



creativeflip.eu

Co-funded by the
European Union



How to use ESCO

for describing cultural-creative skills profiles

Tips and Tricks developed by the Creative FLIP project

Authors: Chris van Goethem (EHB) & Claudia Plaimauer (3s)

30 October 2023



Disclaimer

The contents of this publication are the sole responsibility of the authors and 3s Unternehmensberatung, as part of the Creative FLIP project, and can in no way be taken to reflect the views of the European Union.

© 3s Unternehmensberatung, Goethe-Institut on behalf of Creative FLIP Project, 2023



Creative Commons

The reuse of this document is authorised under the Creative Commons Attribution 4.0 International (CC BY-NC-SA 4.0) licence (<https://creativecommons.org/licenses/by-nc-sa/4.0/>).

This means that reuse is allowed, for noncommercial purposes only, provided that appropriate credit is given and any changes are indicated, and the new creations are licenced under the identical terms.

Content

Introduction.....	4
Step 1: Check whether the occupational profile you want to describe already exists in ESCO	4
Step 2: Read and interpret ESCO’s occupational profiles.....	5
Step 3: Suggested workflow for adapting or composing occupational skills profiles.....	8
Step 4: Suggested workflow for writing competences.....	12
Step 5: Adding a sectoral layer	16
Recommended further reading.....	19

Introduction

The European Skills, Competences and Occupations (ESCO)¹ taxonomy is a useful resource for composing occupational skills profiles (e. g. for vacancies, or to describe occupational standards) - either in your own national language or in 27 other ones². The Creative FLIP project³ developed a couple of methods and tools to improve the applicability of ESCO for the Cultural Creative Sectors and Industries (CCSI). This document suggests how to use these.

ESCO currently includes 3 008 occupations and 13 890 knowledge and skills/competences⁴, nevertheless, when wanting to use these for specific purposes you might not find exactly what you are looking for. This guideline document provides you - from a practitioner's point of view - with some handles to develop cultural-creative skills profiles in line with ESCO. We give a minimum background and a possible workflow. But of course, this process can be adapted to your needs.

Step 1: Check whether the occupational profile you want to describe already exists in ESCO

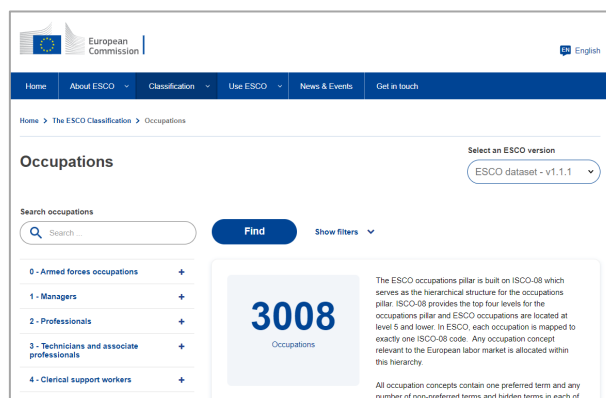
ESCO has defined an extensive range of occupations. Before you start writing new occupational profiles, check the existing descriptions to see whether one of them suits your needs, or at least could be adapted to do so.

In principle, there are two general methods available on the ESCO portal to identify occupations. Go to https://esco.ec.europa.eu/en/classification/occupation_main and

1. **Search for key words**, e. g. enter “writer” into the search field shown in the left frame, and then pick one of the results found in preferred or alternative occupations labels to display the full occupational profile.

2. **Use the general hierarchical access** via the International Standard Classification of Occupations (ISCO)⁵, provided just below the search field,

e. g. 2-Professionals > 26-Legal, social, and cultural professionals > 264-Authors, journalists and linguists > 2641-Authors and related writers > ESCO occupations like e. g. “writer”. Use this option if you only have a broad idea of the occupation you are searching for, but do not know under which label it might be contained. Also use this option if you want to research the conceptual field around an occupation, its broader or narrower concepts.



¹ See: <https://esco.ec.europa.eu/en>

² For the full list of available language versions go to <https://esco.ec.europa.eu/en/about-esco/escopedia/escopedia/esco-languages>

³ See: <https://creativeflip.creativehubs.net/>

⁴ In ESCO, “skills/competences” are distinguished from “knowledge”: the former have the format of verbal phrases, e. g. “interact with an audience”, whilst the later are expressed as nouns, e. g. “art history”. For the sake of simplicity, we use the term “competence” when referring to the concepts of ESCO’s “skills pillar” in their entirety.

