

# ESCO mapping platform: User manual

European Skills, Competences,  
Qualifications and Occupations

ESCO





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## 1. Introduction

The mapping platform is an online application created as one of the IT platforms supporting ESCO. It is used by experts from the Public Employment Services (PES) and the European Commission to create mapping relations between ESCO v1 and their national, regional and sectoral classifications of skills and occupations.

Examples of the platform functionalities:

- Create mapping relations;
- Download information in spreadsheet format for offline review;
- Provide automated suggestions for mapping concepts between the source<sup>1</sup> and the target<sup>2</sup> classification;
- Comment on the mappings and discuss them with other experts.

### 1.1 Purpose

This document aims to:

- guide the users through the mapping platform;
- define the roles of the users;
- explain the different functionalities of the interface that are attached to each role;
- describe how to use those functionalities to create and manage mapping relations.

### 1.2 User roles

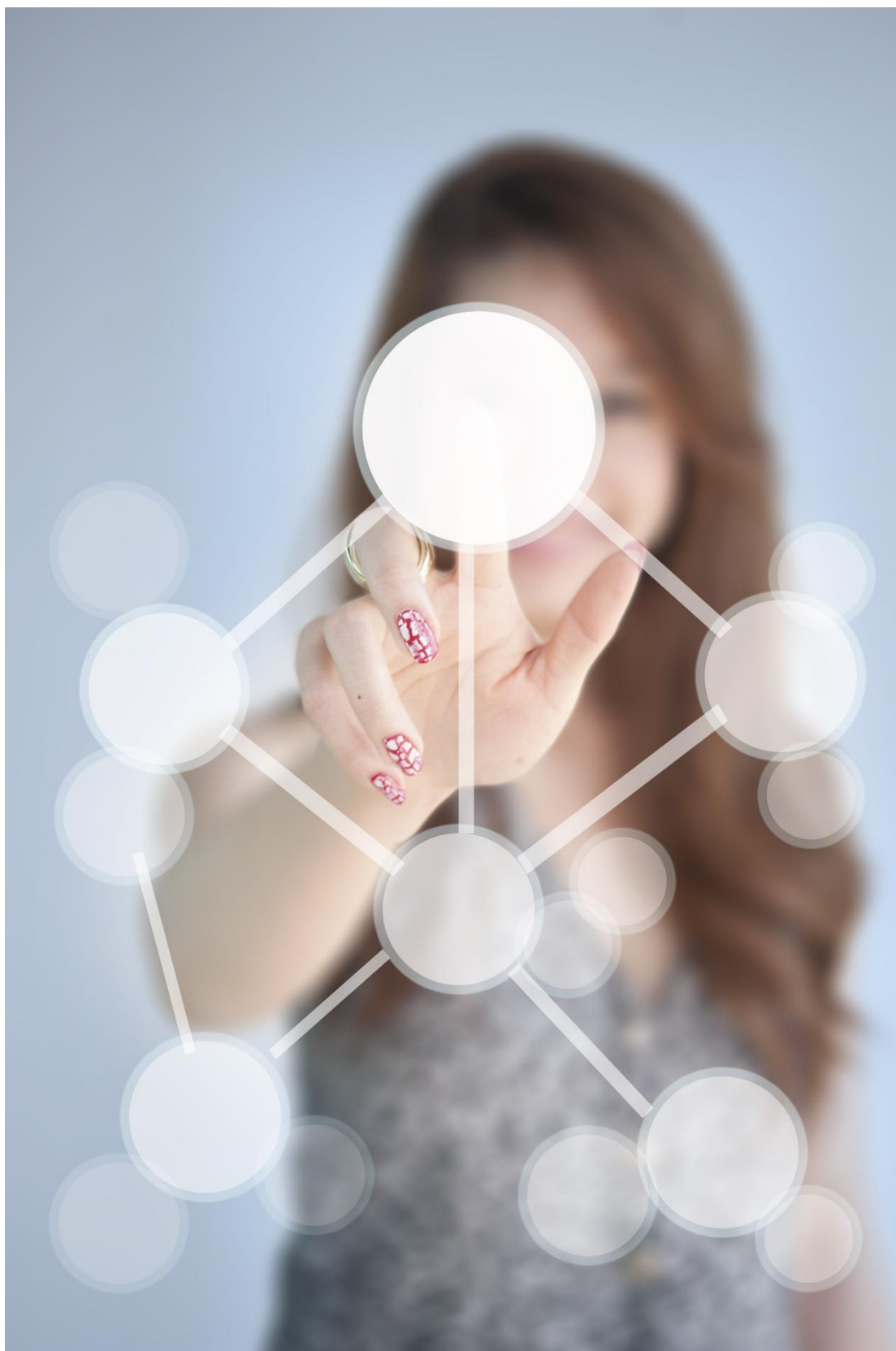
The platform offers four roles: viewer, mapper, reviewer and administrator, each with a different workflow:

- **Viewers** can browse the content and the mappings, but cannot perform any modifications to mappings.
- **Mappers** can perform the mapping actions on the platform (consult automated suggestions and assign mapping relation types) to establish relations between concepts of the two classifications.
- **Reviewers** can assess the mapping relations established by mappers. They can approve/reject/delete individual mappings and change the status of the concepts for reviewing purposes (e.g. in progress, to review, rejected, approved).
- **Administrators** have access to the administrative section of the platform. This allows them to import and export mapping tables.

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<sup>1</sup> The classification **from** which the mapper primarily maps concepts.

<sup>2</sup> The classification **to** which the mapper primarily maps concepts.



The following table lists actions per user role.

