ESCO Annual Report 2018
European Skills, Competences, Qualifications and Occupations
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1. What is ESCO?

ESCO is the multilingual classification of European skills, competences, qualifications and occupations. The ESCO classification works as a dictionary by describing, identifying and classifying professional occupations, skills and qualifications relevant for the EU labour market, and education and training.

ESCO provides descriptions of 2,942 occupations and 13,485 skills linked to these occupations, translated into 27 languages (all official EU languages plus Icelandic, Norwegian and Arabic). Over time, it will also display the qualifications awarded in the education and training systems from Member States, as well as qualifications issued by private awarding bodies.

The aim of ESCO is to:

- support job mobility across Europe;
- make data on occupations, skills and qualifications more transparent and easily available for use by various stakeholders;
- improve communication between the education and training sector and the EU labour market;
- support evidence-based policy making, therefore supporting a more integrated and efficient labour market.

It does so by offering a ‘common language’ for occupations and skills that can be used by different stakeholders on employment and education and training topics.

It is available in an online portal and can be consulted free of charge.

The first full version (ESCO v1) was published on 28 July 2017. This was followed by the ‘ESCO – Connecting people and jobs’ conference, which took place in Brussels on 9 and 10 October 2017. The conference introduced ESCO to the general public and sectoral stakeholders, showcased concrete use cases of ESCO, and explored examples of its added value in diverse settings. More than 220 experts representing employment, education and training domains took part, with more than 250 participants connected via the online streaming¹.

The latest version of ESCO can be downloaded or retrieved through the ESCO Application Programme Interface (API).

¹ More information about the ‘ESCO – Connecting people and jobs’ conference is available here: https://ec.europa.eu/esco/portal/news/9c134495-4d4d-46b9-b576-74baa1eb01a
What can ESCO do?

- facilitate dialogue between the labour market and the education/training sector;
- allow employment services to exchange relevant labour market information across borders;
- boost online and skill-based job-matching;
- facilitate occupational mobility across the EU;
- help employment services in the shift towards a skills- and competences-oriented approach;
- support the transparency of qualifications across Europe;
- support the shift towards learning outcomes;
- enable the development of innovative career guidance services;
- ultimately, help get more people into jobs throughout Europe.
2. Introduction

By Manuela Geleng, Director for Skills
DG Employment, Social Affairs and Inclusion
European Commission

Over the past two decades, the digital revolution has changed the way of matching demand and supply in the labour market.

The Internet has become the main instrument for finding jobs and employers increasingly manage their HR and recruitment processes with IT tools. Better transparency of information on skills and qualifications and smooth interoperability between systems are therefore key pillars of successful transitions between jobs and access to the labour market: new technology opens up opportunities to make the sharing of information even more effective.

To address these challenges, one year ago the European Commission launched the first full version of the classification of European Skills, Competences, Qualifications and Occupations, following the previous successful test of its use in the EURES portal.

After its first full year, we see that ESCO is starting to put down strong roots.

The new EURES Regulation calls on Member States to adopt ESCO directly for exchange of job vacancy data through the EURES portal, or map their own classifications to ESCO, and this work is now underway. The ESCO governance framework ensures that expertise is available to ensure the continuous improvement and maintenance of the classification. Companies and organisations, both public and private, are using ESCO to improve labour market services and connect people and jobs. The new Europass offers opportunities for developing tools and services allowing individuals to document and store information on their life-long learning and career development, and to access relevant available information on qualifications, learning opportunities, and skills intelligence.

I would like to thank all the stakeholders that have brought their commitment and expertise to building and launching ESCO: national authorities, social partners, public employment services, labour market experts, sectoral organisations and education institutions, to name just a few.

And this is only the beginning! We look forward to working together in 2019 to put ESCO into practice wherever it can help deliver on our shared ambition of strong and inclusive labour markets and societies.
3. Executive summary

The following report covers 2018 as the first full year of implementation of ESCO since its official launch.

The report draws attention to the work done by the Commission to ensure the continuous improvement of the classification, following the guidelines published on the ESCO portal. It highlights the improvements to the structure, clarity and content of the classification that were realised during 2018, and it guides the reader through the different fields of development of ESCO.

It also provides an overview of how ESCO contributes to the main EU initiatives in the area of skills and competences, and how it can be used to support the European labour market. The report offers examples of how ESCO is being implemented by both public and private operators, and a detailed description of the key performance indicators used to measure its success on the labour market.

The take-up of ESCO by public and private operators, and the future use of ESCO by public employment services at national level, show the relevance of a multilingual classification of skills and occupations when it comes to overcoming the language barrier and promoting the mobility of workers in Europe.

