IMPROVING ESCO AS A REFERENCE SYSTEM FOR THE CCSI

FINAL REPORT

Work Package 2 Learning

This document is part of the Creative FLIP Final Report, requested by the European Commission as part of the project deliveries.

About Creative FLIP

Creative FLIP – Finance, Learning, Innovation and Intellectual Property Rights for CCSI is a Preparatory Action, co-funded by the EU and project partners. Its goal is to build a stronger resilience of the cultural and creative sector, by further strengthening their overall ecosystem and supporting their capacities in the areas of Finance, Learning/Skills, Innovation and Intellectual Property Rights for the CCSI.

http://www.CreativeFLIP.eu

AUTHOR(S)

Claudia Plaimauer, 3s Unternehmensberatung GmbH

Chris van Goethem, Creative FLIP expert, Goethe-Institut / Royal Institute for Theatre, Cinema & Sound

LINGUISTIC VERSIONS

Original: EN

CONTACT

Claudia.plaimauer@3s.co.at

DISCLAIMER

CONTENTS

LIST OF ABBREVIATIONS

CCS/CCSI	Cultural and Creative Sectors/Cultural and Creative Sectors and Industries
ESCO	European Skills, Competences and Occupations
ESSNet	European Statistical System Network on Culture
EUROSTAT	Statistical Office of the European Union
ISCED	International Standard Classification of Education
ISCED/F	International Standard Classification of Education / Fields of Education and Training
ISCO	International Standard Classification of Occupations
KSC	Knowledge, skills and competences
NACE	Nomenclature statistique des activités économiques dans la Communauté européenne / Statistical classification of economic activities' in the European Community
UNESCO	United Nations Educational, Scientific and Cultural Organization

LIST OF BOXES

LIST OF FIGURES

LIST OF TABLES

EXECUTIVE SUMMARY

Objectives and scope

Building on the achievements of its Pilot Phase (2019-2021), Creative FLIP's general objective was to build a stronger resilience of the cultural and creative sectors and industries (CCSI) by further strengthening the overall CCSI ecosystem and supporting the capacities of its actors in the areas of Finance, Learning/Skills, Innovation and Intellectual Property Rights.

Work Package 2 was dedicated to Learning, and comprised five activities:

1. Identify and tap into already existing knowledge of ESCO user needs and search behaviour.
2. Test/observe CCSI user needs and search behaviour when consulting ESCO.
3. Revise and elaborate methodologies developed during first phase of Creative FLIP.
4. Pilot expanded methodology.
5. Consult with CCSI Stakeholders.

This report summarizes methods and findings of all activities carried out within Work Package 2 "Learning".

Key Findings

Identified challenges

Despite the size, the economic, as well as societal importance of the CCSI these are currently inadequately represented in European employment statistics, among other reasons, due to their heterogeneous character, spanning across several categories of ISCO and NACE.

ESCO - designed to support the mobility of Europe's workforce - has the potential to serve also the highly mobile cultural and creative workers. However, this taxonomy currently does not represent the CCSI in a manner that is comprehensive and differentiated enough for the needs of their stakeholders, nor does it offer easy access to cultural-creative content.

Consequently, also the European systems and services using ESCO to inform about (e.g. Cedefop's Skills OVATE), advertise (e.g. Europass) or mediate (e.g. EURES portal) skills and occupations, fail to highlight the labour market contribution of the CCSI, or at least fail to make this contribution easily accessible.

I. CHALLENGES IN GENERATING STATISTICAL EMPLOYMENT INFORMATION FOR THE CCSI

The cultural and creative sectors are difficult to capture by statistics: Relevant units are scattered all over ISCO and NACE; even at the most disaggregated level you cannot in all cases clearly distinguish cultural from non-cultural occupations or sectors; both the occupation as well as the sector need to be clearly identified to comprehensively capture cultural and creative employment.

There is a lack of interoperability between classifications: To date, only the UNESCO Framework for Cultural Statistics at least roughly identifies ISCO unit groups per cultural domain. For the Eurostat framework, relevant ISCO as well as NACE codes have only been identified for the CCSI as a whole. ESCO - although not designed for statistical purposes - in principle could provide the additional level of detail needed to clearly define the cultural component of partly cultural ISCO unit groups. But ESCO has not yet been mapped onto

the Eurostat framework for cultural statistics and its domains, nor has ISCO. Therefore, it is impossible to disaggregate the CCSI into domains that are clearly defined in terms of ISCO unit groups or ESCO occupations.

Since the CCSI are not a unit of analysis in ISCO or NACE, relevant information is also difficult to aggregate: To date, information can be summed up at the different levels of ISCO and NACE, or for the CCSI as a whole, but not for individual cultural and creative domains.

II. CHALLENGES IN USING ESCO FOR STRUCTURING CCSI EMPLOYMENT INFORMATION

Also the visibility and accessibility of CCSI-relevant information leaves room for improvement: Because international taxonomies currently present CCSI-relevant content only in a very fragmented manner (namely spread all over ISCO, ESCO, NACE), users have to know very well where to look for it: there is neither a sign-posted access to the CCSI as a whole, nor to any of its domains. Consequently, relevant information is difficult to access in European data collections (e.g. the EU-LFS), impossible to present in a user-friendly way in European monitoring or forecasting tools (e.g. Skills OVATE, Cedefop Skills Forecasts), and difficult to identify and access in ESCO (occupations as well as skills/competence and knowledge concepts).

Mobility paths between ESCO occupations are nontransparent, sometimes even misleading: On the one hand, occupational skills profiles have not been compiled in view of a systematic representation of shared and distinguishing features, but rather with the goal of high descriptiveness; the resulting level of detail, and the peculiar presentation of skills profiles on the portal, make it difficult to gain an overview of requirements for occupations, and to see mobility paths between them. Common requirements expected to exist between specific ESCO occupations actually do not exist when you evaluate shared knowledge or skills/competences. ISCO, serving as ESCO's hierarchical backbone for occupations, at times also rather hides than highlights overlap between profiles, e.g. when it places occupations sharing closely related skills specializations and equivalent skills level under different unit groups. On the other hand, skills/competences of very specific content have been reused in inappropriate contexts resulting in misleading mobility paths between occupations.

Organisational barriers impede stakeholder's contribution to shaping ESCO's development: Currently CCSI stakeholders neither see a transparent strategy, nore practical guidance or suitable communication infrastructure encouraging practitioners and researchers (or any other sector representatives for that matter) to develop, discuss and submit amendment suggestions for cultural and creative occupations or knowledge, skills/competences. As a consequence, specialist knowledge, which is critical for validating and updating ESCO, is not sufficiently considered in ESCO development.

Developed recommendations

I. CHALLENGES IN GENERATING STATISTICAL EMPLOYMENT INFORMATION FOR THE CCSI

Creative FLIP has developed a draft structure identifying and linking fully and partially relevant ESCO occupations to the domains and functions of Eurostat's Framework for Cultural Statistics (see Annex I). This structure could be used to

  (1) Add an additional layer of detail where needed to single out relevant content of partly cultural ISCO unit groups;
  (2) Summarize fully and partly cultural ISCO unit groups and subordinated ESCO occupations under Eurostat domains of relevance; This more fine-grained and better structured framework should enable a more comprehensive (also partly relevant ISCO unit groups can be considered) and more detailed representation of employment in the CCSI (employment data could be aggregated at the

level of individual domains as well, not just as a whole) – provided, of course, that it is feasible to collect data at that level of specificity.

Creative FLIP also identified and grouped cultural-creative ESCO knowledge, skills/competences (see Annex IV) which could be used to

(3) identify cultural and creative employment information at an even more fine-grained level than that of ESCO occupations or ISCO unit groups.

These structural developments can be an asset when analysing CCSI's cross-sectoral contribution to the labour market, e. g. when used as a terminological resource for evaluating online job advertisements.

II.   CHALLENGES IN USING ESCO FOR STRUCTURING CCSI EMPLOYMENT INFORMATION

Regarding visibility and accessibility of CCSI-relevant information: The drafted breakdown of Eurostat domains into fully and partly relevant ISCO unit groups and subordinated cultural and creative ESCO occupations (see Annex I) as well as the identification and grouping of cultural and creative ESCO knowledge, skills/competences (see Annex IV) have the potential to improve visibility and accessibility of CCSI-relevant employment information in ESCO if implemented

- to highlight cultural and creative occupations or skills/competences and knowledge concepts (in analogy to e. g. STEM or "bright outlook" occupations in O*NET, or "thematic views" in ISCO);
- as sector-specific access to ESCO occupations or skills/competences and knowledge concepts, guiding users towards cultural and creative content; this sector-specific access might be an asset for information systems like Skills OVATE as well;
- to aggregate cultural and creative employment information at the level of domains.

Regarding mobility paths between ESCO occupations: Creative FLIP has developed a way to make mobility paths between occupations better visible in ESCO. This methodology has been described already in the final report to phase 1, and was elaborated and tested with CCSI experts coming from cooperating partner projects during the current project phase (see Annex III). Once already defined mobility paths between ESCO occupations have been revealed, it is much easier to start a structured dialogue with sector experts (who might not be ESCO experts) on the adequacy of these occupational profiles.

Regarding organisational barriers impeding stakeholder's contribution to shaping ESCO's development: To lower the threshold for sector representatives without much ESCO experience to use and contribute to the improvement of the taxonomy, Creative FLIP drafted guidelines for using ESCO for drafting cultural-creative skills profiles (see Annex VI).

INTRODUCTION

Objectives of the study

Main objective of this study is to contribute to a better visibility and accessibility of CCSI employment information in ESCO. To this end, we:

- Investigated into CCSI stakeholders' needs when using ESCO,
- Identified relevant content in ESCO by applying Eurostat's definition of cultural occupations (ESSnet, 2012: p. 143 f.) to ESCO's occupations, knowledge, and skills/competences (KSCs),
- Subdivided identified ESCO content of cultural-creative relevance into clusters of shared domains and functions (ESSnet, 2012,: p. 52 f.),
- Enriched the current Eurostat CCSI domain structure by identifying occupations relevant for the cross-cutting sphere of "Events".

The resulting identification and clustering of cultural-creative ESCO content aspires to be used as an extension of the current Eurostat framework for cultural statistics as well as of ESCO, e. g. to

- Distinguish relevant from irrelevant content in ISCO unit groups classified as "partly relevant" by ESSnet/Eurostat;
- Characterise individual CCSI domains by identifying relevant ESCO occupations,
- Identify ESCO occupations of relevance across several domains,
- Discover cultural-creative ESCO occupations in ISCO unit groups so far classified as "irrelevant" by Eurostat,
- Discover non-cultural or only partly cultural ESCO occupations in ISCO unit groups so far classified as "fully relevant" by Eurostat,
- Highlight cultural-creative occupations and skills in ESCO,
- Supplement systematic access to cultural-creative content (occupations as well as KSCs) in ESCO.

Another goal was to develop and pilot a methodology for facilitating a stakeholder review of ESCO's cultural-creative content. To this end, we moderated several workshops with CCSI representatives,

- Eliciting feedback to preliminary drafts of occupational domain breakdowns (ESCO occupations relevant for Archives, Heritage, Libraries, and the cross-cutting sphere of "Events"),
- Moderating reviews of selected cultural-creative skills profiles, by contrasting related ESCO occupations like e. g. *art restorer - conservator,* or *fashion designer – personal stylist*),
- Discussing fundamental questions like e. g. how to identify the cultural-creative relevance of an ESCO occupation or KSC, and how to deal with borderline cases.

We observed that CCSI stakeholders tended to have fragmentary knowledge of ESCO only, and as a consequence also lacked confidence when using the system for e. g. composing vacancies, for relating jobs to occupations, or when considering to report ESCO amendment needs. Providing basic information and guidelines to support inexperienced ESCO users was therefore yet another goal of the "Learning" strand of Creative FLIP.

Overview of the methodology

To create the basis for stakeholder involvement and to gain an overview of already identified challenges and proposed solutions, we

- Employed **desk research** to identify who is active in the field (European projects, umbrella organisations, political initiatives) – main contact points see Box 1;
- And **liaised with ESCO management** regarding ongoing developments and plans for the future.

Box 1: European projects, organisations, and initiatives serving as main contact points of Creative FLIP's work package "Learning":

<u>European projects of related content:</u>

CHARTER	European cultural Heritage Skills Alliance	https://charter-alliance.eu/
CYANOTYPES	Anticipating Creative Futures	https://cyanotypes.website/about/
ESSENCE	Enhance Soft Skills to Nurture Competitiveness and Employability	https://projectessence.eu/index.php
INCREAS	Innovative and Creative Solutions for Cultural Heritage	https://www.increas.eu/
Measuring CCS	Measuring the Cultural and Creative Sectors EU	https://www.measuring-ccs.eu/
PACE VET	Partical Certification in the Vocational Field of Event Technician	https://pace-vet.eu/

<u>Organisations and initiatives or related content:</u>

ECBN /Creative FED	European Creative Business Network / European Federation of Creative Economy	http://www.the-creative-fed.eu/
ERRIN	European Regions Research & Innovation Network	https://errin.eu/
IGVW	Interessengemeinschaft Veranstaltungswirtschaft	https://www.igvw.org/
Pearle	Live Performance Europe	https://www.pearle.eu/
Podiumkunsten	Sociaal Fonds Podiumkunsten	https://www.podiumkunsten.be/
VDT	Verband Deutscher Tonmeister	https://tonmeister.org/de/
VPLT	The German Entertainment Technology Association	https://www.vplt.org/

Source: Creative FLIP

We aimed at providing the CCSI with a resource catering for real-life user needs and expectations, e. g. tools supporting stakeholders when applying ESCO for composing skills profiles, or when searching for jobs. To identify these needs and expectations we

- Set up an **online survey** investigating background information on prior exposure to ESCO, preferred CCSI sector classification, and general user experience when searching for occupations and skills in ESCO. Unfortunately, the survey has not obtained sufficient response, the reason being, in our assessment, the CCSI's wide-spread lack of familiarity with ESCO.