**Table 1: Functionality available per user role**

Action	User role			
Functionality	Viewer	Mapper	Reviewer	Administrator
Log into the platform	Yes	Yes	Yes	Yes
Select mapping project	Yes	Yes	Yes	Yes
Browse, search and filter concepts	Yes	Yes	Yes	Yes
Establish a mapping relation	No	Yes	Yes	Yes
Delete a mapping relation	No	Yes	Yes	Yes
Change concept status	No	Depending on configuration <sup>3</sup>	Depending on configuration	Depending on configuration
Comment on a concept	No	Yes	Yes	Yes
Add an editorial note to a mapping relation	No	Yes	Yes	Yes
Change the status of a mapping relation	No	No	Yes	Yes
Import mappings	No	No	No	Yes
Export mappings	No	No	No	Yes

<sup>3</sup> Member States can define i) the set of statuses available for their mapping projects and ii) the roles which will be authorized to use each of them. The Commission services will then configure the statuses during the setup of the individual mapping projects.





## 1.3 Prerequisites

In order to use the mapping management platform, users must be connected to the internet. They must also have an account on the EU login<sup>4</sup> and permission rights from the European Commission to use it.

The mapping platform is supported by the following browsers:

- Internet Explorer 11+
- Firefox 38+
- Chrome 47+
- Safari 6+

## 1.4 Document structure

The following sections of the manual outline the steps required to perform each of the actions listed in **Table 1**.

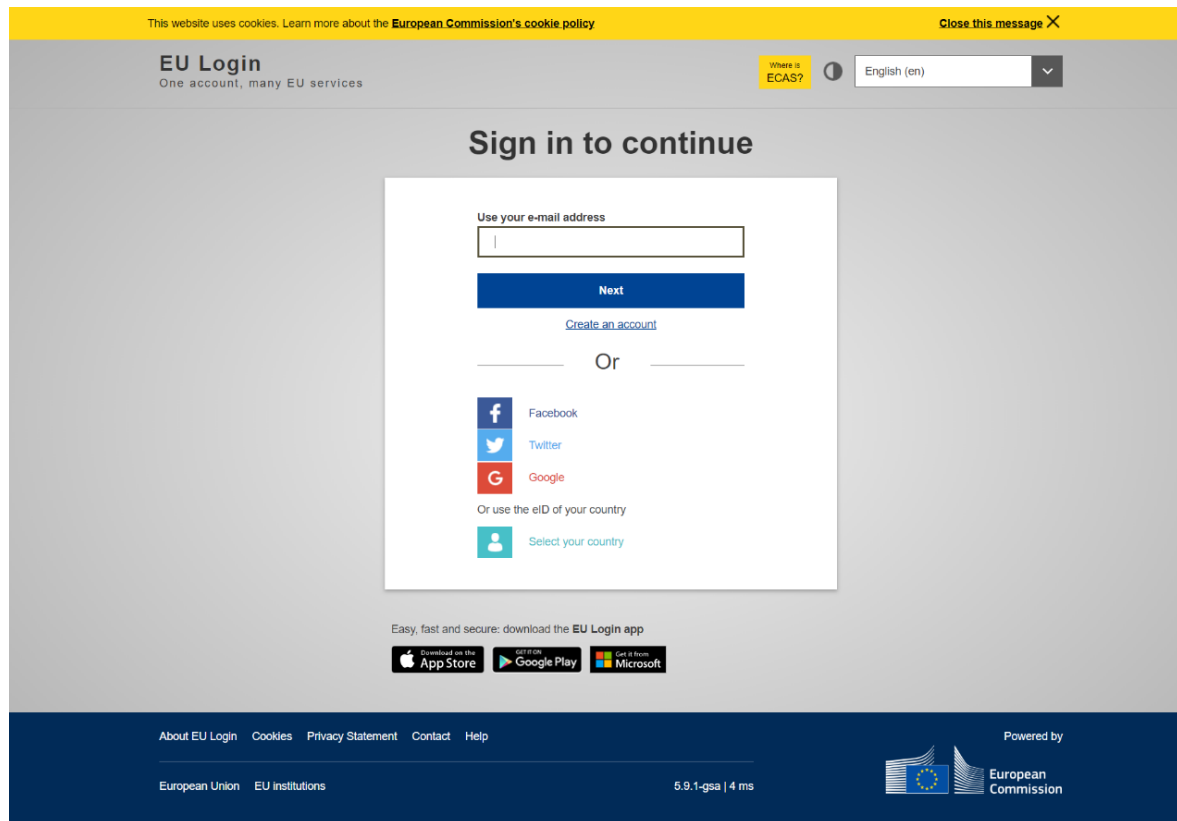
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<sup>4</sup> <https://webgate.ec.europa.eu/cas/login>

## 2. How to log into the platform

When you navigate to the URL of the mapping platform<sup>5</sup>, you will be redirected to the EU login authentication system<sup>6</sup> (formerly called ECAS) in order to log in (**Figure 1**).

**Figure 1: EU login screen**



If this is your first time using the EU login system, you may be required to register. For any issues with the EU login process, please refer to the related user guide<sup>7</sup>.