In this regard, the report concludes with a reflection on the ambition for the year to come. 2019 will be a key year for ESCO, as the Commission will start the work on the next version of the classification and will launch online communities to extend communication with stakeholders.
4. Achievements

4.1 Measuring the quality of ESCO

Key performance indicators (KPI) are an important instrument to measure the efficiency, user-friendliness and quality of ESCO. The Commission has developed the ESCO KPIs in five dashboards along the following topics:

1. Acceptance of ESCO as a de facto standard

2. ESCO in EURES

3. Evolution of the ESCO qualifications pillar

4. Conceptual and terminological coverage of ESCO

5. Level of granularity of ESCO.

These dimensions keep track of both business and quality KPIs, measuring, for example, how many organisations are using ESCO in applications or projects, how many qualifications are in ESCO and how well ESCO is performing in terms of its coverage of labour market terminology.

For a full overview, the dashboards are included below along with their metrics.

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2 Actual data will be available during the course of 2019.
1. Acceptance of ESCO as a de facto standard

Downloads of ESCO datasets

How to interpret the data

- For each month, the ESCO team will keep track of the number of downloaded datasets and the local ESCO service API from the ESCO portal. The calls made to the ESCO service API (found online) will also be traceable in the near future. This measurement will indicate which technical solution (downloading the dataset or using the API) is mostly used and what the peak moments are.

Success indicators

- To have at least 50 downloads per month, with a peak maximum of 250 downloads.
Downloads by type and purpose

How to interpret the data

- For each download, the ESCO team is keeping track of who the users are, what type of organisations they represent and what purpose they downloaded the classification for. This will give an overview of which stakeholders are using ESCO and to what end.

Success indicators

- To have a balance between private and public users, with a good mix of using ESCO for integration in applications and for describing curricula/learning outcomes.
2. ESCO in EURES

**Mapping to ESCO: Percentage of EURES job vacancies annotated with ESCO**

**Mapping to ESCO: Percentage of user profiles and CVs annotated with ESCO**

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3 Sample data only. Real data will be available by the beginning of 2020.
3. Evolution of the ESCO qualifications pillar

Number of qualifications in ESCO

How to interpret the data

- The first KPI in this section monitors the Member States whose qualifications are included or plan to be included in the ESCO database. This is closely linked to the development of national qualifications databases by Member States that are referenced to the European Qualifications Framework (EQF).
- Secondly, the ESCO team will monitor the actual number of qualifications existing in the ESCO classification, to trace the inclusion of more qualifications from different Member States.
- And lastly, the ESCO team will also track the percentage of qualifications in ESCO that have linked their learning outcome descriptions to the ESCO skills pillar.

Success indicators

- To integrate qualifications from at least 20 Member States by 2020.
4. Conceptual and terminological coverage of ESCO

Coverage per ESCO version

Terminological coverage by language
Terminological coverage by economic sector

A. Agriculture, forestry and fishing
F. Construction
B. Mining and quarrying
C. Manufacturing
G. Wholesale and retail trade, repair of motor vehicles and motorcycles
E. Water supply, sewerage, waste management and remediation activities
D. Electricity, gas, steam and air conditioning supply

Most frequently appearing candidate terms

<table>
<thead>
<tr>
<th>Occupations</th>
<th>Skills</th>
</tr>
</thead>
<tbody>
<tr>
<td>English teacher</td>
<td>Augmented reality</td>
</tr>
<tr>
<td>Demi-chef de rang</td>
<td>GDPR</td>
</tr>
</tbody>
</table>
5. Level of granularity of ESCO

Level of granularity per occupation

<table>
<thead>
<tr>
<th>Most granular</th>
<th>Least granular</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aquaculture environmental analyst</td>
<td>Sales assistant</td>
</tr>
<tr>
<td>Aquaculture rearing technician</td>
<td>Shop supervisor</td>
</tr>
<tr>
<td>Aquaculture hatchery technician</td>
<td>Shop assistant</td>
</tr>
<tr>
<td>Aquaculture recirculation manager</td>
<td>Specialised doctor</td>
</tr>
</tbody>
</table>

Dashboards 4 and 5 contain sample data. The first results for dashboard 4 will be available at the beginning of 2020, based on initial findings from http://www.cedefop.europa.eu/en/events-and-projects/projects/skills-online-job-vacancies. Dashboard 5 will present results only once the mapping process between ESCO and the national occupational classifications is final.

4.2 Take-up of ESCO

One year after its launch, ESCO has already been used in a number of IT implementations covering a variety of areas such as:

- recruiting;
- matching skills to jobs and training;
- advertising job vacancies;
- career planning;
- documenting and mapping the skills and qualifications of jobseekers;
- analysing the labour market.

Below are the various projects, organisations and platforms that have already used or are currently using ESCO in the offer of services to their end-users. Such implementers come from the public sector (EU and national), the private sector and the academic area.

4.2.1 Public employment services

JobsIreland, Ireland ([www.jobsireland.ie](http://www.jobsireland.ie))

The public employment service of Ireland (JobsIreland) uses ESCO to automate the system of job applications through their website, where the classification is used for matching candidate profiles to job vacancies.
Directorate of Labour, Iceland (www.vinnumalastofnun.is)

Iceland is preparing for a revamp of its national online job platform to offer better services to jobseekers and employers. The new online service will be based on ESCO, which will replace the currently used ISCO-88 classification for job matching.