- Conducted an **online workshop** for CCSI stakeholders, investigating preferences as well as challenges when using ESCO to search for information on occupations and skills. This more personalized approach better accommodated CCSI stakeholders' limited experience with ESCO: we provided participants with a thorough introduction to ESCO before asking them to use and evaluate the system; we tasked participants with a real-life exercise, namely to compose job advertisements using ESCO skills and occupations as a resource, and encouraged them to reflect on their user experience, to discuss problems, and to ask questions whenever necessary. Observing their search behaviour and their interaction as a group provided enlightening information on ESCO's usage challenges.
- Collected **stakeholder input during online as well as in-person meetings and workshops** throughout the project's life cycle.

With respect to the development of the occupational breakdown (the identification and clustering of cultural-creative ESCO occupations), or the systematic analysis of occupational skills profiles, this project **revised and elaborated the methodology developed during the previous phase of Creative FLIP** ("FLIP 1"). When identifying and grouping cultural-creative ESCO occupations, FLIP 1 had depended on:

- ESSNet's definition of which ISCO unit groups are fully or partly relevant to the CCSI (ESSNet-Culture, 2012, p. 15ff.);
- UNESCO's definition of cultural-creative domains (UNESCO 2009, p.73ff.)
- ESCO's occupational description and skills profile, using ESCO v1.0.9 (the most current version at the time).

and applied this methodology to three selected domains of the UNESCO Framework for Cultural Statistics, namely:

- Design and creative services
- Performance and celebration
- Visual arts and crafts

The current phase of FLIP also departed from ESSNet's/Eurostat's definition of fully and partly relevant ISCO unit groups,

- But resorted to Eurostat's definition of cultural domains (ESSNet-Culture, 2012, p. 52f.)
- and ESCO v1.1 (launched in March 2022).
- Furthermore, we supplemented 'functions' (as defined by ESSNet 2012, 55f.) as additional structuring element.

The original plan was to draft the occupational scope for an additional three domains only - the two Eurostat domains "Books & Press" and "Audiovisual and interactive media" as well as the cross-cutting sphere of "Events". But due to the highly cross-sectoral character of the CCSI, it was impossible to comprehensively cover individual domains without considering ALL ISCO unit groups highlighted as relevant by Eurostat. Box 2 provides an example for this, highlighting the diversity of ESCO occupations listed under a single ISCO unit group rated as fully relevant by ESSnet, 2012.

Box 2: Example of ISCO unit group summarizing ESCO occupations of diverse domain relevance

2654 Film, stage and related directors and producers and its subordinated ESCO occupations

2654.1	*art director* (→ advertising, audiovisual & multimedia, performing arts, visual arts)
2654.1.4	*performance* lighting director (→ performing arts)
2654.1.6	*stage director* (→ performing arts)
2654.3.1	*music producer* (→ audiovisual & multimedia)
2654.5	*video and motion picture editor* (→ audiovisual & multimedia)

Source: Creative FLIP

Yet, relying on ESSnet's assessment of fully and partly relevant ISCO unit groups proved insufficient for identifying cultural-creative ESCO occupations comprehensively: Only after ESCO as a whole was scanned for relevant content, we could guarantee full coverage: Cultural-creative occupations were also discovered in ISCO unit groups so far regarded as irrelevant by ESSnet, 2012 – see Box 3 for some examples.

Box 3: Relevant ESCO occupations discovered in ISCO unit groups regarded as irrelevant by ESSnet 2012

2131 Biologists, botanists, zoologists and related professionals
        2131.4.6.1   *curator of horticulture* (→ heritage)
2359 Teaching professionals not elsewhere classified:
        2359.13   *public speaking coach* (→ advertising and/or performing arts?)
2422 Policy administration professionals:
        2422.12.3   *cultural policy officer* (of relevance across all CCSI domains)
2431 Advertising and marketing professionals:
        2431.1   *advertising copywriter* (→ advertising)
        2431.7   *creative director* (→ advertising, audiovisual & multimedia, visual arts)
2633 Philosophers, historians and political scientists:
        2633.1   *historian* (→ heritage)

Source: Creative FLIP

For statistical purposes, only an **unambiguous allocation** of ISCO unit groups **to cultural-creative domains** would guarantee that data allocated at this level of specificity is considered only once when aggregating onto domains. Yet, several ISCO codes turned out to be relevant for more than one CCSI domain, e. g. *2654 Film, stage and related directors and producers,* as becomes obvious when examining subordinated ESCO occupations (see Box 1). Yet even at the more detailed level of ESCO occupations it is impossible to allocate occupations to domains in an n:1 manner: Some occupations are relevant across several (e.g. *cultural facilities manager)*, few even across ALL domains (e.g. *cultural policy officer).*

To be applicable in cultural statistics, we suggest to supplement the proposed linkages between ESCO occupations and Eurostat domains with a refined relevance rating, distinguishing between

- Unique allocations – occupations relevant in one domain only, e. g. *3D animator* in Audiovisual & Multimedia,
- Primary allocations – occupations relevant across more than one domain, highlighting one of major importance, e. g. *actor/actress*, or *singer* in Performing Arts,

- Additional allocations – occupations relevant across more than one domain, highlighting those of further importance, e. g. *actor/actress*, or *singer* in Audiovisual & Multimedia, or in "Events".
- Cross-domain allocations – occupations relevant across more than one domain, where none can be singled out as primary, e. g. *cultural policy officer*, or *cultural facility manager*.

When aggregating occupational data comprehensibly for statistical purposes, only unique and primary allocations should be considered. Whereas, when aggregating occupational data for individual domains only, all allocations could be considered.

The identification and clustering of **cultural-creative ESCO KSCs** was organised in analogy to the methodology developed for ESCO occupations of CCSI-relevance.

A roadmap for making ESCO better suited for the CCSI

Shortcomings mostly identified via desk research during the pilot phase of Creative FLIP, namely:

- CCSI-relevant employment information in general, thus also in ESCO, is difficult to present and access,
- Information contained in ESCO could be improved with respect to consistency, transparency, level of detail as well as presentation,

were to a large extent confirmed by consulted CCSI stakeholders during the current project phase. Challenges identified in a workshop designed to investigate user needs and search behaviour concerned mostly:

- **Finding successful search terms**: when looking up skills, workshop participants had difficulties to translate their language usage (e. g. "heritage skills", "be a good generalist") into discrete components which could be searched in ESCO; a similar problem complicated the search for occupations: stakeholders struggled to abstract these from the job titles they are acquainted with from daily practice.
- **Systematic access to ESCO's occupations and skills pillar:** in the case of the skills pillar, stakeholders struggled with its fragmented nature (four distinct hierarchies organising knowledge concepts, language skills and knowledge, transversal skills, and "all other" skills); in the case of the occupations pillar (structure provided by ISCO), skill levels were not regarded as being helpful for clustering cultural-creative occupations.
- **Interpreting ESCO content:** stakeholders were confused when being confronted e. g. with preferred labels suggesting different meanings to the ones communicated by descriptions or allocations, e. g. when a skill is used across sectors although its description narrows down its scope to a very specific context only.
- **Choosing an appropriate level of specificity when describing occupational profiles:** stakeholders tended to get lost in ESCO's detailed skills contextualizations (e. g. *manage athletes, manage healthcare staff, manage volunteers*, etc.) when looking for a more generic concept they finally found represented as a skill group only (e. g. *S4 - management skills*).

Although ESCO has not been designed in view of the particular characteristics and needs of the CCSI, its suitability for this particular target group nevertheless could be significantly enhanced if a couple of modifications are introduced to address the most pressing challenges:

1. Enhance the visibility and accessibility of cultural-creative information in ESCO;
2. Improve the interoperability between ESCO and the Eurostat framework for cultural statistics;
3. Improve the presentation of occupational skills profiles on the portal;

4. Invest in user guidance targeted at CCSI stakeholders;
5. Stimulate the dialogue between ESCO maintenenace and CCSI stakeholders.

In the following chapters we describe how Creative FLIP suggests to address these challenges.

CULTURAL-CREATIVE ESCO OCCUPATIONS

Since ESCO has not been designed in view of a clear distinction between CCSI-relevant and non-relevant occupations, there is no clear-cut boundary between occupations with or without a cultural-creative skills profile: sometimes this dichotomy is visible, when differentiating occupations like e.g. *knitter* (characterised by artisanal work practices), and *knitting machine operator* (characterised by automated work practices), at other times this distinction is blurred, as in e. g. *stonemason*, an occupation covering artisanal work practices as well as computer-controlled materials processing in one profile.

Furthermore, occupations of relevance to the CCSI are not clustered and thus systematically accessible, but spread all over ESCO. There is no sign-posted access to e. g. all occupations relevant for Performing Arts, or for Heritage.

We addressed this challenge by using the ESSnet, 2012 / Eurostat, 2018 definition of cultural occupations and applying it to ESCO.

Identifying cultural-creative ESCO occupations

Basis for assessing whether an ESCO occupation is relevant for the CCSI or not, is the following definition of what constitutes cultural occupations:

Box 4: Definition of cultural occupations, as used by Eurostat

> "Cultural occupations include occupations involved in the creative and artistic economic cycle i.e. creation, production, dissemination and trade, education, management and regulation, as well as heritage collection and preservation. These occupations involve tasks and duties undertaken
> * for the purpose of artistic expression […];
> * [or] to generate, develop, preserve, reflect cultural meaning;
> * [or] to create, produce or disseminate cultural goods and services, generally protected by copyright."

Source: ESSNet culture (2012: 143 f.)

ESSnet complements this definition with

* A table characterising for every domain, relevant cultural activities and functions (ESSnet, 2012: 52 f.), and
* A table listing ISCO unit groups considered as fully or at least partially relevant for the CCSI (ESSnet, 2012: 156 ff., Annex 2).

Applied to ESCO, this identified 298 ESCO occupations we considered fully relevant, because

* their description and skills profiles are in line with above's definition of what constitutes a cultural occupations (for us this was the most important indication),
* they are subordinated to an ISCO unit group rated as fully or at least partially relevant by ESSnet (second most important indication),
* their occupational activity contributes to a function listed in ESSnet's Annex 2 (considered as a "nice to have" indication of relevance – see also under "Clustering identified CCSI-relevant ESCO occupations).

Yet not in all cases lead the application of above criteria to a decision in line with ESSnet:

- We consider 9 ESCO occupation irrelevant for the CCSI, even though they are subordinated to an ISCO unit group regarded as fully relevant by ESSnet – the reason being that the occupations' description and skills profile are not in line with the official definition of what constitutes cultural occupations (ESSnet culture, 2012: 143 f.):
    - o *Cadastral technician, cartographer, geographic information systems specialist, hydrographic surveyor, land surveyor, mine surveyor* (all subordinated to ISCO *2165-Cartographers and surveyors*);
    - o *Brush maker* (subordinated to *7317-Handicraft workers in wood, basketry and related materials*);
    - o *Fishing net maker* (subordinated to ISCO *7318-Handicraft workers in textile, leather and related materials*);
    - o *Sports equipment repair technician* (subordinated to ISCO *7319-Handicraft workers not elsewhere classified*).
- On the other hand, we rate 63 ESCO occupations, subordinated to ISCO unit groups regarded as not relevant by ESSnet, as at least partially relevant due to their description and skills profile:
    - o 22 ESCO occupations are in our assessment fully relevant, e. g. *cultural policy officer* (subordinated to ISCO *2422-Policy administration professionals*), *creative director* (subordinated to ISCO *2431-Advertising and marketing professionals*), or *make-up and hair designer* (subordinated to *5142-Beauticians and related workers*);
    - o Whereas we consider another 41 ESCO occupations to be at least partially relevant, e. g. traditional crafts like *stonemason* (subordinated to ISCO *7113-Stonemasons, stone cutters, splitters and carvers*) or *coppersmith* (subordinated to ISCO *7213-Sheet-metal workers*), or occupations contributing to the production of cultural goods and services like e. g. *performance hairdresser* (subordinated to ISCO *5141-Hairdressers*) or *frame maker* (subordinated to ISCO *7115-Carpenters and joiners*).

