



Finance, Learning, Innovation and Patenting for CCIIs



LEARNING

Skills needs and gaps in the CCSI

Authors: Pierre Hausemer, Clementine Richer, Magdalena Klebba
and Sylvia Amann



Co-funded by the
European Union



*The contents of this publication are
the sole responsibility of VVA
Economics and Policy and can in no
way be taken to reflect the views of
the European Union.*



General Info about Creative FLIP

Creative FLIP - Finance, Learning, Innovation and Patenting is a Pilot project co-funded by the EU whose main objective is to support healthy and sustainable ecosystems for Cultural and Creative Industries (CCIs) with respect to these four key policy areas.

For more info, see: www.creativeflip.eu



Abstract

This report verifies the practical usage of soft, technical entrepreneurial and managerial skills into nine professions in three CCSI across nine countries, with the purpose of understanding the current and future skills needs and gaps in occupations selected.

The findings of the analysis are used to develop recommendations for policymakers to overcome the skills mismatch and untap the full potential of the CCSI.

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

AUTHOR(S)

VVA: Pierre Hausemer, Clementine Richer, Magdalena Klebba

Inforelais: Sylvia Amann (Expert support on lessons learnt and policy recommendations parts of the report)

LINGUISTIC VERSIONS

Original: EN

ABOUT THE AUTHOR

To contact VVA please write to: p.hausemer@vva.it

©VVA, Goethe-Institut on behalf of Creative FLIP Project, 2021

Please use the following reference to cite this report:

VVA. 2021, Creative FLIP Final Report, Work Package 2 on Learning, Brussels

Please use the following reference for in-text citations:

VVA et al. (2021)

DISCLAIMER

The opinions expressed in this document are the sole responsibility of the author and do not necessarily represent the official position of the European Commission.

Reproduction and translation for non-commercial purposes are authorised, provided the source is acknowledged and the publisher is given prior notice and sent a copy.

CONTENTS

LIST OF ABBREVIATIONS	2
LIST OF FIGURES	3
LIST OF TABLES	3
EXECUTIVE SUMMARY	4
1. INTRODUCTION	8
1.1. Objectives of the study	8
1.2. Overview of the methodology	8
1.3. Structure of the report	9
2. DEFINING AND MEASURING THE CCSI AND THEIR SKILLS NEEDS	10
2.1. Defining the Cultural and Creative Sectors and Industries	10
2.1.1. Economic outlook in the CCSI	11
2.1.2. Employment in the CCSI	13
2.2. Defining skills and learning in the CCSI: a typology	16
2.2.1. Types of learning	16
2.2.2. Skills needs in the CCSI	18
3. OVERVIEW OF EU AND NATIONAL (SKILLS) POLICY TO SUPPORT THE CCSI	20
3.1. EU policy to support the CCSI	20
3.2. EU-level skills policy	21
3.3. National policy frameworks in the Member States	24
4. CAREER PATHS, SKILLS NEEDS AND SKILLS MISMATCHES IN A SELECTION OF SECTORS AND OCCUPATIONS: EVIDENCE FROM THE FIELD RESEARCH	30
4.1. Career paths and skills needs	30
4.1.1. Design and creative services	30
4.1.2. Visual arts and crafts	36
4.1.3. Live performance and events sectors	42
4.2. Overview of skills mismatches	51
4.2.1. Design and creative services	51
4.2.2. Visual arts and crafts	53
4.2.3. Live performance and events	56
5. RESPONDING TO SKILLS MISMATCHES IN THE CCSI: BRINGING TOGETHER EVIDENCE FROM LITERATURE AND FIELD WORK	59
5.1. Increasing disconnect between skills supply and needs in the CCSI	59
5.2. Preliminary lessons learnt to reduce skills mismatches in the CCSI	60
6. POLICY RECOMMENDATIONS FOR SUSTAINABLE CCSI SKILLS STRATEGIES	63

LIST OF ABBREVIATIONS

BA	Bachelor's of Arts
CAD	Computer-aided Design
CCSI	Cultural and Creative Industries
CCS	Cultural and creative sectors
C-VET	Continuing Vocational Education and Training
ECOSOC	Economic and Social Committee
EP	European Parliament
ESCO	Skills, Competences, Qualifications and Occupations (European classification)
FCS	Framework for Cultural Statistics
HEIs	Higher Education Institutions
GCI	Global Creativity Index
ICT	Information and Communication Technologies
IPRs	Intellectual Property Rights
ISCED	International Standard Classification of Education
I-VET	Initial Vocational Education and Training
MA	Master's of Arts
OECD	Organisation for Economic Co-operation and Development
OMC	Open Method of Coordination
PPPs	Public Private Partnerships
STEM	Science, Technology, Engineering and Mathematics
T-VET	Technical Vocational Education and Training
UK	United Kingdom
UNESCO	United Nations Educational, Scientific and Cultural Organization
VET	Vocational Education and Training

LIST OF FIGURES

Figure 1: Number of cultural enterprises in the EU (2019)	12
Figure 2: Definition of cultural employment	13
Figure 3: Employment in the CCSI in the EU (2019)	15

LIST OF TABLES

Table 1: Skills requirements for advertising manager	31
Table 2: Skills requirements for digital games designer	33
Table 3: Skills requirements for fine arts instructor	35
Table 4: Skills requirements for clothing CAD technician	37
Table 5: Skills requirements for goldsmith	39
Table 6: Skills requirements for costume maker	41
Table 7: Skills requirements for singer	44
Table 8: Skills requirements for actor/actress	47
Table 9: Skills requirements for violin maker	50

EXECUTIVE SUMMARY

Before the COVID-19 crisis, the CCSI were one of the fastest-growing sectors of the global economy, for both output and job creation,¹ employing around 30 million people across the world.² At EU level, the CCSI represent an important part of the economy. According to Eurostat cultural statistics, in 2019, the CCSI accounted for 3.8% of the total business economy and employed around 7.6 million people across the EU countries (3.7% of total employment).³ Despite the fact that the CCSI were hit hard by the COVID-19 crisis, the potential for (re-)generating jobs in the CCSI should gain special attention from policy makers in Europe. Carefully addressing skills needs is a key element for successful CCSI relaunch policies.

Specific frameworks and skills needs in the CCSI

The CCSI face specific challenges, such as a large number of non-standard workers that do not benefit from the frameworks that are in place for full-time employed persons. Across the EU27, almost one third (32%) of the cultural workforce was self-employed in 2019, compared to an average of 14% for the whole economy; as such, the relative weight of self-employment in the field of culture was more than twice as high as the average for total employment.⁴ This fact requires that policy makers pay special attention to educational opportunities for the CCSI, for example to programmes teaching entrepreneurial skills. Furthermore, the CCSI are at the core of (creative) content production: creative and artistic skills are a pre-condition for exercising a creative profession. The CCSI thus also need to dedicate further attention to technical skills, and especially those related to the digital world and economy – an even more pressing need in the context of the 2020-21 crisis. A whole set of EU plans and initiatives – such as the Digital Education Plan (2021-2027) and the EU Pact for Skills – is already in place to address the skills needs and development for the whole economy. These initiatives also provide an enabling framework for CCSI policy makers for cooperation and exchange. While on an EU level, many broad initiatives have started, experts interviewed in the framework of this study report very different national policy actions for the skills development of the CCSI. Structures enabling further exchange between EU policy makers could be beneficial in order to enhance the implementation of national CCSI skills strategies and to further the exchange of experience.

¹ Bilton in Armstrong A. & N. Page, “Creativity and constraint: leadership and management in the UK creative industries”, 2015. Available at: https://www.screenskills.com/media/1560/creativity_and_constraint_leadership_and_management_in_uk_2015.pdf.

² OECD, Conference on Culture and local Development: “Creating Creative Jobs: Parallel Session B1, Discussion Note”, December 2018. Available at: <http://www.oecd.org/cfe/leed/venice-2018-conference-culture/documents/B1-DiscussionNote.pdf>.

³ Eurostat, “Culture statistics - cultural enterprises”, available at: https://ec.europa.eu/eurostat/statistics-explained/index.php/Culture_statistics_-_cultural_enterprises.

⁴ Ibid.

Lessons learnt to reduce skills mismatches in the CCSI

Lesson learnt and related key features
Strategic policy frameworks and strong institutional settings are a crucial asset.	<p>Maintaining (public) investments in intermediary and training institutions is a pre-condition for strong and well-skilled CCSI.</p> <p>(National, territorial) strategies for CCSI skills development are a high-quality approach with potential for sustainable results.</p>
Professional educational institutions are central building blocks for future-proof training offers in the CCSI.	<p>Understand professional education and training as integrated systems and consider opportunities across the EU.</p> <p>Investing in (permanent) modernisation of curricula and ensuring appropriate equipment are the basis of high-quality training.</p>
Specific features of the CCSI job markets like self-employment are challenging.	<p>Freelancers in creative occupations require special conditions and attention from policy makers.</p> <p>Understanding the offer and demand of the markets and ensuring that creative professionals are able to address changing consumer needs are elements of future-proof training programmes.</p>
Earning patterns and sources differ considerably between CCSI sectors.	<p>The CCSI are diverse sectors. While some might benefit from markets with very positive dynamics, others have difficulties with considerable market disruption.</p> <p>Investing in entrepreneurial skills programmes is important for the market-oriented parts in the CCSI.</p>
A broader understanding of the value of soft skills is underdeveloped in society, economy and politics.	<p>Understanding that artistic and creative skills are at the heart of the CCSI and their USP are the values to guide the development of CCSI skills strategies.</p> <p>Using opportunities to raise awareness of the specific added value of soft skills – also with the digital economy – is a forward-looking approach.</p>
Innovation in the broad sense is at the heart of many CCSI, but not always translated into successful business models.	The innovative power of the CCSI doesn't always lead to successful business models and market entrance.

	Market intelligence is a key feature for successful CCSI start-ups – an important element in CCSI skills development.
The digital transformation has a considerable impact on employment, required skills sets and earning opportunities for the CCSI.	<p>Facing the (rapid) digital transformation is a requirement for all CCSI, and related skill sets need to be further developed.</p> <p>This transformation also requires that policy makers give considerable attention to establishing appropriate framework conditions to ensure decent earnings on the digital platforms.</p>

Policy recommendations for sustainable CCSI skills strategies

Based on these lessons learnt, policy makers should pay special attention to the following recommendations:

- **Strengthen the dialogue between public authorities and sector representative organisations** to better understand skills needs and mismatches, including at the level of individual occupations.
- **Invest in the systematic involvement of different governance levels for CCSI skills strategies**, including the city and local levels in strategic planning and to reach out to creative professionals outside the countries' capitals.
- **Understand the diversity of the CCSI professional circumstances and needs.** A careful analysis of the specific needs of different creative professions is a pre-condition to develop meaningful CCSI strategies.
- **Pay special attention to those skills that allow for cross-sectoral cooperation.** In addition, cross-sectoral training offers could also promote networking and joint activities.
- **Connect initiatives on the status of the artist with the CCSI skills strategies.** The attractiveness of the CCSI job market is influenced by working conditions, lifelong learning opportunities as well as decent earning opportunities.
- **Raise awareness of the intrinsic (and economic) values of creative and soft skills.** Soft skills, such as artistic and creative skills, are often given less attention in formal education systems and are perceived as being less valuable to a professional career.
- **Maintain and enhance financing and support for intermediary professional organisations and networks in the field of culture and the arts** in order to have available systematic sector-related intelligence.
- **Develop sustainable support schemes for educational and training institutions in the field of artistic and creative professions.** Attention needs to be paid to wider ranges of training schemes including and beyond HEI, which also include apprenticeships and practical training.
- **Incentivise reform of academic curricula to better respond to the needs of the labour market**, in line with projects and initiatives already undertaken at EU level.⁵

⁵ See for instance the MAST project (<https://mastmodule.eu/mast-project/>), the DEUS project (<https://www.deuscci.eu/what-is-deus/>), or ERASMUS+ (https://ec.europa.eu/programmes/erasmus-plus/about_en)

- **Carefully address potential brain drain in creative professions including on the level of trainers.** The CCSI are unevenly developed across the territory of the EU and between sectors; this may be related to policies offering differing levels of support.
- **Understand informal education as a building block of many creative professions and invest in related schemes.** Peer-to-peer learning like the Creative FLIP Ambassadors of Change⁶ are powerful instruments which, in addition to training, enhance European cooperation and networking.
- **Increase practical training of graduates, teachers and CCSI professionals to establish stronger links between educational institutions and industry.** This could for example be achieved through an increase in the number of on-the-job training opportunities for both students and teachers.
- **Further develop STEM into STEAM approaches and disseminate knowledge about cross-fertilisation opportunities with the CCSI.** The S+T+ARTS project⁷ is a relevant reference practice.
- **Support the creation of tailored training modules in entrepreneurship, digital technologies and other skills that are covered by the market.** Related Creative FLIP experiences include the Learning Labs.⁸

⁶ <https://creativeflip.creativehubs.net/p2p-exchange-program/>

⁷ <https://www.starts.eu/>

⁸ <https://creativeflip.creativehubs.net/learning-labs-page/>

1. INTRODUCTION

1.1. Objectives of the study

Creative FLIP – Finance, Learning, Innovation and Patenting for Cultural and Creative Industries (CCSI) is a pilot project implemented by a consortium of six partners led by the Goethe-Institute.

The ultimate objective of the FLIP project is to define and test policies and actions to sustain and develop the cultural and creative industries, and to generate cross-sectoral benefits and spill-overs in the different areas and sectors with which these industries interface. The project covers four main areas: Finance, Learning, Innovation and Patenting and the goal is to support national policy makers in the inclusion of the CCSI in existing support schemes and policies.

Work Package 2 (carried out by VVA together with 3s) covers the Learning segment within Creative FLIP. The objective is to assess the suitability of the ESCO classification as a reference system for occupational skills profiles in the CCSI and to provide recommendations on future training paths and CCSI-specific solutions.

1.2. Overview of the methodology

The study verifies the practical usage of skills (soft, technical, entrepreneurial and managerial) for selected occupations, to understand the current and future skills needs and gaps in these occupations across nine case study Member States. To assist in the interpretation of the results, the research embeds skills needs and gaps within the overall national landscape (socio-economic, demographic, political and educational).

Data collection activities under Work Package 2 included a literature review, interviews and focus groups in nine countries (namely Bulgaria, Czech Republic, Finland, France, Germany, Poland, Slovenia, Spain, and the UK).⁹

One of the challenges in working on the CCSI is a lack of reliable cross-country data. Over the last decade, the EU has made a significant effort to improve the quality of statistics, and a common methodology for defining the cultural sector has been developed by the ESSnet-Culture and the European Statistical System (ESS) Network.¹⁰ However, while Eurostat follows the methodology provided by ESSnet-Culture, different countries adopt different approaches to the monitoring of developments in the CCSI. For instance, a Polish study on the CCSI statistics uses the narrowest approach, accounting for employment in cultural sectors only to reflect the relationship between employment and added value.¹¹ Statistical comparison across the EU is therefore challenging and there is a need to enhance common data collection mechanisms.

⁹ See Annex I for an overview of indicators used for the selection of the nine countries.

¹⁰ ESSnet-Culture, “European Statistical System Network on Culture: Final report”, 2012, available at: https://ec.europa.eu/assets/eac/culture/library/reports/ess-net-report_en.pdf

¹¹ Baran J. & P. Lewandowski, “Znaczenie gospodarcze sektora kultury w Polsce w latach 2008-2015”, October 2017, available at: <https://www.nck.pl/badania/raporty/raport-znaczenie-gospodarcze-sektora-kultury-w-polsce-w-latach-2008-2015>

1.3. Structure of the report

This report presents the main findings of Work Package 2:

- Chapter 2 defines the CCSI and provides information on the economic size of the sectors and employment conditions within them;
- Chapter 3 provides an overview of EU and national policies (including skills policy) to support the CCSI;
- Chapter 4 reviews a sample of CCSI occupations within three pre-selected sectors with respect to existing and future skills needs and gaps in nine selected countries;
- Based on this analysis, Chapter 5 sets out opportunity pathways where EU and national policy can make a difference in addressing skills mismatches; and
- Finally, Chapter 6 develops more specific policy recommendations to address the skills mismatches.

2. DEFINING AND MEASURING THE CCSI AND THEIR SKILLS NEEDS

This Chapter defines the CCSI and sets out a typology of learning and skills needs for the sectors.

2.1. Defining the Cultural and Creative Sectors and Industries

Understanding the learning needs of arts, culture and creative industries is closely linked with the definition of the CCSI. However, the debate around the definition of the CCSI is still ongoing, with different perspectives and definitions both in legislation and in the literature. At EU level, the definition of the sectors as stated in the Creative Europe Programme is now used as a reference framework.

As defined in the EU Regulation No 1295/2013 on the Creative Europe Programme, the **cultural and creative sectors** are:

“All sectors whose activities are based on cultural values and/or artistic and other creative expressions, whether those activities are market- or non-market oriented, whatever the type of structure that carries them out, and irrespective of how that structure is financed. Those activities include the development, the creation, the production, the dissemination and the preservation of goods and services which embody cultural, artistic or other creative expressions, as well as related functions such as education or management. The cultural and creative sectors include inter alia architecture, archives, libraries and museums, artistic crafts, audio-visual (including film, television, video games and multimedia), tangible and intangible cultural heritage, design, festivals, music, literature, performing arts, publishing, radio and visual arts.”¹²

By extension, the term ‘**cultural and creative industries**’ has a **wider definition**, which also includes “further stages of the value chain – including the production and dissemination stages of industrial and manufacturing operations”,¹³ such as the production/dissemination/trade/exhibition/reception stages of industrial and manufacturing operations (for example, production of jewellery, museum exhibition).¹⁴

At EU-level, the term “Cultural and Creative Sectors and Industries” (CCSI)¹⁵ has recently started to be used to include all partners of the ecosystem.

In this report, the term CCSI refers to the wider definition including both cultural and creative sectors and industries.

¹² European Commission (2018). “The role of public policies in developing entrepreneurial and innovation potential of the cultural and creative sectors”. Report of the OMC (Open Method of Coordination) working group of Member States’ experts – Study, available at: <https://op.europa.eu/en/publication-detail/-/publication/5d33c8a7-2e56-11e8-b5fe-01aa75ed71a1>

¹³ See: <https://ec.europa.eu/culture/sectors/cultural-and-creative-sectors>

¹⁴ Ibid.

¹⁵ For example, in the EIT KIC for CCSI: <https://eit.europa.eu/our-activities/call-for-eit-communities/2021>

2.1.1. Economic outlook in the CCSI

Before the COVID-19 crisis, the CCSI were one of the fastest-growing sectors of the global economy, for both output and job creation,¹⁶ employing around 30 million people across the world.¹⁷ Furthermore, UNESCO perceives the CCSI as *“a powerful means to take on the new development pathways that encourage creativity and innovation in the pursuit of inclusive, equitable and sustainable growth and development.”*¹⁸

The assessment of the economic outlook of the CCSI should also include their role in the informal economy (i.e. an exchange of goods and services that is not sufficiently covered by ‘formal arrangements’),¹⁹ and their increasing contribution to the digital economy (“the sum of cultural-content-generated revenues”).²⁰

At EU level, the CCSI represent an important part of the economy. According to Eurostat cultural statistics, in 2019, the CCSI accounted for 3.8% of the total business economy and employed around 7.6 million people across the EU countries (3.7% of total employment).²¹

¹⁶ Bilton in. Armstrong A. & N. Page, “Creativity and constraint: leadership and management in the UK creative industries”, 2015. Available at:

https://www.screenskills.com/media/1560/creativity_and_constraint_leadership_and_management_in_uk_2015.pdf

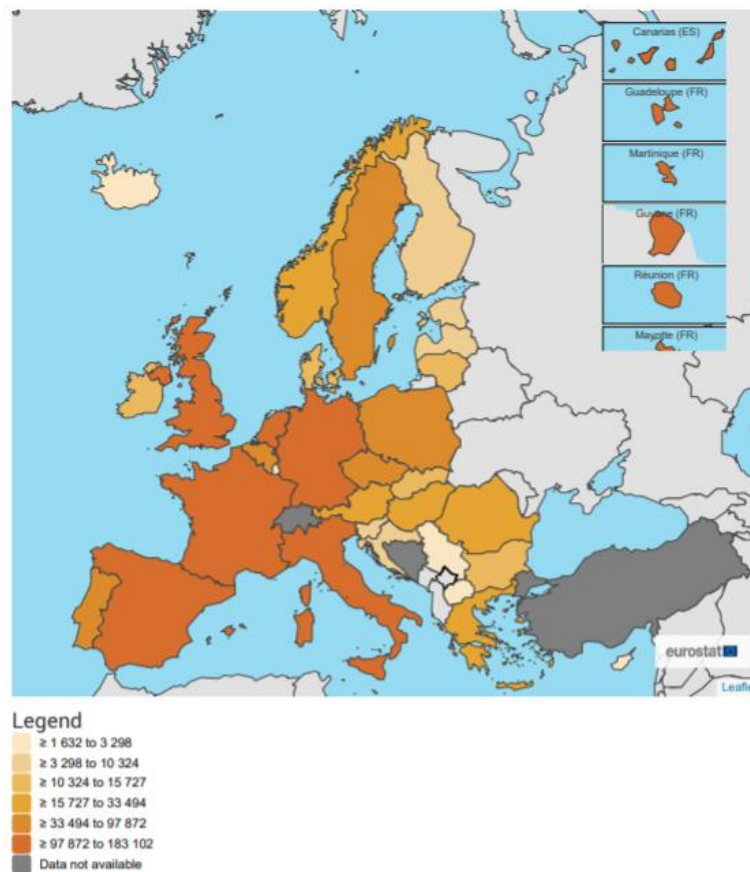
¹⁷ OECD, Conference on Culture and local Development: “Creating Creative Jobs: Parallel Session B1, Discussion Note”, December 2018. Available at: <http://www.oecd.org/cfe/leed/venice-2018-conference-culture/documents/B1-DiscussionNote.pdf>.