⁵ See: <https://www.ilo.org/public/english/bureau/stat/isco/>

Accessing cultural-creative ESCO occupations systematically via this hierarchy unfortunately is a difficult task: relevant occupations are scattered all over ISCO, and in most cases mixed in groupings also containing non-cultural content. To improve the situation, Creative FLIP developed an **occupational breakdown of the CCSI**⁶, using the domains and definitions of Eurostat’s framework for cultural statistics⁷ to identify and group all ESCO occupations of cultural-creative relevance – so there is now also an option 3, optimised for accessing cultural-creative occupations in ESCO:

3. **Use the CCSI-specific hierarchical access** via the occupational breakdown provided by the Creative FLIP project: choose one domain, e. g. “Books & Press”, and filter fully and partly relevant ESCO occupations according to their main contribution to the cultural-creative value chain (Creation, Production/Publishing, Dissemination/Trade, Preservation, Education, Management/Regulation), their superordinated ISCO unit groups, and some other characteristics.

Furthermore, you can use “associative” navigation to identify what you are looking for:

4. **Use the full display of an ESCO occupation as starting point to explore related ones:** Use the ISCO path displayed just below the occupation’s label to navigate up and down the hierarchy. Or click onto one of the listed competences to access other occupations also containing it.
5. **Search for competences that might be contained in the occupation you are looking for**, e. g. the competence “write story lines” is contained in the occupations “script writer” as well as in “Writer”.

Step 2: Read and interpret ESCO’s occupational profiles

ESCO’s occupational profiles are based on an analysis of all activities expected to be performed as part of a given occupation (functional analysis)⁸, resulting in a description of all the knowledge, skills and competences needed to successfully perform in these functions.

ESCO’s occupational profiles have been developed as the smallest common denominator of different national labour market demands, with the goal to support exchange and labour mobility between EU member states. But that doesn’t mean you can’t use ESCO’s competences for other, more specific purposes as well.

ESCO occupations are **generic profiles**, they are no job descriptions. So, if you think you have identified a gap in the taxonomy and want to suggest a profile to be supplemented to ESCO, abstract from

- Your own specific situation
- Your national legislation
- Your organizational way of working
- Your specific (sub)sector

Be aware that ESCO occupations are **no educational profiles** either. Educational profiles would make reference to learning skills and general skills as well, and specify the level at which competences can

⁶ See: Occupational breakdown of the CCSI, <https://creativeflip.creativehubs.net/publications-2/>

⁷ See: https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Culture_statistics_-_cultural_employment but also ESSnet (2012).

⁸ See Carrol, G. / Boutall, T. (2011). Guide to developing National Occupational Standards. Chapter 2 for details on functional analysis.

be performed. For example, the educational profile of any bachelor degree should also mention life long learning, use of information and research skills.

ESCO competences do not describe “the white raven”, but the **average professional**. Competences that are not part of the generic profile but are useful extras can be added as “optional”.

Competences have to be read in the context of a profile, this means when assigned to a profile they get framed in this specific context, which might alter them slightly in level or content.

Reading profiles is always an interpretation, one needs to leave freedom to the reader/user. In the TALQ project it was agreed that one can talk of the same occupation if 70% of the profile’s competences are equal.

ESCO’s occupational profiles are organized as follows⁹:

Preferred and alternative labels

Every occupation is represented by a **unique name** (its “preferred term”), which ideally helps to clearly identify it even without reading its description.

Alternative names, e. g. words with similar or same meanings, spelling variants, abbreviations, etc. are listed under “non-preferred terms”, and are meant to broaden access to occupations. It is good practice to avoid using one and the same alternative label for more than one occupation.

Code

A 4-digit number followed by a dot and further numbers, e. g. 2621.4 signals the occupation’s position in the ISCO hierarchy - in this case the position of “writer”. The same information is expressed by listing superordinated ISCO labels just in the occupation’s full display just below its preferred label, e. g. Professionals > Legal, social, and cultural professionals > Authors, journalists and linguists > Authors and related writers > Writer

Description

A short text (max. 3 sentences) explains the meaning of the occupation and how it should be understood by describing typical work activities and contexts. E. g. the occupation “prop master/prop mistress” is described as “Prop masters/mistresses setup, prepare, check and maintain objects used on stage by actors or other small movable objects called props. They cooperate with road crew to unload, set up and prepare the props. During a performance they position props, hand them over or take them back from the actors.”

When writing a series of similar occupations, e. g. different types of designers, it is good practice to compose a general description first, and then modify it to fit the specificities of individual occupations.

Profile of essential and optional knowledge, skills/competences

ESCO’s occupational profiles distinguish between essential and optional components, and lists knowledge separate from skills/competences:

⁹ Here we mention most important components only. For a general description of how ESCO’s occupational profiles are organised, please go to ESCOpeda: <https://esco.ec.europa.eu/en/about-esco/escopedia/escopedia/occupations-pillar>

- **Essential** are knowledge, skills/competences that are usually required when working in an occupation, independent of the work context or the employer. Without them, a professional would not be able to perform his/her duties.
- **Optional** refers to knowledge, skills/competences that may be required by some employers, in specific work contexts, or in some countries only. E. g. not every “prop master/prop mistress” needs to be able to handle stage weapons. Variations in occupations might also be covered by adding optional knowledge, skills/competences.