With respect to the 156 ESCO occupations subordinated to ISCO unit groups rated as partly relevant by ESSnet 2012, description and skills profile did not in all cases lend itself to a clear distinction between relevant and irrelevant ESCO occupations, e.g.

- None of the three ESCO occupations - *communication manager, advertising manager, public relations manager* - subordinated to ISCO *1222-Advertising and public relations managers* refer to activities mentioned in ESSnet's definition of what constitutes cultural occupations; giving these occupations the benefit of the doubt, we rated them "partly cultural" nevertheless;
- Description and skills profile of *document management officer* (subordinated to ISCO *1349-Professional services managers not elsewhere classified*) closely resembles fully cultural occupations like *librarian* or *archivist*, yet document management officers deal with administrative or commercial content only, and are employed in organisations out of the scope of the CCSI[1]; we also hesitantly assessed this occupation as "partly cultural";

All things considered, we rated 365 out of 3 007 ESCO occupations (12 %) to be at least partly relevant for the CCSI (320 fully, 45 partly relevant occupations) - see Annex I for details.

---

1 Due to the same reasoning, we also rate *picture archiving and communication systems administrator* (subordinated to ISCO *3252-Medical records and health information technicians*) as partially relevant for the CCSI.

Challenges for ESSnet's assessment of culturally relevant ISCO unit groups

Our search for CCSI-relevant occupation in ESCO identified content that has the potential to challenge ESSnet's assessment of fully and partly relevant ISCO unit groups. Annex I / Table "ISCO unit groups and CCSI" provides an overview of concerned categories.

"Fully cultural" ISCO unit groups that should be considered for a downgrading to only "partly" or even "not cultural":

- *2165-Cartographers and surveyors* are considered to be "fully relevant" by Essnet, 2012. In our assessment neither the ISCO unit group nor any of its subordinated ESCO occupations (*cadastral technician, cartographer, geographic information systems specialist, land surveyor, hydrographic surveyor, mine surveyor*) are relevant for the CCSI. Granted, their technical "spadework" creates the basis for architectural planning – but why is this foundational technical activity then not included in other domains as well? Following ESSnet's way of thinking regarding ISCO 2165, shouldn't then also e. g. *2512-Software developers* be relevant for the domain "Audiovisual & Multimedia" or *2521-Database designers and administrators* for the domains "Archives" and "Libraries"?
- Not all ESCO occupations subordinated to the presumably "fully cultural" ISCO unit groups 7317, 7318, and 7319 are actually relevant for the CCSI - the following occupations definitely are not, in our assessment:
    - *7317-Handicraft workers in wood, basketry and related materials*: subordinated ESCO occupation *brush maker;*
    - *7318-Handicraft workers in textile, leather and related materials*: subordinated ESCO occupation fishing net maker;
    - *7319-Handicraft workers n. e. c.*: subordinated ESCO occupation *sports equipment repair technician.*

For 16 ISCO unit groups considered „not cultural" by ESSnet 2012 we discovered subordinated ESCO occupations with a fully CCSI-relevant skills profile, e.g.

- *2131-Biologists, botanists, zoologists and related professionals*: the skills profile and the description of professional activities of subordinated ESCO occupation *curator of horticulture* overlaps significantly with *exhibition curator*, an ESCO occupation listed under the "fully cultural" *2621-Archivists and curators[2]*; feedback from consulted stakeholders of the "Heritage" domain also confirmed the CCSI-relevance of *curator of horticulture*.
- *2422-Policy administration professionals* is superordinated to *cultural policy officer*, an occupation we consider to be highly relevant across all cultural-creative domains.
- *2633-Philosophers, historians and political scientists* is superordinated to *historian*, an occupation we consider to be highly relevant for the domain "Heritage".

---

2 ESCO contains even one more "curator" listed under yet another ISCO unit group: *zoo curator* (subordinated to ISCO 1431-Sports, recreation and cultural centre managers). Since occupational activities of all these three curators concentrate on developing, maintaining and exhibiting collections it could be argued that they should also all be subordinated to the same ISCO unit group, namely 2621-Archivists and curators. In that case, ESSnet's assessment of 2131 and 1431 wouldn't have to be changed from "not cultural" to "partly cultural".

For another 20 ISCO unit groups considered „not cultural" by ESSnet 2012 we discovered subordinated ESCO occupations that have the potential to challenge the delimitation of fully from partly or not relevant occupations. We consider e. g. the following ESCO occupations to be at least partial relevant for the CCSI:

- *1420-Retail and wholesale trade managers*: *antique shop manager*
- *3252-Medical records and health information technicians*: *picture archiving and communication systems administrator*
- *5141-Hairdressers*: *performance hairdresser*
- *7113-Stonemasons, stone cutters, splitters and carvers*: *stonemason*

Clustering cultural-creative ESCO occupations under Eurostat's cultural domains and functions

Whilst ESSnet only defines fully and partly cultural ISCO Codes for the CCSI as a whole (ESSnet, 2012: p. 156 f.), characterising domains only with respect to occupational activities typical for the different functions of the value chain (ESSnet, 2012: p. 52 f.), Creative FLIP attempted a comprehensive occupational breakdown for every single Eurostat domain as well as for the additional cross-cutting sphere of "Events". We do this by listing all occupations of relevance to individual domains, characterising also their predominant contribution to the value chain (expressed by function).

It was our goal to allocate identified ESCO occupation as unambiguously as possible to domains and functions, deviating from this strategy only when occupations are equally relevant to more than one domain, or when they are contributing to several functions, as in the case of e. g. *actor/actress*. Basis for the allocation of domains and functions was the occupation's description as well its skills profile.

ESSnet's table listing relevant activities per function and domain (ESSnet, 2012: p. 156 f.) is in this context at times rather complicating than facilitating the clustering of ESCO occupations, e.g.
- when limiting relevant occupational activities in function "Management / Regulation" to "Supporting activities for managing rights and royalties", as in the case of "Advertising" – which could be interpreted as ruling out occupations of a much wider scope like e. g. *creative director*;
- or when not including activities relating to the function "Production" in domain "Architecture", thus ruling out architectural drafter, an occupation we regard as fully relevant for this domain, in analogy to occupations like *model maker*, *set builder* or other occupations specialised in supporting the realization of artistic design.

Therefore, where deemed appropriate, we overruled ESSnet's assessment of which occupational activities are relevant for individual domain-specific functions.

Not in all cases it was possible to identify cultural-creative ESCO occupations to fill the slots foreseen by ESSnet's domain-function-activities matrix (ESSnet, 2012: f. 52 f.): e.g.

- there are no ESCO occupations contributing "formal and non-formal: artistical, cultural teaching activities" (Function "Education") in domain "Archives" or "Libraries";
- there is no "archive manager" in ESCO, as could be expected in analogy to *library manager;*

These discrepancies can be interpreted as either suggesting occupational gaps in the ESCO taxonomy, or as delusive categorizations by ESSnet.

Clustering cultural-creative ESCO occupations under the cross-cutting domain of "Events"

ESSNet, 2012 highlights for its domain "Performing Arts" several activities related to live performances, e.g. creation of technical settings, booking services, or live presentation activities. Event-organising activities are also mentioned under the domains "Audiovisual & Multimedia", "Books & Press" as well as "Visual arts" (ESSNet, 2013: p. 52 f.). Thus it can be expected that the "events industry" is included in the Eurostat Framework of cultural statistics, yet not as a stand-alone domain.

Also in NACE, "events" is represented as a cross-cutting topic only, embedded in cultural-creative as well as other categories, e.g. in
56.21 - Event catering activities
8230 - Organization of conferences, trade shows
90.01 - Performing arts
90.02 - Support activities to performing arts

But at the very latest since the pandemic – which seriously impacted on the events industry – it became evident that it is a key cultural as well as economic sphere that deserves more attention, also in cultural policy making where it is currently not explicitly adressed as an independent strand.

Defining "Events"

While most people have at least a rough idea what the "event sector" covers, up to now there is not even an (informally) agreed definition, just different attempts at framing this sphere. The following randomly chosen attempts at explaining core activities, typical skills demand, work organisation and other characteristics of "events" may serve as examples:

"The events sector is a dynamic and exciting industry encompassing a range of activities. Some examples include music festivals, trade shows and sporting events." [3]

"The event industry is described as a professional service that is responsible in conducting an event. The industry's player will mainly include event organizers—be it small or big one. That said, party planners, wedding organizers, event organizers, or any other kinds of services alike are the people who work in the events industry."[4]

"Events refer to public gathering of populace at a determined time and place for a purpose. The purpose for staging an event can be to increase business profitability, celebratory, entertainment, and community causes. The most popular events include conference & exhibition, corporate events & seminar, promotion & fundraising, music & art performances, sports, festival, trade shows, and product launch. The key stakeholders within the events industry are corporate organizations, public organizations & NGOs, and similar others." [5]

"The events industry encompasses a broad range of activities and services related to the planning, organization, and execution of events. Events can vary widely in scale and purpose, ranging from small private gatherings to large-scale conferences, trade shows, concerts, festivals, weddings, and sporting events. The industry includes various professionals and businesses that contribute to different aspects of event

---

[3] https://uk.indeed.com/career-advice/finding-a-job/events-sector
[4] https://www.virtualedge.org/what-is-event-industry/
[5] https://www.alliedmarketresearch.com/events-industry-market

management, such as event planners, venue managers, caterers, audio-visual technicians, decorators, and more. [...] The events industry is dynamic and continually evolving, influenced by changes in technology, social trends, and the global landscape. It plays a significant role in various sectors, including business, entertainment, education, and community engagement."[6]

Common elements are:

- it is about an activity, something that is happening, an experience;
- it is organized;
- it is meant for a large crowd of people;
- it can be private, corporate of public;
- it can be organised for profit or not;
- it is temporary only.

For events, various services work together to create a common result, like:
- Event planning
- Management and organization
- Content development and provision
- Decor and design
- Technical support, e.g. audio-visual services
- Logistics and transportation
- Marketing and promotion
- Hospitality (FoH)
- Catering services
- Registration and ticketing
- Security and safety

Activities show a large overlap with other cultural-creative domains as well as economic sectors, e.g.:

- Audiovisual & Multimedia
- Event catering activities (NACE 56.21)
- Freight transport by road (NACE 49.41)
- Performing Arts
- Private security activities (NACE 80.10)
- Rental and leasing activities (NACE 70)
- Visual Arts

Typically, organisations contributing to events will partly also be active in these other domains and sectors, e.g. a performing artist will contribute to an art festival but also to a corporate event; a caterer might take care of a concert crew but also provide school lunches; or a photographer might document cultural events as well as offer portrait photography to individuals.

---

[6] Definition compiled by ChatGPT (https://chat.openai.com/) when asked to define the events industry.

Identifying and clustering ESCO occupations relevant for "Events"

To narrow the boundaries as well as for developing the occupational breakdown of events, we only considered occupations as relevant if they show at least one of these four characteristics:

- The occupation is part of the core of the creation of the event, e.g. a *set designer,*
- Or part of the experience of the public, the audience, e.g. a *presenter*,
- Or part of the event execution on site, e.g. a *stage technician,*
- or the occupation delivers services or activities that are event specialized, e.g. *front of house manager*.

Various sources[7] like events organisers, occupational standards and related curricula were analysed to extract relevant occupational titles from collective agreements, job descriptions, professional profiles, qualifications, etc. Results were then filtered, based on the four criteria listed above, and translated into ESCO occupations wherever possible.

In the next step, the occupational titles were organized by "departments" resembling the categorization used in collective agreements, or on the websites of event organisers. The departmental division was then sorted in "order of occurrence", listing process independent departments at the end.

- Event organisation
- Marketing/Publicity/Communications
- Content providers
- Technic-artistic
- FoH (Front-of-House)
- Vennue
- Safety
- Catering
- Logistics
- Management, general administration and development
- Theatre business professionals
- Education

In the following step, we clustered within a department all occupations that have a set of competences in common. Clustered occupations can share this common feature either horizontally, meaning all of these occupations are of approximately the same skill level, or they can share the common competence vertically (across several skill levels).

E.g. within the department of "Content providers" we identified the following horizontal cluster sharing design competences:

- art director
- costume designer
- make-up and hair designer
- performance lighting designer
- performance video designer

---

[7] Most prominently The Association of Performing Arts & Entertainment Professionals (USITT - see: https://www.usitt.org), Verband für Medien- und Veranstaltungstechnik (VPLT – see: (www.vplt.org), Fiche Metiers (see: https://metiers.siep.be/abc/), Podiumskunsten (see: https://www.podiumkunsten.be/sector), Event Planner (see: www.eventplanner.be), Indeed (see: https://be.indeed.com), and Public impact (see: https://www.publiekeimpact.be/).

- pyrotechnic designer
- set designer
- sound designer

E.g. within the department "technic-artistic" the following occupations with lighting competences are a vertical cluster:

- performance lighting technician
- followspot operator
- light board operator
- intelligent lighting engineer

The choice between the two viewpoints (horizontal versus vertical) is based on the sector's logic which mainly is related to diversification or growth within a career.

