manufacturing engineering technicians	12	0
Machinery manufacturing engineers	12	0
Machinery repair, maintenance and installation	36	0

Manufacturing of transport equipment

sub-sector	share of OCC with/no activity

sub-sector	share of OCC with/no activity	
Engineering and design activities in vessel manufacturing	4	0
Vessel assembling activities	9	4
Vessel finishing activities	1	2
Vessel manufacturing management	3	4
Aircraft manufacturing management	3	5
Engineering and design activities in aircraft manufacturing	3	1
Aircraft assembling activities	10	0
Aircraft finishing activities	2	0
Engineering and design activities in motor vehicle manufacturing	8	1
Motor vehicle manufacturing management	3	6
Motor vehicle assembling activities	8	5
Motor vehicle finishing activities	0	2
Motorcycle manufacturing	4	0
Engineering and design activities in rolling stock manufacturing	2	1
Rolling stock manufacturing management	3	4
Rolling stock assembling activities	5	1
Rolling stock finishing activities	0	2
Transport equipment engineers	10	0

Media

sub-sector	share of OCC with/no activity	
Advertising activities	3	0
Broadcast anchors	3	0

Broadcast transmitting activities	2	0
Broadcasting news activities	2	0
Authors	7	0
Journalists	9	0
Print post-processing activities	3	0
Printing and pressing activities	3	10
Recorded media reproduction activities	2	0
Publishing editors	6	1
Publishing supervisors	7	0
Sound engineering technicians	3	0
Video and motion picture distribution activities	2	0
Video and motion picture editing	3	1
Video and motion pictures pre-production	6	1
Audio and video equipment operators	2	0
Costume and make-up activities	1	5
Lighting activities	2	0
Video and motion picture performers	2	3
Video and motion pictures production managers	4	0
Illustrators	2	0
Multimedia artists	6	0

Personal Service, administrative support service and security and investigation

sub-sector	share of OCC with/no activity
Employment activities	6 / 0
Astrological and spiritualists' activities	4 / 0
Coaching activities	5 / 3
Domestic personnel	1 / 15
Escort and dating services	2 / 0
Funeral activities	3 / 3
Hairdressing and beauty treatment activities	3 / 9
Pet care services	4 / 4
Repair of personal and household goods	6 / 11

Public administration, defence and membership organisations sector

sub-sector	share of OCC with/no activity
Correctional services	4 / 3
Defense activities	22 / 1
Fire service activities	4 / 0
Justice and judicial activities	2 / 17
Public order and safety	3 / 13
Administrative services for users	2 / 0
Economic and social planning	7 / 4
Fiscal affairs	0 / 5
Foreign affairs	6 / 2

Legislation	12	2
Social services administration	22	2
Activities of non-governmental organisations	3	0
Political organisations	6	0
Religious organisations	1	10
Trade union	3	0

Scientific and technical activities

sub-sector	share of OCC with/no activity	
Architectural activities	4	0
Engineering activities	59	0
Land surveying consulting	6	0
Photographic and video recording activities	6	0
Formal science research	2	0
Life science research	11	0
Physical science research	11	0
Social sciences research	4	13
Scientific, professional and technical consultancy	15	0
Artistic design activities	13	0
Engineering draughting and design activities	13	0
Testing activities	9	8
Translation and interpretation activities	8	0

Wood processing, paper and printing

sub-sector	share of OCC with/no activity	
Cellulose based products manufacture	3	0
Corrugated cardboard production	2	0
Paper products manufacture	5	0
Papermaking	8	0
Print post-processing	3	0
Printing and pressing	8	10
Reproduction of recorded media	2	0
General lumber processing	8	0
Lumber production	5	1
Sawing	5	0
Artisanal wood products manufacture	3	0
Engineered wood products manufacture	5	0
Wood assembly	5	0
Wood furniture manufacture	6	0