¹⁸ UNESCO, “Skills for the creative industries”, 2014. Available at: https://unevoc.unesco.org/fileadmin/up/BackgroundNote_VC-CreativeIndustries-Collard.pdf.

¹⁹ UNESCO, “Cultural times, the first global map of cultural and creative industries”, December 2015. Available at: <https://unesdoc.unesco.org/ark:/48223/pf0000235710/PDF/235710eng.pdf.multi>

²⁰ Ibid.

²¹ Eurostat, “Culture statistics - cultural enterprises”. Available at: https://ec.europa.eu/eurostat/statistics-explained/index.php/Culture_statistics_-_cultural_enterprises.

Figure 1: Number of cultural enterprises in the EU (2019)²²

Source: Eurostat

In **2018**, there were about 1.285 million cultural enterprises in the EU, which generated around EUR 205 billion of added value (EUR 185 billion if considering EU27 only).²³ The majority of people employed in the cultural sectors within the EU works in small or medium-sized enterprises (80%).²⁴

According to 2018 data, Italy and France are the countries with the highest number of cultural enterprises, 181,444 and 152,532 respectively, together representing 30% of cultural enterprises in the EU.²⁵ They are followed by Germany, Spain and the United Kingdom, which each have more than 100,000 cultural enterprises each.²⁶ Together, these five countries represent more than half of the total number of CCSI enterprises in the EU.

The CCSI seem to bring various benefits to both economy and society. They not only generate employment and diversify the economy, but also contribute to social well-being and strengthen local cultural identities.

²² See: https://ec.europa.eu/eurostat/databrowser/view/CULT_ENT_NUM_custom_896916/default/table?lang=en

²³ Eurostat, "Culture statistics - cultural enterprises", available at: https://ec.europa.eu/eurostat/statistics-explained/index.php/Culture_statistics_-_cultural_enterprises.

²⁴ Ibid.

²⁵ Ibid.

²⁶ Ibid.

The CCSI have been hugely affected by the COVID-19 crisis. Studies in 2020 and 2021 have provided a preliminary analysis of the expected losses.

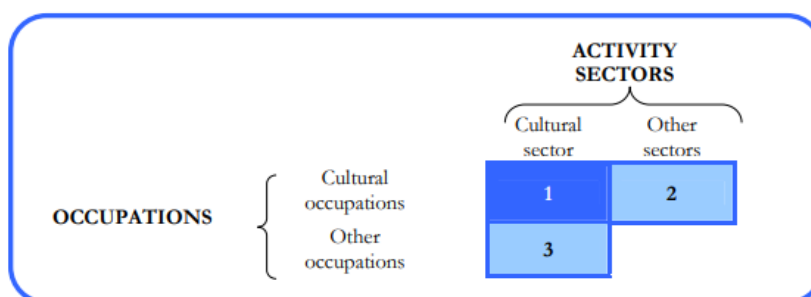
It is estimated that the cultural and creative economy has been one of the most affected in Europe (loss of 31% of revenues in 2020).²⁷ All CCSI have been negatively affected, even if to varying degrees: performing arts (-90% between 2019 and 2020) and music (-76%) have been the most impacted; visual arts, architecture, advertising, books, press and audio-visual activities have dropped by 20% to 40% compared with 2019, while the video games industry seems to be the only one to have held up (+9%).²⁸

The CCSI have benefited from public policy measures to support them during the crisis, initially focussing more on short-term emergency support. Despite these efforts, the losses expected by the CCSI are likely to outweigh the support provided. A recent analysis points out that, so far, efforts have lacked a broader scope and have failed to exploit the crisis as an opportunity to address some of the structural challenges that affect the CCSI (for example in relation to health, environment, social cohesion, international solidarity and economy).²⁹

2.1.2. Employment in the CCSI

Employment in the CCSI has two main elements. On the one hand, it includes the companies working in the cultural domain, and on the other hand, it encompasses employment in cultural occupations. As adopted in the ESSnet-Culture Report (2012),³⁰ which includes the latest formulation for the definition of cultural occupations, this inclusive approach takes into account all the employment in the cultural activities, together with so-called cultural occupations in enterprises whose activity is not necessarily linked to the cultural domain.³¹ This approach is schematised in the Figure below.

Figure 2: Definition of cultural employment



Source: ESSnet-Culture, 2012

²⁷ GESAC/Y&Y, “Rebuilding Europe – The culture and creative economy before and after the COVID-19 crisis”, January 2021. Available at: https://1761b814-bfb6-43fc-9f9a-775d1abca7ab.filesusr.com/ugd/4b2ba2_8bc0958c15d9495e9d19f25ec6c0a6f8.pdf

²⁸ Ibid.

²⁹ IDEA Consult, Goethe-Institut, Amann S. and Heinsius J. 2021. “Research for CULT Committee – Cultural and creative sectors in post-COVID-19 Europe: crisis effects and policy recommendations”, European Parliament, Policy Department for Structural and Cohesion Policies, Brussels.

³⁰ The Eurostat statistics on cultural sectors till 2019 are based on this report: ESSnet-Culture report, 2012.

³¹ http://ec.europa.eu/assets/eac/culture/library/reports/ess-net-report_en.pdf

A wide array of occupations enters the category of cultural professions, such as writers, architects, musicians, journalists, actors, dancers, librarians, handicraft workers and graphic designers, among others. A full list of cultural occupations is provided in two reference classifications, the *Nomenclature générale des Activités économiques dans les Communautés Européennes* (NACE classification), which classifies the main activities of employers, and the International Standard Classification of Occupations (ISCO classification), which classifies occupations. However, as pointed out by Armstrong & Page, the use of this double classification can be inaccurate as “many professionals in this sector hold multiple concurrent roles, for example, that of lead designer and managing director” but only one seems to be registered.³²

According to Eurostat, the main domains of **cultural employment** lie in the following activities: “creative, arts and entertainment activities’, ‘libraries, archives, museums and other cultural activities’, ‘publishing of books, periodicals and other publishing activities’, ‘printing’, ‘programming and broadcasting activities’, ‘motion picture, video and television programme production, sound recording and music publishing activities’ or ‘specialised design activities’.”³³

Moreover, according to a study by NESTA, the UK Innovation Foundation, some ‘hidden’ occupations which are similar to well-known and classified ‘Creative occupations’ could also be understood as creative.³⁴ These additional creative jobs were identified based on the demand for creativity in analysed job adverts. As a result, some of the occupations could be seen as ‘self-declared’ creative jobs, and could, for example, include florists, print finishing and binding workers, bakers and flour confectioners, chefs, hairdressers and barbers.³⁵

In **2019**, employment in the CCSI varied from 1.6% in Romania to around 5.2% in Malta.³⁶ Across the EU27, almost one third (32%) of the cultural workforce was self-employed in 2019, compared to an average of 14% for the whole economy; as such, the relative weight of self-employment in the field of culture was more than twice as high as the average for total employment.³⁷ The highest share of the self-employed in the cultural sectors is present in the Netherlands and in Italy, with 47% and 46% respectively.³⁸

³² Armstrong A. & N. Page, “Creativity and constraint: leadership and management in the UK creative industries”, 2015. Available at:

https://www.screenskills.com/media/1560/creativity_and_constraint_leadership_and_management_in_uk_2015.pdf

³³ Eurostat, “Culture statistics - cultural employment”, available at : https://ec.europa.eu/eurostat/statistics-explained/index.php/Culture_statistics_-_cultural_employment#Cultural_employment_.E2.80.94_general_trends

³⁴ Easton E. & J. Djumalieva, “Creativity and the future of skills”, November 2018. Available at: <https://www.nesta.org.uk/report/creativity-and-future-skills/>.

³⁵ Ibid.

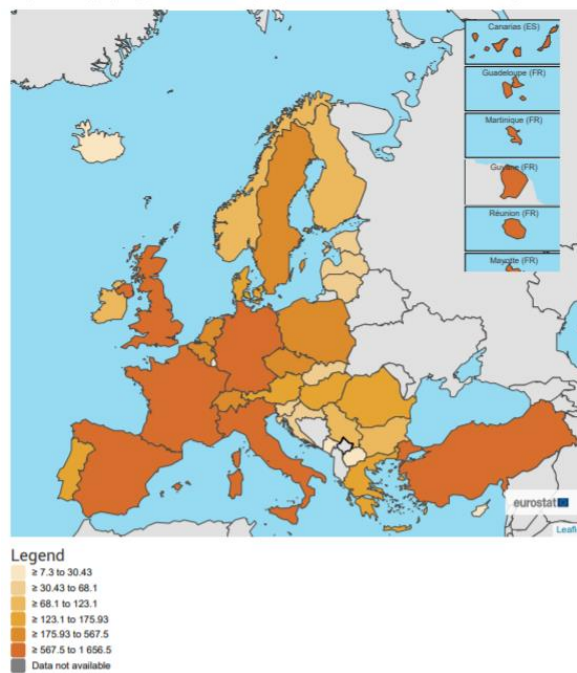
³⁶ Eurostat, “Culture statistics - cultural employment”. Available at : https://ec.europa.eu/eurostat/statistics-explained/index.php/Culture_statistics_-_cultural_employment#Cultural_employment_.E2.80.94_general_trends

³⁷ Ibid.

³⁸ Ibid.

The figure below represents the employment patterns in the CCSI across Europe.

Figure 3: Employment in the CCSI in the EU (2019)



Source: Eurostat

CEDEFOP³⁹ estimates of the future labour force for the 2018-2030 period show that the 25-49 year-old group represents the biggest share of the working population and will continue to do so in future.⁴⁰ The cultural sectors are important for the employment of youth. In 2017, around 1.6 million people aged between 15 and 29 found employment in this sector.⁴¹

In general, men hold a larger share of the EU labour market (54%). Nevertheless, data suggests that in some professions, cultural employment includes relatively more women than other sectors.⁴² In fact, in 2017, women were in the majority in cultural employment in ten EU Member States. However, women were under-represented not only in cultural employment but also in the cultural sector in four EU Member States: Spain, Malta, Portugal and the United Kingdom.⁴³ In this respect, the Work Plan for Culture 2019-2022 identifies achieving gender equality as one of the five sectoral priorities for EU action. Recent publications have increasingly focused on identifying possible gender gaps in the cultural and creative sectors, and provided first insights into how to achieve gender equality in the CCSI.⁴⁴ It has been

³⁹ CEDEFOP is the EU agency supporting the development of European vocational education and training (VET) policies and contributing to their implementation.

⁴⁰ CEDEFOP, Skills Forecast, 2018, available at: <https://www.cedefop.europa.eu/en/publications-and-resources/data-visualisations/skills-forecast>

⁴¹ Ibid.

⁴² Eurostat, Culture statistics - cultural employment, available at: https://ec.europa.eu/eurostat/statistics-explained/index.php/Culture_statistics_-_cultural_employment#Cultural_employment_.E2.80.94_general_trends

⁴³ Ibid.

⁴⁴ European Expert Network on Culture and Audiovisual, "Gender Gaps in the Cultural and Creative Sectors", September 2021, available at: <https://eenca.com/eenca/assets/File/EENCA%20publications/Final%20Report%20-%20Gender%20in%20CCS%20EAC%20with%20Additional%20sections%20AV%20and%20Radio.pdf>; and the European

pointed out that most of the gender gaps originate from gendered stereotypes.⁴⁵ Furthermore, it has been noted that given a very egalitarian, informal and open environment in the CCSI, the sectors lack visibility of gender gap issues.⁴⁶

Employment in the CCSI is characterised by some structural features and challenges. Even if many countries have either a minimum hourly or monthly wage for employed workers, many CCSI workers are currently not protected by this minimum wage legislation, as their self-employed or freelance status prevents them from benefiting from such measures (or it makes it much more difficult). A universal basic income has been suggested as a way of providing greater economic stability, thereby encouraging a more diverse range of people to think about the potential of developing a career in the arts.⁴⁷

Other issues include lower access to social security benefits such as unemployment schemes, lower copyright protection (especially in digital environments), reduced access to external funding, career development and transition within the same or other sectors. Most of these issues (and in particular those of basic income and access to social security) have been highlighted during the COVID-19 pandemic, which further exacerbated existing challenges.⁴⁸

2.2. Defining skills and learning in the CCSI: a typology

2.2.1. Types of learning

There is a difference between formal education, non-formal education, informal learning and incidental or random learning.

- **Formal education** is “*institutionalised, intentional and planned through public organisations and recognised private bodies, and – in their totality – constitute the formal education system of a country.*”⁴⁹ It is recognised by the national education or equivalent authorities. In the framework of the CCSI, a typical formal education framework would be the Arts Academies.
- **Non-formal education** can be defined as “*an addition, alternative and/or complement to formal education within the process of lifelong learning of individuals.*”⁵⁰ Like formal education, it has institutionalised, intentional and organised/planned learning activities yet outside of the formal system. The CCSI can benefit from a wide range of non-formal education offers, such as training courses in all kinds of creative sectors and skills (E.g. short-term cultural management courses).
- **Informal training** can take the form of courses, lectures, workshops, distance education, private lessons, guided on-the-job-training and others.⁵¹ Furthermore, informal learning represents

Commission, “Towards Gender Equality in the Cultural and Creative Sectors”, June 2021, available at: <https://op.europa.eu/en/publication-detail/-/publication/36e9028b-c73b-11eb-a925-01aa75ed71a1/language-en>

⁴⁵ OP.cit. European Expert Network on Culture and Audiovisual.

⁴⁶ Ibid.

⁴⁷ Panteia, SMIT, “The status and working conditions of artists and cultural and creative professionals”, European Expert Network on Culture and Audiovisual (EENCA), 2020, available at: <https://eenca.com/index.cfm/publications/the-status-and-working-conditions-of-artists-and-cultural-and-creative-professionals/>

⁴⁸ Ibid.

⁴⁹ UNESCO, “International Standard Classification of Education ISCED 2011”, 2011, available at: <http://uis.unesco.org/sites/default/files/documents/international-standard-classification-of-education-isced-2011-en.pdf>

⁵⁰ Ibid.

⁵¹ Eurostat, “Classification of learning activities (CLA)”, 2016, available at: <https://ec.europa.eu/eurostat/documents/3859598/7659750/KS-GQ-15-011-EN-N.pdf/978de2eb-5fc9-4447-84d6-d0b5f7bee723>

“forms of learning that are intentional or deliberate, but are not institutionalised”, that are organised and structured to a lesser extent than the previous two categories.⁵² Informal learning also comprises activities such as coaching or informal tuition, guided visits, self-learning, learning groups, practice, non-guided visits etc.⁵³ Informal training is a widespread activity in the CCSI both on the offer side (e.g. like museum visits) as well as on the demand side (e.g. conference-festival participation).

- Finally, the **incidental or random learning** includes forms of learning that are *“not organized or that involve communication not designed to bring about learning.”*⁵⁴ It includes a vast range of forms of learning, and can occur as *“a by-product of day-to-day activities, events or communication that are not designed as deliberate educational or learning activities.”*⁵⁵

As the above typology shows, formal education systems can struggle to address societal and technological challenges to which the workforce of today should adapt very quickly. Among the main challenges for learning within the 21st century are technological transformation, a shift from an industrial to a knowledge-based economy and lifelong self-directed learning.⁵⁶ First of all, the technological changes and quick development of ICT allow for innovation but also profoundly affect the way society works, creates, plays, thinks and reads.⁵⁷ Secondly, knowledge has become a driving force for economic activities and therefore, constantly requires re-skilling or up-skilling of society. Thirdly, the capacity to learn continuously and to integrate new knowledge has become critical in the world of today.⁵⁸ People ought to be self-aware of the new trends and the importance of lifelong learning as in the 21st century, the ability to continue learning and developing flexible skills are crucial in a *“world that is constantly shifting and demanding higher cognitive capacity.”*⁵⁹

As a result of these challenges, skills are not only acquired via formal education and they are not only acquired during the school years. Indeed, **adult learning** is a key element for individuals to enhance their employment prospects, to develop personally or professionally and to obtain transferrable skills. Adult learning also contributes to improving social cohesion and promotes active citizenship, and thus is vital for the EU’s economic and social tissue.

The development of a lifelong learning society drives the diversification of vocational education and training (VET), with new institutions and stakeholders getting involved. VET responds to the needs of the economy, but also provides learners with skills that are important for personal development and active citizenship, can boost enterprise performance, competitiveness, research and innovation and is a central aspect of successful employment and social policy.⁶⁰ VET systems in Europe can rely on a well-developed

⁵² UNESCO, “International Standard Classification of Education ISCED 2011”, 2011, available at:

<http://uis.unesco.org/sites/default/files/documents/international-standard-classification-of-education-isced-2011-en.pdf>

⁵³ Eurostat, “Classification of learning activities (CLA)”, 2016, available at:

<https://ec.europa.eu/eurostat/documents/3859598/7659750/KS-GQ-15-011-EN-N.pdf/978de2eb-5fc9-4447-84d6-d0b5f7bee723>

⁵⁴ UNESCO, “International Standard Classification of Education ISCED 2011”, 2011, available at:

<http://uis.unesco.org/sites/default/files/documents/international-standard-classification-of-education-isced-2011-en.pdf>

⁵⁵ Ibid.

⁵⁶ OECD, “The Nature of Learning: Using Research to Inspire Practice”, 2012, available at:

<http://www.oecd.org/education/ceeri/50300814.pdf>

⁵⁷ Ibid.

⁵⁸ Ibid.

⁵⁹ Ibid.

⁶⁰ See: https://ec.europa.eu/education/policies/eu-policy-in-the-field-of-vocational-education-and-training-vet_en

network of VET stakeholders. These networks are governed with the participation of social partners, such as employers and trade unions, and of different bodies, for example chambers, committees and councils.

Whereas traditionally, vocational education and training was designed for technical and practical occupations such as construction workers or craftspeople, today VET has expanded into teaching transferable knowledge and competences for professional and personal development, on top of job-specific skills. Moreover, while in the past, vocational education was limited to school and pre-professional education, VET systems today are divided into initial vocational education and training (I-VET), which includes pre-working life learners, usually at upper secondary and post-secondary level, and continuing VET (C-VET), which includes those who decide to learn as a continuation of initial education, or after having started to work. C-VET is largely work-based, with the majority of learning taking place in a workplace. In recent years, there has been an increase in the number of adult learners in VET, for example through new VET pathways for adults, like post-academic employment preparation at universities or at post-compulsory secondary level. VET has also expanded to higher education areas, for instance through the introduction of universities of applied sciences, which are non-university higher education institutions focusing on professional training.⁶¹

2.2.2. Skills needs in the CCSI

Skills needs in the CCSI can be grouped into **three main categories**: technical/creative/artistic skills, soft skills, leadership and entrepreneurial skills.

- **Technical, creative and artistic skills** represent a skills category as wide as the creative economy activities can be, and encompass all the CCSI. However, given the fast era of digitalisation, there is a clear demand of skills such as stage and lighting design, marketing, sound engineering, gallery management and curatorship.⁶² The common feature of technical skills is that they can be taught throughout the general school system or in post-compulsory education.
- **Soft skills** are those transferable, generic skills that are consistently sought across jobs and industries, not just within the CCSI. These include teamwork, communication, interpersonal skills, and problem-solving skills. A 2018 study into the current and future skills needs in the UK reported that around 50% of businesses identified communication skills and problem-solving skills as main skills gaps for their organisations.⁶³
- **Leadership and entrepreneurial skills** seem to be the most critical for creative enterprises and especially relevant for the self-employed parts of the CCSI.⁶⁴ They cover areas such as fundraising, marketing, project management and networking and advocacy. CCSI professionals need entrepreneurial skills to make a living out of their creativity, especially as the CCSI are characterised by a high share of self-employment as well as by precariousness and informality of employment. CCSI professionals need not only to *“hold multiple jobs to protect themselves*

⁶¹ Cedefop (2019). “The changing nature and role of vocational education and training in Europe”. Available at: https://www.cedefop.europa.eu/files/5574_en.pdf

⁶² UNESCO, Creative Economy Report: 2013 Special Edition: widening special development pathways, 2013, available at: <http://www.unesco.org/culture/pdf/creative-economy-report-2013.pdf>

⁶³ CFE Research, “Skills needs assessment for the creative and cultural sector. A current and future outlook, 2018”. Available at: <https://creativealliance.org.uk/wp-content/uploads/2018/07/Report-Skills-Needs-Assessment-For-The-Creative-And-Cultural-Sector-CCSkills.pdf>.