Whilst for Eurostat domains we resorted to subdividing allocated occupations along their core or additional contribution to the CCS value chain (expressed as "functions"), this characterisation needed to be adapted to the specific production process in events. We "translated" Eurostat's functions as follows:

Table 1: Translating Eurostat's functions to make these suitable for the Events industry

Eurostat functions	Events functions	Comment
Creation	Creation	In a live environment, this is mainly about the development of a concept
Production/Publishing	(Pre-)Production	In a live environment, this is mainly about preparing or running a show or an event
Dissemination/Trade	Running the show	In a live environment, this is mainly about what happens during the live event
Preservation	n. a.	
Education	Research & Development /Education	Applied research is a constituent part of events, since there is the aspiration to create something unique with every live event
Management/Regulation	Management	

Source: Creative FLIP

See Annex II for an implementation of the methodology described above. See Annex I to view the overlap between "Events" and Eurostat domains.

Insight to be gained from clustering ESCO occupations for the CCSI[8]

Table 2 provides an overview of how we clustered identified CCSI-relevant ESCO occupations along domains (for details go to Annex I). With respect to the number of allocated ESCO occupations, Performing Arts is the largest domain, followed by Audiovisual & Multimedia, and Arts Crafts, but topped by the cross-cutting sphere of "Events", a cluster which doesn't contain many unique occupations (only the three "fully cultural" *cultural centre director, tourist animator*, and the *event manager*, plus some additional nine "partly cultural" occupations like *hospitality entertainment manager, event assistant, wedding planner*, or *personal stylist*), but which overlaps to large extents with the domains Performing Arts (66 occupations shared), Audiovisual & Multimedia (22 occupations shared), and Visual Arts (22 occupations shared). The smallest domains (with respect to allocated ESCO occupations) are Advertising, Archives, Libraries, and Architecture.

The ratio of fully cultural occupations per domain, provides a rough indication of how difficult it was for us to delineate CCSI-relevant content from irrelevant one. In this respect, Advertisement, followed by Archives and Architecture had the highest percentage of tricky cases: For Advertisement, we mostly found fully relevant occupations in ISCO unit groups considered irrelevant by ESSnet (e. g. *advertising copywriter, creative director*, or *spokesperson*), whereas ISCO 1222-Advertising and public relations managers (party relevant according to ESSNet) in our assessment lists only ESCO occupations we consider as partially relevant (e. g. *public relations manager*). In Archives, occupations like *document management officer* as well as *picture archiving and communication systems administrator* both carry out work activities typical for *archivists*, yet they deal with non-cultural content (business documents, medical images), and they do this in an organisational setting that is out of the scope of the CCSI (e. g. in hospitals). Feedback from stakeholders representing Archives and Libraries nevertheless strongly argued for including these two occupations. For Architecture, we also found it difficult to clearly distinguish between relevant and irrelevant occupations: How to rate occupations like *interior landscaper* or *landscape gardener* (both subordinated to 6113-Gardeners, horticultural and nursery growers, an ISCO unit group considered as "noncultural" by Eurostat)? Just like *architects* or *interior designers* they create aesthetically pleasing surroundings, yet do not form these out of stone or concrete but out of less durable "material", namely plants. Or, how about all the different occupations subordinated to ISCO 2165-Cartographers and surveyors, e. g. *cadastral technician, cartographer*, or *mine surveyor*? Although Eurostat rates ISCO 2165 as "fully cultural", we found this hard to support when analysing occupational activities and associated skills of subordinated ESCO occupations.

Looking at the ratio of uniquely allocated occupations (see also Table 2), gives an impression of how large the occupational overlap is between a given domain and one or several other ones: For Arts crafts, 85% of all fully or partly relevant occupations are unique to that domain, whereas this is only the case for 15% of Archives, since most of its occupations are also relevant for Heritage or Libraries. With a share of 10% of unique occupations, only the cross-cutting sphere of "Events" shows even more overlap than Archives.

---

[8] The insights summarized in this chapter relate to the representation of cultural-creative occupations in ESCO only. Thus any statements, e.g. on the size and composition of individual cultural-creative domains, are valid within the realm of ESCO only.

Table 2: CCSI-relevant ESCO occupations and their distribution to Eurostat domains as well as "Events"

	Fully cultural		Partly cultural		Ratio in %	
	unique	additional	unique	additional	Fully/total	Unique/total
Advertising	4	5	1	3	69	38
Architecture	9	5	2	2	78	61
Archives	1	9	1	2	77	15
Arts crafts	39	9	13	0	79	85
Audiovisual & Multimedia	41	26	6	2	89	63
Books & Press	25	13	1	1	95	65
Heritage	15	22	2	2	90	41
Libraries	3	10	0	1	93	21
Performing Arts	19	67	3	2	95	24
Visual Arts	26	21	3	1	92	57
"Events"	3	106	9	2	91	10

Source: Creative FLIP

Legend: "Unique" refers to the number of ESCO occupations allocated to the given domain only; "additional" refers to the number of occupations allocated to this but also to further domains.

Table 3 provides an overview of how we clustered fully and partly cultural ESCO occupations according to their core or additional contribution to the cultural-creative value chain (expressed as functions) – for details go to Annex I. Fully cultural ESCO occupations mostly contribute to Production/Publishing (e.g. *book publisher, dance répétiteur, make-up artist*, or *piano maker*), followed by Creation (e.g. *architect, sculptor, set designer*, or *make-up and hair designer*), whereas those rated as partly relevant only are most likely to contribute to Production (e.g. *digital games tester, performance hairdresser*, or *milliner*).

The function Preservation is the one with the smallest number of CCSI-relevant ESCO occupations - these belonging mostly to the domains Heritage, Arts Crafts, and Archives. Whereas occupations contributing to the function Creation can be found across all domains but Archives, Libraries, and Heritage (the latter only if you disregard *architect* and *landscape gardener*, two occupations belonging to Architecture but having an additional allocation to Heritage as well).

Table 3: CCSI-relevant ESCO occupations and their distribution to the cultural-creative value chain

	Fully cultural		Partly cultural	
	core	additional	core	additional
Creation	77	28	1	11
Production / Publishing	117	38	22	3
Dissemination / Trade	15	24	6	0
Preservation	8	10	2	5
Education	36	2	4	0
Management / Regulation	37	3	6	0

Source: Creative FLIP

Legend: Under "core" we list the number of occupations that contribute only or predominantly to this function; under "additional" we list the number of occupations that also contribute this function, in addition to their core function.

Table 4 and Figure 1 characterise domains according to the contribution of their occupations to the different functions of the cultural-creative value chain.

*Table 4: Percentage of CCSI-relevant ESCO occupations contributing to different Functions per Domain*

		Functions (% of occupations per domain)					
		Creation	Production/ Publishing	Dissemination/ Trade	Preservation	Education	Management/ Regulation
Domains	Advertising	9	0	27	0	18	45
	Architecture	43	9	4	4	13	26
	Archives	0	11	11	39	6	33
	Arts crafts	27	52	6	9	2	3
	Audiovisual & Multimedia	24	44	10	0	4	18
	Books & Press	37	32	5	0	20	7
	Heritage	4	7	13	20	31	24
	Libraries	0	10	24	33	5	29
	Performing Arts	16	50	14	1	14	5
	Visual Arts	51	18	7	0	18	7
	"Events"	22	45	14	1	8	10

Source: Creative FLIP

Legend: The matrix shows per domain the percentage of fully and partly cultural ESCO occupations contributing to the cultural-creative value chain (expressed as functions).

Figure 1: Percentage of CCSI-relevant ESCO occupations contributing to different Functions per Domain
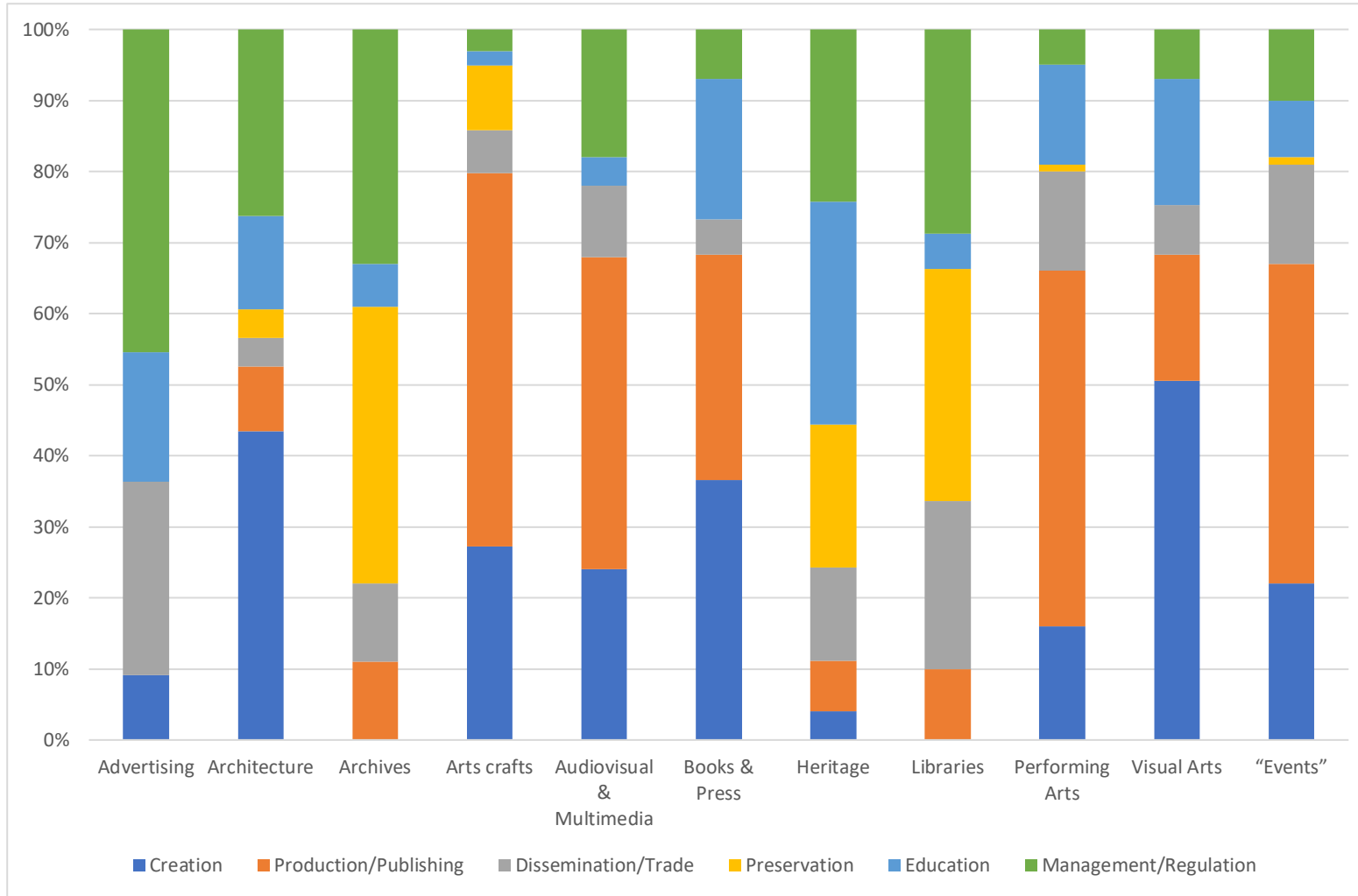
Source: Creative FLIP

