The Creative Sector and the Knowledge Economy in Europe:
the United Kingdom’s Creative Economy Programme

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Abstract

In the present world, post-industrialized economies are increasingly depending on their innovation capability in the knowledge economy to continue growing. Their respective governments are therefore seeking to understand how innovation can be fostered to secure growth and jobs. In this, the European counterpart is currently the Lisbon Strategy for growth and jobs.

This work is concerned about the economic role of the creative sector in the knowledge economy and the corresponding role of the state in formulating policies. This is a recent topic having attracted the attention of academics, and policy-makers in several western countries. Its relevance is due to the fact that mainstream economic theory does not help addressing innovation policies suited to the knowledge economy. This work this topic is treated with an European focus in view of the Lisbon goal of competitiveness in the knowledge economy.

First the author asks why could the creative sector play an important role in the knowledge economy, how these arguments relate to the Lisbon Agenda, and whether the arguments available to date are sound. The argument that the literature suggest is basically that the creative sector has a strong nexus with the economy nowadays, and that it has entered the post-Fordist cycle, i.e. creativity and innovation are at the basis of its competitiveness. This is, therefore, being looked at in the current available statistics on the creative sector. These point to the creative sector’s economic significance in Europe in terms of turnover, value added figures, significant growth in recent time, and generated employment even over a general economic slowdown. As far as regards innovation, the author refers to the level of investment in creativity and knowledge in the creative sector as relevant measure. This shows correlation with growth prospects, and the available statistics are indicative that the European sector is intangibles-intensive. Regarding the future, the creative sector is expected to further grow in European countries, and this is related to the opportunities offered by the conjunction of the “big three” – digitization, convergence and globalization. Public institutions’ adaptation and response to the “big three” to foster creative firms’ adaptation would unleash high growth for the creative sector. In addition, its growth would feed the ICT sector who calls for cultural content, inter alia. This would favour the ICT sector uptake, which is the key sector in the Lisbon Strategy.

In the author’s opinion the main concern is about current statistics precision. There is a main problem relative to the current census for the creative sector. In turn, the current statistics provide indicative figures, but further more sound evidence is needed in this regard. All in all, it can be sensed that the creative sector could play an important role within the knowledge-economy in Europe but this is much about prospects and depends on the adaptation to the “big three” fostered by the state itself.

The corresponding role of the state in formulating policies to boost the creative sector is being explored by analyzing a case study, i.e. the Creative Economy Programme in the UK. This has developed a whole approach to the creative sector policy-making, and frameworks for evidence collection and analysis in policy perspective. Moreover, it has developed a general framework for policy recommendations and a set of suggestions to which the UK government has committed, this year 2008. When analyzing the programme’s key outputs the author is referring to the literature on the knowledge economy, and on the creative sector. In particular, he uses two perspectives, i.e. Yusuf’s view of innovation, and Pratt’s spatialized production of culture. The former embodies the basic features of the knowledge economy and provides hints on the role of public institutions. The latter, argues to look at the whole circuit of production of culture when studying the economy of culture. The underlying research question is on what can be learned from the CEP’s experience about how can government boost the creative sector.

The outputs of the Creative Economy Programme are found to be considering the whole production chain for the creative sector. They also prove to be compatible with Yusuf’s view of innovation and creativity. The evidence collection approach is sensible to all stages in the supply chain, i.e. artists, producers, distributors as well as their suppliers and agents. It allows for a precise
mapping of the sector, using 5 digits-codes, and providing disaggregated data in five layers, corresponding to different stages of the supply chain. This permits detecting changes in the creative industries structures due to the “big three” dynamism. Using such a framework for evidence collection helps addressing the creative industries analysis.

As far as regards the evidence analysis the main lesson is that the policy-maker should focus on the interrelations across the creative industries, analyze them singularly, but also look across them to find commonalities. In the case there are important differences, a sub-grouping should be made, with each group including all similar industries. This is seen crucial to individuate common problems and interrelations across industries. In turn, this can result in policies cutting across the creative industries, policies implemented by several ministries.

The approach to develop policy recommendations is then found as a structured basis for policy formulation. The lesson consist, first, in putting all issues of the creative sector as a function of the network dimension featuring the knowledge economy and the creative sector itself – where localized networks of producers are embedded in wider networks of distribution. Then, giving centrality to coordination and connection of infrastructure and creative firms and provision of talents. Then, attaching to it all other issues relative to all creative industries or sub-groups of them, especially related to the creative SMEs. Then, identifying policy recommendations based on the analysis of these issues. These recommendations have regarded the following main policy areas: a) supporting SMEs in the creative sector; b) supporting creativity in education: matching the arts and business education; c) exploiting digital technology and related opportunities; d) supporting creative clusters, regional and national coordination; e) promoting the country’s creative sector; f) developing an Intellectual Property framework suited to the digital revolution.

The whole approach developed involves several ministers – culture, innovation, industry and trade, education – and implants a collaborative dialogue with industrials. The author’s stresses that such approach is to be related to the main finding that the creative sector could play an important role within the knowledge-economy but this depends on the adaptation to the “big three” fostered by the state itself.
**Introduction**

Nowadays, developing countries are becoming the major producers of manufacturing exports and post-industrialized economies’ future is increasingly influenced by their innovation capability and sustainability in the knowledge economy. In this view, the EU Member States’ government heads meeting at the European Council in Lisbon agreed, in March 2000, on the ambitious goal of making the EU by 2010 “the most competitive and dynamic Knowledge-based economy in the world, capable of sustainable economic growth with more and better jobs and greater social cohesion”. The Lisbon Agenda has thus been aimed at boosting R&D spending (by governments, universities and firms) and investments on ICT industries – the flagship industries of the digital economy – with the belief that these will be the first tier of the EU economy in achieving growth and employment.

The European creative sector contributed to 2.6% of Europe’s GDP in 2003, i.e. a higher contribution than that of the chemicals and derivates (2.3%), real estate activities (2.1%), food beverage and tobacco manufacturing (1.9%). Between 1993 and 2003, the growth of the creative sector in value added to the GDP was 6.6% in EU25. In 2004, the sector employed 4.7% million people, i.e. 2.5% of total employed population in EU25.

Interestingly, as stressed by the ICT Task Force, the development of the ICT sector – the Lisbon Strategy focus sector – seems to be depending crucially by the availability of creative “content” to transmit to customers. Meanwhile, the creative sector develops locally – in clusters and creative hubs – to compete globally, and it plays therefore a crucial role for local economies.

Yet, the potential contribution of the creative sector to the building-up of the EU competitiveness in the knowledge economy remains largely unconsidered both at the EU and at the national level. The Lisbon programme does not include in its Agenda any action towards the creative sector. In the meantime, the EU policy-making is focused on the audiovisual industries. Furthermore, culture and arts are still regarded as mere “civilizing” activities in several member states, while their economic role in terms of employment generation and local development is still to be generally recognised.

At the national level, the cultural policy fundamentals are being squeezed by the combined effects of the “big three”, i.e. convergence, globalization and digital shift of the creative industries. These dynamics are underpinning a services-based model of industry development which may lead the creative sector to be a major economic actor and bring a possible renaissance of content

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1 Note that the following data consider the EU27 plus the three EEA countries – Iceland, Norway and Liechtenstein.
2 The sector includes Visual arts, Performing arts, Heritage, Film and Video, Television, Video games, Music, Books and press, Design, Architecture, Advertising. Nowadays, both researchers and policy-makers commonly refer to these cultural activities by using the naming of “creative sector” to underline its innovation potential. A philosophical debate is ongoing on whether such re-labelling of the “cultural sector” would be proper or not. However, in this work the author will use both the naming of “cultural sector” and “creative sector” indifferently, leaving such debate aside. Correspondingly the outputs produced by the sector will be referred to as “creative” or “cultural” products.
3 Ref. The economy of culture in Europe, 2006, KEA, Media Group (Turku School of Economics) and MKW Wirtschaftsforschung GmbH, Study for the EU Commission; pp. 61-73.
5 E.g. Apple’s portable music player, iPod, began to sell much more rapidly after the expansion of content availability with its iTunes Music Store. Similarly, the development of mobile telephony and networks is driven by attractive services that will incorporate creative content.
6 E.g. the Danish Filmbyen in the periphery of Copenhagen, Cologne’s media cluster, the cities of London, Berlin, and Paris.
productions that have been marginalized so far\textsuperscript{7}. However, the emerging features of to the knowledge-based economy highlight the limitations for wealth creation of only microeconomic efficiency gains and liberalization strategies, thus underlining the alternative of a renewed interventionist role for the state. This consideration is also reinforced by the nature of the creative sector, featured by local clustering and a high share of small (and undercapitalized) flexible firms facing high uncertainty.

While the EU member states agreed on the Lisbon goal of achieving a competitive knowledge economy, the EU commitments are only focused on the ICT sector. However, this sector calls for content which is produced by creative industries - which are deemed to have a great potential in contributing to the competitiveness in the knowledge economy. Some member states are increasingly interested in the economic significance of their creative sector. Others have, to date, envisaged to undertake a new policy approach towards the creative industries, notably the United Kingdom, Denmark, the Netherlands. The emerging trend, in these states, is towards a joint work by the Ministry of Trade and Industry and the Ministry of Culture, this being mainly due to the increasing interrelation between culture and commerce.

To date, the country that has gone more ahead in fully developing a policy-making approach for a creative sector focus is the United Kingdom, who was the first in Europe to recognize the economic importance of the creative industries back in the late 1990s. A key role has been played by the so-called Creative Economy Programme (CEP), set up by the UK to develop a policy approach and to make policy recommendations for boosting the creative sector. In this regard, the CEP has recently led to an initial framework of commitments. The most recent statistics\textsuperscript{8} support the path taken by the UK: the creative industries form an important part of the UK economy, with figures by 7.3\% of total UK Gross Value Added (data for 2005) and, employing 1.9 million people (data for 2006) – a growth of 16\% between 1997 and 2005\textsuperscript{9}. The objective is for the UK to become a world leader in the Creative Sector in order to stay competitive in the knowledge economy. The CEP has been playing a key role in the achievement of this and it may be an interesting case study as it has developed a new policy-making approach across culture, industry, innovation and education policies.

**Aim and Research Questions**

The aim of this work is to explore the economic role of the creative sector in the knowledge economy, and to shed some light on the corresponding role of the state in formulating policies – by analyzing the CEP’s approach to “creative sector” policy-making. The underlying research questions in doing this will be the following:

(i) In the European context of the Lisbon Strategy, why the creative sector may play a central role in the knowledge economy? How do these arguments relate to the Lisbon Agenda? Are these arguments strong enough?

\textsuperscript{7} E.g. infotainment, programming with regional interests, social documentary in the new media and audiovisual industries.

\textsuperscript{8} DCMS, Creative Industries Economic Estimates Statistical Bulletin, 2007

What can be learned from the CEP’s experience about how can government boost the creative sector in this view?

As result, some lessons may be drawn for other EU member states who are considering to boost their creative industries (or have been at least interested in analyzing their economic importance) in order to achieve a competitive Knowledge economy. If we consider, for example, the UK and Denmark – two member states that are currently committing to further grow their creative sector – we find the former who is aiming to become the “World’s Creative Hub” and the latter who is aiming to “nurture niches” in the international market and reaping their profitability. Their strategic goals are thus different, while they are both aiming to boost their creative sector. Yet, the Danish Minister of Culture, and Minister of Trade and Industry might find valuable to learn from the CEP about the frameworks and the approach used to collect and analyze the quantitative evidence on the creative sector, and to produce policy recommendations.

Methodology and Structure

The recent policy-focus in Europe on the creative sector has been brought by the rising economic importance of the sector and recently by the interdependence with the ICT sector. As result such focus touches upon considerations of industry and innovation policies and not only cultural policy. This is the case of the UK’s Creative Economy Programme.

Mainstream economy does not explain the complexity of innovation and knowledge and assumes it away. Thus, it does not provides help to innovation and industry policy-making in the knowledge economy. In turn, such policy-making in western economies has recently focused on the signals received by executives and stakeholders.

Thus, this work will look, first, at the recent economic literature which is concerned with the complexities of the knowledge economy, with the role of creativity within it, the corresponding role of the state, and with the features of the creative sector. Then, this will be used in the rest of the work by using two perspectives, i.e. by using Yusuf’s view of innovation from creativity (which embodies a knowledge economy viewpoint) and a “spatialized production of culture” perspective.

Chapter 2 is about the emergence of creative-sector policy-focus in Europe and the arguments for it in the context of the Lisbon Strategy. The author will look at existing qualitative and quantitative arguments, paying attention to the consistency of the latters with the “spatialized production of culture” perspective.

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10 e.g. Sweden, Finland, Lithuania, Poland; See Chapter 2 of this work, Section 2; and Annex 1.
11 In this regard, it should be underlined that the interest in assessing the cultural sector from an economic standpoint is increasingly diffusing in Europe. The Nordic countries, Netherlands and given Eastern countries are showing important figures in this regard (besides the UK). This will be better reported in this work at the Chapter 2, Section 2, Box 1.
14 This will be used in reference to the second question of this work.
15 Cultural economics have focused only on consumption until very recently. A recent turning point has been Pratt’s “spatialized production of culture” perspective that allows to catch fully the cultural economy than a demand perspective. This will be used as compatible to Yusuf’s view.
The creative sector policy-focus looks at the creative sector as a key player in the knowledge economy. Therefore, Chapter 3 will explore the role of government in boosting the creative sector in this view. The author will present the CEP’s main outputs about how government can approach the creative sector policy-making. Therefore the author will discuss these outputs in light of the above literature. In important remarks could lie lessons that can be drawn from the CEP experience. The conclusions, will recap the final point relative to the two research questions of this work and about how helpful the literature is found to be in addressing the CEP analysis.
CHAPTER I

Economic Literature on Knowledge Economy and the Creative Sector

The knowledge economy is featured by the emergence of an innovation-based production system, in which knowledge and creativity have taken a central role. This chapter is devoted to the relevant economic literature on the knowledge economy and the role assumed, within it, by creativity and the “creative sector”. In the first section, the key features of the knowledge economy will be treated. First, its driving forces and economics of knowledge will be envisaged. Then the ICT-related increase of information flows, pointing to the importance of tacit knowledge and learning. Last, the resulting basic features of the innovation-based production will be presented.

The second section will explore the role of creativity in the knowledge economy, pointing first to the emergence of the post-Fordism, then looking at creativity as factor of innovation. The role of the state in the knowledge economy will be presented to finally consider how the creativity potential can be maximized within the economy and how from this innovation can be developed with commercial success.

The third section will deal respectively with the literature on the interface between culture and the economy, the “spatialized production of culture” perspective, the particularities of the creative sector, and its spatial dimension of clustering.

1. THE EMERGING ECONOMIC STRUCTURE OF THE KNOWLEDGE ECONOMY
   1.1. The driving forces of the knowledge economy
   1.2. Economics of Knowledge
   1.3. ICTs as locus of codification and the importance of learning
   1.4. The innovation-based production
   1.4.1. A hierarchy of networks
   1.4.2. Clustering
   1.4.3. Relation between Services and Manufacturing
   1.4.4. Knowledge-based Competitiveness
   1.4.5. Locations and talents attraction

2. CREATIVITY FOR INNOVATION AND THE ROLE OF THE STATE IN THE KNOWLEDGE ECONOMY
   2.1. From the Fordist to the post-Fordist cycle
   2.2. Creativity and Innovation
   2.3. The role of the state in the knowledge economy
   2.3.1. Maximizing the creative potential of the economy
   2.3.2. Catalyzing commercially successful innovation from creativity

3. THE ECONOMY, THE CREATIVE SECTOR AND ITS SPATIALITY
   3.1. The culture-economy nexus
   3.2. The spatialized production of culture perspective
   3.3. The creative sector as a production system
   3.3.1. Local production clusters for global distribution networks
   3.3.2. High rate of new business creation
   3.3.3. Majors and Independents
   3.3.4. Skilled and creative labour
   3.3.5. Cultural identity, services, and knowledge providing industries
   3.4. The spatial dimension of the cultural production
   3.4.1. The concept of cluster
   3.4.2. Types of cluster
1. The emerging economic structure of the Knowledge Economy

Recent economic literature (Florida and Kenney, 1991)\textsuperscript{16} pointed to a main change emerging within post-industrialised economies. That is, the passage from a mass production system – rooted on human labour – to an innovation-based production whose key source of value creation and economic growth is knowledge.

Houghton and Sheehan (2001)\textsuperscript{17} identified two driving forces of the knowledge economy: a) the increase in knowledge intensity of a critic mass of economic activities, and b) the economic globalisation. The former is been brought by the ICT revolution and the general increasing rate of technological progress. The latter is been driven by the combination of successive waves of deregulation in the world economy and the ICT technologies. From those two driving forces a new overall economic structure is emerging, that is the knowledge-based economy. This structure is featured by changes within the innovation process and the organisation of the economic activity that are provoked by the rising importance of knowledge as production input.

In order to provide a basic understanding of the knowledge-driven economy, its two driving forces and a succinct review of economics of knowledge will be treated first. Then, the impacts of ICT to knowledge codification and the importance of learning will follow. Finally, the main characteristics of the innovation-based production system will be traced.

1.1. The driving forces of the knowledge economy

The first outlined driving force of the knowledge economy is the increasing knowledge intensity of a critic mass of economic activities. Houghton and Sheenan (2001)\textsuperscript{18} remarked that this has been produced mainly by the rapid technological progress occurred over the last four decades and has been further amplified by the ICT revolution started more recently. New technologies for scanning, imaging, copying and memory storing have developed towards digitization and open systems. This have steadily lowered the costs of communication and computing. Finally, with the advent of Internet these technologies came together, became pervasive in the daily life, and magnified the human ability of storing and transmitting large quantities of information at low costs. In fact, differently from the other historical technological innovations – that affected only particular industries and products – the information and communication technologies are generic. That is, they drove the marginal cost of sending information gradually down almost to zero and this affects (to different extent) most economic activities at every stage of the value chain from R&D until distribution. As observed by Sheehan and Tegart (1998)\textsuperscript{19} the resulting effects have been that: a) the knowledge intensity of goods and services has risen; and b) knowledge-intensive goods and services have become increasingly important in the economy worldwide.

The second key driver of the emerging knowledge-based economy is the rapid economic globalisation. This has been produced by the ICT revolution in conjunction with other changes of

\textsuperscript{17} Ref. Houghton J. and Sheehan P., 2000, A Primer on the Knowledge Economy, CSES Working Paper No. 18, Victoria University of Technology, Melbourne, p. 9
economic openness worldwide. Remarkably, there have been in the history other periods of relative openness of the world economy, however, its extent since the 1980s has no precedents. The most important changes have been: a) the reduction of tariff and non-tariff barriers to trade and the set up of the WTO trading system; b) the deregulation and integration of world financial markets and the opening of governments to FDI and other international capital flows; c) the privatizations and liberalization waves spread over the globe especially in telecommunications, air transport and the financial sector. These changes have favoured the increasing internationalization of firms that have, then, basically driven globalization via global competition (i.e. firms have seen new market profitability in foreign markets but also higher competitive pressures in the home market). Therefore, the resulting increased international trade and FDI flows and, most importantly, the rising interrelation between FDI flows, technology and knowledge transfers. This latter interrelation embodies, first, the importance of firm’s knowledge to grow overseas and reap the profitability of foreign markets, and second, the property of the multinational firm as an efficient organizational vehicle specialized in creating and internally transferring knowledge across borders via FDI (Kogut and Zander, 2003). This is at the basis of how globalization has driven to the emergence of the knowledge-based economy.

1.2. Economics of Knowledge

Knowledge has special properties that are significant in that they affect the organisation of the knowledge-based economy. First, the “public good” character of knowledge will be underlined, to pass successively to a view of knowledge from a production and a consumption perspective.

Knowledge has properties of “public good” as it can be shared by a magnitude of people. As Jefferson (1984) explained: “He who receives an idea from me, receives instruction himself without lessening mine; as he who lights his taper at mine, receives light without darkening me.” That is, knowledge may be used by one party without diminishing its availability to another party. Thus, the social return on the investments for its creation is amplified with knowledge being shared by more users. In this regard, Stiglitz (1999) underlined that benefits from ideas and innovations extend well beyond their creators, and intellectual property rights cannot exclude other potential users of knowledge.

Furthermore, from a production point of view, the production cost of new ideas is spread particularly over time and differently from goods’ productions as follows:

While up front costs associated with the production of traditional goods such as a car or house may not necessarily be high, each item is still costly to produce. The more of these one produces, the more likely one will eventually encounter scarcities that drive up production costs and...
reduce the size of social returns. However, in the case of innovation, ideas and information, the opposite would seem largely to be the case. While up front development costs can be very high, the reproduction and transmission costs are low. The more such items are (re)produced, the greater the social return on investment”.27 Traditional economics is rooted on the efficient allocation of scarce resources. However, in an economy where knowledge is the key production factor, the scarcity of knowledge is what leads to its creation, but once knowledge is produced it is less a scarce resource and can be made public at close-to-zero marginal cost. This is why market failure appears to be systemic in a knowledge-based system.28

Finally, from a consumption perspective, knowledge is an “experience good”, i.e. consumers can hardly find it valuable unless they have used it.29 Differently from physical goods, knowledge is left un-destroyed in consumption, which means that its value in consumption is continuous in time and end-less.30

Thus, both the production and consumption views of knowledge are coherent with the its “public good” character firstly envisaged. This is because underlining knowledge as an experience good which is not destroyed in consumption and having essentially zero marginal cost to be made public, does support the view that knowledge can be used by a party without diminishing its availability to other users.

1.3. ICTs as locus of codification and the importance of learning

Houghton and Sheenan (2001)31 have observed that ICTs have increased the capacity of organizations to codify knowledge32 into information that can be communicated worldwide at close-to-zero marginal costs. They stressed that ICT revolution has allowed for a steady increase of information flows and this has several economic impacts. First, knowledge is becoming a commodity and its diffusion rate is increasing, that means that more people can cheaply access and share the same information. Furthermore, different fields of knowledge are being linked and this is thus reducing knowledge dispersion.

Seabright (1999)33 stressed that people have much more information available than ever before since access to information is increasingly cheaper and the accessible information base becomes wider after the ICT revolution. At the same time the difficulty has become that of filtering such magnitude of information and simplifying it again for decision-making. Thus, he observed that tacit (i.e. not codified) knowledge such as know-how to organize a consulting team, or how to select, handle and efficiently use information become more crucial in the knowledge economy. While information technology is becoming the locus of codified knowledge, work in the knowledge-based economy is increasingly calling for unique tacit knowledge. However, the less codified is the knowledge the more difficult, costly, and time-consuming will be its transfer (Zander and Kogut, 2001). The codification of knowledge is essential for its dissemination and reuse.

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32 I.e. Knowledge can be written down and transmitted; this has been fastened and rendered a mass phenomenon by ICT technologies.
In the knowledge-based economy, the success of firms, industries and national economies depends on their capability to create, mobilise, absorb and utilize both codified and tacit knowledge. Given the centrality of new knowledge creation and the rising importance of tacit knowledge, learning has become a key activity for both people and organisations which has to be continuously exerted. Learning includes not only education, but also learning-by-doing and learning-by-interacting, with the latter two being more related about tacit knowledge. As explained by Stiglitz (1999): “Knowledge-based work organization involves greater recognition of the autonomy and self-direction of the mind. Knowledge is best acquired not by passive rote memorization but by the active involvement of the learner”. The rising importance of tacit knowledge and the consequent need for active learning explain why learning-by-doing and by-interacting are crucial within the knowledge economy.

1.4. The innovation-based production

The key source of value creation in the innovation-based production is Knowledge. The above changes – that have led to the ICT-driven high availability of information, the rising importance of tacit knowledge, and the need of continuous learning – and their global dimension are mirrored in the innovation-based production. Some basic features may be individuated as follows.

1.4.1. A hierarchy of networks

As envisaged in the previous section learning has become central within the knowledge economy. As argued by Stiglitz (1999) this “involves a shift in organization away from top-down hierarchical structures to flatter structures such as networks of semi-autonomous team”. Such networks would allow for higher autonomy and flexibility for active learning.

In addition to this, Grandstal et al. (1997) have shown that different scientific disciplines are increasingly interrelated. The same is occurring for different technologies and this, together with a greater linkage between science and technology is rising the number of inter-dependencies and complementarities between previously independent branches of innovation. This in turn, encourages firms to co-operate across different disciplinary boundaries. For example, motor vehicles or mobile phones may appear as standardised straightforward products, but their composition is very much complex and depends on a wide range of new technologies and knowledge inputs. As Loasby

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has explained, firms increasingly need to use a wider number of different technologies and knowledge areas in their production processes and therefore set up a growing range of alliances to access to external capabilities. Thus, inter-organizational interactive-learning has become a key activity central to innovation.

Coherently, David and Foray (1995) have regarded the knowledge economy as a hierarchy of networks in which the socio-economic position of firms depends on their capability to enter into relationships that are knowledge and learning-intensive. This calls for firms to create knowledge networks where interactive-learning is between those economic actors who generates new ideas, who produce them, and who use them in order to test them and exchange information.

Firms therefore seek to establish linkages with other economic actors to gain interactive-learning, access complementary assets and spread the costs and risks of innovation investments. This is at the basis of the above-called innovation-based production which post-industrialised economies have been switching to. Such innovation system is characterised by relationships and flows of knowledge-based goods and services between firms, universities and research bodies as well as government institutions. Thus, the economy performance depends on the interactions between the economic and institutional actors.