⁶⁴ 32% of the CCSI in the EU are self-employed: https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Culture_statistics_-_cultural_employment

against job instability”,⁶⁵ but also to perform work in other areas, such as accountant and manager. Entrepreneurial features are often linked with “**critical business skills**”, which include the capacity to design a business plan, develop a marketing strategy, negotiate with banks and other financial institutions, envisage public-private partnership arrangements, and so on.⁶⁶ However, creative minds may not be educated or trained in entrepreneurial innovation. As pointed out by Brown, under this circumstance, the education system should provide the necessary mentoring on how to be successful in the CCSI, for instance, how to find appropriate support for an undertaking.⁶⁷ In addition, previous studies pointed out that a possible way to overcome the challenges linked to the low level of entrepreneurial and managerial skills in many CCSI professions, is the creation of partnerships with professionals in these fields (e.g. through hubs).⁶⁸ Another – complementary – approach is to enhance the knowledge of potential business partners, such as banks, with capacity-building programmes on CCSI projects and earning models.⁶⁹

⁶⁵ OECD, Conference on Culture and Local Development: “Creating Creative Jobs: Parallel Session B1, Discussion Note”, December 2018. Available at: <http://www.oecd.org/cfe/leed/venice-2018-conference-culture/documents/B1-DiscussionNote.pdf>.

⁶⁶ Ibid.

⁶⁷ Ralph Brown in. Colette Henry, “Entrepreneurship in the Creative Industries: An International Perspective”, Cheltenham, UK and Northampton, Edward Elgar Publishing, 2007

⁶⁸ The European Commission (2018). “The role of public policies in developing entrepreneurial and innovation potential of the cultural and creative sectors”. Report of the OMC (Open Method of Coordination) working group of Member States’ experts – Study, available at: <https://op.europa.eu/en/publication-detail/-/publication/5d33c8a7-2e56-11e8-b5fe-01aa75ed71a1>

⁶⁹ https://www.eif.org/what_we_do/guarantees/news/2018/kea-deloitte-ccs.htm

3. OVERVIEW OF EU AND NATIONAL (SKILLS) POLICY TO SUPPORT THE CCSI

This Chapter presents an overview of EU and national policy in support of the development of the CCSI and skills within the sectors.

3.1. EU policy to support the CCSI

The European Union supports the CCSI through:

- The EU cultural policy established through the cross-border Open Method of Coordination (OMC), expert groups, civil society dialogues and other networking and peer-learning activities;
- Reforming the regulatory environment, e.g. contribution to Intellectual Property Rights (IPRs);
- Support programmes via different funds, including the Creative Europe Programme, Erasmus, Horizon Europe (formerly H2020) Programme, EU Regional Development Policy, COSME Programme, and others; and
- Advocacy, promotion and advisory activities.

EU cultural policy

EU cultural policy is defined in the New European Agenda for Culture⁷⁰ and the New Work Plan for Culture 2019-2022,⁷¹ which emphasise the creative and cultural sectors as important for innovation, employment, cohesion and well-being of European society, and provide the framework for actions and cultural cooperation at EU level.⁷² The New Work Plan for Culture 2019-2022 identifies an “*ecosystem supporting artists, cultural and creative professionals and European content*” as one of the five main priorities for European cooperation in cultural policy making. This priority aims to build on European cultural and creative assets to increase Europe's competitiveness and to stimulate innovation. To achieve this goal, it calls for actions supporting training and talent development, mobility of artists and cultural and creative professionals, access to finance and cross-border cooperation, among others.

In addition, different EU initiatives aim to support the development of skills relevant to the CCSI. Beneficiaries can be artists and cultural and creative professionals, businesses active in the CCSI (especially SMEs), non-profit organisations and communities of CCSI professionals and hubs. These initiatives include several funding programmes (such as the Creative Europe Programme, Erasmus, H2020 and subsequently Horizon Europe, EU Regional Development Funds, COSME, the Creative Europe Guarantee Facility, ERASMUS, the upcoming EIT KIC⁷³ for the CCSI), as well as advocacy, promotion and advisory activities.

The Creative FLIP project – WP Finance – provided a whole set of policy information and practical tools for improving CCSI ecosystems' access to finance, including:

- Guiding Resilient Financing Systems for the CCS⁷⁴

⁷⁰ European Commission (2018), “The New European Agenda for Culture”. Available at: <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=COM%3A2018%3A267%3AFIN>

⁷¹ Council of the European Union (2018), “New Work Plan for Culture 2019-2022”. Available at: <http://data.consilium.europa.eu/doc/document/ST-13948-2018-INIT/en/pdf>.

⁷² https://ec.europa.eu/culture/policy/cultural-creative-industries_en

⁷³ European Institute of Innovation and Technology, Knowledge and Innovation Community

⁷⁴ http://creativeflip.creativehubs.net/Layouted_AMANN_Creative_FLIP_WP1_Covid19_report_final_June_2020.pdf

- So You Need Money? A Guide for cultural and creative entrepreneurs through the finance jungle⁷⁵

The documentation of the Creative FLIP conference “CCS Ecosystems: Flipping The Odds” provides further valuable insights in current cultural policy debates and key recommendations.⁷⁶

Intellectual property rights including patenting constitute another income-generation opportunity for the CCSI. The related Creative FLIP report illustrates current patterns, shortcomings and opportunities for a broader financing basis for the CCSI.⁷⁷

Additional support in the context of the COVID-19 pandemic

Other measures have been reinforced to support the CCSI to overcome the COVID-19 crisis, both as emergency support and as ways to re-start the sectors. These include:⁷⁸

- Coronavirus Response Investment Initiative (CRII): EUR 37 billion, under cohesion policy (ERDF, CF and ESF);
- Temporary Support to mitigate Unemployment Risks in an Emergency (SURE): EUR 100 billion;
- Special measures under Creative Europe, which include reinforcing links with Member States, Creative Europe Desks, networks and platforms, cooperation projects to assist the sectors most in need, support schemes for the cross-border dimension of performing arts works, additional funding for the translation scheme, #CreativeEuropeAtHome Campaign, media sub-programme, and increased flexibility for the CCS Guarantee Facility;
- Special Call for culture under Erasmus: EUR 100 million to respond to the educational challenges resulting from the COVID-19 pandemic;
- Temporary Framework for State Aid during the COVID-19 pandemic;
- The NextGenerationEU Recovery Plan⁷⁹ recognises the role of the CCSI for the European recovery and asks Member States to include them in their National Recovery Plans.

3.2. EU-level skills policy

In the European Parliament Resolution of 14 September 2017 on a New Skills Agenda for Europe (2017/2002(INI)), cultural and creative industries are explicitly mentioned as contributing to social well-being, innovation, employment and as stimulating the EU’s economic development.⁸⁰ The Resolution also recalls that the creative industries are among the most entrepreneurial and fast-growing sectors, and creative education develops transferable skills such as creative thinking, problem-solving, teamwork, and resourcefulness. It acknowledges that the arts and media sectors are of particular appeal to young people and points out that entrepreneurship requires the development of transversal skills such as creativity, critical thinking, teamwork and a sense of initiative, which contribute to young people’s personal and professional development and facilitate their transition into the job market.

⁷⁵ http://creativeflip.creativehubs.net/publications/Creative%20FLIP_So%20You%20Need%20Money%20Guide_WP1%20Finance.pdf

⁷⁶ http://creativeflip.creativehubs.net/FINAL_EAC_19_213_CCis-2019-Brochure.pdf

⁷⁷ http://creativeflip.creativehubs.net/publications/Creative%20FLIP_Final%20Report_WP4%20Patenting.pdf

⁷⁸ See: <https://ec.europa.eu/culture/resources/coronavirus-response> and https://ec.europa.eu/commission/presscorner/detail/en/IP_20_496 and https://ec.europa.eu/programmes/creative-europe/content/corona-virus-how-it-affects-creative-europe-programme_en

⁷⁹ https://ec.europa.eu/info/strategy/recovery-plan-europe_en

⁸⁰ European Parliament resolution of 14 September 2017 on a new skills agenda for Europe (2017/2002(INI)), available at: https://www.europarl.europa.eu/doceo/document/TA-8-2017-0360_EN.html

The EU has a well-developed policy framework for Education and Skills (including the European Education Area, the European Skills Agenda and the European Digital Education Plan), as well as tools for the classification of skills and qualifications (the ESCO system), which support the development of relevant skills in a consistent manner across the EU, facilitating mobility and the matching of job demand and skills supply.

Given that education levels and systems vary greatly among countries, the Commission has launched the **ESCO** multilingual classification of European Skills, Competences, Qualifications and Occupations, which supports the Europe 2020 strategy and the New Skills Agenda for Europe.⁸¹

The ESCO classification identifies and categorises skills, competences, qualifications and occupations relevant to the EU labour market and to education and training. ESCO concepts and descriptions can be used by different stakeholders as a common “language” that allows, for instance, education and training systems to more clearly see the labour market skills needs, and to better understand and exchange with each other in Europe. The ESCO classification aims to help connect people with jobs, education with employment and to analyse information on skills demand. It is meant to be used in job searches and job matching, career management, labour market analysis and policy making, and implementation.

In the framework of Creative FLIP, a report on ESCO addressed its cultural dimension and related recommendations.⁸²

While ESCO was developed by the EU, it is linked to relevant international classifications and frameworks, such as the International Standard Classification of Occupation, International Standard Classification of Education: Fields of Education and Training and the European Qualifications Framework, and therefore can also be used in other, international settings. The ESCO classification is part of a broader EU policy framework for Education and Skills, which also includes the European Education Area, the European Skills Agenda and European Digital Education Action Plan.⁸³

The **European Education Area**⁸⁴ aims to foster cooperation between the EU Member States to enrich the quality and inclusiveness of national education and training systems, to create a genuine European space of learning, which benefits all learners, teachers and institutions.

The **European Skills Agenda** is a five-year plan to help individuals and businesses develop more and better skills and to put them to use,⁸⁵ by:

- Strengthening sustainable competitiveness, as set out in the European Green Deal;
- Ensuring social fairness, putting into practice the first principle of the European Pillar of Social Rights: access to education, training and lifelong learning for everybody, everywhere in the EU;
- Building resilience to react to crises, based on the lessons learnt during the COVID-19 pandemic.

It seeks to support a massive investment in skills, needed for the EU and its citizens to be able to grasp the opportunities provided by the shift towards a climate-neutral Europe and digital transformation.

⁸¹ It creates a shared understanding and helps to cooperate across borders and languages. It helps to connect people with jobs, education with employment and to analyse information on skills demand. See: <https://ec.europa.eu/esco/portal>

⁸² <http://creativeflip.creativehubs.net/publications/ESCOs%20suitability%20for%20sector-specific%20data%20collection%20-%20CCS%20in%20European%20forecasting%20tools.pdf>

⁸³ Other relevant initiatives and programmes are presented in Section 3.1.

⁸⁴ See: https://ec.europa.eu/education/education-in-the-eu/european-education-area_en

⁸⁵ See: <https://ec.europa.eu/social/main.jsp?catId=1223>

In addition to financing provided by enterprise and governments, the EU is prioritising investing in people and their skills. The Recovery Plan for Europe proposed by the Commission in May 2020 also focused on skills-related activities.⁸⁶

The **Digital Education Action Plan** (2021-2027) outlines the European Commission's vision for high-quality, inclusive and accessible digital education in Europe.⁸⁷ It has two priorities:

- Fostering the development of a high-performing digital education ecosystem;
- Enhancing digital skills and competences for the digital transformation, which includes several actions and priorities, many of which focus on fostering digital skills and strengthening AI and data-related skills, and on developing higher education curricula that attract women to engineering and ICT based on the 'STEAM' (science, technology, engineering, arts and mathematics) approach.

When it comes to **adult learning**, the EU has implemented actions and initiatives to respond to challenges in the field, to support institutions and individuals, and to enable a better exchange of knowledge and experiences between countries.⁸⁸ A Resolution adopted by the Council on a Renewed European Agenda for Adult Learning highlights the need to significantly increase adult participation in formal, non-formal and informal learning whether to acquire work skills, for active citizenship, or for personal development and fulfilment.⁸⁹ Further to this, the Council has adopted a Recommendation on Upskilling Pathways, which aims to help adults acquire a minimum level of literacy, numeracy and digital skills or a specific upper-secondary level qualification.⁹⁰ A network of National Coordinators who promote adult learning in their countries, provide policy advice and support, and gather and disseminate best practices has also been established.⁹¹ The Electronic Platform for Adult Learning in Europe (EPALE) provides a multilingual online space to exchange, showcase and promote best practices in adult education, as well as to promote peer learning.⁹²

Finally, the **EU Pact for Skills**,⁹³ which also covers the CCSI, brings together a wide spectrum of actors (companies, workers, national, regional and local authorities, social partners, cross-industry and sectoral organisations, education and training providers, chambers of commerce and employment services) in a new type of engagement model focused on boosting knowledge about skills gaps, networking and provision of guidance to resolve mismatches.

These policies and tools are also relevant to the **Next Generation EU**, the EU's COVID-19 recovery plan to lead the Union out of the crisis and towards a modern and more sustainable Europe, fit to face the digital and green transitions.

⁸⁶ See for instance here:

https://ec.europa.eu/info/sites/default/files/examples_of_component_of_reforms_and_investment_reskill_and_upskill_en.pdf

⁸⁷ See: https://ec.europa.eu/education/education-in-the-eu/digital-education-action-plan_en

⁸⁸ See: https://ec.europa.eu/education/policies/eu-policy-in-the-field-of-adult-learning_en

⁸⁹ Council Resolution 2011/C 372/01. See: <https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX%3A32011G1220%2801%29>

⁹⁰ Council Recommendation 2016/C 484/01 See: <https://ec.europa.eu/social/main.jsp?catId=1224>

⁹¹ See: <https://epale.ec.europa.eu/en/policy-in-the-eu/implementing-the-european-agenda-for-adult-learning>

⁹² See: <https://epale.ec.europa.eu/en/policy-in-the-eu/what-good-policy-practice-on-adult-learning-is-there>

⁹³ See: <https://ec.europa.eu/social/main.jsp?catId=1517&langId=en>

3.3. National policy frameworks in the Member States

At the level of **Member States**, the CCSI have been incorporated into the national policy frameworks to different extents. The following section presents a review of policies in the countries selected for the study, i.e., Bulgaria, Czech Republic, Finland, France, Germany, Poland, Slovenia, Spain, and the United Kingdom.

“In March 2019, a Draft Strategy for the Development of the Bulgarian Culture by 2029 was published, whose strategic goals are the preservation of cultural memory and historical heritage, the search for an effective mechanism for financing from the state and municipal budgets, as well as attracting alternative financial sources and the digitalisation of cultural content. This project has not yet been officially approved or secured. In scope, culture is limited to only nine areas covered by the Ministry of Culture – cultural heritage, visual arts, performing arts, books, reading and libraries, amateur arts, audio vision and media, copyright and related arts, international cultural heritage, culture and education.”⁹⁴ The National Fund for Culture (NCF), the official Arts Council in **Bulgaria**, manages funds granted for artistic projects contributing to the development of the cultural sector. Its work is guided by the Programme of the Government of the Republic of Bulgaria and by the Culture Protection and Development Act.⁹⁵

“The (Czech Republic) State Cultural Policy for 2015–2020 had 5 priority objectives: Supporting identity, cultural diversity, and intercultural dialogue; Developing creativity through support for cultural activities and the creation of cultural goods, the provision of cultural services, work with the public, support for access to culture, and advancing a participative culture to facilitate social integration; Preserving cultural heritage as an environment conducive to the development of creativity; The use of cultural heritage and cultural activities, services, and goods to develop the economy, increase competitiveness, and support mobility; Creating a more effective environment for the support of cultural activities, the provision of public cultural services, the development of cultural goods, and the conservation of cultural heritage.”⁹⁶ In 2017, the Ministry of Culture prepared a Strategy to support the cultural and creative industries with the use of European funds. The strategy aims to support the CCSI by using the potential of new technologies, testing new business models and establishing new cultural models with the use of collective authorship and other new challenges in the area of intellectual property.⁹⁷ The strategy is expected to facilitate the rehabilitation of the role of culture, museums and humanities within the national economy, improve Czech competitiveness, and support national identity. Within the CCSI, the Czech film industry has also benefitted from targeted support.⁹⁸

Finland’s policy support for creative industries, innovation and creativity has a strong track record, going back to the late 1990s when the notion of the CCSI was first included in policy.⁹⁹ Various actions have been undertaken to understand the gaps and barriers to the development of the creative economy in Finland alongside support to develop the CCSI in the country. The Centre for Economic Development, Transport and the Environment, a governmental organisation, provides financial and information services

⁹⁴ <https://www.culturalpolicies.net/database/search-by-country/country-profile/category/?id=6&g1=1>

⁹⁵ <http://www.ncf.bg/>

⁹⁶ <https://www.culturalpolicies.net/database/search-by-country/country-profile/category/?id=9&g1=1>

⁹⁷ Praks, J. (2018) “Strategie podpory kulturních a kreativních průmyslů”, Projektová kancelář, Ministerstvo kultury, Evropský sociální fond. Available at: <http://projektovakancelar.mkcr.cz/wp-content/uploads/2019/01/CCSI.pdf>

⁹⁸ Ibid.

⁹⁹ Government’s analysis, assessment and research activities. “In search of Finnish creative economy ecosystems and their development needs – study based on international benchmarking”, p. 4, 2018. Available at: https://cris.vtt.fi/ws/portalfiles/portal/22439161/50_2018_Creaeco.pdf

to enterprises (including SMEs) and entrepreneurs.¹⁰⁰ In addition, it helps actors in the culture and creative economy to improve their competences, provide more employment opportunities, optimise the operating ecosystem, and develop arts and cultural services. There are 15 such centres in Finland.¹⁰¹ There are also sector-specific support organisations for practically every sub-sector of the CCSI, providing different services from financial schemes, provision of information to interest representation.¹⁰² In addition, there are several horizontal interest and support organisations that offer services to creative and cultural actors such as tailored advice, sharing of best practices, and promotion of the CCSI creative fields.¹⁰³ In terms of financial support, this is mostly provided by state-funded organisations, such as Business Finland¹⁰⁴ and the Finnish Innovation Fund (SITRA).¹⁰⁵ As for the artists and creative workers, special artists' funds implemented by the arts council system are offered as a direct support to artistic creativity in the form of (i) grants for individual artists, (ii) project grants for individual artists or groups, (iii) grants for developing arts and culture of collective bodies.¹⁰⁶ Furthermore, the Ministry of Education and Culture strongly engage in cross-sectoral policies.¹⁰⁷

*“The **French** cultural policies model is characterised by the substantial action of public authorities. In addition to the legal and regulatory aspects administrated by the State concerning cultural actors, goods, and activities, national, local and regional governments allocate substantial funds to a range of cultural fields. Specialised public service departments administer this action at the different levels.”*¹⁰⁸ The main institutional actors related to the CCSI are the Ministry of Culture, and at the local level the DRACs, regional offices of cultural affairs (*Direction Générale des Affaires Culturelles*) and the FRACs, regional funds for contemporary art (*Fonds Régional d’Art Contemporain*). Cultural policies include financing schemes and market-oriented frameworks, for example a tax shelter scheme in the video games industry and tax incentives in fashion for the launch of new collections, music as deduction for music production and audio-visual industries. Moreover, in 2019, the National Council on Entertainment Occupations put forward a plan to improve the organisation of higher education, supporting professional reorientation, reinforcing professionalisation and gender balance, to promote places of creation, to establish a better link between the production and the diffusion of art, and to better target subsidies and support mechanisms around artists' projects.¹⁰⁹ Training opportunities are well-regulated and offered by various actors and organisations in specific sectors. *“Since its creation, one of the essential missions of the*

¹⁰⁰ Centre for Economic Development, Transport and the Environment (2015). “Culture”. Available at: <http://www.ely-keskus.fi/en/web/ely-en/culture>

¹⁰¹ Ibid.

¹⁰² Report to the Northern Dimension Partnership on Culture (2015). “Study on CCI policies in the NDPC area: 11 Dimensions”, p. 21. Available at: https://www.ndpculture.org/media/W1siZiIsIjIwMTcvMTEvMTYvOGVhZWpubHd3NI8xMV9ESU1FTINJT05TX0NDSS5wZGYiXV0/11_DIMENSIONS_CCI.pdf?sha=e70086627c6b8db3

¹⁰³ Ibid.

¹⁰⁴ The predecessor of Business Finland was the Finnish Funding Agency for Technology and Innovation.