4.2.2 EU-financed projects


With this project, Cedefop gathers and presents information on the skills that employers are demanding in their online vacancies. The aim is to inform the career and training decisions of individuals; allow employment services to understand employers’ requirements; and enable guidance counsellors to assess individual training needs, training providers to revise training programmes and policy makers to obtain up-to-date information on skill needs and new jobs. Cedefop used ESCO’s skills classification as a tool for extracting vacancies and classifying the information they contained.

EU Skills Profile Tool for Third Country Nationals (https://ec.europa.eu/migrantskills)

ESCO’s skill and occupation descriptions are implemented in the EU Skills Profile Tool for Third Country Nationals. For more information, see section 5.2.

Open European Skill Match Maker (Openskimr) (www.openskimr.eu)

Openskimr matches users to jobs and learning opportunities by applying a set of algorithms that build upon the ESCO terminology. The latter is applied for assessing skills, matching to occupations and jobs, and planning learning and career routes.

Transparency in Art Levels and Qualifications (TALQ) (www.talqproject.org)

The TALQ research project mapped national qualifications and certificates to ESCO-based international profiles, in at least 10 eligible countries. It searched and analysed the content and structure of existing training and formal education systems, matched them with information on labour market and qualifications, and mapped them against the ESCO competences of the chosen profiles.

e-Skills Match (www.eskillsmatch.eu)

The e-Skills Match platform supported training that allowed learners to acquire the necessary e-skills and digital competences they needed to stay competitive within the ICT sector. It classified ICT skills and digital competences using the European e-Competence Framework (e-CF) and ESCO. The identified skills were linked to the qualifications required for each occupation in the ICT sector and matched with open training courses that helped learners acquire missing skills and competences.
ACROSS: Appraising transversal skills in green jobs
(http://greenyourskills.wixsite.com/across)

The ACROSS project aimed to promote smart, sustainable and inclusive growth by providing tools to increase employability in emerging sectors. The project focused on green jobs and production methods in different sectors and helped people to adapt to changes in the labour market. It set up the following three tools, based on the ESCO transversal skills: a tool to identify and anticipate green skills needs, a tool for guidance and employability in relation to green jobs, and a tool for the assessment of green transversal skills.

4.2.3 Platforms

Boost.rs (https://boost.rs/en/)

The Boost.rs platform uses the ESCO terminology to help users to look for new opportunities, select training programmes or rethink their career plan. The platform also enables organisations to map the competencies of each of their employees, in order to individualise career paths, customise training programmes or create project teams.

Textkernel (www.textkernel.com)

Textkernel is an HR technology vendor active in the field of the semantic understanding of documents (CVs, job ads) in order to match people and jobs. It applies the ESCO framework in its product for semantic recruitment technology.

Milch & Zucker (www.milchundzucker.com)

Milch & Zucker is a provider of talent acquisition and talent management solutions, specialising in employer-brand consulting and software products. It uses the ESCO terminology for job matching purposes.

Skilllab (https://skilllab.io/)

Skilllab is a social venture developing technology-based solutions to facilitate the integration of excluded individuals into local labour markets. It uses the ESCO terminology to describe the skills and knowledge of disadvantaged individuals.

4.2.4 What’s next

The Commission is organising study visits to organisations that are using ESCO in the delivery of their services. The first visits are taking place in spring 2019 with the goal of developing an in-depth understanding of how ESCO is being used in different cases and gathering first-hand feedback on the quality of ESCO in relation to the labour market.
5. **ESCO and the digital European labour market: Putting skills to work**

5.1 **Introduction**

Digital technologies have become a fundamental component of the European labour market.

More and more citizens find their job online thanks to the services provided by job boards and recruitment agencies. At the same time, many employers are starting to manage their HR activities online and use different digital technologies for the recruitment and selection of candidates, training programmes and career guidance services. Furthermore, different types of online platforms (talent platforms, job boards, social media and crowdsourcing marketplaces) have become the cornerstone of the modern labour market.

The Commission has developed several initiatives to facilitate the use of digital technologies for labour market purposes, to address the digital skills gap of EU citizens and to promote employment and labour mobility. These initiatives support the goals that the Commission is pursuing in order to release the full potential of the digital labour market:

1. developing a better link between education and training and the labour market to ensure that people can access the best opportunities around Europe

2. ensuring the transparency of information relating to skills, work experiences and qualifications in the labour market

3. providing open and fair access to information available online.

ESCO works as a building block for the exchange of information in the European digital labour market. The following sections highlights the main EU initiatives in the field and ESCO’s contribution to their goals.