Domains with the highest percentage of ESCO occupations focussing on Creation are Architecture, Books & Press, and Visual Arts:
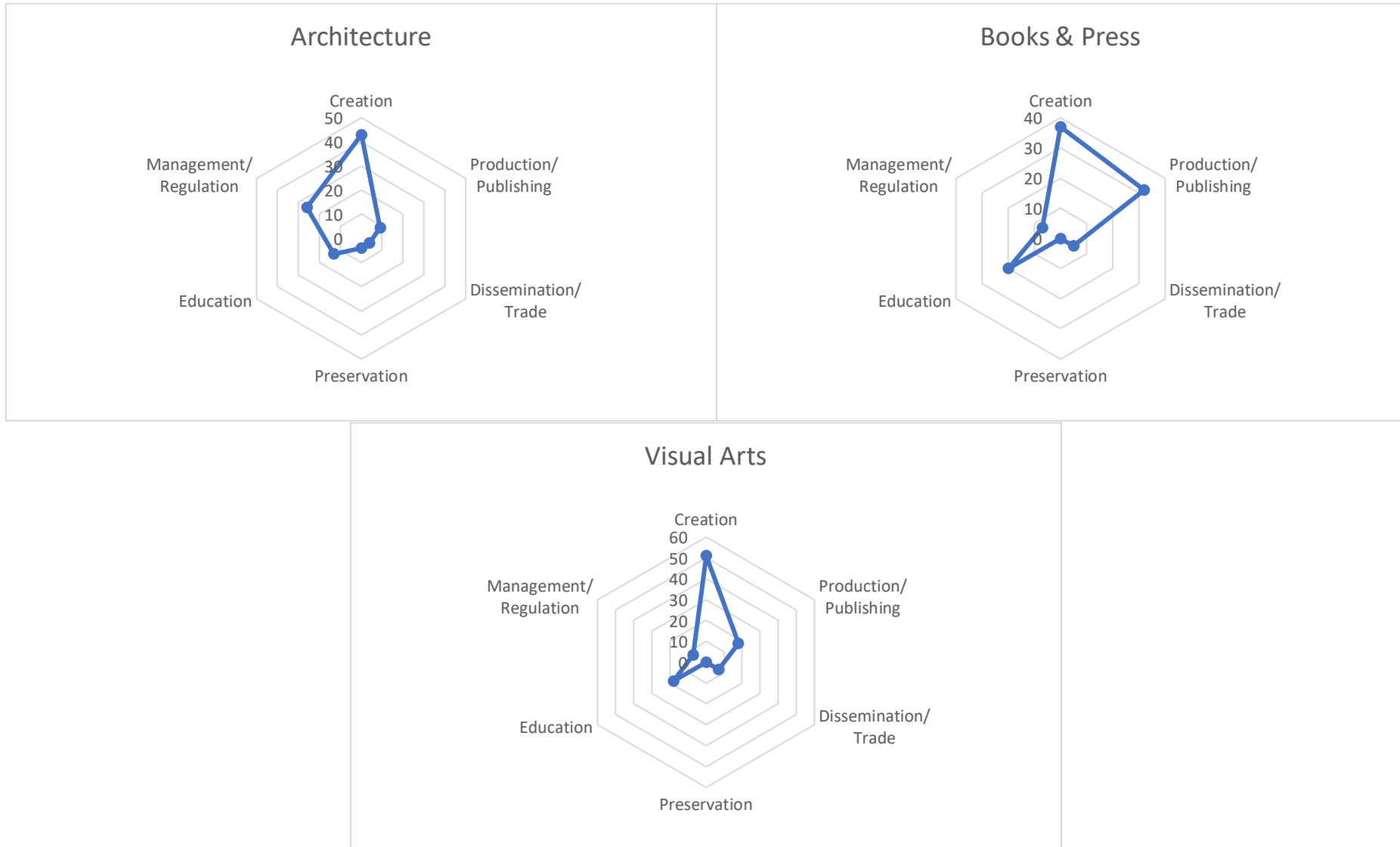
Architecture

Books & Press

Visual Arts

Source: Creative FLIP

Domains with the highest percentage of ESCO occupations focussing on Production are Performing Arts, Arts Crafts, Audiovisual & Multimedia, and "Events":
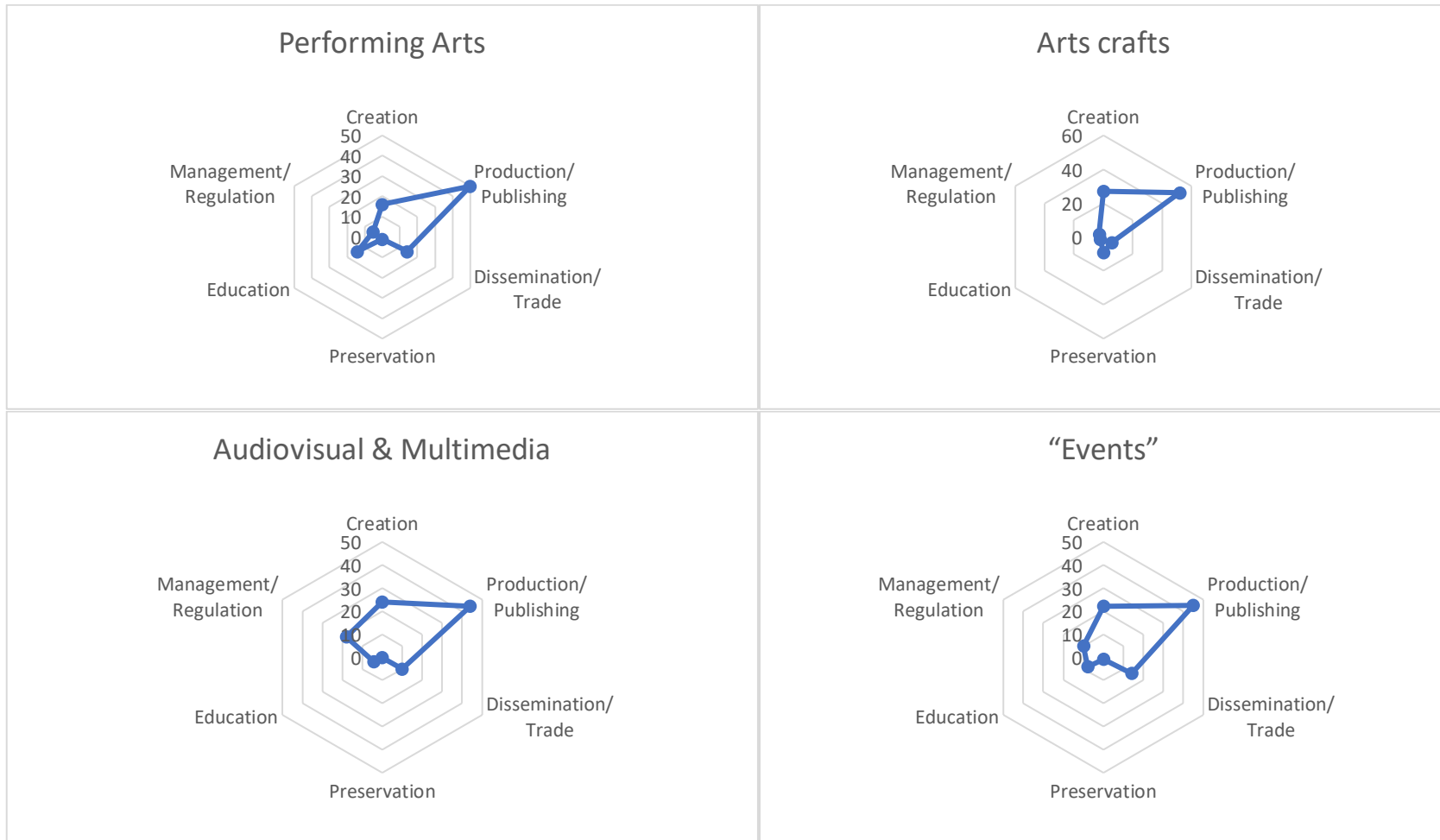
Domains with the highest percentage of ESCO occupations focussing on Preservation are Archives and Libraries:

Source: Creative FLIP

The domain with the highest percentage of ESCO occupations focussing on Education is Heritage:
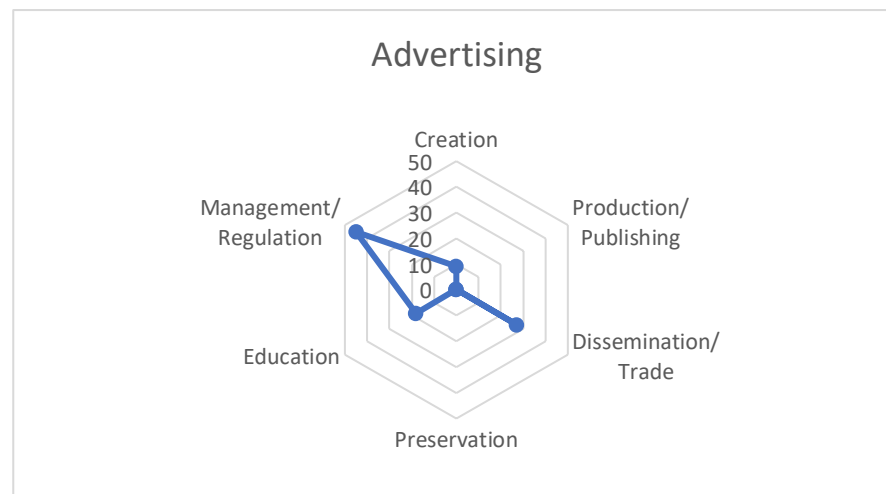

Source: Creative FLIP

The domain with the highest percentage of ESCO occupations focussing on Management / Regulation is Advertising:

Source: Creative FLIP

CCSI stakeholder's feedback to developed occupational clustering

Initially, we had expected substantial synergies with ongoing projects of related content – mainly the blue print projects CHARTER[9], Measuring CCS[10], and Cyanotypes[11], but also INCREAS[12] and ESSENCE[13]. Yet it turned out that none of these had identified cultural-creative ESCO occupations comprehensively for their domain(s) of interest. Therefore, we shared drafts of our occupational breakdown already at early stages of development – not only for feedback, but also as a resource for developments outside the scope of Creative FLIP.

Since we mostly activated stakeholders coming from Archives, Libraries, Heritage, and Events (overlapping largely with Performing Arts, Audiovisual & Multimedia, Fine Arts), the developed occupational breakdown of these domains received more feedback than e.g. "Advertising" or "Books & Press".

Feedback mostly related to:

- The distinction between cultural and non-cultural occupations;
- The definition of domain boundaries;
- The appropriateness of ISCO for clustering cultural-creative occupations.

In some cases stakeholders suggested to widen the scope of selected ESCO occupations: e.g. *architect* which according to ESCO's description and skills profile, should be allocated to the domain of Architecture only, yet according to consulted experts this profession is also highly relevant for Heritage, even if currently not sufficiently reflected by ESCO in the occupation's alternative lables[14], its description, or in its skills profile[15].

When discussing the occupational breakdown of individual domains, consulted stakeholders occasionally also highlighted inconsistencies and thus potential amendment needs for ESCO, e. g. the fact that ESCO contains a *library manager* and a *library assistant*, yet neither an *archive manager* nor an *archive assistant* received critical comments.

---

[9] https://charter-alliance.eu/
[10] https://www.measuring-ccs.eu/
[11] https://cyanotypes.website/
[12] https://www.burghauptmannschaft.at/en/Topics/International/FLIP-2---INCREAS.html
[13] https://essence.tonmeister.org/en/
14 If specialisations like e. g. "heritage architect", "preservation architect", or "expert for architectural revitalization" were added as alternative labels, this would widen the occupation's current scope in a way that also signals its relevance for cultural heritage.
15 According to ESCO it is optional for *architects* to have knowledge of *architectural conservation*, and *historic architecture*, thus at least hinting at heritage-relevant occupational activities like identifying, documenting, preserving and restoring historic buildings, or for negotiating a compromise between preserving the past and enabling contemporary use, or for adapting historical buildings to contemporary sustainability requirements.

CULTURAL-CREATIVE ESCO KNOWLEDGE, SKILLS AND COMPETENCES

Visibility and accessibility of cultural-creative ESCO KSCs

When the ESCO skills classification was published in May 2020, this considerably improved access to the skills pillar in general, yet not with respect to cultural-creative content, which still is not highlighted in any particular manner, but integrated into general (mostly non-cultural-creative) categories like e.g. "S1 – communication, collaboration and creativity".

ESCO knowledge concepts have been made systematically accessible via ISCED-F[16]. As has been observed already in the first phase of Creative FLIP, ISCED-F facilitates the identification of CCSI-relevant knowledge only to a certain extent: e. g. a category like "arts and humanities" points users to many relevant knowledge concepts such as "fine arts" or "music and performing arts", yet it doesn't point exclusively to cultural-creative content, since it also gives access to non-cultural concepts such as natural language processing or religious studies. Furthermore, cultural-creative knowledge concepts can also be found – albeit in smaller numbers – under several other ISCED-F classes, for example *professional transition in an arts career* under "education" or *architectural design* under "engineering, manufacturing and construction".

ESCO skills/competences have been systematically grouped along a proprietary classification distinguishing between skills/competences, attitudes and values, language skills and knowledge. The ESCO skills classification contains some categories grouping together mainly cultural-creative skills/competences (e.g. "S1.14.2 - performing artistic or cultural activities"), but it groups many more skills/competences of relevance to the CCSI in general categories alongside non-cultural ones.

Thus, what was already observed for the structural representation of ESCO's occupations pillar also applies to the structural representation of ESCO's knowledge, skills/competences: There is neither systematic access to cultural-creative KSCs as a whole, nor are cultural-creative KSCs highlighted in any way.

The identification and structuring of cultural-creative KSCs Creative FLIP developed intends to service ESCO users

- By providing comprehensive & direct access to relevant vocabulary in suggestive clusters, thus improving ESCO's usability;
- By enabling a highlighting of cultural-creative KSCs in ESCO occupations, thus enhancing their visibility;
- By offering clustered vocabulary for research, e.g. for online vacancy analysis, curriculum analysis, expert consultations.

as well as ESCO maintenance

- Because gaps and inconsistencies in the vocabulary become more apparent once KSCs of related content are clustered.

---

[16] Fields of Education and Training, as specified in the International Standard Classification of Education – see: https://uis.unesco.org/sites/default/files/documents/international-standard-classification-of-education-fields-of-education-and-training-2013-detailed-field-descriptions-2015-en.pdf

Identifying cultural-creative ESCO KSCs

We defined the scope of cultural-creative KSCs by applying ESSNet culture's definition of cultural-creative occupations (see Box 3) to KSCs: Cultural-creative KSCs are thus knowledge, skills/competences required

a) for artistic expression,
b) [or] for generating, developing, preserving, reflecting cultural meaning,
c) [or] for creating, producing or disseminating cultural goods and services, generally protected by copyright.