¹⁰⁵ Report to the Northern Dimension Partnership on Culture (2015). “Study on CCSI policies in the NDPC area: 11 Dimensions”, p. 22. Available at: https://www.ndpculture.org/media/W1siZiIsIjIwMTcvMTEvMTYvOGVhZWpubHd3NI8xMV9ESU1FTINJT05TX0NDSS5wZGYiXV0/%2011_DIMENSIONS_CCSI.pdf?sha=e70086627c6b8db3

¹⁰⁶ Council of Europe. “Compendium of Cultural Policies and Trends in Europe”, 18th edition 2017. Available at: <http://www.culturalpolicies.net/>

¹⁰⁷ <https://minedu.fi/en/creative-economy>

¹⁰⁸ <https://www.culturalpolicies.net/database/search-by-country/country-profile/category/?id=13&g1=1>

¹⁰⁹ Ministère de la Culture (2019). “Remettre les artistes et les créateurs au cœur de la politique culturelle”. Available at: <https://www.culture.gouv.fr/Actualites/Remettre-les-artistes-et-les-createurs-au-caeur-de-la-politique-culturelle>

*Ministry of Culture and Communication has been to encourage access to and participation in both heritage and works of contemporary creativity. But the evolution of cultural and socio-economic life has had an impact on the evolution of the objectives of cultural policy: for instance in the 2012 decree that sets the remit of the Ministry of Culture, the question of digital cultural contents and services was added. At the same time, despite such technological developments, the political vision remains focused on reaching new audiences for all forms of cultural expression. That is why audience development appears to be one of the first objectives of cultural policy, and all the recent Ministers have stated that cultural and artistic education is one of their priorities.*¹¹⁰ Furthermore, the ‘AFDAS’¹¹¹ organisation is a fundamental actor in professional training for people working in the CCSI.¹¹²

*“In contrast to most European countries, **Germany** was made up of many independent feudal states and city republics that each pursued their own cultural policies and established a host of cultural institutions. (...) All levels of government operate within a Constitutional framework which specifies their respective competence in the cultural field. They are supposed to cooperate with one another on cultural matters (Kulturföderalismus) by jointly supporting cultural institutions and activities.”*¹¹³ Furthermore, the German Ministry for Economy and Energy in collaboration with the Federal Government’s Commissioner for Culture and the Media created the “Culture and Creative Economy Initiative” and the “Centre of Excellence” with the goal of increasing the visibility of the sector and its companies in front of the public, strengthening the sectoral competitiveness, and enhancing work opportunities, including remuneration and access to funding for small cultural enterprises and freelance professionals, networking opportunities and improving social insurance for artists.¹¹⁴ Apart from the state-wide initiatives, the federal states define the policy framework encompassing the CCSI and the educational system for the CCSI, which is implemented autonomously in each *Land*. For example, Berlin has a “Counselling Centre for the Promotion of Culture and Creative Economy” which offers services for CCSI professionals such as entrepreneurial advice for start-ups and existing companies, or a crowdfunding web portal which presents current crowdfunding projects, trends and market developments.¹¹⁵ In Hamburg, “The Hamburg Creative Society” was created in 2010 to promote the local creative economy through seminars and events, coaching, crowdfunding and other services.¹¹⁶

In **Poland**, the Ministry of Culture and National Heritage is the main institutional actor responsible for the development of culture. The institutional structure is characterised by a large number of public cultural institutions supervised by the Ministry. Regarding policy documents, the Polish strategy for cultural and creative industries is comparatively recent. An in-depth diagnosis of the cultural sphere was conducted only in 2004 and revealed a need for a functional framework for the state’s cultural policy focusing on long-term strategic planning. The National Strategy for Cultural Development for 2004-2013 was adopted in the same year and extended for the period until 2020. Within the framework of this strategy, various

¹¹⁰ <https://www.culturalpolicies.net/database/search-by-country/country-profile/category/?id=13&g1=1>

¹¹¹ Organisation that provides and supports skills development in the cultural sectors, creative industries, media, communication, telecommunications, sports, tourism and entertainment. <https://www.afdas.com>

¹¹² Commission paritaire nationale emploi formation spectacle vivant (2013). “La formation professionnelle Contexte général et spectacle vivant : les dates clés”. Available at: <http://cpnefsv.org/sites/default/files/public/pdf/B-Documentation/Fiches/nouvelles%20fiches/Dates%20clés%20formation.pdf>

¹¹³ <https://www.culturalpolicies.net/database/search-by-country/country-profile/category/?id=15&g1=1>

¹¹⁴ <https://kreativ-bund.de/>

¹¹⁵ Bundesministerium für Wirtschaft und Energie, Branchenfokus Kultur- und Kreativwirtschaft, available at: <https://www.bmwi.de/Redaktion/DE/Artikel/Branchenfokus/Wirtschaft/branchenfokus-kultur-und-kreativwirtschaft.html>

¹¹⁶ Hamburg Kreativ Gesellschaft, “Über uns”, available at: <https://kreativgesellschaft.org/uber-uns/>

operational programmes, called the Minister’s Programmes, have been announced, each focusing on different issues and objectives related to the broadly understood concept of culture. Yearly programmes have been growing systematically from 8 in 2005 to 32 in 2018. Specifically, the “Programme for the Development of creative sectors”¹¹⁷ offers funding for creative projects with a focus on a few sub-sectors, including video games, music, design and new media. Moreover, the horizontal Strategy for Responsible Development 2020 under the Ministry of Development prioritises support for the creative sector, specifically through a “Package for Creative Industries”, which proposes tools and mechanisms to promote the creative sector and remove fiscal and institutional barriers.¹¹⁸ This includes, among others, financial incentive schemes for creators in the audio-visual sectors, a ‘fast tax track’ for foreign audio-visual productions made in Poland, and a grant mechanism for the CCSI with a focus on cross-sectoral and interdisciplinary activities to boost the creative industry ecosystem.¹¹⁹ With regards to training, the National Centre for Culture under the Ministry of Culture and National Heritage is responsible for the development and professionalisation of the cultural sector staff.

In **Slovenia**, the National Programme for Culture is the country’s central strategic cultural document. There is currently no strategy being implemented as no programme has been adopted since the 2014-2017 period.¹²⁰ the National Programme for Culture 2018-2025 did not receive sufficient support and the 2020-2027 programme is still under preparation. Nevertheless, actions are being undertaken for the development of the CCSI.¹²¹ In 2017, the Centre for Creativity became operational for the 2017-2022 period.¹²² This project, co-financed by the European Regional Development Fund, aims to create an environment to further support innovations in the CCSI in the country.¹²³ Almost half of the project’s EUR 11 million funding will be dedicated to calls for proposals distributed via the Slovenian Enterprise Fund, with the objective to transform the Centre into a sustainable project.¹²⁴ The Regional Development Agency of the Ljubljana Urban Region is partnering in the EU Interreg project CRE:HUB, which brings together eight regions that consider the CCSI as a strategic sector for development, and support the enterprises in the sector.¹²⁵ The Action Plan developed for the Ljubljana Urban Region underlines several issues such as administrative barriers, unfavourable tax and labour legislation, small market and consequent low demand for innovative projects, lack of specialised educational programmes, lack of spaces for networking (coworking spaces), lack of coordination between support institutions, lack of managerial skills to commercialise creative ideas and most notably, the generally low awareness of the

¹¹⁷ Creative sectors: <http://sektorykreatywne.mkidn.gov.pl/pages/strona-glowna/program-ministra-rozwoj-sektorow-kreatywnych.php>

¹¹⁸ Kancelaria Premiera, “Strategia na Rzecz Odpowiedzialnego rowoju do roku 2020 (z perspektywą do 2030 r.)”, 2017, available at: https://www.gov.pl/documents/33377/436740/SOR_2017_streszczenie_en.pdf

¹¹⁹ Ibid.

¹²⁰ Asociacja.si. “2014. Nacionalni program za kulturo”. Available at: <http://www.asociacija.si/si/2014/08/16/nacionalni-program-za-kulturo/>

¹²¹ Based on interviews performed with industry representatives in Slovenia in October and November 2019.

¹²² Ibid.

¹²³ Centre for Creativity. Available at: <https://www.czki.si/>

¹²⁴ MMC RTV SLO. 2017. “Kako lahko nacionalni Center za kreativnost prispeva h kulturnemu in kreativnemu sektorju?” Available at: <https://www.rtv slo.si/kultura/drugo/kako-lahko-nacionalni-center-za-kreativnost-prispeva-h-kulturnemu-in-kreativnemu-sektorju/437929>

¹²⁵ Interreg Europe. “CRE:HUB. Policies for cultural CREative industries: the HUB for innovative regional development”. Available at: <https://www.interregeurope.eu/crehub/>

role of the CCSI and its potential economic benefits.¹²⁶ The focus of the Action Plan is therefore to help develop entrepreneurial skills, which are generally lacking in the country, and thus help create an environment to support the emergence of new enterprises in the CCSI. Capacity building for students and creative professionals is one of three priorities of the Action Plan.

*“The main objectives of cultural policies implemented by any level of the **Spanish** public administration are the preservation of cultural heritage and the promotion of access to culture. The differences arise in what is considered cultural heritage (tangible versus intangible; of the state versus identities) and which types of cultural manifestations should be promoted and how access should be granted and financed.”¹²⁷*

Spain does not have a solid and consistent policy framework towards the CCSI, as governmental interventions mainly consist of strategic plans with different durations or are limited to initiatives in support of certain domains such as theatre or dance. The Culture Strategy 2020 launched in 2017 includes an Objective 3 – To foster a social alliance for culture – which deserves particular attention in relation to skills.¹²⁸ It underlines the need to improve education in performing arts and cinema and proposes initiatives such as the development of academic curricula for the performing arts and the incorporation of audio-visual and cinema education into the academic curriculum. *“The government’s commitment to promote the culture industries resulted in the creation of a new Directorate-General for Cultural Industries and Policy and the implementation, in December 2008, of the first Plan for the Promotion of Cultural Industries. (...) In the particular context of small and medium enterprises (SMEs), the government, through the different plans for the promotion of cultural industries, has recognised SMEs as the core of the Spanish cultural and creative industry, and addressed one of the main problems faced by these companies: the financing of cultural and creative projects.”¹²⁹*

In **2016**, the UK Department for Culture, Media & Sport published a “Culture White Paper”,¹³⁰ the second such strategic document in UK history. It defined the vision, strategy and proposals for the UK-wide cultural sector, including the arts, museums and galleries, libraries, archives and heritage. The strategy envisages several actions relevant to skills development. Regarding formal education, a particular focus is put on the development of new gold-standard GCSE and A-level examinations in art and design, music, drama, dance and design and technology. In terms of career paths, talent schemes, such as a Music and Dance Scheme, provide support to talented individuals so that they can become professionals in the arts. The strategy recognises that arts career routes need to be clearer, better defined and supported, and therefore aims at reforming technical and professional education to create technical and professional pathways leading to skilled employment. Moreover, steps have been undertaken to respond to the demand for certain skills. For example, the National College for Creative and Cultural Industries has been established to address the demand for offstage and backstage skills. A new “Commercial Academy for Culture” will be established to improve and spread commercial expertise in the cultural sectors. Moreover, a new “apprenticeship levy” was foreseen to increase the intake of apprentices by cultural organisations to three million by 2020. Heritage apprenticeships were to be developed by Historic England to address skills needs for heritage professionals. Other actions of the strategy include:

¹²⁶ European Regional Development Fund. “CRE:HUB Policies for Cultural Creative Industries: the Hub for innovative regional development. ACTION PLAN: Ljubljana Urban Region”. Available at:

https://www.interregeurope.eu/fileadmin/user_upload/tx_tevprojects/library/file_1558517027.pdf

¹²⁷ <https://www.culturalpolicies.net/database/search-by-country/country-profile/category/?id=38&g1=1>

¹²⁸ Ministerio de Educación, Cultura y Deportes. Secretaría de Estado de Cultura. “Plan Cultura 2020”. March 2017.

¹²⁹ https://www.culturalpolicies.net/country_profile/spain-3-5-1/

¹³⁰ Department for Culture, Media & Sport, “Culture White Paper”,

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/510799/DCMS_Arts_and_Culture_White_Paper_Accessible_version.pdf

increasing participation in culture through a “cultural citizens programme” which aims to reach 70 areas where cultural participation is lowest; continued growth investment and incentives for the cultural sectors, including VAT refund schemes, tax relief for institutions, and a Gift Aid donor scheme; using culture as soft power through the work of the British Council and GREAT Britain Campaign to create opportunities for cultural sectors to promote trade, exports and cultural exchanges with the world; increased contribution of cultural sectors to regeneration, health and well-being across the UK, including continued funding for programmes like UK City of Culture and Discover England.

4. CAREER PATHS, SKILLS NEEDS AND SKILLS MISMATCHES IN A SELECTION OF SECTORS AND OCCUPATIONS: EVIDENCE FROM THE FIELD RESEARCH

This chapter describes the main results of the nine case studies carried out as part of this study: the purpose of the case studies was to understand the current and future skills needs and gaps in occupations selected for the analysis, and possible ways to overcome obstacles and mismatches in the future.

We selected three CCSI sectors and within each, three occupations for more in-depth analysis. These are:

- Design and creative services, for which the selected occupations are: advertising manager, digital games designer, and fine arts instructor;
- Visual arts and crafts, for which the selected occupations are: clothing CAD designer, goldsmith, and costume maker;
- Live performance and events, for which the selected occupations are: singer, actor/actress, and violin maker.

For each of the occupations selected in the different CCSI, the study provides:

- The ESCO definition;
- The career paths, degree and qualifications required; and
- The (soft, technical and managerial/entrepreneurial) skills necessary today and in the near future

For each of the occupations selected in the different CCSI, this chapter describes:

- The current skills mismatches and possible way to improve them, taking into account skills and education, occupations, economic situation and public support, and technology and society.

4.1. Career paths and skills needs

4.1.1. Design and creative services

The design and creative services sector includes multiple career options, with various opportunities for ICT application and post-Industry 4.0 transformation. The three occupations selected for in-depth analysis within the design and creative sectors are:

- Advertising manager;
- Digital games designer; and
- Fine arts instructor.

Advertising manager

According to the ESCO classification, “*advertising managers perform the implementation of the advertising initiatives planned in the strategic marketing plan. They organise and prepare the resources needed to launch advertising campaigns and operations in advertising agencies. They prepare and align the communication channels, negotiate contracts, and ensure that operations adhere to budgets.*”¹³¹ Only in Finland is the title advertising manager considered as obsolete, and the title of marketing manager is widely used instead.¹³² Due to technological developments (mobile apps, platforms, digital market), demand for this occupation has significantly increased.

¹³¹ https://www.openriskmanual.org/wiki/ISCO_Specialization_1222.1.1_Advertising_Manager

¹³² The occupation of the marketing manager in Finland goes beyond advertising and encompasses communication, sales, and customer services.

The career path covers various areas of communication, use of visual and audio media as well as the newest technologies to promote a product or service. There is not a common educational path, however, and most of these professionals graduate from a variety of disciplines, including:

- Marketing and advertising;
- Marketing and sales;
- Advertising and public relations;
- (Audio-visual) communication; and
- Business management.

A university degree is required in all the countries selected for the study with the exception of Slovenia, which lacks a specialised high-level educational path towards this occupation.

Regarding required soft skills, a successful candidate for advertising manager needs to have strong interpersonal and communication skills and to express emotional intelligence to shape public opinion. The following technical skills are required: marketing and advertising (including market research), good (and creative) drafting skills, public relations, proven software skills (photo, graphic, analytics software), use of social media and platforms. Among the most sought-after entrepreneurial and managerial skills are project management and monitoring, team management and networking.

The table below lists the full set of soft, technical and entrepreneurial/managerial skills required for advertising managers currently and in the future, based on the case studies and related expert interviews.

Table 1: Skills requirements for advertising manager

Soft skills	Technical skills	Entrepreneurial/ Managerial skills
Current skills needs		
<ul style="list-style-type: none"> • Strong interpersonal skills • Communication skills • Emotional intelligence and empathy with people • Shaping public opinion • Open mindset • Creativity (in expressing ideas) • Analytical thinking • Writing skills • Drive and determination • Willingness to learn 	<ul style="list-style-type: none"> • Market research • Concept creation • Drafting skills (web production and presentation, press release) • Public relations • Project monitoring and performance analysis • Marketing and advertising • Computer software and digital tools, IT literacy (e.g. photo/graphic programmes, analytics software) • Knowledge of new social media channels and platforms • Product research • Numeracy and mathematical skills • Finance and controlling software • Business and sales • Advertising law • Copywriting skills • Influencing and negotiation skills 	<ul style="list-style-type: none"> • Budget definition, negotiation and contract management • Leadership skills • Project management and monitoring • Team management • Adaptation and identification of customers' needs • Setting objectives and supervision • Coaching and mentoring • Lifelong learning • Adaptation and innovation • Risk taking • Marketing • Networking • Time management • PR and media planning • Multi-tasking • Product management • Campaign management • Mentoring
Future skills needs		
<ul style="list-style-type: none"> • Interpersonal skills 	<ul style="list-style-type: none"> • Increasing emphasis on digital content • Mathematic and statistics profiles for big data 	

Soft skills	Technical skills	Entrepreneurial/ Managerial skills
	<ul style="list-style-type: none"> • Corporate image • Computer software and digital tools • New evolving AI and emerging technology • Mobile advertising 	

The comparison of current and future skills needs reveals that future skills should focus more on the technical skills than on the soft skills. Candidates seem to lack basic marketing and sound computer software, technological and digital skills, especially in relation to social media, apps and platforms development. In the future, the emphasis will be put largely on digital content, familiarity with big data, evolving AI and general digital tools. Nevertheless, it seems that soft skills ultimately improve the quality of work of an advertising manager and therefore should not be underestimated. The interviewees commonly agreed that interpersonal skills are of key importance for the profession, followed by communication, teamwork, logical and creative thinking. These skills constitute an important portfolio of personal qualities and should be constantly developed.

Digital games designer

The ESCO description for digital games designer states that they “*develop the layout, logic, concept and gameplay of a digital game. They focus on playfield design, specification writing, and entry of numeric properties that balance and tune the gameplay.*”¹³³ There are several types of occupations in the game development studios: programmers, producers, designers, animators (2D and 3D), business developers, graphic artists, marketing experts and sound engineers. The industry is strongly developing across all countries and thus has an important impact on the economy, especially services and employment. Members of the gaming industry are well represented across the EU (e.g. Organisation of Spanish Videogame Developers, the Polish Game Association and Indie Games Poland Foundation, Games Slovenia). The demand for highly skilled professionals is increasing exponentially and forecasts point to sustained growth. Demand for quality workers exceeds labour market supply, and shortage problems are the biggest challenge for the sector.

There is no common career path; however, the majority of professionals comes from technical specialisations such as:

- Engineering;
- Mathematics;
- Animated cinema;
- Game and creative coding;
- 3D design and computer graphics/design and production, computer science;
- Multimedia, audio-visual, animation, video games, information and communication;
- Video games design, development and/or production; and
- Design and 3D art for videogames.

There is a multiplicity of programmes across the countries and a further segmentation is likely, based on future technological developments. A **formal education is not always required** for the exercise of this

¹³³ European Commission (2019). “concepteur de jeux numériques/conceptrice de jeux numériques”, ESCO classification. Available at: <http://data.europa.eu/esco/occupation/d68ff35f-e34d-4e32-88ab-d6c06a6c25b9>

occupation, so that in Slovenia students follow general courses in computer science and IT. However, diplomas are needed in some cases: for instance, a general tertiary diploma in IT, architecture or sociology is needed in Poland, while University-level degrees are necessary in Germany. **Lifelong learning** is necessary for this occupation via professional training activities such as specialised seminars, courses, workshops, or summer schools.

Regarding the required skills, the successful candidate for digital games designer should above all have advanced **technical skills** in the area of IT and new technologies, programming, 2D and 3D animation, software design as well as proven design and development techniques. Along these, strong **soft skills** in terms of creative thinking, analytical skills, abstract thinking, problem solving, and teamwork are sought in the labour market. While not essential, entrepreneurial and managerial skills such as leadership, project management and business skills could prove useful for digital games designers.

The table below lists the full set of soft, technical and entrepreneurial/managerial skills required for digital games designers currently and in the future, referring to the inputs of the experts to the case study interviews.

Table 2: Skills requirements for digital games designer

Soft skills	Technical skills	Entrepreneurial/ Managerial skills
Current skills needs		
<ul style="list-style-type: none"> • Creativity • Teamwork • Multi-tasking • Analytical skills • Communication skills • Abstract thinking • Problem solving • Flexibility and adaptability • Logic • Multi-cultural adaptation • Spatial imagination • Organisational skills • Drive and determination • Attention to detail 	<ul style="list-style-type: none"> • IT and new technologies (web, mobile apps) • Software design • Image techniques • Programming and G-graphic design • Content design (2D/3D animation, characters development) • Design process • Culture and image knowledge • Interface design • CAD • Artificial Intelligence • Mathematical skills • Script and storyboard writing 	<ul style="list-style-type: none"> • Marketing • Market research • Resource planning • Project and product management • Leadership • Business skills • Software licence (legal frameworks, IP law) • Strategic marketing • Customer orientation • Networking • Life-long learning • Understanding of game industry economics • Team management • Time management • Networking • Monetisation of know-how
Future skills needs		
<ul style="list-style-type: none"> • Interpersonal skills • Creativity • Flexibility as the sector is rapidly evolving 	<ul style="list-style-type: none"> • VR technologies • Increasing importance of 3D and AI • Integration of new platforms and tools • Assessment of user experience • Data analysis 	<ul style="list-style-type: none"> • Budgeting • Public relations • New business models • Play testing • Familiarity with game development cycle • Sales and performance analysis

The profession of digital games designer is going to face several **changes**, mostly linked to **technological developments**. The occupation will see an increase in data analysis skills (user preferences). In terms of **technical skills**, an increased knowledge of new technologies (3D, artificial intelligence, platforms and new tools and apps), game development (game engine programming, scripting of game mechanics, analytical design and game structure creation), supporting the emergence of new fields specific to game development (game designer, computer game production) will be sought. Among the current and future

skills gaps, professionals' inability to transpose handwritten prototypes into digital engines has been identified. Although **entrepreneurial and managerial skills** are secondary for this occupation, a good understanding of sales performance, leadership, project management, software licencing (IP law) and business management in terms of how the games and its additional features can be monetised, constitute an asset. In some countries (e.g. France, Germany), a mismatch between the existing study programmes and the fast-evolving needs of the industry was mentioned.