5.2 **EU initiatives that use ESCO to support a European digital labour market**


ESCO is used in EURES to facilitate matching between CVs and vacancies. The purpose of EURES is to provide information, advice, recruitment, and placement services for workers and employers wishing to benefit from the principle of the free movement of people. The EURES portal offers information on 3,924,746 job vacancies across Europe and provides more than 13,000 employers with over 425,000 CVs. The occupations, skills and knowledge concepts of ESCO are used within the EURES platform to support the automated matching of jobseekers' skills and job openings from different countries.
On 19 July 2018, the Implementing Decisions provided for in Article 19 of the EURES Regulation were published. Decision 2018/1020 establishes the list of skills, competences and occupations of the European classification to be used for the operation of the EURES platform (ESCO) and lays down the procedures to update and review this list.

Decision 2018/1021 sets out the technical standards and formats for the operation of the automated matching using the European classification and the interoperability between national systems and the European classification.

The adoption of the Implementing Decisions marks the start of the three-year period during which Member States have to adopt ESCO or map their current national classifications to it.


In early 2018, the European Parliament and Council adopted a legislative framework for the new Europass. The new Europass Decision calls on the Commission to develop a system that offers open, accessible, multilingual, web-based documentation and communication materials about skills, with a strong emphasis on the development of digital tools.

New instruments such as a digital e-portfolio to show and share all skills and qualifications, and a technical framework for issuing qualifications that are digitally signed, are under development. The Commission is also working on improving synergies between the different web portals currently available to bring together high-quality information about work and learning opportunities, and skill-related demand and supply.

In this regard, the Commission will also test the use of ESCO in the new Europass to improve the usability of the e-portfolio. Recital 17 of the new Europass Decision states that ‘following appropriate testing, and having due regard for the position of Member States, ESCO could be used by the Commission within the Europass framework; the use of ESCO by Member States is on a voluntary basis, following testing with, and evaluation by, the Member States’.


The Blueprint for sectoral cooperation is an initiative of the New Skills Agenda for Europe that aims to achieve a strategic collaboration on skills by bringing together key stakeholders of employment, industry, education and training. The objective of the Blueprint is to develop European skills strategies in key economic sectors that are selected based on political priorities, the definition of a clear sectoral strategy on skills and jobs, the maturity of the growth strategy of the sector, and stakeholders’ involvement and commitment.

EU partnerships in the Blueprint are typically composed of social partners, education and training providers, chambers of commerce and trade organisations. The first wave of projects funded under the Blueprint includes five sectors: automotive; maritime.
technology; space (geo information); tourism; and textile, clothing, leather and footwear.

All projects piloted during the first wave are working with the ESCO classification for the development of new occupational profiles and skills-based training opportunities.

Partners were invited to review the occupations and skills concepts relevant for their sector currently included in ESCO, and to develop new, future-looking professional profiles in line with the ESCO classification. ESCO is therefore an important reference for the recognition of specific sectoral skills, but also the transversal skills needed for the development of the sector.

**EU Skills Profile Tool for Third Country Nationals** *(https://ec.europa.eu/migrantskills)*

The tool is designed for use by public and private organisations offering services to refugees and other citizens of non-EU countries, such as national authorities responsible for the reception and integration of refugees, reception centers, public employment services, education and training advisers, social services, non-governmental organisations (NGOs) and charitable organisations.

The focus of the tool is to help individuals produce self-profiles of their skills and to help an adviser identify recommendations or next steps. The information collected can be used to:

- support further assessment
- form a basis for offering guidance
- identify up-skilling needs
- support job-searching and job-matching.

ESCO’s skill and occupation descriptions are implemented in the tool, allowing individuals to document and map their skills and work experience. The resulting profiles help offer these individuals personalised advice regarding further training and work.

ESCO’s multilingual nature is also an important part of the process. The tool is available in all EU languages (except Irish) and in Arabic, Farsi, Pashto, Sorani, Somali, Tigrinya and Turkish. It is possible to see two languages at the same time on one screen, reducing language barriers between case workers and citizens of non-EU countries. The tool is available online and free of charge. Completed profiles are exportable as PDF or XML files.
6. Managing ESCO

6.1 Development of the classification

The ESCO team has worked throughout the year to improve the content of the ESCO classification. The main developments for 2018 are reported below.

6.1.1 ESCO content updates

In July 2017, the Commission services made the first ESCO public release available: ESCO v1. Since then, the following minor releases have been published.

ESCO v1.0.1

- Added hyperlinks to scope notes.
- Corrected regulated profession statements (one of two statements was missing in v1.0).
- Changed reuse level of skills/competences that are related only to one occupation to 'occupation-specific'.
- Removed most hidden terms in EN version and made them available as a separate module.
- Added qualifications provided by the Latvian qualifications database.
- Corrected typos in some labels.
- Corrected some hierarchical relations.
- Updated some language packs to integrate the feedback of the Member States.