Note: Knowledge is only added if it not yet contained as underpinning knowledge of an essential or optional skill/competence.

Besides the distinction into essential versus optional and knowledge versus skills/competences ESCO’s occupational profiles are not further structured. This reduces the transparency of the profile, and makes comparisons between occupations of related content difficult. To improve the situation, Creative FLIP developed a **profile structure that uses specific ESCO metadata** (a competence’s embedding in the hierarchy – see also under “How to check whether a needed skill/competence or knowledge concept already exists in ESCO” on p. 10)¹⁰ to arrive at a format like demonstrated below (simplified version without essential-optional distinction) for “fashion designer”:

ESCO knowledge	
arts and humanities	art history; history of fashion
engineering, manufacturing and construction	dyeing technology; portfolio management in textile manufacturing; textile materials; textile techniques
ESCO skills/competences	
S1-communication, collaboration and creativity	collaborate with a technical staff in artistic productions; collaborate with designers; design wearing apparel; develop design ideas cooperatively; modify textile designs; produce textile designs
S2-information skills	gather reference materials for artwork; monitor developments in technology used for design; monitor textile manufacturing developments; seek innovation in current practices
S4-management skills	identify target markets for designs
S5-working with computers	use specialised design software
S6-handling and moving	produce textile samples; use textile technique for hand-made products
ESCO transversal skills/competences (decontextualised)	
T3-self-management	monitor developments in technology used for design; monitor textile manufacturing developments
T4-social and communication	collaborate with a technical staff in artistic productions; collaborate with designers

The TALQ project describes an alternative way of numbering and ordering the competences in the profiles that uses a more sectoral approach, based on working fields and the place in the process (see sectoral layer). But this method is not integrated in the ESCO structure.

¹⁰ If you also want to make the systematic embedding of knowledge, skills/competences visible in occupational profiles, download ESCO data from <https://esco.ec.europa.eu/en/use-esco/download> and link the tables Occupations_en, OccupationsSkillRelations, Skills_en, broaderRelationsSkillPillar and skillsHierarchy_en.

Step 3: Suggested workflow for adapting or composing occupational skills profiles

When reviewing an already existing ESCO skills profile, or when developing one up from scratch, start by brainstorming about the working process - this can be done at the level of a specific occupation only, at the level of the department or at the level of the organization¹¹.

When revising already existing as well as when defining new occupational profiles, always do this in view of the most closely resembling ones that already exist in ESCO. This helps to be consistent and focused on the differences and similarities that should be highlighted for showing mobility paths between occupations. Consider:

- The relation between closely resembling occupational profiles can be **horizontal** (same skill level, but different skills specialization, as in “light board operator” and “sound operator”) and/or **vertical** (same skill specialization, but different skill level, as in “performance lighting technician” and “light board operator”);
- The relation can be that they operate at **successive stages of the work process**, as in “pyrotechnic designer” and “pyrotechnician” (design happens before production);
- What related occupations have in common (**shared features**);
- What makes an occupation unique (**distinguishing features**);
- How to express a **close relation between occupational profiles** – this can be done by
 - Option 1: characterizing the **full bandwidth within one single occupation** by assigning a broader range of optional skills, e. g. “musician” covering singers as well as instrumentalists.
 - Option 2 = representing these **as separate occupations**, but **subordinating the more specific** (“specialization”), e. g. “cultural policy officer”, **to the more general one**, e. g. “policy officer”.

Organize the competences in the occupational profile(s) e.g.

- In order of appearance, **reflecting the stage of the work process** at which the competence is needed or becomes most visible; competences that are independent of the work process can be summarized in a separate section;
- Or by **using the headlines of the ESCO skills and knowledge hierarchy**¹², resulting in a profile structure that is more semantic and less sector-focused.

Creating such a grid for organizing the results of your work helps in keeping overview and will improve the transparency and consistency (and thus also the readability) of results. See below for some examples.

¹¹ See also “Suggested workflow for identifying competences” on p. 13.

¹² Visible on the portal under https://esco.ec.europa.eu/en/classification/skill_main as four distinct hierarchies – one for transversal skills and competences, one for skills in general, one for knowledge, and one for language skills and knowledge.

List by level (here you see the essential (“E”) and optional (“O”) competences related to the level spread):