1.4.2. Clustering

The above described interactive-learning and network interactions are nowadays fastened by ICT technologies. Faster global exchange of information can occur, and some authors have argued that “distance is dead”. However, several authors observed that geographic concentration of economic activity in spatial clusters is an increasing feature of the knowledge economy, i.e. innovation-based production tends to cluster. This strain has focused on the geographic dimension of innovative activities and the knowledge-related factors that affect clustering. In particular, Cantwell (1999) explained clustering of innovation-based production by relating it to the need of firms to agglomerate in the same location in order to effectively share tacit knowledge. The main argument for it is that knowledge that is relevant for firms’ innovative activities is tacit and increasingly complex, and its transfer tends to occur more efficiently among proximate actors. This is because tacitness and complexity of such knowledge base require face-to-face interaction and inter-firm mobility of workers and this is eased in spatial and cultural proximity. Relevant tacit knowledge needs to be more localized in its transfer, and this can allow localized partner firms to be more innovative.

Several empirical analysis relative to Europe and US have robustly shown that clustering occurs in locations where key knowledge inputs are available (Audretsch and Feldman, 1998).
that the spatial clustering degree varies across industries depending on the importance of tacit knowledge for the industry and its stage in the industry life cycle (Feldman and Audretsch, 1999)\(^{51}\).

### 1.4.3. Relation between Services and Manufacturing

The knowledge economy is not to be regarded simplistically as a services economy. Services are increasingly taking a higher share of western economies and are becoming integrated into more complex value chains. However, in the knowledge economy, goods manufacturing does not lose its importance and knowledge adds value to normal goods. In this regard, knowledge-based services become therefore crucial inputs to goods production\(^5\).

### 1.4.4. Knowledge-based Competitiveness

The world economy presents two dimensions that have to be considered in this work. These are the increasing national (locational) specialization, and the increased international split-up of value chains. Hatzichronoglou (1996)\(^{53}\) observes that multinationals do enact a global strategy and locate their activity in several and different locations which offer comparative advantages that fit firms’ global strategy. These compete with their rivals in multiple markets, thus their competitiveness depends on the coordination of location advantages around the world. Therefore, comparative advantages of each nation – where firms locate their activities – are not considered separately, but in the view of the whole global strategy of firms. Thus, nations and locations offering crucial knowledge-based comparative advantages would attract those activities and stages in the value chains that provide the source of value and thus enjoy the highest rents. In this regard, Stiglitz (1999)\(^{54}\) stressed that: “understanding the subtleties of tacit and local knowledge, as well as the dynamics of knowledge sharing or hoarding, will do much to determine the competitiveness of a company or an industry or a country”.

### 1.4.5. Locations and talents attraction

Since firms need to attract human capital as key knowledge-asset, the quality of life within their location becomes an important factor to attract knowledge-expert workers. A relation is theorised by DeVol (1999)\(^{55}\) between a given location’s success in being attractive to such workers and its economic success.

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2. Creativity for innovation and the role of the state in the knowledge economy

Jeffcut and Pratt (2002)\textsuperscript{56} stressed that creativity and innovation have taken a central role within the economy with the passage from the Fordist to the post-Fordist cycle, i.e. capitalism from the 1980s ahead as posterior to the mass-production era.

The following section will describe, first, the switch to the post-Fordism. Then, several theoretical approaches in defining creativity will be presented, given the important role of creativity within the knowledge economy. Finally, the role of the state in the knowledge economy and the questions on how to maximize creativity in the economy and how to catalyze innovation from creativity will be explained by presenting Yusuf’s view of innovation.

2.1. From the Fordist to the post-Fordist cycle

The emergence of the post-Fordism does mirror the emerging structure of the knowledge economy. The two cycles are to be regarded as alternative, being both present within today’s world economy. In the following lines they will be described as featured by specific \textit{organizational} and \textit{government} responses to international competitive pressures.

Jeffcut and Pratt (2002) underlined that in the \textit{Fordist cycle}, the downward pressure on costs has led firms to focus on costs and on the organization of the labour process\textsuperscript{57} via the substitution of labour with technology or via the location of the economic activity where low-cost labour is available. The common response by firms is to de-skill work processes in order to allow for tasks that can be assigned to un-skilled and cheap labour. The corresponding government policy-making is that of favouring FDI either to exploit low-cost advantages either to favour regional economic growth. The consequent result has been the spatial division of labour and the vertical disintegration of the economic activity globally.

Differently, in the \textit{post-Fordism}, innovation in products and services is at the basis of competitiveness. In such setting the government response is to prize \textit{creativity} and \textit{innovation} as source of competitiveness leading to growth. Amin and Thrift (1994)\textsuperscript{58} observed that within the post-Fordism a new organisational form with a spatial localisation has emerged, that is the “industrial district”. The \textit{spatial clustering}\textsuperscript{59} that characterizes such districts may be regarded as the solution to the fragmentation of production activities brought in the Fordist cycle (Jeffcut and Pratt 2002)\textsuperscript{60}, thus leading to the vertical reintegration and agglomeration of productions in given locations.

Since creativity and innovation are prized in the post-Fordist cycle, the following paragraphs will be treating the economic theories that sought to define these two concepts by explaining the relation existing between them.

\textsuperscript{56} Ref. Jeffcutt, Paul and Pratt, Andrew C., ”Managing Creativity in the Cultural Industries”. Creativity and Innovation Management, Vol. 11, 2002; p.225


\textsuperscript{58} See A. Amin, N. Thrift - 1994 - Globalization, Institutions, and Regional Development, Oxford: Oxford University Press

\textsuperscript{59} Below the spatial clustering will be treated more exhaustively at the Section 3.4.

\textsuperscript{60} Ref. Jeffcutt, Paul and Pratt, Andrew C., ”Managing Creativity in the Cultural Industries“. Creativity and Innovation Management, Vol. 11, 2002 p.226
2.2. Creativity and Innovation

Different streams of literature have sought to explain the concepts of creativity and innovation by taking different approaches to their definition. These will be presented below.

KEA et al. (2006)\textsuperscript{61} underlined that a first economic definition of creativity was made in “Theory of Economic Development” by Schumpeter (1911)\textsuperscript{62}. He approached to creativity as a dynamic \textit{process of innovation} which is endogenous to the economy and that can be explained in rational terms. His definition of creativity is thus an “economic” one lying on the innovation condition and on the role of creativity in economic growth. However, as Schumpeter stressed, this does not include “artistic” creativity which is based on original forms of expression.

By using the same economic approach of Schumpeter a strain of economic literature developed and agreed on the importance of creativity in creating economic value. However, economic theory has not yet agreed on a definition of creativity and has excluded the role of artistic creativity in creating economic value.

Jeffcutt and Pratt (2002)\textsuperscript{63} noted that economic literature did not pick up an important factor: creativity is at premium in short product runs and rapid changing product ranges. They stressed that this leads to a significant \textit{interrogative}, i.e. how to maximize creativity in a given economy. Their response was that, although creativity is located in individuals, the private and public sectors cannot only focus on maximizing individuals’ quotient of creativity. Inventions need a context in which they may be fed, developed and concretized in something useful to society (Lundvall and Johnson 1992\textsuperscript{64}). By linking to this, Jeffcut and Pratt argued that the \textit{answer} is in a complex interaction between individuals and the context in which they are located. Some contexts and their corresponding organisational settings allow for creativity to be nurtured and to prosper. This is to be seen as a duality rather then a dualism. That is, creativity is a process that links new ideas and contexts and this process requires knowledge, networks and technologies.

The author’s opinion is that a recent approach by Yusuf (2007)\textsuperscript{65} may be more comprehensive since it includes all forms of creativity and it allows adopting a knowledge economy perspective. Like in the above literature, Yusuf has focussed on creativity in terms of innovation and on its role of creating value – which allows for economic growth. However, he has not defined creativity as a process of innovation but as the \textit{starting point}\textsuperscript{66} of the innovation process. That is, the innovation process is initiated via the \textit{creative} application of knowledge (and its “functionalities”). At the basis of this process there are creativity - that may be artistic, scientific or other - and knowledge stock as key resources. The initial invention that springs from creativity is at the first stage of the process. Inventions that have market potential must, in the following stages, be developed and marketed and this involves different firms and the support by several public institutions. Development and commercialization of new ideas requires different types of expertise and entrepreneurial creativity as well. From the initial to the final stages of the innovation process new knowledge – of different type – is generated. Often breakthroughs are brought by small firms while they are developed and marketed by larger firms. However, not all innovations are commercially successful. It is their success in the final stages that allows for economic growth.

\textsuperscript{61}Ref. KEA, Media Group (Turku School of Economics) and MKW Wirtschaftsforschung GmbH, 2006, Study for the EU Commission, The economy of culture in Europe, Brussels 2006, p.41-42
\textsuperscript{64}See Lundvall and Johnson, 1992, National systems of innovation, Fances Pinter; London
\textsuperscript{66}Yusuf uses the metaphorical wording of “ingredient”.
The author finds important to stress one dimension of the innovation process as structured by Yusuf: the knowledge accumulation dimension. That is to say, new ideas (i.e. new knowledge) are generated by the creative application of knowledge, they can be developed and marketed by using and combining other types of knowledge (financial, managerial, legal etc.), and this makes new knowledge accrue to the firms involved in the process.

2.3. The role of the state in the knowledge economy

Nyholm et al. (2001) have remarked that up to the last decade policy-makers have followed mainstream economic theory as regards innovation and industry policy. The consequent “market failure” approach to industry and innovation policy-making has led to policies that seem to be not well suited to the features that characterize the knowledge-based economy. This is mainly because mainstream theory makes simplifying assumptions that exclude the complexity of knowledge and innovation, since it is just not concerned about these problems but more about allocation issues and market clearing. They observed the emerging trends in policy-making and pointed that the knowledge-based economy calls for different innovation policy strategies, often including several ministries and institutions in their formulation and implementation. Further, they also observed that the dialogue with business has nowadays become a major tool in formulating innovation policy. Therefore the policy-maker’s role most suitable to the features of the knowledge-economy is an interventionist one rather than a “laissez-faire”. In this regard, Casper and Van Waarden (2005) argue that in any innovation activity, the capability of creating and commercializing innovative products successfully depends on a supportive institutional architecture. Thus, the interventionist role of the state should be looked at in reference to creativity and innovation. In this regard, Yusuf’s view on how to maximize creativity in the economy and how innovation can be catalyzed from for commerce will be treated below. This is about the factors that allow for innovation in a knowledge economy perspective. As it will be shown several of these factors are relative to the public institutions role.

2.3.1. Maximizing the creative potential of the economy

If one would consider Yusuf’s definition of creativity as the starting point of the innovation process and not as a process itself, the question of how creativity may be maximized within a given economy could be differently approached. Yusuf (2007) has argued that human talent is the root of a creative society and public policy has a large influence in generating it via education. However, such human capital can be made more productive by supporting what he defined “wiki-capital”, i.e. the capital arising from networks. This requires the formation of local and global teams bridging together diverse talents with different knowledge-background. This allows for knowledge sharing

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67 As well as to the wider economy if possible spillovers are considered.
and deepening as well as approaching problems from different viewpoints for new problem-solutions. Indeed, the author’s remark (in light of the literature in section 1) is that the answer may be to consider raising productivity of human capital by supporting the creation of knowledge-networks and their interactive-learning, i.e. by supporting the “wiki-capital” formation. Moreover, this would be consistent with the above presented argument by Jeffcut and Pratt that some organizational contexts make creativity flourish.

However this generates an important sub-question: which industries does this relate to? In this regard, one could find the answer in Pratt’s arguments (2004) to justify the promotion of cultural industries as a policy-leverage for building up competitiveness within the knowledge economy. By linking to the emergence of post-Fordist organizational forms, he has clearly stressed that, nowadays, there are industries where creativity is at premium and others where is not prized or even discouraged.

Therefore, by adopting Yusuf’s approach as above, the answer would be that creativity may be maximized within a given economy by supporting the formation of wiki-capital within those industries where creativity is prized and that have, therefore, entered the post-Fordist cycle.

Cultural industries are within those with such a particularity. However, it should be underlined that the mere fact that they produce artistic-creative-products does not allow considering them as more creative then other industries which have taken post-Fordist organizational forms. This is why the re-naming of cultural industries and the related artistic activities as “creative sector” is by many considered imprecise in economic terms.

2.3.2. Catalyzing commercially successful innovation from creativity

In Yusuf’s approach (2007) to explain growth from innovation sprung from creativity, there is a second key point. That is, maximizing creativity is crucial to innovation but this must be also commercially successful. Creativity can be maximized by supporting wiki-capital and this would raise productivity of human capital. However, for innovation to occur, be developed, and marketed with commercial success some additional factors are needed.

That is, a culture (in terms of social attitudes) suitable and tolerant of entrepreneurial risk-taking. Also, public institutions providing incentive mechanisms that prize those who succeed in making viable and commercializing innovation. Therefore, he individuates the following mechanisms. First, a strong intellectual property framework that allows rights to be enforced at low costs in terms of time and money, and in turn would guarantee incentives for individuals and firms to innovate, and to invest in innovations; second, supports mechanisms such as funding schemes to SMEs, and tax incentives to encourage investments in innovation (e.g. tax credits or exemptions).

Moreover, funding R&D is vital to catalyze innovation, as allows talents and wiki-capital to produce innovation. In this, universities, government and private funding play an important role. In

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73 and Pratt stresses that the creative industries are so.
74 For a review of this debate, see within Bibliography: Pratt (1999, 2004).
75 In this work the wording creative sector and cultural sector will be given the same meaning. Debates about whether the naming “creative” would be proper will be left outside the scope of this work.
all this, the feature that innovation is geographically located should be included as significant factor. Last, the collaboration of small innovative firms with (or takeover by) large firms with strengths in marketing, and solid distribution channels is in most cases essential for reaping the benefits of commercial success of innovation. According to Yusuf, these factors together with supporting the formation of talents and wiki-capital, provide the context in which successfully commercialized innovation occurs and this is essential to allow economic growth.

In the author’s opinion, Yusuf’s view of innovation leading to growth, may be very informative and helpful to use in regard to the second research question of this work, concerned about the role of the state in boosting the creative sector for competitiveness in the knowledge economy. This is because it embodies and is consistent with the features of the knowledge-economy envisaged so far. In fact, it uses an innovation-based production perspective, and clarifies the role of knowledge and creativity in innovation. It is, moreover, suitable to all forms of creativity – artistic included – and it acknowledges the importance of networks and talents. Last, it includes the significant feature that geographical proximity still matters in the knowledge-economy, and it is sensitive to the relations across the supply chain between several institutional and private actors. For this reasons it can be used as a structured perspective on the knowledge-economy features.

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3. The economy, the creative sector and its spatiality

Scott (2000)\textsuperscript{80} underlined that creative industries’ outputs are commercialised products with a high aesthetic and symbolic content. This reflects, on the one hand, the “commodification” of cultural productions in modern capitalism and, on the other hand, the phenomenon of current commodities changing and becoming more inclusive of aesthetic and symbolic value. The relation between the economy and the creative sector is therefore becoming more stringent. This section will explore such relationship first. Then, it will present the “spatialized production of culture” perspective that will inform, successively, the analysis of the main characteristics of the creative sector. Finally, the spatial dimension of the production of culture will be treated, that is clustering.

3.1. The culture-economy nexus

Brito Henriques and Thiel (2007)\textsuperscript{81} defined the ongoing convergence between culture and the economy as a societal shift and named it after the “culture-economy nexus”. They argued that such shift may be recognized by referring to two possible definitions of culture, i.e. as cultural practices or as super-organic system which is exogenous to people. In the former, culture is considered as “something done by people”, while in the latter, it is regarded as something influencing people (Mitchell 1995)\textsuperscript{82}. The culture-economy nexus is thus conceptualized as a development in both what people produce and how such productions are influenced. Correspondingly two approaches have been developed: a) “culture as a commodity”; and b) “culture as the bed of economy”.

The “culture as a commodity” approach has developed from the Critical Theory on industrialisation of leisure by the main exponent of the Frankfurt school (Adorno, 1991)\textsuperscript{83}. This school used a “consumption of culture” perspective - that is a focus on consumers only - and argued that culture become industrialised via a controlling process of uniformity like in Fordist mass-production, and were critical against the post-modern vision of a global cultural industry “manipulating” consumers in mass. On the same stream, Harvey (1989)\textsuperscript{84} and Jameson (1984)\textsuperscript{85} applied a “production of culture” point of view and stressed that modern capitalism has integrated culture productions into market logics. Thereby it descended the view of production and consumption of culture as a commodity.

If such approach has developed initially as critical against cultural industries, it has more recently switched to a more pragmatist strain of literature which has focused on their economic

\textsuperscript{81} Ref. Eduardo Brito Henriques and Joachim Thiel, The Cultural Economy of Cities: A Comparative Study of the Audiovisual Sector in Hamburg and Lisbon, European Urban and Regional Studies 2000; 7; 253; p. 254
growth and their role of solving the problems of deindustrialisation and unemployment (Scott 199686, Hudson 199587).

The "culture as bed of economy" approach draws on Granovetter (1985)88 and consists of a focus on firms’ general environment regarded as exogenous and influencing the activity and decisions implemented by firms. The development of this approach, more importantly by Storper (1995)89 has led to agree that a certain regional cultural coherence is a key precondition for innovation to prosper. That is, innovative milieus as source of regional competitiveness are rooted on cultural factors such as shared rules and knowledge, or socio-cultural identification (Amin and Thrift 1994).90

3.2. The spatialized production of culture perspective

The above presented culture-economy relationship underpins a dualism between consumption and production of culture. In the so-called “spatialized production of culture” perspective, Pratt (2004)91 argued that analytical studies of the cultural economy have focused more on consumption and this has significantly diminished the analysis of production. Differently, he stressed, a more informative perspective should include both production and consumption via the analysis of their mutual interrelation. He based this approach on Peterson’s (1976)92 “production of culture” perspective which underlined that the organization of cultural production affects content. That is, cultural products are the result of collective innovation by a plurality of private and public actors whose activity is varied but linked together by the organization of production. Production does not only consist of creative ideas, it also includes the conditions under which these ideas are made dynamic and developed. These involve market conditions, social institutions and consumers’ taste. By linking to Peterson, Pratt argued that a perspective that could be more valuable is one that considers the whole life cycle of cultural products. This entails an involvement of both production and consumption and, therefore, calls for considering the whole value chain from production to distribution of cultural outputs. Consequently, this calls for considering the network dimension of both production and distribution as key feature of the organization of cultural production. This is a crucial point since the analysis of networks in creative industries requires an appreciation of the spatial nature of this activity.

In this work, the author intends to use such perspective that is considered more comprehensive and informative in relation to the role of creative industries within the knowledge economy. In fact, this perspective catches both the culture-economy nexus as well as the network and innovation dimension of creative industries. Moreover, it is compatible with the relation between creativity and innovation defined by Yusuf93 as considers the relations across the whole

93 See section 2.4 of this chapter.
supply chain of the sector from artists to distributors. This is why the above perspective may be, in
the author’s opinion, very useful to adopt in the light of the research questions concerning this
work.

3.3. The creative sector as a production system

Jeffcutt and Pratt (2002)\textsuperscript{94} observed that the creative sector includes a number of industries,
each of those having particularities as regards their labour markets and contracting networks.
Meanwhile, creative industries have important characteristics in common which make it more
appropriate to describe them as a \textit{production system} within which there are organizational
connections of both horizontal and vertical nature. Hereby, such key characteristics will be treated
coherently with the “spatialized production of culture” perspective. However, it must be noted that
the following paragraphs will focus only on the creative sector as featured in western economies. In
fact, the economic organizational form of the sector emerges as a local solution, at different times,
for different technologies and industries. Basically, the Western model presents different features
from the Asian version. A main example is that of the Japanese creative sector which presents no
small and medium enterprises (SMEs), unlike most western creative industries\textsuperscript{95}.

3.3.1. Local production clusters for global distribution networks

Western creative industries are characterized by a high number of SMEs specialized
\textit{producers}, while \textit{distribution} has a very high concentration in a small number of financially
dominants trans-national firms who holds and exploits property rights. Scott (2000)\textsuperscript{96} has stressed
that creative industries are characterized by production which is increasingly localised in privileged
clusters whose outputs are distributed across wider networks of consumption. That is, local
networks of small producers are embedded in global distribution networks.

Scott (2000) described the following distinguishing organizational-technological features for
\textit{producers}. First of all, they tend to need a large pool of skilled \textit{employees} as well as advanced
\textit{computer technologies} to support to their work. Moreover, they operate within \textit{networks} of a high
number of SMEs whose activity is strongly interdependent. Such networks form “\textit{multifaceted
industrial complexes}” generating external economies and demanding a wide variety of skills on
local labour markets. These complexes require also a range of \textit{public infrastructures} that support
information flows, promote trust and co-operation between firms and provide additional
information. The \textit{consequences} of these features are strong interconnections and external
economies, strong agglomeration forces, and creative producers \textit{clustering} in favoured cities.
Molotch (1996) observed that those \textit{cities} are usually internationally or nationally dominant
“cultural nodes” where the distinctive features of the location and the image of local productions
affect each other mutually. This is also explained by the view of the city as \textit{locus of consumption}.
However, Scott (2000) argued that also certain less prominent cities may be capable of supporting
smaller and specialised clusters. In this case, however there are some favourable circumstances
that

\textsuperscript{94} Ref. Jeffcutt, Paul and Pratt, Andrew C., "Managing Creativity in the Cultural Industries". Creativity and Innovation
Management, Vol. 11, 2002; p.228-229

\textsuperscript{95} See Pratt, A.C., 2002 The geography of employment in the cultural industry: toward a cross national comparison
(UK and Japan), Paper at the annual conference of the American Association of Geographers, Los Angeles, March 22.

\textsuperscript{96} Ref. SCOTT (Allen J.), The Cultural Economy of Cities, SAGE Publications, London, 2000, 245 p.337, Web:
http://www.sagepub.co.uk/book.aspx?pid=104439 p.4
cannot be replicated everywhere and that are mostly related to the quality-of-life and other soft-location factors. In addition, those clusters can only survive via continuous adaptation, innovation and growth to other type of activities (Basset et al. 2002)\(^97\).

### 3.3.2. High rate of new business creation

Creative industries produce *novelty*, i.e. outputs with short life-cycles. Correspondingly, producers do survive in function of the success of their productions in the market place for a short period (Jeffcutt and Pratt, 2002)\(^98\). Moreover, although growth for small producers may be significant especially within the first years of activity, they encounter difficulties in growing further. This is why the sector is characterized by a rate of new business creation higher than other sectors of the economy (Frontier, 2007)\(^99\).

### 3.3.3. Majors and Independents

The sector is characterized by the dominance of a small number of majors that are often world dominating multinationals. However, competition is fierce and de-regulations as well as re-regulations – especially as regards broadcasting, publishing and new medias\(^100\) - have facilitated the birth of new and more independent firms.

### 3.3.4. Skilled and creative labour

Blair (2000)\(^101\) showed that employment is often *short term* and *high skilled* (intermittence, freelance, or casual contracting). Especially in SMEs producing content, most entrepreneurs and employees are “creatives”, they often do not have management as core task or core competency neither they are focused on strategic planning for the future. Last, if many firms within the sector are young, they are meanwhile run by people who have been participants within the sector for a long time.

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\(^{97}\) Ref. BASSET, K.; Griffiths, R.; Smith I.; Cultural industries, cultural clusters and the city: the example of natural history film-making in Bristol, Elsevier Journal Geoforum, 2002, Volume 33 Issue 2; p.177


\(^{100}\) An important example in the European Union is the new EU Directive on Audiovisual and Media Services is directed to extend re-regulation to new media content production.

3.3.5. *Cultural identity, services, and knowledge providing industries*

Cunningham (2004)\(^{102}\) argued that cultural industries are meanwhile a) industries providing self-recognition, identity, and critique in a globalizing world; b) service industries providing information and entertainment services in a converging services sector; and c) knowledge industries utilising and requiring important levels of R&D activity in order to produce innovative contents.

3.4. The spatial dimension of the cultural production

As shown above, clustering is increasing within the knowledge economy and this is mirrored in post-Fordist organizational forms. In addition, clustering is a key feature of the creative sector, and the network is the main type of cluster that research refers to in this regard. Meanwhile, the main problem regarding the creative industries, the knowledge economy and the related role of the state is believed to be in the lack of knowledge about the networks and relationships that enable creativity and innovation in a knowledge economy (Jeffcutt and Pratt 2002)\(^{103}\). The concept of cluster and the different types of clusters – the network type being the central one as regards this work – should therefore be explored below.

3.4.1. The concept of cluster

The stream of literature on industrial clusters draws mainly from the concept envisaged by A. Marshall in 1890 that national economic growth and leadership depends on the development of localized concentrations of specialized industries. The Marshallian “localisation economies” explained why the industrial specialisation in a given location becomes self-reinforcing and renders the considered industry and location more competitive. The first is the attraction of various intermediate and subsidiary industries as input providers. The second is the related growth in specialisation of labour. The third is the development of specialised related technology among local firms. The fourth is the knowledge and technology spillover between local firms. In addition, such concentrations, as noted by Marshall, are also featured by an “industrial atmosphere” consisting on traditions and practices related to the specialized industry and institutionalized in the society (DTI, 2001)\(^{104}\).

Several economists (Porter, 1990\(^{105}\); Krugman 1991\(^{106}\), Fujita et al. 1999\(^{107}\)) have more recently focused on the role of spatial agglomeration and specialization in maximizing increasing returns offered by technology and other externalities. They agreed that, especially in industries which present significant learning-economies, local clustering can generate increasing returns.