ESCO v1.0.2

- Corrected the reuse level of the skill 'entrepreneurship'.
- Updated the description of some concepts related to psychotherapy, in line with feedback received from stakeholders.
- Improved the modelling of terms related to software products.
- Added downloadable language files for ESCO in Arabic and American English. The language files are not yet included in the API and ESCO portal.

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4 Minor releases fix issues with the data (e.g. typos) and allow small amendments (e.g. adding or removing terms, adding or removing relations between concepts). They do not affect the amount and scope of concepts (neither occupations nor skills are added or removed).
ESCO v1.0.3

- Corrected some typos in the descriptions of the occupations and skills, sometimes adapting them to make them more consistent (in some cases because of stakeholders’ feedback).
- Changed some relations between occupations and ISCO groups, in agreement with the International Labour Organization.
- Fully integrated the Arabic version in the dataset and in the portal (and added support for it within the API).
- Fine-tuned some non-preferred terms.
- Amended some preferred terms for software products (contextualization was added to some software names to make them more clear to users).

The ESCO team is continuously gathering users’ feedback and input. Minor releases are scheduled on an ad hoc basis (if needed). A new ESCO major release, ESCO v1.1 is foreseen in 2021.

6.1.2 Development of the qualifications pillar

After ESCO’s release in July 2017, two Member States pioneered the integration of their qualifications into the system. In September 2018, new national qualifications databases were included in ESCO. By the end of the year, a list of qualifications from the following Member States was included:

- Estonia
- Hungary
- Greece
- Latvia
- Lithuania
- Slovenia

The ESCO team provided technical support to Member States, either in person (a country visit to Lithuania was carried out in December 2017), by teleconference or by email. The following countries received support from the ESCO technical team in order to develop and publish their qualification databases in the European portals: Belgium (French-speaking community), Estonia, Hungary, Lithuania and the UK (Scotland).

In addition to this, the Commission launched a study in 2018 on the further development of the qualifications pillar. The study aimed to:

- investigate quality assurance mechanisms for the publication of international and sector qualifications in ESCO (‘direct inclusion’);
- propose a methodology for linking the skills and qualifications pillars.

The conclusions of the study will be presented in a joint meeting of the EQF Advisory Group and of the ESCO Member States Working Group (MSWG) in February 2019.
6.1.3 Restructuring the skills pillar

ESCO’s current structure requires improvement in order to cover certain user needs more effectively. Such user needs include:

- searching for specific skills;
- clustering skills in groups (e.g. language skills, digital skills or management skills), to work at a more aggregated level;
- identifying related concepts;
- identifying concepts that are of a specific interest to the user.

In order to address these needs, in 2018 the Commission – within the framework of a pilot – tested various approaches to restructuring the skills pillar and assessed how well these approaches supported the user needs described above.

During the 26th meeting of the ESCO Maintenance Committee, members advised the Commission services to use the Canadian classification as a basis, along with ISCED-F and the Statistical Classification of Economic Activities in the European Community (NACE) to further structure the ESCO skills pillar.

To this end, the Commission carried out a pilot to explore whether the Canadian classification could meet user needs. Following positive results, the Commission presented a proposal to the Maintenance Committee and the MSWG for creating a skills hierarchy in ESCO, and sought the advice of the Committee members on the methodology. Following the positive reaction of the Committee members, the Commission is working with four experts to develop a skill and knowledge hierarchy that will allow users to access the ESCO skill and knowledge concepts more easily and intuitively.

6.2 Communicating about ESCO

The Commission presented the updated ESCO communication plan during the 8th meeting of the MSWG on the 22 October 2018. With the 2018-2022 Communication Plan, the Commission aims to:

- raise awareness about ESCO and support its use by a growing number of implementers;
- showcase the ESCO use cases;
- collect feedback from the implementers to feed into the continuous improvement of the classification;
- trigger the interest of different stakeholders in ESCO’s activities.
Communication about ESCO is carried out through different channels and includes the production of printed documents, extensive use of social media, participation in conference and events, and the displaying of different communication products on the ESCO portal. This communication has so far focused on the following key messages:

- ESCO connects people and jobs;
- ESCO connects employment to education;
- ESCO connects labour markets and facilitates mobility.

To celebrate the first anniversary of ESCO and look to the future development of the classification, the Commission, together with ESCO stakeholders and implementers, has created a list of communication products that users can find in the ESCO portal. These products can be used by ESCO stakeholders to support the take-up of the classification and include:

- a testimonial video about how ESCO supports online corporate training by Italian e-learning provider Docebo;
- a testimonial video about how ESCO is being used by the public employment service of Iceland;
- a tutorial on how to use the ESCO API;
- a video about how ESCO is supporting jobseekers across Europe;
- a video about how ESCO is connecting people and jobs;
- the ESCO newsletter, a quarterly newsletter summarising the main developments related to ESCO;\(^5\)
- the ESCO swatchbook, a collection of use cases showing the added value of ESCO for different labour market services;
- an ESCO standard presentation;
- a series of documents available on the ESCO portal, such as the ESCO leaflets and the ESCO handbook.