Competence	Cincaffolder	Audio production technician lighting technician	Intelligent lighting engineer	Stagehand	Stage technician	Prop technician	Instrument technician	sound operator	Followspot operator	light board operator	Video operator	stage machinist	Automated fly	Pyrotechnician	sound designer	lighting designer	Video designer	flying p...
01 00 20 10 Read lighting plans	O																	
01 00 20 20 Rig lights	E O									O								
01 00 20 23 Prevent technical problems with lighting equipment	E E		E							O								
01 00 20 25 Set up light board	O E		E							E					O			
01 00 20 26 Distribute control signals	E E		E							O								
01 00 20 28 Operate dimmer equipment	E E		E							O								
01 00 20 29 Install lighting	E		E							O					O			
01 00 20 30 Focus lighting equipment	E		E							O					O			
01 00 20 31 Focus stage lights	E		E							O					E			
01 00 20 50 Plot lighting states		O	E							E					O			
01 00 20 55 Supervise plotting of stage lights															E			
01 00 20 98 Create artificial light	O																	
01 00 20 99 Light a show	E E		E							E								
01 00 40 50 Operate a lighting console	O		O							E					O			
01 00 40 99 Operate lighting equipment	E																	
01 00 60 10 Maintain lighting equipment	E O		O							O								
01 00 60 11 Maintain dimmer equipment	E O		O							O								
01 10 20 10 Set up follow spots	O		O O						E									
01 10 40 10 Operate follow spots	O		O						E									
01 30 20 20 Rig automated lights	O O									O								
01 30 20 50 Plot lighting states with automated lights		O								E					O			
01 30 60 10 Maintain automated lighting equipment	O O									O								
02 00 10 10 Technically design a sound system	E		E					O							O			
02 00 20 10 Fit up sound on stage	E		E			O		O										

List by field (here you see the essential (“E”) and optional (“O”) field specific competences divided over the different levels):

Competence	Audio production technician sound operator	sound designer	Instrument technician	Followspot operator	lighting technician	Intelligent lighting engineer	light board operator	lighting designer	Video technician	Video operator	Video designer	Stagehand	Stage technician	Scenery technician	stage machinist	Automated fly	flying dir
01 00 20 99 Light a show				E E E								E					
01 00 40 50 Operate a lighting console				O	E O							O					
01 00 40 99 Operate lighting equipment				E	O O							O					
01 00 60 10 Maintain lighting equipment				E	O O							O					
01 00 60 11 Maintain dimmer equipment				E	O O							O					
01 10 20 10 Set up follow spots				E	O							O O					
01 10 40 10 Operate follow spots				E	O							O					
01 30 20 20 Rig automated lights					O O O												
01 30 20 50 Plot lighting states with automated lights					O E O												
01 30 60 10 Maintain automated lighting equipment					O O												
02 00 10 10 Technically design a sound system	E O O											E					
02 00 20 10 Fit up sound on stage	E O		O									E					
02 00 20 11 Set up sound reinforcement system	E E O																
02 00 20 16 Perform soundchecks	E E											O					
02 00 20 20 Perform technical sound check	E O O		E														
02 00 20 25 Run sound check	E E O																
02 00 20 30 Program sound cues	E E																
02 00 40 40 Operate a manual mixing console	E E E											E					
02 00 40 44 Use audio reproduction software	O																
02 00 40 60 Prevent undesired changes to sound design	O		E														
02 00 60 10 Maintain sound equipment	E O		E									O					
02 10 40 10 Operate sound live	O E E											O					

List by categories of ESCO’s skills/competences or knowledge hierarchy, e. g. for a detailed comparison of different ESCO occupations (here presented in extracts only):

Skills Hierarchy_Broader term	Knowledge Hierarchy_Broader term	ESCO knowledge, skill/competence	Occupation “art restorer”	Occupation “conservator”
	Arts and humanities	art history	optional	optional
	Engineering, manufacturing and construction	historic architecture		optional
	Social sciences, journalism and information	museum data bases	essential	essential
Communication, collaboration and creativity		work in restoration team	optional	
Information skills		evaluate art quality	optional	optional
Management skills		plan measures to safeguard cultural heritage		essential

Make a list of all the competences you want to use across related occupations, and

- Aim at **consistency**;
- **Organize** them under generic headlines, e. g. categories from ESCO’s skills hierarchy, like “information skills”, “management skills”;
- Make sure that the occupation’s core as well as additional **contributions to the cultural-creative value chain** are sufficiently considered.

When finished, review content and structure of the resulting profile(s) by asking the following questions:

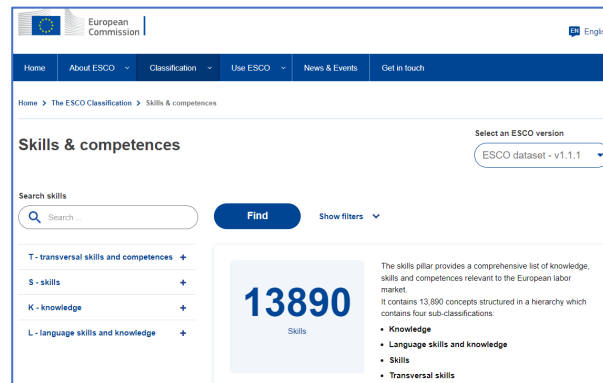
- Does the profile as a whole evoke a picture of the occupation you want to describe?
- Will practitioners understand and recognize the profile?
- Does the occupation’s label/title reflect/match the profile?
- Does the profile signal the expected skill level¹³?
- Can the profile clearly be distinguished from other profiles?
- Have all occupations of the field you intended to describe been defined, or are there any gaps?
- Does the combination of profiles involved in a work process contain all the competences for this process?
- Is the occupation characterized independently of national legislation?
- Is the occupation characterized independently of national/regional traditions?
- Does the occupational profile fit all (sub)sectors where it occurs?