Porter (1990) has conducted a comprehensive empirical analysis of internationally competitive industries within a number of countries and he did found that they were characterized by a high rate of spatial concentration in local agglomerations. He has, therefore defined them as “industrial clusters” by stating that they are “Geographic concentrations of interconnected

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\(^{103}\) See. \(^{103}\) Ref. Jeffcutt, Paul and Pratt, Andrew C., ”Managing Creativity in the Cultural Industries” . Creativity and Innovation Management, Vol. 11, 2002; p.226.

\(^{104}\) Ref. Business Clusters in the UK – a first assessment; Volume 3 Technical Annexes; A report for the Department of Trade and Industry by a consortium led by Trends Business Research; p.2.


companies, specialised suppliers, service providers, firms in related industries, and associated institutions (for example, universities, standards agencies, and trade associations) in particular fields that compete but also co-operate” (Porter, 1998)\textsuperscript{108}.

The effects of clustering in relation to the knowledge economy may be listed as follows. Clustering raises incentives for innovation due to competitive pressures within the cluster location. It also increase productivity via the direct access to specialised labour, inputs, information, institutions and public goods, and via synergies facilitation. Moreover, technological knowledge diffusion is fastened within clusters. Last, clusters favour new business creation since employees can create start-ups with low entry barriers (DTI, 2001)\textsuperscript{109}.

### 3.4.2. Types of cluster

Several researchers have described over the last two decades several types of clusters. These will follow below by referring mainly to the work of categorizing clusters by Jacobs and De Man (1996)\textsuperscript{110} and referred to by DTI (2001)\textsuperscript{111}.

#### 3.4.2.1. Filieres

A filiere is the agglomeration of activities that constitute the production chain of an industry. That is, the co-location of different stages of production, from suppliers to customers.

#### 3.4.2.2. Large aggregations of connected sectors

Porter (1990)\textsuperscript{112} has described the agglomeration of related sectors in the same location as typical of successful exporters. This presents the feature of correlating very different industries. Thus, such clusters may well represent the national economy.

#### 3.4.2.3. Regional clusters

Bergman (1998)\textsuperscript{113} has defined “regional cluster” as the agglomeration of connected industries which is geographically concentrated in a given region being competitive on a global scale. They can be based on any kind of externality that favours high rates of new business ventures, such as knowledge sharing or financial externalities.


\textsuperscript{109} Ref. Business Clusters in the UK – a first assessment; Volume 3 Technical Annexes; A report for the Department of Trade and Industry by a consortium led by Trends Business Research; p. 3-4


\textsuperscript{111} Ref. Business Clusters in the UK – a first assessment; Volume 3 Technical Annexes; A report for the Department of Trade and Industry by a consortium led by Trends Business Research; p.5.


3.4.2.4. Industrial districts

The Italian local concentration of SMEs which specialised in different stages of a given production process in the so-called Third Italy have led to the definition of “industrial district” by Beccattini (1990)\textsuperscript{114}. These districts are featured by the strategy of “flexible specialization” defined within the Second Industrial Divide by Priore and Sabel (1984)\textsuperscript{115}. This strategy is based on a network of small producers that can mix their competences and expertise to produce new high quality products in short time and therefore compete on innovation. Harrison (1994)\textsuperscript{116} observed that an industrial district is a localised concentration of specialized firms, which is embedded within a local community, and marked also by trust and collaborative relations.

3.4.2.5. Networks

Cook and Morgan (1994)\textsuperscript{117} have observed that networks may not always be spatially concentrated but also dispersed, however they tend to better function when localized. As regards localized networks, Malecki and Tootle (1997)\textsuperscript{118} argued that, although networks are overlapping very much with the concept of industrial district, they may be seen as a type of cluster itself. This is because their key feature is that they constitute agglomerations of economic actors that are linked by a peculiar form of relationship based on trust, co-operation and mutual interdependence, instead of market logics or hierarchies.


CHAPTER II

The emergence and the arguments for the Creative Sector Policy-focus in Europe

The recent evolution of cultural policy-making in Europe can be understood by using an historical point of view in a western context. The first section will consider Western cultural policy-making and draw the basic developments that have characterized it since the advent of capitalism. As it will be underlined in the second section, the emergence of a “creative sector” policy-focus – based on the rising economic importance of the sector – constitutes a reaction to the changes in the socio-economic environment that surrounds culture itself in western economies. Thus, in order to understand this recent policy-focus, the key contemporary drivers of change for the creative sector have to be analyzed. This will be done in the third section. Finally, this reasoning would have to be put in a European perspective – as far as concerns this work – and the arguments that support the “creative sector policy-making” in light of the Lisbon Strategy shall be presented and discussed.

Contents:
1. Western cultural policy-making: an historical perspective
2. The passage to the Creative Sector Policy-focus in Europe
3. Contemporary Drivers of Change: the “big three”
   3.1. Globalization
   3.2. Digitization
   3.3. Convergence
4. The arguments for the Creative Sector Policy-making in Europe
   4.1. The contribution of the creative sector to the economy is significant in Europe
      4.1.1. The turnover and value added to the GDP
      4.1.2. Comparative analysis with other sectors of the economy (value added to GDP)
      4.1.3. Contribution of the Creative Sector to the European economic growth (turnover and value added to GDP)
      4.1.4. Employment figures
   4.2. The Creative sector is increasingly intangibles-intensive
   4.3. The uptake of ICT sector depends on the Creative sector
   4.4. The adaptation to the “big three” would unleash further growth
   4.5. A recap in a Lisbon Strategy perspective
   4.6. Limitations and remarks
1. Western cultural policy-making: an historical perspective

Hesmondhalgh and Pratt (2005)\(^{119}\) have remarked how important is to look at cultural policy from a long-term *historical perspective* in order to understand the present importance of the cultural sector and the related contemporary policy issues. By drawing on their analysis, this section will review the history of the rise of cultural industries and the consequent cultural policy-making developments until the present focus on the “creative sector” by both the policy-makers and the academia.

The passage from *feudalism* to *capitalism* in the 19\(^{th}\) century represented the outset of *commercialisation* of cultural productions. This increasingly intensified during the 20th century in advanced industrialized economies that were marked by the rise of the cultural industries and the commodification\(^{120}\) of culture as linked to the diffusion of a “mass culture”. Western European cultural policy, developed in the direction of the democratisation, inclusion and greater access of culture, i.e. in simple words, making it available and open to all people (McGuigan, 2004)\(^{121}\). Meanwhile, a certain concentration developed in state subsidization to high culture, which excluded therefore low culture associated with lower social classes in the society’s pyramid. Congruently, fears brought by the commodification and industrialization of art and culture led policy-makers to look at cultural industries as “something different” from the arts, and this mirrored in the subsidization only to the arts and the policy focus on the formation of the public service broadcasting (Hesmondhalgh, Pratt, 2005)\(^{122}\).

A key development occurred over the *second half* of the 20\(^{th}\) century, when the cultural industries *growth* increased dramatically. The *drivers* of such growth were the increasing opening of capital markets and international trade, the rising income of western economies, the increasing levels of education and leisure time, and the consumerism accelerated by the TV and the diffusion of apparatuses such as hi-fi, video recorders and PCs. This growth put the cultural industries in the *spot light* and made difficult for the cultural policy-maker not to consider them in their policies and support schemes. In 1982, the UNESCO, for the first time, recognised the economic dimension of culture and its impact on development and commissioned a body of studies\(^{123}\) on the cultural industries. However, this was *not* followed by *recognition* at the national policy level.

In the meanwhile, UK’s *local* policy-makers started considering a cultural industries focus, as remarkably in London in 1985. Nonetheless, this did *not* lead to cultural industries policies formulation and implementation as the Conservative government abandoned them one year after. Differently, in Sheffield, local authorities had to face the de-industrialization problem and responded to it with a whole economic strategy that included cultural projects to promote economic recovery and reduce unemployment. This was not a set of cultural policies but a whole urban *economic regeneration strategy* that included cultural activities. This was somehow unusual at that time, but successful, and therefore it started to be replicated in Western Europe\(^{124}\).

At the *beginning of the 1990s*, the cultural industries started to affect the *national* cultural policies. These broadened and started to include not only “high culture” but also the cultural

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\(^{120}\) This have been treated in this work at the section 3.1 on “the culture-economy nexus” of Chapter 1.


industries. This was especially evident in France, where special attention was put on the cultural industries, especially the film industry.

The *turning point* was the emergence of the “creative sector” *policy-focus* based on the idea that cultural industries, cross-cutting all cultural fields as a whole sector (renamed “creative sector”), would be regenerative to post-industrial economies. At the end of 1990s, this stance had been adopted by Australia, Canada, New Zealand and the United Kingdom (Volkerling, 2001). In particular, Canada and Australia have now developed approaches that underpin not only the key economic value of the cultural industries, but also its identity-creation function for a national culture. This is also to be related to their attempt to offset the “Americanisation” through the market and to expand local cultural productions and their consumption.

The *key point* stressed by Hesmondhalgh and Pratt (2005) is that the *idea* at the basis of the recent creative sector policy-focus – centred on the rising economic value of culture – has been the *result* of industrial (and consequent cultural) changes that were themselves produced by other policy decisions. These were the *liberalizations* and *marketization* and of the *media* and *telecommunications* that started in the late 1980s in the US and diffused in the advanced industrialized economies. These pro-competition waves did spread over the world, and were undertaken by the EU and the WTO. In turn, the cultural industries growth increased and this has reinforced the rationale that national and local economies can be reinvigorated by the creative sector.

### 2. The passage to the Creative Sector Policy-focus in Europe

The above presented historical perspective of the cultural policy-making in western advanced economies reveals a *crucial aspect* in understanding the recent cultural policy-focus. That is, several factors of different nature and external to cultural policy – from the end of feudalism to the technological progress to the massification of culture etc. – have fuelled the cultural industries’ growth over time. This growth has increasingly affected cultural policies at both the national and local level and has got recognition at the international level. In short terms, changes in the *socio-economic environment* that surrounds culture have called for some *responses* in cultural policy-making.

As remarked above, in the 1990s, this has led in some western countries, to an increasing *focus* of policy-makers on the “creative sector”. These have started having an *increasing* interest in *assessing* the sector’s economic importance and its economic drivers in order to promote the creative sector as key economic actor. This focus started probably in Australia in the early 1990s and led to the Keating Government’s cultural policy of a “Creative Nation”, back in 1994. This policy was formulated to allow Australia responding to the challenges of the information technologies revolution and the increasing diffusion of a global mass culture. Keating’s government specified that this “Creative Nation” policy was also an *economic policy*.

In *Europe*, the creative sector focus started to be adopted, first, by the UK, in the *end of the 1990s*. In fact, until that time the significant commercial and employment dimensions of the sector had been largely ignored or underestimated in debates on cultural policy-making and development.

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128 Ref. Hong Kong: culture and creativity, report by the Hong Kong Art Development Council, January 2006.
in Europe. The main forwarding step was the Creative Industries Task Force set up by Blair’s government in order to favour the creative industries as key economic tier. This led later on the central government to equip the Department for Culture, Media and Sport (DCMS) for the Creative Task Force (in the period 1997-2000). The creative sector has started to be considered as a whole since the creative industries have been increasingly interlinked. This has produced the DCMS’ Creative Mapping Documents published in 1998 and 2001 and has led to set up the Creative Economy Programme.

More recently, across and after the start of the new century, in other European countries governments have been increasingly interested in measuring the economic importance of their creative sector. This is the case of Denmark, the Netherlands, Sweden and Finland but also of some of the new Eastern member states (as reported in the Annex 1 of this work). In a Lisbon Strategy time, these countries have started considering the importance of the creative sector in relation to the knowledge economy. Moreover, contemporary drivers of change are recently offering new growth opportunities to the creative sector, thus further pointing to the important economic role of the creative sector. In turn, this has been reinforcing the rationale that boosting the creative sector would be beneficial to competitiveness in the knowledge-based economy. In the following section these drivers of change will be presented.

3. Contemporary Drivers of Change: the “big three”

The so-called “big three” - globalization, digitization, and convergence - are the contemporary key drivers of change in the creative sector. Recently, the conjunction of those is fuelling the growth of the creative sector and is offering new and further profitable opportunities to creative firms. In the meanwhile, this is representing a revolution for their production processes, their business models, as well as for the consumption of their outputs.

3.1. Globalization

As seen in Chapter 1 a key driving force of the knowledge economy is the globalization of a critic mass of economic activities, and the creative sector is included within it. Globalization has been produced and accelerated by the ensemble of the global communication revolution, successive waves of liberalizations and increased opening of trade and investments worldwide.

Creative industries face nowadays, on the one side, higher international competitive pressures in the domestic market and, on the other side, greater market potential abroad. In turn, this has increased their trade flows globally. The UNESCO (2005) has provided a comprehensive analysis of customs-based data on international trade in cultural goods, and has found that between 1994 and 2002 such trade flows have increased by more than 50% during the last 10 years from $39.3 billion in 1994 to $59.2 billion in 2002. High income economies are the leading global exporters, and the EU is the greatest exporter of creative goods (51.8% of world exports), with

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130 The analysis of the successive developments in the UK policy-making will be treated more deeply in the next Chapter.
132 Those include the following goods: heritage goods, books, newspapers and periodicals, other printed matter, recorded media, visual arts and audiovisual media.
Asia figuring as second exporter (20.6 % share) due to the boom of East Asian visual arts and video game industry.

The creative sector is especially in advanced economies a fast growing sector. The OECD(2004)\textsuperscript{133} indicated for its members’ creative sector an annual growth rates of between 5% and 20%. In this regard, the demand for creative goods is estimated to rise further and this would give, in turn, higher growth potential to the sector.

\section*{3.2. Digitization}

Broadband connections, variety in software and formats, and continuously up-grading computer processing power are re-shaping productions and exchange of information in the creative sector. In general, new digital technologies are affecting both the production and demand of creative products.

As far as regards the whole production cycle, to different extents, all creative industries are “going digital” by shifting to the digital format. This is due to the fact that digitization of production – going downwards until distribution channels – has allowed to replicate and distribute products at close-to-zero marginal costs, after the product has been “stored” digitally (e.g. a work of art in image, a music file, a movie, TV programme in streaming, a performed live concert, a digital book, a successful architectural project, a photographic work etc.) and this is a key change affecting the distribution of content, and creating new possibilities of growth for the creative sector\textsuperscript{134}. As regards, Wiesand and Sondermann (2005)\textsuperscript{135} observed how new forms of production (e.g. print-on-demand and Internet sales) have given higher profitable opportunities to start-ups. The digital format allows smaller firms to distribute their products via new distribution channels that are more cost-efficient, as for example can be done in the audiovisual industry by independent producers that are directly distributing online. Moreover, these new distribution channels and the digital technologies allow for product tailoring to specific consumers’ needs (e.g. the online tailoring of fashion products directly personalized by the consumer). In addition, digitization allows also the offering “new” applications and content enabled by digital technologies, such as podcasting, video-on-demand, IPTV etc. Consequently, the digital shift is putting in crisis business models that have been build up over decades.

On the demand side, the digitization allows individual consumers to access creative products more cheaply, and this, in turn, stimulates an increasing demand and capacity to “enjoy the experience” of those products.\textsuperscript{136} In addition, the digital format and software interfaces together with the internet have brought a new “iterative” dimension. In fact, the separation between artist and public is somehow fading out as there is a diffused trend between the public to create and share works with other people through virtual networks and communities. This has also reached a true economic dimension, as for instance in 2006 the networking site Myspace.com was acquired by News Corp for $ 580 million. In the same year the start-up YouTube reached 100 million daily video viewings in a few months and was bought by Google for $ 1.65 billion. Moreover, blogs are increasingly competing with online newspapers as source of information on the Internet.\textsuperscript{137} A clear example may be the Italian case of Beppe Grillo’s Blog, which is advocating – within many other

\footnotesize

\textsuperscript{134} Ref. KEA, Media Group (Turku School of Economics) and MKW Wirtschaftsforschung GmbH, 2006, Study for the EU Commission, The economy of culture in Europe, Brussels 2006, p. 140.

\textsuperscript{135} Ref. The Creative Sector - An engine for diversity, growth and jobs in Europe, a paper for the European Cultural Foundation, By Andreas Wiesand in co-operation with Michael Söndermann1, September 2005, p. 12.


\textsuperscript{137} Ref. KEA, Media Group (Turku School of Economics) and MKW Wirtschaftsforschung GmbH, 2006, Study for the EU Commission, The economy of culture in Europe, Brussels 2006, p.143.
problems – the disinformation by media in Italy due to the concentration of their control in the same hands via economic ownership and public influence.\textsuperscript{138}

As result, easier and cheaper access together with digital “interaction” and user-generated content are increasing the demand for creative goods in digital format.

3.3. Convergence

Convergence is a key driver of change that is starting from the media and extending to other activities within the creative sector as well as to other related sectors of the economy.

Firstly envisaged is the media convergence, that is, different media - and correspondingly electronic apparatuses - are amalgamating and becoming increasingly bridged. A clear example is the growing convergence of TV, Radio, and computers on the basis of internet technology, whose interrelation is shown when TV programs are debated over the internet and the radio. This entails also for different firms in the creative sector to be present with their products in several media at the meantime. Thus, films and music are launched via the internet, TV, radio and newspapers.\textsuperscript{139}

Further, convergence expands to the other creative industries. This is provoked by the emergence of a new field of activity, that is the content production for “new media”, i.e. those provided via new communication technologies (e.g. online and mobile phones access to media). Mueller (1999)\textsuperscript{140} defines this as “the phenomenon of digital content subsuming all existing forms of media”. The figure below gives a good panoramic of all firms that contribute to or engage in such content production.

Figure 1: Firms contributing to or engaged in content production for new media

![Diagram showing firms contributing to or engaged in content production for new media](image)

Source: Denmark’s Creative Potential, p. 60, Danish Ministry of Trade and Industry, 2001

Convergence is thus including creative industries such as Film industry, TV and Radio as well as Software producers – providing from video games to “appealing” interfaces for new media – and Advertising agencies providing all ranges of commercial communication from TV to the web ads. Moreover, content need for new media is cross-linking the arts genres (and in turn, the creative industries) from music to visual arts, heritage and literature etc. The emergence of “new media” is not only affecting the TV or music industries but also the fields of heritage, visual and performing arts (e.g. museums visits and arts performance to offer online and satisfying demand for niches of

\textsuperscript{138} This blog is one of the most visited in the world and has therefore got international reputation.

\textsuperscript{139} Ref. Denmark’s Creative Potential, Danish Ministry of Trade and Industry, 2001, p. 43.

consumers such as those with limited displacement possibilities as handicapped or in-stay at the hospital).\textsuperscript{141}

Furthermore, as shown in the above figure the phenomenon is extending also to other related industries in the \textit{wider economy} such as IT hardware producers and Telecommunications and Internet suppliers. Those are in fact \textit{looking for content} that is delivered via ICT technologies, and therefore increasingly interested in financing content productions by firms in the creative sector or co-productions in collaboration with them.

Finally, on the demand side, convergence \textit{blurs traditional distinction} between publishing, broadcasting and telecommunications. In fact, it gives consumers a variety of possibilities to access \textit{multimedia} content via different platforms (e.g. internet and mobile phones). This is also generating an increasing \textit{demand for digital}, rather than physical, products. This does and will increasingly impact on former business models in the creative sector and generate \textit{new demand} for the creative industries.\textsuperscript{142}

\textsuperscript{141} Ref. Denmark’s Creative Potential, Danish Ministry of Trade and Industry, 2001, p. 60.
\textsuperscript{142} Ref. The Work Foundation for DCMS, 2006, Staying ahead: the economic performance of the UK’s creative industries, p.41
4. The arguments for the Creative Sector Policy-making in Europe

As observed above in this chapter, the creative sector policy-focus at the national level has been emerging in several EU member states at the beginning of the 21st century. Nonetheless, the Lisbon Strategy has not considered, so far, the present and potential contribution of the creative sector to the Lisbon’s goal. In this regard, the following interrogative will be faced hereby: put in the Lisbon Strategy context, why the creative sector may play a central role in the knowledge economy? The rationale that boosting the creative sector would be regenerative to the economy as fostering competitiveness in the knowledge economy can be supported with the following economic arguments to date:

1. The Creative sector’s contribution to the economy is, nowadays, significant in Europe in terms of value added, turnover, and employment generation;
2. The European creative sector is increasingly intangibles-intensive, and this is strongly correlated with its growth prospects;
3. The uptake of ICT sector – the flagship sector of the Lisbon Strategy – and the creative sector’s growth are highly interrelated like “two sides of the same coin”; 
4. The adaptation to the “big three” would fuel further growth.

The first two arguments are quantitative, while the latter two qualitative, these will be treated below. Then, a recap section will relate them to the Lisbon Agenda’s key economic areas of political action. Finally, the key point on such arguments will underline their limitations and remarks on them.

4.1. The contribution of the creative sector to the economy is significant in Europe

Chapter 1 literature has pointed out that culture has a strong nexus with the economy nowadays. The author would therefore look at the available statistics on the creative sector regarding the economic significance of culture. KEA et al. (2006) have provided for the EU Commission the most recent and comprehensive measurement of the European creative sector’s economic importance. The author would underline that KEA et al. have used complementary databases to reduce the data gaps in Eurostat industry statistics, thereby producing the most accurate statistical mapping of the creative sector having an European focus so far. Also, he

144 See section 3.1.
146 The countries covered by the statistical analysis include the EU27 Member States plus the three EEA countries – Iceland, Norway and Liechtenstein
147 i.e. gaps relative to country coverage of the Eurostat database, and full detection of the categories of activities included in the definition of the creative sector. See KEA et. al., Study for the EU Commission, The economy of culture in Europe, Brussels, 2006, p.64.
148 The accuracy of this however, to be improved since the quantification of the economic contribution of the creative sector is a recent trend, and in turn it encounters several problems. This will be shown later in the chapter.
would stress that their definition of the sector\textsuperscript{149} is \textit{consistent with} the “spatialized production of culture” perspective that has been presented in Chapter 1.\textsuperscript{150} Therefore, this mapping will be the key reference for the following statistics presented below (i.e. the creative sector’s turnover and value added to the GDP, a comparison with other sectors of the economy, and its contribution to the economic growth in Europe). Two \textit{measures} are used. First, the Gross Value Added as percentage of GDP measures the “value added to the economy”, i.e. the increase in wealth due to the creative sector.\textsuperscript{151} This gives an indication of the contribution of the sector to the economy from the supply side\textsuperscript{152}. Second, data on sector turnover (i.e. sales from the sector in a given year), provide an indication on the demand\textsuperscript{153} for the creative sector based on sales. Finally, the key statistic findings on employment generated by the creative sector will be provided.