Fine arts instructor

According to the ESCO classification, "*Fine arts instructors educate students in specific theory and, primarily, practice-based fine arts courses at a specialised fine arts school or conservatory at a higher education level, including drawing, painting and sculpturing. They provide theoretical instruction in service of the practical skills and techniques the students must subsequently master in the fine arts. Fine arts instructors monitor the students' progress, assist individually when necessary, and evaluate their knowledge and performance on the fine arts through, often practical, assignments, tests and examinations.*"¹³⁴ In the British qualification system, this occupation corresponds to higher education teaching professionals, while in Germany the occupation definition is broader, and is under the label of Art Historian. In general, fine arts instructors are specialised in an artistic field, and combine teaching with the practice of their artistic activity.

Regarding the career path, **educational requirements and tracks are well defined** in most of the countries, and are often more structured than for other occupations. Fields of study and qualification requirements include:

- Art science;
- Fine arts, design;
- Plastic/applied arts;
- Art pedagogy;
- University degree in a specialised art or media field;
- Bachelor's or Master's degrees, PhDs; and
- Master's in teaching professions, Master's in arts.

University degrees, most often at least a Master's if not a PhD, are required in most countries to pursue a career as a fine arts instructor, depending on the educational level at which they teach. In **Germany**, undergraduate degrees are required as a minimum to teach extracurricular classes. To teach in public schools, a university course or school training and a state exam are required. Professionals can also complete a Master's. In the **UK** especially, being a practising artist is fundamental to pursue a career as a fine arts instructor. There, a Master's degree is the minimum required. In **France**, it is required to hold a Master's degree, and to complete a Master's in teaching, education and training before taking the entrance examination for public service. In **Spain**, University instructors need to hold a doctorate, but in private schools a Master is often enough. In public universities, as in France, instructors have the status of civil servants.

In terms of skills, **soft skills** seem to be fundamental across all countries for fine arts instructors. This can be explained by the **dual specialisation** that is required, of being a teacher and an artist at the same time. These soft skills include for instance psychology, pedagogy, speaking in public, handling and managing students. The **technical skills** reflect more the artistic specialisation that is required, with theoretical

¹³⁴ European Commission (2019). "professeur des beaux-arts/professeure des beaux-arts", ESCO classification. Available at: <http://data.europa.eu/esco/occupation/54361270-bc5e-40fb-8f84-a0023a85cdf7>

knowledge and practical specialisation in a field and their related skills. Technical skills also include teaching techniques. **Managerial and entrepreneurial** skills are also related to the artistic side of the profession, such as project management, networking, and marketing skills (for instance, to promote study programmes to potential students).

The table below lists the full set of soft, technical and entrepreneurial/managerial skills required for fine arts instructors currently and in the future, based on a range of interviews with experts from different countries.

Table 3: Skills requirements for fine arts instructor

Soft skills	Technical skills	Entrepreneurial/ Managerial skills
Current skills needs		
<ul style="list-style-type: none"> • Pedagogical skills and psychology • Written expressiveness • Sense and feel for aesthetics • Teamwork, cooperation with students and teachers • Creativity • Rigour • Motivation and desire to pass on knowledge • Communications skills • Sensitivity • Synthetic, analytical, critical, creative thinking and problem solving • Mediation • Open-mindedness • Public speaking • Knowledge of foreign languages • Independent approach • Interpersonal skills • Spirit of initiative • Autonomy • Ability to simplify problems and present them • Respect of the hierarchy 	<ul style="list-style-type: none"> • Information literacy & use of ICT in education • Practical and theoretical knowledge about drawing, photography, use of digital devices and specialisation in a field • Knowledge, understanding and application of various artistic grammars • Ability to test and evaluate students' knowledge and achievement, and to formulate feedback • Design of creative and practical content and exercises • Artistic, aesthetic and historic contexts • Use of tools and materials for artistic creation • Adapt instruction to individual students' needs • Work with virtual learning environments • Classical and contemporary artwork knowledge 	<ul style="list-style-type: none"> • Teamwork • Time and project management • Leadership • Motivate students and rhetorical skills • Planning and organisational skills (preparation of classes) • Coaching • Service provision: creating an enabling atmosphere • Networking • Basic marketing skills • Ability to manage teaching responsibilities in parallel with art practice/Research • Marketing • Understanding art's role in the sociocultural contexts where it emerged
Future skills needs		
<ul style="list-style-type: none"> • Psychology 	<ul style="list-style-type: none"> • Interdisciplinarity (evolving) • Knowledge, understanding of different media of visual culture and theories • Administrative tasks • Management of different learning situations • Greater emphasis on the use of digital technologies 	<ul style="list-style-type: none"> • More networking skills will be needed to cooperate with other institutions • Budget and project management • Administrative tasks

Overall, more **entrepreneurial and practical skills are needed**. As fine arts instructors are also working as artists, they need knowledge in entrepreneurial skills, which is currently lacking in most of the trainings, as well as managerial skills. The **technical skills** required also need to be further developed. Furthermore, Slovenian and Bulgarian interviewed experts expect a mismatch in technical skills, or a

decline of those skills among the new generations of fine arts instructors. Technological innovation is an important aspect in the skills needs, which impacts on teaching methods.

In the future, **managerial and entrepreneurial skills are expected to increase**, as project management will be increasingly required. This could for instance consist in project management with small numbers of students (Slovenia). Administrative skills were also mentioned as needed in the future in the case of France, because of the increased need in managerial skills, and decreasing budgets pushing teachers to find funding opportunities. Technological skills are expected to be more and more required with technological change and new requirements. Several experts fear these changes will be difficult to integrate in several countries because of the lack of resources devoted to educational institutions. Brexit and the increase of tuition fees of EU students are also expected to have an impact for the UK, and it might happen that UK fine arts instructors will teach in other countries.

4.1.2. Visual arts and crafts

The crafts sector is mainly composed of professionals working in graphic, product, interior or industrial design and illustration. The sector's workforce includes a wide range of sole operators and freelance contractors, while design companies may also employ design professionals. The three occupations described and assessed within this section are:

- Clothing CAD technician;
- Goldsmith; and
- Costume maker.

Clothing CAD technician

According to the ESCO classification, *“clothing CAD technicians use software to create design plans for clothing products. They work in 2D design, which is known as surface modelling, or 3D design, which is called solid modelling. They use surface modelling to draw a flat representation of the clothing product. In solid modelling, they create a 3D display of a structure or component in order to take a virtual look of the clothing product.”*¹³⁵

In the vast majority of the countries examined, the definition reported above applies very well to the profession. In **France**, there is an addition by the Employment Agency (*“Pôle Emploi”*) to the above description: a clothing technician might have to coordinate a team. It is obvious that this addition mainly refers to a specific skill that clothing CAD technicians would ideally acquire and does not represent a variation to the description of the occupation. However, the clothing CAD technician profession does not exist as such in **Germany** but is part of the clothing technician profession (*“Bekleidungstechniker”*). According to the State Agency for Work (*“Bundesagentur für Arbeit”*), clothing technicians plan, monitor and optimise processes in clothing production from design to production and delivery of the products. Finally, the profession of Clothing CAD technician does not exist as such in the UK.

The **career path** of the clothing CAD technician occupation is **well defined and framed** in most of the countries examined (Bulgaria, Czech Republic, France, Finland and Slovenia) and includes the following educational levels:

- Secondary level (high school, etc.) courses, often offered by technical and/or specialised secondary schools;
- Vocational courses offered by private educational institutions; and

¹³⁵ <https://www.123test.com/professions/profession-clothing-CAD-technician/>

- University and higher education level courses (textile and clothing technology).

In all the educational levels above, courses focus on:

- Traditional fashion and clothing design and digital/computer-assisted clothing design;
- Textiles and clothing studies; and
- Arts and design in 3D printing and modelling.

In Poland and Spain, no specific career path exists. In **Poland**, the occupation of the clothing CAD technician (or clothing CAD constructor as it is widely known in Poland) is rather new and, therefore, relevant skills and courses are taught (mainly) by private vocational post-secondary schools. At the same time, there are some newly established departments in some of the country's Fine Arts Academies and Technical Universities. In **Spain**, there are no specialised courses offered for clothing CAD technicians but more general ones such as design courses. In the UK, there is no defined career path; therefore, common studies focus on fashion design. Specialisation courses in CAD are often required, as well as a Bachelor's degree as a minimum. In **Slovenia**, **experts perceive a lack of appropriate training facilities in the country**. In **Germany**, companies tend to prefer employing professionals who have completed vocational training rather than a university degree. This is expected to evolve, as team leading positions will be increasingly needed.

Expanding this analysis to the necessary **technical skills**, a clothing CAD technician should acquire basic and advanced digital skills, familiarity and ability to work with CAD and other relevant design software, 2D and 3D design skills, as well as advanced materials knowledge and familiarity with the occupation's techniques. Alongside the technical skills, the clothing CAD occupation requires some basic **soft skills**, such as communication skills, problem solving, creativity and flexibility, as well a combination of **entrepreneurial/managerial skills**, such as marketing skills, time management, innovation capability and foresight, basic business and financial management skills and networking skills.

The table below lists a set of soft, technical and entrepreneurial/managerial skills required for clothing CAD technicians currently and in the future, based on the judgement of the interviewed experts.

Table 4: Skills requirements for clothing CAD technician

Soft skills	Technical skills	Entrepreneurial/ Managerial skills
Current skills needs		
<ul style="list-style-type: none"> • Problem-solving; detail- and solution-oriented • Creativity, innovation • Flexibility to adapt to the changing environment • Artistic skills; desire for expression • Communication and interpersonal skills • Interoperability • Spirit of initiative • Stress management • Teamwork • Aesthetic and visual appreciation (taste, style, etc.) • Spatial awareness/imagination • Dexterity • Pronounced feel for materials and textiles 	<ul style="list-style-type: none"> • Digital skills • Familiarity with new CAD/CAM software and ability to design patterns • 2D and 3D design skills • Marker diagram knowledge • Familiarity with various drawing and design software • Familiarity with various operational systems • Ability to translate abstract ideas and prototypes into technically feasible projects • Craftsmanship and handcrafts; Manual crafts & techniques (artistic design, drawing, sewing, modelling, cutting) • Flair for colour combinations 	<ul style="list-style-type: none"> • Marketing skills • Business management & planning • Resource management • Time management and work organisation • Customer relationships management • Financial management and accounting • Innovation capability and foresight • Networking skills • Project management • Leading and motivating a team • Evaluation of production data • Product management • Quality assurance and testing • Negotiation skills • Cost calculation

Soft skills	Technical skills	Entrepreneurial/ Managerial skills
<ul style="list-style-type: none"> • Ability to endure loud noise and strong smells • Ability to generate ideas and concepts • Proactivity • Organisation and time management • Language skills 	<ul style="list-style-type: none"> • Ability to digitalise handmade designs and patterns • Preparation of the production and wearing apparel prototypes • Performance of the process control in the wearing apparel industry • Knowledge of all types of composition of fabrics and knitwear as well as dyeing and enrichment of fabrics and knitwear, textile printing and textile care • Mathematical knowledge • Ability to quickly create new, realistic and editable designs 	<ul style="list-style-type: none"> • Performance calculation • Accounting and administration for self-employed • Communication and promotion for self-employed
Future skills needs		
	<ul style="list-style-type: none"> • Ability to operate new and innovative digital tools • Modelling, simulation, virtualisation • Ability to operate computerised control systems • More software knowledge • Ability to use measuring software 	<ul style="list-style-type: none"> • Negotiating skills • Lifelong learning: eagerness to keep knowledge updated • Networking skills

Looking at the future of the clothing CAD technician occupation, several potential evolutions were identified, mainly related to technological change and innovation. In terms of **technical skills**, the ability to operate new software, innovative digital tools and computerised control systems along with advanced modelling, simulation and virtualisation skills will be sought. Furthermore, to ensure their future, success and viability, self-employed clothing CAD technicians need to understand the **entrepreneurial** aspects of their occupation and operation. There are also **mismatches between the skills taught and those required**, for instance with a lack of practical software training (CAD/CAM software). Within this context, experts mentioned that educational institutions should continuously update the software they use in their courses, and should also include entrepreneurship and basic entrepreneurial skills in their curricula.

It is necessary that national strategies support educational institutions to improve and modernise their curricula, and to ensure that the skills they teach are up-to-date and respond to market needs. More cooperation between the industry and the educational institutions is recommended.

Goldsmith

According to the ESCO classification, “*goldsmiths design, manufacture and sell jewellery. They also adjust, repair and appraise gems and jewellery for customers using experience in the working of gold and other precious metals.*”¹³⁶

¹³⁶ https://www.openriskmanual.org/wiki/ISCO_Specialization_7313.1.2_Goldsmith

In all countries, no variations from the above description are detected. Only in **France**, the Employment Agency (“*Pôle Emploi*”) adds that goldsmiths, apart from gems and jewellery, also work on decorative or worship objects.

The **career path** of a goldsmith is well defined in the majority of the countries: relevant courses can already be taken in high school and vocational and specialised secondary schools and, afterwards, the candidate follows an apprenticeship programme to acquire the more practical skills. Following the apprenticeship programme, the candidate can acquire the relevant diploma and/or continue to attend the available university and higher education courses.

In some countries (Poland, Czech Republic, Bulgaria), a **specialised education is not obligatory** for one to become a goldsmith. An apprenticeship and relevant working experience can be sufficient to acquire the relevant diploma. In **France, Germany and Spain**, there are options for university and higher education in relevant, but general, fields (arts professions) that provide the option to specialise in the fields of arts using metals. An apprenticeship or a BA is required as a minimum. Experts from all countries involved in the study refer to a shortage of training and educational options.

Analysing the necessary skills for a goldsmith, on a **technical level**, an in-depth technical knowledge of noble and precious metals and of the relevant tools, techniques and technology, craftsmanship and enhanced working and design skills will in the future need to “co-exist” with the ability to use and operate different digital tools (e.g. CAD/CAM, 3D modelling, 3D printing). On a **managerial and entrepreneurial level**, since most goldsmiths run their own businesses, basic entrepreneurial skills (business and financial management, knowledge of business law) as well as advanced marketing and digital marketing skills are considered to be very important. Moreover, as in all occupations, certain **soft skills**, such as teamwork, communication skills, creativity, problem solving and flexibility, can significantly support the work of a goldsmith.

The table below lists the full set of soft, technical and entrepreneurial/managerial skills identified by the interviewed experts required for goldsmiths, currently and in the future.

Table 5: Skills requirements for goldsmith

Soft skills	Technical skills	Entrepreneurial/ Managerial skills
Current skills needs		
<ul style="list-style-type: none"> • Teamwork • Communication & interpersonal skills • Creativity; artistic sensitivity, sense of aesthetics • Attention to detail • Flexibility to adapt to the changing environment • Emotional intelligence • Problem solving • Eye-hand-coordination • Dexterity • Patience • Organisation and time management • Commitment and passion 	<ul style="list-style-type: none"> • In-depth technical knowledge of noble and precious metals and relevant tools and technology • Craftsmanship and enhanced working skills • Design skills • Ability to use and operate different digital tools (e.g. CAD/CAM, 3D modelling, 3D printing, laser cutting, rapid prototyping) • In-depth knowledge of all relevant goldsmithing techniques • Precision; attention to detail • Principles of occupational health and safety and fire protection • Modelling and model making, drawing skills • Design and representation assisted by software 	<ul style="list-style-type: none"> • Marketing skills • Digital marketing skills • Shop presentation skills; merchandising • Business management & planning • Time management and work organisation • Customer relationships management • Financial and accounting management • Networking skills • Team coordination • Knowledge of basic business law • Sales • Project management • Commercial skills, advertising skills • Accounting for self-employed

Soft skills	Technical skills	Entrepreneurial/ Managerial skills
	<ul style="list-style-type: none"> • Gemstone setting • Hand engraving • Forging 	<ul style="list-style-type: none"> • Communication and promotion for self-employed
Future skills needs		
<ul style="list-style-type: none"> • More emphasis on communication (advertising via story telling on social media, news feeds) 	<ul style="list-style-type: none"> • Ability to use new technologies and tools, like 3D printing, 3D jewellery design, etc. • Ability to operate computerised control systems • Familiarity with new and innovative digital tools • Modelling, simulation, virtualisation • Knowledge of new materials • Specialisation: artistic jewellery design, centrifugal casting technique, etc. • Increased reliance on CAD and CAM, laser welding and rapid prototyping 	<ul style="list-style-type: none"> • Online/digital marketing • Negotiating • Awareness of market trends and consumer preferences • Ability to use and exploit e-commerce • Entrepreneurial skills are becoming more and more relevant

Some skills gaps have been detected. In Germany, one of the issues highlighted is the duration of courses, rather than a mismatch between the skills taught and those required. The BA programme lasts six semesters, which experts judge to be insufficient to learn the required skills. Completing a Master's degree would be needed.

The future of the goldsmith's occupation is strongly connected with the vast **technological advancement** on two levels: firstly, with respect to the technologies that a goldsmith could use and exploit in order to improve his/her products (e.g. 3D printing, 3D jewellery design, etc.), and secondly, with respect to the sales channels that could be exploited; e-commerce and further development of digital marketing techniques and tools being two typical examples.

However, at the same time, the afore-mentioned opportunities are also considered as the occupation's current challenges alongside the following:

- Courses offer only limited knowledge of new technologies and tools (3D printing, 3D design, etc.);
- Goldsmiths lack basic managerial and entrepreneurial skills as no business administration courses are offered to candidates;
- New candidates for this profession do not perform well in terms of "manual know-how", due to shortcomings in the types of vocational training offered; and
- According to the interviewed stakeholders, online selling is gradually replacing the traditional goldsmith shops; it is thus crucial for goldsmiths to acquire marketing, PR, and social media management skills.

Experts recommend that educational courses be modernised and updated to better address the changing needs of the sector and to overcome the afore-mentioned challenges.

Costume maker

According to the ESCO classification, "costume makers construct, sew, stitch, dye, adapt and maintain costumes to be used in live performances and in movies or television programs. Their work is based on

*artistic vision, sketches or finished patterns combined with knowledge of the human body to ensure the wearer maximum range of movement. They work in close cooperation with the designers.*¹³⁷

In the countries covered by the study, there is **no common career path** to become a costume maker. On the contrary, several routes exist, sometimes even in the same country. In some of the countries considered, the candidate can finish high school and follow specialised higher education studies in the field of costume design and making, as is the case in **Bulgaria, the Czech Republic, France and Poland**. In other cases, the candidate can finish high school and follow higher education studies in the general field of design or fashion design, and then specialise in the field of costume design and making either by attending studies at Master's level or by actual practice in the field (e.g. in **Poland, Slovenia, Spain, Germany, UK**). The candidate can also attend specialised courses offered by secondary or post-secondary vocational schools, as is the case in **Bulgaria, Finland and Poland**. Particularly, in the case of Finland, the vocational school studies can be combined with an apprenticeship scheme. In some countries, a relevant degree is not a necessary requirement to work in the profession (**Germany, France, UK**).

A successful costume maker needs to possess a particular set of **technical skills**, such as advanced sewing skills, mastery or at least understanding of traditional handicrafts related to sewing and tailoring, knowledge of the relevant materials and tools, and advanced digital and digital design skills. As in all professions and in order to ensure success and viability, technical skills should always be combined with soft and transversal skills. For the profession of the costume maker, the necessary **soft skills** are communication, teamwork, creativity, flexibility and attention to detail. Last but not least, since in all countries reviewed in this study, the majority of the costume making professionals are self-employed, particular **entrepreneurial and managerial skills** are necessary, including basic entrepreneurial skills (business and financial management, knowledge of business law), customer and supplier relationship management, and advanced networking skills.

The table below lists the full set of soft, technical and entrepreneurial/managerial skills required for costume makers currently and in the future, based on the recommendations of interviewed experts.