¹³ Skill levels in ESCO are signaled by the choice of action verbs, e. g. “identify a problem” is at a lower level than “analyze a problem”.

How to check whether a needed skill/competence or knowledge concept already exists in ESCO

No matter whether you are adapting already existing ESCO profiles to your specific needs, or composing new ones, first of all thoroughly check ESCO's already existing vocabulary. In principle there are two general methods available on the ESCO portal to identify competences. Go to https://esco.ec.europa.eu/en/classification/skill_main and

1. **Search for key words**, e. g. type “design” into the search field shown in the left frame, and then pick one of the results to display its full description.



2. **Use the general hierarchical access** using distinct access points for
K-knowledge
L-language skills and knowledge
S-skills

T-Transversal skills

e. g. S-skills > S1-communication, collaboration and creativity > S.1.12-creating artistic, visual or instructive materials > S.12.3-creating artistic designs or performances > ESCO skills/competences like e. g. “design lighting”.

Use this option if you only have a broad idea of the competence you are searching for, but do not know under which label it might be contained. Also use this option if you want to research the conceptual field around a competence, the broader or narrower concepts of a skill/competence or knowledge.

Accessing cultural-creative ESCO competences systematically via this hierarchy unfortunately is a difficult task: relevant concepts are scattered all over section K, S, and T, and in most cases mixed in groupings also containing non-cultural content. To improve the situation, Creative FLIP **identified and grouped cultural-creative ESCO competences**¹⁴, using the domains of Eurostat's framework for cultural statistics¹⁵ – so there is now also an option 3:

3. **Use the CCSI-specific hierarchical access** to ESCO knowledge, skills/competences provided by the Creative FLIP project: choose one domain, e. g. “Books & Press”, and filter cultural-creative ESCO skills/competences according to their main contribution to the cultural-creative value chain (Creation, Production/Publishing, Dissemination/Trade, Preservation, Education, Management/Regulation).

Further search options you might want to try:

4. **Use the full display of an ESCO knowledge, skill/competence as starting point to explore related ones:** Use the path displayed just below its preferred label to navigate up and down the hierarchy.
5. **Search for occupations that might contain the knowledge or skills/competence you are looking for**, e.g. occupations containing the keyword “designer” (“costume designer”, “digital

¹⁴ See: Draft identification of CCSI-relevant ESCO knowledge, skills/competences, to be soon available at: <https://creativeflip.creativehubs.net/publications-2/>

¹⁵ See: https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Culture_statistics_-_cultural_employment but also ESSnet (2012).

games designer”, “performance video designer” etc.) contain various design competences, e.g. “design graphics”, or “develop design concept”.

Once you have found a competence, check whether its description actually reflects what you want to express.

If you haven’t found the competence you were looking for, try to define it yourself and suggest it as an amendment to the current version of ESCO¹⁶. The chapter below guides you through the process.

Step 4: Suggested workflow for writing competences

Writing competences is not rocket science in the sense that it is not an exact science. It needs the art of interpretation. Competences have to be read in context and understanding of the sector. They have to be seen more as clear indicators than hard facts.

Some specific requirements to make your newly defined competences usable in the ESCO ecosystem:

- A competence is the **demonstrated ability** to use skills, knowledge and attitudes. The title and description should reflect this, without mentioning them.
- A competence should be **understandable**: an average user should comprehend what it means, ideally without having to read its description.
- A competence should have a **long life expectancy**, therefore it should be written as time and technology independent as possible. The concrete interpretation of the competences will fill these details based on the context.
- A competence should be **reusable and transferable**. Therefore, it should be as general as possible, and as specific as necessary to distinguish closely related occupations. If a competence can be used in other contexts or occupational profiles, this highlights mobility paths between occupations.
- A competence should be **unique**, we want to avoid duplications of concepts under different names. Ideally, the ESCO’s competence vocabulary shows neither overlaps nor gaps between the meanings of neighbouring concepts.
- A competence should be **measurable / observable**, in other words, one should be able to state that a person does or doesn’t master the competence, based on observation of behaviour or result.
- A competence usually includes its foundational **knowledge**; nevertheless, knowledge can be highlighted if needed independent of a specific competence, e. g. “intellectual property law” for “sound artist” or “sculptor”.
- In ESCO, **transversal competences, values and attitudes**, e. g. “demonstrate willingness to learn”, are always contextualized when used in occupational profiles, e. g. “adapt to artists’ creative demands”. Therefore, always pin down what a transversal skill actually encompasses in the given occupational context.
- ESCO wants to act as a translation hub between national competence taxonomies. To this end, correspondences (“mappings”) between ESCO competences and national competences have been identified: on the basis of these mappings, national public employment services are now able to share vacancies across linguistic and geographical borders. Therefore, whenever you want to propose a new ESCO competence, keep in mind that it should have the **potential to be linked to its national equivalents**.