\textbf{4.1.1. The turnover and value added to the GDP}

The most recent statistics providing a \textit{full picture} of the creative sector’s turnover and value added to the GDP in \textit{Europe} relate back to 2003\textsuperscript{154}. In this year, at the European aggregate level\textsuperscript{155} the turnover of the creative sector amounted to € 654,288 million. In terms of \textit{value added} to the European economy as a whole, this represented 2.6% of Europe’s GDP. Below this is reported for each national economy.

\begin{enumerate}
\item The sector includes the Visual arts, Performing arts, Heritage, Film and Video, Television, Video games, Music, Books and press, Design, Architecture, Advertising.
\item To recall, this entails that the whole production chain of culture has to be considered. This means, for example in the music industry, that not only musicians should be taken into account but also editors, managers, promotion activities as well as distribution and retail etc. This is because music production cannot occur without the existence of these activities.
\item For a better insight: “The point of departure is the Gross Domestic Product (GDP). This measures the total annual output of goods and services produced by residents of a particular country. It includes exports but excludes income from abroad. When this income is added to GDP, the result is Gross National Product (GNP). GNP and GDP measure the economy’s output. The gross output of an industry measures the industry’s value of sales in a particular year. However, gross output of an industry overestimates an industry’s contribution to national income because it also includes the value of inputs produced by other industries. Gross Value Added is therefore usually taken to represent the true contribution that an industry makes to the national economy. This is the value of gross outputs minus the value of inputs from other industries.”; Cit. p.63 on Methodology, KEA et. Al. 2006, Study for the EU Commission, The economy of culture in Europe, Brussels.
\item The GVA is used to estimate GDP, which contains the sum of the GVA added by each industry (and not the sum of gross output of an industry). This is because each industry’s GVA already excludes intermediate consumption from the other industries, while the gross output of an industry includes intermediate consumption of other industries’ outputs. “The link between GVA and GDP can be defined as: GVA (at current basic prices; available by industry only) plus taxes on products (available at whole economy level only) less subsidies on products (available at whole economy level only) equals GDP (at current market prices; available at whole economy level only)”. That is, industries add value but also contribute with taxes (minus received subsidies). Cit. http://www.statistics.gov.uk/CCI/nugget.asp?ID=254
\item This is an indicator from the demand side (rather than from the supply side) based on sales; sales can be derived from available stocks or from production, but if are derived from stocks they do not affect production. Moreover, the evolution of turnover is a useful indicator of market fluctuations. Ref. Eurostat Manual of Business Statistics, Section 3.1, Short-term Statistics – Industry, part 2.; http://circa.europa.eu/irc/dsis/bmethods/info/data/new/embs/sts/part2a.html
\item This section refers to: Ref. KEA, Media Group (Turku School of Economics) and MKW Wirtschaftsforschung GmbH, 2006, Study for the EU Commission, The economy of culture in Europe, Brussels 2006, pp. 65-67.
\item Due to the lack of available data Liechtenstein is not systematically covered.
\end{enumerate}
Table 1: Contribution of the European creative sector to the national economies

<table>
<thead>
<tr>
<th>Country</th>
<th>Turnover 2003, all sectors included (€ million)</th>
<th>Value added to national GDP (all sectors included)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Austria</td>
<td>14,603</td>
<td>1.8%</td>
</tr>
<tr>
<td>Belgium</td>
<td>22,174</td>
<td>2.6%</td>
</tr>
<tr>
<td>Cyprus</td>
<td>318</td>
<td>0.8%</td>
</tr>
<tr>
<td>Czech Republic</td>
<td>5,577</td>
<td>2.3%</td>
</tr>
<tr>
<td>Denmark</td>
<td>10,111</td>
<td>3.1%</td>
</tr>
<tr>
<td>Estonia</td>
<td>612</td>
<td>2.4%</td>
</tr>
<tr>
<td>Finland</td>
<td>10,677</td>
<td>3.1%</td>
</tr>
<tr>
<td>France</td>
<td>79,424</td>
<td>3.4%</td>
</tr>
<tr>
<td>Germany</td>
<td>126,060</td>
<td>2.5%</td>
</tr>
<tr>
<td>Greece</td>
<td>6,875</td>
<td>1.0%</td>
</tr>
<tr>
<td>Hungary</td>
<td>4,066</td>
<td>1.2%</td>
</tr>
<tr>
<td>Ireland</td>
<td>6,922</td>
<td>1.7%</td>
</tr>
<tr>
<td>Italy</td>
<td>84,399</td>
<td>2.3%</td>
</tr>
<tr>
<td>Latvia</td>
<td>503</td>
<td>1.8%</td>
</tr>
<tr>
<td>Lithuania</td>
<td>759</td>
<td>1.7%</td>
</tr>
<tr>
<td>Luxembourg</td>
<td>673</td>
<td>0.6%</td>
</tr>
<tr>
<td>Malta</td>
<td>23</td>
<td>0.2%</td>
</tr>
<tr>
<td>Netherlands</td>
<td>33,372</td>
<td>2.1%</td>
</tr>
<tr>
<td>Poland</td>
<td>6,235</td>
<td>1.2%</td>
</tr>
<tr>
<td>Portugal</td>
<td>6,358</td>
<td>1.4%</td>
</tr>
<tr>
<td>Slovakia</td>
<td>2,498</td>
<td>2.0%</td>
</tr>
<tr>
<td>Slovenia</td>
<td>1,771</td>
<td>2.2%</td>
</tr>
<tr>
<td>Spain</td>
<td>51,333</td>
<td>2.3%</td>
</tr>
<tr>
<td>Sweden</td>
<td>18,155</td>
<td>2.4%</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>132,682</td>
<td>3.0%</td>
</tr>
<tr>
<td>Bulgaria</td>
<td>854</td>
<td>1.2%</td>
</tr>
<tr>
<td>Romania</td>
<td>2,205</td>
<td>1.4%</td>
</tr>
<tr>
<td>Norway</td>
<td>14,841</td>
<td>3.2%</td>
</tr>
<tr>
<td>Iceland</td>
<td>212</td>
<td>0.7%</td>
</tr>
<tr>
<td><strong>Total EU 25</strong></td>
<td><strong>636,148</strong></td>
<td><strong>854,288</strong></td>
</tr>
<tr>
<td><strong>Total 30 countries</strong></td>
<td><strong>838,148</strong></td>
<td><strong>854,288</strong></td>
</tr>
</tbody>
</table>

Data elaborated by Media Group using Eurostat and AMADEUS databases.

Some remarks follow from the view of the table above. First, as regards absolute turnover figures they give an indication of the demand for the sector and this should be looked in relation to total turnover of the European creative sector in order to make some remarks. That is, the UK, Germany, France, Italy and Spain account in total for c.a. 74% of the total turnover of the creative sector in Europe\(^\text{156}\). These data are in line with the economic outlook of Europe, where the same countries have higher national GDP whose sum accounts for around 74% of the EU25 GDP. This is shown in the table 2 below. To recap, turnover is higher in the largest countries.

Second, by looking at the value added of creative sector to national GDP, it can be observed that France, UK, Norway, Finland and Denmark show the highest figures at a contribution higher than 3% of their national GDP. Going downwards, Belgium, Czech Republic, Germany, Estonia, Spain, Italy, the Netherlands, Slovenia, Slovakia and Sweden have had values between 2% and 3%.

All in all, the economic importance of the creative sector is stronger in Finland and the Scandinavian countries.

Some remarks

\(^{156}\) C.a. € 483 million, i.e. c.a. 75.9 % of the total for EU 25, and c.a.73.8% of the total for EU30.
The author would underline that while value added as percentage of GDP provides an useful indication of the contribution to the economy from a supply perspective, this should be linked to turnover figures since they provide information on the demand for the sector. The corresponding interrogative would be: is a higher contribution of the creative sector to the national GDP related to a high sector turnover for the creative sector? By looking at Table 1 above, it can be observed that while the creative sector in UK and France shows a high absolute turnover and a high contribution to the national GDP (3% and 3.4% respectively), in Denmark, Norway and Finland a high value added to the GDP is reported even with low share absolute sector turnover. Thus a high value added by the sector to the economy is created even with a low absolute sector turnover.157

Moreover, since GDP is estimated from the GVA of all industries as there are spillovers in terms of intermediate consumption across sectors of the economy, another interrogative would be the following. How are absolute GDP and value added to GDP by the creative sector related? GDP figures are provided in table 2 below, while value added is in table 1 above. These tables show that in the case of Denmark, Finland or Norway, a GDP much smaller than that of the UK or France, does not entail that the creative sector is not adding high value to the national GDP. However, by looking at the countries above indicated with a contribution of the creative sector between 2% and 3%, it can be remarked that Czech Republic, Estonia, Slovakia, and Slovenia (whose creative sector value added to GDP is 2.3%, 2.4%, 2.0% and 2.2% respectively) have a much lower GDP per capita than Sweden, Germany, Italy, Belgium and Spain. The following question is therefore to be asked. Is this remark linked to the national GDP growth? This can be observed in Table 3 below, in which Czech Republic, Estonia, Slovakia, and Slovenia show growth rate figures for national GDP (i.e. respectively 45%, 55%, 51.3% and 23.4% growth rate) higher than the EU30 average (17.5%).

As far as regards the high GDP per capita countries whose creative sector showed higher economic contribution (i.e. UK, France, Norway, Finland, and Denmark), these have actually had higher growth rates than other wealthy EU core countries such as Austria, Germany and Italy. To sum-up highest value added to national GDP is found in the most wealthy countries having had also growth rates higher than the other wealthy EU core countries, and four of the Eastern accession countries, who entered the EU in 2004 (i.e. EU25), with high growth figures159.

157 Other sectors instead may have a different relation between turnover and value added to national GDP by the sector. The author has looked at the turnover and value added (as percentage of GDP) of the manufacturing of electrical and optical equipment for Finland in 2003 for a comparative insight. This is to compare these figures between the creative sector with 3.1% contribution to national GDP and the manufacturing of electrical and optical eq. with a contribution of 5.1% (7 511.4 mill € as sector value added as percentage of 145938.0 ill € absolute GDP). The turnover for manufacturing of e.o.e. is of 30142.4 mill € against 10677 mill € (table 1 above). A threefold turnover is related with a strong contribution to GDP. Also, a threefold turnover does not entail of course a threefold contribution to GDP because the costs of production incurred by the industry are considered in the GVA. In the manufacturing of e.o.e. it is reasonable that high costs need high turnover to cover them. Source for Finnish figures: Statistics Finland’s PX-Web databases, Regional and industrial statistics on manufacturing; Industrial statistics on manufacturing, whole country 1995-2006 - updated 2008-03-03 15:00; http://pxweb2.stat.fi/Database/StatFin/toe/toe/toe_en.asp

158 In addition to the turnover figures, to better investigate the role of market demand, statistics on cultural consumption should be used for a comparative analysis across countries in Europe. However, the actual situation is that there is lack of comparable statistics at the European level. Kea et al. reported the following in their section on Cultural Consumption: “International data does exist, such as the OECD figures on consumption in “culture and recreational goods and services” but this category (which includes items such as camper vans, caravans, sports equipment, toys, domestic pets and related products, gardening tools and plants, tickets to football matches, cinemas and theatres, service charges on lottery tickets and other forms of gambling) obviously needs to be taken with caution, as an indicator of trends, and not as a precise assessment of cultural consumption. Unfortunately, national reports consulted are similarly based on the assessment of “cultural and recreational” consumption”. p.70

159 As far as regards the others 2004 accession countries, they also have high growth figures and a contribution by the creative sector which is in line with that of other EU15 countries and close to 2%, Hungary shows a high growth rate but not a high contribution by the creative sector. However, the author believes that looking at the economic contribution by the creative sector in these countries after the EU accession in 2004 would be very helpful to better clarify the...
### Table 2: GDP per capita, and total GDP by country in Europe in 2003 (in current market prices)

<table>
<thead>
<tr>
<th>Country</th>
<th>GDP per capita</th>
<th>GDP in absolute terms (millions €)</th>
<th>GDP per capita as percentage of EU27 total</th>
<th>National GDP as percentage of EU27 total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>eu27 European Union (27 countries)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>eu15 European Union (15 countries)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>be Belgium</td>
<td>26500</td>
<td>274726.0</td>
<td>128</td>
<td>94.8</td>
</tr>
<tr>
<td>bg Bulgaria</td>
<td>2300</td>
<td>17766.8</td>
<td>11</td>
<td>0.2</td>
</tr>
<tr>
<td>cz Czech Republic</td>
<td>7900</td>
<td>80924.1</td>
<td>38.4</td>
<td>0.8</td>
</tr>
<tr>
<td>dk Denmark</td>
<td>35000</td>
<td>188500.3</td>
<td>169.2</td>
<td>1.9</td>
</tr>
<tr>
<td>de Germany (including ex-GDR from 1991)</td>
<td>26200</td>
<td>2163800.0</td>
<td>127</td>
<td>21.5</td>
</tr>
<tr>
<td>ee Estonia</td>
<td>6400</td>
<td>8692.6</td>
<td>31</td>
<td>0.1</td>
</tr>
<tr>
<td>ie Ireland</td>
<td>34900</td>
<td>139413.5</td>
<td>169</td>
<td>1.4</td>
</tr>
<tr>
<td>gr Greece</td>
<td>15500</td>
<td>171258.4</td>
<td>75</td>
<td>1.7</td>
</tr>
<tr>
<td>es Spain</td>
<td>18600</td>
<td>762929.0</td>
<td>90</td>
<td>7.8</td>
</tr>
<tr>
<td>fr France</td>
<td>25700</td>
<td>1594814.0</td>
<td>124.4</td>
<td>15.8</td>
</tr>
<tr>
<td>it Italy</td>
<td>23200</td>
<td>1335353.7</td>
<td>112</td>
<td>13.2</td>
</tr>
<tr>
<td>cy Cyprus</td>
<td>16300</td>
<td>11785.0</td>
<td>79</td>
<td>0.1</td>
</tr>
<tr>
<td>lv Latvia</td>
<td>4300</td>
<td>9977.8</td>
<td>20.8</td>
<td>0.1</td>
</tr>
<tr>
<td>lt Lithuania</td>
<td>4800</td>
<td>16452.1</td>
<td>23</td>
<td>0.2</td>
</tr>
<tr>
<td>lu Luxembourg (Grand-Duché)</td>
<td>57000</td>
<td>25725.6</td>
<td>276</td>
<td>0.3</td>
</tr>
<tr>
<td>hu Hungary</td>
<td>7400</td>
<td>74681.6</td>
<td>35.7</td>
<td>0.7</td>
</tr>
<tr>
<td>mt Malta</td>
<td>11100</td>
<td>4421.4</td>
<td>54</td>
<td>0.0</td>
</tr>
<tr>
<td>nl Netherlands</td>
<td>29400</td>
<td>476945.0</td>
<td>142</td>
<td>4.7</td>
</tr>
<tr>
<td>at Austria</td>
<td>27900</td>
<td>226175.0</td>
<td>135</td>
<td>2.2</td>
</tr>
<tr>
<td>pl Poland</td>
<td>5000</td>
<td>191643.8</td>
<td>24.3</td>
<td>1.9</td>
</tr>
<tr>
<td>pt Portugal</td>
<td>13300</td>
<td>138582.1</td>
<td>64</td>
<td>1.4</td>
</tr>
<tr>
<td>ro Romania</td>
<td>2400</td>
<td>52613.0</td>
<td>11.7</td>
<td>0.5</td>
</tr>
<tr>
<td>si Slovenia</td>
<td>12700</td>
<td>25327.9</td>
<td>61</td>
<td>0.3</td>
</tr>
<tr>
<td>sk Slovakia</td>
<td>5500</td>
<td>29465.2</td>
<td>26.5</td>
<td>0.3</td>
</tr>
<tr>
<td>fi Finland</td>
<td>28000</td>
<td>145938.0</td>
<td>135</td>
<td>1.4</td>
</tr>
<tr>
<td>se Sweden</td>
<td>30800</td>
<td>275657.0</td>
<td>148.9</td>
<td>2.7</td>
</tr>
<tr>
<td>uk United Kingdom</td>
<td>27100</td>
<td>1615984.3</td>
<td>131.3</td>
<td>16.0</td>
</tr>
<tr>
<td>is Iceland</td>
<td>33600</td>
<td>9711.3</td>
<td>162.4</td>
<td>0.1</td>
</tr>
<tr>
<td>no Norway</td>
<td>43600</td>
<td>199146.1</td>
<td>211.0</td>
<td>2.0</td>
</tr>
</tbody>
</table>

Source: Eurostat website, National Accounts, 2008. Note: the absolute GDP figures are at current market prices in 2008

Relation between GDP growth and economic significance of the creative sector in these transition countries. However, so far these statistics are not available as regards the creative sector.
Table 3: The development of GDP in European countries 1999-2003 (€ million)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Austria</td>
<td>200225</td>
<td>210392</td>
<td>215878</td>
<td>226688</td>
<td>225568</td>
<td>13.5%</td>
</tr>
<tr>
<td>Belgium</td>
<td>236233</td>
<td>251741</td>
<td>256884</td>
<td>267578</td>
<td>274562</td>
<td>15.3%</td>
</tr>
<tr>
<td>Cyprus</td>
<td>9088</td>
<td>9065</td>
<td>10699</td>
<td>11073</td>
<td>11794</td>
<td>20.3%</td>
</tr>
<tr>
<td>Czech Republic</td>
<td>55346</td>
<td>50997</td>
<td>67560</td>
<td>75368</td>
<td>80254</td>
<td>45.0%</td>
</tr>
<tr>
<td>Denmark</td>
<td>163200</td>
<td>173698</td>
<td>176226</td>
<td>184744</td>
<td>188662</td>
<td>15.0%</td>
</tr>
<tr>
<td>Estonia</td>
<td>8226</td>
<td>7560</td>
<td>6676</td>
<td>7472</td>
<td>8138</td>
<td>22.7%</td>
</tr>
<tr>
<td>Finland</td>
<td>120985</td>
<td>130859</td>
<td>136472</td>
<td>140853</td>
<td>143307</td>
<td>16.9%</td>
</tr>
<tr>
<td>France</td>
<td>1396466</td>
<td>1441372</td>
<td>1497184</td>
<td>1548655</td>
<td>1585172</td>
<td>16.0%</td>
</tr>
<tr>
<td>Germany</td>
<td>2012000</td>
<td>2062500</td>
<td>2113160</td>
<td>2145020</td>
<td>2163400</td>
<td>7.5%</td>
</tr>
<tr>
<td>Greece</td>
<td>117850</td>
<td>123173</td>
<td>131769</td>
<td>142369</td>
<td>154153</td>
<td>30.3%</td>
</tr>
<tr>
<td>Hungary</td>
<td>45075</td>
<td>51039</td>
<td>56419</td>
<td>60622</td>
<td>73538</td>
<td>33.1%</td>
</tr>
<tr>
<td>Ireland</td>
<td>90612</td>
<td>104379</td>
<td>117714</td>
<td>130515</td>
<td>139067</td>
<td>53.5%</td>
</tr>
<tr>
<td>Italy</td>
<td>1127091</td>
<td>1151057</td>
<td>1216535</td>
<td>1266663</td>
<td>1300526</td>
<td>15.4%</td>
</tr>
<tr>
<td>Latvia</td>
<td>8752</td>
<td>9279</td>
<td>9627</td>
<td>9792</td>
<td>9881</td>
<td>66.0%</td>
</tr>
<tr>
<td>Lithuania</td>
<td>10169</td>
<td>12408</td>
<td>13656</td>
<td>15017</td>
<td>16443</td>
<td>0.7%</td>
</tr>
<tr>
<td>Luxembourg</td>
<td>18739</td>
<td>21279</td>
<td>22020</td>
<td>22806</td>
<td>23956</td>
<td>27.8%</td>
</tr>
<tr>
<td>Malta</td>
<td>3053</td>
<td>4065</td>
<td>4216</td>
<td>4281</td>
<td>4217</td>
<td>16.1%</td>
</tr>
<tr>
<td>Netherlands</td>
<td>374070</td>
<td>402291</td>
<td>447731</td>
<td>465214</td>
<td>475340</td>
<td>27.3%</td>
</tr>
<tr>
<td>Poland</td>
<td>157617</td>
<td>185775</td>
<td>212196</td>
<td>218431</td>
<td>191456</td>
<td>21.4%</td>
</tr>
<tr>
<td>Portugal</td>
<td>144192</td>
<td>122270</td>
<td>125143</td>
<td>135501</td>
<td>135907</td>
<td>15.9%</td>
</tr>
<tr>
<td>Slovakia</td>
<td>10131</td>
<td>12626</td>
<td>23822</td>
<td>25733</td>
<td>28952</td>
<td>51.3%</td>
</tr>
<tr>
<td>Slovenia</td>
<td>20762</td>
<td>20814</td>
<td>22018</td>
<td>23069</td>
<td>24850</td>
<td>23.4%</td>
</tr>
<tr>
<td>Spain</td>
<td>570963</td>
<td>632623</td>
<td>670842</td>
<td>726021</td>
<td>789550</td>
<td>34.6%</td>
</tr>
<tr>
<td>Sweden</td>
<td>238020</td>
<td>262550</td>
<td>274253</td>
<td>286678</td>
<td>296546</td>
<td>13.2%</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>1314600</td>
<td>1564573</td>
<td>1662840</td>
<td>1667312</td>
<td>1591712</td>
<td>16.3%</td>
</tr>
<tr>
<td>Bulgaria</td>
<td>12164</td>
<td>13764</td>
<td>15250</td>
<td>15569</td>
<td>17785</td>
<td>45.7%</td>
</tr>
<tr>
<td>Romania</td>
<td>32338</td>
<td>40246</td>
<td>44304</td>
<td>46442</td>
<td>50530</td>
<td>51.3%</td>
</tr>
<tr>
<td>Ireland</td>
<td>7898</td>
<td>9226</td>
<td>8679</td>
<td>9078</td>
<td>9362</td>
<td>17.5%</td>
</tr>
<tr>
<td>Norway</td>
<td>146373</td>
<td>181079</td>
<td>195632</td>
<td>203219</td>
<td>197012</td>
<td>32.8%</td>
</tr>
<tr>
<td>Total EU 25</td>
<td>8468054</td>
<td>972963</td>
<td>9425241</td>
<td>9773659</td>
<td>9916899</td>
<td>17.0%</td>
</tr>
<tr>
<td>Total 30 countries</td>
<td>9669483</td>
<td>10317313</td>
<td>9663605</td>
<td>10500065</td>
<td>10186475</td>
<td>17.5%</td>
</tr>
</tbody>
</table>

Note: the absolute GDP figures are at market prices in 2006.

4.1.2. Comparative analysis with other sectors of the economy (value added to GDP)

KEA et al. (2006) have provided a comparison of the creative sector’s contribution to the economy with that of selected manufacturing and services industries (Real estate activities, Computer and related activities) with significant economic contribution figures.\(^\text{160}\) They have produced the following table 4 relative to data for the year 2003 as in the previous section.

\(^{160}\) This section refers to: Ref. KEA, Media Group (Turku School of Economics) and MKW Wirtschaftsforschung GmbH, 2006, Study for the EU Commission, The economy of culture in Europe, Brussels 2006, pp. 67-68.
Table 4: Contribution of the creative sector and of other industries to the European Economy (percentage of GDP)

<table>
<thead>
<tr>
<th>Country</th>
<th>Manufacture of food products, beverages and tobacco (%)</th>
<th>Manufacture of textiles and textile products (%)</th>
<th>Manufacture of chemicals, chemical products and man-made fibres (%)</th>
<th>Manufacture of rubber and plastic products (%)</th>
<th>Manufacture of machinery and equipment n.e.c. (%)</th>
<th>Real estate activities (%)</th>
<th>Computer and related activities (%)</th>
<th>Cultural and creative sector (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Austria</td>
<td>1.7</td>
<td>0.5</td>
<td>1.1</td>
<td>0.7</td>
<td>2.2</td>
<td>2.2</td>
<td>1.1</td>
<td>1.8</td>
</tr>
<tr>
<td>Belgium</td>
<td>2.1</td>
<td>0.8</td>
<td>3.5</td>
<td>0.7</td>
<td>0.9</td>
<td>1.0</td>
<td>1.2</td>
<td>2.6</td>
</tr>
<tr>
<td>Cyprus</td>
<td>2.7</td>
<td>0.4</td>
<td>0.5</td>
<td>0.3</td>
<td>0.2</td>
<td>N/A</td>
<td>0.6</td>
<td>0.8</td>
</tr>
<tr>
<td>Czech Republic</td>
<td>2.8</td>
<td>1.0</td>
<td>1.3</td>
<td>1.5</td>
<td>2.3</td>
<td>1.4</td>
<td>1.2</td>
<td>2.3</td>
</tr>
<tr>
<td>Denmark</td>
<td>2.8</td>
<td>0.3</td>
<td>1.7</td>
<td>0.7</td>
<td>1.9</td>
<td>5.1</td>
<td>1.5</td>
<td>3.1</td>
</tr>
<tr>
<td>Estonia</td>
<td>2.2</td>
<td>1.9</td>
<td>0.6</td>
<td>0.8</td>
<td>0.6</td>
<td>2.8</td>
<td>0.7</td>
<td>2.4</td>
</tr>
<tr>
<td>Finland</td>
<td>1.5</td>
<td>0.3</td>
<td>1.1</td>
<td>0.7</td>
<td>2.1</td>
<td>1.8</td>
<td>1.5</td>
<td>3.1</td>
</tr>
<tr>
<td>France</td>
<td>1.9</td>
<td>0.4</td>
<td>1.8</td>
<td>0.7</td>
<td>1.0</td>
<td>1.8</td>
<td>1.3</td>
<td>3.4</td>
</tr>
<tr>
<td>Germany</td>
<td>1.5</td>
<td>0.3</td>
<td>1.9</td>
<td>0.9</td>
<td>2.6</td>
<td>2.6</td>
<td>1.4</td>
<td>2.5</td>
</tr>
<tr>
<td>Greece</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>1.0</td>
</tr>
<tr>
<td>Hungary</td>
<td>2.9</td>
<td>N/A</td>
<td>1.9</td>
<td>0.9</td>
<td>1.2</td>
<td>1.8</td>
<td>0.8</td>
<td>1.2</td>
</tr>
<tr>
<td>Ireland</td>
<td>5.3</td>
<td>0.2</td>
<td>1.15</td>
<td>0.3</td>
<td>0.5</td>
<td>1.2</td>
<td>1.7</td>
<td>1.7</td>
</tr>
<tr>
<td>Italy</td>
<td>1.5</td>
<td>1.3</td>
<td>1.2</td>
<td>0.7</td>
<td>2.1</td>
<td>1.0</td>
<td>1.2</td>
<td>2.3</td>
</tr>
<tr>
<td>Latvia</td>
<td>5.2</td>
<td>1.2</td>
<td>0.5</td>
<td>0.3</td>
<td>0.5</td>
<td>2.1</td>
<td>0.7</td>
<td>1.8</td>
</tr>
<tr>
<td>Lithuania</td>
<td>2.5</td>
<td>1.6</td>
<td>0.4</td>
<td>0.5</td>
<td>0.4</td>
<td>1.1</td>
<td>0.3</td>
<td>1.7</td>
</tr>
<tr>
<td>Luxembourg</td>
<td>1.0</td>
<td>0.9</td>
<td>0.4</td>
<td>2.0</td>
<td>0.6</td>
<td>N/A</td>
<td>1.2</td>
<td>0.6</td>
</tr>
<tr>
<td>Malta</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>0.2</td>
</tr>
<tr>
<td>Netherlands</td>
<td>2.2</td>
<td>0.2</td>
<td>1.7</td>
<td>0.4</td>
<td>1.0</td>
<td>2.3</td>
<td>1.4</td>
<td>2.7</td>
</tr>
<tr>
<td>Poland</td>
<td>4.7</td>
<td>0.8</td>
<td>1.4</td>
<td>0.9</td>
<td>1.2</td>
<td>1.3</td>
<td>0.5</td>
<td>1.2</td>
</tr>
<tr>
<td>Portugal</td>
<td>1.9</td>
<td>1.9</td>
<td>0.8</td>
<td>0.5</td>
<td>0.7</td>
<td>0.6</td>
<td>0.5</td>
<td>1.4</td>
</tr>
<tr>
<td>Slovakia</td>
<td>1.5</td>
<td>0.7</td>
<td>0.6</td>
<td>0.9</td>
<td>1.5</td>
<td>0.6</td>
<td>0.6</td>
<td>2.0</td>
</tr>
<tr>
<td>Slovenia</td>
<td>2.0</td>
<td>1.3</td>
<td>3.4</td>
<td>1.4</td>
<td>2.2</td>
<td>0.4</td>
<td>0.8</td>
<td>2.2</td>
</tr>
<tr>
<td>Spain</td>
<td>2.2</td>
<td>0.7</td>
<td>1.3</td>
<td>0.7</td>
<td>1.0</td>
<td>3.0</td>
<td>1.0</td>
<td>2.3</td>
</tr>
<tr>
<td>Sweden</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>4.0</td>
<td>2.2</td>
<td>2.4</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>1.9</td>
<td>0.4</td>
<td>1.4</td>
<td>0.7</td>
<td>1.0</td>
<td>2.1</td>
<td>2.7</td>
<td>3.0</td>
</tr>
<tr>
<td>Bulgaria</td>
<td>2.2</td>
<td>2.0</td>
<td>1.1</td>
<td>0.4</td>
<td>1.3</td>
<td>0.4</td>
<td>0.3</td>
<td>1.2</td>
</tr>
<tr>
<td>Romania</td>
<td>1.9</td>
<td>2.1</td>
<td>0.8</td>
<td>0.5</td>
<td>1.0</td>
<td>0.5</td>
<td>0.5</td>
<td>1.4</td>
</tr>
<tr>
<td>Norway</td>
<td>1.7</td>
<td>0.1</td>
<td>0.8</td>
<td>0.2</td>
<td>0.8</td>
<td>2.7</td>
<td>1.3</td>
<td>3.2</td>
</tr>
<tr>
<td>Iceland</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>0.7</td>
</tr>
</tbody>
</table>


According to their data collection, in the following countries the creative sector is contributing to the national GDP more than the other sectors selected: France, Italy, the Netherlands, Norway and the UK. Moreover, there are very few cases in which manufacturing and services industries show a contribution higher than 3% to national GDP: food and beverages in Ireland, Latvia and Poland; chemical products in Belgium, Ireland and Slovenia; and real estate activities in Denmark and Sweden (KEA et al 2006).  