Table 6: Skills requirements for costume maker

Soft skills	Technical skills	Entrepreneurial/ Managerial skills
Current skills needs		
<ul style="list-style-type: none"> • Teamwork • Communication and interpersonal skills • Abstract and conceptual reasoning • Creativity • Attention to detail • Flexibility to adapt to the changing environment • Awareness of the new trends in culture, artistic movements • Stress management • Emotional intelligence • Language skills • Spatial awareness/imagination • Eye-hand coordination • A feel for aesthetics 	<ul style="list-style-type: none"> • Sewing skills • Knowledge of the materials and technologies within the field • Design of the different styles of clothing • Skilfulness • Knowledge of the historical development of clothes • Understanding of the artist's work; basic artistic skills • Understanding of various other aspects of the production • Digital skills • Manually/electronically design a costume following a theme 	<ul style="list-style-type: none"> • Planning and organising skills • Resources management • Human resources management • Financial management skills • Production preparation and management • Customer and supplier relationship management • Orientation in basic legal regulations related to business, logistics, contracting, etc. • Proactiveness, self-motivation and drive • General knowledge about the job market and working as costume designer

¹³⁷ <https://www.123test.com/professions/profession-costume-maker/>

Soft skills	Technical skills	Entrepreneurial/ Managerial skills
<ul style="list-style-type: none"> • Understanding of society • Being passionate • Problem-solving skills • Persistence • Customer service and support 	<ul style="list-style-type: none"> • Maintaining textiles and knowledge of the latter • Digital costume design • Mastery or at least understanding of traditional handicrafts related to sewing and tailoring • Ability to use CAD systems and 3D modelling • Colour design • Sculpture for the creation of costumes and masks • Spray-painting 	<ul style="list-style-type: none"> • Negotiation skills • Networking skills • Project management • Cost calculation and bookkeeping • Researching ability • Health and safety • Communication and promotion
Future skills needs		
	<ul style="list-style-type: none"> • Familiarity with new and innovative digital tools • Advanced digital skills (laser cutting, 3D printing, digital design) • New materials • Increased reliance on CAD and 3D modelling 	<ul style="list-style-type: none"> • Basic financial management skills • Entrepreneurial skills to manage one's career in the freelance economy

Current problems include a lack of relevant options in educational programmes (as for example highlighted by experts in the German context), and skills mismatches due to a lack of practical training in the curricula. As evoked in the case of the UK, there can be a lack of knowledge in the use of 3D software.

Two main aspects undermine the sustainability of the costume making profession:

- Low level of adaptation to technological changes and new trends, tools and methodologies; and
- Economic and financial instability, since in the vast majority of countries the profession is characterised by a high level of uncertainty and instability in relation to remuneration and basic social security. This is due to the fact that costume makers are contracted on a project basis and not on a regular and/or permanent basis.

Familiarity with new and innovative digital tools along with advanced digital skills (e.g. laser cutting, 3D printing, digital design, etc.) will significantly contribute to address the first challenge, while advanced entrepreneurial and managerial skills that allow costume makers to better manage their career in the contract economy will help the professionals minimise risks related to the second challenge.

Some other significant challenges related to the occupation of the costume maker are:

- Lack of sufficient resources at educational institutions (technological innovation) and at theatres (infrastructure and support services); and
- Lack of a specialised study programmes for the profession (applicable to some of the countries examined).

4.1.3. [Live performance and events sectors](#)

The live performance and events sectors include several career options related to music and entertainment. The sector is impacted to some extent by the development of new technologies, depending on the occupation and its skills requirements. The three occupations assessed in this study within the performance and events sector are:

- Singer;
- Actor, actress; and
- Violin maker.

Singer

According to the ESCO classification, singers are “*professional musicians, skilled in the use of their voice as a musical instrument, with different vocal ranges. They perform for live audiences and for recordings in different musical genres.*”¹³⁸ The French employment agency (*Pôle Emploi*) also specifies that singers can also be music composers.¹³⁹ In **France**, most of the singers are entitled to the intermittent status, and often have to rely on a second occupation to earn a sufficient level of income.¹⁴⁰ The **Finnish** occupations website Ammattinetti distinguishes artistic music singers, performing as soloists or in choirs, and light music singers, focusing on rock or pop music.¹⁴¹ In **Poland**, there is also a distinction between classical soloists and choristers working in public institutions, and vocalists performing other types of music. In the **UK**, 90% of musicians are self-employed. They do not benefit from a specific status and often face precarious situations. Access to government support is an important element.

The educational paths can differ and include secondary or higher education. There is no common career path to reach a professional level. The latter is achieved through various means:

- Secondary specialised education in national schools;
- High school degree and university entrance exam to access university education;
- Secondary vocational schools (vocal training and musical studies);
- Technological secondary schools (dance and music techniques, instrument specialisation);
- University of Arts (Bachelor’s and Master’s), with specialised degrees (vocal music, opera singing, etc.);
- National Academies of Music/National Music Schools (classical or contemporary singing programmes, musical education, musical arts for instance);
- Conservatory;
- Polytechnics;
- Private music schools;
- Music studies (universities);
- Academy of Performing Arts; and
- University music education.

In the **Czech Republic** and **Spain**, most of the conservatories focus on classical music training. However, some institutions have begun to focus on jazz or more popular music. More contemporary styles are being gradually integrated into the curricula. In the UK, classical and opera singers complete a four- to six-year training.

¹³⁸ European Commission (2019). “chanteur/chanteuse”, ESCO classification. Available at: <http://data.europa.eu/esco/occupation/6581aa0d-c807-4091-84cc-bc041f962ab1>

¹³⁹ Pôle Emploi (2019). “Chanteur/Chanteuse– Provence-Alpes-Côte d’Azur – Fiches métiers”. Available at: <https://recrutement.pole-emploi.fr/marche-du-travail/fichemetierrome?codeMetier=11733&codeZoneGeographique=93&typeZoneGeographique=REGION>

¹⁴⁰ ONISEP (2019). “Auteur/e-compositeur/trice interprète”. Available at: <http://www.onisep.fr/Ressources/Univers-Metier/Metiers/auteur-compositeur-interprete-auteure-compositrice-interprete>

¹⁴¹ Ammattinetti. “Singer, art music”. Available at: http://www.ammattinetti.fi/ammattit/detail/167_ammatti; Ammattinetti. Singer, light music. Available at: http://www.ammattinetti.fi/ammattit/detail/174_ammatti

Passing an **entrance exam** is also required to access music studies. For instance, in **France**, the network of schools for music is a strong asset as it allows a certain number of students already exercising a professional career to access professional training.

Regarding **qualification requirements**, in some countries (**Finland, France, UK**) a specific qualification is not formally required to become a singer. Indeed, in **Finland**, for “light music singers”, musical talent can be enough, though subsequent training during their career can be needed. For high artistic level singers, basic musical education is recommended. In **France**, the interviewed experts saw the possibility to become a self-taught singer as a strength: indeed, no educational degree is required to perform music. This marks a difference with classical artists, who need to pass a *concours*. Overall, one’s network is an important element to pursue a musical career. In **Poland**, a Bachelor or a Master’s degree from an Academy of Music or a University of Music can be required, but is also not compulsory. The degrees include the following:

- Specialised secondary education degree in folklore arts;
- Technological/vocational high school degrees;
- BA & MA in Folklore Arts, Music, Musicology;
- High Professional Music Diploma (singing, specific instrument, or composition specialisation);
- Master’s degrees and PhD (optional);
- Music academies/schools’ diplomas;
- Music studies degree;
- National degree in music professional orientation;
- High national professional degree of musician; and
- Bachelor’s/Master’s degrees from an Academy of Music/University of Music.

Regarding the skills needs required for this occupation, **soft skills** include communication skills as well as personal skills related to stage performance such as stress management, presence and style, or talent. **Technical skills** focus as much on the technical practice of an instrument or of one’s voice, as on theoretical and repertoire knowledge. Finally, **entrepreneurial and managerial skills** for this occupation refers to time management, marketing skills, project management and overall organisational skills.

The table below lists the full set of soft, technical and entrepreneurial/managerial skills required for singers currently and in the future, as judged to be necessary by the interviewed experts.

Table 7: Skills requirements for singer

Soft skills	Technical skills	Entrepreneurial/ Managerial skills
Current skills needs		
<ul style="list-style-type: none"> • Teamwork • Flexibility, adaptability • Open mindedness • Stress management • Communication • Publicity acceptance • Interoperability • Interpersonal skills • Creativity • Autonomous learning • Perseverance • Self-criticism • Individual presence and style 	<ul style="list-style-type: none"> • Instrument mastery • Composing • Design of concert programme • Knowledge of recording technology • Practice of various music styles • Acting and performing • Language skills • Musical talent • Singing, vocal skills • Use of technical equipment (e.g. microphone) • Harmony and rhythm • Hearing training 	<ul style="list-style-type: none"> • Time management • Project management • Leadership, organisation • Planning skills • Networking • Marketing/marketing plan development • Business plan development • Financial skills • Improvisation • Daily training • Initiative • Capacity to negotiate one’s work and price setting

Soft skills	Technical skills	Entrepreneurial/ Managerial skills
<ul style="list-style-type: none"> • Ability to explain and teach • Physical strength (intense rhythm of work) • Talent • Audacity • Desire to share • Confidence in performing before an audience • Patience and understanding criticism and acceptance of rejection • Verbal expression • Sense and feel for aesthetics • Resilience 	<ul style="list-style-type: none"> • Choir and orchestral practice • Voice quality and technique (strength, depth, breathing techniques, training, elocution, memorisation, voice placement) • Musical memory • Music skills and theoretical knowledge (solfege) • Knowledge of artwork in music and of music history • Ability to create own repertoire in line with own voice capabilities • Recording technique • Ability to use a Digital Audio Workstation (DAW) 	<ul style="list-style-type: none"> • Self-management • Communication and promotional skills • Legal knowledge about the activity • Public speaking
Future skills needs		
	<ul style="list-style-type: none"> • Contemporary musical sounds • Update of the technical skills suitable for the new styles of singing and the technical opportunities • New technologies could facilitate the learning process about songs history and open access to authentic songs stored in the national archives 	<ul style="list-style-type: none"> • Self-presentation • Branding – building your own music brand, digital brand • Making more use of the new opportunities of online platforms in terms of new and sustainable business models • New technologies and digitisation could enable singers to better self-produce their albums and market their creative products • The skills above are expected to be more and more required, particularly communication and management

The comparison of skills needs for this occupation shows a **strong focus on technical skills**, followed by **entrepreneurial and managerial skills**. Managerial skills will be increasingly needed due to (1) new technological applications and their management (e.g. online self-marketing), and (2) the trend, in some countries, towards increased entrepreneurship in this occupation. These include communication skills, using online platforms for business models, self-production of albums, or new opportunities in terms of techniques and new sounds or musical genres. For some country experts, the lack of knowledge on the use of technology for the self-production and marketing of music was indicated as a skills gap. Shortages in soft skills are less apparent but still necessary components of the occupation.

Overall, the changes due to **technological development require important adjustments** to the profession. Revenues from live music have become more important for singers and for the industry – a trend dating from before the 2020-21 pandemic. At the same time, an important decrease of the record industry has been noted, which was replaced by streaming platforms and an intense activity of live music. Instead of selling records, singers try to make a living from the streaming of their music. This profoundly changed the occupation's profile and led to the development of new skills such as marketing through social media channels. A study on training needs conducted in **France** demonstrated an apparent shortage of

managerial and entrepreneurial skills among singers.¹⁴² For instance, 79% of performing artists sought training in accounting and finance, while 64% looked for management training. On the other hand, experts report that in **Poland**, the suggestion was made to include managerial and entrepreneurial courses in the curricula, but the idea did not receive support from the music industry.

Actor/actress

According to the ESCO classification, *“actors/actresses play roles and parts on live stage performances, TV, radio, video, motion picture productions, or other settings for entertainment or instruction. They use body language (gestures and dancing) and voice (speech and singing) in order to present the character or story according to the script, following the guidelines of a director.”*¹⁴³ In **France**, the occupation can benefit from the intermittent worker status. The status of actor in **Spain** is quite similar to that in France. This results in a high precarity for actors/actresses, who face a competitive job market, a small number of vacancies, or a lack of job opportunities. Several countries such as Finland and Poland have witnessed an increasing number of **freelance actors** who are involved in several productions at once. Decreasing funding for theatres is detrimental to the profession, and was especially highlighted by interviewed experts in Bulgaria.

There are various **educational paths** for actors and actresses across the countries and it is evident that there is no unique way to reach professional levels in this occupation. Below is a list of the different types of available training programmes across countries, including in secondary and higher levels of education:

- Specific programmes taken as specialisations during secondary education;
- Acting training in specialised (drama) schools and (art, drama, theatre) academies;
- State-regulated vocational schools;
- Universities of theatre, music, fine arts, performing arts (Bachelor’, Master’s, Doctoral degrees);
- Drama studies;
- Academic drama research education;
- Polytechnics;
- Private specialised training;
- Singing and acting studies; and
- Conservatories.

In **France**, an increasing number of higher education institutions (HEIs) are providing educational paths for actors and actresses. However, this does not solve the remaining issue of professional placement. These HEIs are the best way to find a position for actors in theatre, even if the placement rate remains low. There is a scheme supported by public funds allowing students from the *Conservatoire* to work on projects with theatre companies, which ensures them a first job. Experts in several countries also mentioned that attending a school is also a way to create a network, which is important to finding a position. In **Spain**, in order to be hired by national theatre companies, actors are obliged to have completed a formal training in acting.

Regarding **qualification requirements**, experts from some countries mentioned that diplomas were not necessarily needed to pursue an acting career, or not formally required. This is the case in **Finland** for instance. However, most actors still have a university degree as it increases their chances of securing an

¹⁴² Observatoire des métiers du spectacle vivant (2018). “La formation professionnelle continue dans le spectacle vivant – données 2016”. Available at: <https://www.cpnfsv.org/sites/default/files/public/pdf/D-Donnees-statistiques/TB%20FPC%20Afdas%202016%20.pdf>

¹⁴³ https://www.openriskmanual.org/wiki/ISCO_Occupation_Group_2655.1_Actor_Or_Actress

acting position. Experts mentioned this requirement also for the **Czech Republic, France and Spain**. In **Poland** and the **UK**, a formal degree is not required but it is an added value.

Qualifications and degrees to work as an actor/actress can be summarised as follows:

- Minimum high school degree;
- BA & MA in acting (for theatre, film);
- Higher diploma in Drama studies (specialisation options);
- National degrees of professional orientation in acting;
- Professional Bachelor's;
- Specialised school degrees;
- Post-secondary diploma;
- Master's in vocal and singing studies; and
- Professional acting exam (special committee of the Union of Polish Stage Artists).

Soft skills needed to be an actor are quite similar as those required for singers, since both occupations include (stage) performance. These include skills such as stress management, self-confidence, teamwork, perseverance and memorisation skills. The set of **technical skills** is also quite similar to singers, with a focus on voice techniques and scene techniques, but also on acting skills, casting skills and theoretical knowledge of cinema and theatre. **Entrepreneurial and managerial skills** are focused on organisation, marketing, branding, and networking skills, particularly for independent and freelance actors.

The table below lists the full set of soft, technical and entrepreneurial/managerial skills required for actors/actresses currently and in the future, based on the inputs received from interviewed experts.

Table 8: Skills requirements for actor/actress

Soft skills	Technical skills	Entrepreneurial/ Managerial skills
Current skills needs		
<ul style="list-style-type: none"> • Interpersonal skills • Talent • Tolerance to frustration • Concentration • Flexibility • Personal appearance • Self-confidence • Stress management • Teamwork • Perseverance • Motivation • Memorisation skills • Communication skills • Teamwork • Ability to cope with criticism • Emotional intelligence and social skills • Conflict resolution • Empathy • Good conveying of emotions • Listening skills • Punctuality and reliability • Self-discipline 	<ul style="list-style-type: none"> • Psycho-physical skills • Casting skills • Oratory, elocution, diction, intonation and breathing, voice placement • Music, singing, dancing • Body language techniques • Character design • Ability to engage and express different roles • Talent • Scene technique and experience, owning the space • Improvisation techniques • Knowledge of cinema and theatre history • Relaxation techniques • Dubbing techniques • Learning a role • Make-up/body painting • Practicing acting skills through different acting techniques • Performing in front of a live audience or in front of a camera • Musical ability 	<ul style="list-style-type: none"> • Time management • Networking skills • Negotiation skills • Familiarity with the entire sector ecosystem • Resourcefulness • Adaptability to changing work conditions and environments • Self-awareness • Ability to create, shape and direct one's image • Legal literacy • Project management • Analytical thinking • Basic business administration • Basic financial literacy • Managing one's own auditions and open casting calls • Marketing and promotion for independent actors contracting their labour • Working with a talent agent • PR activities on social networks • Ability to plan and organise

Soft skills	Technical skills	Entrepreneurial/ Managerial skills
<ul style="list-style-type: none"> Confidence to network and follow-up contacts Creativity Language skills 	<ul style="list-style-type: none"> Good text comprehension 	<ul style="list-style-type: none"> Basic commercial qualifications to plan budget Social media literacy
Future skills needs		
<ul style="list-style-type: none"> Agility in dealing with technological change in performances Languages (English particularly) 	<ul style="list-style-type: none"> These may change as new theatre forms based on technology emerge – performers would need to be able to work in new stage environments based on technologies Ability to perform in self-tape audition Familiarity with graphic design programmes 	<ul style="list-style-type: none"> All of the above are expected to be increasingly important Time, work and career management Ability to discover and promote one's niche E-marketing skills (ability to promote yourself online) Negotiating skills and entrepreneurial skills for independent actors/actresses Communication skills will become more important

The comparison of skills needs show that the **requirements of soft skills, technical skills, entrepreneurial and managerial are quite balanced**. However, there is a slightly **stronger focus on technical skills**, as they determine the performance. Managerial and organisational skills requirements can be explained by the important number of freelance actors in some of the countries studied. For instance, in the **Czech Republic** it was noted that a stronger focus on the business skills of actors would be needed. In addition, in **Spain**, experts mentioned that a high number of actors lacks the required managerial skills. Knowledge of legal aspects was also mentioned as lacking in several countries, including Slovenia. The lack of entrepreneurial and managerial skills can be explained by the fact that in many countries, the curricula mainly focus on acting skills.

Furthermore, **social media and new technologies** are having an important impact on the acting profession in terms of **marketing and communication**. In the future, the skills requirements related to technological change are likely to increase, both for managerial skills (e-marketing) and technical skills, as new technologies could change the ways of performing. For instance, actors might have to work in new environments, or will have to carry out self-tape auditions, or self-promotion through social media. Finally, **language skills** seem to be increasingly important, particularly with regard to English. Strong language skills can open new opportunities for actors.

Violin maker

According to the ESCO classification, “*violin makers create and assemble parts to create violins according to specified instructions or diagrams. They sand wood, measure and attach strings, test quality of strings and inspect the finished instrument.*”¹⁴⁴ They can also repair the instruments. In most countries (e.g., **Spain, France, Slovenia, Poland and Finland**), the violin making market is quite small compared to other CCSI, with mostly SMEs and/or independent violin makers. In **Finland**, many seem to have a side job,

¹⁴⁴ European Commission (2019). “facteur de violons/factrice de violons”, ESCO classification. Available at: <http://data.europa.eu/esco/occupation/d0c923f1-e32b-4838-a109-eac58945dab1>

including teaching or practising music. In some countries such as **Spain**, the occupation is not regulated. Given its nature, this occupation has a strong focus on technological and technical skills.

The educational paths to pursue a career in violin making are very specialised. They focus on instrument making or woodworking. They often refer to secondary and vocational training, or to specialised instrument making schools. The different programmes available across countries are summarised below:

- Secondary specialised education in the country followed by training in Europe (for example in Cremona, Italy);
- Secondary carpentry school;
- Specialisation in violin making in secondary music schools or art schools;
- Certificate of professional skills training in violin making, secondary vocational schools;
- Secondary education programme in making of traditional musical instruments;
- High school vocational training in handicraft construction of musical instruments;
- Specialised violin making schools;
- Biotechnical faculty – wood science and technology;
- University programmes in wood processing (example: Bachelor’s in Woodworking and Entrepreneurship in the woodworking and furniture industry and follow-up Master’s degrees);
- Violin making in academies of music (Bachelor’s and Master’s degrees);
- Degree in instrument making specialised in guitar making;
- Programme in arts professions option violin maker; and
- College of crafts and design, vocational training in arts and design focusing on instrument making.

In some countries, no qualification is required. In **Slovenia**, for instance, the minimum requirement is to graduate from a high school, while in **Spain** only professional training is considered as reference. In Slovenia, the training is mainly vocational and related to carpentry programmes. On the contrary, in **Poland**, there is a defined path to become a violin maker, with two secondary public schools offering training (the General Secondary Music School in Poznań or in Zakopane), which should be followed with Bachelor’s and Master’s degree completed at the Academy of Music in Poznań (the only institution in the country offering this programme). In **Finland**, educational opportunities for this occupation are limited, and it is common to study abroad. In addition, in **Germany**, **Finland** and **France**, apprenticeships play an important role in training violin makers, while experts observe it seems to be slowly vanishing in the UK. All in all, only a small share of instrument makers in this field hold a higher education degree.

In terms of **qualifications**, these study programmes lead to the following:

- Secondary specialised education in stringed instruments making;
- Minimum high school degree;
- Secondary vocational degree (certificate of professional skills) in violin making;
- Music school diploma in violin making, specialised violin making schools degree;
- Bachelor or Master’s degree;
- Certificate of arts professions;
- Two-year degree in arts professions option violin maker;
- Accreditation of an expert in stringed instruments making; and
- Master craftsmen.

Soft skills for violin makers include artistic skills, taste for music, attention to detail, and patience. Violin making requires a certain amount of very **technical skills**, such as carving, tuning, fixing, varnishing or painting the instrument, and knowing the materials. Construction skills and knowing the steps of production are also key skills for this occupation. Theoretical knowledge of music is also an asset. In

addition, the required **entrepreneurial and managerial skills** also include managing a business, marketing and networking skills, customer relations, knowledge of the market and managing resources.

The table below lists a set of soft, technical and entrepreneurial/managerial skills required for violin makers currently and in the future, as highlighted by the interviewed experts.