Moreover, the Commission has presented ESCO at a wide range of events and conferences, and to different stakeholders. For an overview of the promotional efforts, please see Annex 1.

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\(^5\) The first edition of the ESCO newsletter was published on 10 October 2018.
6.3 Mapping to ESCO

The adoption of the Implementing Decisions provided for in the EURES Regulation paved the way for the Member States to launch their processes of either adopting ESCO or mapping their national, regional and sectoral classifications of occupations and skills to ESCO, within three years (from August 2018).

In order to facilitate the process of mapping national, regional and sectoral classifications to ESCO, the Commission provides Member States with technical assistance in various forms. To this end, the Commission has carried out the following activities.

- **Conducted a pilot project**: The project was developed together with the public employment services of Austria and Sweden between January and April 2018. It aimed to establish mapping relations between ESCO skills and national skill classifications. The results of the pilot are available on the ESCO portal and can serve as a learning resource.

- **Developed and published the ESCO implementation manual**: This manual explains a methodology for establishing accurate mapping relations between national occupation or skill concepts and ESCO concepts. It details the criteria that Member States should take into consideration before deciding whether to map their national classifications to ESCO or replace them with ESCO, explains how to create mapping relations, and suggests steps for accurate mapping.

- **Developed the ESCO mapping platform**: The platform is an IT application designed to help establish and update inventories, and provide mapping tables between national classifications and ESCO. More information on the mapping platform is available below.

- **Developed and published the ESCO mapping platform user manual**: This document shows users how to navigate the mapping platform and describes its functionalities.

- **Developed and published a document on the technical standards and formats necessary for the operation of the EURES platform**: The document includes the standards and formats that Member States have to apply when creating mapping tables.

- **Delivered a training webinar on 9 November 2018**: This was the first of a series of training sessions that the European Commission will organise – in the form of webinars, physical workshops and country visits – in order to ensure that Member States have the right tools and knowledge to map to or implement ESCO in their systems.

- **Established a central European contact point (helpdesk) to clarify difficult/ambiguous cases**: The helpdesk is composed of a team of experts who reply to enquiries submitted by the mappers. The ESCO helpdesk is accessible via EMPL-ESCO-SECRETARIAT@ec.europa.eu.
The ESCO mapping platform, in particular, aims to help Member States to map their national classifications to ESCO. The mapping platform was published in September 2018, building on the lessons learned during the ESCO occupation mapping and the ESCO skills mapping pilot projects. The platform is available to Member States that wish to use it.

The Commission is also ready to carry out country visits, upon request, during the course of 2019 and beyond, in order to support Member States that are adopting or mapping to ESCO.

### 6.4 IT developments and new portal releases

As ESCO aims to promote interoperability between systems and is a core pillar for the development of a European digital labour market, the ESCO team is constantly updating the IT infrastructure supporting the project. Below you can find a summary of the main developments in 2018.

#### 6.4.1 ESCO portal

**April 2018**

- Integrated Arabic language pack and added support for the language to the API.
- Improved search engine to provide better results.
- Improved ISCO code visualisation in the concept view.
- Improved portal usability and the user experience.

**September 2018**

- Improved browsing and visualisation of the qualifications on the ESCO portal. Qualifications can now be browsed by EQF level, country/region, ISCED-F field and awarding body or competent authority.

**December 2018**

- Created ESCO mapping to EURES section on the ESCO website, where Member States can find all documents and information related to the implementation of Article 19 of the EURES Regulation.
6.4.2 ESCO: A collaborative project

In order to facilitate communication with stakeholders and to implement a solid feedback mechanism, the Commission began to develop dedicated ESCO community fora in 2018. Four different categories of community fora are being created for the following audiences:

- ESCO domain experts
- ESCO implementers
- ESCO Maintenance Committee
- representatives from the Member States participating in the ESCO MSWG.

The community forum for ESCO domain experts aims to provide sectoral and cross-sectoral experts with a single space for discussion in order to share feedback, suggestions and proposals on how to improve the content of the ESCO classification. The forum is organised around 27 economic sectors, following the configuration used during the development of ESCO v.1.

The community forum for ESCO implementers allows organisations implementing ESCO in their own services to provide feedback on the practical use of ESCO as a building block within their system. They can also share eventual issues related to the IT implementation and raise any changes in the requirements of IT applications.

The community forum for the ESCO Maintenance Committee is a collaborative space dedicated to the members of the committee. The goal of this forum is to allow members to discuss and exchange information, share their proposals with the Commission, comment on ongoing work, and remain informed about the latest ESCO developments.

Finally, the community forum dedicated to Member State representatives is a space where the representatives can discuss and share their experiences in mapping national classifications to ESCO or in integrating ESCO in response to the EURES Regulation.