<sup>5</sup> <https://ec.europa.eu/esco/mapping>

<sup>6</sup> <https://webgate.ec.europa.eu/cas/login>

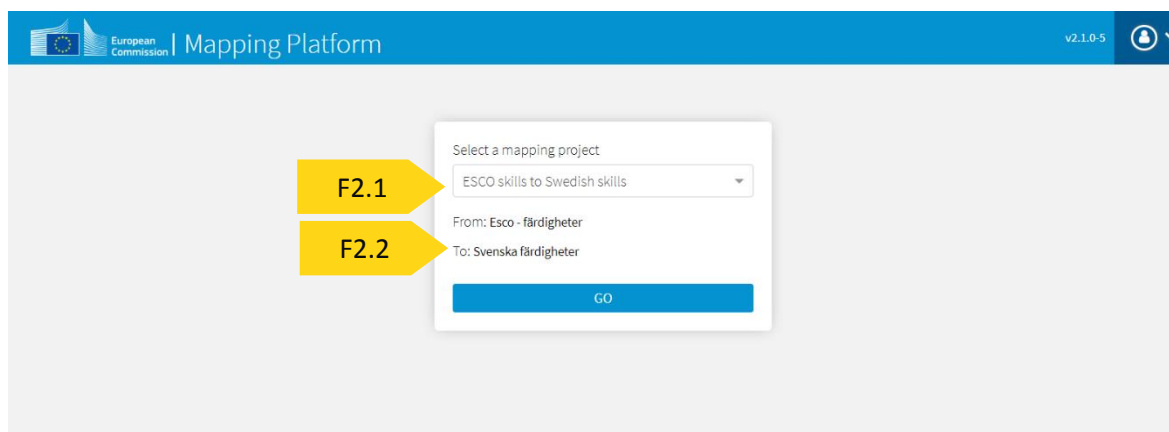
<sup>7</sup> <https://webgate.ec.europa.eu/cas/help.html>

### 3. How to select a mapping project

Once you successfully complete the login process, you will be redirected to the ESCO mapping platform and prompted to select which mapping project you want to work on.

The selection is performed using a drop-down '**Select a mapping project**' [F2.1], which presents all the mapping projects that you can access. Each mapping project consists of two taxonomies (classifications) that are ready to be mapped to each other ('**From:/To:**' [F2.2]).

**Figure 2: Select mapping project**



The screenshot shows the 'Mapping Platform' interface with a blue header bar containing the European Commission logo and the text 'Mapping Platform'. A dropdown menu titled 'Select a mapping project' is open, showing the selected project 'ESCO skills to Swedish skills'. Below the dropdown, the 'From' taxonomy is 'Esco - färdigheter' and the 'To' taxonomy is 'Svenska färdigheter'. A blue 'GO' button is at the bottom of the dropdown menu. Two yellow callout boxes with arrows point to the dropdown and the 'From/To' text, labeled 'F2.1' and 'F2.2' respectively.



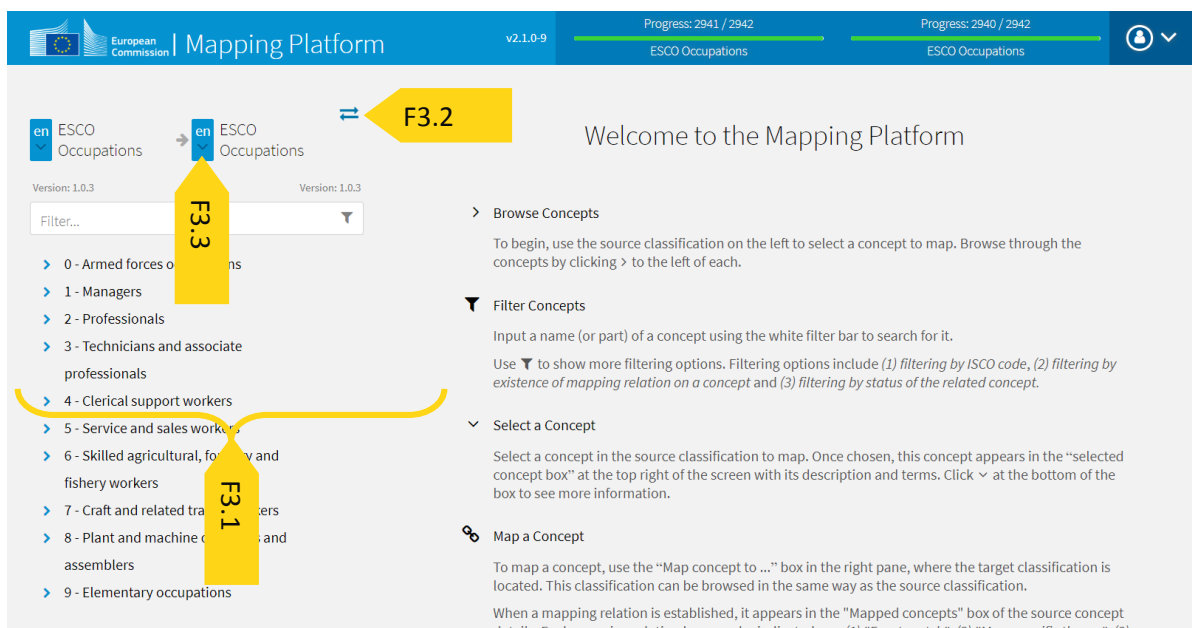
Note: In case you cannot see any mapping projects in the 'Select a mapping project' dropdown, this means that your EU login ID is not assigned to any existing mapping projects. To resolve this, please contact the ESCO helpdesk at [EMPL-ESCO-SECRETARIAT@ec.europa.eu](mailto:EMPL-ESCO-SECRETARIAT@ec.europa.eu)

## 4. How to browse, search and filter concepts

The right pane **[F3.1]** of the mapping platform's workspace area provides different options to navigate through the classification:

- Browse through the hierarchy;
- Text search;
- Filtering.

**Figure 3: Starting workspace area**



The names of the classifications that are being mapped (alongside their version information) are located on the top of this pane. This shows the user the source (visualised in this browser) and target classification.

Next to the classification names, there is a button allowing the user to switch the source and target classification **[F3.2]**.

You can change the language of either classification by clicking on the button next to their name **[F3.3]**. This option is available for those mapping projects that are available in multiple languages.