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161 In regard to the data for Real estate activities, and for Manufacturing of machinery and equipement n.e.c. in Austria there seem to be discrepancy with data available from the Source.OECD database. This may in part be due to that OECD uses the ISIC to which the Eurostat NACE corresponds only until the second digit level. However, discrepancies seem considerable.

162 In addition KEA et al. report that the manufacturing of electrical and optical equipment (which is not included in table 4) is showing a contribution to national GDP higher than 3% in Ireland, Hungary and Finland (this is particularly high in Finland, i.e. 5.1%; the author’s source for this data is at http://www.stat.fi/index_en.html). Ref: KEA, Media Group (Turku School of Economics) and MKW Wirtschaftsforschung GmbH, 2006, Study for the EU Commission, The economy of culture in Europe, Brussels 2006, p. 68.
Some remarks

The above findings give an indication that the creative sector is contributing to the economy to an extent similar to other important sectors of the economy. Nonetheless, an important remark is to be made. That is, while the selected sectors are well corresponding to the statistical census categories (International ISIC and European NACE), the creative sector is not. KEA et al. referred to important sectors for the comparison. The manufacturing sectors correspond to a whole letter in the NACE 1.1. (that was used in the statistics and current until this year 2008), thus these are big aggregates. All the sectors used for comparison are important sectors in terms of contribution to the economy\(^{163}\). The only two sectors that are not a full letter in NACE are Real estate activities, and Computer and related activities. They are both in letter K (Real estate, renting and business activities), and respectively at the second-digit level 70 and 72.\(^{164}\) Both have been recently growing in economic importance, and real estate activities has become now a full letter (L) in the NACE revision\(^{165}\). Instead computer and related activities are now in a new letter, J, information and communication. Therefore the author would see this as reflecting the reason why the two sectors have been taken at a more disaggregated level (at the second digit level) and separated because they were growing in economic value in Europe.

Differently from these sectors, the emerged focus on creative sector as a set of industries is not reflected in the ISIC structure (i.e. the International census categories system by United Nations)\(^{166}\) neither in the NACE structure (i.e. the European system by Eurostat) which corresponds to the ISIC in its structure\(^{167}\). By looking at the ISIC\(^{168}\) and the corresponding NACE\(^{169}\) used in the above figures, it can be observed that the primary, secondary, and tertiary sectors are well structured in the census. However, the categories do not reflect the creative sector focus, and in fact the ISIC and NACE are currently under revision in relation to this. By looking at the present drafted revision of ISIC\(^{170}\) and NACE\(^{171}\) there is a key change which is more suited to the creative sector focus (i.e. creative industries emerged in the first and second digit-level and are split up between letter R - Arts, entertainment and recreation, and J - Information and communication). Therefore, the above data have to be taken with caution and the last section of this chapter will better show this in relation to the other statistics used in this chapter. Last, in regard of the above discourse by the author related to the relation between turnover and contribution to the GDP, comparative statistics across sectors in the European countries would be interesting to better understand differences across sectors. However, these are currently not available.

\(^{163}\) See the shares of value added by each manufacturing sector as percentage of the total by all manufacturing letters. http://epp.eurostat.ec.europa.eu/tgm/table.do?tab=table&init=1&plugin=0&language=en&pcode=tin00055
\(^{164}\) NACE 1.1. is available at Eurostat RAMON website
\(^{165}\) NACE 2. has started from 2008, and is to be gradually revised in the next years.
\(^{166}\) This categorizes economic activities depending on their nature. It is the international framework utilized as basis for data collection to promote uniformity.
\(^{167}\) until the second digit-level; For details see next Chapter’s discussion.
\(^{168}\) The ISIC Rev.3 which is also the current version; http://unstats.un.org/unsd/cr/registry/regcst.asp?Cl=17
\(^{169}\) i.e. NACE Rev. 1.1; http://ec.europa.eu/comm/competition/mergers/cases/index/nace_all.html; and http://ec.europa.eu/eurostat/ramon/index.cfm?TargetUrl=DSP_PUB_WELC
\(^{170}\) i.e. ISIC Rev.4 draft; http://unstats.un.org/unsd/cr/registry/regcst.asp?Cl=27
\(^{171}\) i.e. NACE Rev.2; this is to be gradually adapted by 2010. For details, see RAMON Eurostat's Metadata Server to the following link: http://ec.europa.eu/eurostat/ramon/index.cfm?TargetUrl=DSP_PUB_WELC
4.1.3. Contribution of the Creative Sector to the European economic growth (turnover and value added to GDP)

The average turnover growth is a useful indicator to measure the sector’s growth in a given period from a demand side perspective since it is a proxy of market demand fluctuations. Between 1999 and 2003, the average figure for EU30 is of 8.1%. As shown below, for this timeframe the highest figures can be found in the new EU member states after the Eastern enlargements. Remarkable turnover growth figures for the creative sector are at 20.2% in Romania, 17.9% in Slovenia, 17.1 in Hungary and are higher than 10% in Czech Republic, Estonia, and Bulgaria. By way of comparison, in EU15, figures were higher than average especially in Spain and Portugal, but also in Ireland, Finland, Sweden, the UK and France.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Austria</td>
<td>5.4%</td>
<td>2.8%</td>
</tr>
<tr>
<td>Belgium</td>
<td>5.2%</td>
<td>7.7%</td>
</tr>
<tr>
<td>Cyprus</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Czech Republic</td>
<td>15.5%</td>
<td>56.0%</td>
</tr>
<tr>
<td>Denmark</td>
<td>2.7%</td>
<td>-1.8%</td>
</tr>
<tr>
<td>Estonia</td>
<td>11.5%</td>
<td>9.1%</td>
</tr>
<tr>
<td>Finland</td>
<td>7.1%</td>
<td>11.1%</td>
</tr>
<tr>
<td>France</td>
<td>6.7%</td>
<td>7.1%</td>
</tr>
<tr>
<td>Germany</td>
<td>4.9%</td>
<td>6.8%</td>
</tr>
<tr>
<td>Greece</td>
<td>5.4%</td>
<td>4.4%</td>
</tr>
<tr>
<td>Hungary</td>
<td>17.1%</td>
<td>7.5%</td>
</tr>
<tr>
<td>Ireland</td>
<td>7.7%</td>
<td>8.8%</td>
</tr>
<tr>
<td>Italy</td>
<td>5.3%</td>
<td>7.3%</td>
</tr>
<tr>
<td>Latvia</td>
<td>7.7%</td>
<td>17.0%</td>
</tr>
<tr>
<td>Lithuania</td>
<td>5.1%</td>
<td>67.8%</td>
</tr>
<tr>
<td>Luxembourg</td>
<td>2.9%</td>
<td>N/A</td>
</tr>
<tr>
<td>Malta</td>
<td>0.1%</td>
<td>N/A</td>
</tr>
<tr>
<td>Netherlands</td>
<td>5.0%</td>
<td>N/A</td>
</tr>
<tr>
<td>Poland</td>
<td>6.1%</td>
<td>13.0%</td>
</tr>
<tr>
<td>Portugal</td>
<td>10.6%</td>
<td>6.3%</td>
</tr>
<tr>
<td>Slovakia</td>
<td>3.9%</td>
<td>15.5%</td>
</tr>
<tr>
<td>Slovenia</td>
<td>17.9%</td>
<td>5.4%</td>
</tr>
<tr>
<td>Spain</td>
<td>10.5%</td>
<td>9.0%</td>
</tr>
<tr>
<td>Sweden</td>
<td>7.5%</td>
<td>2.6%</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>6.6%</td>
<td>1.7%</td>
</tr>
<tr>
<td>Bulgaria</td>
<td>11.8%</td>
<td>N/A</td>
</tr>
<tr>
<td>Romania</td>
<td>20.2%</td>
<td>29.0%</td>
</tr>
<tr>
<td>Norway</td>
<td>4.8%</td>
<td>3.8%</td>
</tr>
<tr>
<td>Iceland</td>
<td>8.3%</td>
<td>4.1%</td>
</tr>
<tr>
<td>Total EU25</td>
<td>5.4%</td>
<td>6.6%</td>
</tr>
<tr>
<td>Total 30 countries</td>
<td>8.1%</td>
<td>12.3%</td>
</tr>
</tbody>
</table>


The second indicator used by KEA et al. (2006) is the growth in value added by the creative sector to the national GDP. This is a differential measure, that is, if the total contribution of an industry to the GDP in a given year is 10% and in the following year it is 11% then the growth of

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172 This section refers to: Ref. KEA, Media Group (Turku School of Economics) and MKW Wirtschaftsforschung GmbH, 2006, Study for the EU Commission, The economy of culture in Europe, Brussels 2006, pp.69-70.

173 The current EU27 member states plus the three EAA countries.

174 Ref. KEA, Media Group (Turku School of Economics) and MKW Wirtschaftsforschung GmbH, 2006, Study for the EU Commission, The economy of culture in Europe, Brussels 2006, p.69
value added to GDP is by 10%. In the period 1999-2003, the growth in value added to GDP was 12.3% for the creative sector in the whole Europe. By looking at national figures, the highest values are shown again in the new Member States with the most remarkable results in Lithuania (67.8%), Czech Republic (56%) and Romania (29%). Negative figures were only observed in Denmark where the contribution of the sector fell by 1.9% between 1999 and 2003. This is due to the underperformance of the Danish publishing, music and advertising industries in the period considered.

Some remarks

Generally, as from table 3 above, the Eastern new member states show high growth rates as are catching up with the EU15 and this is mirrored in the creative sector’s growth. However, also in this area the author would point to the need for more precise evidence since the census gap affects significantly the availability of precise data as remarked above about the comparison with other sectors of the economy. The author would also highlight, in addition, a footnote present in the Kea et al. work: “For the new EU member States and acceding countries, the reported value added for the year 1999 has somewhat larger data gaps than the reported value added for the EU15 (+ Norway and Iceland) countries. The calculated growth figures therefore tend to overestimate the growth for the new and acceding states to some degree, but remain a significant indicator of trends in the sector”175. Thus, the above statistics about the creative sector’s growth in Eastern countries should be seen with caution. Moreover, it would be interesting to see growth figures of the creative sector for the Eastern accession countries after their accession, to actually see how indicative the above figures are. Therefore, this require further statistical work in this regard.

4.1.4. Employment figures

Widesand and Sondermann (2005)176 have found that the creative sector is work-intensive and knowledge-intensive as it depends less than other sectors on capital or technology investments and more on creativity and knowledge that require talents and high-skilled workers. Therefore, it can create a high number of qualified jobs within a short period of time. Moreover, KEA et al. (2006)177 observed also that that creative sector is less suitable to off-shoring than other economic (especially manufacturing) sector. Their most recent pan-European statistics178 confirm the view that the creative sector is a powerful generator of employment. In 2004, a minimum of 4.714 million people worked in the creative sector in EU 25, equivalent to 2.5% of the active employed population179. In the same year, 46.8% of workers in the creative sector for EU25 had at least a university degree (against the figure of 25.7% in total employment). Moreover, the share of independent workers was more than twice as high in the cultural sector than that of total employment in EU 25. However, the share of freelance employment is higher then in total employment.

175 Ref. KEA, Media Group (Turku School of Economics) and MKW Wirtschaftsforschung GmbH, 2006, Study for the EU Commission, The economy of culture in Europe, Brussels 2006 p.70
177 Ref. KEA, Media Group (Turku School of Economics) and MKW Wirtschaftsforschung GmbH, 2006, Study for the EU Commission, The economy of culture in Europe, Brussels 2006, p.144
178 Ref. KEA, Media Group (Turku School of Economics) and MKW Wirtschaftsforschung GmbH, 2006, Study for the EU Commission, The economy of culture in Europe, Brussels 2006, p.73; note that the statistics refer to the EU25 member states.
179 It is important to note also that the distribution by gender and age differs little between cultural employment and total employment.
employment and this reflects the significant presence of SMEs in production clusters and their need for flexibility.

As far as regards the evolution of employment figures Widesand and Sondermann (2005) pointed to a steady increase of cultural employment in Europe during the 1990s, with an average growth of employed persons by 3% and 5% per year between 1995 and 2000. In the following years, especially after 2002, the economic slowdown in Europe has affected the total employment negatively. Even so, the creative sector has not experienced a decrease but a slight increase in employment. The following tables give a better insight into the evolution of employment figures for the creative sector in relation to the total employment of the whole EU 25 during the period 2002-2004. These figures show that the cultural sector has maintained the created employment (2.5% share of total employment) and has shown a growth of 0.88% in a time of negative figures for the total employment in the whole EU25 economy (- 0.04%).

Table 6: Cultural employment in the EU25

<table>
<thead>
<tr>
<th>Year</th>
<th>Cultural employment (in millions)</th>
<th>Cultural employment (in % of total employment)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2002</td>
<td>4.673</td>
<td>2.5%</td>
</tr>
<tr>
<td>2003</td>
<td>4.649</td>
<td>2.5%</td>
</tr>
<tr>
<td>2004</td>
<td>4.714</td>
<td>2.5%</td>
</tr>
</tbody>
</table>

Table 7: Evolution of Cultural employment in the EU25 from 2002 to 2004

<table>
<thead>
<tr>
<th></th>
<th>Evolution 2002-2004</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cultural employment</td>
<td>+ 0.88%</td>
</tr>
<tr>
<td>Total employment</td>
<td>- 0.04%</td>
</tr>
</tbody>
</table>

Source for both tables: KEA et al. (2006) p. 79.

4.2. The Creative sector is increasingly intangibles-intensive

Chapter 1 has explored the central role played by knowledge and creativity within the knowledge economy. Yusuf has been referred to for having defined the relation of creativity and innovation. Accordingly, creativity applied to knowledge are the source of initial inventions to be developed in innovation. This is consistent with the view that in the creative sector innovation and creativity are at the basis of competitiveness. As regards, KEA et al. (2006) have assessed the level of investment in knowledge and creativity in the European creative sector, by using as proxy the ratio between the investments in intangible assets and the turnover of the firms in the sector.

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181 See section 2.2.
182 See section 2.1.
183 This section refers to: Ref. KEA, Media Group (Turku School of Economics) and MKW Wirtschaftsforschung GmbH, 2006, Study for the EU Commission, The economy of culture in Europe, Brussels 2006, p.108-110.
184 Intangible assets in a company’s balance sheet include copyrights, industrial property rights and goodwill. All these elements are part of the fixed assets of a company that include the costs of acquiring an asset and an expectation of future income. The value of intangible assets indicates, on an industry level, the contribution of a firm’s intellectual capital to its (expected) economic development and success.
As regards this ratio, the report pointed to a recent study of the Finnish nonquoted ICT companies which showed a strong correlation between intangibles/turnover ratio and company growth. Considering this, the average intangibles/turnover ratio for the EU30 in 2003 was 4%. For a comparative view, in the same year, the average ratio for the high-growth Finnish ICT sector was of 4.8%. The table below reports the evolution of the considered ratio within the European creative sector during the period 1999-2003. Data are shown on a country-by-country basis.

In the period of observation, the intangible assets/turnover ratio for the creative sector has been generally stable (or with slight oscillations) in the European countries. There have been two exceptions: the first, Denmark, has experienced a positive evolution; the second, the Netherlands, has had a diminution on the intangible assets/turnover ratio - which remains, however, higher than the European average.

Table 8: Intangible assets/turnover ratio within the creative sector (1993-2003) per member state

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Austria</td>
<td>0.2%</td>
<td>0.1%</td>
<td>5.1%</td>
<td>5.0%</td>
<td>2.5%</td>
</tr>
<tr>
<td>Belgium</td>
<td>1.4%</td>
<td>3.5%</td>
<td>3.0%</td>
<td>2.6%</td>
<td>2.3%</td>
</tr>
<tr>
<td>Cyprus</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Czech Republic</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>0.0%</td>
<td>12.4%</td>
</tr>
<tr>
<td>Denmark</td>
<td>3.0%</td>
<td>8.9%</td>
<td>9.7%</td>
<td>10.7%</td>
<td>7.9%</td>
</tr>
<tr>
<td>Estonia</td>
<td>1.5%</td>
<td>3.2%</td>
<td>2.5%</td>
<td>1.4%</td>
<td>1.4%</td>
</tr>
<tr>
<td>Finland</td>
<td>2.7%</td>
<td>2.4%</td>
<td>2.3%</td>
<td>2.6%</td>
<td>4.7%</td>
</tr>
<tr>
<td>France</td>
<td>4.1%</td>
<td>4.2%</td>
<td>4.7%</td>
<td>4.5%</td>
<td>4.2%</td>
</tr>
<tr>
<td>Germany</td>
<td>N/A</td>
<td>2.5%</td>
<td>2.5%</td>
<td>1.2%</td>
<td>1.1%</td>
</tr>
<tr>
<td>Greece</td>
<td>1.7%</td>
<td>3.0%</td>
<td>2.8%</td>
<td>2.2%</td>
<td>2.5%</td>
</tr>
<tr>
<td>Hungary</td>
<td>0.6%</td>
<td>1.9%</td>
<td>1.8%</td>
<td>1.3%</td>
<td>1.9%</td>
</tr>
<tr>
<td>Ireland</td>
<td>11.1%</td>
<td>13.9%</td>
<td>11.4%</td>
<td>11.5%</td>
<td>12.3%</td>
</tr>
<tr>
<td>Italy</td>
<td>3.2%</td>
<td>3.6%</td>
<td>4.0%</td>
<td>3.4%</td>
<td>3.8%</td>
</tr>
<tr>
<td>Latvia</td>
<td>0.8%</td>
<td>0.7%</td>
<td>0.7%</td>
<td>0.7%</td>
<td>0.8%</td>
</tr>
<tr>
<td>Lithuania</td>
<td>11.3%</td>
<td>11.2%</td>
<td>11.0%</td>
<td>11.2%</td>
<td>11.9%</td>
</tr>
<tr>
<td>Luxembourg</td>
<td>0.0%</td>
<td>0.5%</td>
<td>0.0%</td>
<td>1.1%</td>
<td>0.8%</td>
</tr>
<tr>
<td>Malta</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Netherlands</td>
<td>15.2%</td>
<td>7.6%</td>
<td>12.7%</td>
<td>11.4%</td>
<td>6.0%</td>
</tr>
<tr>
<td>Poland</td>
<td>0.7%</td>
<td>N/A</td>
<td>N/A</td>
<td>0.8%</td>
<td>1.2%</td>
</tr>
<tr>
<td>Portugal</td>
<td>1.0%</td>
<td>1.1%</td>
<td>1.5%</td>
<td>1.8%</td>
<td>1.5%</td>
</tr>
<tr>
<td>Slovakia</td>
<td>0.5%</td>
<td>0.5%</td>
<td>0.3%</td>
<td>0.3%</td>
<td>0.3%</td>
</tr>
<tr>
<td>Slovenia</td>
<td>1.7%</td>
<td>1.5%</td>
<td>4.6%</td>
<td>2.3%</td>
<td>0.7%</td>
</tr>
<tr>
<td>Spain</td>
<td>3.2%</td>
<td>4.0%</td>
<td>3.5%</td>
<td>3.2%</td>
<td>2.9%</td>
</tr>
<tr>
<td>Sweden</td>
<td>5.6%</td>
<td>5.3%</td>
<td>6.0%</td>
<td>4.9%</td>
<td>4.4%</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>6.3%</td>
<td>11.1%</td>
<td>11.8%</td>
<td>9.0%</td>
<td>8.4%</td>
</tr>
<tr>
<td>Bulgaria</td>
<td>1.3%</td>
<td>3.9%</td>
<td>1.6%</td>
<td>1.5%</td>
<td>1.3%</td>
</tr>
<tr>
<td>Romania</td>
<td>0.6%</td>
<td>0.6%</td>
<td>0.7%</td>
<td>0.9%</td>
<td>1.2%</td>
</tr>
<tr>
<td>Norway</td>
<td>5.6%</td>
<td>4.4%</td>
<td>5.1%</td>
<td>5.0%</td>
<td>4.9%</td>
</tr>
<tr>
<td>Iceland</td>
<td>4.2%</td>
<td>4.3%</td>
<td>2.4%</td>
<td>4.2%</td>
<td>4.2%</td>
</tr>
<tr>
<td>Total EU25</td>
<td>3.6%</td>
<td>4.3%</td>
<td>4.9%</td>
<td>4.0%</td>
<td>4.2%</td>
</tr>
<tr>
<td>Total 30 countries</td>
<td>3.5%</td>
<td>4.2%</td>
<td>4.5%</td>
<td>3.9%</td>
<td>4.0%</td>
</tr>
</tbody>
</table>


The level of intangibles is particularly impressive in some countries. In fact, the highest values for the intangible/turnover ratio were found in Lithuania, the Czech Republic and Ireland. In these countries the investments in intangible assets exceeded 10% of the turnover of the sector. The
two other remarkable countries are Denmark and the UK who also have very high rates for investment in intangibles (KEA et al. 2006). All in all, the author would underline that the considered ratio is oscillating (only in excess) around 4% for EU30 over the period of reference. This may be indicative that the European sector is intangibles-intensive (as this is not far from that of the high-growth Finnish ICT sector (4.8%), which is a success story instead). This is significant as it shows strong correlation with growth prospects of the sector.

### 4.3. The uptake of ICT sector depends on the Creative sector

A recent OECD study (2005) defines the ICT sector as including “those industries which facilitate, by electronic means, the processing, transmission and display of information”. Complementary to the ICT sector are those industries which create the information, the so-called “content” industries. This complementarity is due to the fact that the development of the ICT sector significantly depends on the provision of quality and diverse “content”. Such content is not only cultural but also related to business information, government services, etc. However, the rising demand for digital cultural content explains why the creative sector may be central to the uptake of the ICT sector.

As the ICT Task Force report on the ICT uptake (2006) states “Content is a basic part of converging services (e.g personal HDTV). A policy should be promoted that contributes to its development in Europe [...]. Distribution models in Europe are not taking full advantage of the possibilities of the digital world (e.g.: windows). There are barriers to innovative distribution models (e.g. podcast) and the role of home gateways. The wide availability of digital quality content is one the key drivers for consumers to embrace new technologies.” In fact, the availability of digital cultural content would play two important functions: a) it would favour the “ICT literacy” in Europe (i.e. the adoption of ICTs by European citizens) by providing content for digital devices and networks; and b) in turn, it would foster innovation in the ICT sector as devices manufacturers and networks face the challenge of increasing the efficiency and originality in integrating content into new value-added services. For instance, the iPod is a radically innovative, original and efficient new device, and it has developed and been successfully marketed also thanks to the rising availability of web music and video downloads. Moreover, the iTunes downloads web-centres that have been developed successively are a corresponding innovation that integrates audio-visual content into a new online service providing downloads for a device-based final use. Thus, the rise of digital content - particularly in the cultural domain - has been essential for the uptake of the ICT sector.
content availability is giving incentives: a) for final users to adopt the practice of web downloads for all type of devices that process them (PC, iPod etc.) thus favouring ICT literacy; and b) for ICT producers to ameliorate those devices that allow the same and/or new uses of digital content. Therefore, the ICT and content sectors are interdependent, that is, they create significant opportunities for each other. According to KEA et al.(2006) both sectors’ growth is strictly interrelated as “two faces of the same coin”. As regards the former sector, its future development and growth depends on the availability of innovative and diversified content. On the other side of the coin, the key driver of change for the creative sector is the development of digital technologies and the corresponding digital shift of the sector. The final remark would be that Europe has to face important competitors in Asia or North America and with a lack of competitiveness in the music, film, video, TV and game industry in Europe, the ICT sector would be the hostage of content providers established abroad.192

4.4. The adaptation to the “big three” would unleash further growth

In a “big three” context, Anderson (2006) has described the “long tail” as the impact of ICT and digital technologies allowing for the decentralization of distribution of contents such as music, films, books etc. This is giving smaller players the possibility to compete with dominant players via the use of digital online rather than physical distribution infrastructures. As result, the internet would create a market that is not a hit-driven one, that satisfies demand for a bigger variety of offerings, which gives room to niches and specialist products whose consumption is small, but if aggregated would have a rather bigger weight in economic terms than that of the hit-driven market. To provide an example, a recent study by the UK Film Council (2006) has remarked the evidence that online DVD rentals resulted in a higher demand (up to 8% online transactions) for niche productions that do not succeed in both the retail and video rental market.