¹⁶ If you want to suggest amendments to ESCO get into contact with its maintenance team first. Use this form: <https://esco.ec.europa.eu/en/contact>

- The **size or volume** of a competence doesn't matter, as long as you have a coherent unit. The competence contains one or more actions or activities that always occur together, e. g. "leading a team" is a competence with a large volume, with a lot of complexity whilst "finetuning wireless equipment" is a small and specialized competence. But both occur as a single undividable unit in an occupation. The volume is defined by the reusability and applicability. For the profile of a designer, we could describe "sketch set images" and "draw stage layouts" together in one competence "sketch and draw stage layouts", but this would make it impossible to reuse "draw stage layouts" for other occupations like the scenery technician.

Just like occupations, also ESCO competences are coded in a standardized manner¹⁷:

Preferred and alternative labels

Every competence is represented by a clear and **unique name** (its "preferred term").

Apply a consistent writing style:

- Use **verbal phrases** (verb – subject – context constructions), e. g. "study roles from scripts", to express skills/competences, and **nouns**, e. g. "art history", for knowledge concepts.
- Think "the person is able to" or "the person needs to know" in front of the phrase.
- In skills/competences, express the expected **level of proficiency** by choosing an appropriate **action verb** according to Bloom's taxonomy¹⁸. Note: For the development of ESCO, a list of action verbs¹⁹ maintained by Cedefop was used to signal level of proficiency consistently.
- **Do not** try to **express more than one competence per unit**, e. g. "lead and evaluate a team", because the two components contained in such agglomerations (= lead a team + evaluate a team) cannot be assessed together, and because their applicability across occupations would be restricted.

Alternative labels are meant to provide further cues when searching for the competence; they reflect different naming alternatives. One competence may have multiple alternative labels, but these should not yet have been used as alternative or preferred label of another competence.

Description

Every competence should be explained by a short sentence (max. two sentences) revealing its content. For example, the competence "plan art educational activities" in ESCO is described as "Plan and implement artistic facilities, performance, venues and museum-related educational activities and events."

¹⁷ Here we mention most important components only. For a general description of how the concepts of ESCO's skills pillar are organised, please go to ESCOpedia: <https://esco.ec.europa.eu/en/about-esco/escopedia/escopedia/skills-pillar>

¹⁸ Bloom's taxonomy is a set of three hierarchical models (cognitive, affective and psychomotor domains) used for classifying educational learning objectives into levels of complexity and specificity.

¹⁹ <https://esco.ec.europa.eu/en/about-esco/escopedia/escopedia/action-verbs>

Scope notes

Scope notes are meant to clarify the boundaries of a competence, if needed. They can include or exclude specific elements. E. g. the competence “working at height” excludes working on ropes, because this is expressed by a specific other competence.

A special note on “artistic” competences

It is impossible to describe what “good” art is. The competences should aim at reflecting what makes an artist a professional. We expect from a professional artist that his work reflects a narrative and is original. We also expect that the artist is unique, has a personal individual style and relates to others, to society, other artists and their styles. This is represented in competences like e.g.

- develop design concept
- define artistic approach
- contextualize artistic work

which reflect these characteristics, but without judging the quality of the art.

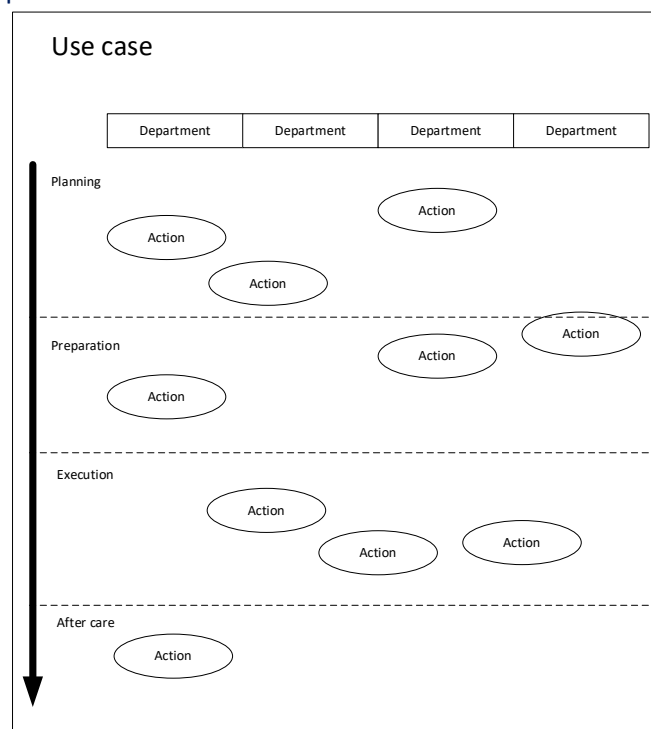
Suggested workflow for identifying competences

To figure out what competences you might need, you could start from the perspective of an organizational workflow. To make this concrete, we may analyse use cases. Use cases describe a real live activity, for example preparing a performance or promoting a new exhibition. This way of working focusses on the real needs and helps to prevent overlaps or gaps in the developed set.