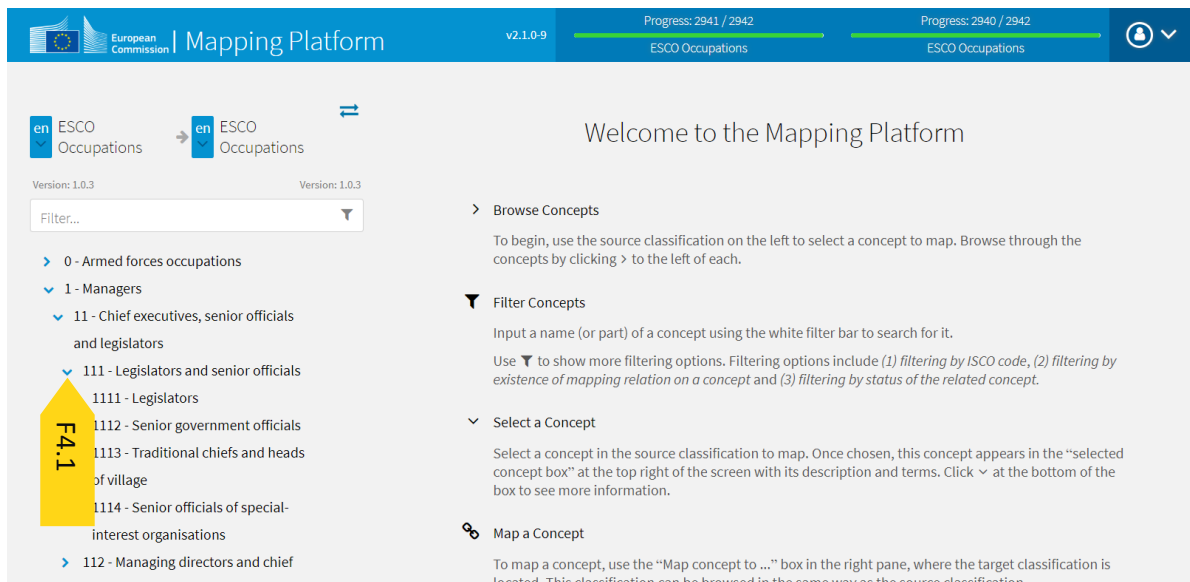
Note: By changing a classification language, all available properties of that classification across the platform change to the newly selected language.



## 4.1 Browse through the hierarchy

You can navigate through the concepts in the source classification by collapsing and expanding the hierarchy using the arrow icons **[F4.1]** next to each concept name.

**Figure 4: Hierarchical browsing**



## 4.2 Text search

You can search for concepts in the source classification using the **'Filter...'** [F5.1] search bar.

**Figure 5: Text search**

The screenshot displays the ESCO Mapping Platform interface. At the top, there is a blue header with the European Commission logo, the text 'Mapping Platform', and progress indicators for 'ESCO Occupations' (2941 / 2942 and 2940 / 2942). Below the header, the interface is split into two main panels. The left panel shows a search bar with the text 'manager' entered, labeled F5.1. Below the search bar, a list of search results is displayed, including '1 - Managers', '14 - Hospitality, retail and other services managers', '142 - Retail and wholesale trade managers', '1420 - Retail and wholesale trade managers', 'department store manager', '3311 - asset manager', '2431 - brand manager', '1221 - sales manager', and '3435 - stage manager'. A yellow callout F5.2 points to the search bar, and a yellow callout F5.3 points to the list of results. The right panel contains a 'Welcome to the Mapping Platform' message and a list of instructions: 'Browse Concepts', 'Filter Concepts', 'Select a Concept', and 'Map a Concept'. The 'Filter Concepts' section includes a description of the search bar and a list of filtering options: (1) filtering by ISCO code, (2) filtering by existence of mapping relation on a concept, and (3) filtering by status of the related concept.

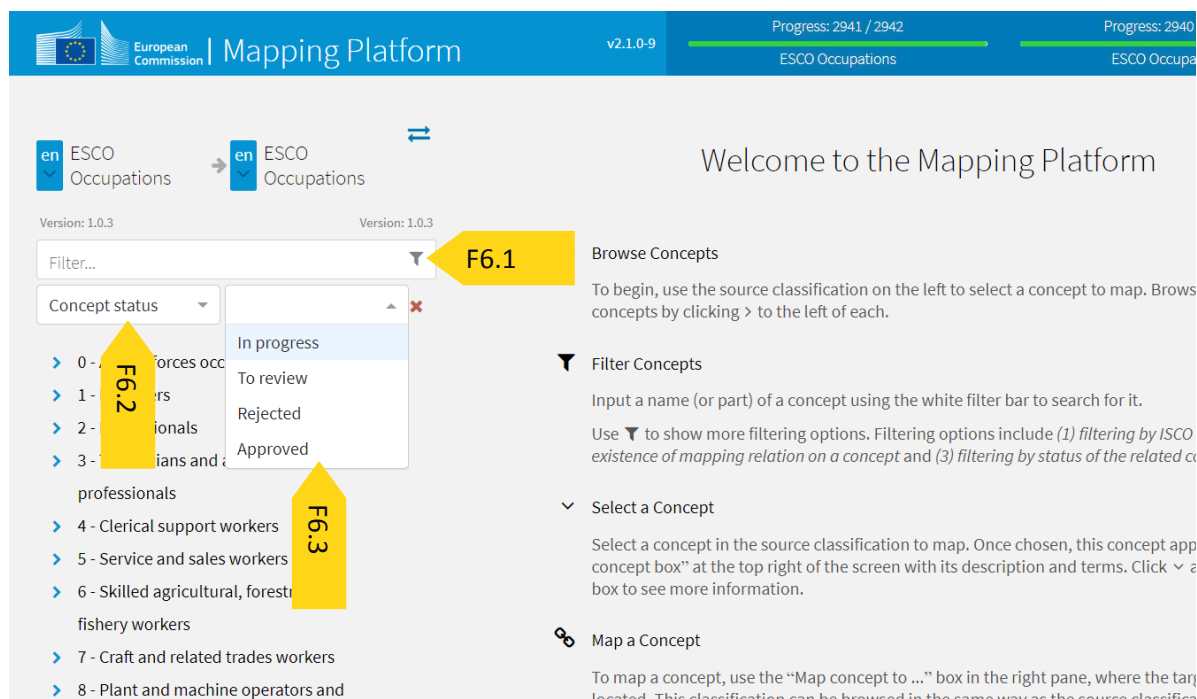
If the text you entered exactly matches part of a preferred term of an existing concept, then this concept will be visualised directly as a typeahead result [F5.2]. If no suitable result is provided using the typeahead, you can press the <enter> button to receive further search results [F5.3]. Then you will get results based on both preferred and alternative terms.