It was our goal to identify ESCO KSCs of central relevance to the CCSI and thus we focused on those that would also reveal themselves as relevant when used outside the sector. Following this approach, this meant excluding more general skills/competences, even though these frequently occur in occupational profiles of cultural-creative occupations like e. g. *keep personal administration, manage budgets*, *keep up with trends*, or *identify customer's needs.* Nevertheless, CCSI-specific contextualisations of these were included, e. g. *help document artistic work at all stages*, *develop artistic project budgets*, *keep up-to-date to design industry trends,* or *evaluate cultural venue visitor needs.*

For identifying relevant KSCs amongst the 13 896 concepts contained in ESCO V.1.1.1, we
- Scanned all KSCs currently allocated to ESCO occupations identified as fully or partly relevant for the CCSI (see chapter "cultural-creative ESCO occupations");
- Scanned all ISCED-F (used by ESCO for structuring knowledge) and Skill Groups (used by ESCO for structuring skills/competences) suspected of containing also concepts relevant for the CCSI, ranging from obvious ones like e. g. „arts and humanities" to categories of very diverse content like e.g. "engineering, manufacturing and construction".
- In addition, we also scanned the whole ESCO skills pillar for concepts containing action verbs or nouns typical for domains or certain functions of the cultural-creative value chain, e.g. *compos*, *design*, *event*, *art*, *restore*, *event*, *perform*.

Annex IV lists all 268 knowledge and 1.257 skills/competence concepts Creative FLIP identified as CCSI-relevant.

Clustering identified cultural-creative ESCO KSCs

For clustering identified cultural-creative ESCO KSCs, we applied the approach piloted already for cultural-creative occupations, allocating these as unambiguously as possible
- to the 10 domains of the Eurostat framework for cultural statistics (Advertising; Architecture; Archives; Arts Crafts; Audiovisual & Multimedia; Books & Press; Heritage; Libraries; Performing Arts; Visual Arts)
- and in the case of skills/competences also to the functions of the value chain (according to Eurostat)[17]

---

[17] Knowledge provides the foundation skills/competence rest upon. Since the range of skills potentially putting into use this knowledge cannot be restricted, an allocation of cultural-creative ESCO knowledge to specific functions was not attempted.

The clustering was done on the basis of an assessment of the (unfortunately sometimes misleading) - information contained in the KSCs' preferred labels, their descriptions, and their allocation to the ESCO skills and knowledge hierarchy. For details on encountered challenges see next chapter.

A unique allocation to domains and functions was even more difficult than for occupations. Especially KSCs of a more general nature, e. g.

- apply systemic design thinking
- copyright and licenses related to digital content
- cultural projects
- design thinking
- develop cultural policies
- draft press releases
- establish communication with foreign cultures
- give interviews to media
- give live presentation
- intellectual property law
- liaise with cultural partners
- organise press conferences
- respect data protection principles

were assessed as relevant across all domains and also the cross-cutting sphere of "Events".

Whilst some skills/competences very clearly signalled their contribution to the value chain, e.g. *compose music* (Creation), *advertise an art collection* (Dissemination), or *develop artistic coaching programme* (Education), this was far less obvious for cases like e.g. *assess your competencies in leading community arts*, or *analyse cultural trends.*

Identified usage challenges

When identifying and clustering cultural-creative ESCO KSCs we encountered a couple of usage challenges that should be addressed by ESCO maintenance:

Sometimes ESCO KSCs have **misleading preferred terms** and/or **descriptions suggesting a different meaning than the preferred term**, e.g.
- The choice of action verb at times either provides misleading information or it is too unspecific to aid a KSC's allocation to a function of the value chain, as in e.g. *design scale models, create master models, create craft prototypes, create musical instrument parts, create artificial light* - all of which actually contributing to "production" rather than "creation" as their definition suggests; whereas *produce textile designs* is actually about sketching textile designs (and thus about "creation"); *create collection conservation plans* is actually about planning collection conservation (and thus "preservation"); the unspecific "use" in *use digital instruments* obscures that the KSC is actually about composing or arranging music with the help of computers or synthesizers (and thus "creation"); *watch scenes* is actually about quality assuring shots; *watch video and motion picture production products* is about evaluating these products; *participate in fashion shows* is about presenting fashion by walking down the runway; *think creatively about jewellery* which is actually not about thinking but about designing jewellery; *communicate performance aspects* is about conducting musical

ensembles; *comprehend the material to be translated* is analysing a text before translation; *submit preliminary artwork* is actually about presenting and discussing preliminary art work;

- Sometimes the preferred term suggests a more general meaning than the description, as in e.g. *drying methods* which the description restricts to <u>paper</u> drying methods; *interpret artistic intentions* is restricted to interpreting artistic intentions <u>of authors</u>; *manage relationships with artists* is restricted to managing relationships with <u>visual</u> artists; *play the piano* is restricted to piano playing <u>by music repetiteurs</u>.
- Sometimes the description suggests a wider meaning than its preferred term, as in e.g. *create wigs* which is about designing <u>and maintaining</u> wigs and hairpieces; *define set painting methods* is actually about defining painting methods and materials <u>in general</u>.
- Sometimes the preferred term expresses a goal rather than the skill/competence needed to reach it, as in e.g. *understand artistic concepts, ensure longevity of choreography, strive for excellence in musical performance.*

At other times the **description doesn't deliver any added value** but just replicates the wording of the preferred term, as in *plan audiovisual recording* – description: Plan audio-visual recordings.

Occasionally **one preferred term and/or a description expresses more than one KSCs**, as in e.g.
- *promote sustainable interior design* - description: develop an environmental friendly interior design and promote the use of cost-effective and renewable materials.
- *maintain theatre sets* - description: Install, check, maintain and repair stages and sets.
- *maintain artist flying system* - description: Install, operate, maintain and repair artist flying systems for onstage purposes.

ESCO's sometimes **arbitrary decision between knowledge and skill/competence** also complicates interpretation, as in e.g. the following case: *consider building constraints in architectural designs* has the format of a skill/competence (a verbal phrase) but according to its description is actually a knowledge concept, and thus should be rephrased as "building constraints in architectural design"; the same applies to *respect publication formats, use methodologies for user-centered design,* or *use artistic materials for drawing.*

We discovered also **KSCs expressing (almost) the same content**, e.g. the following pair:

Stimulate creative processes
(description: Encourage and foster creative processes from setting up brainstorming sessions, incubating ideas, up to contrasting them with other ideas and undergoing feasibility tests of the prospects.)

Stimulate creativity in the team
(description: Use techniques like brainstorming to stimulate creativity in the team.)

Examples like e.g. *attend performances, attend read-through, attend reheaseals,* describe scenes, *discuss plays, select scripts, select subject matter, maintain dance training, practice dance moves, propose improvements to artistic production, attend dress fittings* are typical **work activities**. This type of information **is better mentioned in the occupation's description** than being disguised as a skill/competence; alternatively these activities could be rephrased to clearly reveal the skill/competence involved, e.g. *attend castings* rephrase as "promote yourself in castings", or *confer with library colleagues* as "negotiate collection management and library services with colleagues".

Examples like e.g. *demonstrate specialisation in a dance tradition*, *specialise in a musical genre, specialise in an area of history, specialise in conservation-restoration of specific types of objects* in our assessment are no skills/competences either but results of **working experience**, whereas *demonstrate musicianship* seems to relate to a   **talent**, a marked natural ability that is just one of several cornerstones for developing skills/competences.

ESCO's skills pillar contains several **sector-specific contextualisations of transversal skills/competences** reveiling the specificities needed when e.g. *managing time* or when *working independently* as a cultural-creative professional. For an illustration see the examples provided in table 5.

Table 5: Examples for transversal skills/competences and their CCSI-specific contextualisations:

Transversal skills/competence	Sector-specific contextualisation
*demonstrate intercultural competence (*description: Understand and respect people who are perceived to have different cultural affinities, and respond effectively and respectfully to them.)	*respect cultural differences in the field of exhibition* (description: Respect cultural differences when creating artistic concepts and exhibitions. Collaborate with international artists, curators, museums and sponsors.)
manage time (description: Plan the time sequence of events, programmes and activities, as well as the work of others.)	*set up props in a timely manner* (description: Make sure props are set up on the stage or set according to the time schedule.)
show empathy (description: Show empathy in order to prevent any kind of symbolic violence and isolation and to guarantee a considerate attention to everyone. It should include a capacity to understand various verbal and non-verbal communication of sentiment and feeling.)	*be empathic to production team* (description: Be sympathetic to the actor, director and production team and to their time and personality constraints.)
work independently (description: Develop one's own ways of doing things, motivating oneself with little or no supervision, and depending on oneself to get things done.)	*work independently as an artist* (description: Develop one's own ways of doing artistic performances, motivating oneself with little or no supervision, and depending on oneself to get things done.)
Work in teams (description: Work confidently within a group with each doing their part in the service of the whole.)	*work with authors* (description: Consult with the author of the text to be translated in order to capture and preserve the intended meaning and style of the original text.)

Source: Creative FLIP

But since transversal KSCs are not considered systematically in ESCO's occupational skills profiles (see first phase of Creative FLIP, Final report of Work Package 2 , ch. 2.3.3)[18] these contextualised transversal skills/competences have not been developed consistently across all occupations and domains.

---

[18] Available under http://creativeflip.creativehubs.net/publications/ESCOs%20suitability%20for%20sector-specific%20data%20collection%20-%20CCS%20in%20European%20forecasting%20tools.pdf

Insights to be gained from clustering cultural-creative ESCO KSCs

Table 6 provides an overview of how we clustered identified cultural-creative ESCO skills[19] along domains and functions (for details go to Annex IV). With respect to the number of allocated cultural-creative skills, Performing Arts is the largest domain, followed by Audiovisual & Multimedia, and Visual Arts, but topped by the cross-cutting sphere of "Events", a cluster largely overlapping with Performing Arts and Audiovisual & Multimedia. The smallest domains (with respect to allocated cultural-creative ESCO skills) are Archives, followed by Libraries and Advertising.

ESCO's KSCs pillar seems to be the most highly differentiated when it comes to cultural-creative skills referring to Production (1.312 skills), followed by ones referring to Creation (517 skills), and Management/Regulation (377 skills). The function with the smallest amount of identified cultural-creative ESCO skills is Preservation (123 skills, mostly relevant for Heritage or Performing Arts)

Table 7 and Figure 2 characterise domains according to the contribution of their allocated cultural-creative skills to the different functions of the cultural-creative value chain.

---

[19] Only cultural-creative ESCO skills (but not knowledge) were allocated to specific functions – see also footnote 16.

Table 6: Number of CCSI-relevant ESCO skills contributing to different Functions per Domain

	Functions (number of KSCs per domain)						
Domains		Creation	Production/ Publishing	Dissemination/ Trade	Preservation	Education	Management/ Regulation	Total
	Advertising	19	17	24	0	3	14	77
	Architecture	59	36	20	3	11	23	152
	Archives	2	17	13	7	2	6	47
	Arts crafts	61	129	32	7	11	28	268
	Audiovisual & Multimedia	83	265	32	12	12	58	462
	Books & Press	46	78	34	0	14	35	207
	Heritage	3	34	38	34	12	12	133
	Libraries	2	29	12	7	4	10	64
	Performing Arts	91	317	36	26	32	67	569
	Visual Arts	84	117	53	8	20	43	325
	"Events"	67	273	37	19	19	81	496
	Total	517	1312	331	123	140	377	

Source: Creative FLIP

*Table 7: Percentage of CCSI-relevant ESCO KSCs contributing to different Functions per Domain*

	Functions (% of KSCs per domain)					
Domains		Creation	Production/ Publishing	Dissemination/ Trade	Preservation	Education	Management/ Regulation
	Advertising	25	22	31	0	4	18
	Architecture	39	24	13	2	7	15
	Archives	4	36	28	15	4	13
	Arts crafts	23	48	12	3	4	10
	Audiovisual & Multimedia	18	57	7	3	3	13
	Books & Press	22	38	16	0	7	17
	Heritage	2	26	29	26	9	9
	Libraries	3	45	19	11	6	16
	Performing Arts	16	56	6	5	6	12
	Visual Arts	26	36	16	2	6	13
	"Events"	14	55	7	4	4	16