A **use case** is the way a specific result is reached in an organization. Analyse what actions are taken, what tasks need to be done, independent of who has to do them. Once you have all tasks that need to be done, organize them in a logical “order of occurrence”, try to bundle actions that are always done by one person. With large sets, you could split the actions over the different departments and different phases of the workflow. If you only want to define one occupation, you can limit the range of use-cases within the reach of the targeted occupation.

Ensure you do not only describe the perfect process but include the things that could go wrong and what is needed to solve this. Depending on the scope of your writing process, you can also include secondary actions like the needed personnel administration, accountancy etc.

Once this brainstorming is done, you may rewrite the gathered information into a proper competence format. If you are already familiar with the ESCO way of expressing competences, try to use these as far as possible in your brainstorming: Check whether **existing ESCO competences** match your set. If ESCO competences are not available, draft new ones and suggest as supplement (if they have the



potential to be applicable in other use case as well, even the better!). Finally, **write** competences that match the leftover tasks.

Check the competences with the checklist.

You can **organize** the set by e. g. numbering them, based on the place in the process and the field (department), so they occur in a logical order for the reader. For competences that occur in different places, use the place where they are most visible, as in the example below:

01 Lighting	
•	01 00 10 04 20 Draw up a lighting plan
•	01 00 20 04 10 Read lighting plan
•	01 00 20 04 23 Prevent technical problems with lighting equipment
•	01 00 20 04 25 Set up lighting board/console
•	01 00 20 04 26 Distribute control signals
•	01 00 20 04 28 Operate dimmer equipment
•	01 00 20 04 29 Install lighting
•	01 00 20 04 30 Focus lighting equipment
•	01 00 20 04 50 Plot lighting states
•	01 10 20 03 10 Set up follow spots
•	01 30 20 04 20 Rig automated lights
•	01 30 20 05 50 Plot lighting states with automated lights
•	01 00 40 04 50 Operate a lighting console
•	01 10 40 03 10 Operate follow spots
•	01 00 60 04 10 Maintain lighting equipment
•	01 00 60 04 11 Maintain dimmer equipment
•	01 30 60 04 10 Maintain automated lighting equipment

In the example above, you see an ordering by field (lighting), place in the process (preparation, set-up, operating, maintenance) and subfield (general, follow spots, automated lights). This gives you a logical order and context to read the competences in a profile. Alternatively, one could also use the ESCO skills hierarchy and organize the set under the headings displayed under https://esco.ec.europa.eu/en/classification/skill_main

Check the set you created with outsiders of the process for clarity and consistency.

Checklist competence units²⁰

This list is meant to support the quality assurance of developed competences, and helps to keep their writing as "standard" as possible:

- Independent of regional context (no references to local situations or legislation);
- Job description independent (no references to job titles as they vary from place to place);
- Technology independent (no references to specific equipment, where possible);
- Smallest common denominator (it should be impossible to have half of a unit in a profile / curriculum / job description, you should be able to answer with yes or no);
- Observable / measurable;
- Specific (avoid value statements like "in a proper way" or "in a good way");
- Unique (should be different from all other competences);
- Written as general as possible (only connected to a specific field if necessary);
- Non discriminating (it should not exclude anyone);
- Readable (the unit is understandable for an average professional in the field);

²⁰ This checklist has been derived from the EU TTT-LPT project – see under <https://www.podiumtechnieken.be/en/competentions/ttt-lpt/>

- Positive descriptions (the description does not mention what shouldn't be done);
- Use the format verb – subject – context for skills/competences, and nouns for knowledge concepts;
- The expected level of competence is expressed by the choice of verb (see Bloom's taxonomy, Cedefop's glossary of action verbs) and the given context;
- Has a clear meaning, doesn't suggest multiple interpretations;
- Has clear boundaries (there should be no misunderstanding about the limits within which to measure).

The competence appears in your grid on the place where it is most significant, even if it may also be relevant in other places.

Step 5: Adding a sectoral layer²¹

Depending on the purpose of the competence descriptions, more information can be added to ESCO competences by putting them into a sectoral context. This ESCO-external "sectoral layer" but could be added in individual application. A sectoral layer can include:

- Skills/competences
- Knowledge
- Attitudes and values
- Ways to express the autonomy at which occupational tasks are being performed
- Acceptable assessment methods
- Training methods
- References to national systems or requirements
- And many more

This sectoral layer will provide information relevant for using ESCO to describe the outcome of educational programs, assessment, etc. The example below is an example from the TeBeVat²² Erasmus+ project. The information is written and maintained by the sector, but keeps a link with the ESCO descriptions. The purpose is to generate enough detail to build educational programs and assessment schemes that can be understood and exchanged between countries.