According to the long tail, the internet may well become the international distribution channel. This would allow overcoming important distribution problems of European works abroad such as, for instance, in the cinema industry. As regards, European film distributors control less than 30% of the EU market which sees the dominance by a few US international giants. Correspondingly, this explains also the market access problem suffered by EU cinema productions, in the huge US market.195 196

In such a dynamism, with the “big three” that are offering new opportunities as well as creating new challenges for the creative sector, current business models and industry organization are under pressure to a different extent in the creative industries. New markets’ profitability will be reaped more by those firms who will adapt most quickly. This will depend, in part on the firms’

195 Their European cinema market share in US is less than 5%; Ref. The Creative Sector - An engine for diversity, growth and jobs in Europe, a paper for the European Cultural Foundation, By Andreas Wiesand in co-operation with Michael Söndermann1, September 2005, p. 11.
196 In the US many European masterpieces are only projected in independent cinema screens. E.g. the French masterpiece film “The Triplettes of Belleville”, nominated to the Oscar for the best animation film in 2004 was projected on only six screens in the US.
own flexibility, and in part on the adaptability of the public institutional architecture that affects their general economic environment (and that can thus affect the creative firms’ flexibility itself).^{197}

### 4.5. A recap in a Lisbon Strategy perspective

Herby, the above arguments will be recapped and related to the Lisbon Agenda whose key economic areas of political action are the following: competitiveness in the knowledge economy for growth, jobs generation, Europe’s attractiveness for investments and workers.\(^{198}\)

The innovation-based production that features the knowledge economy (see Chapter 1) is based on non-price competitiveness, i.e. outputs’ quality and innovation. The creative sector can be an important source of non price-competitiveness in respect to the Lisbon Agenda. First, the quality of products in many sectors of the economy (e.g. in car manufacturing) is increasingly based on aesthetic and symbolic values incorporated in the outputs (e.g. the different design of cars and the corresponding symbolic values of attached to specific designs). The creative sector produces innovations that spring from the creative application of knowledge and thus provides crucial quality and innovative inputs to goods productions and services in other sectors of the economy (e.g. car manufacturing, as above). This is consistent with the role of creativity in leading to innovation as presented above in this work. Second, as seen above, boosting the creative sector may contribute significantly to the ICT sector’s uptake in Europe. The latter sector plays a key economic role in the knowledge economy and therefore it figures as a key area in the Lisbon agenda.\(^{200}\) This is why growing the creative sector would allow developing the ICT sector’s lead in Europe and increase its competitiveness in the knowledge economy. Third, the creative sector is intangible-intensive and this means that it has a main source of value in the investments on creativity and knowledge that are central in the knowledge economy.

As far as regards the Lisbon goal of growth, the above sections have provided statistics that clearly point to the recent growth of the creative sector. The prospects for potentials growth are also shown by their strong correlation between the sector’s intangible-intensiveness and future growth. This also reflects the potential that may be unleashed by adapting and responding to the “three big” driven opportunities and pressures.

The successive goal is that of assuring Europe with “more and better jobs”. In this regard, statistics have provided evidence that the creative sector is a powerful generator of employment. Moreover, it is also featured by the need for high-skilled and talents thus creating qualified jobs.

Last, a final key area of political action in the Lisbon agenda is that of “making Europe a more attractive place to invest and work”. This is therefore about location advantages and it has a global perspective. In general, the above arguments do touch upon this only indirectly, since a competitive ICT sector feed by a competitive creative sector would favour attraction of foreign investments and talented workers. In this regard there may be the view\(^{201}\) that creative sector plays an important role in providing the “soft” location advantage of varied and qualified cultural offerings. In the author’s opinion, the soft location advantage of developed cultural offerings should be taken into account, but as relatively less important than the arguments considered above. In fact,

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\(^{199}\) Where creativity is basically artistic; in these the author refers to Yusuf’s approach presented in Chapter 1.


\(^{201}\) See Denmark’s Creative Potential, Danish Ministry of Trade and Industry, 2001, pp.95-107.
as far as regards investments location factors other than soft location factors have usually an higher weight in the investment location decision. In addition, as far as regards workers, this advantage may always be sensitive as having more a personal judgement dimension. In this regard, the quality-of-life index by the Economist Intelligence Unit(2005)\textsuperscript{202} includes the factor of community and social life (and cultural offering can be considered related to this factor). Nonetheless, according to the Economist’s surveys\textsuperscript{203} to well-to-do, English speaking and globalized people, other factors have a higher weight in quality of life (i.e. respectively in order: Political freedom and security, Health, Family relations, Job security, Material wellbeing, Gender equality).

## 4.6. Limitations and remarks

There seem to be, to date, several arguments \textit{in favour} of a creative-policy making in Europe, and these relate to a high extent to the \textit{Lisbon Agenda} (as shown in section 4.5. of chapter 2). The \textit{latter two} arguments relative to the interdependence between ICT and creative sector, and to the need to address a response to the “big three” are relevant to the boosting of the ICT sector – the flagship sector of the Lisbon Agenda. However as far as regards the first two quantitative arguments the author has pointed out above the need for more precise and sound evidence collection. The following sections will specify the current limitations on evidence collection.

### 4.6.1. The creative sector’s statistical mapping needs to be improved

The historical perspective in Section 1 has shown that changes in cultural policy-focus have been a consequences of \textit{socio-economic} changes calling the cultural policy-maker for responses. Thus, waves of liberalizations and marketization of the telecommunications and media over the 1990s (that were not cultural policies) have produced industrial changes affecting culture itself. These made the \textit{economic value} of culture raise and thus attracted political attention not only in cultural spheres. Afterwards, the three big have emerged as strong forces driving changes in the creative industries. These have emerged due to the rapid pace of technological progress in ICT as common denominator\textsuperscript{204}, and this is again a factor \textit{external} to cultural policies. The “three big” have pointed to the interrelations between creative industries (and between many of these and the ICT sector). \textit{In turn}, in several European countries the policy-makers started having a strong interest in the creative industries.

Thereby, \textit{statistical mapping} of the creative industries started to be undertaken only in \textit{recent} times as the serious policy interest on them is recent. As result, statistic tools’ \textit{precision} still needs to be significantly improved. In fact, there is a serious \textit{gap} between the emerged \textit{definition} of the creative sector (as a set of industries) and the statistical \textit{census categories} currently in use.\textsuperscript{205} That is, the emerged focus on the creative sector as a set of industries is not caught by the ISIC and the NACE systems and these are currently under revision in this aspect (as seen in Section 4.1.2) Thus, the focus on creative industries as a whole sector should be cautious when data and values are collected. By seeking to map the whole sector there is a risk for significantly over/under-estimating it just because its definition includes many industries but the statistical census categories have not

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\textsuperscript{203} Ref. The Economist, The world in 2005 - The Economist Intelligence Unit’s quality-of-life index, 2006 p.3.

\textsuperscript{204} i.e. Globalization, Digitization, and Convergence have all emerged and/or been accelerated by the ICT revolution.

\textsuperscript{205} This gap has been addressed by the CEP, and it will be better treated in Chapter 3.
yet been adapted to such definition (and thus error margin in several industries may cumulate with a relevant magnitude).

In this regard, the author would refer to a recent comparative study which leads to high figures for the creative sector. That is, the statistical estimation by Geppert and Söndermann\textsuperscript{206} of aggregate figures at the EU 25-level, for year 2002, to compare the creative sector\textsuperscript{207} with other European manufacturing sectors\textsuperscript{208}. They detected figures pointing out that the creative sector performs very well in comparison to these sectors. This can be observed in the following table.

<table>
<thead>
<tr>
<th>Table 9: Creative industries compared with selected traditional manufacturing industries in EU25</th>
</tr>
</thead>
<tbody>
<tr>
<td>Turnover EUR mill</td>
</tr>
<tr>
<td>-------------------</td>
</tr>
<tr>
<td>NACE 34</td>
</tr>
<tr>
<td>NACE 24</td>
</tr>
<tr>
<td>NACE XX</td>
</tr>
<tr>
<td>NACE 40</td>
</tr>
<tr>
<td>NACE 29</td>
</tr>
</tbody>
</table>

\textit{Details:} (XX) Creative industries classification comprises NACE-Codes: 22.1, 22.3, 72, 74 2+3, 74.4, 74.8 with estimates of Software/PC-Games (72.2), architecture/industrial design (74 201-03) without engineering design, advertising (74.4), design activities (74.87) and branches of cultural industries (92.1-5). (a) Value added at factor cost. (b) Persons employed incl. self-employed and independents. (c) Data to number of enterprises 2001. Source: Eurostat, Structural Business Statistics (SBS) 2002; own calculations and estimates M. Söndermann/Working group on cultural statistics.

In order to point to the fact that collection in data on the creative sector should be cautious, the author invites to observe the note on \textit{"details"} provided by Geppert and Söndermann in the above table. While for the selected manufacturing sectors there is a correspondent NACE code, for creative industries there is not (therefore it figures as XX). Instead, the sum of several codes have to be used, plus estimated parts of codes. This estimation is due to the fact that some codes include also other activities external to the creative industries that should be excluded\textsuperscript{209}. The NACE codes, thus, do not reflect precisely each creative industry and this affects all related measures. Therefore, these figures catch the important contribution of the sector but with an error margin.


\textsuperscript{207} This is inclusive of all creative industries in a narrow sense like in the KEA et al. and the DCMS definitions.

\textsuperscript{208} They selected manufacturing sectors that are generally acknowledged to create high turnover, value added and employment figures and firms population.

\textsuperscript{209} Therefore only a estimated percentage of the code is taken.
4.6.2. How this affects to the above quantitative arguments

The census gap envisaged affects the quantification of the present contribution to the economy by the creative sector, and thus the measure of its intangible investment-intensivity. Below, the author will investigate to what extent this may affect the reliability of the above statistics as indicative of the reality. By comparing, for instance, the employment statistics by Geppert and Söndermann (table 9 above) with those collected by KEA et al. (table 6, in Section 4.1.4.) the author would make the following remark. In Geppert and Söndermann cultural employment for EU 25 in 2002 is much higher than that detected by KEA et al. for EU 25 in the same year (i.e. 6.420 against 4.649 millions jobs) even if their definition of the sector is similar. This is because the evidence collection has been improved by Kea et al. which have used complementary data sources and in turn their data is considerably more precise. However, the census gap problem is still current and margin of error is unavoidable, thus more precise collection of data is needed.

This may be sensed also by looking at section 4.1.2 which refers to the comparative analysis of the creative sector with other economic sectors in Europe by KEA et al. (2006). This points out that the creative sector performs well when compared to the economic contribution of other important sectors (e.g. chemicals, computer and related activities) in the EU30 countries for 2003. Kea et al. underlined that their statistics under-estimate the actual contribution of the creative sector to the economy in Europe. This would be because their use of several databases to fill statistical gaps in the Eurostat database did leave many gaps still. They finally stressed that the assessment of such statistical underestimation would be only possible with the development of adapted statistical tools (i.e. census structure). However, the author would underline that it may be possible that also the estimations (of census codes percentages) by KEA et al. (due to the current gap in census categories) could have affected the precision of their figures collected in excess or defect. Thus, this may increase the underestimation or rather offset it. Again, the lack of adapted tools does not allow to assess this. Therefore, this evidence can be still used as indicative of the economic significance of the creative sector to date, but it must be considered with caution as it needs further and more precise evidence to confirm the so far available statistics on the creative sector.

4.6.3. Conclusive point

As far as regards the present, the available statistics point to the creative sector’s economic significance in Europe in terms of turnover, value added figures, significant growth in recent time, and generated employment even over a general economic slowdown. In the author’s opinion these are indicative figures but further more sound evidence is needed in this regard. Regarding the future, the creative sector is expected to further grow in European countries, and this is reflected in its intangibles-intensivity which is correlated with future expected growth. In addition, its growth would favour the ICTs growth, which is a key sector in the knowledge economy. Moreover, public institutions’ adaptation and response to the “three big” to foster creative firms’ adaptation would unleash higher growth. Therefore, it can be sensed that the creative sector could play an important

210 For these two quantitative arguments this work has referred mainly to the mapping by KEA et al.(2006) which is the most accurate mapping of the creative sector at European level so far. For details on their statistical matrix, see Annex 2 of this work.
211 Eurostat, Amadeus, United Nations, and The European Audiovisual Observatory databases
212 Ref. KEA, Media Group (Turku School of Economics) and MKW Wirtschaftsforschung GmbH, 2006, Study for the EU Commission, The economy of culture in Europe, Brussels 2006, p.64.
role within the knowledge-economy in Europe but this is much about prospects and depends on the adaptation to the big three fostered by the state itself.

To date, the census gap situation calls for more precise and sound statistical evidence collection to provide clear mapping of a creative-sector policy making in Europe. However, even in absence of precise statistical tools, the above arguments and the interest for policy-makers to understand how to maintain growth and employment in the knowledge economy explain why several governments in Europe (as well as the EU Commission) are increasingly looking with interest at their respective creative sector. To remedy the mapping imprecision and provide better statistical tools, national statistics institutes must be assigned this task, and this is true at the EU supranational level as well. The following chapter will deal with the CEP in the UK and will show, inter alia, the CEP’s results regarding the improvement of the creative sector’s mapping.
CHAPTER III

The case of the UK’s Creative Economy Programme: a cross-cutting policy-making

Chapter 2 was concerned about the emerging creative sector policy-focus which looks at the creative sector as a potential key player in the knowledge economy. This chapter will explore the role of government and the policy-making approach to boost the creative sector in this view. The focus will be a case study on the “cross-cutting” policy-making approach developed by the Creative Economy Programme (CEP) in the United Kingdom. This has been the first country in Europe to engage in a creative sector policy. The author will analyze the CEP’s main outputs in terms on how government can approach the creative sector policy-making, the tools for policy-formulation, and the recommendations developed by this approach. These will be discussed in light of the above Chapter 1 literature in order to better understand the CEP results, and to realize whether some lessons can be drawn from the CEP experience.

Contents:

1. THE ROLE AND THE OBJECTIVE OF THE CEP

2. THE FOCUS ON APPROACH, TOOLS FOR POLICY-FORMULATION AND FINAL RECOMMENDATIONS

3. EVIDENCE COLLECTION IN POLICY PERSPECTIVE
   3.1. The problem about the statistical census categories
   3.2. The Supply Chain-based Approach
   3.3. How the Five Layers Framework uses the SIC census 5-digits level
   3.4. Important remarks

4. APPROACH FOR EVIDENCE ANALYSIS IN POLICY-PERSPECTIVE
   4.1. Grouping the creative industries for sensible policy-making;
   4.2. A generic supply chain of the creative industries
   4.3. Important remarks

5. APPROACH IN PROVIDING POLICY RECOMMENDATIONS
   5.1. Linking all recommendations to a general framework
   5.1.1 The Creative Grid
1. The role and the objective of the CEP

Since the end of the 1990s the UK has increasingly focused on the economic value of its creative sector. The shortage of empirical mapping of the sector at that time led to the institution of the “Creative Task Force” and thereby the production of the “Creative Mapping Document” in two editions. Given the rising economic importance of the UK’s creative sector, the government have therefore individuated for the UK the objective of becoming a world leader in the creative sector. In, 2005, the Creative Economy Programme (CEP) has therefore been set up to play a central role in helping achieve this. The objective of the CEP has been to develop a policy-making approach for fostering growth of the creative industries.

The Department of Culture Media and Sport (DCMS) has been attributed the leadership of the CEP in strict collaboration with the Department of Trade and Industry (DTI)213. The CEP has conducted studies and commissioned several projects in order to build up an evidence base and frameworks for its analysis instrumental to policy-making, and to develop policy-recommendations. Throughout this work, the CEP has involved several interested Non Departmental Public Bodies214, the Office for National Statistics, and it has open a interactive and collaborative dialogue with executives and stakeholders in the creative sector. The CEP has focused on looking at evidence to discern a better understanding of the creative sector. At the start of this year 2008 the CEP’s work has culminated in a document of commitments. With this document the government has engaged to follow the CEP’s recommendations that will be developed in concrete actions to implement in the years ahead.

2. The focus on approach, tools for policy-formulation and final recommendations

Chapter 1 has sought to provide a basic understanding about the features of the knowledge economy, of the creative sector, and the policy-maker’s role in the knowledge economy. The latter has been as an interventionist role rather than a “laissez-faire”. As shown in Chapter 2, the rationale that creative industries can play a key economic role within the knowledge economy it is related to the sector’s opportunities and innovation potential in a “big three” dynamism. Thereby, this touches upon considerations of industry and innovation policies and not only cultural policy. In turn, the features of the knowledge economy as well as the particularities of the creative sector have to be considered when dealing with the government’s role in regard to the creative sectors policies.

As delineated in Chapter 1, the creative sector is facing high uncertainty due to the unpredictability of its outputs’ success; it is continuously innovating - given the short life cycle of its products; and featured by local clustering and a high share of small (and undercapitalized) flexible firms. These particularities thus may ask for specific support and intervention. The CEP has to a certain extent addressed some recommendations for intervention relative to several features of the creative sector. It would be interesting to analyze the CEP in order to provide a case study relative to how the government can approach a creative sector policy-making and in what areas the state should act in this regard.

The aim of the up-coming sections will be to provide a structured view of the whole approach to policy-formulation developed within the CEP. The author does not intend to reproduce the magnitude of data and tables developed by the CEP. His aim is to highlight in what consists the

213 In June 2007 the DTI has been reformed with the constitution of the Department for Business Enterprise and Regulatory Reform (BERR); http://www.berr.gov.uk/about/about-berr/history/index.html.
214 such as the UK Film Council, National Endowment for Science, Technology and the Art (NESTA), and the Design Council.
approach to policy-making developed by the CEP in terms of: a) improving the collection of evidence to better capture the reality of the creative sector within the knowledge economy; and b) approaching the analysis of evidence on the creative sector from a policy perspective; c) creating a general framework for policy-recommendations; and d) the resulted recommendations by the CEP to which the UK government has recently committed. These areas will be analysed in light of Chapter 1’s literature. The author will refer in particular to Yusuf’s view of the innovation production, and the “spatialized production of culture” perspective. As underlined in Chapter 1, the first embodies a structured knowledge economy perspective. And, the second perspective considers all stages of the “production of culture” and it is therefore compatible with Yusuf’s view of creativity and innovation. This can allow understanding the underlying concepts of the CEP’s outputs. In turn, some lessons may be drawn about the approaches, frameworks, and recommendations produced by the CEP to boost the UK creative sector.

3. Evidence Collection in policy perspective

The first step undertaken by the CEP is the starting point necessary to formulate policies, that is, a consistent evidence base. In fact, with the DCMS second mapping document in 2001 policy-makers had been provided a basic understanding of the UK’s creative industries. However, when the CEP started, a more detailed understanding of these industries it was seen as an important and necessary leap forward. This task has been attributed to the CEP’s Evidence and Analysis Working Group. This has reviewed and planned how the evidence offering could be ameliorated. Thus a new approach in evidence collection has been developed. Below, the problem faced will be envisaged first, to pass then to the new methodological approach resulted from the consultation of Frontier Economics.

3.1. The problem about the statistical census categories

The methodological problem faced by the Group regarded the representation of the 13 creative industries that are included by DCMS (1998) within the creative sector and thus recipient of its policies. These are the following: advertising, architecture, the arts and antique market, crafts, design, designer fashion, film and video, interactive leisure software, music, performing arts, publishing, software and computer services, radio and television. The DCMS definition includes creation, production, distribution, activities. Such a definition is thus consistent with the “spatialized production of culture”, as presented in chapter 1, since it considers all activities involved in the whole process of production until the commercialization to the final user.

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216 This section is derived by Ref. CEP Evidence and Analysis Unit, Evidence Publication, DCMS, London, 2007. This publication includes within it a number of studies and reports. These will be referred to in footnotes at the relevant place below.
The CEP Evidence and Analysis Working Group Report (2007)\textsuperscript{219} remarked that it was difficult to capture the \textit{full extent} of these activities for the creative sector with the initial approach used by DCMS in the Creative Mapping Documents. This is because the \textit{census categories} of economic activities provided by the UK Office for National Statistics do \textit{not} accurately \textit{match} the definition of the creative sector. The DCMS approach was using data at the 4-digit SIC code level, i.e. the UK Standard Industrial Classification\textsuperscript{220} which categorizes all businesses by type of economic activity in which they are engaged – reflecting the NACE system (EUROSTAT).\textsuperscript{221} Frontier Economics (2007)\textsuperscript{222} underlined that several industries were not precisely captured by the 4-digit level. In fact, relative to each industry, one or several classes of activities (at the 4-digit level) had to be taken. However, in some industries these classes included also other activities falling outside the scope of the industry definition. Thus, these activities were excluded by taking only a \textit{percentage} of the relevant SIC code(s) and not the whole code(s).\textsuperscript{223} However, these percentages were \textit{estimated} and this did not allow to detect the activities of any of these creative industries with precision. Moreover, some industries were detected in the same category and could not be \textit{separated} such as software and leisure software. Last, two of them were \textit{not detected} at all (i.e. Design, Crafts). Disaggregated 5-digits data in the UK census system was available but a corresponding approach in collecting evidence relative to the creative sector did not exist. Thus, Frontier developed it suitably to the 5-digits level by paying attention to whether the approach would be sound, acknowledged as representative by stakeholders in the sector, and consistent with the previous definition of the 13 creative industries.\textsuperscript{224}

\subsection*{3.2. The Supply Chain-based Approach}

The new approach in collecting evidence has been provided by developing a generic \textit{supply chain framework} which separates each industry in \textit{five layers} (and uses more detailed codes at the 5-digit level). Those layers incorporate activities of different successive stages in an industry’s supply chain. Layer 1 contains the most creative activities, while layer 5 the least creative. The five layers framework follows below as presented by Frontier in its original work.

\begin{boxed}{The Five Layers Framework}

\end{boxed}

\textsuperscript{220} With 4-digits level, for each aggregate branch of activities there are three progressive sub-groupings, providing more detailed classes of economic activity.
\textsuperscript{221} See Annex 3 for details.
Thus, by using this approach a generic supply chain for the creative sector has been developed as in the following figure. This approach has pointed to a given set of layer one activities which drive each Creative Industry.

**Figure 1: A generic supply chain for the creative industries**

- **Layer one** broadly represents those activities which lie at the top of each supply chain. These include activities such as composition for the Music industry, programming for the Computer Games industry and writing for the Publishing industry. Layer one arguably describes the creative root of each Creative Industry.

- **Layer two** of any Creative Industry broadly represents those activities which directly support layer one activities in the supply chain. In many cases these are the activities which translate the creative activity into a marketable product. This includes activities such as publishing for the Publishing industry, casting for the Performing Arts and computer related work for the Software and Computer Games industries.

- **Layer three** of a Creative Industry includes those activities which support layer one and layer two activities described above. In many cases this includes the manufacture of the hardware which directly supports layer one – for example, the manufacture of television cameras and other hardware directly used in creating television programmes. In addition, it includes the next stage in the production process from layer two activities - for example, this would include book binding for the Publishing industry and the reproduction of software for the Software and Computer Games industry.

- **Layer four** of a Creative Industry represents those activities which support the layers two and three. In general this includes the manufacture and wholesale of raw materials such as printing ink and pulp for the publishing industry. It also includes the sales of hardware that is used in Creative Industry productions such as televisions for the television industry and arcade machines for the Computer Games industry.

- **Layer five** represents the least Creative activities of any Creative Industry. In many cases layer five activities include the retail of creative products to the final consumer and of complementary products such as the sale of DVD players for the music industry, and games consoles for the Computer Games industry.


Some remarks

Hereby, the author finds important to underline that the whole approach appears consistent with Yusuf’s approach in explaining innovation from creativity. In chapter 1, this view has been remarked as incorporating the main features of the knowledge economy, and thus it can be useful as
reference to the role of creativity in innovation from a knowledge economy perspective (see Chapter 1, sections 2.2-2.3).
In fact, looking at the Five Layers Framework by using Yusuf’s approach would entail that artistic creativity produces new ideas leading to initial inventions and this would occur in fact in the first stage of the innovation-production (corresponding to layer 1 activities). This is why these drive the 13 DCMS creative industries’ innovativeness. Then, the following stages select new ideas to develop them into products (layer 2), and commercialize them (layer 5). According to Yusuf, the success in these stages is fundamental for the whole industry performance, while the core input to innovation is provided in the initial stage (layer 1).
In addition to being compatible to Yusuf’s perspective, the Five Layers Framework offers a supply chain view of the innovation process including backward and forward linkages as follows: a) backward and forward linkages of layer 1 (in layer 2 and 3) and 2 (in layer 3 and 1); b) the backward and forward linkages of layer 3 (in Layer 4); and c) the retail of creative products and the retail of complementary products (e.g. DVD player as device to watch a film in DVD) in layer 5.