To stop the search and get back to the hierarchical view, delete the text from the search bar.

## 4.3 Filtering

Concepts in the source classification can be filtered using different parameters in combination with **Text** search. To access the filters, click on the funnel icon **[F6.1]**. This will expand a selection of filters that you can use to locate the desired set of concepts.

**Figure 6: Filtering**



In the left filtering field **[F6.2]**, you can select the aspect you want to filter and in the right field **[F6.3]**, you can select the value you are looking for. The available filters are the following:

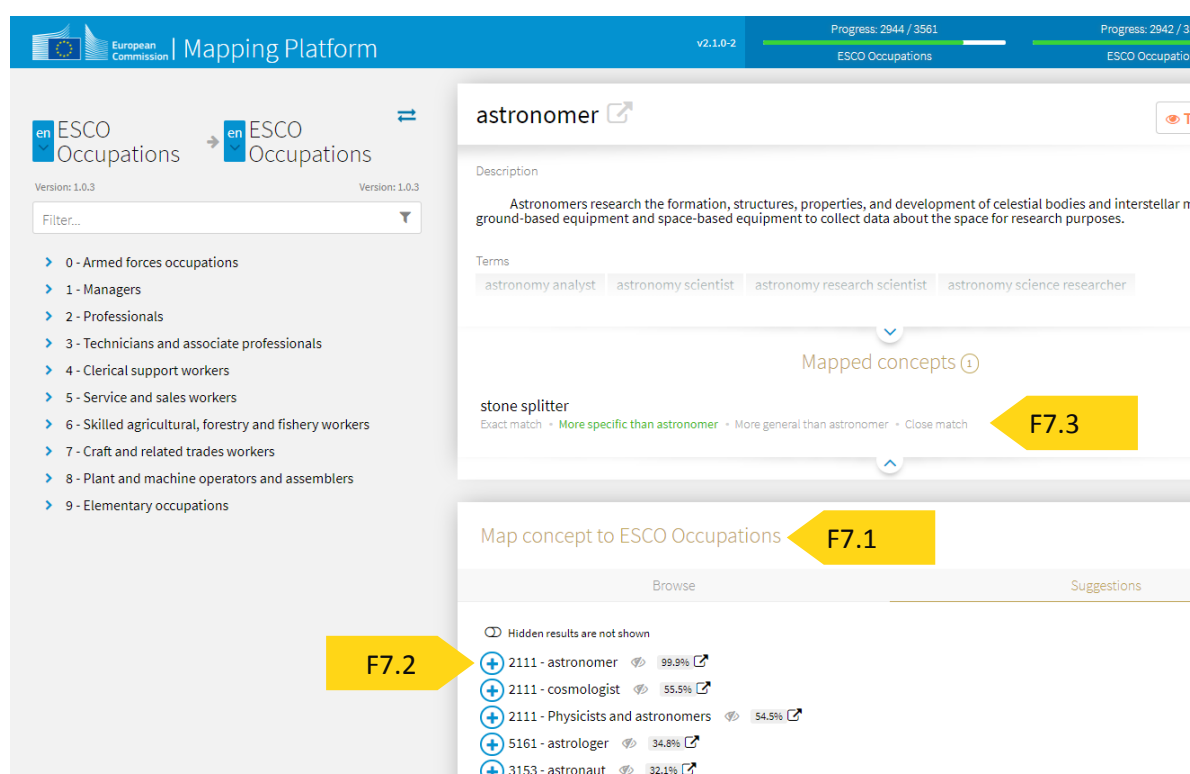
- **ISCO code:** With this filter, you can input any ISCO code and the platform will return all concepts that are related to this ISCO code. This aspect applies only to classifications containing occupations. ESCO skills and knowledge are not tagged with an ISCO code.
- **Concepts with comments:** Here you can select 'yes/no' depending on whether you want to see concepts with comments or not.
- **Mapped concepts:** Here you can select 'yes/no' depending on whether you want to see concepts with established mapping relations or not.
- **Concept status:** This filter allows you to select concepts based on their status. Statuses can vary, depending on the configuration of your mapping project.

## 5. How to establish a mapping relation

Underneath the details of the concept from the source classification you have selected for mapping, you can see the **'Map concept to ...'** [F7.1] section. Concepts presented in this section represent the target classification. These can be mapped to the selected concept of the source classification.

To establish a mapping relation, first, you have to select a concept in the target classification. To this end, click on the **'+'** icon [F7.2] next to its label. When a concept is chosen, it will appear in the **'Mapped concepts'** box [F7.3] directly above.

Figure 7: Begin mapping



Note: Only concepts that are located at pre-defined levels of the classification can be mapped. Other concepts (such as ISCO groups) only serve for navigation purposes. They can still be selected to view their details, but it is not possible to create mapping relations to/from them.

Member States can define the level of concepts in their own classification where the mapping relations will be established. The Commission services will then configure the levels during the setup of the individual mapping projects.



The **'Map concept to...'** section provides two ways to search for a concept to be mapped:

- Browsing target classification;
- Get suggestions.

