

CREATIVE HIGHER EDUCATION IN EUROPE STATISTICS REPORT

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Executive summary

This report has been written to inform the *Developing Inclusive and Sustainable Creative Economies* (DISCE) research project, and, in particular, the key objective of work package three (WP3): *Creative workforce, skills and education*. The document's central objective is to look critically at the current data and knowledge in relation to the provision of creative subjects at Higher Education (HE) level¹. While there is a wealth of data which cover pan-European, national and regional approaches, the objective of this report is not to simply replicate existing available data but to critically discuss the approaches (and resulting data) that are currently being collected (at various levels from European to regional) and assess the knowledge they provide for the DISCE project. Throughout this report we discuss the various implications that the body of existing research has for DISCE and WP3 in relation to its objectives and planned methodological tools (discussed also in Gross *et al.* 2019).

¹ **A note on terminology:** The DISCE project explicitly uses the term 'creative economies' to incorporate the wider scope of inter-connected activity that constitutes the value of creativity that operates within a society, as discussed in deliverable 5.2 (Wilson *et al.* 2020).

In reference to *creative subjects at Higher Education* (shorten as *creative HE*) we focus specifically on courses and universities that provide specialised knowledge and degrees that can be considered a pipeline for the creative and cultural industries (CCIs) and training grounds for the future creative and cultural workforce. While this does not preclude that other degrees and subjects contribute to the CCIs and CCW, nor that creativity should be understood as being nurtured and developed beyond this relatively narrowly-prescribed set of creative subjects degrees, the report's focus allows for a close-up discussion as to how 'creative' education and training (in subjects like music, fine art, graphic design or games development) contribute to the CCIs and broader creative economies.

In reference to Higher Education (HE) the report focuses on the wide variety of optional final stage formal learning that is undertaken after the completion of secondary education (hence also known as third-level or tertiary education). In terms of the International Standard Classification of Education (2011) this embraces courses at levels 6, 7 and 8. HE is offered by a varied set of institutions (HEIs), ranging from universities, colleges, institutes of technology, to art, dance, drama and music schools and conservatoires.

In reference to *creative and cultural workforce (CCW)* the report takes a deliberately inclusive position, highlighting a wide scope of employment. Whilst initially designed to focus on the '*creative workforce*' in Europe, the report acknowledges that both Eurostat and other national statistical agencies and organisations use the term cultural employment (instead of creative employment). The inclusive title of '*creative and cultural workforce*' (CCW) is adopted, therefore, to refer interchangeably to both 'creative' and 'cultural' workers. We also apply the term creative and cultural industries (CCIs) in reference to the broader industrial definition that incorporates both creative and cultural work.

In the report we use the term *Europe* (shortened to EU) specifically in relation to countries of the European Union. Taking account of the data-sets available, and their limitations, this report includes critical commentary that in some cases refers only to a more limited number of countries. This includes reflections on national rather than European data. These are presented as examples to reflect on the broader value of the data or knowledge generated in the development of inclusive and sustainable creative economies across Europe.



The report reflects on the important connections between HE and creative economies across Europe. The importance of this relation has been acknowledged both in academic research and at the European policy level. We acknowledge that creative economies connect with HE at a range of levels and across many subjects. However, in the report we focus specifically on creative subjects (discussed in more detail in section 1.2) taught at HE level. We examine the current state of knowledge on creative students and graduates across Europe, drawing on European and national level data linked to student access, experience and employability beyond graduation. This section also looks at international examples to compare best practice in terms of student monitoring both prior, during and beyond graduation. We consider how these subjects are provided and valued, what skills are reported as being promoted and developed along with a consideration of how student experience creative HE and how students contribute to their local societies and wider economies both through and as a result of their HE in creative subjects.

The report presents key academic literature from the field, critically looking at the available data at various geographical levels of analysis and concludes by providing key learning and knowledge gaps emerging from the review. Overall, the report addresses some key questions about who is enabled to study creative subjects at the HE level bringing together a wide range of research on creative to document the diverse and at times, contradictory knowledge available on those who are seeking a career and wanting to contribute to the (future) creative and cultural workforce (CCW) in Europe.

In the final recommendations we apply the knowledge summarised within this report to the wider DISCE project objectives and methodologies adopted. Finally, we acknowledge that this is an on-going project. Our knowledge of creative subjects at HE level across Europe will grow as the DISCE project team conduct their research. With this in mind, we position this as a snapshot of our knowledge at this point in time and invite our readership to follow DISCE newsletters (www.disce.eu) for further updates on our ongoing research relating to the creative workforce, skills and education.



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1. Introduction

This report reflects on the important connections between Higher Education (HE) and creative economies across Europe. The importance of this relation has been acknowledged both in academic research (Comunian and Gilmore, 2016) and in National and European policy papers (European Commission, 2010). Our focus is on how 'creative HE' is provided and valued, what skills are reported as being promoted and developed, along with a consideration of the student experience and how students contribute to their local society and wider economies both through and as a result of their education. In undertaking this task, we acknowledge that the connections between HE and creative economies are very broad and involve a range of stakeholders and a broad set of subjects and students that inevitably go beyond the discussion of creative subjects within the European HE system, which is the primary focus of this paper. For this, and other reasons, operationalising a definition of creative subjects is very challenging (we discuss these challenges further in the next section). In summary, we define 'creative HE' as being comprised of specialised degrees, departments and sometimes specialised institutions that focus their teaching on creative subjects – narrowly defined as the ones that represent the most direct pipelines of talent and workers to the CCIs (following Comunian *et al.* 2011). Broadly speaking these include courses in: Creative Architecture, Advertising and Publicity, Crafts, Design, Film, media and TV studies, Cinematics and Photography, Curatorial studies, Museum and Archive studies, Fine Art, Music, Technology, Multi-media Computing Science; Software Design; Publishing, Performing Arts, Dance, Writing and Publishing, Journalism, Mass Communications and Documentation, Publishing and Writing. However, here broadly we define creative HE as the collection of specialised degrees, departments and sometimes specialised institutions that focus their teaching on creative subjects – narrowly defined as the ones that represent the most direct pipelines of talent and workers to the CCIs (see Comunian *et al.* 2011).

First, we consider the current literature reflecting on connections between HE and the creative economies, unpacking some of the main academic contributions to the topic and some of the challenges and limits of current academic research and knowledge. Here we provide some key working definitions used in the report. Secondly, the report outlines the current framework for Higher Education 'HE' provision and monitoring linked to creative subjects across Europe. In this second part, we also list the main organisations and bodies that are currently bringing together providers and institutions engaging with creative subjects taught at HE level. In the third part, we include a reflection on how data and knowledge of creative subject HE provision at national level is captured by some nations (in Europe and beyond) to cover questions in relation to: monitoring data on student population, reflecting on access and participation as well as forms of specialisation and geographical distribution. Finally, we consider graduates' outcomes and creative careers through an examination of relevant alumni research.

We conclude by reflecting on what we have learnt about the current infrastructure for the monitoring and comparison of creative subjects with a focus on data relating to the student experience, opportunities for collaboration between CCIs and HE and labour market opportunities post-graduation. We offer some recommendations to highlight what are the key challenges and questions that need to be addressed by future research and policy in the final section of the report.



2. Exploring the interconnections between Higher Education and creative economies

Changes and dynamics on the value of HE and creative HE in Europe

Research and attention towards the role that creative education more broadly plays on the development of individuals – from a very young age – has been the key focus of attention in the literature, especially in the fields of education and education psychology since the 1960s (Torrance, 1963; De Bono, 1977). In particular, the importance of creative disciplines within mainstream primary and secondary education has been the subject of debates in policy and education settings (Robinson and Aronica, 2016). While this area of study connects with DISCE's wider concerns with the role of creativity in human development and individual's well-being (Wilson *et al.* 2020) it is outside of the remit of the present report which focuses specifically on **the connection between creative education or, more precisely, education and defined creative subjects in the context of higher education institutions (HEIs) in Europe**. This has become a more recent policy and academic concern (Comunian *et al.*, 2015; Comunian and England, 2018; European Commission, 2010), specifically pushed by changes both in our contemporary economies and in our HE education systems. These changes, briefly illustrated below, have happened internationally and at a national level in the last three decades, although at various rates of speed for different countries in Europe:

- There has been a growing recognition of **the importance of creative and cultural industries (CCIs) as an important economic sector and also a leading employer** (Eurostat, 2019a), in certain countries - like the UK for example - the rate of growth of employment in the sector has been consistently faster than the growth of employment in other sectors for the past decade (DCMS, 2016).

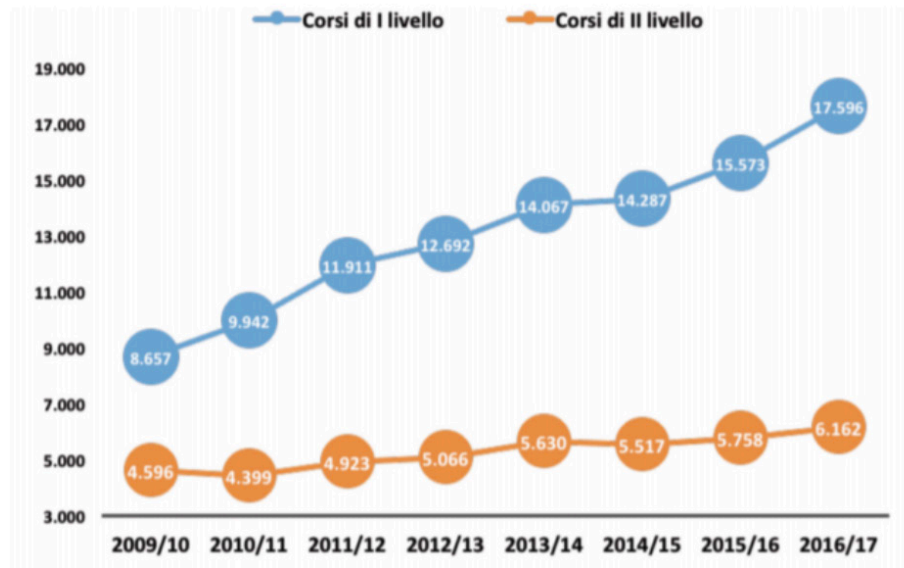
- The policy attention towards CCIs has also gone hand-in-hand with **broader structural changes and arguments for a re-direction of work and employment from industrial to post-industrial frameworks, so with broader national transitions in Europe towards services-based, knowledge-intensive, and technologically networked societies** (Villalba, 2007).
- These first two structural changes have also impacted our understanding of the role of HE as a sector and **the role that HEIs have to play not only in relation to training and research but also in reference to broader contributions to national and regional economies** (Arbo and Benneworth, 2007; Lundvall, 2006).
- This new role of universities has also shaped a new set of discourses and subsequent indicators around their role and objectives, the two which are specifically relevant to this report are **one on 'employability'** (Boden and Nedeva, 2010; Moreau and Leathwood, 2006; Morley, 2001) and **one on 'entrepreneurship'** (Etzkowitz and Zhou, 2017; Rothaermel *et al.*, 2007; Shane, 2004)
- More recently – and connected to a broader expansion of the CCIs literature and policy objectives into the realm of the social (Comunian *et al.*, 2020) – further discourses around **the value of arts and humanities and creative disciplines in academia have emerged beyond traditional metrics of accountability with a strong connection also with place making** (Benneworth, 2015; Comunian and Gilmore, 2016)

The overlap of all these factors has led to an exponential growth of creative arts and design disciplines – well documented for the UK – but relevant to many countries within Europe:

[T]he Higher Education Statistical Agency (2009) highlights the steady growth of creative subject areas. Among the “creative” subjects, architecture, building and planning saw a growth in student numbers of 34.2 per cent between 2003/2004 and 2007/2008, Creative Arts and Design had a 14.2 per cent increase, while mass communication and documentation grew by 7.3 per cent (against an overall growth of only 4.8 per cent across all subjects.) (Comunian et al. 2011: 292)

Similarly, the graph below (fig. 1.1) shows the trends for creative degrees (blue first level/undergraduate degrees and orange second level/postgraduate degrees) in Italy, specifically only for the provision of specialised Italian institutions (Alta formazione artistica, musicale e coreutica – AFAM - Higher Education in Art, Music and Dance). From 2009/2010 till 2016/2017 the number of new enrolments in undergraduate courses has almost doubled.

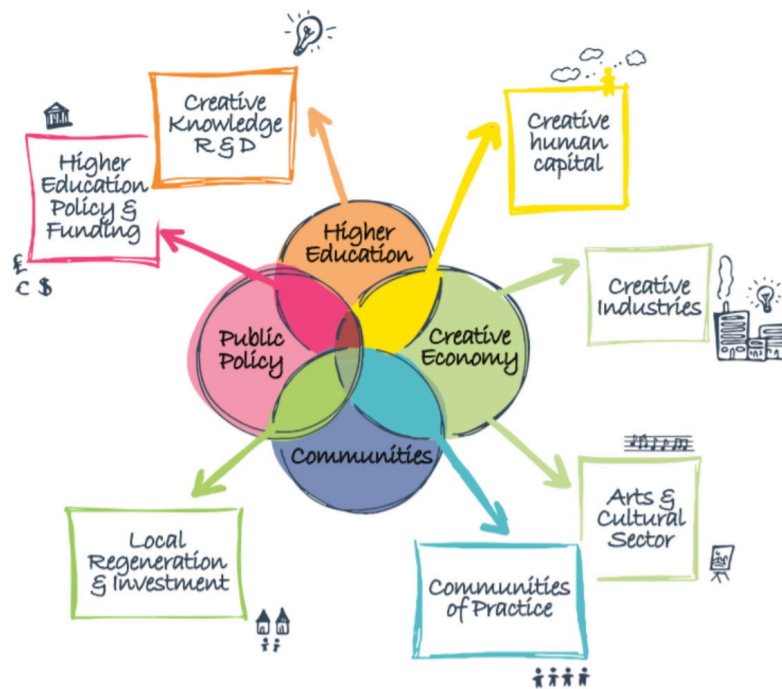
Fig. 1.1 Trends of HE participation – New enrolments - in Italy for Institutions of Higher Education in Art, Music and Dance academic years 2009/10 to 2016/2017. (Source: ANVUR, 2018: 333)



(Fonte: elaborazioni su dati MIUR - Ufficio Statistica e Studi)

The field of research and policy initiatives that are currently engaging and connecting HE and local and national creative economies are wide ranging and cannot be easily summarised. Comunian and Gilmore (2015) try to acknowledge this complex set of relations and the key players (fig. 2.1).

Fig. 1.2 Relationships between HE and the creative economy (Source: Comunian and Gilmore, 2015: 8)





This also reflects some of the EU policy considerations made in the past:

At the crossroads of creativity and entrepreneurship, it remains difficult for companies in the CCIs, in particular SMEs, to find staff with the right mix of skills. Ensuring a better match between the supply of skills and the demands of the labour market is crucial in the medium and long run to boosting the sector's competitive potential. Partnerships between art and design schools or universities and businesses can contribute to this aim. Incubator units, often established outside art schools but with their active cooperation, have proved successful in closing the gap. (European Commission, 2010: 10).

For the purpose of this report, fitting with the broader DISCE objectives, we are specifically interested in the idea of 'creative human capital', looking specifically at those individuals that train and specialise in creative disciplines and their contribution to the CCIs, the Arts & Cultural Sector and broader creative economies. Here, we are specifically interested in what data are available in relation to the creative HE sector and the graduates in these fields as a first understanding of issues of 'supply and demand' in creative labour markets and beyond. However, within the broader DISCE project and specifically the DISCE case study framework (Gross *et al.*, 2019) we are interested in the role that HEIs play, not only on the national level but in local creative economies in terms of the communities they engage with, their connection with local and regional policies and their potential to enhance the local creative and community framework, through different forms of partnership and collaboration. Another important argument, which supports the view of the importance of the connection between HE and creative economies broadly, is evidence that individuals in creative occupations and working in the creative industries tend to be highly trained, with reports from the UK evidencing that "more than half (59.9 per cent) of jobs in the Creative Industry in 2015 were filled by people with at least a degree or equivalent, compared to 32.7 per cent of all jobs in the UK" (DCMS, 2016: 5)

It is important here to clarify some of the terminology used in this report but also some of the important proxy and research areas which will be reflected on in relation to the data currently available:

Creative Human Capital: Comunian and Gilmore (2015) define creative human capital using two distinctions; first, the process of transitioning through HE into the creative workforce and second, through the accumulation of forms of creative human capital extant within academics, researchers and other staff working within universities (Comunian and Gilmore 2015:16). The majority of data referred to within this report are focused on students and graduates. However, where possible, we also reflect on the number of academics and researchers that are involved in creative economies in addition to their educational practice. This again reflects a general trend (supported by UK evidence) of the recent growth in numbers of staff employed in creative subject departments, with creative arts academics growing at the rate of 11% between 2005 and 2007, higher than any other discipline group (HESA, 2008).