Table 9: Skills requirements for violin maker

Soft skills	Technical skills	Entrepreneurial/ Managerial skills
Current skills needs		
<ul style="list-style-type: none"> • Communication skills • Interpersonal skills • Patience • Acute observation skills • Ability to understand customers' needs • Punctuality • Reliability • Detail-oriented and sensitive • Patience and dedication • Strong drive • Artistic skills, aesthetics • Flair for music • Creative spirit • Teamwork • Analytical thinking • Dexterity and coordination • Language skills 	<ul style="list-style-type: none"> • Basic computer skills • Carving, wood burning • Production of a product from an array • Sculpture • Making, tuning, fixing, restoring, maintenance and giving expertise on the instrument • Varnishing, polishing, painting • Define the steps of intervention on an instrument • Knowledge of materials and selecting them • Machining techniques • Craftsmanship • Music theory, history and culture • Processing of wood and metal • Musical instrument construction • Drawing, design and building techniques • Knowledge of acoustics/sound • Aesthetic skills • Manual dexterity 	<ul style="list-style-type: none"> • Managing and organising work • Business administration • Self-initiative • Networking skills • Self-promotion and presentation skills • Understanding of current job and violin/instrument market • Trade skills (competition) • Customer relations • Understanding a different music culture • Latest trends in the industry • Marketing • Time management and work organisation • New technologies applied to business • Communication skills to provide information and identify relevant questions • Artisan signature • Client prospecting skills • Pricing skills • Advertising skills • Resource management • Adaptability • Production preparation and management • Finance and accounting • Customer service skills
Future skills needs		
	<ul style="list-style-type: none"> • Centuries old occupation that has not changed a lot, however it has needed to adapt to new technologies • Use of new technologies, i.e. 3D printing • Ability to follow market trends and fashion in the instruments' design 	<ul style="list-style-type: none"> • Self-initiative • Networking skills • Self-promotion • Social networks • New technologies and digitisation could help in client prospecting and market research as well as resource management

The comparison of skills shows a clear **need for technical, entrepreneurial and managerial skills**. The **technical skills** differ significantly from the other occupations in the CCSI, as they focus on techniques to

produce instruments, their repair and maintenance over time. The list of **entrepreneurial and managerial skills** clearly reflects the fact that most violin makers are self-employed and work on their own. Thus, they relate to managing a business while producing the instruments. **Soft skills** are not the most sought in the listed requirements, and mainly focus on artistic skills, communication skills and more individual skills such as creativity, reliability and attention to detail. These soft skills are often common to other CCSI.

Skills gaps emphasised during the research relate to **business knowledge, entrepreneurship, management and market knowledge skills**. Business skills are sometimes included in the training but only at a basic level.

Given the occupation's specificity, **practical training is very important and requires a long process of on-the-job training**; its lack can create major skills gaps. For instance, in **France** schools do not prepare the students to the realities of the occupation, which requires them to have further training after completion of the programme.

Regarding the future challenges for this occupation, interviewed experts stress the fact that these will be related to the **increasing role of new technologies**. Violin making is a traditional occupation that has to adapt to new trends. In addition, business and resource management skills will need to be reinforced in the coming years. E-commerce is further impacting this profession. **Foreign languages** were also listed as a future skills need.

4.2. Overview of skills mismatches

Across the countries examined, each sector and occupation faces several strengths, weaknesses, opportunities and threats to its development. Most of information in this section was provided from the interviews with national stakeholders.

Although each case and country present different features, the study aimed to identify parallels between the different sectors and occupations reviewed. The collection of findings from case studies revealed that many countries encounter broadly similar challenges when it comes to the skills needs and gaps, as described below.

This section summarises the key lessons learnt from the reviewed countries and will contribute to the formulation of policy recommendations (Chapter 6 of this study). The main findings were grouped around the following four thematic areas:

- Skills and education;
- Occupations;
- Economic situation and public sector support; and
- Technology and society.

These four categories will be discussed separately for each of the three sectors selected: design and creative services, visual arts and crafts, as well as live performance and events.

4.2.1. Design and creative services

Within this section, we present findings concerning CCSI occupational development in the design and creative services sector, based on interviews with national stakeholders.

Skills and Education

The organisation and general situation of education in the design and creatives services sector differs across the countries. Some countries benefit from an **important network of higher education institutions** for fine arts across the country (UK), including schools with long-standing traditions (Spain, France). However, **in other countries, HEIs in the arts face lack of funding** (Bulgaria, Poland) or funding cuts (Germany), an insufficient number of study places (Finland), or a lack of graduates (Czech Republic) – as observed by interviewees.

Furthermore, **various educational pathways** were noted depending on the occupations and the countries. Some countries have several, well-defined educational pathways, complemented by an improved training offer (Czech Republic, Spain and Finland). In some other countries, a lack of specialised or unified curricula was observed as a cause of skills mismatch in some of the industries (Bulgaria, Czech Republic, Finland and Slovenia).

Variations in the amount of practical training within the educational pathways also became evident: in some countries such as France, the transmission of knowledge is promoted through **tutoring schemes**, while in others, experts mentioned a general **lack of opportunities for students to gain practical experience** (Czech Republic, Spain, Finland and Poland). This indicates that the cooperation potential between universities and private companies may be insufficiently exploited. However, at the same time, some parts of the sector, such as the **video games industry, have strong ties with education** (Poland), with game studios in universities (Finland), and strong links for internship possibilities (France).

With respect to specific skills, experts mentioned that the educational system is not well adapted to **new technologies** (Finland, Slovenia) or lacks **marketing, managerial and entrepreneurial skills** (Bulgaria, Czech Republic, Spain, Finland, Poland and Slovenia). In Spain and the Czech Republic, a **decline in technical skills** among the younger generations was noted. In these two countries as well as in France, it was mentioned that the **curricula are outdated** and fail to meet the requirements of the labour market.

With respect to **teaching**, some common points can be drawn across countries, such as combining **teaching and (artistic) research** (e.g. Czech Republic, Spain), or encouraging fine arts instructors to continue working or developing creative skills on top of their educational career (Bulgaria, Spain, France, Slovenia, Poland). In France and Finland, it was noted that **teaching is evolving with more administrative tasks** and difficulties in accessing theoretical and practical training. Finally, some industries and countries suffer from a **lack of teachers with specific expertise in the field**, such as in Finland or the Czech Republic (e.g. IT expertise).

Occupations

With respect to occupations in this sector, many positive elements have also been put forward.

Some of the occupations benefit from long-standing traditions (e.g. Czech Republic). In several countries the **professions are highly organised** or benefit from representative organisations (Czech Republic, Spain and France). Initiatives for **community-building and networking** were also observed in advertising and video games (Bulgaria and Slovenia).

When it comes to **employment** in the relevant occupations, the situation **varies from country to country**. In France, a decrease in advertising employment in some of its regions was identified. Yet a lack of qualified professionals was noted elsewhere: Finland lacks senior-level games designers and developers, and an important vacuum of professionals for most specialisations was identified in Poland and Spain. In the Czech Republic, mention was made of young professionals' economic instability, due to constant changes in the field.

Economic situation and public sector support

Experts from most countries highlighted the **new job opportunities and developments** in the examined sectors, for example in the advertising and in the video games industry (France, Germany, UK, Spain), although some pointed to a lack of a clear national strategy (policy) for these industries (Czech Republic, Spain, Slovenia).

Some sectors benefit from **grants** (Spain, Poland) and increasing public support (France, Poland), as well as accessible subsidies and **tax credits** (France, UK), while some others highlight the **lack of funding, investment, and difficult access to resources** (Czech Republic, Spain, France) or shrinking budgets (Bulgaria).

In general, depending on the sectors, professionals are **either highly skilled/with quite high salaries**, or are characterised by **precarity, instability and lack of specific skills** (such as management, entrepreneurial, or IT skills). In the Czech Republic, Poland and Spain, the prevalence of job insecurity was highlighted, even though some countries mentioned increased public sector recognition (Spain, Czech Republic).

Technologies and society

New technologies have been seen to present **opportunities** in terms of access to knowledge and **innovative techniques, teaching** (Germany, Czech Republic, Spain, France and UK), and income (Slovenia). They have already impacted several occupations and their skills needs (France, UK), but are **integrated in an uneven way in education** (Spain, Germany).

On the upside, virtual reality may offer high potential for growth in the video games industry, and as a new tool for museums. There are also increased opportunities in terms of hardware and software development (Spain) and increasing sectoral digitalisation (Slovenia).

However, there are also low international projections for some industries in Spain, and **global competition** is an issue in most if not all of the countries considered. In some countries, the industries also suffer from **geographical concentration** (France, Spain, UK), around the capital or main urban centres.

4.2.2. [Visual arts and crafts](#)

Within this section, we present findings concerning CCSI occupational development in the visual arts and crafts sector, based on interviews with national stakeholders.

Skills and education

A common positive element is the fact that in all countries examined, **the sector's educational paths are well-defined and described**, including the following educational levels:

- Secondary level (high school, etc.) courses, often offered by technical and/or specialised secondary schools;
- Vocational courses offered by private educational institutions; and
- University and higher education level courses.

Moreover, depending on the occupation, the sector is characterised by highly skilled professionals that acquire a strong set of specific technical and artistic skills. However, there are still **some areas that require attention** and improvement. One such area is **the importance of apprenticeships and practical exercise** for the acquisition of technical and professional knowledge and the development of marketable skills.

In some of the countries studied (France, Poland, Czech Republic and Bulgaria) – where a specialised education or a minimum degree is not mandatory – completed apprenticeships and relevant work experience are considered to be very effective for the attainment of relevant skills and qualifications. Despite the recognised significance of apprenticeships, there are still practical issues, such as a lack of possibilities for a clothing CAD technician to access practical training in the Czech Republic, or a lack of collaboration between educational institutions and business for goldsmiths in France and Slovenia. Moreover, a general lack of access to meaningful vocational training opportunities is reported in the UK, while this lack is limited to the profession of CAD technician in Germany and of goldsmith in the Czech Republic, Poland and Slovenia. Finally, **all countries report a significant lack of basic entrepreneurial skills and mindset in the visual arts and crafts occupations studied**. All existing educational courses and programmes focus on the technical part of the occupations, and exclude courses on entrepreneurial and managerial skills.

Occupations

Across all the countries, it has been demonstrated that the visual arts and crafts sector is strongly linked to traditional manufacturing know-how. All three occupations have a **long-standing existence** and are now **at a critical point** due to the **technological** (e.g. in Poland, the occupation of clothing CAD technician is a complete novelty and was included in the national Qualification System only in 2019), economic and societal (changes in **consumers patterns and preferences**) **evolutions** that affect them.

Moreover, in all countries examined, the large majority of the sector is mostly made up of **self-employed professionals** (clothing CAD technicians and costume makers) **and small (family) businesses** (goldsmiths operating their shops). In some countries, such as France, Spain, the UK (only for the occupation of goldsmiths) and Poland, professionals also benefit from the existence of representative associations/organisations promoting their interests and economic and financial stability. In all other countries, this remains a significant area requiring attention, and the **need** for such **representation** is more than critical.

Finally, it is necessary to highlight the necessity to develop entrepreneurial/managerial skills. It is commonly recognised that **the sector's professionals do not consider themselves to be entrepreneurs, but rather artists**. This could pose a significant threat to their success and economic and financial stability, especially considering the structural issues that characterise the CCSI.¹⁴⁵ Therefore, integrating relevant courses in existing educational programmes is a critical measure and will significantly contribute to the development of these skills.

Economic situation and public sector support

Among the common positive elements reported, the sector's economic recovery should be highlighted since in the majority of the countries examined, the sectors overcame a significant crisis and are now able to **offer new job opportunities**. This is **mainly** applicable to the textile sector and to **the occupation of clothing CAD technician**, and is often linked to the use of new technologies. However, regarding **jewellery production**, a different trend was observed: it seems that thanks to the development of new technologies and mass production, bigger companies take a dominant market position, controlling 60% of the market. This creates a difficult situation for small market players, whose production and longer-term business planning are often determined by changes in the price of materials (e.g. price of gold). In turn and **given a lack of adaptability to the new trends, some small traditional family businesses are forced to close their doors** (Spain and Germany). Nevertheless, in some countries, increasing demand for

¹⁴⁵ See Section 2.1.

unique, customised, local production was noted (Czech Republic, Spain and Poland). This could lead to a new trend shaped by consumer behaviour.

Regarding the occupation of **costume makers**, the situation seems rather unstable given the very **few job opportunities available**, since job openings are often related to theatres' employment capacity. Furthermore, the work is often contracted on a project basis rather than as a permanent position, which creates **instability of remuneration**. The situation slightly differs in Spain and France, where the large film and theatre industries create a larger labour market for costume makers.

Analysing the support offered by public policies to the sector's professionals, there are some cases (such as Bulgaria) where relevant policies and strategies are absent and mainly consist of financing some of the existing educational programmes. In the case of Spain, experts report that there is a proposal to create an organisation that represents the sector's professionals (on an occupation level), promotes a national policy in the sector and supports the implementation of the action plans. The organisation should be linked to and promoted by the public administration to ensure its visibility, and would be responsible for elaborating economic analyses, developing educative actions, organising events/conferences with the participation of different actors and stakeholders, and other activities that would contribute to the sector's empowerment. The afore-mentioned suggestion seems to be relevant for the majority of the countries examined, since **no relevant organisations/associations are mentioned to exist and operate (except for France and Poland)**. While likely to impact the working conditions of professionals more directly, such initiatives could also support the design and implementation of educative actions and skills development.

Technology and society

The visual arts and crafts sector has a strong positive connection with rapid technological advancement, which offers a potential for the development of the industry (for example in the case of Poland) and new sector niches (in the case of Spain). According to the interviewed experts, the **introduction of new digital tools in the industry** comes with a variety of **significant benefits and opportunities** for the sector's professionals, such as:

- Enhanced quality of the offered services/products and more in line with market needs, thanks to the use of innovative digital tools (3D design, 3D printing, etc.);
- Digital tools could contribute to significantly decrease the necessary production/design time, when compared to traditional tools and techniques; and
- For the goldsmith profession, exploitation of e-commerce offers a significant opportunity to reach out to more potential customers, since in all countries examined the number of customers that conduct online purchases is steadily increasing.

On the other hand, the impact of technological advancement is **also seen in a less positive way** (Spain) for artworks (France), the working environment (Czech Republic) and some of the CCSI occupations (France). In Germany, there is a conflict between generations of clothing technicians that use traditional manual techniques vs. the computer-assisted techniques.

Finally, there are some areas/parameters that need to be carefully handled to allow the benefits from the technological advancement to emerge and to allow the sector's professionals to adapt to current societal changes:

- Findings from the cases of Spain, Slovenia and France point to a **lack of technical skills** related to technologies and limited knowledge about them. In all countries examined, this fact is attributed to **educational programmes** that either do not develop the necessary digital skills, or use outdated digital tools (in the case of Bulgaria).

- In the cases of the Czech Republic and Spain, mention was made of **traditional businesses' difficulty to understand new customer trends** that are incompatible with some of the principles that have historically governed the business, such as the "heritage and family tradition".
- In the same countries, **preferences for cheaper goods** instead of quality and expensive ones by the younger generations is detected, affecting mostly the occupations of the clothing CAD technician and the goldsmith.

4.2.3. Live performance and events

Within this section, we present findings concerning CCSI occupational development in the live performance and events sector, based on interviews with national stakeholders.

Skills and education

In terms of skills and education, interviewed experts observe encouraging and challenging elements, as well as discrepancies. First, on a positive note, music education in France and Spain is integrating **contemporary styles of music** and jazz in the education programmes, which used to focus on classical music. Also, speaking several **languages** is a great advantage in the occupations of this sector, particularly for singers and actors (Spain, France, Czech Republic).

However, more challenging elements were also identified. In the case of Slovenia and Finland, it was mentioned that there was an increased number of **musicians** and singers studying abroad, referring to a **brain drain**. In Finland, there are issues with having more graduates than job opportunities, which is also the case in France particularly for violin makers.

Some discrepancies can also be drawn from the case studies. First, apprenticeships are seen as an important feature for violin makers to pass on the technical knowledge (France, Spain). It was mentioned that Finland had recently implemented formal training for violin makers. On the other hand, the Czech Republic and Spain evoked a lack of an official framework to learn this activity, and Germany a lack of training opportunities. On a more general level for these sectors, there are difficulties to access information on complementary training and a lack of accessibility for training, particularly for singers (France). Also, for singers, the training is lengthy (Spain, Czech Republic).

Another divergence concerns skills. Indeed, some countries mentioned a good level of technical and theoretical skills for several occupations (Finland, Poland for violin makers, and Slovenia). However, Finland indicated that further practical training was needed to enhance skills in some occupations. Also, skills related to management, business, new technologies and financial and legal knowledge were said to be lacking in general (Slovenia, Poland). However, Poland and Slovenia also mentioned that violin makers had access to basic management and business courses in their training.

The last discrepancy relates to the education system and the curricula. **Several of the occupations benefit from high quality education levels and educational institutions** (Bulgaria, Czech Republic, France, UK). Programmes are well developed for some of the trainings, **particularly in music** (Czech Republic, Poland, Slovenia and France), with conservatories (Spain and France). Specialised study programmes are also available for some of the occupations (Finland, Slovenia). However, in music, Spain pointed out an important focus on classical music, which could lead to neglecting new styles. This was also stated for the Czech Republic, with a lack of specialisation of the programmes. Poland mentioned a lack of support to change the classical music curriculum, and France added that there were difficulties for professional placement in types of music other than classical music. Also, some countries such as Finland do not have a specialised study programme for violin makers. **A recurring issue was that the curricula do not reflect the needs of the labour market**, for actors in terms of **managerial skills** (Poland). This was also the case

for singers, because of **outdated curricula** (Poland, Slovenia). Experts from France also mentioned this mismatch in the case of violin makers, where the schools do not prepare students for the realities of the occupation, and the skills do not match those needed in the labour market. This is also the case in Bulgaria, with a **lack of technical skills**.

Occupations

The **film industry** of several countries was mentioned as being **recognised internationally**, which is a strong asset for the sector (Spain, France, Czech Republic, UK). Also, most of these **occupations have long traditions** (Bulgaria, Czech Republic, Spain, France and Poland). For example, violin makers, like other instrument makers, work in family-owned workshops and the technical and management skills are passed on to members of the family who take over the business (Spain, Czech Republic). They can also **benefit from representative associations**, developed or developing support networks (Bulgaria, Spain, Finland, France, UK and Poland).

However, the occupations themselves also face challenges. The evolutions of the market and of the field are impacting the profession. For instance, fewer young people want to pursue a career in violin making (Bulgaria, Poland). In the music sector, the transformation of the industry has been a challenge for artists. Many now need to take on a more active role as they are no longer part of a production process (France, Spain). Furthermore, new technologies are changing the nature of the link between the singers and their public (France).

There are also some striking **differences across countries**, particularly **in terms of qualification requirements for actors and singers**, and in terms of professional opportunities. Indeed, the fact that film actors and singers do not necessarily need degrees to reach the professional level was mentioned as a strength for the sector in France and Spain. The degrees exist, but they are not required, since other criteria such as talent and networking play an important role. Interviewees perceive this as a strength as it ensures diversity and freedom of creativity for the artists; a minimal qualification level would challenge singers' creative freedom and independence (Spain, France). On the other hand, one key issue is the **limited amount of job opportunities, and the high levels of competition** in these two occupations (Czech Republic, Spain, France, Finland, Poland, Slovenia, UK). Personal networks play an important role in finding positions (France, Poland). A lack of information on career opportunities was also mentioned (Bulgaria).

Economic situation and public sector support

Regarding the economic situation and public sector support, the elements mentioned by the experts reflect more challenges. However, there are still some positive notes. For instance, there are numerous opportunities for actors in movies, theatres and other types of productions in the Czech Republic. In Slovenia, there is an increased awareness of the importance of the film and theatre industry, and the sector is undergoing professionalisation in that country. For instance, a Strategy of the Slovenian Film Centre was adopted for 2020-2024.

One striking challenging element is precarity and the need for actors and singers to have a side job to support their livelihood, because of limited possibilities to live off of the profession (Bulgaria, Finland, Czech Republic, France, UK and Poland); particularly because of low wages (Finland, Bulgaria, Spain, Poland). This creates difficulties as professionals cannot focus entirely on their creative activity (France). Unemployment (Finland) or not paying for artists' work (Poland) were also mentioned. Furthermore, there is a lack of sufficient understanding and support from local authorities (Bulgaria), as well as a lack of public initiatives to address the challenges the sectors are facing (Czech Republic, Spain). There is a

poor management of institutions (Poland), and some occupations are overlooked by the public administration (Spain).

There are also several discrepancies, for instance regarding subsidies and public support to theatres. On the one hand, new initiatives are facilitating access to subsidies and adaptation to new technologies and requirements (France). Furthermore, new positions are appearing in theatres and could be used to increase promotion, public outreach as well as new funding opportunities outside of traditional state funding (Poland). However, it was mostly highlighted that there was a lack of, or a decreasing and **irregular support from, the public sector** (Spain, France, Slovenia). Also, public support to small companies of actors is reoriented towards activities that are more visible in terms of communication (France). Furthermore, public support for theatres is slowly decreasing and being replaced by patronage schemes, with associated risks of impacting independence, particularly in terms of programming (France). This was also mentioned for Poland, as decreasing public support for theatres will lead to less independence, but also fewer vacancies. In Spain and in the UK, some sectors also face cuts in public support, particularly in music. The 2020-21 crisis further disrupted the live performance sectors including actors/actresses and singers.