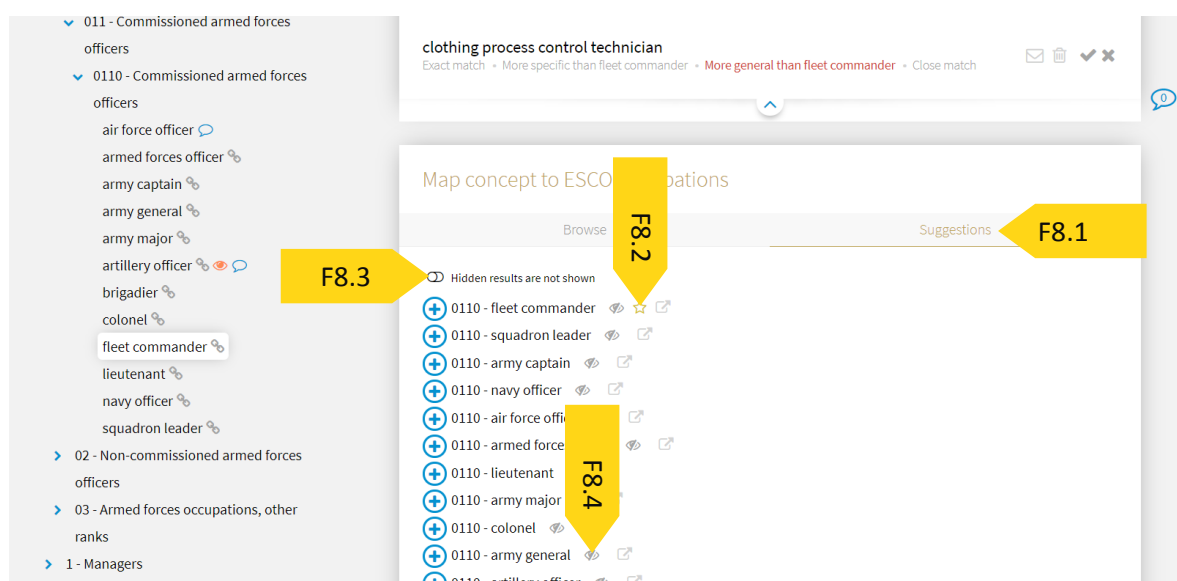
## 5.1 Browsing target classification

Browsing using the target classification works in the same way as browsing using the hierarchical view and filtering the source classification. You can find more information in the **'How to browse, search and filter concepts'** section.

## 5.2 Get suggestions

The mapping platform provides you with a list of concepts from the target classification that may be relevant to the selected concept of the source classification. These suggestions aim to facilitate the search for the most appropriate concept in the target classification within the mapping process. This option can be found in the **'Map concept to ...'** section [F8.1] on the right.

**Figure 8: Get mapping suggestions**



Some suggestions contain a star next to them [F8.2] indicating that the given suggestion has a high likelihood of being the correct mapping relation. Individual suggested concepts may be hidden. In order to see hidden concepts, click on the **'Hidden results'** icon [F8.3]. You can also hide suggested concepts by clicking on the eye icon in case you believe the suggestion is not relevant [F8.4].



Note: Because the scoring of suggestions is based on the labels and descriptions of each concept, it is possible that even highly scoring suggestions do not represent a correct mapping pair.

## 6. How to refine mapping relations

Once a mapping relation is established, it can be refined to clarify its meaning. The different types of mapping relations are the following:

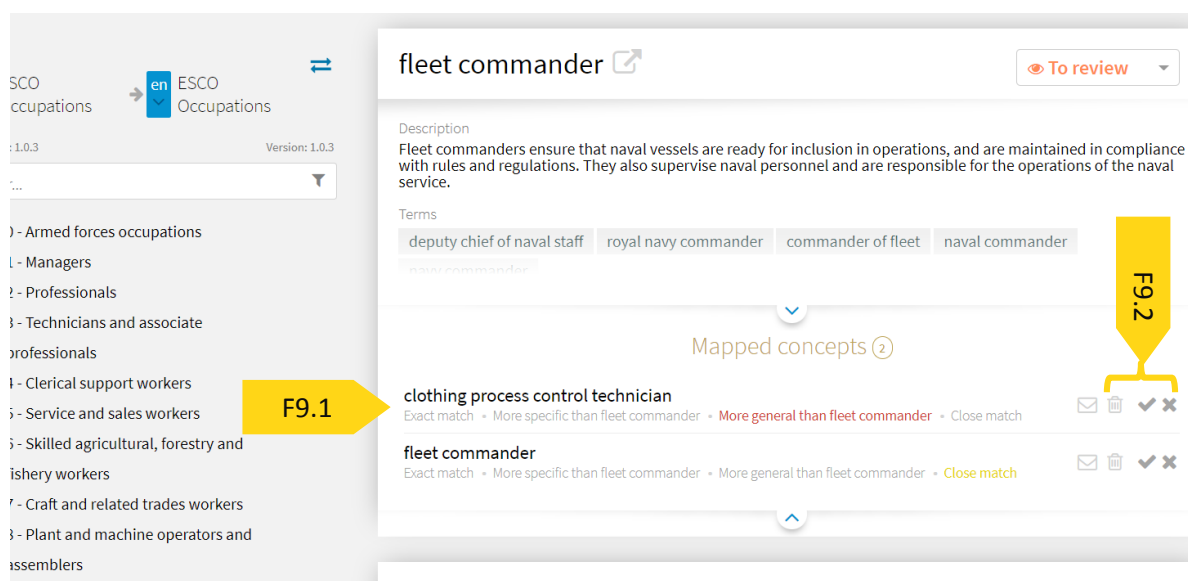
- Exact match;
- More specific than;
- More general than;
- Close match.