Creative students and graduates: It is challenging to isolate students and courses connected with the CCIs from other fields and courses. We are aware that HE participants often work across subject and disciplines and that often students' creativity and engagement in the formal and informal creative economies is not bounded

or limited by the classes or courses that they take at HEIs. However, in line with previous research (Comunian et al., 2011; Comunian and Faggian, 2014a; Comunian and Faggian, 2014b; Comunian et al., 2014b; Comunian et al., 2014a; Faggian et al., 2014; Comunian et al., 2016; Faggian et al., 2013) it seems important to identify pipelines of knowledge and skills that progress from HE to the CCIs and broader creative economies. The previous studies mentioned have argued for using graduates' degree subjects as a proxy for their potential to make a contribution to CCIs, however those studies are only based within a national (UK) analysis and therefore use UK based JACS (Joint Academic Coding System) Classification codes¹ (Comunian et al., 2011). For the present research and EU-wide work our data build on a range of datasets available, not all having clear detailed correspondence with CCIs and associate disciplines. However, based on these previous works (Comunian et al., 2011; Comunian et al., 2014a; Faggian et al., 2013) we can operationalise some sub-categories and disciplines (in the present study these subjects will be based on the Internation-

¹ For more information on JACS codes <https://www.hesa.ac.uk/support/documentation/jacs>. In detail Comunian et al. 2014 and Faggian et al. 2014 use the following disciplinary codes: ARCHITECTURE (K Architecture, Building and Planning; K100 Architecture; K110 Architectural Design Theory; K120 Interior Architecture; K130 Architectural Technology; K190 Architecture not elsewhere classified; K300 Landscape Design; K310 Landscape Architecture; K320 Landscape studies; K390 Landscape Design not elsewhere classified); ADVERTISING (N561 Advertising; P200 Publicity studies; P210 Public Relations; P290 Publicity studies not elsewhere classified Crafts W700); CRAFTS (W710 Fabric and Leather Crafts; W711 Needlecraft; W712 Dressmaking; W713 Soft Furnishing; W714 Weaving; W715 Leatherwork; W720 Metal Crafts; W721 Silversmithing / Goldsmithing; W722 Blacksmithing; W723 Clock/Watchmaking; W730 Wood Crafts; W731 Carpentry/Joinery; W732 Cabinet making; W733 Marquetry and Inlaying; W734 Veneering; W740 Surface Decoration; W750 Clay and Stone Crafts; W751 Pottery; W75 Tile Making; W753 Stone Crafts; W760 Reed Crafts; W761 Basketry; W762 Thatching; W770 Glass Crafts; W771 Glassblowing; W780 Paper Crafts; W781 Bookbinding; W782 Origami; W790 Crafts not elsewhere classified); DESIGN (W200 Design studies; W210 Graphic Design; W211 Typography; W212 Multimedia Design; W213 Visual Communication; W220 Illustration; W230 Clothing/Fashion Design; W231 Textile Design; W240 Industrial/Product Design; W250 Interior Design; W260 Furniture Design; W270 Ceramics Design; W990 Creative Arts and Design not elsewhere classified); FILM & TV (P300 Media studies; P301 Television studies; P302 Radio studies; P303 Film studies; P304 Electronic Media studies; P310 Media Production; P311 Television Production; P312 Radio Production; P313 Film Production; P390 Media studies not elsewhere classified); CINEMATICS AND PHOTOGRAPHY; (W610 Moving Image Techniques; W611 Directing Motion Pictures; W612 Producing Motion Pictures; W613 Film & Sound Recording; W614 Visual and Audio Effects; W620 Cinematography; W630 History of Cinematics and Photography; W631 History of Cinematics; W632 History of Photography; W640 Photography; W690 Cinematics and Photography not elsewhere classified); FINE ARTS (P130 Curatorial studies; P131 Museum studies; P132 Archive studies; W100 Fine Art; W110 Drawing; W120 Painting; W130 Sculpture; W140 Printmaking; W150 Calligraphy; W160 Fine Art Conservation; W190 Fine Art not elsewhere classified; W900 Others in Creative Arts and Design); MUSIC (W300 Music; W310 Musicianship/Performance studies; W330 History of Music; W340 Types of Music; W350 Musicology; W360 Musical Instrument History; W390 Music not elsewhere classified); TECHNOLOGY (P430 Interactive Publishing; P420 Multi-media Publishing; W280 Interactive and Electronic Design; W615 Animation Techniques; G450 Multi-media Computing Science; G600 Software Engineering; G610 Software Design; J931 Music Recording; J950 Musical Instrument Technology; P412 Publishing on CD-ROM; P413 Publishing via the World Wide Web) PERFORMING ARTS (W400 DRAMA; W410 Acting; W420 Directing for Theatre; W430 Producing for Theatre; W440 Theatre studies; W450 Stage Management; W451 Theatrical Wardrobe Design; W452 Theatrical Make-up; W460 Theatre Design; W461 Stage Design; W490 Drama not elsewhere classified; W500 DANCE; W510 Choreography; W520 Body Awareness; W530 History of Dance; W540 Types of Dance; W590 Dance not elsewhere classified); WRITING AND PUBLISHING (P100 Information Services; P110 Information Management; P120 Librarianship; P121 Library studies; P190 Information Services not elsewhere classified P490 Publishing not elsewhere classified); P500 JOURNALISM (P510 Factual Reporting; P590 Journalism not elsewhere classified; P900 Others in Mass Communications and Documentation: P990 Mass Communications and Documentation not elsewhere classified); P400 PUBLISHING (P410 Electronic Publishing; P411 Publishing on audio/video tape; P305 Paper-based Media studies); W800 IMAGINATIVE WRITING; W810 Scriptwriting; W820 Poetry Writing; W830 Prose Writing; W890 Imaginative Writing not elsewhere classified.

al Standard Classification Of Education (ISCED-F) proposed by UNESCO (2015) as fields of education and training (see Appendix I):

- **02 Arts & Humanities (A&H):** The field of A&H is much broader than the one connected more closely with CCIs, the Arts. The Arts include very similar subject fields to the one identified in Comunian et al.'s (2011) original definition of creative graduates¹. However, in many EU-wide datasets we can only look at A&H together and cannot isolate the Arts component. While this is not ideal (as humanities also includes also broader fields like languages or philosophy,) previous work (Comunian et al., 2014a) highlights that in the case of the UK:

Looking specifically at A&H graduates, we showed how the intersection between the different subdisciplines of A&H and the creative economy is a complex phenomenon, with graduates from some subdisciplines—like architecture, building, and planning; mass communication; and creative arts—strongly present in specialised jobs within the creative economy. Others—such as historical and philosophical studies and law graduates—are more likely to be in supportive roles. Embedded positions (i.e. creative jobs outside the creative industries) are important for mass communication, creative arts and design, and language graduates. This complex interconnection with the creative economy highlights a degree of flexibility amongst A&H graduates—especially as often their career patterns are not as structured as in other fields (although law and architecture, building, and planning are exceptions to this.) (Comunian, et al., 2014a: 446).

- **06 Information & Communication Technologies (ICT):** Similar to A&H, the field of ICT is much broader than the ICT component of CCIs. However, new technologies are playing an important part in the development of many aspects of creative economies and their networked market and audiences (Potts et al., 2008).

Implications for DISCE

With the aim of 'Developing Inclusive and Sustainable Creative Economies' DISCE wants to consider the role of HE and its contribution to the creative economies broadly but is also focused on the goal of making them inclusive and sustainable.

- Access to and participation in HE creative subject degrees can tell us more about how the aspirations of students who wish to enter the creative economies are being met and managed;
- Information on who can access HE in general and these subject degrees – both socially and financially – can tell us about how inclusive HE is but also how diverse the future creative and cultural workforce might be;
- The pipeline of applicable/updated skills / knowledge and experience from HE to the creative economies can connect to how sustainable creative careers and creative economies might be in the long run;

Overall, DISCE needs to look at creative human capital and creative HE to question their embeddedness and connections with creative economies both in reference to inclusiveness and sustainability.

- A note needs to be made on **some smaller subject areas**, which we are not able to include in our analysis as they are included in much broader subject categories which remain too generic to be included (for example: 32 Journalism and information is only a sub-category of 3 Social sciences, business and law and is too broad to be included; 58 Architecture and building is only a subcategory of the much broader of 5 Engineering, manufacturing and construction and is also too broad. Unfortunately, working at higher level data categorisation at single digit (02 and 06 as above).

While overall these categories have limitations and do not fully capture the range of subjects and courses connected with CCIs, we believe they can be used as an interesting proxy to capture some important dynamics and trends in the sector as well as some comparative understanding of HE contribution to creative economies across EU countries.

Employability and entrepreneurship: teaching and metrics

As discussed previously, with the expansion of demand and provision of HE across Europe (Kyvik, 2004) we see an increased pressure towards measures for and accountability of the sector, which although funded differently across EU nations, is mostly in receipt of public funding (Huisman and Currie, 2004). According to Huisman and Currie (2004) the increased focus on accountability through the 1980s and 1990s derives from:

- an increased *interconnection between government and universities*, and the research and policy agendas therein;
- *a new trend for government* to document and report in relation to ‘value for money’, particularly, they highlight: “With increasing student numbers the cry for efficiency and effectiveness became louder, for instance parents and tax-payers began to challenge the presumed quality of higher education” (533).
- *the wide internationalization* of HE and new flows - of students, grants, funding and ideas - via globalization. This has implications for market dynamics and structure but potentially also competition across countries for students and staff.
- *the development of ICT and new technologies and their potential impact on HE courses*: opportunities and costs of distance learning that might flatten the geography of education but also the implication this might have on the circulation of ideas. Currently – in light of the COVID-19 pandemic a rethinking of the value ICT for education at all levels is needed. This has bigger implications for creative degrees which often rely on practices, spaces and infrastructures which are not easy to replicate online.

It is interesting to also highlight how the ‘value for money’ discourse represents a shift from the consideration of higher education as a public or quasi-public good towards considering higher education as more of a private good” (Huisman and Currie, 2004: 533) and this is specifically interesting for the case of the UK (discussed in section 1.5) and the introduction of full fees in 2012 (Pollard *et al.*, 2019) and the recent debate there about the value for money offered to the tax payers by creative degrees (Comunian and Brook, 2019). So, the value for money discourse can shift

from value for the public-purse to value of the HE investment for students and families.

Beyond the value for money arguments, various authors report that recent graduates in creative fields have struggled to manage their careers and felt unprepared to face the reality of making a living just out of university (Brown, 2005). Bennett argues that because of this “alongside ‘selling the dream’, pre-professional education should open the door to the myriad opportunities within and beyond the cultural industries”(Bennett, 2009: 33). Amongst the numerous metrics identified internationally, we are specifically interested in discussing two that have been used broadly to capture some of the economic contribution that HE makes to national and local economies, and that have been particularly discussed also in reference to creative disciplines, namely: entrepreneurship and employability.

Entrepreneurship, HE and creative subjects

One of the metrics that connects HEIs to their local and national economies is *entrepreneurship*. This includes consideration of how entrepreneurial HEIs themselves are – through structures and staff (Clark, 1998) and how much they are able to support/develop entrepreneurship within their other constituencies, mainly students, but also alumni and business partners. In relation to the latter we consider specifically the role of Entrepreneurship Education (EE).

There are a range of models and a wide set of literature around the role of HEIs in triple (Etzkowitz and Zhou, 2017) and quadruple helixes (Colapinto and Porlezza, 2012; Leydesdorff, 2012) of engagement that connect with industry, policy and society also in relation to entrepreneurship. For the focus of this review – which is narrowly concentrated on creative subjects we look at creative hubs, and EE.

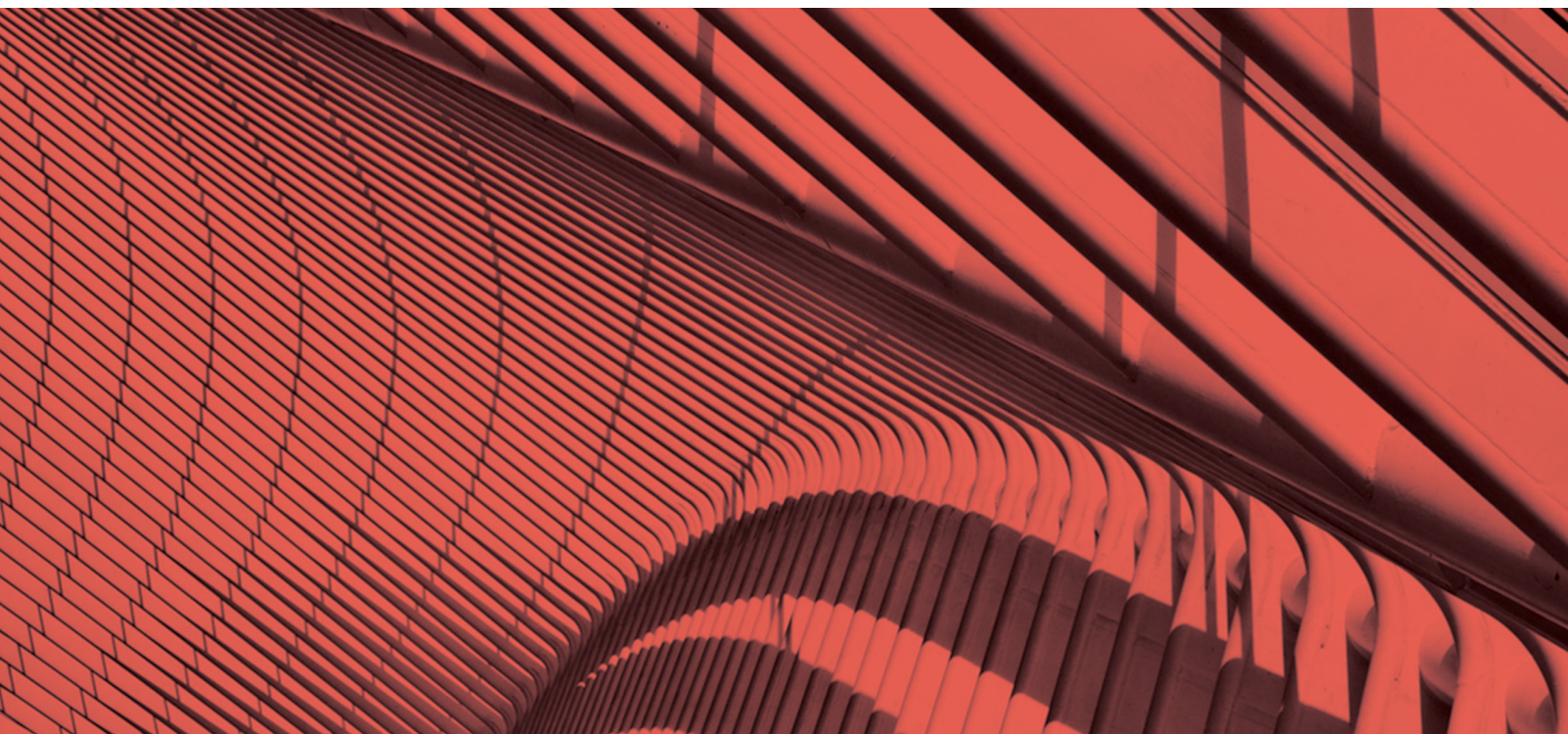
Although addressed separately these two key elements are connected as often EE takes place in / around / through creative hubs but creative hubs tend to represent a visible form of engagement of a specific HE in local or national creative economies while EE can take place beyond the HEI walls and remain quite invisible, beyond the official measures that can be used to identify its impact.