3.3. How the Five Layers Framework uses the SIC census 5-digits level

The 4-digits SIC code level corresponds to the EUROSTAT “NACE” classification (see Annex 3). Thus the proposed new definition of the sector in 5-digits would not be inconsistent with it. The use of 5 digits is a more precise sub-grouping of the 4-digit levels in order to allow for higher detail in the classification of economic activities. This higher detail would permit collecting evidence by layers as in the above approach.225 An example is provided in the following table referring to Music and Performing Arts.226

<table>
<thead>
<tr>
<th>Layer</th>
<th>SIC code at 5-digit level</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Layer 1</td>
<td>92.31/1</td>
<td>Live theatrical presentation</td>
</tr>
<tr>
<td></td>
<td>92.31/9</td>
<td>Artistic and literary creation and interpretation</td>
</tr>
<tr>
<td>Layer 2</td>
<td>92.72/1</td>
<td>Casting for theatres, motion pictures or television</td>
</tr>
<tr>
<td></td>
<td>92.32</td>
<td>Theatres, concert halls, arts facilities and ticket agencies</td>
</tr>
<tr>
<td></td>
<td>22.14</td>
<td>Music publishing</td>
</tr>
<tr>
<td>Layer 3</td>
<td>92.34/9</td>
<td>&quot;Other entertainment activities&quot;</td>
</tr>
<tr>
<td></td>
<td>51.47/5</td>
<td>Wholesale of musical instruments</td>
</tr>
<tr>
<td></td>
<td>22.31</td>
<td>Reproduction of sound recording</td>
</tr>
<tr>
<td>Layer 4</td>
<td>51.43/1</td>
<td>Wholesale of records, CD's etc. and players</td>
</tr>
<tr>
<td>Layer 5</td>
<td>92.72/9</td>
<td>&quot;Other recreational activities&quot; code</td>
</tr>
</tbody>
</table>


These codes applied to the 5 layers framework allow for the following type of data collection data. The same industry has been taken in the figure below.

225 The presence of 5 digits and 5 layers does not mean that each digit corresponds to a layer. A 5 digit level only allows for a more precise sub-grouping of economic activities.
226 The 5 digits-codes definition of the other industries can be found in Annex 4 of this work.
This kind of approach in collecting evidence provides a more **disaggregated** detection of the supply chain for each industry. The author would underline that this five layers are **not included** in the statistic definition of each industry. As, for instance, suppliers of musical instruments and sale of audio equipments are excluded from the above industry. This only allow to better see what resources are used in the supply chain, and how products get to market.

The key **focus** of Frontier has been on allowing a greater detail via more disaggregated data, to then be able to give a more precise definition of each industry. With the 5 digit level applied in the 5 layers some activities (codes) that could not be detected by the 4-digits level have been included in the industry and others that were detected but are not part of it can be taken out of it. Also a higher detail has permitted Frontier even to detect the design industry that could not be detected with 4 digits-codes.

Frontier stressed that even with a 5 digit level the current census categories at the previous levels do not allow to separate some industries as in the above example for Music and Performing arts. Then again some estimations have to made to have separate data. However, in general the need to apply **percentages** has been **reduced** in most creative industries.

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227 *Alias matrix.*

228 *i.e. which codes are taken, and which are not taken. This is to say where is the boundary of the industry. Ref. Frontier Economics, Creative Industries Performance, a Statistical Analysis for DCMS, 2007, London, p.28*

229 *While with the 4 digit codes a percentage of the whole code had to be estimated to take a part out of the code.*

230 *However, in the case of design Frontier could detect only “engineering design for industry” and this is only a subset of all design activities. Ref. Frontier Economics, Creative Industries Performance, a Statistical Analysis for DCMS, 2007, London, p.32*

3.4. Important Remarks

The Five layer approach is to date being considered by the DCMS to revision its approach in collecting data on the creative sector. As the CEP Evidence Publication (2007)\(^{232}\) pointed out, using a supply chain approach permits the policy-maker to have a more precise and transparent understandings of what are the *most creative* activities of an industry. Moreover, such approach allows individuating: a) which parts of the supply chain are *most valuable*; b) *how* products get to the *market*; c) the *types* of *resources* used; and d) the *structure* of the industry. Last, such approach stimulates thinking about where the *boundaries* of the creative industries are, where they *move* due the sector’s current dynamism, and how they *interact* with other sectors of the economy. Thus, the framework is in the author’s view, suited to monitor the changes due to the digitization and convergence. In turn, this would favour a policy-making sensible to these changes in the creative industries supply chains (as it will be seen below).

The author would specify that *not all* the creative industries have the five layers as their *structure* is *different*.\(^{233}\) However, this entails also that the Five layers framework allows a better understanding of the similarities and differences across the creative industries with data backing.

Last, the 5 digits-level is applied by the UK without changing the 4 digits-level which reflects the European system NACE. Therefore, this can be possibly emulated. Probably, the classification in 5 digits will have to be *adapted* in future as the ISIC and the NACE are currently under *revision*. As shown in chapter 2 their revision is already favouring a better categorization of the creative sector. However, in this regard, a 5 digit-level is still to be considered good for precision. As regards, the CEP has set out the objective to work with EUROSTAT to revision the census system since more precise evidence at the EU level would improve the quality for country comparative analysis which would significantly help creative sector policy-making.

4. Approach for evidence analysis in policy-perspective

As far as regards the analysis of Evidence, Frontier Economics\(^234\) developed an interesting approach for analyzing evidence on the creative sector from a policy perspective. This consists of a set of *four key themes* derived by a comparative analysis of the 13 DCMS creative industries as follows:

1. Sub-grouping the creative industries, based on common features;
2. Analyzing the first layers of the creative sector;
3. Analyzing the relations within the first layers and multinationals in global networks of production;
4. Analyzing how new markets are created or existing markets evolve due to technological changes.\(^{235}\)

The first theme will be analyzed in the next sub-section. Then the other three themes will be treated in a single section. Finally the author’s remarks will follow.


\(^{233}\) See the 5 layers for all creative industries in Frontier Economics, Report to DCMS, in Creative Economy Programme Evidence and Analysis: Full draft report, 2006, Annex 1.

\(^{234}\) This sections refers to: Ref. Frontier Economics, Report to DCMS, in Creative Economy Programme Evidence and Analysis: Full draft report, 2006.

4.1. Grouping the creative industries for sensible policy-making;

The first element of the framework is based on the observation that the 13 creative industries are different in terms of structure and of issues faced. Thereby, making a cross-cutting grouping of the creative industries with common features is crucial in a policy-making perspective. Frontier individuated three broad types of industry as follows in the figure below. Production industries are those characterised by the production of physical or tangible products. They are also featured by the highest importance of large multinationals within the industry supply chain. Last, technological change is nowadays a key determinant of the industry structure for these industries. These are Publishing, TV and Radio, Film and video, Interactive leisure software, and Designer fashion. Service industries are those providing services incorporating aesthetic and symbolic content. These are Advertising, Architecture, Software and computer services, and Design. Finally, arts and crafts industries are those relatively small in value terms and being featured, to a different extent, by a large number of people engaged in their activities as their primary source of income. These are Crafts, Arts and antiques, and Performing arts.

As shown in the figure some creative industries are across the circles. For example, the Software and computer services as well as the Design industries provide services but they also produce physical products. Moreover, the Performing arts includes large-scale touring performances, in

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cases even at the international level, but it still includes also many “associative milieus” where people participate for non-financial reasons. Where there is a degree of overlap, the categorization has taken account of: a) which activities in the industry are more value added; b) whether some activities in the supply chain of the industry present most important and different issues. For instance, in Software and computer services, value added is mainly concentrated in IT supply services and consulting\textsuperscript{238} and not in software production. Therefore it has been classified as services industry. According to Frontier, in 2004 gross value added (GVA) figures for Services industries were of £29.1bn, for Production industries of £22.8bn and for the Arts and crafts industries of £1.1bn\textsuperscript{239}.

4.2. A generic supply chain of the creative industries

Themes 2, 3, and 4 are relative to the generic supply chain of all creative industries. In this, the creation of new products, services or ideas are inputs into channels for production, distribution and retailing. Theme 2 remarks that each first layer (in the Five Layers Framework) is specialized and highly skilled and characterizes its creative industry. Differently, the stages of production, distribution and retail are more similar across the creative sector. The first layer is featured by a large number of small firms, freelance creative talents and small consultants all of them highly specialized and “at the frontier” of their field. This allow them to be flexible but also more in difficulty when their performance is fluctuating (since success-driven). On the other hand, the later stages are more typically undertaken by large and multinational firms.\textsuperscript{240} Theme 3 states that relations with large multinationals (MNCs) are crucial for small firms in the first stage of the supply chain in order to access to production, distribution and retail networks. For instance in the cinema industry, small independent producers are numerous and need to build relations with distribution MNCs, for post-production (i.e. the product is finalized in light of its distribution) to final commercialization.\textsuperscript{241} However, the author’s point to the fact that Frontier did not address the long tail\textsuperscript{242} driving to a non-hit driven market. Are relationships with MNCs still important if small producers can access internet distribution directly? The author would point to the argument by Lanham (2006)\textsuperscript{243} that, in a digital world it has become crucial being able to attract the attention of consumers. Therefore, even in the internet distribution, there is the need of mechanisms to attract users. Probably this requires strong marketing skills and access to advertising channels, thus making relationships with multinationals not falling in importance at least in the short-medium term.

Theme 4, a common feature to the creative industries is that digitization and international competition are driving rapidly changing markets. Digital distribution should be accessed and this is nowadays vital. In turn, new channels affect how and where purchase occur. For instance, in UK, the world’s first music ISP is appearing (i.e. “PlayLouder MSP”) which combines broadband

\textsuperscript{238} i.e. Total GVA for software, computer games and electronic publishing amounted to about £20.7bn in 2004. Out of this figure, £19.9bn relates to other software consultancy and supply (i.e. the provision of services). Ref. Frontier Economics, Report to DCMS, in Creative Economy Programme Evidence and Analysis: Full draft report, 2006, p.17.

\textsuperscript{239} This points to the smaller economic contribution by the arts and crafts i.e. only 2% of the total GVA of the creative industries. Ref. Frontier Economics, Report to DCMS, in Creative Economy Programme Evidence and Analysis: Full draft report, 2006, p.16.

\textsuperscript{240} Ref. Frontier Economics, Report to DCMS, in Creative Economy Programme Evidence and Analysis: Full draft report, 2006, p.18

\textsuperscript{241} See Chapter 2, section 4.4.

\textsuperscript{242} See Chapter 2, section 4.4.

\textsuperscript{243} See R. Lanham, The Economics of Attention: Style and Substance in the Age of Information, University of Chicago Press, 2006.
internet with legal access to music at a flat price per month. However, this is increasing pressures on physical retailers as consequence. These evolutions need to be monitored for sensible policy-making.

### 4.3. Important remarks

In regard to the presented analysis framework, the author’s remark is the following. While theme 1 is focused on how to render policy-making sensible to the differences across the 13 creative industries, themes 2, 3, and 4, underpin what is common to all industries in the sector. This is also why the author has used two different sub-sections above (i.e. the first for theme 1, and the second for the other themes).

This remark leads, in the author’s opinion to individuate the core concept of CEP’s developed approach to the creative sector policy-making. That is, the policy-maker needs to look at the creative industries singularly, but most importantly, he needs to look across them since they are mutually interrelated and have complementary relations. This is shown, for example, when a romance is acted in national theatres, and its success at national theatres may initiate a cinema production exported abroad and making rise the book sales; or as the demand for advertising tends to depend by the performance of TV and radio; or as a video game to “karaoke” hit-songs is created in collaboration with a radio and a music publisher.

Many of these relations can be found and new ones are being created with the increasing convergence related to digital content production for new media. Thus, looking at the similarities and differences across the creative industries would allow a better understanding of how these relations evolve and where new interrelations are emerging in light of the current dynamism due to the “big three”. In this, the above Five layers framework would be the appropriate support in collecting evidence.

Digitization is putting higher pressures on the above “production industries” than in the rest of the sector. Thus, significant evolutions in terms of business models and industry structure are deemed to be emerging. In this regard, by looking across the five layers mapping of each industry, differences may be detected in demand side measures (turnover measures), and production side measures (GVA measures). These may reflect industry structure changes due to market changes as, for instance, in the case of a “long tail”. Accordingly, the rise of internet distribution and digital formats would put pressures on physical products retail and mark the passage from hit-driven markets to the opening up of a higher variety of productions driven by “word of mouth” in favour of smaller players. This could be seen at the same time in different “production industries” (e.g. music, publishing, film, and leisure software). However, in future the long tail could develop differently in these sectors, or more rapidly in one (e.g. publishing) than in others (e.g. music, where distribution multinationals are more favoured by the hit-driven system and thus could slow-down the long tail). Thus, looking across all these industries would favour a better understanding of such

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245 For this it is relevant to look at retailing in layer 5 as above.
247 This is also why the author has used two different sub-sections: the first for theme 1, and the second for the other themes.
248 See Chapter 2, section 3.3.
249 See Chapter 2, Section 4.4.
250 This consideration is valid referring to the EU market and the US.
evolution. In turn, this could help the policy-maker’s intervention and produce successful policies to boost the creative sector.

5. Approach in providing policy recommendations

The CEP has been centred around six important themes\(^\text{251}\) for the creative industries. These are the following: infrastructure, competition and intellectual property, access to finance and business support, education and skills, diversity, and technology. For each theme a respective Working Group has been constituted, involving professionals from the DCMS and DTI/BERR\(^\text{252}\) departments, Regional Development Agencies, and non governmental public bodies. When analyzing these themes, the focus of each group has been on understanding: a) how the creative sector may grow further through productivity increase; b) whether there are barriers to growth and productivity increase; c) what recommendations can be suggested to overcome these barriers. The working groups have sought to install a collaborative dialogue with representatives of the creative sector by producing drafts and seeking their comments. Moreover, in all groups a representative of the Evidence and Analysis group has been included to link all groups to the first one due to the importance of evidence analysis and the problems in data collection relative to the creative sector. The outcomes from the working groups have been brought together in a conference in order to get to a set of findings and recommendations. The working groups have been all linked to a general framework which relates their policy recommendations. In the following sub-section this general framework will be treated first, to pass to the main recommendations and the corresponding resulted commitments by the UK government.

5.1. Linking all recommendations to a general framework

According to the Main Consultation Document (CEP, 2006)\(^\text{253}\) The Creative Grid is the CEP framework that all Working Groups have referred to in their work, as it connects their policy recommendations via three main themes.

The Creative Grid gravitates around the statement that: “the manner through which infrastructure is connected together (via networks, co-location of creative activities, high quality public realm) as a single “infrastructure offer” affects the confidence and capacity of Creative businesses”.\(^\text{254}\) The point is that infrastructure in support of creative activities is inseparable from the urban milieu. That is, a local creative sector is made vibrant by certain cultural assets of a city – museums and galleries, fair and exhibition spaces, education infrastructures, parks and open spaces, students and cafes, the city sense of identity, its venues and libraries etc.\(^\text{255}\)

The three themes are the followings. First, the “connectivity” of all infrastructure and creative activities in urban concentrations (i.e. agglomerations) is the key to growth for the creative sector. The author would highlight that the term connectivity refers to the link and the coordination of

\(^{251}\) In addition to the Evidence and Analysis, which the author has treated above.

\(^{252}\) In June 2007 the Department of Trade and Industry has been reformed with the constitution of the Department for Business Enterprise and Regulatory Reform (BERR). http://www.berr.gov.uk/about/about-berr/history/index.html


infrastructure to allow for knowledge exchange and interactions between and within localized creative clusters. These occur if infrastructure is well connected in a whole local network and if this is part of a wider national network of infrastructure. Second, this connectivity is the locus where ideas are shared, technology meets content, and culture meets commerce. Third, this locus stimulates creative people (i.e. creativity flourishes there). For these reasons connectivity is at the basis of the UK competitiveness in the creative sector. 256

Descending from these themes, there are several challenges to be borne in mind. These are all general challenges that need a government response via several policies. Therefore, all working groups have been are concerned about those challenges to different extents. The first is “Global Competitiveness”, i.e. UK cultural infrastructures and creative firms that employ them should be focused outwards, towards global markets and partners, to ensure that the UK is recognised as a world creative leader. The second is “convergence”, i.e. effective links should be built up between different parts of the creative industries’ value chain. Also, these links should be cross-sectoral, cross-institutional and between different locations. 257 The third is, “stimulation”, i.e. cultural infrastructure and creativity should be put at the centre of local communities, thus making flourish cities that would then work in connection with London and the South East (i.e. the most prominent parts of the country). 258

Last, the main issue identified is related to the rise of the BRIC economies (i.e. Brazil, Russia, India and China) starting to build up strong creative industries. The UK needs to reposition itself as the knowledge broker of the global creative economy, in order to achieve sustainable competitiveness for its creative sector. 259

5.1.1. The Creative Grid

By looking at the example of London, ten key cultural infrastructure conditions for providing knowledge, high connection, and confidence to creative firms have been identified by the Infrastructure Working Group as follows 260:

1. World class, high-level cultural and built infrastructure
2. A wide range of specialist support services for the creative industries
3. A wide range of specialist and accessible facilities for different parts of the creative industries
4. A strong and specialised school and higher education sector.
5. A strong informal learning
6. Spaces where creative workers can meet, generate ideas and trade
7. Global partnerships and trade initiatives
8. Diversity advantage
9. Strong spaces of cultural consumption paired with production 261

261 e.g. creative workspace and retail space put together favour an animated and innovative creative landscape.
The Infrastructure Report has suggested that these 10 infrastructural conditions shall be developed in all *core cities* and *core regions* of UK.

In order relate these conditions to the above three themes, the Creative Grid has been produced as the strategic framework that embodies policy recommendations and projects proposal for the government. The underlying *goal* is to *make the most out* of the UK’s cultural infrastructures and address the *repositioning* of UK as knowledge broker of the creative economy. This follows below as structured by the Infrastructure working group.
### Grid Feature 1: A Web-Based Intelligence Service

This is a portal and gateway for the UK’s creative economy. It provides the infrastructure map for the entire UK creative sector. It shows the points of connection and overlap of different units of infrastructure; it promotes new research findings undertaken in the UK.

It showcases the infrastructure offer of specific places, featuring the Core Cities and their City Regions and emphasising connections to London.

### Grid Feature 2: Central Government and Core City Creativity Working Group

At a national level, a Cross-departmental Creativity Working Group is to be established. This will be ensure that for every policy area, the following questions are asked: “What is the role of creativity?”; “What is the creative dividend?”

In addition, a Core Cities Creativity Working Group should be established, with a role to work with the above group, providing a conduit to regional and city delivery. This will focus on connecting cities’ infrastructure and building joint infrastructure offers as a way of achieving critical mass.

### Grid Feature 3: Creativity Connector Projects

**A: Developing Creative Milieu in Creative Places (Convergence and Stimulation)**

**The Octagon:** A workspace, activity, and network facility for the Core Cities and City regions and for London/SE. It has eight workspace areas – one for each Core City/City region; connected together through network and showcase space.

**Design Creativity In:** Connect infrastructure more effectively through local infrastructure maps. A series of projects across the Core Cities should be introduced – in the spirit of the Mayor of London’s 100 Public Spaces Programme.

**B: A Ready Supply of Talent (Global Competitiveness and Convergence)**

**Knowledge Transfer, Exchange and Incubation:** A Programme of Creative Knowledge Exchange projects to re-tool universities and colleges to become more porous and flexible, ensuring cross-departmental approaches to creativity research, stronger support for entrepreneurialism and commercialisation pre- and post-graduation, and the use of the city as the creative laboratory.

**Advance connectivity across Education, support Trade Associations to build their intelligence base:** Through the Grid’s Web Intelligence Service and a talent showcase.

**C: Acting Global: The World’s Creative Broker (Global competitiveness)**

**The World Creative Economy Forum:** The UK host an annual World Creative Forum that stages our role as the world’s creative knowledge broker. This will operate in a similar way to the World Economic Forum in Davos, Switzerland, which projects Switzerland as the honest brokers of economic cooperation and development. It will feature the UK’s expertise as a world leader in creative knowledge.

**Targeted and Coordinated Outward and Inward Missions to/from BRIC countries and Other Key Territories:** A national programme be established and branded to build a far stronger creativity offer to emerging partners and competitors.

The author would point out that a more clear view of the Creative Grid can be obtained by looking at it down-top from its feature 3 to its feature 1. Feature 3\textsuperscript{262} is about three “visions” (i.e. developing Creative Milieu in Creative Places, a ready supply of Talent, The UK as the World’s Creative Broker) and the proposed projects (ideas) to enhance these visions. These are all thought in light of the three themes and the descending challenges to which the CEP has linked its recommendations. That is, convergence of all creative infrastructure and activities to become better connected and coordinated, stimulation of talents, and global competitiveness. Thus Feature 3 includes a number of aspects supporting networks between creative activities at the local and national level. That is, first, providing workspace, network facilities and maps for accessing them. Second, fostering cross-departmental research in universities in light of cross-field education (artistic, commercial and technological) for creative talents working closer to business people. Then, linking education and the creative sector (via Trade Associations). Last, related to the vision of UK as a global creative knowledge broker, accordingly to the group report\textsuperscript{263} favouring knowledge exchange and interactions trough infrastructure in connection would improve the creative knowledge base of UK. This would be finally conducing to the leadership of a Global Forum of the Creative Economy.

The Grid Feature 2\textsuperscript{264} is about how the achievement of these projects and relative visions should be governed. First, at the national level, via the collaboration of different departments in a single working group so that all policies affecting the creative sector will be well-suited to it. Then, at the local level, the same approach of a single working group would ensure concrete actions to be delivered and this should be reported to the national level.

Finally, the Grid Feature 1\textsuperscript{265} is about the medium through which information on infrastructure, research and creative activities can be found by any interested economic actor. Thus, an UK portal would be created with the task of connecting infrastructure, providing knowledge generated in UK as well as data on the creative sector. This would also serve to promote the UK leadership in the creative sector globally.

Some remarks relative to Chapter 1 literature

In light of Chapter 1 literature, the Creative Grid seems to catch the key feature that the creative sector is featured by local clusters of producers embedded in global distribution networks\textsuperscript{266}. And this is consistent with an analysis of the sector made by using a “spatialized production of culture” perspective. The Grid is sensible to the benefits of face-to-face contacts for knowledge-sharing, transfer of tacit knowledge and interactive-learning, being proximity crucial especially in relation to tacit knowledge.\textsuperscript{267}

The Infrastructure working group is remarking the importance of infrastructures being efficiently “connected” and available to creative firms as a single networked offer. This aspect is interesting in the author’s opinion as the key point in the Grid is that such connection would then allow creative firms to better exploit spatial proximity in the cluster, and this is central to generate new knowledge and innovations. This key point could be therefore a specification of how “wiki-capital” formation (as defined by Yusuf) can be supported by the government to maximize creativity in the economy.


\textsuperscript{265} Creative Economy Programme Working Groups Reports, Infrastructure: Full final report, London, 2006, pp.36-37

\textsuperscript{266} See Chapter 1 Section 3.3.1.

\textsuperscript{267} See Chapter 1, Sections 1.4.1 and 1.4.2
A specification suited to the particularities of the creative sector. Last, the connection of local infrastructure at the national level and their use toward global markets would favour these to be more connected within global distribution networks.

To conclude, all these aspects are crucial in the knowledge economy as they reflect the concept of a “hierarchy of networks” as in Chapter 1. Moreover, the Grid is based on the basic feature of the creative sector based on “glocal” networks. Thus, in the author’s opinion the Creative Grid can be considered as a good reference framework to which specific issues for the creative sector (and the relative intervention) can be attached.

5.2. The recommendations resulted from the CEP

The Creative Grid links all the CEP working groups around the importance of networks. The groups have produced several recommendations linked to the three features of the Grid. The main areas of policy-making pointed out by the CEP’s working groups are related to:

1. Supporting SMEs in the creative sector
2. Supporting creativity in education: matching the arts and business education
3. Exploiting digital technology and related opportunities
4. Supporting creative clusters, regional and national coordination
5. Promoting the UK as the world’s creative hub
6. Developing an Intellectual Property framework suited to the digital revolution

Below, the key issues and the CEP recommendations suggested in these areas will be treated. These have been acknowledged in the “Creative Britain” document (2008). With it the UK government has committed in February 2008 to develop the CEP’s recommendations in concrete and deliverable actions.

5.2.1. Supporting creative SMEs

The CEP working group on Finance and Business Support focused on the problem that creative SMEs have difficulties to fully exploit their economic potential. They pointed out that the key issue is not in the availability of public funding or business advice and development services. Instead, it is the low propensity (and capacity) of many creative firms to exploit the available finance, advice and expertise. This is a barrier to productivity increase and growth in the creative industries. Accordingly, the corresponding response should be to match entrepreneurial and commercial skills with the artistic skills via education. This would increase awareness of how important is the access to mentoring and advice services.