Note: The types of mapping relations follow the standard established by SKOS. You can find more details here: <https://www.w3.org/TR/skos-reference/#mapping>

You can change the type of mapping relation by clicking the relation type title of a mapping relation that is already established [F9.1].

Figure 9: Details of a mapping relation



## 7. How to review mapping relations

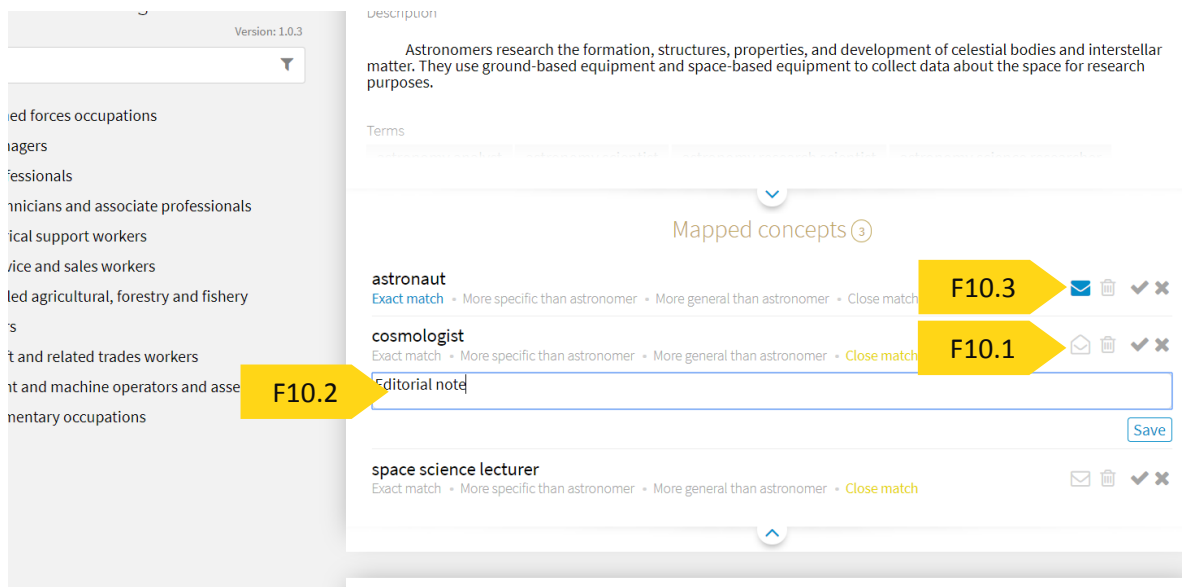
This functionality is only available to the reviewer role (see **Table 1**). If you hold this role, you are able to validate a mapping relation by choosing from among the following options: **'confirm, reject or delete'** [F9.2]:

- The bin icon deletes a concept from the list entirely (this is available to any role);
- The tick icon confirms/approves the mapping;
- The cross icon rejects the mapping.

## 8. How to insert an editorial note

Each mapping relation can be annotated with an editorial note for future reference. You can insert such a note by clicking on the envelop icon next to the mapping relation **[F10.1]**. You will then see a text box **[F10.2]** where you can enter the desired note.

Figure 10: Editorial note



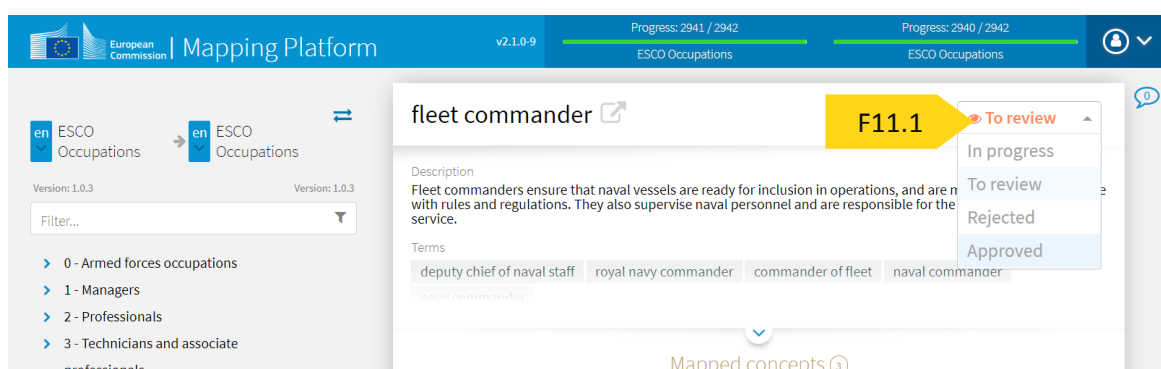
Note: SKOS defines editorial note as '[...] supplies information that is an aid to administrative housekeeping, such as reminders of editorial work still to be done, or warnings in the event that future editorial changes might be made.'

In case an editorial note is already present for a mapping relation, you will be able to edit this note. Mapping relations with an editorial note are identified by a blue icon **[F10.3]**.

## 9. How to change a concept status

The statuses of mapped concepts can be tracked using status indicators. Statuses can be changed by clicking on the icon in the top-right, next to the label of the selected concept from the source classification [F11.1]. The set of statuses available (and the users that can modify each of them) are customised for each mapping project depending on the needs of your organisation.