Creative Hubs and other platforms created to facilitate the interaction between HE and the local or national creative economies. Following Ashton and Comunian (2019) we acknowledge that these will take very specific and contextual forms (from temporary infrastructures; to rented workspaces/incubators; to research units or brokering units; to temporary events or networks) however, they all try to create connections and bridges between creative economies and HEIs, involving creative human capital either as staff or students and graduates. Creative hubs are used by universities to promote their engagement and can often provide metrics in terms of participation and engagement more broadly, as well as more specific metrics that connect with EE and can be measured through starts-up and incubated companies (Nathan and Vandore, 2014). In general, following (Allen and McCluskey, 1991) the metrics and criteria usually considered to assess the impact of university hubs and incubators are: **occupancy rates in the facility, jobs created, and firms graduated**. All these measures do not capture the outputs, activities or what happens

within creative hubs and incubators and the broader societal and cultural value they might have for the city or region (Comunian and Gilmore, 2015; Essing, 2014).

Entrepreneurship education (EE) Wilson opens her 2008 reflection on EE in Europe asking whether entrepreneurship can be taught. Here, once again, we are confronted with matters of definition. As Alan Gibb observed a few years earlier in respect to EE – “the need for clarification of the concept of entrepreneurship is paramount” (2005: 2). For her part, Wilson follows Stevenson (1983, 1985) and Stevenson and Jarillo, (1991) in defining entrepreneurship in terms of the “the pursuit of opportunities beyond the resources you currently control” (Wilson, 2008: 2). However, it is questionable as to whether this is now the dominant definition within EE, with others emphasising new venture creation (Gartner, 1988), and/or opportunity identification and exploitation (see, for example, Shane and Venkataraman, 2000; Stokes and Wilson, 2010; Shane, 2003). Such distinctions have major practical implications. An EE programme targeted at developing entrepreneurial skills, pursuing valuable opportunities, and an ‘entrepreneurial mindset’, is potentially quite different to a programme of ‘enterprise education’, which is specifically focused on new ventures and business development. In her review of EE across Europe, Wilson notes that – across different entrepreneurial patterns and behaviours entrepreneurs “usually [they] share a primary objective – *growth*” (Wilson, 2008: 2). By this she means economic growth. However, DISCE’s focus on inclusivity and sustainability directs attention towards other forms of growth too (as discussed in Wilson *et al.* 2020).

Turning to how EE is undertaken within HEIs, we see two primary modes and models of delivery. These are: 1) EE delivered as a central unit or content that is provided uniformly across the HE institution; 2) EE delivered in the form of bespoke modules or teaching that is tailored to specific departments and degrees, and so adapted to fit those contexts and dynamics. Authors generally agree that this latter approach – thereby ensuring an understanding of the specific contexts within which cultural and creative entrepreneurship is undertaken - is most valuable (Pollard and Wilson, 2014; Brown, 2005). Summarising the current landscape of EE it can be argued that there is no one blueprint for success, but flexibility is key - allowing students across the range of cultural and creative areas to learn both about creating new companies/start-ups alongside allowing them to transition and manage their careers as entrepreneurial projects.



Employability, HE and creative graduates

As Sin and Neave (2016) highlight, the importance of employability – as a shared agenda across the European HE sector – was set as a pillar to the Bologna Process (see section 1.3 of the report) since 1999. They highlight how this reflected and agreed shift in the value of HE across European countries “from an early cultural rationale linked to European citizenship and identity, Bologna evolved towards an economic programme” (Sin and Neave, 2016) pushing HE as a new strategic answer to countries’ economic needs and development.

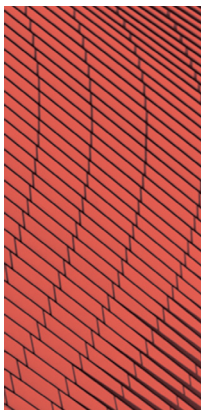
However, while Sin and Neave (2016) note there was a shared European agenda on employability, the meaning and underpinning of this term is much more contested in academic and policy literature. Specifically, these can be divided into 1) accounts that see employability as an *individual responsibility*, connected to individuals’ ability and investment towards gaining and maintaining employment; and 2) accounts of *shared constructed responsibility* which includes a range of personal characteristics but also numerous other factors including the nature of local labour markets.

Specifically, in relation to creative subjects and creative careers, we acknowledge that a vision of employability as an individual responsibility has been the main direction of policy – with job security and continuity always deregulated and left for the individual workers to manage. This has been particularly the case also because even though the ‘third mission’ (Laredo, 2007) of HEIs seemed to have been constructed towards establishing stronger connections with and facilitating the needs of the industry or employers, the fragmented nature of CCI employment and industries has made these connections more challenging and easy to underestimate (Comunian *et al.*, 2014c). The careers trajectories that emerge – and are strongly present across the CCIs – have been defined as boundaryless (Arthur and Rousseau, 1993) or ‘protean’ (Bridgstock, 2005):

A mass system developing critical thinking and intellectual ability was scarcely possible, given the prohibitive costs. Rather, mass higher education was ‘designated as simply meeting employers’ needs for a trained workforce’. Such a rationale effectively shifts the employability agenda in favour of employers who may recruit graduates with little need for further training. [...] Clearly, individualising responsibility for the individual’s professional career reshapes the function of higher education. It becomes a ‘service provider’, a resource for training, and indispensable for the improvement of employment prospects. Under these conditions, the prime task of higher education is to equip graduates with ready for-work skills (Sin and Neave, 2016: 1451).

Looking more specifically at creative graduates and employability we can identify the following key contributions in the literature:

- **Employability in HE needs to keep in consideration contexts and modes of working in the CCIs.** Planning employability for creative careers imply real work situations and briefs not simply internship opportunities. In particular the work of Ashton (2011; 2013; 2014) reflects on the importance of contextualising the employability agenda for creative graduates within the practices of the sector they aim to work within but also introducing modes of work – like freelancing and portfolio work – which are going experienced by the students upon graduation;



- **Complex nature of multiple /diverse labour markets.** Employability for creative graduates might be more challenging not necessarily because of their lack of skills or knowledge but because of the nature of the CCIs labour markets and the lack of structure specifically in certain industries (Bridgstock, 2011). As found by Comunian *et al.* (2014b) when exploring more closely the employability of creative graduates in music their perspective on transferable skills and the added value of their degree in the labour market beyond the performance sector was different from the perspective of graduates in fine arts explored by Banks and Oakley (2016). In some sub-sectors of the creative industries careers are highly structured (see Architecture for an example) while in others they are more open-ended and might leave individuals more exposed to difficulties post-graduation.
- **Employability and salary as limited metrics for job satisfaction and societal contribution.** The increased pressure put on HE to prove value for money and contribution to economic growth has put particular pressure on creative HE to conform to standard general metrics. Recently this was addressed by Comunian and Brook in reference to the UK and Australia (2019) in response to the report of the Institute of Fiscal Studies in UK on the government subsidies through unpaid loans in England at the subject level:

Degrees do not necessarily need to be seen as pecuniary investments [...] They are investments in many other forms of value that may or may not be redeemable in financial returns. [...] this is to ignore the fact that arts degrees (as artistic professions in general) do not contribute to society only via salary (and the loan repayment system). In fact, the societal and cultural value of artists' work is well documented in the literature and externalities it creates for places and communities is not captured by the poor contractual conditions of artists and creatives. (para 12).

In the context of creative HE we also consider the importance of bringing entrepreneurship and employability (E&E) together – as they both represent extremes of a continuum experienced by students and recent graduates trying to enter the labour market often made in itself by workers that act as businesses/freelancer as well as employees in their portfolio careers. In this respect the work of Clinkard (2018) mapping the way entrepreneurship and employability agendas (fig 1.3) could be reconnected through the framework of 'employ-agility' could be very valuable for creative HE. In particular, the self-reflection tool (AGILE) proposed, that enables students to reflect on their journeys through E&E activities, under the headings Adaptable, Gatherer, Identity-Aware, Life-Long Learner and Enterprising (Clinkard, 2018) has specific relevance to prepare students through portfolio careers and through unpredictable career patterns of the CCW.

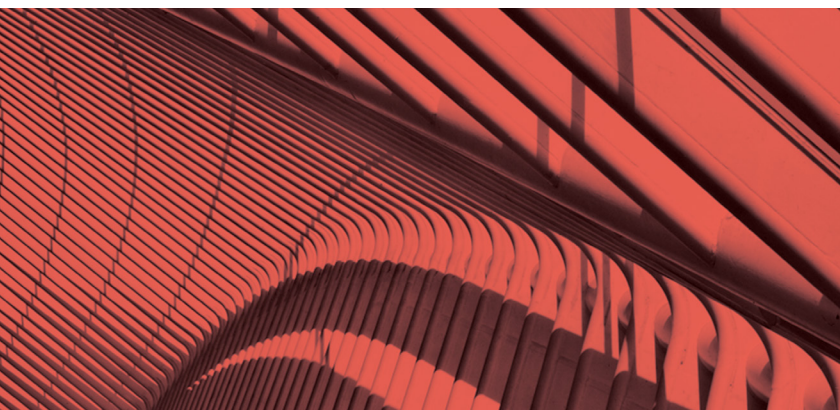
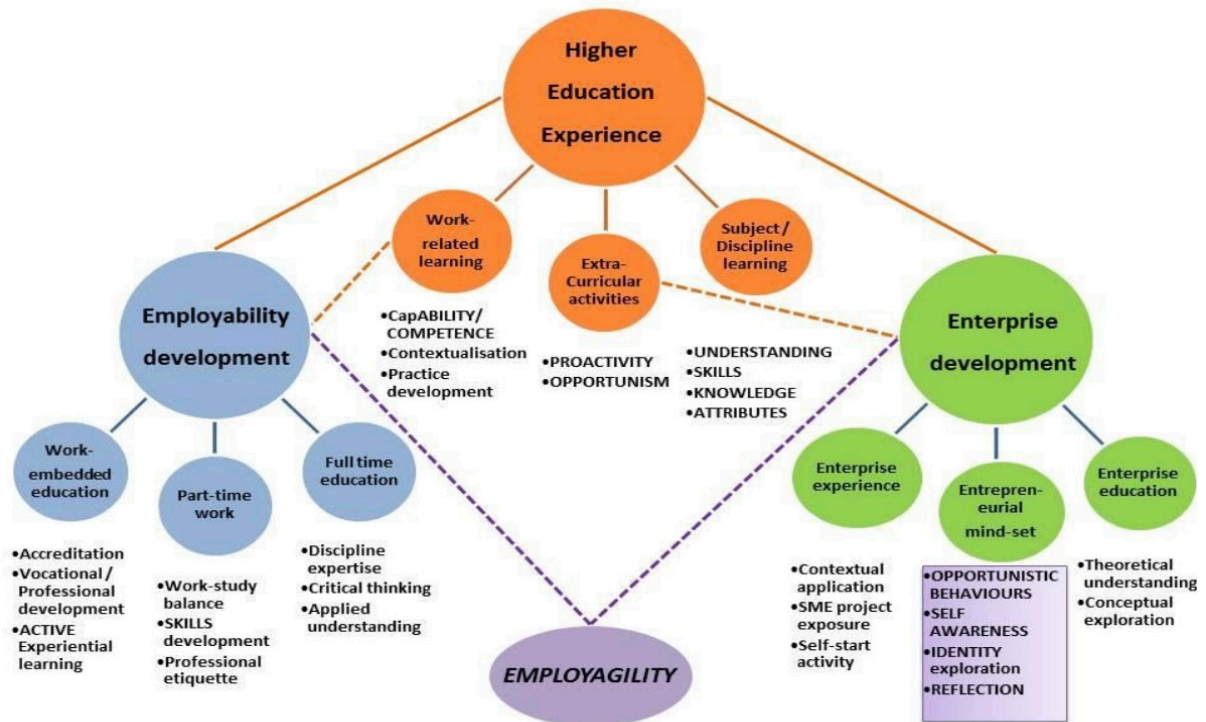


Fig. 1.3: The Higher Education Employability thematic analysis map (Source: Knibbs, 2015)



Implications for DISCE

Understanding the interconnections of HE and creative economies is a key component of the role of DISCE in mapping and understanding local creative economies and ecologies broadly and specifically in relation to the selected case studies. In this research setting it will be important to consider:

- How universities (via discussion with managers and academics) use creative hubs (an open term to include a range of platforms and opportunities) to connect HEIs with local creative economies and to involve/engage students in them.
- How students seek/engage with opportunities to be entrepreneurial and to what aim: *what kind of growth they seek*.
- It will also be important to consider broader contributions of creative graduates and creative students to the local creative ecologies.

3. A review of Higher Education frameworks and data in Europe

Changes to university structure systems across Europe

As Kyvik (2004) highlights in his reflections on the changes to HE across Europe, the sector has expanded greatly since the 1960s to respond to an exponential growth in student numbers and changed needs of local and national labour markets. This expansion has taken different pathways, with some countries increasing the offer of non-university HEIs (especially for more professional training) and others integrating this in the framework of existing HEIs (Kyvik, 2004). Similarly, Rossi (2010) looking specifically at the case of Italy, finds that the “expansion in the number of students has mainly been addressed through an increase in the number of higher education institutions” (Rossi, 2010: 295). However, Rossi (2009) highlights also how the expansion of offer should not be left entirely to the market and demand as universities might prioritise areas that are not the most needed in specific social and economic systems (and labour markets). This has specific relevance to the discussion of over-supply in relation to research on creative graduates (Comunian *et al.* 2011).

Kyvik (2004) classifies the way different Western European countries managed their HE system into 4 broad categories:

- University-dominated systems (Italy);
- Dual systems (Austria);
- Binary systems (most EU countries including Netherlands, Belgium, Sweden, and Finland);
- Unified systems (Spain and UK).

It is important to comment on these models here specifically in reference to how they position creative subjects. Within the University-dominated systems (for example Italy) professional courses (even after the Bologna process) have remained

outside the HE system. However, creative/specific arts focused institutions (for example Academia delle Belle Arti) as a structure have slowly become equivalent in teaching practice and value of degree levels with the HE system, with the overall system remaining unitary. Within Binary systems (such as the Netherlands or Finland) and Dual systems (Austria) there is a clear policy argument for creating an alternative pathway to the one of HE, via Higher Education Colleges or similar Technical Institutes, designed to be more applied and to feed into local labour markets. Vocational education and training organised in vocational institutions provides a secondary level qualification (in addition to general upper secondary schools). In these systems there is usually a presence of creative subjects across the system, with some more practical ones being taught at vocation level (filming, design) and other more theoretical ones (fine art, architecture) being taught by HEIs. For example, the Finnish HE system consists of universities and universities of applied sciences. Most of the subjects are offered at vocational education but also in HE (university), e.g. filming, design, are offered also at the Aalto University School of Arts, Design and Architecture (of Aalto University); and other arts education in the University of the Arts Helsinki (Uniarts Helsinki). Finally, the unified system (like the UK that has moved from a dual to a unified system a following policy reform in 1992 that turned polytechnics into universities) has advantage in creating a more uniform standardised management system but might create difficulties in distinguishing in the labour market the kind of opportunities open to students coming from different HEIs. This has strong implications for creative subjects as Comunian *et al.* (2011) report, whereby HEIs offering creative subjects with a stronger historical profile might provide better 'signaling' (Spence, 1973) in the labour market for graduates, compared with graduates coming from new universities that were former polytechnics (referred to in the UK as 'post-92 institutions').

Alongside these broader changes we are specifically interested in the changes that took place in relation to creative subjects. Historically, creative disciplines have been taught in specialised HE settings, often distinct from traditional HE structures, mainly based on the importance placed on practice rather than theory in these disciplines. However, in many countries arts colleges and other specialised arts institutions have merged into a form of creative education within the mainstream university system. For example, in Austria since 1998, the *Kunstuniversitätengesetz* grants university status to the six art colleges (Graz, Linz, Salzburg, and three in Vienna) for programmes like music, design, drama, dance, visual arts, painting, sculpture or architecture. In Italy, in 2012, a new law finally recognised that degrees from Institutes of Higher Education in Art, Music and Dance (AFAM) have comparable values – within a common credit system - with University level degrees (ANVUR, 2018). This pattern is common to other countries as also reported by Banks and Oakley (2016) in reference to the UK:

Under New Labour an overall investment in HE was matched by a new stringency in internal and external accounting and management and ensuring that HE was incentivized to more closely align its ambitions to government economic policy. At this time, local art schools continued to disappear or be absorbed into universities or other institutional partnerships, rendering them (arguably) more durable and effective, under tightened financial and managerial regimes (Banks and Oakley, 2016: 49).



The European framework on Higher Education – The Bologna Process

The Bologna Process (European Commission/EACEA/Eurydice, 2018) refers to a series of agreements across EU member states to address the question of mobility, access and cross-border academic cooperation within Europe. The initial declaration which took place at the University of Bologna in 1999 established the European Higher Education Area to facilitate student and staff mobility, to make HE more inclusive and accessible, and to make HE in Europe more attractive and competitive worldwide. It also made the case for comparability across EU countries following the ISCED classification system (UNESCO, 2011).