²¹ A sectoral layer is not part of ESCO, but could be added in individual applications. The concept of a sectoral layer is described in the TALQ project report – see: https://www.podiumtechnieken.be/wp-content/uploads/2018/05/TALQ_final-REPORT_december_04th.pdf

²² See: <https://tebevat.eu/>

An example for a sectoral layer is shown below:

Draw up lighting plan (01 00 10 04 20)²³

ESCO description

Title: Draw up a lighting plan

Description: Create technical drawings and documentation within the lighting department.

Scope note: n. a.

Concept URI: <http://data.europa.eu/esco/skill/349167f7-faa9-423a-b054-9e4fa0978fd7>

ESCO version: 1.08

Sectoral layer

This refers to rather simple lighting applications and not those needing a "lighting designer" – very complex use of lighting that requires a specialist to plan.

Structure

Field and subfield: 01 00 (Light, General)

Place in the process: 10 (Planning)

Level: 04²⁴

Unique identifier: 20

Sectoral detail

Skills

- Draw the symbols for fixtures and accessories on a layout/in a plan
- Document plots with patch, rig and equipment lists
- Work in scale
- Work with various digital drafting and visualization software

Knowledge

- Different types of fixtures, their symbols, properties and applications
- Line, symbol and layer systems for building and scenographic drawings
- Different types of drafting and visualization software
- Different types of locations and challenges in the stage environment

Autonomy / Attitude

- Accuracy
- Respect for the artistic concept
- Able to solve complex issues
- Creative Thinking
- Appreciates value of the design
- Seeing through the eyes of the artist

²³ Source: <https://wiki.sv-wtu.at/xwiki/bin/view/01%20Sectoral%20Layer/Competences/01%2000%2010%2004%2020%20Draw%20up%20lighting%20plan/>

²⁴ The level refers to the lowest EQF level of an occupation or educational profile in which this competence would occur. The level reference is an indicator only, it does not signal an absolute value.

Assessment

Self assessment rubric

- I don't know how to create technical drawings and documentation within the lighting department.
- I am uncertain how to create technical drawings and documentation within the lighting department.
- I know how to create technical drawings and documentation within the lighting department.
- I am more than able to create technical drawings and documentation within the lighting department.

Mentor assessment rubric

- ... doesn't know how to create technical drawings and documentation within the lighting department.
- ... is uncertain how to create technical drawings and documentation within the lighting department.
- ... knows how to create technical drawings and documentation within the lighting department.
- ... is more than able to create technical drawings and documentation within the lighting department.

Acceptable assessment methods

- Post Box Exercise
- Criterion Based Interview
- Oral Test
- Written Test - Open Answers
- Structured Portfolio (Supportive)

Training

Training should include creating all forms of technical drawings and documentation used in live-performance, studio and event lighting. This includes lighting layout plans, cross sections and various schedules needed to provide technical and artistic information for the lighting crew.

References

- Germany: Fachkraft für Veranstaltungstechnik – Event Technology Specialist - Learning Area A: Skills, Knowledge and Competences – (Item 4.1c) Develop implementation concepts from a technical and design perspective and coordinate them with clients, Know technical and design options, Devise and explain technical concepts, Create stage plans and technical riders – BiBB Bundesinstitut für Berufsbildung, AUSBILDUNG GESTALTEN - Fachkraft für Veranstaltungstechnik, Bonn 2017, ISBN: 978-3-7639-5873-3 (Print), ISBN: 978-3-96208-021-1 (PDF)
- Netherlands: Qualification File Stage and Event Technology, crebonumber 79040, learning area P3-K1-W2: Ontwikkelt technisch plan voor de podiumproductie. SBB, Sectorchambre ICT and Creative Industry, version 2022 (to be released August 2022), Zoetermeer 2021.

Recommended further reading

Carrol, G. / Boutall, T. (2011). Guide to developing National Occupational Standards. Available at https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/304239/nos-guide-for-developers-2011.pdf

Cedefop (2022). Defining, writing and applying learning outcomes. A European handbook – second edition. Available at <https://www.cedefop.europa.eu/en/publications/4209>

ESCOpedia, the online reference to the ESCO classification. Available at <https://esco.ec.europa.eu/en/about-esco/escopedia/escopedia>

ESCO Quick Start Guide (2022). https://esco.ec.europa.eu/system/files/2022-10/Quick%20starter%20guide%20NEW_OCT%202022.pdf

ESSnet-CULTURE (2012). European Statistical System Network on Culture. Final report. https://ec.europa.eu/assets/eac/culture/library/reports/ess-net-report_en.pdf

TALQ - Transparency in Arts Levels and Qualifications, final report (2017) <https://www.podiumtechnieken.be/en/competentions/talq/>