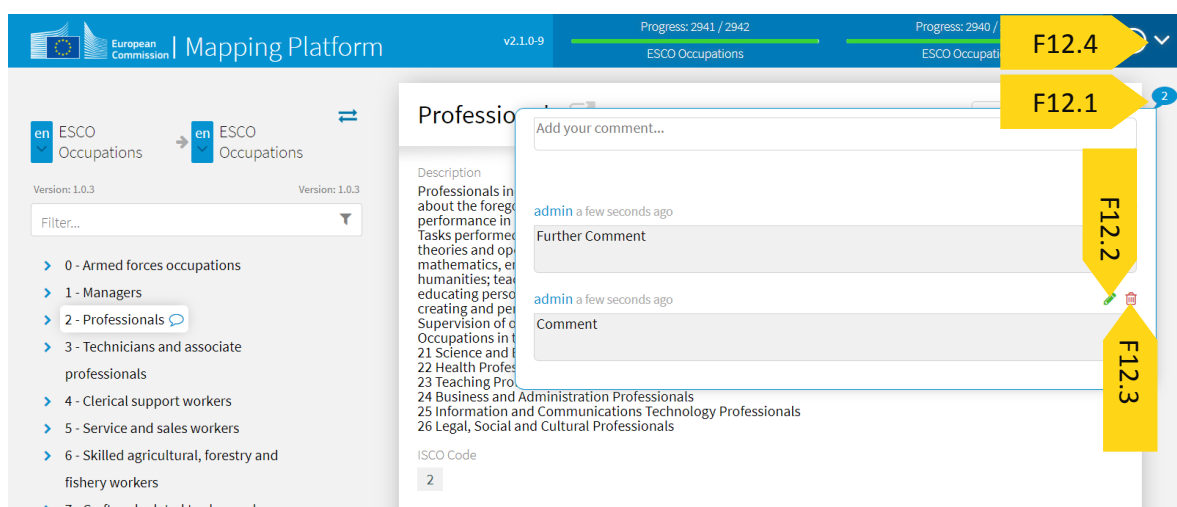
Figure 11: Change concept status



## 10. How to comment on a concept

The mapping platform allows you to discuss each concept with other users. The discussion is facilitated using a comment section that you can access by clicking on the dialogue icon [F12.1]. The comment section allows you to comment on the concept and see the comments of others. The section appears as a pop-up and can be closed again by clicking on the same icon [F12.1]. Comments can be edited [F12.2] and deleted [F12.3] using related icons. The number in the dialogue icon [F12.1] represents the number of comments a concept has.

Figure 12: Commenting



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## 11. How to import and export mapping tables

The mapping platform allows you to import and export mapping tables. This may serve various purposes, such as:

- exporting the tables for integration with other services;
- importing work done outside of the platform;
- backing up mapping data.

The import/export options both use a standardised CSV format for the exchange of information. This format is explained in detail in the 'Technical standards and formats necessary for the operation of the EURES Common IT Platform' document.

Import/export is only available to the administrator role (see **Table 1**). If your account has this role, you can see the import/export functionalities under the top-right user drop-down menu **[F12.4]**.

In the following sections, we will explain the user interface that supports each of these functionalities (import/export).

### 11.1 Export mapping table

**Figure 13: Export mapping table**

The screenshot shows the 'Export Mappings' page. On the left, there is a form with the following elements: a text input for 'Mapping version' (labeled F13.2), a date picker for 'Choose a date' (labeled F13.3), a dropdown for 'Format' currently set to 'CSV' (labeled F13.4), and a checkbox for 'Export editorial note' which is checked. Below these is a blue 'Export' button (labeled F13.1). On the right, a text box contains the following information: 'Please note that the exported file has the following format:', followed by three bullet points: '→ CSV file using comma (i.e. U+002C,) as a delimiter', '→ Follow the format indicated below.', and '→ Text information is encoded using the UTF-8 character encoding'. Below this, it states 'The statuses of mapping relations and concept in the platform impact the export in the following way:' followed by two bullet points: '→ Mapping relations are exported independently of the status of the concept' and '→ Rejected mapping relations are not exported'. At the bottom of this text box is a link: 'Documentation of the mapping format'.

Once you navigate to '**Export mappings**', you will be presented with the screen in **Figure 13**. Here you can press '**Export**' **[F13.1]** to retrieve the mapping table. You can also indicate a name for the **mapping version** that this file represents **[F13.2]**, the **date** on which it was created **[F13.3]** and whether you would like to export the content with editorial notes.

You can also switch the export format to "**Turtle**"<sup>8</sup> **[F13.4]**, in case you are planning to utilise the data in a RDF dataset.

<sup>8</sup> <https://www.w3.org/TR/turtle/>

## 11.2 Import mapping table

Figure 14: Import mapping table

European Commission | Mapping Platform v2.1.0-9

### Import mappings

Drag and Drop File to upload or

Select file

Fail level: Warning ?

Import Clear

Please note that the import file has to comply with the following specifications:

- CSV file which uses comma (i.e. U+002C,) as a delimiter
- Follow the format indicated below.
- Encode text information using the UTF-8 character encoding

The imported data impact the already existing mapping information in the following way:

- Existing mapping relations will be retained
- If a mapping relation in the imported file already exists in the platform, it will be overridden by the data in the imported file. This means that the type of the mapping relation, state and editorial note will not be retained.

[Documentation of the mapping format](#)

### Import report

Errors

- Import header 'Mapping project name' has a different value (ESCO - DG HR) than current value (ESCO occupations in all languages).
- Import header 'Mapping project author' has a different value (DG) than current value (ESCO Secretariat).
- Import header 'Classification 1 Name' has a different value (ESCO skills) than current value (ESCO Occupations).

Once you navigate to '**Import mappings**', you will be presented with the screen in **Figure 14**. Here you can select the file **[F14.1]** you would like to import and then press '**Import**' **[F14.2]** to start the process.

In case the platform identifies an issue with the file, you will be presented with a validation report **[F14.3]** explaining the specific issues. The issues can be one of the following:

- **Warnings:** Warning issues are not critical and can be ignored if you choose to do so by changing the '**fail level**' **[F14.4]**;
- **Errors:** Error issues present problems (e.g. the import of data with identifiers that do not exist in the platform) that have to be resolved in order to successfully complete the import of the data.