The Bologna Declaration (and subsequent agreements across EU nations see the Bologna Process Implementation report 2018, p.18 for a list of all meetings related to the process) provided a framework for coordinated HE reform across Europe. However as already summarised in this report, unified provision is complicated and not applicable according to certain HE categories (Kyvik 2004; see also European Commission/EACEA/Eurydice, 2018). The institution responsible for managing policy support and funding HE across the European Union that was created in response to the Bologna Process, **the Education, Audio-visual and Culture Executive Agency (EACEA²)** has responsibility for the following agencies:

- Creative Europe (culture and audiovisual media)
- Erasmus+ (education, training, youth and sport)
- European Solidarity Corps (volunteering, traineeships and job opportunities for young people across Europe)
- Europe for Citizens (remembrance and civic participation)
- EU Aid Volunteers (training and capacity building of volunteers and humanitarian organisation)
- Intra-Africa Mobility Scheme (academic mobility in Africa)
- Managing the projects selected during the 2007 – 2013 funding programmes
- Eurydice network (analysis and comparable data on education systems and policies in Europe)

For the purposes of DISCE, there is a specific interest in the Erasmus+ programme³ – the exchange programme for European students in HE with a particular focus on the impact of mobility and exchange for creative and/or arts students. Established in 1987, the programme provides grants for a wide range of actions and activities in the fields of education, training, youth and sport. The Erasmus+ programme is guided by three key actions: to stimulate mobility within the education, training and youth sectors; allow for cooperation for innovation and the exchange of good practices and to support policy innovation⁴. Erasmus is managed at the national level by and through a centralized agency responsible for data monitoring, funding

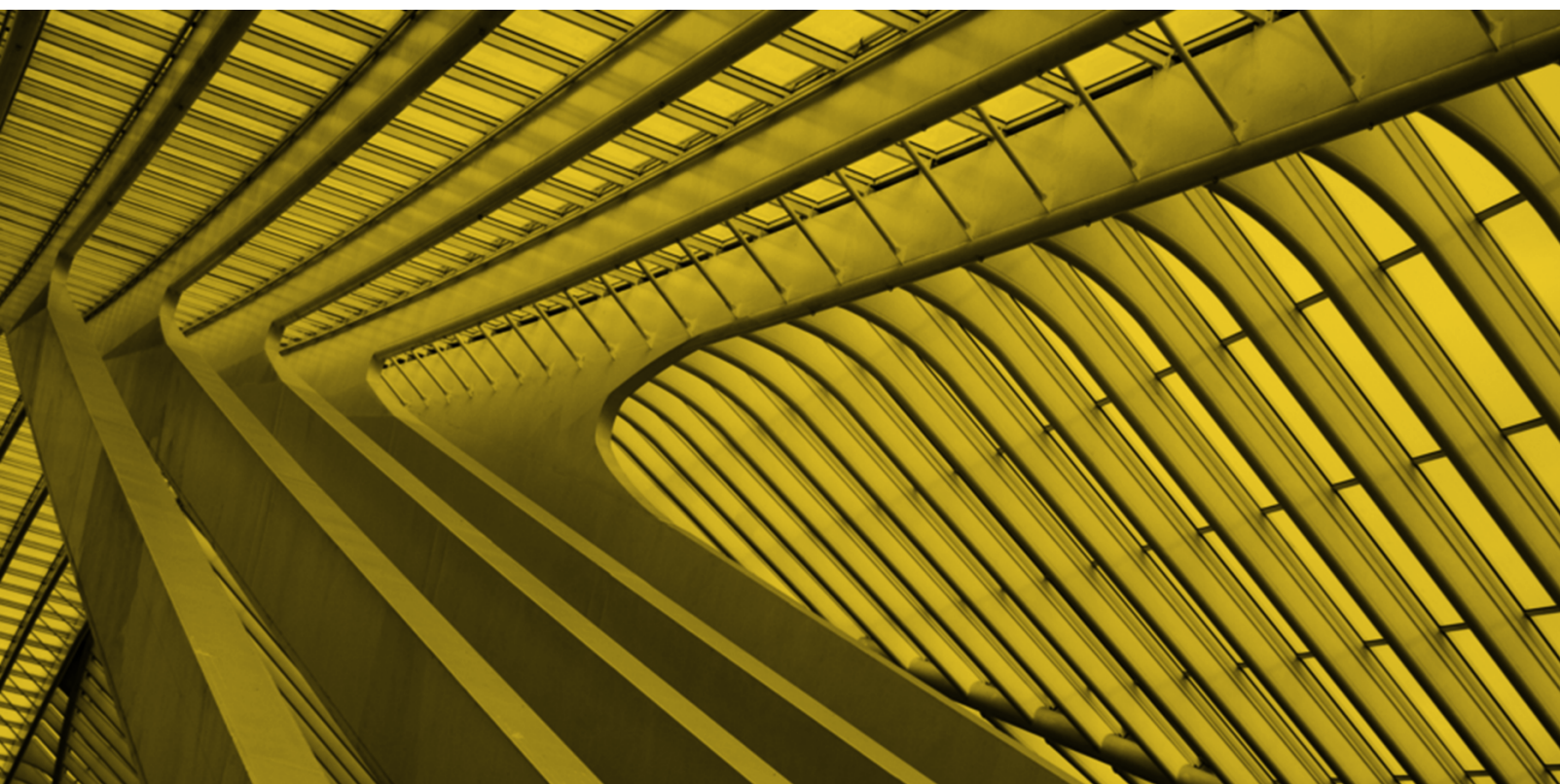
2 <https://eacea.ec.europa.eu/about-eacea>

3 https://ec.europa.eu/programmes/erasmus-plus/node_en

4 https://eacea.ec.europa.eu/erasmus-plus_en

and policy. The centralised agency can provide data on the number of participants that participated in one of the Erasmus+ funded schemes, however, it does not provide information on mobility at the subject level. The relative value and experience of mobility within the context of a creative HE is a topic that relates to DISCE's objective to understand the role of HE across the European creative economy.

Statistics on tertiary level education, classified under the International standard classification of education (UNESCO, 2011) as between levels 5-8 is managed and published via Eurostat, the central statistical office of the European Union (EU). Eurostat compiles data across the four levels of tertiary participation, which it defines as short-cycle (vocationally oriented) (ISCED5), then bachelors (ISCED6), masters (ISCED7) and doctoral level (ISCED8). Statistics on education across the EU is compiled via a joint collection of data from the United Nations Educational, Scientific and Cultural Organisation (UNESCO) Institute for Statistics (UIS), the Organisation for Economic Cooperation and Development (OECD) and Eurostat. This specific dataset is referred to as **UOE data**. UOE data is provided by reporting countries via standardised tables to include comparable data on students, new entrants, graduates, educational personnel, finance, class size and the ISCED mappings: the latter is a table showing, for each country, the relation between national programmes, qualifications and attainment levels and the ISCED levels (UNESCO, 2011). In addition, there are Eurostat specific tables covering data on regional enrolment and on foreign language learning.



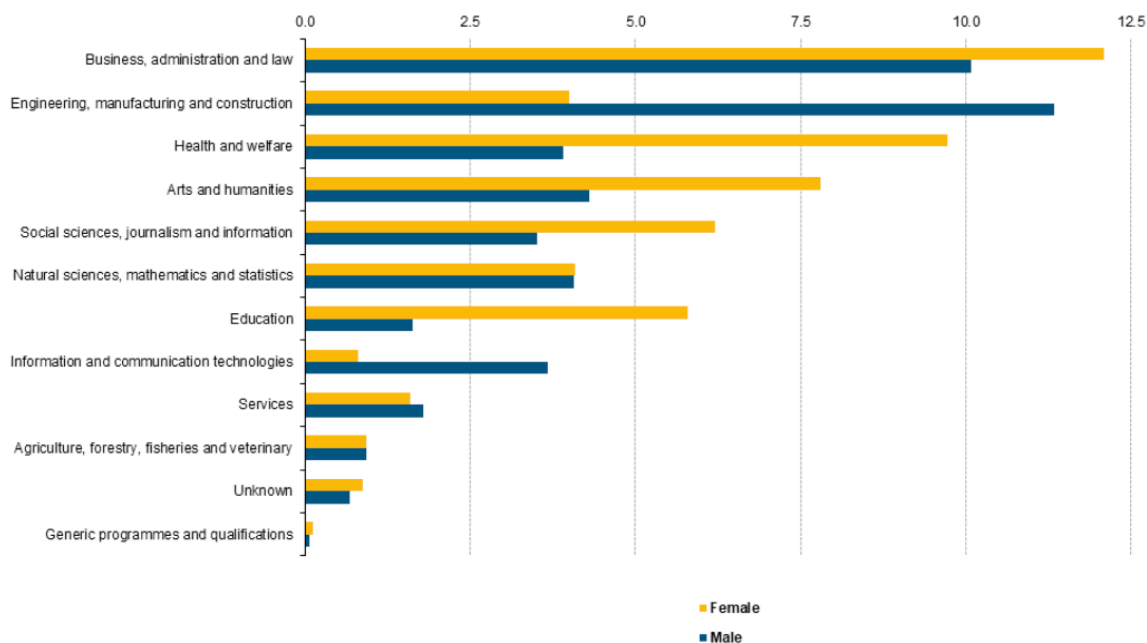
HE trends in the EU

The UOE mapping system allows for comparisons between EU countries (the most recent data available are for 2017) arranged across the following themes (Eurostat, 2019c):

- Participation in education and training
- Learning mobility
- Education personnel
- Education finance (includes national expenditure on education and financial aid to students by education level)
- Education outcomes including data on graduates per level at different programme orientation and field of education
- Educational attainment including population and labour status by education level.
- Languages, including language learning and self-reported language skills.

It is possible to compare the distribution of tertiary education students by broad field and sex (fig. 1.4). The UOE systems classifies three areas that relate to the creative economy; Information and communication technologies; Social sciences, journalism and information; and the Arts and Humanities (see Tab. 1.1 in the next page).

Fig. 1.4: Distribution of tertiary education students by broad field and sex, EU-28, 2017 (%) (Source: Eurostat, 2019b, figure 1)



Source: Eurostat (online data code: educ_uoe_enr03)

Table 1.1 Distribution (%) of tertiary education graduates by broad field of education, 2017 (Source: Eurostat, 2019b, table 3)

	Generic programmes and qualifications	Education	Arts and humanities	Social sciences, journalism and information	Business, administration and law	Natural sciences, mathematics and statistics	Information and communication technologies	Engineering, manufacturing and construction	Agriculture, forestry, fisheries and veterinary	Health and welfare	Services	Unknown
EU-28	0.1	9.2	10.8	9.4	24.3	7.6	3.6	14.6	1.7	13.8	3.7	1.1
Belgium	0.0	8.4	9.7	9.6	21.3	3.6	1.9	11.2	2.1	27.1	1.3	3.7
Bulgaria	0.0	8.9	6.7	13.2	32.9	3.3	3.7	13.5	1.8	8.4	7.5	0.0
Czechia	0.0	9.6	7.7	9.7	18.7	4.9	4.5	14.4	3.0	11.2	6.9	9.4
Denmark	0.0	6.0	12.3	10.2	24.7	5.3	4.8	11.0	1.2	20.9	3.6	0.1
Germany (*)	0.0	11.4	11.3	7.4	22.6	9.2	4.7	21.6	1.8	7.2	2.4	0.2
Estonia	0.0	6.8	12.5	7.6	23.2	6.4	7.4	15.0	2.0	13.0	6.0	0.0
Ireland	0.3	9.5	12.1	6.0	24.8	7.4	7.3	9.2	1.4	16.8	5.2	0.1
Greece	0.0	7.3	12.2	13.4	20.3	9.6	2.9	16.9	2.5	11.7	3.3	0.0
Spain	0.0	16.4	9.1	7.1	18.9	5.3	4.0	14.2	1.3	16.4	7.3	0.2
France	0.0	4.2	9.3	6.8	34.5	7.9	3.0	14.8	1.4	14.2	3.5	0.5
Croatia	0.0	5.6	9.1	7.2	29.7	5.1	5.5	16.4	4.2	10.4	6.7	0.0
Italy	0.0	4.1	16.3	12.1	19.2	7.3	1.0	15.1	2.5	13.3	0.2	9.0
Cyprus	0.0	23.4	7.5	7.1	35.9	2.5	2.7	9.7	0.9	5.5	4.7	0.0
Latvia	0.0	4.1	7.7	9.1	30.5	3.1	5.0	12.8	1.7	17.1	8.9	0.0
Lithuania	0.0	6.2	8.6	10.2	27.3	4.0	2.7	18.9	2.5	17.0	2.6	0.0
Luxembourg	0.0	7.5	9.6	11.7	43.8	5.0	4.6	7.7	0.1	7.3	2.7	0.0
Hungary	0.0	16.0	8.8	10.1	24.4	4.4	4.3	14.5	3.9	7.8	4.8	0.9
Malta	0.0	6.4	11.7	9.5	31.7	3.6	7.9	8.8	0.7	16.9	2.7	0.0
Netherlands	0.0	9.8	8.7	14.0	27.5	6.0	2.5	8.1	1.3	17.1	4.9	0.1
Austria	0.0	12.9	7.8	9.4	22.9	5.8	3.9	20.1	1.7	7.5	7.9	0.1
Poland	0.0	13.3	6.9	9.8	24.3	3.6	3.5	15.8	1.7	13.3	7.5	0.1
Portugal	0.0	4.8	10.0	10.9	19.4	6.3	1.9	20.9	2.2	17.4	6.1	0.0
Romania	0.0	5.0	9.0	8.6	27.7	5.3	5.6	18.2	4.4	11.6	4.5	0.0
Slovenia	0.0	11.2	9.0	10.4	20.3	6.4	3.7	16.6	2.5	12.5	7.4	0.0
Slovakia	0.0	12.8	7.7	11.6	20.4	5.7	3.3	12.1	2.2	18.2	6.0	0.0
Finland	0.0	6.7	11.2	7.4	18.9	4.8	6.3	16.2	2.3	21.4	4.9	0.0
Sweden	0.0	12.2	6.0	11.9	16.2	4.4	4.3	18.8	0.9	23.0	2.2	0.0
United Kingdom	0.6	8.7	15.2	11.6	22.1	13.6	3.8	9.1	1.0	14.3	0.1	0.0
Iceland	0.0	12.1	10.4	15.9	21.8	4.8	6.0	8.9	1.1	16.5	2.6	0.0
Liechtenstein	0.0	0.0	0.0	0.0	76.4	0.0	0.0	19.7	0.0	3.9	0.0	0.0
Norway	0.2	15.8	7.7	10.4	18.6	4.8	3.7	13.6	0.8	19.3	5.1	0.0
Switzerland	0.0	9.6	7.5	6.7	28.4	6.6	2.5	15.7	1.4	15.4	5.5	0.6
North Macedonia	0.0	4.3	13.7	12.8	29.2	3.4	6.6	11.9	1.8	9.7	6.6	0.0
Serbia	0.0	8.3	10.3	10.2	24.0	4.0	5.4	17.2	2.6	9.3	8.7	0.0
Turkey	0.0	9.5	10.7	8.2	31.4	2.7	1.7	15.2	2.2	12.3	6.1	0.0

(*) Excluding graduates of vocational academies.
Source: Eurostat (online data code: educ_uoe_grad02)

Eurostat provides data on the employment rates for graduates linked to the ISCED level of education attainment (Eurostat, 2019b). They do not publish data on the relationship between field of education and employment. For a detailed understanding of the relationship between a creative arts education and opportunities post-graduation it is necessary to look at national profiles and the next section discusses this in more detail. It provides a broad overview of the data that is currently available across a number of EU countries.

The European Tertiary Education Register (ETER)

The ETER is a database⁵ collecting information on Higher Education Institutions (HEIs) in Europe, concerning their geographical position, educational activities, staff, finances and research activities. The main specificity of ETER is providing data at the level of individual HEIs, complementary to educational statistics at the country and regional level provided by Eurostat. The ETER is an Erasmus+ project fully financed by the European Commission. It is jointly managed by the Joint Research Centre and by Directorate General for Education and Culture of the European Commission, in cooperation with Eurostat and the National Statistical Authorities of the participating countries.