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6 Domain experts are defined as organisations or individuals with a deeper insight into the knowledge, skills and competences needed in specific economic sectors or specific occupations, or into cross-sectoral knowledge, skills and competences.
7. **Next steps**

2019 will be another key year for the development of ESCO. The ESCO skills pillar will be completed by adding a solid structure that facilitates the recognition and use of skills and knowledge concepts. Work on the restructuring of the skills pillar has already started, with the goal of publishing the new hierarchy by the end of 2019.

The ESCO community fora are expected to become fully operational in early 2019 and the ESCO team will moderate the discussions of the different fora. They will be a key tool for the preparation of the next version of ESCO (ESCO v1.1), which will be released in 2021.

The qualifications pillar should be further enriched with new qualifications provided by Member States. The outcome of the study on linking the qualifications pillar with the skills pillar will support the discussion on how best to link the learning outcomes of qualifications with skills terminology.

2019 will also see the beginning of the process to translate the descriptions of ESCO occupations and skills and knowledge concepts into the remaining 26 languages of ESCO.

New IT features will be added to facilitate the exchange of data and the local APIs will be available for use. The ESCO portal will be further modified to better meet user needs and new promotional materials will be developed to communicate the potential benefits of using ESCO to different stakeholder groups.

Member States will continue the mapping process foreseen by Article 19 of the EURES Regulation, and the Commission will provide technical and financial assistance. In this regard, two country visits to Greece and Slovenia will take place in the first months of 2019.

Working in partnership with Member States, social partners, civil society and lifelong learning providers, the Commission looks forward to supporting the further take-up of ESCO in the future.
Annex 1: Promoting ESCO

Participation in workshops and conferences, and meetings with stakeholders

Participation in conferences and events is one of the main channels for supporting the uptake of ESCO by public and private organisations, and engaging in a meaningful dialogue with stakeholders. Below is a list of events at which ESCO was presented and/or discussed in 2018:

- **26/01/2018**: Participation in the final multi-stakeholder feedback workshop about the European ICT Professional Role Profiles version 2, Brussels.
- **06/02/2018**: Country visit to Iceland about the adoption of ESCO in its national system, Reykjavik.
- **15-16/03/2018**: Participation in the event The European Qualifications Framework: supporting learning, work and cross border mobility, Brussels.
- **26-27/04/2018**: Presentation of ESCO at the annual meeting of the European Network of Safety and Health Professional Organisations, Madrid.
- **16/05/2018**: Presentation of ESCO at the event ROI-MOB Policy debate – Measuring the impact of European VET mobility: turning intangible into tangible, hosted by MEP Henna Virkkunen at the European Parliament, Brussels.
- **16/05/2018**: Presentation on the state of play of the qualifications pillar of ESCO at the ETUC Education and Training Committee.
- **24/05/2018**: Presentation of ESCO to a delegation of students and practical demonstration on how to create a CV using ESCO, Delegation of the Junta de Andalucía, Brussels.
- **01/06/2018**: Presentation of ESCO during the first webinar of the EU Datathon 2018, Brussels.
- **1-2/06/2018**: Presentation of ESCO at the European Youth Event, Strasbourg.
- **6-7/06/2018**: Presentation of ESCO at the event Exploring eLearning, organised by Skillia/Amicucci Formazione, Milan.
- **12/06/2018**: Presentation of ESCO at the European Forum of Technical and Vocational Education and Training (EFVET) conference Developing life & employability competences through mobility, Brussels.
- **14-15/06/2018**: Participation in the European Validation Festival: Unlocking Talents in Europe, Brussels.
- **11-13/09/2018**: Participation as an exhibitor at Zukunft Personal Europe, the flagship Expo Event for the World of Work, Cologne.
- **27-28/09/2018**: Presentation of ESCO and the use of ESCO in EURES at the Eastern Partnership ‘Make it Match’ network workshop ‘Improving skills anticipation approaches in the age of the digital data ad industry 4.0’, organised by the European Training Foundation, Dublin.
During the course of 2018, the ESCO team met with several stakeholders to discuss further improvements to the classification. The stakeholders were mainly representatives of European professional organisations, private companies interested in using ESCO, universities and other national or European ESCO-related project consortia.
Annex 2: ESCO governance bodies

The Commission is managing the development and updating of the ESCO classification according to the guidelines for the continuous improvement of ESCO. To this end, it is supported by external stakeholders from the domains of education and training, as well as from the labour market. To steer the work for the further improvement of ESCO, the Commission is benefiting from the advice of two bodies: the ESCO Maintenance Committee and the ESCO Member States Working Group (MSWG).

Meetings of the ESCO Maintenance Committee

The Maintenance Committee is a technical advisory body, composed of individual experts with experience and knowledge in classifications systems, terminology relating to the labour market and education and training, and European/international standards. It was created in 2011 to support the Commission in the development of ESCO. At present, it is in its third formation, with a mandate running from 2018 to 2022. Its members provide technical advice on ESCO’s implementation in software applications, on quality control, and on technical and conceptual improvements.