Source: Creative FLIP

Figure 2: Percentage of CCSI-relevant ESCO KSCs contributing to different Functions per Domain
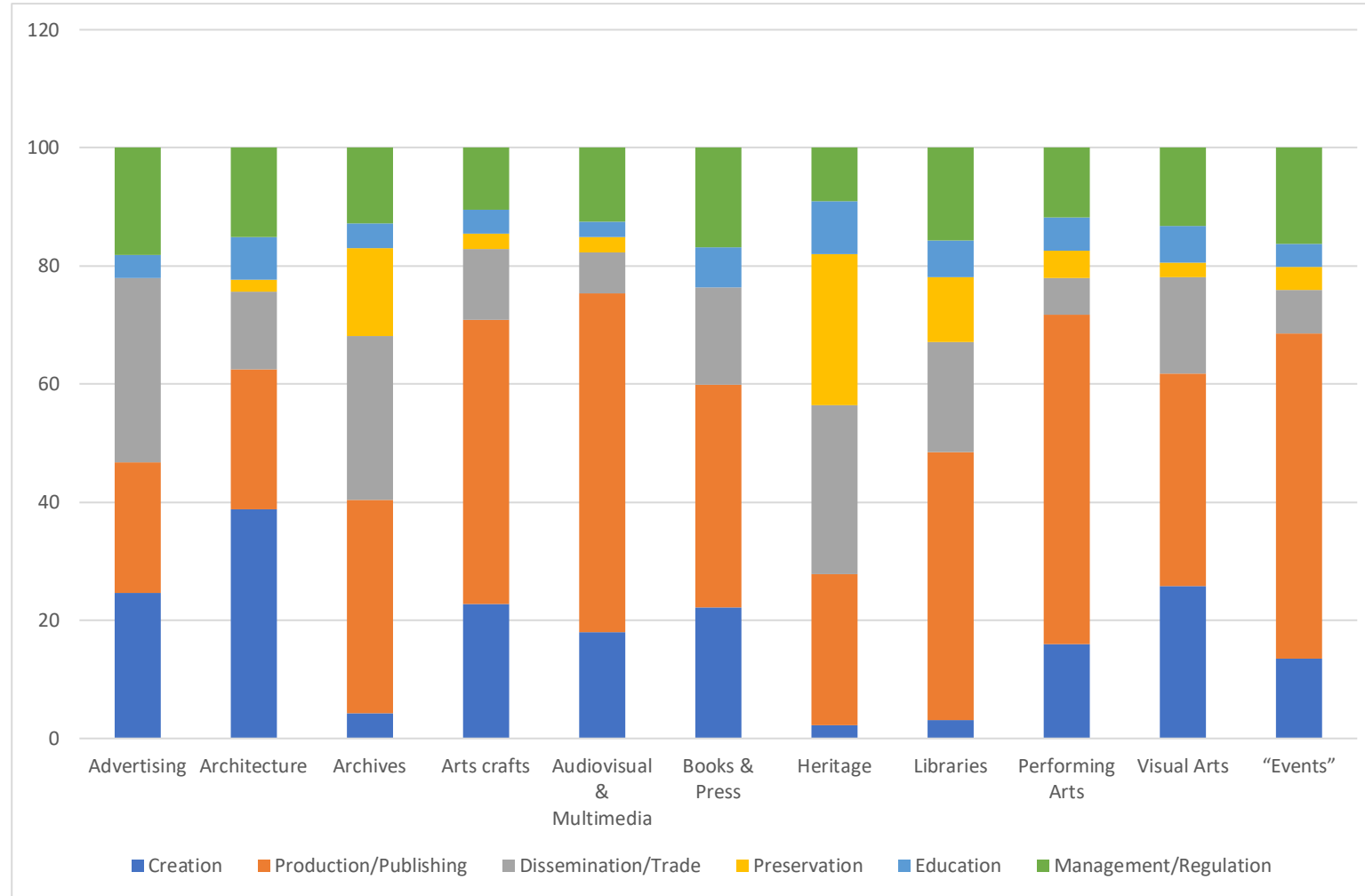
Source: Creative FLIP

Architecture is a domain where the highest percentage of identified cultural-creative ESCO KSCs focus on Creation:

Source: Creative FLIP

Heritage is a domain where the majority of identified cultural-creative ESCO KSCs focus on Dissemination, Preservation, or Production:
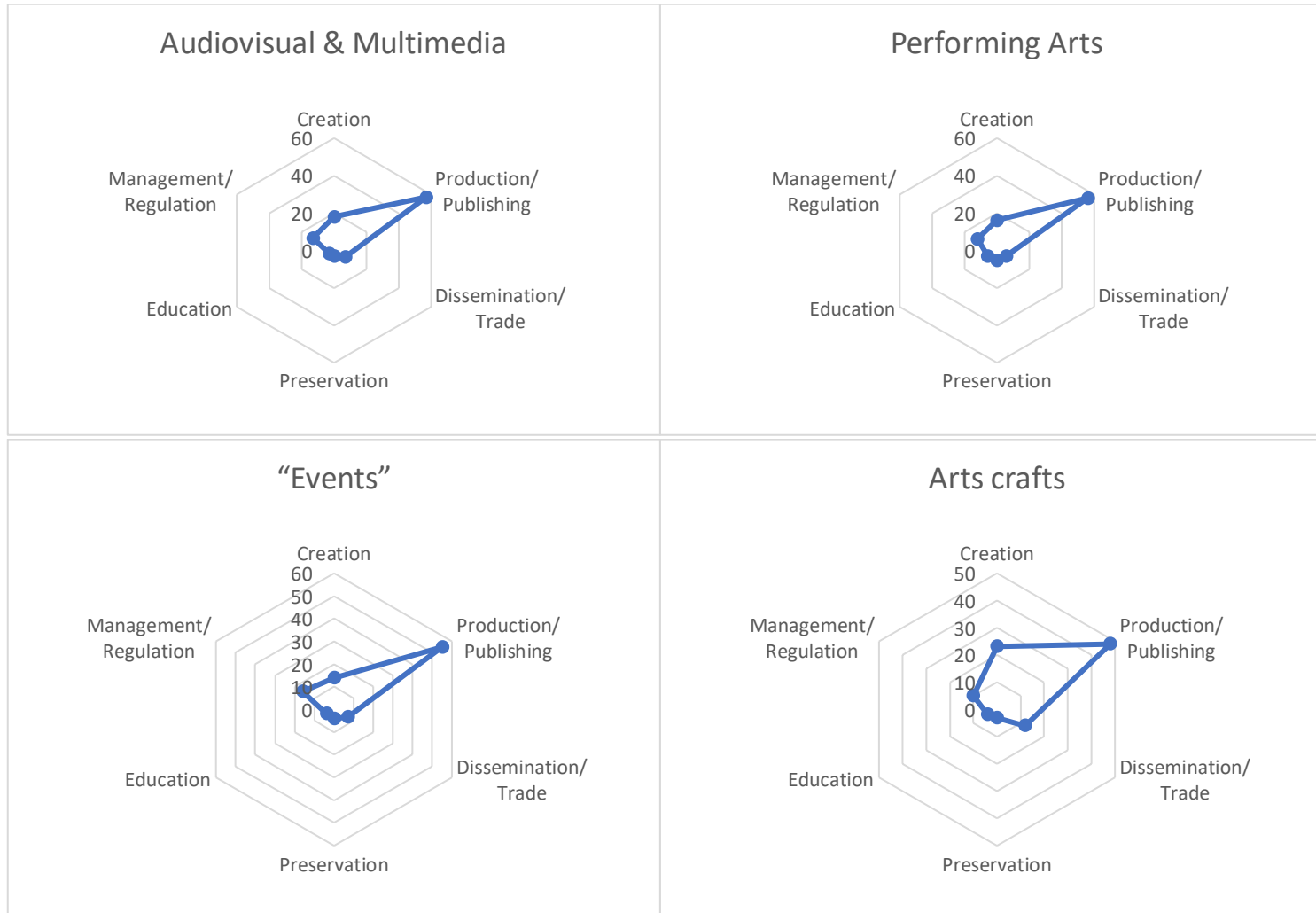

Source: Creative FLIP

Whereas the majority of cultural-creative ESCO KSCs identified for the domain of Advertisement focus on Dissemination, Creation, or Production:
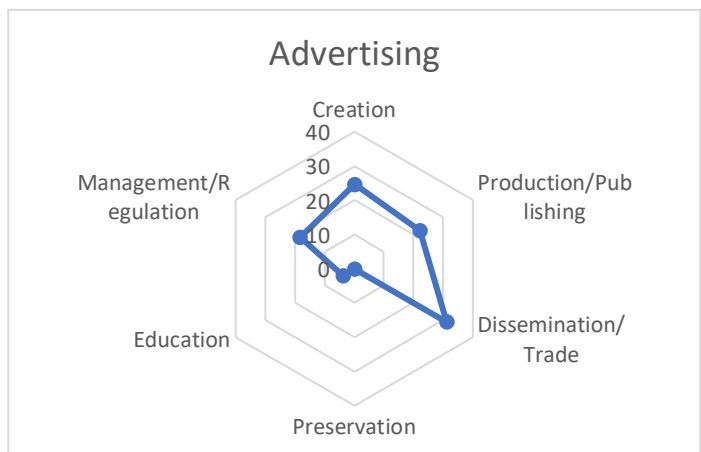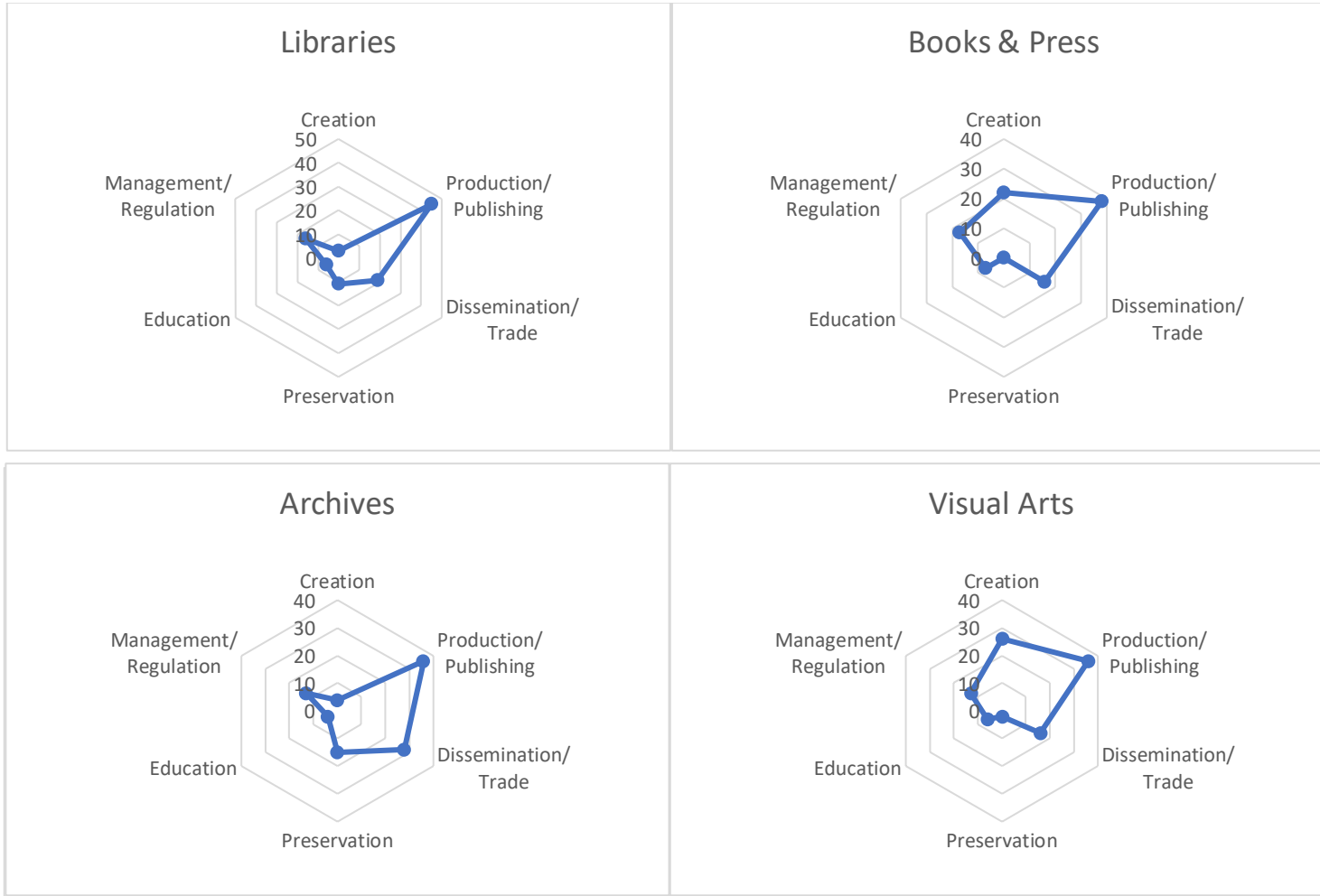

Source: Creative FLIP

Audiovisual & Multimedia, Performing Arts, "Events", Arts crafts, Libraries, Books & Press, Archives, and Visual Arts are characterised by a high percentage of cultural-creative ESCO KSCs focussing on Production:

Source: Creative FLIP

GUIDING CCSI STAKEHOLDERS IN USING AND REVIEWING ESCO

ESCO invites its users to give feedback on the usability of its services and to contribute to the further development of the taxonomy. The feedback is most valuable if it comes from stakeholders who are not only well-versed in current occupational practices and aware of trends and developments, but also competent ESCO users. But if e.g. the distinction between an occupation and a job is unclear, you will not be able to review the level of detail at which ESCO specifies your area of expertise. If you e. g. have problems to navigate through ESCO's KSCs and occupations hierarchies, or if you lack practice in searching ESCO's portal, you might by mistake assume that content not found is missing. On the other hand, some features of ESCO impede the user experience, e.g. the high level of detail at which KSCs are specified in combination with their barely structured presentation in occupational profiles make it difficult to gain an overview of what is required in an occupations, or where there are mobility paths to potentially related professions (an observation already made in the final report to the first phase of Creative FLIP).