ETER is a register of HEIs in Europe, providing data on the number of students, graduates, international doctorates, staff, fields of education, income and expenditure as well as descriptive information on their characteristics. ETER builds on the European Microdata project (EUMIDA), a large-scale study supported by the European Commission from 2009 to 2011, which demonstrated the feasibility of a European-level data collection on individual HEIs.

Following the definition of creative human capital, we look at the ETER database to identify data on creative disciplines academic staff and creative disciplines students. However, as also explained in the first part of the report, the only categories we could extract from ETER (similar to other Eurostat databases) are categories at the two-digit level of ISCED-F subject codes. At this level, the categories we can discuss in relation to creative education (with the caveats previously discussed) are: Arts & Humanities (A&H) and Information & Communication Technologies (ICT).

From the ETER database we have extracted two tables for the purpose of this report that relate to:

- Staff provision within the A&H and ICT across selected European countries
- Student enrolments on both A&H and ICT courses

The first one looks at the staff provision for these two subject groups across (some) EU countries between 2011 and 2016. From Table 1.2 – despite some missing data – we can see that across time a number of countries have reduced the percentage of staff in A&H disciplines (Spain; Sweden); in some others we see the opposite trend (UK) or stable presence of staff across time. However, it is worth highlighting that many countries have similar level of staff presence (between 10% and 20% of all staff).

Looking at ICT staff, we can see a quite a stable trend across countries with no significant increases between 2011 and 2016 despite the fact that the presence and importance of ICT in our lives and economy has certainly increased across the time period. Most countries seem to employ between 3% and 4% of staff in the ICT sector.

5 <https://www.eter-project.com/#/home>

Table 1.2: Percentage of academic staff in Arts & Humanities (A&H) and Information Communication Technology (ICT) across European higher education instructions (Source own elaboration from ETER database). Table 1.2: Percentage of academic staff in Arts & Humanities (A&H) and Information Communication Technology (ICT) across European higher education instructions (Source own elaboration from ETER database).

CC ⁶	DE	ES	GR	LT	SE	UK
% of Academic Staff in A&H						
2011	13.93%	10.36%	0.00%	0.00%	0.00%	16.62%
2012	13.59%	10.41%	0.00%	0.00%	12.78%	18.73%
2013	15.04%	10.07%	0.00%	0.00%	12.77%	19.94%
2014	13.42%	10.22%	0.00%	18.53%	11.95%	17.78%
2015	13.49%	9.32%	0.00%	16.67%	11.97%	17.79%
2016	13.24%	9.26%	10.27%	17.88%	11.95%	18.13%
% of Academic Staff in ICT						
2011	4.20%	3.49%	0.00%	0.00%	0.00%	3.30%
2012	4.11%	3.39%	0.00%	0.00%	4.50%	3.78%
2013	4.10%	3.30%	0.00%	0.00%	4.54%	3.74%
2014	4.01%	3.26%	0.00%	0.00%	4.48%	3.81%
2015	4.09%	2.95%	0.00%	0.00%	4.62%	3.79%
2016	3.99%	2.95%	2.70%	0.00%	4.65%	3.82%

Note: For this specific elaboration, no data were available (or where incomplete) for the following countries: Austria; Belgium; Bulgaria; Cyprus; Czechia; The Netherlands; Denmark; Estonia; Finland; France; Croatia; Malta; Hungary; Ireland; Iceland; Italy; Luxembourg; Latvia; Poland; Romania; Slovenia; Slovakia.

If we look at the percentage of students studying these subjects – across ISCED 5-7 groups, we can identify some trends (tab. 1.3). In relation to A&H students, we see a general (and slight) decrease of participation in these subjects, apart from five countries: Italy, Portugal, Poland, Sweden and Slovakia. This contradicts some of the trends we identified in the opening of this report (section 1.2) for creative subjects and could potentially be connected to the fact that we are discussing a broader group of students and arts and humanities considered separately might present very different trends. In general, across EU A&H students make up between 7% and 16% of the students' population, with 7.27% in Bulgaria (the lowest) and 16.07% in UK (the highest).

6 CC are country codes: as follows Austria (AT); Belgium (BE); Bulgaria (BG); Croatia (HR); Cyprus (CY); Czechia (CZ); Denmark (DK); Estonia (EE); Finland (FI); France (FR); Germany (DE); Greece (EL); Hungary (HU); Ireland (IE); Italy (IT); Latvia (LV); Lithuania (LT); Luxembourg (LU); Malta (MT); Netherlands (NL); Poland(PL); Portugal (PT); Romania (RO); Slovakia (SK); Slovenia (SI); Spain (ES); Sweden (SE);

Table 1.3: Percentage of students (ISCED 5-7) in Arts & Humanities (A&H) and Information Communication Technology (ICT) across European HEIs (Source own elaboration from ETER database)

	CC	AT	BE	BG	CY	CZ	DE	EE	ES	FI	EL	HR	HU	IE	IT	LT	LV	MT	NL	NO	PL	PT	SE	SK	UK	
Students enrolled at ISCED 5-7 – A&H																										
2016	11.33%	9.61%	7.27%	7.46%	8.83%	13.58%	12.61%	7.99%	11.70%	13.02%	8.90%	7.71%	15.33%	15.82%	8.29%	7.74%	10.08%	7.62%	10.76%	9.06%	9.89%	14.36%	8.74%	16.07%		
2015	11.71%	9.71%	7.30%	8.07%	8.50%	13.81%	12.53%	9.42%	11.97%	12.36%	8.82%	6.20%	5.74%	16.02%	9.28%	7.71%	13.09%	7.65%	10.26%	8.53%	9.47%	14.28%	7.88%	16.16%		
2014	12.39%	10.63%	7.28%	9.51%	9.19%	14.06%	12.44%	10.23%	12.17%	14.24%	8.74%	8.12%	15.80%	15.49%	8.08%	8.40%	12.33%	8.21%	10.17%	8.74%	9.52%	14.69%	7.91%	16.12%		
2013	12.17%	8.83%	7.50%	10.40%	8.96%	14.38%	12.50%	10.37%	12.54%	12.66%	0.00%	7.12%	15.88%	14.41%	8.26%	8.66%	12.59%	8.11%	11.57%	8.19%	9.25%	11.41%	7.84%	16.40%		
2012	12.94%	11.12%	7.62%	10.59%	9.29%	14.92%	12.69%	10.37%	13.30%	14.03%	0.00%	0.00%	16.36%	14.68%	0.00%	8.57%	12.81%	8.40%	11.27%	8.37%	9.12%	12.64%	7.99%	16.69%		
2011	13.38%	11.48%	7.75%	10.30%	0.00%	15.23%	13.00%	10.37%	13.59%	13.80%	0.00%	8.51%	16.73%	14.49%	0.00%	8.81%	12.11%	8.41%	12.29%	8.74%	8.09%	12.22%	7.54%	16.74%		
Students enrolled at ISCED 5-7 – ITC																										
2016	4.90%	3.58%	4.48%	3.49%	6.48%	6.97%	8.74%	3.32%	9.28%	3.28%	3.94%	6.32%	6.09%	1.57%	4.71%	6.46%	5.32%	6.11%	4.14%	4.61%	2.44%	3.92%	5.13%	4.30%		
2015	4.76%	3.42%	3.85%	3.62%	5.74%	6.43%	8.19%	3.31%	8.87%	2.60%	4.06%	3.07%	9.78%	1.50%	7.32%	5.98%	5.38%	5.69%	3.99%	4.26%	2.07%	4.13%	3.85%	4.17%		
2014	7.10%	2.87%	3.69%	3.68%	5.19%	6.13%	7.60%	3.40%	9.08%	4.92%	4.26%	3.25%	5.97%	1.23%	3.95%	5.67%	4.85%	4.65%	4.02%	3.82%	1.67%	3.69%	3.61%	4.11%		
2013	4.64%	2.72%	3.59%	3.61%	0.00%	6.12%	7.09%	3.45%	0.00%	4.73%	0.00%	0.00%	0.00%	1.35%	2.46%	5.17%	0.00%	4.62%	2.05%	0.00%	1.65%	0.00%	3.35%	3.97%		
2012	4.70%	2.70%	3.38%	4.39%	0.00%	5.77%	6.65%	3.58%	0.00%	5.53%	0.00%	0.00%	0.00%	1.36%	0.00%	4.14%	6.67%	4.54%	2.65%	0.00%	1.71%	0.00%	3.09%	3.81%		
2011	4.82%	2.71%	3.22%	4.81%	0.00%	5.78%	5.96%	3.92%	0.00%	5.66%	0.00%	2.71%	0.00%	1.36%	0.00%	4.45%	0.00%	4.13%	1.82%	0.00%	1.63%	0.00%	2.90%	3.81%		

In relation to ICT students, we see an opposite trend, with most countries seeing an increase in students' numbers across academic years apart from five countries: Spain, Greece, Croatia, Ireland and Sweden. Overall, the percentage of students in these subjects is also quite similar across EU countries but the extremity of the spread is represented by two countries in our case study framework: from 1.57% in Italy (the lowest) to 9.28% of Finland (the highest).

Implications for DISCE

The European HE system has been historically fragmented but also in many ways it has become more connected and cohesive. However, within the broader cohesion agenda for HE there is currently very little recognition of or the possibility for EU-level data to highlight and track the skills and knowledge pipeline specific to creative economies.

- The international classification and the 2-digit data format does not allow us to isolate the performance of arts disciplines at EU level with enough accuracy.
- It is therefore important to look at national data but to also think more broadly about how Eurostat or other data consortia like ETER could take this agenda more closely to heart.

4. Other networks and sources of information on creative HE in Europe

There are a few European organisations that provide independent information on HE linked to creative arts subjects.

The European League of Institutions in the Arts⁷ is a globally connected European network platform for professional exchange and development with a focus on art schools across Europe. ELIA coordinated and managed the Nxt Project (2015-2018) - centered on the question of earnings and sustainability for artists. The NXT Project's research aims were to deepen the understanding of the ways higher arts education institutions are training their students to make a living from their artistic practice.

The NXT Project report (ELIA, 2018), *Career for the Arts: Visions for the future* presents a series of essays linked to the project, including the findings from a survey sent out to all ELIA members, alongside creative hubs and networks all over Europe. The report is based on 194 responses from different hubs of which 52% were university-based hubs and 48% independent. The report presents information on typologies of different hubs and how HE based hubs can have a positive role in the transition between HE and employment. Another report published through the network, 'Becoming an Artist?' (ELIA, 2019) looks at the issues of inequalities in relation to access to art school and employability (see section 1.5 for wider discussion in relation to accessibility to creative education). ELIA currently manage a series of working groups based on the following areas of research:

7 <https://www.elia-artschools.org>

- Artistic Research
- Arts Education
- Evaluation Models, Higher Arts Education
- Sustainable Careers in the Arts
- PIE - ELIA Platform for Internationalisation

The **Association Européenne des Conservatoires Académiques de Musique et Musikhochschulen (AEC)**⁸ is an association for Higher Music Education (HME) across Europe. In 2017, the AEC published a report (AEC, 2017) on the importance of teaching diverse forms of Audience Engagement within Higher Music Education for Jazz Musicians. The report is based on the findings from a Pop and Jazz Working Group organised by the AEC to address new curriculum models for student-centred learning.

For too long, jazz education has been preoccupied with the business of transmission of information and an imbalance of product and process. As a result, there is a pedagogical and curricular challenge for the sector to become more deeply informed as to how people learn as creators and generators (AEC, 2017: 7)

The report cites the 'Engaging Audiences/Artist as Citizen' module within the BMus course at the Trinity Laban Conservatoire in London as an example of good practice whereby students develop skills in musical leadership, communication and collaboration alongside an exploration of social entrepreneurship.

It introduces students to the notion that the music industry is in need of visionary leaders as it navigates the uncharted landscape ahead. The Artist as Citizen reimagines traditional notions of music-making and contributes to society either through the transformative power of their artistic abilities or through proactive social engagement with the understanding that there should be no dividing line between artistic excellence and social consciousness. (AEC, 2017: 9).

CILECT is the **International Association of Film and Television Schools** (Centre International de Liaison des Ecoles de Cinéma et de Télévision)⁹ and provides training information including online tutorials for members, specifically about film and television storytelling across various genres.

The **Cumulus International Association of Universities and Colleges of Art, Design and Media**¹⁰ is a global network that considers art and design education and research. It is a forum for partnership and transfer of knowledge and best practices. Cumulus consists currently of 299 members from 56 countries. It was founded in 1990 with an original network consisting of The University of Art and Design in Helsinki (UIAH) (currently Aalto University School of Arts, Design and Architecture) and the Royal College of Art in London, in co-operation with Danmarks Designskole,

8 <https://www.aec-music.eu>

9 <http://www.cilect.org>

10 <https://www.cumulusassociation.org>



Gerrit Rietvelt Academy, Universität Gesamthochschule Essen and Hochschule für Angewandte Kunst in Wien. Their 2015 report *Changing Paradigms. Designing for a Sustainable Future* (Cumulus, 2015), addressed the importance of including sustainability in design education.

The European Association for Architectural Education (EAAE)¹¹ is the European association for Architectural education. Its purpose is to advance the quality of architectural education and also to promote the quality of architecture in Europe. The Association provides a forum for generating information on aspects of architectural education and architectural research. They do not provide specific data or research on graduates or learning experience.

The Society for Artistic Research (SAR)¹² is a non-profit organization that nurtures, connects and disseminates artistic research as specific practices of creating knowledge and insight. SAR facilitates a range of encounters for its community of artistic practitioners in the pursuit of transformative understanding that impacts on political and societal processes as well as on cultures of research and learning. SAR has an international membership drawn from individual artists, as well as academic and non-academic institutions. SAR manages the Journal for Artistic Research (JAR)¹³ an online, open access journal that considers artistic research and its methodologies, from all arts disciplines.

The **SHARE academic network**¹⁴ is a networking project comprising 39 partners from across Europe working together on enhancing the 3rd cycle of arts research and education in Europe. SHARE is jointly coordinated by GradCAM, the Graduate School of Creative Arts and Media (Dublin) and ELIA, the European League of Institute of the Arts.

11 <http://www.eaae.be>

12 <http://www.societyforartisticresearch.org/society-for-artistic-research>

13 <https://jar-online.net>

14 <http://www.sharenetwork.eu>

The **E:UTSA (Europe: Union of Theatre Schools and Academies)**¹⁵ platform is a union and **exchange platform** of European theatre schools. It supports **student-led** theatre projects and collaborations with the goal of enhancing the educational experience of European theatre students and of creating a **students' network** which will enable future professional work. It currently includes 14 members from Austria, Czech Republic, France, Germany, Hungary, Italy, Lithuania, Poland, Russia, Scotland, Spain, Sweden and Switzerland.

Implications for DISCE

The wide range of platforms and collaborating organisations created across EU countries acknowledges the need for creative HE to look and act beyond borders not only in relation to the development of international curricula but in the acknowledgement that the students of creative subjects, maybe more than others, will have to work collaboratively and internationally in their future careers as the labour markets of the CCIs are becoming more international and reliant on global production networks. From the perspective of DISCE:

- We acknowledge the importance of cooperation and collaboration in the development of international creative careers challenges the creative ecologies approach. Our creative ecologies will always have permeable boundaries to include students/HEIs collaborating across regional and national boundaries.
- None of these organisations have the size and power to be able to consistently collect and provide data on trends in creative HE across Europe and there is no central unit at EU level able to support a better understanding of key issues outlined here: provision, access, value, career trajectory and geography of HE offerings and attendance.

¹⁵ <https://eutsa.eu>

5. Data and knowledge of creative HE at national level: what can we learn from national data collections?

This part of the report looks at data on creative HE available at national level, highlighting how some of the key issues and concerns are addressed in this data and how they can inform DISCE thinking. Not many countries collect data on creative HE and creative graduates specifically, so this section is only informed by the national level data report and analysis available at the time of writing.

The issues addressed are:

- **Data on student population:** what mechanisms/systems are deployed to statistically monitor student population? This section compares and reflects upon different national contexts.
- **Access and participation:** how many students attend creative HE courses? Do we know their socio-economic background? How inclusive (or exclusive) are those courses? Do funding barriers (like fees) influence participation and inclusivity, or are there other barriers linked to socio-demographic/regional factors?

- **Specialisation and Geography of Creative HEIs:** do creative HEIs show specific concentration or are they geographically spread? Do student migrate to access creative HEIs?
- **Employability and career sustainability:** where do creative graduates work after graduation? Is their salary comparable to other graduates (or not)? Does their mode of working (part-time, self-employment) differ from others?