The group was created following an open call for expression of interest published in December 2017. The Commission selected the new committee members with a view to ensuring a high level of expertise, a full representation of ESCO’s topics and areas of interest, and a geographical and gender balance. The new committee consists of 21 members and 6 observers, and focuses on the continuous development of ESCO. The list of members can be found here.

The ESCO Maintenance Committee held four meetings in 2018, all of them in Brussels.

The 25th ESCO Maintenance Committee meeting took place on 23 April 2018. Members discussed the mandate of the Committee, exchanged preliminary views on the plan to restructure the skills pillar and received an update on the status of the ESCO KPI framework.

The 26th ESCO Maintenance Committee meeting took place on 5 June 2018. Members discussed the implementation of the KPI framework and the options for restructuring the skills pillar. Moreover, the Commission informed members about the use of ESCO in EURES and about the setup of a stakeholder feedback mechanism.

The 27th ESCO Maintenance Committee meeting took place on 25 September 2018. The Commission provided an overview of the take-up of ESCO one year after its launch and discussed its proposal for an ESCO skills hierarchy. Members also discussed communication activities and the testing of the use of ESCO in Europass.

The 28th ESCO Maintenance Committee meeting took place on 20 November 2018. The Commission reported on the state of the implementation of the stakeholder feedback mechanism and the ongoing analysis on the restructuring of the ESCO qualifications pillar. Members also discussed the strategy to collect feedback from different ESCO implementers and the criteria for selecting the experts supporting the Commission in the further development of the skills pillar.
More information about these meetings (members, mandate, documents distributed, minutes of meetings, etc.) is available on ESCOpedia.

**Meetings of the MSWG**

The MSWG on ESCO is composed of representatives from Member States and European Economic Area (EEA) countries in the areas of employment and education and training affairs, and representatives from European social partners. The members present at the meetings are mandated to contribute on behalf of their country or social partner organisation. Their mandate consists of advising and supporting the Commission on the implementation and development of ESCO, and ensuring its interoperability with national classification systems.

The MSWG met three times in 2018:

- 21 February in Brussels
- 18 July, via Webinar
- 22 October in Brussels.

The main objective of these meetings was to prepare and support Member States through the process of adopting or mapping their national classifications to ESCO, following the entry into force of the Implementing Acts of the EURES Regulation. Other topics such as progress relating to the qualifications pillar, the ESCO KPI framework, the organisation of communication activities around ESCO, the creation of a structured stakeholder feedback mechanism, the use of ESCO by organisations in the labour market one year after its launch, and the work on the structure of the skills pillar were also discussed.
More information about these meetings (members, mandate, documents distributed, minutes of meetings, etc.) is available on ESCOpedia.

The draft 2019 Work Programmes of the ESCO governance bodies, the ESCO Maintenance Committee and the ESCO MSWG are shown below.

<table>
<thead>
<tr>
<th>Meetings (dates tbc)</th>
<th>Adopting and evaluating ESCO</th>
<th>Implementation in EURES</th>
<th>Restructuring the skills pillar</th>
<th>Developing ESCO v1.1</th>
<th>Building the qualifications pillar</th>
<th>Communication</th>
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<tbody>
<tr>
<td>Joint meeting of the MSWG-EQF AG 6 February</td>
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<tr>
<td>MSWG 7 February</td>
<td>Discuss the approach for testing the use of ESCO in Europass.</td>
<td>Mapping: state of play.</td>
<td>ESCO skills pillar: state of play.</td>
<td>Next steps on the development of ESCO v1.1</td>
<td>Follow up on the debate with the EQF AG.</td>
<td>Update on the ESCO Communication Plan 2018-2022.</td>
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<tr>
<td>Maintenance Committee 26 March</td>
<td>Discuss the approach for testing the use of ESCO in Europass.</td>
<td>Consult on the on-going mapping process: additional needs or refinements.</td>
<td>Consult on and review the ongoing work on a skills hierarchy.</td>
<td>Next steps on the development of ESCO v1.1.</td>
<td>Consult on the implementation approach for qualifications.</td>
<td>Update on the ESCO communication plan 2018-2022.</td>
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<tr>
<td>Maintenance Committee 24 May</td>
<td>Follow up on the approach for testing the use of ESCO in Europass.</td>
<td>Consult on the on-going mapping process: additional needs or refinements.</td>
<td>Skills structure: next steps.</td>
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<td>Qualifications pillar: state of play.</td>
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<tr>
<td>Maintenance Committee 24 September</td>
<td>Consult on the on-going mapping process: additional needs or refinements.</td>
<td>Discuss and review the work on the skills structure.</td>
<td>Discuss the scope of the v1.1 revision.</td>
<td>Qualifications pillar: state of play.</td>
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<td>Maintenance Committee 12 November</td>
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