Another discrepancy relates to the self-employed status. In some occupations of the sector and some countries, there is a large share of self-employed professionals (Slovenia). Some experts see this as an asset (Czech Republic), while others find that it creates difficulties. Indeed, the status remains weak (Spain), and threatens pre-existing statuses such as that of intermittent worker (France) as it ensures a lower level of social rights (France, Poland). A specific artist status is lacking in some countries (Poland, UK). This issue is strictly related to the **structural challenges of the status of artists**, which include irregular and often low income, low or no access to social security, difficult access to external finance, among others.¹⁴⁶

Technology and society

As in other sectors, new technologies can bring both positive and more threatening elements for the occupations. Societal aspects also have an impact. For instance, it was mentioned regarding Spain and the Czech Republic that there was a growing interest in musical styles such as jazz. On a more challenging note, it was highlighted for several of the countries that there was a **geographical concentration** of activities in the capital city, depending on the occupation (Czech Republic, Spain, France and Poland). In France, it was added that violin makers are present over the whole territory, however with a significant proportion in Paris.

Regarding **new technologies**, there was a striking difference. Indeed, it was evoked that they brought **new tools** such as 3D printing to be used in the different steps of violin making (France, Czech Republic, Spain). However, technological progress **impacted the occupations** (Slovenia), especially music, in terms of occupation requirements and supplies (Spain, France). The music industry was also impacted by the growing importance of social media in singers' careers (Poland, France). It was also mentioned that e-commerce was challenging the business models and increasing competition (Czech Republic, Spain).

¹⁴⁶ See Section 2.1.

5. RESPONDING TO SKILLS MISMATCHES IN THE CCSI: BRINGING TOGETHER EVIDENCE FROM LITERATURE AND FIELD WORK

Chapter 4 was dedicated to the identification of skills needs and mismatches across a selection of occupations based on empirical field work in several Member States. Chapter 5 identifies opportunities to reduce skills mismatches based on field research, available literature and stakeholder interviews.

According to a report from McKinsey, skills shortages are the predominant cause of youth unemployment, with 27% of employers reporting that *“a lack of skills was a major reason they did not fill vacancies.”*¹⁴⁷ The digital transformation in relation to Industry 4.0 requires constant up-skilling to *“fulfil newly emerging job opportunities and ensure lifelong employability.”*¹⁴⁸ Paradoxically, according to the Digital Economy and Society Index, in 2017, the potential employment of people with specialised information and communication skills was underexploited.¹⁴⁹ It would seem that whereas the digital transformation plays an important role in creating business opportunities, employers are struggling to make use of it.

5.1. Increasing disconnect between skills supply and needs in the CCSI

The OECD points out that there is a clear gap between CCSI requirements and the skills of workers in the labour market.¹⁵⁰ For instance, in the UK, 37% of employers in organisations within the CCSI reported skills gaps.¹⁵¹ In fact, skills mismatches are especially problematic for the CCSI, which require a *“combination of highly specialised knowledge with transferable, generic skills.”*¹⁵² This is despite the fact that in almost all EU countries, the CCSI are dominated by people with tertiary education. Around 60% of total cultural employment is held by employees with tertiary education.¹⁵³

A reason for this might be a lack of training provided *“to students of arts and culture to help them to orient their skills towards”* market demand.¹⁵⁴ Thus, creative people are often not supported to develop industry-specific skills and, given economic constraints, this then results in young and creative people

¹⁴⁷ McKinsey&Company, “Education to Employment: Getting Europe’s Youth into Work”, available at: <https://www.mckinsey.com/~media/mckinsey/industries/social%20sector/our%20insights/converting%20education%20to%20employment%20in%20europe/education%20to%20employment%20getting%20europes%20youth%20into%20work%20full%20report.ashx>

¹⁴⁸ European Commission “Scoreboard 2018, EU businesses go digital: opportunities, outcome and uptake”, 2018, available at: https://ec.europa.eu/growth/tools-databases/dem/monitor/sites/default/files/Digital%20Transformation%20Scoreboard%202018_0.pdf

¹⁴⁹ European Commission, “The Digital Economy and Society Index (DESI): Human Capital - Digital Inclusion and Skills”, available at: <https://ec.europa.eu/digital-single-market/en/desi>

¹⁵⁰ OECD, Conference on Culture and local Development: “Creating Creative Jobs: Parallel Session B1, Discussion Note”, December 2018, available at: <http://www.oecd.org/cfe/leed/venice-2018-conference-culture/documents/B1-DiscussionNote.pdf>.

¹⁵¹ Creative&Cultural Skills, “Sector Skills Assessment for the Creative Industries of the UK”, January 2011, available at: https://www.screenskills.com/media/1541/sector_skills_assessment_for_the_creative_industries_-_skillset_and_ccskills_2011.pdf

¹⁵² UNESCO, “Skills for the creative industries”, October 2014, available at: https://unevoc.unesco.org/fileadmin/up/BackgroundNote_VC-CreativeIndustries-Collard.pdf

¹⁵³ Ibid.

¹⁵⁴ Ibid

having to choose *“a creative job as a secondary source of income or in some cases, pursue it as a hobby while working at another job where they are unable to optimally utilise their creative knowledge.”*¹⁵⁵

Furthermore, the above-mentioned skills mismatches are continuously widening due to ever-faster digitalisation. In fact, some creative workers often *“do not have the adaptability and investment in development of technological change demands.”*¹⁵⁶ Therefore, the most commonly identified skills gaps in the CCSI are *“software development and ICT, management and leadership, customer-facing skills, marketing and business development, technical and craft specific skills.”*¹⁵⁷ Of course, like for the business skills which we described above, the need to digitise will not apply equally to all workers in the CCSI. Artistic skills remain at the core of the sector and digital skills should not be seen as an alternative to the creative endeavour but as a way to boost it and to adapt to new market and consumer/audience realities. In addition, the question of uptake by on-line audiences might also be further discussed in this context.

Technical and vocational education and training (T-VET) is seen as one of the key elements to support creative workers in the development of skills that are required by the CCSI.¹⁵⁸ Future policies should thus pay special attention to employers’ and employees’ needs in the area of continuous professional development. This could be done *“by raising the valuing and appreciation of life-long learning and skills development and providing the employers with incentives to engage more and invest in training”*,¹⁵⁹ in addition to supporting partnerships with professionals in the area. In addition, conditions need to be established to allow the large self-employed and freelance parts of the CCSI to participate fully in lifelong learning.

5.2. Preliminary lessons learnt to reduce skills mismatches in the CCSI

This sub-section provides an overall analysis of main lessons learnt from the field research, complemented by reviewed literature and expert know-how in the research team. It demonstrates some common features and developments as identified in the examined Member States, the analysis of which can lead to a potential better matching of skills in and for the CCSI.

Strategic policy frameworks and strong institutional settings are a crucial asset

Many of the creative professions analysed build on long traditions with strong institutions. These are able to voice the needs of the employers and/or of the (future, potential, young) employees in the sectors. (Public) investments to maintain intermediary and training institutions are important features of successful policies. Networks of creative professionals can also voice specific (skills) needs, for example for the self-employed parts of the CCSI. Strategic planning for the creative sectors and employment on the level of Member States is another crucial element. Initiatives from regions and cities are increasingly important and merit greater attention from policy makers, as there are huge differences in the geographical concentration of educational and training offers for different creative professions in the EU. With respect to strategies, the opportunities and challenges for CCSI professions can be identified early, allowing for the timely implementation of related support programmes, training initiatives, legal and business development frameworks.

¹⁵⁵ Ibid.

¹⁵⁶ Ibid.

¹⁵⁷ Ibid.

¹⁵⁸ Ibid.

¹⁵⁹ Live Skills, “Live Skills Project: EU & country specific conclusions and policy recommendations”, available at: https://www.live-skills.eu/sites/default/files/eu_country_specific_policy_recommendations.pdf.

Professional educational institutions are central building blocks for future-proof training offers in the CCSI

The European Union CCSI build on a long tradition of high-quality educational institutions. Apprenticeship schemes for some of the creative professions are perceived to be highly valuable. Furthermore, the HEI in the EU have available to them a favourable framework of transnational cooperation and related exchange programmes. Shortcomings in education and training offers in one country can at least partly be compensated by offers in other Member States, which students and the next generation of CCSI employees can access. However, educational institutions' ability to transform and adapt is perceived to be too slow, potentially leading to outdated curricula. The required qualifications to become a creative professional can differ considerably from one EU Member State to another. Information on available training opportunities is often not well disseminated to potential target groups. Furthermore – also due to budgetary constraints – some education and training providers lack specialised equipment which require considerable investments. Some experience brain drain and a subsequent lack of (qualified) teachers. Newer developments to combine theoretical education with practical experience in cooperating companies is not sufficiently taken up in all territories and professional CCSI sectors in the EU. Furthermore, not all CCSI education institutions offer professional support to enter the job market – a feature especially important for young professionals. This applies equally to those finishing HEI and other forms of professional training.

Specific features of the CCSI job markets, such as self-employment, are challenging

Many CCSI professionals face difficult market conditions. Regular jobs as full-time employees tend in some areas of the CCSI to be the exception rather than the rule. Self-employment and freelance work are a reality for many creative and artistic professions. The status of artists differs considerably across EU Member States, together with the ensuing level of social protection. The freelance parts of the CCSI require specific attention with respect to lifelong learning and skills development. These professionals will – in addition to their creative and artistic skills – need to pay careful attention to developing management skills in order to be commercially successful. They may also face – at least in some creative professions – difficulties to modernise their offers in line with new consumer expectations. Furthermore, many of the CCSI markets offer a limited number of contracts and are highly competitive. The COVID-19 crisis in 2020-21 led to further disruptions and uncertainties – especially for those professions in the live performing arts.

Earning patterns and sources differ considerably between CCSI sectors

Some of the CCSI, like the games sector, are part of globally growing markets with audiences willing to pay for the creative experience of gaming. Companies in this sector often face shortages of qualified candidates to fill their job vacancies. Other professions – such as actors/actresses – depend to a large extent on public budgets being spent on culture and cultural institutions. They can easily face precarity, especially in (political) settings where public cultural budgets might be cut. Tax incentives are being tested in some countries in order to enhance private contributions to cultural institutions and projects. Again, on the private side, audiences and clients of creative products and services are dynamic and their consumption and participation patterns might be further shifting due to the 2020-21 crisis. Furthermore, the rapid digital transformation has brought disruptions to the business models of many CCSI: this has become particularly evident in the music sector. This trend was accelerated by the 2020-21 pandemic, while copyright rules are not yet fully coping with the needs of the CCSI to generate income through digital offers. With respect to skills for CCSI professionals, further attention should be paid to financing and funding skills (e.g. to address public and private grants programmes) or business plan development skills. Updated curricula are not yet in place in education or lifelong learning offers for all CCSI and in all territories of the European Union.

A broader understanding of the value of soft skills is underdeveloped in society, economy and politics

Soft skills are at the heart of many CCSI professions, be it the manual skills of the goldsmith, the artistic project of an art instructor or the performance of an actress. In many cases, these creative skills require multiannual intensive training in addition to well-expressed talent and dedication. Artistic practice is as old as humanity and a transversal feature of cultures and societies. The related debate and positive narrative have been underplayed in recent years. This undervaluing of soft skills in the economic and social realities (e.g. earning levels) might also prevent young talents from entering a more difficult professional career in the CCSI. Tendencies to cut the teaching of creative and manual subjects as well as arts in the formal educational system might also play a role in this respect. Finally, training in the skillsets required for cross-sectoral collaboration, which is expected to gain in importance in the future, is barely discussed let alone offered.

Innovation in the broad sense is at the heart of many CCSI, but not always translated into successful business models

Artistic and creative practice are to a large extent innovative due to the specific nature of the artistic and creative process. However, the inventive power of many creative professionals doesn't always lead to successful market entrance or produce sufficient income. Parts of the CCSI also tend to concentrate more on professional creative development than on questions related to markets and clients. Furthermore, there are CCSI professionals who lack the skills required to be more successful economically. So far, not all artistic and creative education programmes provide business plan development training, for example, or provide deeper insights in market realities for their young students. In addition, cross-sectoral cooperation and innovation are emerging trends which require further attention from creative professionals as well as from stakeholders in CCSI education and policy. This also relates to those skills needed to accompany transformation processes, such as communication skills.

The digital transformation has a considerable impact on employment markets, required skills sets and earning opportunities for the CCSI

Digital technology provides significant opportunities for the development of the CCSI, but it also represents a considerable skills challenge. CCSI workers need to adapt to fast-changing technologies and business relationships, including new methodologies and tools that can ultimately facilitate everyday work (for instance, advances in 3D printing or new metals for jewellery makers), but also novel, digital methods of searching for employment, communication and networking. Social media and online presence are expected to be of vital importance for many occupations, from performing artists who will be expected to familiarise themselves with online casting and building an online image, to craftspeople, who are increasingly moving to digital promotion and selling channels. The digital transformation also includes capacities to develop digital and hybrid art forms in order to reach new audiences. Furthermore, the frameworks for earning on digital platforms differ considerably from traditional patterns and require the development of further skills (e.g. competences to face global competition on digital markets and to use international market development opportunities).

6. POLICY RECOMMENDATIONS FOR SUSTAINABLE CCSI SKILLS STRATEGIES

This chapter outlines policy recommendations to address current and future skills needs and gaps in the field of the CCSI. This report advocates a multi-faceted approach, to ensure that policy enables the CCSI to develop their full potential, address skills mismatches and adjust to technological and market developments.

The CCSI have the potential to contribute substantially to economic growth. However, for this potential to materialise, it is essential to actively support the economic development of the CCSI and to ensure that the workforce has the skills required to perform their jobs and remain competitive in the labour market.

To address the issue of skills mismatches, it is not sufficient to create a number of disconnected specific recommendations, but rather an overarching strategy. Indeed, the CCSI should be seen as an ecosystem of interlinked sectors, industries and professions and it requires stronger collaboration among the CCSI themselves and with other ecosystems (e.g. digital). The identification by the European Commission of the CCSI as one of the key industrial ecosystems in Europe opens opportunities to develop a holistic policy approach.

We recommend that policy makers and stakeholders focus on the following key recommendations for strategic CCSI skills development:

- **Strengthen the dialogue between public authorities and sector representative organisations** to better understand skills needs and mismatches, including at the level of individual occupations. This could be done by organising events, stakeholder engagement activities, networking events using sector and occupation-level knowledge brokers at EU and national level. The development of participative CCSI skills strategies with a mid- to long-term outlook would also be appropriate, especially if they include monitoring provisions.
- **Invest in the systematic involvement of different governance levels for CCSI skills strategies.** The involvement of different governance levels including the city and local levels in strategic planning is an additional asset, especially to reach creative professionals outside the countries' capitals. Furthermore, CCSI skills development plans should be an integral part of other strategic skills initiatives at different levels (national, regional) as well as in Smart Specialisation and innovation-related plans and clusters.¹⁶⁰
- **Understand the diversity of the CCSI professional circumstances and needs.** A careful analysis of the specific needs of different creative professions is a pre-condition to develop meaningful CCSI strategies. Considerable differences in status and needs can be observed between sectors. However, when comparing needs within individual parts of the CCSI on different levels – European, national, local – many similarities can be found. Therefore, sector-specific approaches seem to be most appropriate to explore the CCSI skills needs, with the exception of the very specific needs of freelancers.
- **Pay special attention to those skills that allow for cross-sectoral cooperation.** While specific skills needs can be identified for individual parts of the CCSI, creatives also require access to all the skills that are required to work across sectors. These comprise deeper insights in the working conditions and contexts of those branches with which a cooperation is intended or envisaged. In addition, cross-sectoral training offers could also promote networking and joint activities.

¹⁶⁰ See also European Commission, “The role of public policies in developing entrepreneurial and innovation potential of the cultural and creative sectors”. Report of the OMC (Open Method of Coordination) working group of Member States’ experts, March 2018, available at: <https://op.europa.eu/en/publication-detail/-/publication/5d33c8a7-2e56-11e8-b5fe-01aa75ed71a1/language-en/format-PDF/source-68820857>

- **Connect initiatives on the status of the artist with the CCSI skills strategies.** Although highly successful professionals from the arts and culture benefit from high social recognition globally, the sectors are highly challenging for the huge majority of creative professionals. The working conditions of artists and creative professionals need to be further addressed. This influences the attractiveness of the CCSI job market, as do lifelong learning opportunities and decent earning opportunities. Specific training programmes for the freelance parts of the CCSI are also needed.
- **Raise awareness of the intrinsic (and economic) values of creative and soft skills.** Soft skills, such as artistic and creative skills, often receive less attention in formal education systems and are perceived to be less valuable to a professional career. While technology depends to a great extent on (creative) content, debates and strategies that focus more on content than on technology are not yet fully visible and require further attention on the part of policy makers and other stakeholders from culture, education and economy, including the ICT sector. Attention should be given to ensuring decent earning models for creative professionals on digital platforms. A broad notion of innovation should also be adopted.
- **Maintain and enhance financing and support for intermediary professional organisations and networks in the field of culture and the arts,** in order to ensure the availability of sector-related intelligence and to involve strategic partners in participative policy making. In addition, these organisations can play a vital role in addressing the training needs of creative professionals.
- **Develop sustainable support schemes for educational and training institutions in the field of artistic and creative professions.** Attention needs to be paid to wider ranges of training schemes including and beyond HEI, which also include apprenticeships and practical training. Financial support needs to be accessible for all high-quality training offers. Information on training opportunities should be disseminated more widely, also between countries. Special funding will be required to ensure that the equipment made available in training institutions is up-to-date.
- **Incentivise reform of academic curricula to better respond to the needs of the labour market,** in line with projects and initiatives already undertaken at EU level.¹⁶¹ This includes integration of new technologies (e.g. new software, technologies, use of AI), adoption of flexible curricula that can be adapted quickly in response to market needs, greater use of innovative teaching and learning methods, and support from CCSI professionals in curriculum design (for instance, mentorship of engineers, scientists and artists already established in the relevant areas).
- **Carefully address potential brain drain in creative professions including on the level of trainers.** The CCSI are unevenly developed across the territory of the EU and between sectors, as are policies offering support. The accessibility of high-quality training offers is a pre-condition for a successful career, and specific support schemes that bind talent to successful local CCSI should be carefully considered and taken into account.
- **Understand informal education as a building block of many creative professions and invest in related schemes.** Peer-to-peer learning are strong instruments which, in addition to training, enhance European cooperation and networking. The related programme in Creative FLIP – namely the Ambassadors of Change - can serve as a reference model.¹⁶² Another interesting tool are knowledge brokers.
- **Increase practical training of graduates, teachers and CCSI professionals to establish stronger links between educational institutions and industry.** This could be achieved through an increase in the number of on-the-job training opportunities for both students and teachers, inclusion of

¹⁶¹ See for instance the MAST project (<https://mastmodule.eu/mast-project/>), the DEUS project (<https://www.deuscci.eu/what-is-deus/>), or ERASMUS+ (https://ec.europa.eu/programmes/erasmus-plus/about_en)

¹⁶² <https://creativeflip.creativehubs.net/p2p-exchange-program/>

practitioners in teaching at secondary schools and universities, establishing links between industry and the final thesis of graduating students, or promotional events to encourage young students to consider the job-related opportunities in the labour market.

- **Further develop STEM into STEAM approaches and disseminate knowledge about cross-fertilisation opportunities with the CCSI.** This recommendation corroborates the findings and recommendations formulated by other (recent) EU projects (such as S+T+ARTS),¹⁶³ which all recognised the importance of cross-fertilisation between different areas and disciplines including technology for the CCSI, with the objective of increasing innovation and co-creation.¹⁶⁴
- **Support the creation of tailored training modules in entrepreneurship, digital technologies and other skills that are coveted by the market.** For instance, entrepreneurship, digital or legal knowledge should be taught from the point of view of CCSI activities. This would build on the lessons drawn from the S+T+Arts and MAST projects as well as national examples.¹⁶⁵ Related Creative FLIP experiences include the Learning Labs.¹⁶⁶

¹⁶³ See <https://www.starts.eu/>, as an example.

¹⁶⁴ See also European Commission, “The role of public policies in developing entrepreneurial and innovation potential of the cultural and creative sectors”. Report of the OMC (Open Method of Coordination) working group of Member States’ experts, March 2018, available at: <https://op.europa.eu/en/publication-detail/-/publication/5d33c8a7-2e56-11e8-b5fe-01aa75ed71a1/language-en/format-PDF/source-68820857>

¹⁶⁵ For a list of relevant initiatives at national level, see also European Commission, “The role of public policies in developing entrepreneurial and innovation potential of the cultural and creative sectors”. Report of the OMC (Open Method of Coordination) working group of Member States’ experts, March 2018, available at: <https://op.europa.eu/en/publication-detail/-/publication/5d33c8a7-2e56-11e8-b5fe-01aa75ed71a1/language-en/format-PDF/source-68820857>

¹⁶⁶ <https://creativeflip.creativehubs.net/learning-labs-page/>