Data on student population

The UK HE system is unified although devolved¹⁶. Data on student population in the UK is managed by the Higher Education Statistical Agency (HESA)¹⁷. HESA divides course names via the JACS code system¹, with courses grouped together under broader frameworks linked to subject areas¹⁸. Broad areas linked to the creative economy include (A) Architecture, Building and Planning, (E) Mass communications and documentation and (H) Creative Arts and Design. The following table shows the percentage change of student enrolments across all broad fields of study between 2017-18.

¹⁶ The UK HE sector is managed within each of the four devolved nations (England, Northern Ireland, Scotland, Wales) and comprises of a loosely defined three tier system of HEIs which are divided as either research-intensive universities and more teaching-focused institutions. The third tier of HE in the UK consists of Further Education (FE) which is available for post-16 students. FE institutions are vocational-focused but also include general (academic) programmes. There are currently 271 HE providers in the UK including 12 specific conservatoires for the study of music, dance or drama.

¹⁷ <https://www.hesa.ac.uk/>

¹⁸ From 2002/3 until 2018/19, course subjects have been classified using the JACS - the Joint Academic Coding System. From 2019/20, a new subject coding system - the Higher Education Classification of Subjects (HECoS) has been applied across HESA, UCAS and the Student Loans Company (<https://www.hesa.ac.uk/innovation/hecos>)

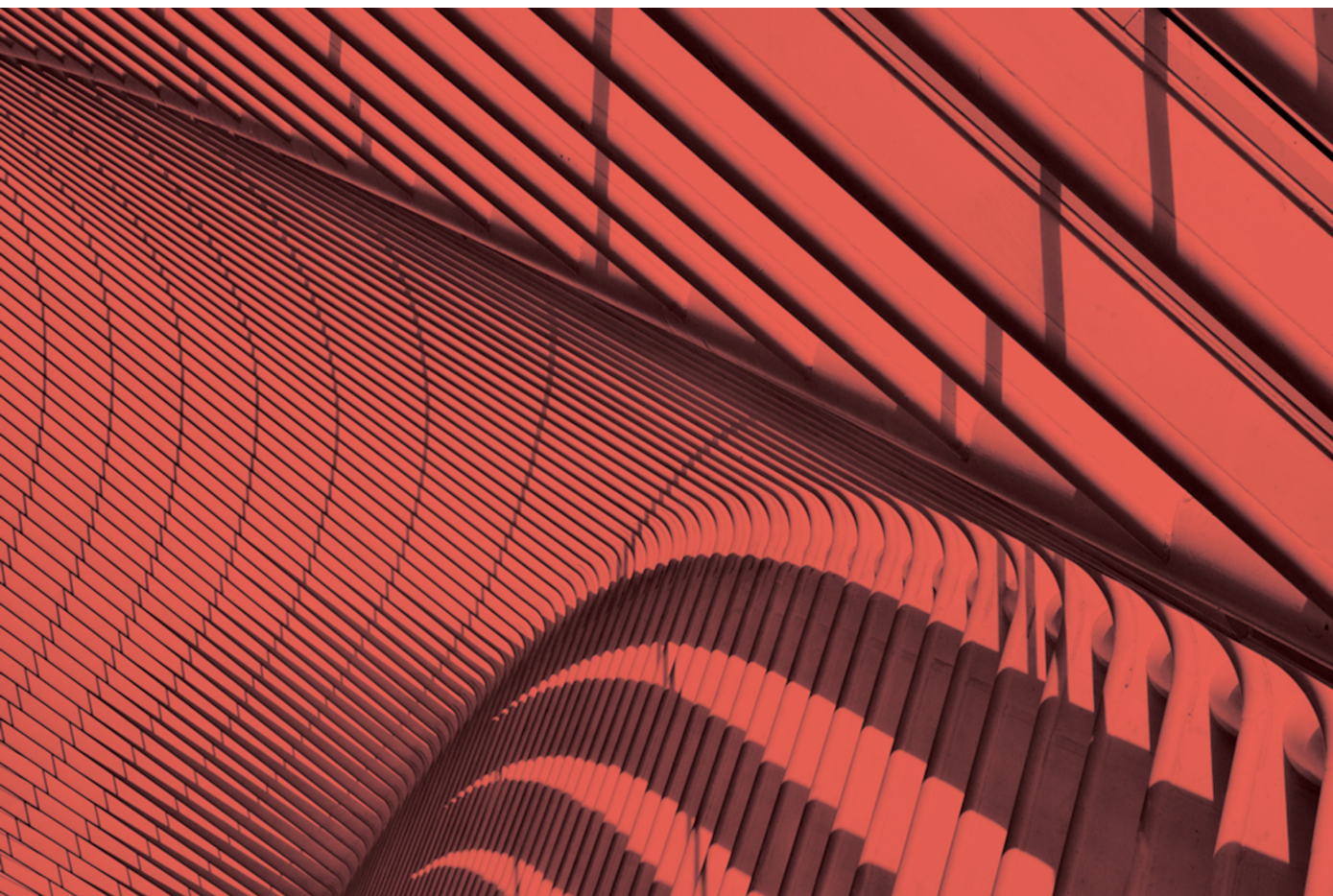
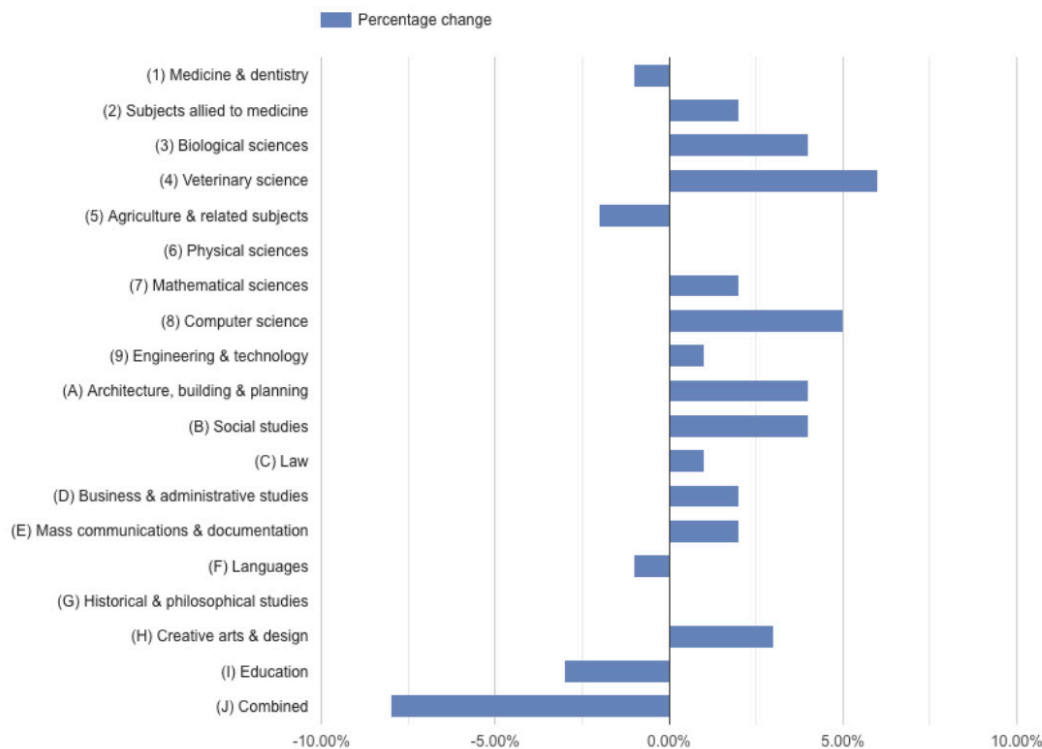


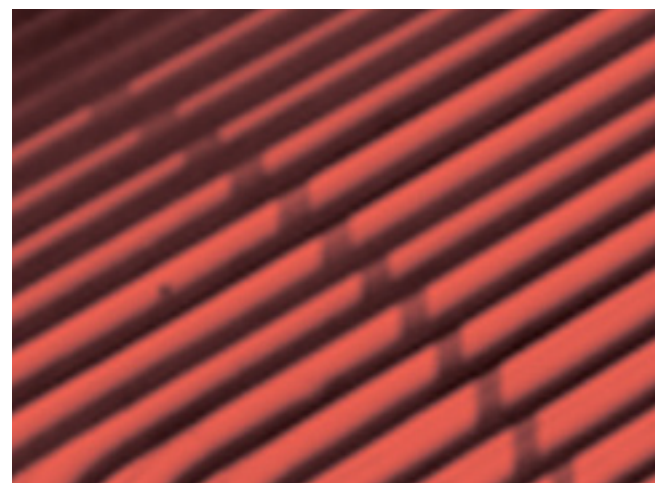
Figure 1.5: Percentage change of student enrolments across all broad fields of study between 2017-18 (Source: HESA, 2019)



In relation to access and participation data from Italy¹⁹ to creative HE also suggests growing trends (see fig. 1.1). However, it does not include any reflection on the characteristics of the students (especially socio-economic conditions) enrolled beyond their gender. 55,8% of new enrolled students are female, this percentage is higher on Fine Arts HE (66,4 %) but much lower for Music Conservatoires 37,5% (ANVUR, 2018: 339)

An interesting international approach to the issue of access is presented by Comunian and Ooi (2016) in relation to Singapore. Developing access and infrastructure for creative HE has been a strategic priority for Singapore as despite its international profile in HE provision it did not have specific creative courses at HE level until recently. However, while opening up study opportunities across a range of creative subjects, the central HE policy unit adopted a controlled access framework. The framework of HE planning in Singapore seems to still be industry-led rather than about the value of creative education per se. As a Singaporean HE policy maker explained to the authors

¹⁹ Italy (MIUR, the Italian Ministry for University and Research) collects specific information for universities and institutions of Higher education for the fine arts, music and dance (AFAM: Alta Formazione Artistica, Musicale e Coreutica). The data discussed here are sourced from their latest report (ANVUR, 2018)



In terms of performing arts, fine art, I think it start small, you don't need a lot of them actually, but when it comes to say other technical forms of arts, like design, we do need more of them because they also ground certain industries, such as industries in animation . So this is the reason why creative arts studies are not supported at the vocational (not HE) level, as we haven't been that adventurous to let students train in creative arts [...] We are worried that if they train in creative arts then creative arts can have more volatile economic prospects. These people who are trained only in certificates can become more vulnerable because they are less mobile compared to a diploma holder or a degree graduate. (Comunian and Ooi, 2016: 77).

Access and participation

There are various aspects connected to the idea of access and participation. On one level most countries are able to map general trends in participations – even across Europe – based on broad subject group (see ETER table 1.3). However, only some countries can quantify more specifically access to creative HE. For example, ELIA (see section 1.5) commissioned and published a report on the routes followed by aspiring young artists and designers wanting to join an arts school (ELIA, 2019) which looks specifically at the question of access, selection and participation in both Fine and Applied Arts Institutions within France. The report starts with a summary of themes relating to access and in particular, the impact of preparatory (i.e. foundation style access degree courses) through a series of interviews with 20 arts and design teachers from institutions within France, Belgium, German and the Netherlands. The growth in demand to an arts-based education is reflected upon in relation to the of arts institutions to match demand, and the growing significance of the selection process in relation to the impact of the professional arts scene. As one participant, a designer and teacher at the ENSAD (*L'École nationale supérieure des Arts Décoratifs*) in Paris remarks:

They are so different when they arrive, It's a real melting pot... There are so many candidates who could reveal [their talents], even if they don't do well in the entrance exam. Needless to say, there are those immediately seem little suited or not suited at all, but here again why not? Society is made up of all sorts of people (ELIA 2019: 8).

The report acknowledges how competition for places on arts courses leads to a selection process that consequently leads to homogeneity, which, is recognised as problematic in the context of creative arts which is meant to encourage diversity and individuality. The common form of access to a creative arts degree, within fine art or applied specialist institutions, is the portfolio and interview. But, as acknowledged, this process benefits those who come from more privileged backgrounds, which as stated, “contradicts the wish expressed by schools to have a diversified recruitment both in socio-cultural terms and in geographical terms” (ELIA, 2019: 9).

One response to the increased demand for places within specialist arts courses has been a rise in ‘preparatory courses’, courses of between 1-2 years regarded as a stepping-stone for further study. Preparatory or foundation courses have been operating within Europe since the 1980s, however vary according to national contexts. In the UK, since the 1970s, there was an established network of independent art schools, set up in smaller towns and cities de-



signed for the local community (Oakley *et al.*, 2017). The ELIA report however provides quantitative information on the relationship between the network of preparatory courses in France and access to specialised art school. Of the 11700 students who enrol in a preparatory course, only 13% go on to an advanced art school. The remainder are divided between private arts schools or integrated back into a degree-level course (ELIA, 2019). There is no data available on the impact of the preparatory degree on those who then go back into a different form of HE.

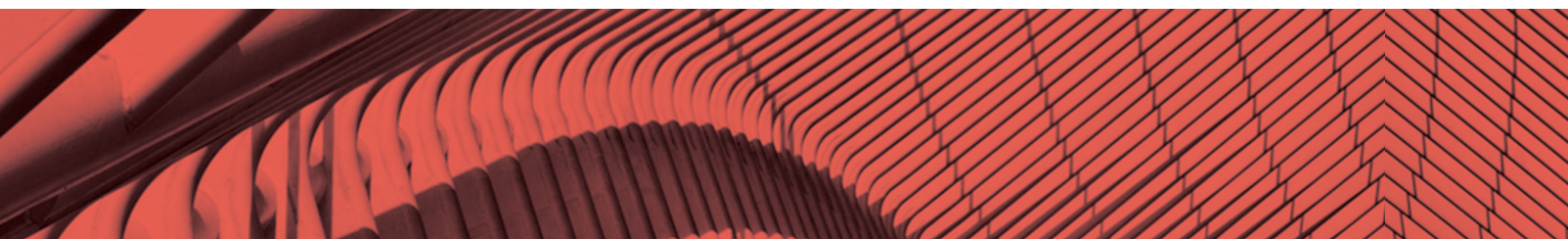
Although there are public preparatory institutions and courses, some of which are specifically designed to support those from lower-income backgrounds, for example the **Fondation Culture & Diversité**²⁰ provides support programmes for young people who have been in a social care/child protection programme and there are partnerships and programmes run by some of the leading HEIs in France e.g. SciencesPo in Paris²¹. However, the majority of preparatory courses are private, where fees can range from between 5 – 10,000 Euros as opposed to 0 – 2,150 in public programmes.

The relationship between increased competition and access in the case of arts-based institutions has also been shown to build disadvantage into recruitment processes, meaning students from less-privileged backgrounds are routinely excluded. Burke and McManus (2011) looked at the process of admissions into 9 British HEIs, 5 of which were art and design institutions. The researchers interviewed admissions tutors and observed actual selection interviews with candidates. The findings “expose the probability that exclusions are not simply individual acts of discrimination but are deeply connected to institutionalized policy discourses that work to reconstruct and reproduce privileged subjectivities in higher education” (Burke and McManus, 2011: 711). This is a damning report, exposing the classed-based prejudice of admissions processes whereby candidates are judged on their ability to access specific ‘attributes’ which favoured those who had certain forms of social, cultural and economic capital.

Thus, socio-economic background becomes an important dimension in relation to how students are able to access and attend creative HE degrees across Europe. This relates to another key dimension of access, the economic. This connects to a broader discussion on how HEIs are funded and the introduction by some European countries of fees for users (Weiler, 2000; Brooks and Waters, 2011). There are a lot of considerations in relation to funding structures for HE between grants, loan and other tax-based financial schemes (Vossensteyn, 1999). For some this has specific relevance to creative HEIs as courses in many creative subjects have high costs of delivery due to costs related to studio space and other infrastructures (example rehearsing spaces or making spaces for craft courses) as discussed by Last (2017).

20 http://www.fondationcultureetdiversite.org/programmes/arts-cultures-protection-de-l-enfance_p553246

21 https://www.sciencespo.fr/nous-soutenir/en/nos_projets/equal-opportunity-programme-eop/



Specialisation and geography of creative HEIs

The UK and Italy HE systems provide some information on the geography of HEIs – in particular specialised institutions, which are valuable in reflecting on the impact of geography and mobility for these subjects.