Well aware of these problem areas, we introduced or accompanied every stakeholder consultation with guidance on using and interpreting ESCO. Furthermore, before asking stakeholders to review ESCO's occupational skills profiles, we improved their presentation by making structural information that was already available as metadata visible, complementing the outcome with a highlighting of KSCs assessed as cultural-creative.

Annex III (structured and enriched profiles of sample occupations used in the stakeholder evaluation) and Annex VI (guidelines for using ESCO for describing cultural-creative skills profiles) are the results of these efforts.

Guidance for CCSI stakeholders using ESCO

The ESCO taxonomy is a useful resource for composing occupational skills profiles. But not all of its features are easy to use (e. g. four distinct hierarchies for systematically accessing KSCs), not all are suitable for the CCSI (e.g. ISCO as systematic access to cultural-creative occupations). The Creative FLIP project developed a couple of methods and tools to improve the applicability of ESCO for the CCSI. The guidelines made available as Annex VI suggest how to use these.

ESCO currently includes 3 008 occupations and 13 890 knowledge and skills/competences , nevertheless, when wanting to use these for specific purposes, CCSI stakeholders might not find exactly what they are looking for. The guideline document provides them - 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 to:

- Searching for occupations and KSCs (general as well as cultural-creative ones)
- Interpreting occupational profiles

and suggest a possible workflow for:

- Adapting and composing occupational profiles
- Drafting new KSCs and occupations
- Adding a sectoral layer to ESCO.

Method used for facilitating CCSI stakeholders' feedback to ESCO

Whilst the document provided as Annex VI is meant to guide CCSI stakeholders' self-study, the workshop design described below is meant to serve as an inspiration for facilitating sector-specific expertise for the further development of ESCO.

Workshop design for reviewing the occupational breakdown of the CCSI

Stakeholders with expertise in Heritage, Archives, Libraries, and „Events" were invited to review a draft identification and clustering of the ESCO occupations identified as relevant for these domains. They were provided with a structured overview that showed per domain

- Which ESCO occupations were identified as fully or partly relevant for the CCSI
- An assessment of each occupation's main contribution to the cultural-creative value chain.

Basic concepts relevant in this context, e.g. the difference between a "job" and an "occupation", Eurostat's definition of cultural-creative domains and functions, as well as the linkage between ISCO and ESCO, were explained to workshop participants before they were tasked to assess the domain breakdowns along the following criteria:

- Is the occupational breakdown of the domain complete, or are any occupations missing?
- Is the breakdown detailed enough?
- Can relevant occupations be clearly distinguished from irrelevant ones?
- Can all occupations be mapped onto functions?
- Which occupations need to mapped onto more than one domain or function?
- Is there anything else needed for using this structure in daily work?

Workshop design for reviewing the KSCs profiles of ESCO's cultural-creative occupations

A small number of cultural-creative occupations as well as some borderline cases were selected to be compared by CCSI stakeholders:
- *Art restorer* to be compared with *conservator*
- *Arts education* officer to be compared to t*ourist guide*
- *Fashion designer* to be compared to p*ersonal stylist*
- *Sound designer* to be compared to s*ound operator*

The choice was informed by the interests and objectives of consulted stakeholders coming from Audiovisual & Multimedia, Heritage, and Visual Arts mostly, as well as our wish to explore:

- the delimitation between fully, partly and not cultural-creative occupations: does the profile clearly signal the cultural-creative significance of the occupation?
- the transparency of an occupation's contribution to functions of the cultural-creative value chain: Are KSCs relating to the occupation's core contribution to the cultural-creative value chain allocated?
- the distinction between occupations of very similar skills specialisation, yet different skill level: are mobility paths between related occupations (e.g. similar skills specialisation, but different contribution to the value chain) sufficiently represented?
- The level of expected mastering of a competence within the context of an occupation.

In order to facilitate the identification and comparison of relevant profile information, we heavily edited and enhanced the information presented in ESCO's occupational profiles:

1. We made structural metadata information available for ESCO KSCs also visible in occupational profiles:
- Knowledge clustered under ISCED F;
- Skills/competences clustered under Skill Groups;
- Semantic relations between KSCs (broader terms / narrower terms revealing contextualisation of generic concepts);
- Reusability level of KSCs (transversal, cross-sectoral, sector-, or occupations-specific).

2. We revealed conceptual overlap between KSCs via terminological analysis, e.g.
- Similar content expressed by different labels (duplicates), e. g. *cope with challenging demands = approach challenges positively;*
- Transversal KSCs embedded in sector- or even occupation-specific ones, e.g. *demonstrate intercultural competences in hospitality services* is a contextualisation of *demonstrate intercultural competence.*

3. We highlight identified cultural-creative KSCs.

Structured and enriched profiles of the sample occupations are documented in Annex III.

CCSI-Stakeholders were split into two working groups, each group being tasked with the analysis and comparison of four occupations:

Working Group 1 – Heritage:

- Art restorer (75% shared KSCs) – conservator (45% shared KSCs)
- Arts education officer – tourist guide (no overlap in ESCO KSCs)

Working Group 2 – Audiovisual & Design:

- Sound designer (73% shared KSCs) – sound operator (76% shared KSCs)
- Fashion designer / personal stylist (no overlap in ESCO KSCs)

The research questions summarized in Box 5 - compiled and piloted already in the previous phase of Creative FLIP – were the basis for coaching CCSI stakeholder in systematically investigating the quality of ESCO's occupational profiles.

Box 5: Guiding questions for reviewing ESCO's occupational profiles

Completeness
- Do ESCO's occupational profiles give a complete picture of KSCs requirements?

Transparency
- Are KSCs shared across occupations or even domains sufficiently transparent?
- Is it possible to easily distinguish closely related occupations, based on their occupational profiles?

Level of detail
- Are occupational profiles sufficiently detailed to draw a descriptive picture of skills requirements?

Structure
- Does ESCO's structure facilitate a focus on cultural-creative KSCs?
- Are occupational profiles clustered in a way that allows for a differentiation between technical-professional (cultural-creative and other) and transversal KSCs?

Consistency
- Have KSCs been considered consistently across occupations?

For the workshop, these guiding questions were operationalised as follows:

Review KSCs shared between the two occupations
- Do shared KSCs represent real-life mobility paths?
- Or would you rather amend some of the overlap?
- Are transversal KSCs (e.g. those relating to self-management, social, communication, thinking KSCs) comprehensively considered and transparently expressed?

Review KSCs not shared between the two occupations
- Do these represent justified distinctions?
- Or would you rather minimize the difference with respect to some KSCs?
- Do you find KSCs that are similar in content, yet expressed differently (hidden overlap)?

Review the level of detail at which KSCs are expressed
- Is the level of detail appropriate in all cases?

Which KSCs express the OSP's specific contribution to the CCSI value chain?
- Which verbal clues signal the value chain contribution?
- Are these clues sufficiently clear?

Which KSCs pay tribute to the specific working conditions, cross-sectoral demands in the CCSI?
- Look out for KSCs needed when freelancing, working in projects, in changing teams, across disciplines etc.

ANNEXES

ANNEX I: Breakdown of Eurostat's 10 cultural-creative domains into ESCO occupations

Excel table listing all 3 007 occupations of ESCO v 1.1.1, and their subordination to ISCO unit groups, supplemented by

- ESSnet rating of ISCO unit group's relevance to the CCSI in column P "ISCO rating";
- Creative FLIP's rating of CCSI-relevance of ESCO occupation in column Q "ESCO occupation rating";
- Creative FLIP's allocation to Eurostat's cultural domains in column A "Advertising" to column J "Visual Arts";
- Creative FLIP's allocation of fully and partly cultural ESCO occupations to functions of the cultural-creative value chain in column T "Creation" to column Y "Management/Regulation".

To demonstrate the overlap between established cultural domains and the cross-cutting domain of "Events" we also include

- Creative FLIP's allocation to "Events" in column K; Note: for "Events" we list all ESCO occupations of relevance, no matter whether fully, partly, or not cultural.

Excel file available under the following link: https://creativeflip.creativehubs.net/wp-content/uploads/2023/11/Annex-I_Occupational-breakdown-of-the-CCSI.xlsx

ANNEX II: Breakdown of „Events" into ESCO occupations

Annex II lists all 151 occupations of ESCO v 1.1.1 considered when drafting an Events-specific breakdown and clusteres these in the "sector logic".

Excel file available under the following link: https://creativeflip.creativehubs.net/wp-content/uploads/2023/11/Annex II_Occupational-breakdown-of-Events.xlsx

ANNEX III: Structured and Enriched profiles of sample occupations used in the stakeholder evaluation

Overviews contrasting the following ESCO occupations:

- Art restorer – conservator
- Arts education officer – tourist guide
- Sound designer – sound operator
- Fashion designer – personal stylist

Existing ESCO metadata information was used for producing these structured overviews of occupational skills profiles, and supplemented by a highlighting of cultural-creative ESCO KSCs. These profiles demonstrate how the presentation of ESCO's occupational profiles could be improved to trigger structured stakeholder feedback, but also to make mobility paths between occupations more visible, to facilitate the identification of change needs, etc.

PDF available under the following link: https://creativeflip.creativehubs.net/wp-content/uploads/2023/11/Annex-III_Sample_occupations.pdf

ANNEX IV: Identification of CCSI-relevant ESCO knowledge, skills/competences

Out of a total of 13.896 Knowledge and Skills/Competence (KSCs) concepts of ESCO v 1.1.1, Creative FLIP identified 1.525 KSCs of core relevance to the CCSI.

Annex IV lists these 268 knowledge and 1.257 skills/competence concepts and supplements these with
- Creative FLIP's allocation to Eurostat's cultural domains - see in column A "Advertising" to column J "Visual Arts";
- Creative FLIP's allocation to Eurostat's functions of the cultural-creative value chain - see in column S "Creation" to column X "Management/Regulation"; Note: since knowledge usually can be applied across the cultural-creative value chain, knowledge concepts were not assigned to any specific function.

To demonstrate the overlap between Eurostat's cultural domains and the cross-cutting sphere of "Events", we also include:
- Creative FLIP's allocation of ESCO KSCs to "Events" in column K

All Information listed in column L "ESCO_KSC Type" to R "ESCO_KSC Description" was exported from ESCO. In column M "ESCO_KSC Hierarchy_level 1" to column O "ESCO_KSC Hierarchy_level 3" you find every skill/competence's allocation to ESCO's genuine skills hierarchy and every knowledge concept's allocation to ISCED F. These two classifications provide systematic access to the whole of ESCO's skills pillar without distinguishing between cultural and non-cultural content.

Excel file available under the following link: https://creativeflip.creativehubs.net/wp-content/uploads/2023/11/Annex IV_CCSI-relevant ESCO KSCs.xlsx

ANNEX V: Policy recommendations for the suitability, visibility, and accessibility of CCSI-relevant employment information in European statistics and in ESCO

PDF available under the following link: https://creativeflip.creativehubs.net/wp-content/uploads/2023/11/Annex-V_Policy-recommendations-1.pdf

ANNEX VI: How to use ESCO for describing cultural-creative skills profiles

PDF available under the following link: https://creativeflip.creativehubs.net/wp-content/uploads/2023/11/Annex-VI-How-to-use-ESCO-for-describing-cultural-creative-skills-profiles.pdf

REFERENCES

ESSNet-Culture, 2012, European statistical system network on culture, available at:
http://ec.europa.eu/culture/library/reports/ess-net-report_en.pdf

European Commission, European Skills, Competences, Occupations and Qualifications (ESCO), available at:
https://ec.europa.eu/esco/portal/home (Export of data base v1.1 used for analysis)

Eurostat, 2018, Guide to Eurostat culture statistics, available at:
https://ec.europa.eu/eurostat/documents/3859598/9433072/KS-GQ-18-011-EN-N.pdf/72981708-edb7-4007-a298-8b5d9d5a61b5?t=1544174403000

International Labour Organization, 2008, International Standard Classification of Occupations (ISCO-08), available at: https://www.ilo.org/public/english/bureau/stat/isco/

UNESCO, 2009, Framework for Cultural Statistics, available at: https://uis.unesco.org/en/files/unesco-framework-cultural-statistics-2009-en-pdf

UNESCO, 2011, International Standard Classification of Education (ISCED), available at:
https://uis.unesco.org/sites/default/files/documents/international-standard-classification-of-education-isced-2011-en.pdf

UNESCO, 2013, ISCED Fields of education and Training (ISCED F), available at:
https://uis.unesco.org/sites/default/files/documents/international-standard-classification-of-education-fields-of-education-and-training-2013-detailed-field-descriptions-2015-en.pdf