In UK, Comunian and Faggian (2014a) consider the geographical dimension of creative degree provision and highlight how more than one third of students in this discipline concentrate in Greater London and the surrounding South East regions, creating a high degree of specialisation in these areas – which also show a high degree of concentration of creative industries.

Table 1.4: Total numbers and percentage of students in creative HE degrees in UK (based on 2007 HESA data) according to geographical regions (Source: Comunian and Faggian, 2014a: 25).

Region	Population (Census, 2001)	Total Students	Bohemian Students	% Bohemians in the Region	% Over Total No. Bohemian Students in UK
Greater London	7,172,036	281,905	44,420	15.76	24.00
South East	8,000,550	248,700	23,995	9.65	13.00
North West	6,729,800	189,375	19,605	10.35	10.60
Yorkshire & the Humber	4,964,838	163,555	16,845	10.29	9.10
South West	4,928,458	121,100	15,920	13.15	8.60
East Midlands	4,172,179	111,335	12,545	11.27	6.80
Scotland	5,062,011	164,130	11,235	6.85	6.10
West Midlands	5,267,337	128,270	10,980	8.56	5.90
Wales	2,903,085	93,265	10,365	11.12	5.60
East of England	5,388,154	105,925	10,440	9.85	5.70
North East	2,515,479	78,270	6,560	8.38	3.60
Northern Ireland	1,685,267	37,430	1,840	4.91	1.00
UK Total	58,789,194	1,723,260	184,750	10.72	100.00

Source: HESA (2007)

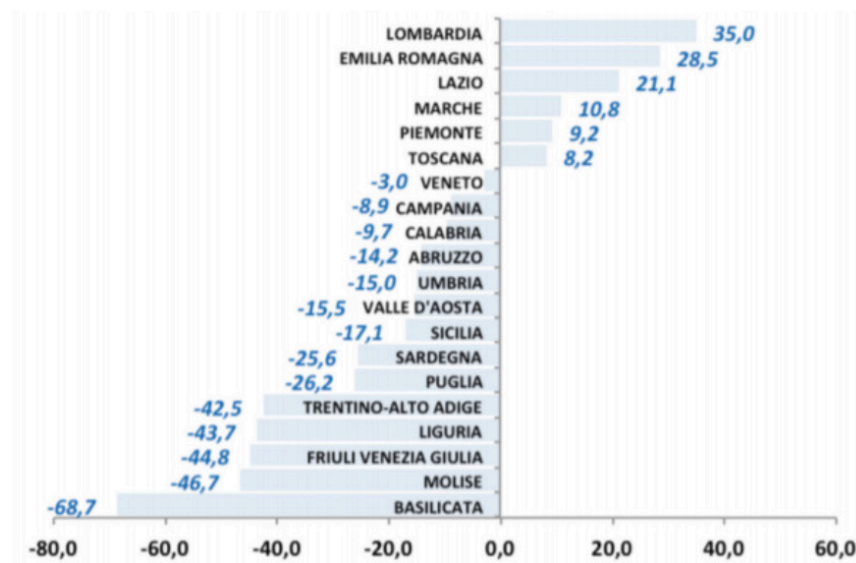
A similar pattern of concentration is also found when looking at the location of creative graduates across the UK after graduation. The pattern becomes even more concentrated when looking at where creative graduates are able to find a job after graduation with Greater London on its own accounting for one third of creative graduates in creative occupations nationally (Comunian and Faggian, 2014a).

In Italy – with an umbrella label for HEIs specialised in provision of core creative subjects (AFAM) we can reflect on the regional distributions of these specialised institutions. ANVUR (2018) shows how the overall distribution of the 155 HEIs seems quite balanced (68 in the North of Italy, 41 in the Centre and 46 in the South). How-

ever, the actual distribution by typology shows some form of further geographical specialization. Fine Arts Academies are clustered in the Centre of Italy (10 out of 20); while Music Conservatoires are present mostly in the North and South (29 and 23 out of 59).

The uneven geography and different level of specialisation in the distribution create strong migration patterns (as shown by fig. 1.6). There are regions that show a high degree of attractiveness with the Lombardy (Milan) and Emilia Romagna (Bologna) and Lazio (Rome) regions clear winners in the attraction of talents. Differently from Italy, in the ANVUR (2018) data analysis there is no information on retention or migration patterns after graduation.

Figure 1.6: Regional migratory patterns (balance of in-migration and out-migration) for the academic year 2016/17 (Source: ANVUR, 2018: 349)

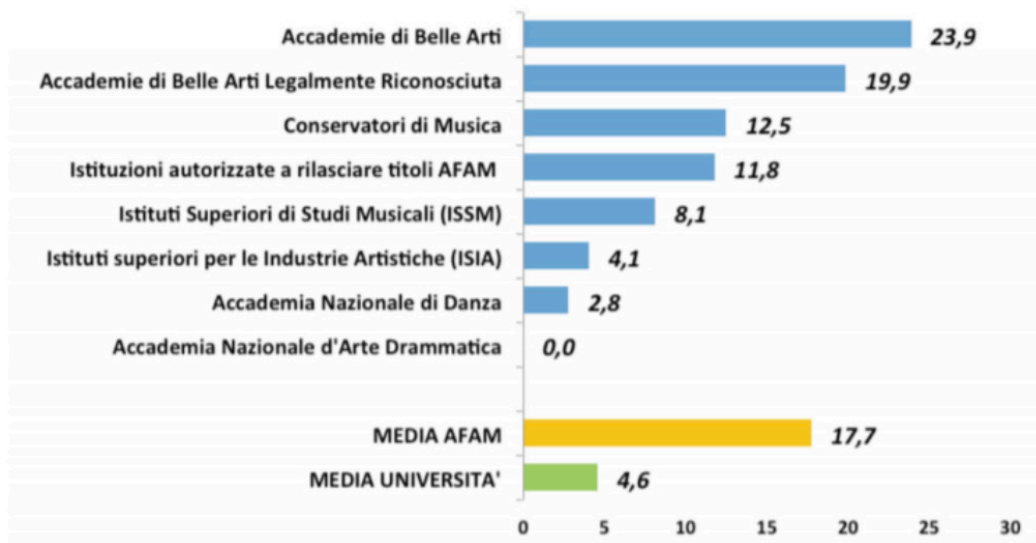


(Fonte: elaborazioni su dati MIUR - Ufficio Statistica e Studi)

Another interesting dimension of the geography of creative HE is emerging from the Italian data: the ability of creative HE to attract international students (and creative talent) to Italy (fig. 1.7). The Italian average of attracting international students to HE in general is only 4.6% - with most Italian HE courses only being delivered in Italian and therefore potentially inaccessible to wider markets. However, the same average for creative HEIs is almost four times higher (17,7%) with Fine Arts Academies reaching 23,9%. This shows the potential of creative HE to be more international and open to international students as language might not be as much of a barrier (compared to practice-based or other forms of expression) and when potentially Italian tradition and reputation might generate international demand.



Figure 1.7: Percentage of international enrolments per type of creative HE for the academic year 2016/17 (Source: ANVUR, 2018: 350)



Fonte: elaborazioni su dati MIUR - Ufficio Statistica e Studi)

Graduate outcomes and creative careers

The UK is probably the most advanced country in reference to the systematised data collection in relation to graduates outcomes. HESA¹⁷ collected data on student alumni has been gathered via the Destination of Leavers from Higher Education Survey (DLHE) which is sent out to graduates 6 months after the date of graduation. The DLHE survey provides information on graduate employability (including sector of employment) and earnings. In addition to the DLHE survey, the UK Longitudinal Education Outcomes provides information on graduates from Bachelors' degrees only at one, three, five, or ten years after graduating. The data goes back to graduates from the year 2003-4 and can be broken down by graduate characteristics including gender, ethnicity, region (at application date), age (when commencing study) and (crucially) prior school attainment.

Faggian *et al.* (2013) use HESA data to discuss career outcomes and highlights specific trends across subject groups with graduates in 'creative arts and design' being the most vulnerable in the labour market (in contractual terms and also in reference to earnings) while 'creative media' and 'other creative graduates' seem to experience a better job prospective. However, the research overall finds that creative graduates experience more precarious working conditions and lower level of salary, both when they work within creative and cultural occupations than outside in the broader economy.

Some of these dynamics have been recently taken further by a new study in 2018 by the Institute for Fiscal Studies (IFS) that published a report titled *The impact of undergraduate degrees on early-career earnings* (Belfield *et al.*, 2018). Based on the analysis of the LEO (Longitudinal Educational Outcomes) dataset, the report found

that the earnings prospects of ‘Creative Arts & Design’ students appear less favourable to other subjects, to the point that creative arts & design graduates are earning at the same level of non-graduates. To the Treasury in the UK, the HE system (based largely on student loans) elicits the questioning if/whether arts and design degree have any value to the economy and are in fact unable to re-pay their investment (through the loan) to the public purse (Comunian and Brook, 2019).

Beyond the UK, there are only a few examples of broader assessment of creative graduates’ career dynamics. Alternative methods, adopted by a few researchers focuses on the study of alumni (qualitative and quantitative data) including: music-degrees alumni in Canada (Brook and Fostaty Young, 2019) or Germany (Burland and Pitts, 2007) or film studies alumni in the USA (Bhakta, 2015) or craft degrees alumni in UK (England, 2020).

The **Strategic National Arts Alumni Project (SNAAP)**²², is a US survey of the HE and career experiences of arts alumni which includes a broad range of creative subjects (including Architecture/design; Art education/history; Fine/studio arts; Media arts; Performing arts and within those categories; creative writing, music composition, choreography, film, illustration). The survey enables a reflection on the relationship between socio-economic, racial, ethnic and geographical status, arts education and career outcomes. Research published by Martin and Frenette (2017) and Frenette *et al.* (2018) show the relationship between background, college resources and employability through their analysis of the SNAAP data. The most recent SNAAP 2017 report boasts a wide coverage of creative HE institutions across the USA and Canada, in total, in the 2015 and 2016 rounds, over 65,000 arts alumni responded to the survey across 84 HEIs. The size of the survey – with the buy-in of major arts and creative HEIs across the USA – represent a unique database, that would be very interesting to replicate across the European Union.

Beyond looking at a snapshot across cohorts (including respondents who graduated recently up to respondents who graduates in the 1980s and earlier), the survey considers broader dynamics of their employability. And even beyond employability – as highlighted by Frenette and Tepper (2016), they reflect on how arts alumni contribute not only vocationally but also vocationally / independently to their arts communities and contribute to the overall strength of local arts ecologies across the United States. In the findings from the survey there is specific acknowledgement of other non-monetary rewards that creative careers offer (Dumford and Miller, 2017). Frenette *et al.* (2018) discuss some of the variables included in SNAAP and it is important to consider how they would have valuable input also to a potential European data collection on arts alumni. In reference to Socio-demographic background, beyond ‘Gender’ and ‘Race’, they consider whether respondents are ‘First generation college graduate’ and ‘whether Any parents, guardians or close relatives who were/are professional artists’ which adds an acknowledgement of social and cultural capital in the role of access and participation. They consider different ‘pathways’ of arts graduates also within creative HEIs for example graduates mixing various majors or minor subjects and graduates who undertook postgraduate as well as undergraduates degrees, again acknowledging that a ‘creative degree’ is not one single event/format but might include a range of subject and multiple levels

22 <http://snaap.indiana.edu>

of education. They reflect also on the experience of the degree in reference to how it shaped their working experience with the creative sector through for example: project in the communities; working with other artists; engaged in discussion with diversity. It considers a range of ways in which graduates currently engage with creative employment: whether as work; in their personal time; as self-employed or as teachers of arts subjects.

Finally, they articulate the value of a creative degree across a range of dimensions (beyond income and opportunity for career advancement) and this include the overall job satisfaction but also how work reflects personality, interests, and values of the person and how much it offers the opportunity to be creative or job security. It adds also the importance of the 'Opportunity to contribute to the greater good' as well as 'Balance between work and non-work life'.

Overall, the SNAAP survey – because sector specific – introduces other important dimension that we do not find represented as much in generic graduates' surveys and therefore offers a good perspective on the DISCE data collection (qualitative and quantitative).

Implications for DISCE

In the review, we found that national level are usually able to capture the specific dynamics of creative HE in relation to who has access to creative HE courses – which is often part of broader national policy and funding structures. However, the important of cross-referencing this also with socio-demographic data is particularly relevant in relation to inclusivity.

- The DISCE case studies will be able to address this question of access at both the institutional and individual career levels.
- In addition, the role of geography has emerged as being an important factor, so within the case study framework, migration to study or to work will be captured through qualitative life accounts.
- The question of connectivity between creative HE and sustainable careers is one that should be tackled both in DISCE qualitative work but also through a major quantitative survey aimed at providing some correspondence between some of the questions and reflection coming from the USA SNAAP survey and a European version of it.

6. Conclusions

This report has sought to provide an overview of key issues relating to the current knowledge and data available relating to the provision of creative subjects across the HE sector and the trajectories of students and graduates that attend creative courses. At a pan-European level data is limited to the broader categories of Arts & Humanities and Information & Communication Technologies. This does not offer a good enough proxy to understand the role of creative HE in fostering creative graduates' specific skills fit for the CCW and CCIs labour markets. A more detailed definition of creative subject categories – for example in countries like Italy, where specialised institutions offer data of specific trends and dynamics – can help. However, this still leaves out many creative subjects and students who are not taught in specialised institutions. Similarly, the detailed categories offered by the UK Higher education subject codes (JACS) can offer more insights into specific pathways and careers' outcomes. However, more knowledge is needed concerning the mobility of HE students on creative courses across Europe, and the impact of such mobility on their experience and opportunities post-graduation. Furthermore, a clearer understanding of the relationship between the cost of a HE degree in a creative subject, the level of student debt taken on, and the impact of that debt on opportunities and choices beyond graduation is needed.

Finally, a better articulation – possibly inspired by SNAAP – of the value of a creative degree beyond income and their broader contribution to creative economies and ecologies is required. Here, evaluations such as the one in UK based on LEO data would offer helpful insights against the current limited understanding of such dynamics across Europe.

Implications for DISCE

The abundance of evidence (briefly summarised here) from the institutional to the grassroots perspectives provides multiple positions of the impact of creative and cultural working norms on livelihoods.

- The DISCE research project has the opportunity to explore the conditions that enable creative and cultural work/practice through the case study approach.
- The combination of research methods within the case study design enable a detailed exploration into the lived realities of workers within a specific geographical local, applying an ecological approach to understanding of cultural participation (Gross et al., 2019)
- In addition, the unfolding COVID-19 pandemic provides a reflective moment on the sustainability of the CCW in the case study locations.
- The project also provides an opportunity to share information and findings across the case study locations, providing a platform to showcase the issues and actions/responses developed across Europe.

7. Recommendations for DISCE

In this section we outline how the reflections in this report directly relate to the research objectives and research methods that the DISCE project adopts, the data it will collect and the issues it might face. Although these issues are closely connected with the focus of WP3 they have broader repercussions for the DISCE project overall.

Definitional tensions and issues in mapping creative HE in Europe

In the report we highlighted how there are tensions across scales (cross-European and national), and within different national systems as to how we map and estimate components of the creative economies. Along with broader definitional issues this creates a gap in the broader EU framework for a working concept of the creative economy, and difficulty in measuring the varied economic models of different sub-sectors that contributes to it.

In reference to the provision of *creative subjects in HE* we highlight that despite the large efforts of data collection at a pan-European level, it is not currently possible to disaggregate to the level of specific creative subjects. As such, it is not possible to advance any rigorous cross-country comparison or mapping of specific subject-related dynamics.

DISCE research questions & WP3

With the aim of 'Developing Inclusive and Sustainable Creative Economies', DISCE is considering the role of creative HE and CCW to the creative economies but is also on the normative goal of making them (more) *inclusive and sustainable*. This report has reinforced and added depth to the overall research questions of DISCE with specific reference to WP3.

In relation to creative HE:

- What can an examination of participation within HE creative subject degrees tell us about how the aspirations of students who wish to enter the creative economies are managed?;
- What can information on who is able to access HE in general and specifically creative subject degrees – both socially and financially – tell us about how inclusive HE is but also how diverse the future CCW might be?;

- If we track the pipeline of applicable/updated skills / knowledge and experience from HE to the creative economies, how can we make robust links between building sustainable creative careers and the future development trajectories of creative economies?

In support of the DISCE ecological approach

From the perspective of DISCE, this report's review of data further supports the rationale for applying an ecological approach (Gross & Wilson 2019; Holden 2015) to understanding creative economies. As outlined in document 3.2, the geographical case study model of the DISCE project enables a more nuanced and systemic exploration of inclusivity and sustainability. An ecological approach will enable us to contextualise the opportunities for access to creative subjects at HE level as well as the livelihoods of the CCW in their city/region, but also consider them in relation to the local labour markets and opportunities that are available within and outside the creative industries. This ecological approach also allows us to take into consideration temporal aspects which characterise the dynamic nature of labour markets – and specifically one particularly fragmented like the cultural creative labour market. It is then crucial to take an ecological approach not least to ensure that our understanding and measuring of creative HE are sensitive to the constantly changing flows in and out of the sector, of creativity at its heart, and the fact that within the overall sector there are newly emerging labour markets and ones that are declining or giving way to new ones.

Understanding the interconnections of HE and creative economies is a key component of the role of DISCE in mapping and understanding local creative economies and ecologies broadly and specifically in relation to the selected case studies. In this research setting it will be important to consider: How universities (via discussion with managers and academics) use creative hubs (an open term to include a range of platforms and opportunities) to connect HEIs with local creative economies and to involve/engage students in them or how students seek/engage with opportunities to be entrepreneurial and to what aim: *what kind of growth they seek*. It will also be important to consider broader contributions of creative graduates and creative students to the local creative ecologies.

Impact of Covid-19 and temporalities in the creative economies

As discussed in our introduction, this report was written against the backdrop of a growing global pandemic. Within the multiple emerging realisations that a pandemic of this size and nature has on relationships and societies across the globe (as well as a growing awareness of the unequal repercussions that the pandemic exposes for human bodies), sits the issues of inclusivity and sustainability in the creative economy. Some of the issues we have highlighted in the report are bound to become more apparent and more extreme (for example the precarity of creative freelancers but also the challenges of creative HE) due to the Covid-19 crisis. Others, such as the non-economic contribution of creative workers to our well-being and social participation might become more visible than they usually are (for example the number of performances unfolding online and teachers sharing online cultural content during the lockdown period).

Implications for DISCE methods and data collection

In terms of implications of this knowledge on DISCE and its data collection, the report has implications both in terms of the data collection and analysis within the case study locations and the broader development of a quantitative survey that is being planned.

In relation to case studies' qualitative data collection, some of the key questions and concerns are:

- Attention towards the role of creative HEIs in creative ecologies will be crucial. How do creative HEIs engage with students, communities, spaces and knowledge? What is their contribution, beyond graduates?
- How do creative students/graduates in case studies locations and beyond (to be investigated via survey) make decisions in relation to their degrees? What role does finance/debt and other socio-economic dimensions play in their decision (including where to study and where to move to work after studying)?
- In addition, the role of geography has emerged as being an important factor, so within the case study framework, migration to study or to work with be captured through qualitative life accounts.

In relation to a quantitative survey the key questions and concerns are:

- In relation to creative graduates/alumni (numbers in work or not): how do they value their education and the way it shaped their career? In which ways do they value their contribution to society and creative ecologies (e.g. in monetary or in other terms)?
- The issue of connectivity between creative HE and sustainable careers is one that will be tackled both in DISCE qualitative work but also through a major quantitative survey aimed at providing some correspondence between some of the questions and reflection coming from the USA SNAAP survey and a European version of it.

Finally, there is the scope that the Cultural Development Index emerging from the work of WP5 will be able to capture these data and dynamics not only individually but in relation specifically to their interdependence, the complex interaction of creative and culture with forms of exchange that might explain more than individual datasets.

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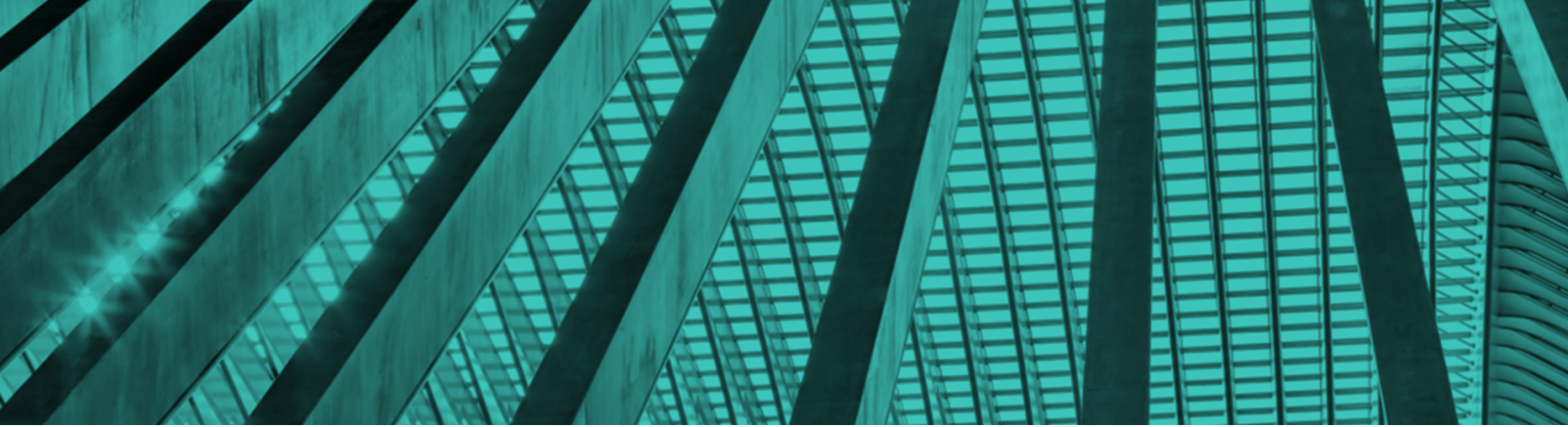
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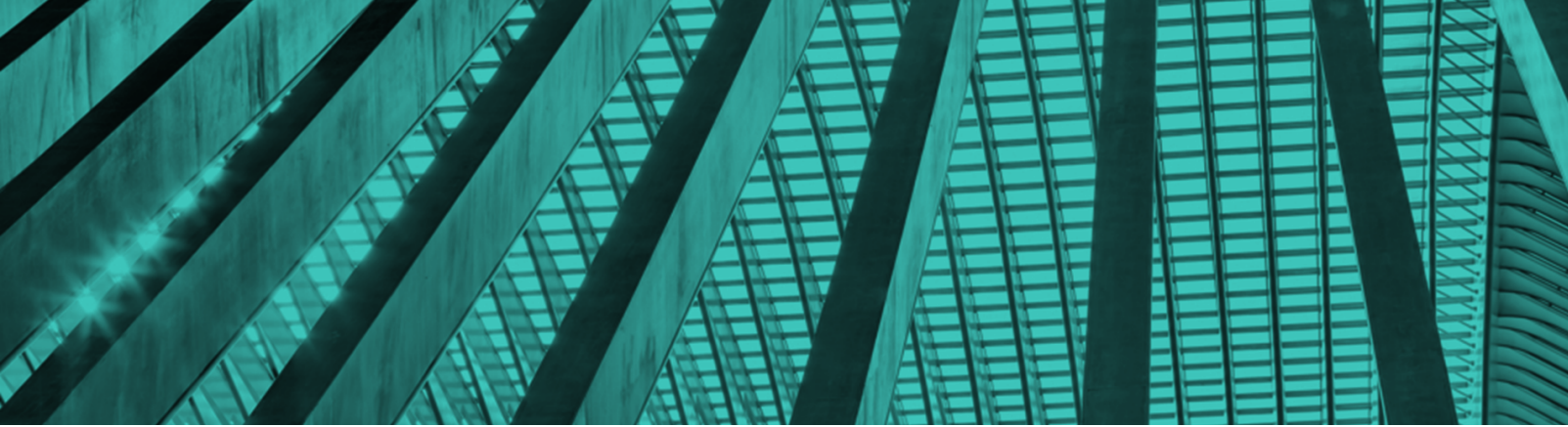
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Appendices

Appendix I: ISCED-F 2013: List of possible codes

Table I.A: ISCED-F fields of education and training (Source: UNESCO, 2015, p.54-58).

In bold the fields 02 and 06 used in our analysis of ETER data.

Broad Field	Narrow / Detailed Fields
00 – Generic programmes and qualifications	000 Generic programmes and qualifications not further defined 0000 Generic programmes and qualifications not further defined 001 Basic programmes and qualifications 0011 Basic programmes and qualifications 002 Literacy and numeracy 0021 Literacy and numeracy 003 Personal skills and development 0031 Personal skills and development 009 Generic programmes and qualifications not elsewhere classified 0099 Generic programmes and qualifications not elsewhere classified
01 – Education	011 Education 0110 Education not further defined 0111 Education science 0112 Training for pre-school teachers 0113 Teacher training without subject specialisation 0114 Teacher training with subject specialisation 0119 Education not elsewhere classified 018 Inter-disciplinary programmes and qualifications involving education 0188 Inter-disciplinary programmes and qualifications involving education
02 – Arts and humanities	020 Arts and humanities not further defined 0200 Arts and humanities not further defined 021 Arts 0210 Arts not further defined 0211 Audio-visual techniques and media production 0212 Fashion, interior and industrial design 0213 Fine arts 0214 Handicrafts 0215 Music and performing arts 0219 Arts not elsewhere classified 022 Humanities (except languages) 0220 Humanities (except languages) not further defined 0221 Religion and theology 0222 History and archaeology 0223 Philosophy and ethics 0229 Humanities (except languages) not elsewhere classified 023 Languages 0230 Languages not further defined 0231 Language acquisition 0232 Literature and linguistics 0239 Languages not elsewhere classified 028 Inter-disciplinary programmes and qualifications involving arts and humanities 0288 Inter-disciplinary programmes and qualifications involving arts and humanities 029 Arts and humanities not elsewhere classified 0299 Arts and humanities not elsewhere classified

<p>03 – Social sciences, journalism and information</p>	<p>030 Social sciences, journalism and information not further defined 0300 Social sciences, journalism and information not further defined 031 Social and behavioural sciences 0310 Social and behavioural sciences not further defined 0311 Economics 0312 Political sciences and civics 0313 Psychology 0314 Sociology and cultural studies 0319 Social and behavioural sciences not elsewhere classified 032 Journalism and information 0320 Journalism and information not further defined 0321 Journalism and reporting 0322 Library, information and archival studies 0329 Journalism and information not elsewhere classified 038 Inter-disciplinary programmes and qualifications involving social sciences, journalism and information 0388 Inter-disciplinary programmes and qualifications involving social sciences, journalism and information 039 Social sciences, journalism and information not elsewhere classified 0399 Social sciences, journalism and information not elsewhere classified</p>
<p>04 – Business, administration and law</p>	<p>040 Business, administration and law not further defined 0400 Business, administration and law not further defined 041 Business and administration 0410 Business and administration not further defined 0411 Accounting and taxation 0412 Finance, banking and insurance 0413 Management and administration 0414 Marketing and advertising 0415 Secretarial and office work 0416 Wholesale and retail sales 0417 Work skills 0419 Business and administration not elsewhere classified 042 Law 0421 Law 048 Inter-disciplinary programmes and qualifications involving business, administration and law 0488 Inter-disciplinary programmes and qualifications involving business, administration and law 049 Business, administration and law not elsewhere classified 0499 Business, administration and law not elsewhere classified</p>
<p>05 – Natural sciences, mathematics and statistics</p>	<p>050 Natural sciences, mathematics and statistics not further defined 0500 Natural sciences, mathematics and statistics not further defined 051 Biological and related sciences 0510 Biological and related sciences not further defined 0511 Biology 0512 Biochemistry 0519 Biological and related sciences not elsewhere classified 052 Environment 0520 Environment not further defined 0521 Environmental sciences 0522 Natural environments and wildlife 0529 Environment not elsewhere classified 053 Physical sciences 0530 Physical sciences not further defined 0531 Chemistry 0532 Earth sciences 0533 Physics 0539 Physical sciences not elsewhere classified 054 Mathematics and statistics 0540 Mathematics and statistics not further defined 0541 Mathematics 0542 Statistics 058 Inter-disciplinary programmes and qualifications involving natural sciences, mathematics and statistics 0588 Inter-disciplinary programmes and qualifications involving natural sciences, mathematics and statistics 059 Natural sciences, mathematics and statistics not elsewhere classified 0599 Natural sciences, mathematics and statistics not elsewhere classified</p>

<p>06 – Information and Communication Technologies</p>	<p>061 Information and Communication Technologies (ICTs) 0610 Information and Communication Technologies (ICTs) not further defined 0611 Computer use 0612 Database and network design and administration 0613 Software and applications development and analysis 0619 Information and Communication Technologies (ICTs) not elsewhere classified 068 Inter-disciplinary programmes and qualifications involving Information and Communication Technologies (ICTs) 0688 Inter-disciplinary programmes and qualifications involving Information and Communication Technologies (ICTs)</p>
<p>07 – Engineering, manufacturing and construction</p>	<p>070 Engineering, manufacturing and construction not further defined 0700 Engineering, manufacturing and construction not further defined 071 Engineering and engineering trades 0710 Engineering and engineering trades not further defined 0711 Chemical engineering and processes 0712 Environmental protection technology 0713 Electricity and energy 0714 Electronics and automation 0715 Mechanics and metal trades 0716 Motor vehicles, ships and aircraft 0719 Engineering and engineering trades not elsewhere classified 072 Manufacturing and processing 0720 Manufacturing and processing not further defined 0721 Food processing 0722 Materials (glass, paper, plastic and wood) 0723 Textiles (clothes, footwear and leather) 0724 Mining and extraction 0729 Manufacturing and processing not elsewhere classified 073 Architecture and construction 0730 Architecture and construction not further defined 0731 Architecture and town planning 0732 Building and civil engineering 078 Inter-disciplinary programmes and qualifications involving engineering, manufacturing and construction 0788 Inter-disciplinary programmes and qualifications involving engineering, manufacturing and construction 079 Engineering, manufacturing and construction not elsewhere classified 0799 Engineering, manufacturing and construction not elsewhere classified</p>
<p>08 – Agriculture, forestry, fisheries and veterinary</p>	<p>080 Agriculture, forestry, fisheries and veterinary not further defined 0800 Agriculture, forestry, fisheries and veterinary not further defined 081 Agriculture 0810 Agriculture not further defined 0811 Crop and livestock production 0812 Horticulture 0819 Agriculture not elsewhere classified 082 Forestry 0821 Forestry 083 Fisheries 0831 Fisheries 084 Veterinary 0841 Veterinary 088 Inter-disciplinary programmes and qualifications involving agriculture, forestry, fisheries and veterinary 0888 Inter-disciplinary programmes and qualifications involving agriculture, forestry, fisheries and veterinary 089 Agriculture, forestry, fisheries and veterinary not elsewhere classified 0899 Agriculture, forestry, fisheries and veterinary not elsewhere classified</p>

09 – Health and welfare	090 Health and welfare not further defined 0900 Health and welfare not further defined 091 Health 0910 Health not further defined 0911 Dental studies 0912 Medicine 0913 Nursing and midwifery 0914 Medical diagnostic and treatment technology 0915 Therapy and rehabilitation 0916 Pharmacy 0917 Traditional and complementary medicine and therapy 0919 Health not elsewhere classified 092 Welfare 0920 Welfare not further defined 0921 Care of the elderly and of disabled adults 0922 Child care and youth services 0923 Social work and counselling 0929 Welfare not elsewhere classified 098 Inter-disciplinary programmes and qualifications involving health and welfare 0988 Inter-disciplinary programmes and qualifications involving health and welfare 099 Health and welfare not elsewhere classified 0999 Health and welfare not elsewhere classified
10- Services	100 Services not further defined 1000 Services not further defined 101 Personal services 1010 Personal services not further defined 1011 Domestic services 1012 Hair and beauty services 1013 Hotel, restaurants and catering 1014 Sports 1015 Travel, tourism and leisure 1019 Personal services not elsewhere classified 102 Hygiene and occupational health services 1020 Hygiene and occupational health services not further defined 1021 Community sanitation 1022 Occupational health and safety 1029 Hygiene and occupational health services not elsewhere classified 103 Security services 1030 Security services not further defined 1031 Military and defence 1032 Protection of persons and property 1039 Security services not elsewhere classified 104 Transport services 1041 Transport services 108 Inter-disciplinary programmes and qualifications involving services 1088 Inter-disciplinary programmes and qualifications involving services 109 Services not elsewhere classified 1099 Services not elsewhere classified
99 Field Unknown	999 Field unknown 9999 Field unknown