The second main finding by the Finance and Business Support working group is that there is the need to utilize public funding and business advice services for creative SMEs more efficiently and with targeting. That is, funds and mentoring should be addressed to the most commercially promising (high-growth) creative firms. The proposal advanced is therefore to create a “Creative

268 i.e. local producers networks embedded in global distribution networks.
Business Review” service, that “checks the health” of creative firms, and lead to select those having most potential for growth. Then these should be supported by a “Business Catalyst” service providing mentoring tailored at fostering growth. This would also maximize the chance for high-growth SMEs to access necessary public funds. Furthermore, a key issue found by the CEP is that there is a too vast array and duplications of support schemes. In turn, creative firms do not know where to turn for support and finance. Thereby, the numbers of services is to be lowered through a simplification process. And, in view of the Creative Grid information portal (feature 1), a standing body should be assigned the task of being the central reference point for seeking the relative information. The DCMS Strategy Document of commitments issued on February of 2008 has sought to put forward the CEP’s recommendations and assigned to the Regional Development Agencies (RDAs) the task of creating a network of regional beacons for the creative industries. The approach will be piloted the South West, South East, North West, North East and West Midlands regions. Moreover, the document has assigned to the Arts Council England (ACE) - the England development agency for the arts - the task to deliver support targeted at projects combining artistic excellence and commercial potential as pointed by the CEP’s findings. Last, venture capital to small creative firms will be provided in cooperation by RDAs and the ACE.

5.2.2. Supporting creativity in Education: a ready supply of talents

The CEP’s Education and Skill Group analyzed the current UK education policy and identified some recommendations relative to a main policy gap. Creative industries and education bodies should design educational curriculum together as well as provide guidance to the possibilities in the creative sector. This would be part of the Creative Grid Feature 3-B on “ready supply of talents” and would contribute to address the above problem that creative SMEs have no capacity and propensity to access public advice schemes and funds. In addition, a portal for career information should be created being included in the Creative Grid Feature 1. These recommendations have been recognized in the DCMS commitments document, and will be put forward in the whole framework of the education policy review. In particular three actions have already been presented so far: first, the increase of culture exposition for developing creative talents at school with the “find your talent” programme; second, the provision of structured pathways into creative careers; and last the commitment to create 5.000 apprenticeships per year in the creative sector by 2013.

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272 This should be at subsidized price
5.2.3. Exploiting digital technology and related opportunities

As found by Frontier (2006)\textsuperscript{283} technological change is influencing changes in market structures. This is about digitization and the consequent convergence as main forces driving the creative industries, as pointed out in Chapter 2 of this work. Thus, nowadays it is crucial for creative industry to understand technology innovation in order to exploit the opportunities that it offers. The CEP working group on technology has focused on this concern and has individuated several barriers that policy should overcome. First, creative SMEs – that are in high number and especially in the first layers activities (considering the five layer framework) – are often undercapitalized. In addition, the access of hardware and software used on digital platforms, which is needed to develop new applications and services for these platforms, is often too costly. Thus having limited resources, often creative SMEs are unable to access new content delivery platforms, to innovate and develop new digital services.\textsuperscript{284} Second, these creative SMEs show the tendency not to engage with technology naturally since they “speak their own language”.\textsuperscript{285}

The recommendation made is to develop a “Creative Technology Programme” as a space where the Creative Industries and Technology sectors can meet to share information and ideas.\textsuperscript{286} This should be aimed at allowing creative industries to fully exploit the commercial potential of new technologies. In the “Creative Britain” commitments such programme has been attributed to the NESTA\textsuperscript{287} as the “Creative Innovators Growth Programme” with a backing of £3 million for the first programme to be started over this year 2008. This programme will therefore touch upon finding new business models and encouraging networks to exploit the opportunities offered by digitization and convergence.\textsuperscript{288}

Exploiting the opportunities offered by technology calls for new knowledge to accrue by supporting R\&D. This descends from the Feature 3 project of Knowledge Transfer, Exchange, and Incubation. The government has committed to this with several projects. First, the Technology Strategy Board – having the mission of promoting research on technology and innovation, its development and exploitation – will support research on technology challenges and opportunities for the creative sector. This will involve both researchers and creative firms in a collaborative manner, with a total support of £10 million.\textsuperscript{289} Second, the Technology Strategy Board will start a Knowledge Transfer Network connecting creative SMEs, their suppliers and customers, universities, technical experts, research supporting bodies. This will aim at helping creative industries access the knowledge they need to improve innovation.\textsuperscript{290} Last, the Department for Innovation, Universities & Skills will support studies to better quantify the economic benefits generated by the creative sector. The main focus will be on the value added by the innovativeness of the creative sector.\textsuperscript{291}

\textsuperscript{284} Ref. Creative Economy Programme Working Groups, Main Consultation Document, DCMS, London, August 2006, p.23
\textsuperscript{286} Ref. Creative Economy Programme Working Groups, Main Consultation Document, DCMS, London, August 2006, p.25
\textsuperscript{287} i.e. National Endowment for Science, Technology and the Arts.
\textsuperscript{288} Ref. DCMS, BERR and DIUS, Creative Britain: New Talents for a New Economy, London, February 2008, p. 34-35
\textsuperscript{289} Ref. DCMS, BERR and DIUS, Creative Britain: New Talents for a New Economy, London, February 2008, p. 34
\textsuperscript{290} Ref. DCMS, BERR and DIUS, Creative Britain: New Talents for a New Economy, London, February 2008, p.37
\textsuperscript{291} Ref. DCMS, BERR and DIUS, Creative Britain: New Talents for a New Economy, London, February 2008, p.38
5.2.4. Supporting creative clusters, regional and national coordination

This area of policy-making is about undertaking the recommendations made by the Infrastructure Working group presented above. As the author remarked above, the Creative Grid itself embodies the key importance of geographically localized networks of creative firms. These need to be supported by public intervention and government should deliver it locally as the Grid Feature 2 points out. Moreover these local clusters should be connected in a national network pinpointing connections with London. This has led in the “Creative Britain” Document to the following commitments.

As far as regards local clusters, the main initiative undertaken is the development of a “menu for local infrastructure” attributed to the Local Government Association in collaboration with the Regional Development Agencies, the DCMS and other government departments. This is aimed at providing advice to local authorities for improving their cultural infrastructure. The focus would be in particular on coordination planning, access to business space, developing links between universities and creative firms, encouraging local networking.292

Concerning regional coordination two are the main projects. The first is the Mixed Media initiative through which the UK Film council, Arts and Humanities Research Council and Arts Council England, will support arts media venues acting as hub for creative firms in selected regions293. They will also foster facilitation of creative knowledge transfer in these regions. Second, the Regional Development Agencies will address regional strategic frameworks based on the CEP recommendations in two regions, the North West and South West. These will be carried out together with non-departmental bodies and will seek to improve coordination of regional engagement with the creative sector.294

Last, related to national coordination more connection will be fostered between London’s creative festivals295 and other important festivals around the country as showcase for the UK creative industries.296 This is also something to be considered in view of the Creative Grid Feature 1, i.e. information gateway service will point to the connections of Core cities with London.

5.2.5. Promoting the UK as the world’s creative hub

The Feature 3 of the Creative Grid regards the challenge of acting global for the UK to become the world creative knowledge broker. Both the projects included in the feature 3 have been accepted with the “Creative Britain” document of commitments.

The Global Forum on the creative economy has been initiated under the name of the World Creative Business Conference. This will be based on combining the UK strengths in the creative and financial sectors, with the aim to become a platform for leaders of both sectors to meet and engage in collaboration. The goal is that the conference would become a key global event in the business

293 i.e. Broadway, Nottingham; Cornerhouse, Manchester; Foundation for Art and Creative Technology (FACT), Liverpool; Sheffield Media and Exhibition Centre (The Showroom); Tyneside Cinema, Newcastle-upon-Tyne; Watershed, Bristol; Ref. DCMS, BERR and DIUS, Creative Britain: New Talents for a New Economy, London, February 2008, p.61-62.
295 e.g. London Design Week, London Film Festival, and London Fashion week.
calendar. This is still something not clear, and is much an ambitious project, but details about it will come up in short-time since the UK has committed to organize the first Forum during 2009. In addition to this, the UK Trade and Investment will develop a five-year strategy with industry and public sector bodies with the whole aim to promote the UK creative industries worldwide in target markets, being present in world events such as 2010 Shanghai Expo and 2012 Olympics. More details for this strategy still have to be known. However, the author would point to the indication in the general framework relative to the BRIC countries. The upcoming strategy would probably deal with these markets, and it would be interesting to see how this aspect will be faced.

### 5.2.6. Developing an Intellectual Property framework suited to the digital revolution

The Competition and Intellectual Property working group based its analysis on a sub-grouping of the creative industries based on differences across them. Three groups where identified as follows:

- **a) process industries**, delivering professional creative services to clients on demand (e.g. architecture, advertising);  
- **b) product industries**, creating content or brand-based businesses whose output is a replicable product usually protected by intellectual property law (e.g. film, TV and radio productions, fashion and software);  
- **c) media**, distributing content and delivering a creative product to a community or audience, to educate, inform or entertain them (e.g. broadcasting, press, cinema etc.).

Firstly they found, that in general in the three groups, the key issue was that management capacity in SMEs was very limited, thus constraining their competitiveness. These were found with weak business education, information access, and networks. And this has been in line with the findings by other working groups about business and finance support and on education as seen above. Also, the group has conducted surveys analysis on the key factors of performance for the three groups and found that IP protection is fundamental for products and media industries. However, the main concern is for product industries. In fact, the main finding was that in regard to product industries – featured by a large population of SMEs – most value is appropriated by distributors. For creative producers, in product industries it is therefore important to have an Intellectual Property regime reviewed in light of better clarity of law and this regards particularly the illegal file-sharing problem. According to the Creative Britain document, this will be done by UK Intellectual Property Office (UK-IPO). Regarding the ICT and digital-technology related issues on Intellectual Property, the government will discuss a legislative act requiring internet service providers and rights holders to co-operate in taking action on illegal file-sharing – this would have to be implemented by April 2009 according to the commitments document. In general details about these commitments have to be still discussed at all.
5.3. Important remarks

Most of the above commitments still have to be developed into deliverable actions. There is a high degree of abstraction since many recommendations are linked to challenges to be faced, and in turn many projects propose a “vision”. However, the discussion should regard the whole framework used to develop policy recommendations and how these are linked to the main framework. In the author’s opinion, it is important to look at the underlying concepts in the CEP framework and recommendations. This can be done by looking at them through the “lenses” of Chapter 1 literature and in particular the Yusuf’s view of innovation and creativity and the “spatialized production of culture” perspective – where the second is compatible to the first.

As shown above, the Creative Grid focuses on boosting localized networks in UK, connecting them in a national network, then addressing all outwards in global markets. In addition, the Creative Grid points out how to govern the public intervention to achieve this, i.e. in a cross-departmental and capillary manner from the national to the local level. Last, the Grid points to an intelligence service for creative firms to access information on the creative sector, local networks and national points of connections, and to promote the UK position abroad. By referring to the chapter 1, the author would underline that this intelligence service is about codified knowledge and information on creative firms, on locations, regional hubs, and contact points nationally. Moreover, the ready supply of talent is about giving “codified” literacy to people. While the latter is the background necessary to learn tacit skills once active in localized networks, the former is the required access to contacts and information for networking. This in turn ease to exploit proximity in core cities – where a single infrastructure offer has to be coordinated – thus boosting localized networks.

To sum-up, the Creative Grid could be synthesized as about: a) boosting networks locally to allow the exploitation of proximity (via connectivity of creative firms and infrastructure); b) providing talents with artistic and commercial codified knowledge to allow them learning tacit knowledge once working in proximity; c) creating an information portal on the sector to connect talents with creative firms and to create higher national connectivity of creative firms.

Yusuf individuated several factors to be present in order for creativity to be maximized, innovation to spring from it and being successfully commercialized. These allow in turn, for growth. Thus these factors have to be considered when analyzing the government intervention to boost sectors that have entered the post-Fordist cycle, i.e. where creativity and innovation are prized and are the source of competitiveness. This is the case of the CEP creative sector policy-focus as creativity and innovation are at prize in this sector.

By referring to Yusuf’s view of innovation, the Creative Grid could be regarded as supporting the formation of talents and wiki-capital arising from networks. This, in turn allows to raise productivity of human talent and thus creativity to be maximized. This is because, in a connected locus (as above) stimulation of talents as well as convergence (i.e. knowledge sharing and interactions) make creativity flourish. Last, the urban dimension of innovation (recognized by Yusuf) is at the basis of the Creative Grid (as the “connectivity” within cultural infrastructure and activities regards urban agglomerations) with the main target of the UK Core Cities, and following the example of London.

All these considerations regard the question of how to maximize creativity in the economy treated in Chapter 1. Fostering growth as from the Creative Grid would occur through providing those circumstances that favour productivity increase in local networks, and thus make creativity being exploited the most. However, as Yusuf remarks, innovation should be developed into products and be commercially successful and this needs other factors to be in place. These are: a) an culture which is not risk-adverse; b) incentives provided by public institutions that reward innovation (Intellectual Property regime) and commercially successful innovation (via tax incentives, or
subsidies); c) R&D funding; d) proximity for innovation; e) relations of small firms with large
distribution firms and multinationals.

In the CEP recommendations these factors have been touched, but to a different extent, and in some
of them a more concrete action is still to be identified. As regards the first, having a culture which is
suitable to risk-taking may be somehow influenced via education and by matching artistic with
commercial knowledge in forming new curricula of study as resulted from the CEP306. As far as
regards Intellectual Property regime, the CEP has identified the key issue to be tackled (i.e. illegal
file sharing), however a definite response is far from being individuated, thus the CEP addressed
this factor only to a limited extent. In regard to incentives via public financing or tax incentives,
these have been largely included relatively to the support of creative SMEs. In particular, the main
point has been to target public support to firms having highest commercial potential via the
“Business Catalyst”. R&D funding has been also largely considered by the CEP relatively to the
technology challenges and opportunities for the creative sector and with a large backing. As regards
proximity the CEP recommendations as being based on the Creative Grid have been centred on
exploiting proximity work via connectivity. This is a key factor for localized networks of creative
producers and, therefore, it has been largely addressed by the CEP at the local, regional and national
level. The last factor, is also a crucial factor in the creative sector, i.e. relations of small firms with
large distribution firms and multinationals. As far as regards this, the information portal should
facilitate relations with distributors within the supply chain of each industry. The CEP has most
importantly individuated that, in the “product industries” supply chain, most value is retained by
distributors. However, recommendations in this regard has only touched upon the need for better
clearity of law as far as regards the IP regime. This factor is still to be developed, there are no details
in this regard and these are very important as regards the digital environment. Thus the author
would point out that the developments of this recommendation by UK Intellectual Property Office,
will have to be examined in future. Its discussion would help understanding what kind of solutions
may be provided by public institutions in this regard.

306 but in this regard the discourse could be prolonged to many considerations out of the scope of this work.
Final Conclusions

In the present world, post-industrialized economies are increasingly depending by their innovation capability in the knowledge economy. In the EU this has led to the agreement of the current Lisbon Strategy for growth and jobs. This underpins the importance of innovation and takes as its flagship sector the ICT.

Interestingly, the ICT is found to be calling for quality content to feed the adoption of ICT by EU citizens. This content is not only informational but also cultural. In this context, however, the economic role of culture has been not included in the Lisbon Agenda.

Nonetheless, an emerging focus by policy-maker can be found in Europe, as in the last two decades the cultural industries have risen in economic value. Thereby, recently states have started being interested in mapping the economic contribution of culture. This emerging focus has thus started looking at culture in an inclusive sense, and the term of “creativity” has emerged being attached to the importance of creativity for innovation. This has resulted in a rhetoric of “creative sector” focus, including many cultural industries within it. Some EU members have also started working on policies to boost their creative sector (i.e. the UK, Denmark, the Netherlands).

In Chapter 2 the author has sought to highlight this in an historical perspective, pointing to the contemporary drivers of change – globalization, digitization, and convergence. Then the chapter has followed on discussing the arguments that can be found so far in support of the creative sector policy-focus in Europe. As far as regards the present, the available statistics point to the creative sector’s economic significance in Europe in terms of turnover, value added figures, significant growth in recent time, and generated employment even over a general economic slowdown. In the author’s opinion these are indicative figures but further more sound evidence is needed in this regard. Regarding the future, the creative sector is expected to further grow in European countries, and this is reflected in its intangibles-intensivity which is correlated with future expected growth. In addition, its growth would favour the ICTs growth, which is a key sector in the knowledge economy. Moreover, public institutions’ adaptation and response to the “three big” to foster creative firms’ adaptation would unleash higher growth. Therefore, it can be sensed that the creative sector could play an important role within the knowledge-economy in Europe but this is much about prospects and depends on the adaptation to the big three fostered by the state itself.

To date, the census gap situation calls for more precise and sound statistical evidence collection to provide clear mapping of a creative-sector policy making in Europe. However, even in absence of precise statistical tools, the above arguments and the interest for policy-makers to understand how to maintain growth and employment in the knowledge economy explain why several governments in Europe (as well as the EU Commission) are increasingly looking with interest at their respective creative sector. To remedy the mapping imprecision and provide better statistical tools, national statistics institutes must be assigned this task, and this is true at the EU supranational level as well. In Chapter 1, the literature on the knowledge economy as ended with Yusuf’s view on innovation and creativity. Yusuf individuated several factors to be present in order for creativity to be maximized in the economy, and innovation to spring from it and being successfully commercialized. These allow in turn, for growth. Thus these factors have to be considered when analyzing the government intervention to boost sectors that have entered the post-Fordist cycle, i.e. where creativity and innovation are prized and are the source of competitiveness. This is the case of the CEP creative sector policy-focus as creativity and innovation are at prize in this sector.

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307 And this is normally due to the fact that the mapping of the creative sector is recent itself and the census categories do not reflect it.
308 By way of comparison in the 1980s when governments started opening to FDI around the globe, this was also due to beliefs that attracting FDI would be beneficial to the recipient economy, however, strong arguments for this opening could not be found at that time. These have gradually come up thanks to academic research regarding FDI spillovers.
Therefore, in Chapter 3 the CEP has been analyzed “through the lenses” of Chapter 1 literature as embodied in Yusuf’s view of innovation and creativity, and in the “spatialized production of culture”. The lesson that may be drawn from the CEP can be recapped as follows. As far as regards the approach in providing policy recommendations, the CEP has linked its work to a general framework, the Creative Grid (and the corresponding themes and challenges). The key points that can regard a lesson from the grid are the following. First, putting all issues of the creative sector as a function of the network dimension featuring the knowledge economy and the creative sector itself – where localized networks of producers are embedded in wider networks of distribution. Then, giving centrality to coordination and connection of infrastructure and creative firms and provision of talents. Then, attaching to it all other issues relative to all creative industries or sub-groups of them (e.g. product industries for IP) in particular related to the creative SMEs (layer 1 of the Five Layers Framework). Then identifying policy recommendations based on the analysis of these issues. These recommendations have regarded the following main policy areas:

7. Supporting SMEs in the creative sector  
8. Supporting creativity in education: matching the arts and business education  
9. Exploiting digital technology and related opportunities  
10. Supporting creative clusters, regional and national coordination  
11. Promoting the country’s creative sector  
12. Developing an Intellectual Property framework suited to the digital revolution

By referring to Yusuf’s view of innovation, the Creative Grid could be regarded as supporting the formation of talents and wiki-capital arising from networks. This, in turn allows to raise productivity of human talent and thus creativity to be maximized. The above policy areas and their respective recommendations have developed the “how” to support talents formation and wiki-capital by fostering matching of arts and business knowledge, collaboration between universities, schools and creative industries, and by relying on the local connectivity of all infrastructure and creative firms. Then, the other attached recommendations have been found, by the author, related to the factors that Yusuf has considered as necessary for catalyzing innovation and commercial success from creativity. They have touched those factors in particular as far as regards incentives to firms who have higher commercial potential, R&D funding related to exploitation of technology by creative firms, and exploiting proximity (via the action of Regional Development Agencies in particular) to a local, regional and national level.

As far as regards evidence collection, it is important for a good policy-making that evidence is precise, and that the approach used in collecting data allows for detecting changes in the creative industries structures due to the “big three” dynamism. Thus, the extent to which the methodology in use reflects accurately the definition of the sector and detects the evolution of the creative industries structure, is crucial for an efficient policy-making. The Five layers framework is a first good attempt to this. The key innovative point of the framework is that by using a supply chain approach a more disaggregated evidence can be collected, and this allows for precision as well as for sensitivity to changes in the industry structure. In particular, such approach allows individuating: a) which parts of the supply chain are most valuable; b) how products get to the market; c) the types of resources used; and d) the structure of the industry. And in addition the supply chain approach is suited to discussion on where the boundaries of the creative industries are, where they move due the sector’s current dynamism, and how they interact with other sectors of the economy. Thus, the framework is very useful to monitor the changes due to digitization and convergence of content producers for new media.

309 This would be consistent with the “spatialized production of culture” perspective which considers the whole production chain of culture from the producer to the end user.
Moreover, the five layers approach has proved to be compatible with the Yusuf’s view of innovation and creativity, thus making this framework suitable to the Creative Grid and thus useful to support the policy-formulation.

As far as regards the use of 5 digits-level, this allows for higher precision and can be possibly emulated by other states. However, the revision of the NACE and ISIC census structure may already provide higher detail even at the 4 digits-level. Thus, these developments would need to be analyzed in order to realize how precise can be the mapping of the creative sector.

Last as far as regards the analysis of evidence the main lesson is that the policy-maker should focus on the interrelations across the creative industries, analyze them singularly, but also look across them to find commonalities. In the case there are important differences, a sub-grouping should be made, with each group including all similar industries. Moreover, the policy-maker should focus on the new emerging interrelations due to convergence of digital content production for new media and digitization. In this regard, looking at the similarities and differences across the creative industries would allow a better understanding of how these relations evolve and where new interrelations are emerging in light of the current dynamism due to the “big three”. In this, the Five layers framework would be the appropriate support in collecting evidence.

Last as far as regards the whole approach to the creative sector policy making the main point for a lesson is that a creative policy-making requires the involvement of several ministries (i.e. culture, education, industry and trade, and technology) and several non-governmental bodies (e.g. NESTA, UK Film Council, Regional Development Agencies), as well as representatives from the creative sector. This is providing a set of cross-cutting policies by looking at common issues across the creative industries. The approach is interventionist in the sense that the government is not providing a passive “help-desk” to each industry’s issue, but is active in coordinating all involved actors in the supply chain of each industry and bringing all issues to a common table, trying to look at them as possibly common to several industries.

The author’s stresses that such approach is to be related to the main finding that the creative sector could play an important role within the knowledge-economy but this depends on the adaptation to the “big three” fostered by the state itself. The leadership of the CEP has been attributed to a single ministry which is also the ministry of culture and education. This has certainly its figurative significance in the sense that it underlines the importance of culture in today’s economy. This could lead to philosophical discussions on the value of culture and its “depredation”. However, the reality is that culture is nowadays part of the economy.
Annex 1: EU members with increasing interest on the national creative sector

### DENMARK

**Source:** Denmark in the culture and experience economy: 5 new steps. The Danish growth strategy. Danish Ministry of Culture. Copenhagen, September 2003. 36 p.

**Approach:** Culture and experience economy

**Definition:** Fashion, visual arts, music, books, theatre, radio/TV, printed media, architecture, design, film/video, advertising, entertainment, content production, events, cultural institutions, tourism, (amusement), and sport industries.

**Date:** 2003-2005

**Turnover:** € 33.4 billion (DKK 175 billion)
7.3% of total private sector turnover

**Value added to national GDP:** € 8.3 billion (DKK 62 billion)
5.3% of national GDP

**Workforce (private sector):** 170,000 full-time employees
12% of the total fulltime workforce

**Exports:** € 9.1 billion annually (DKK 60 billion)
14% of total exports

### THE NETHERLANDS


**Approach:** Creative economy

**Definition:** The creative business sector relates to three sectors: the arts (the performing arts, the visual arts, cultural heritage and cultural events), media and entertainment (film, the audiovisual sector, language and literature and journalism), and creative business services (design, fashion, architecture, new media and games, advertising.)

**Date:** 2004

**Turnover:** € 8.4 billion

**Workforce:** 240,000 people
3.2% of total workforce

**Exports:** € 0.358 billion
6.14% of total exports

### THE UK


**Approach:** Creative economy

**Definition:** The British Department for Culture, Media and Sport (DCMS) defines creative industries as those industries which have their origin in individual creativity. This includes advertising, architecture, the art and antiques market, crafts, design, designer fashion, film and video, interactive leisure software, music, the performing art, publishing, software and computer games, television and radio.

**Date:** 2001

**Turnover:** € 188.43 billion (€ 112.5 billion)

**Value added to national GDP:** € 35 billion
3.8% of national GDP

**Workforce (private sector):** 1.3 million people
4.3% of total workforce

**Exports:** Approx. € 12.1 billion (€ 10.3 billion)
4.7% of total exports

### FINLAND

**Source:** Finnish Ministry of Culture - Antti Kihlma

**Date:** 2004-2005

**Turnover:** € 12.6 billion

**Value added to national GDP:** € 3.3 billion
2.4% of national GDP (2002)

**Workforce:** 65,024 persons (2003)
3.2% of total workforce

**Number of establishments:** 14,051 establishments

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310 Source: KEA et. al. (2006) The Economy of Culture in Europe, Overview Box pp. 33-34.
<table>
<thead>
<tr>
<th>Country</th>
<th>Source</th>
<th>Approach</th>
<th>Definition</th>
<th>Date</th>
<th>Tamsoner</th>
<th>Value added to national GDP</th>
<th>Workforce</th>
</tr>
</thead>
<tbody>
<tr>
<td>Latvia</td>
<td>The economic contributions of copyright-based industries in Latvia</td>
<td>&quot;Copyright Industries&quot;</td>
<td>The National Culture Policy Guidelines accept the definition approved by the World Culture Conference (Mexico, 1982). Culture in the broadest understanding of the term means the totality of all spiritual, material, intellectual and emotional features of a society or social group and encompasses art and literature, includes also the way of life, ways of co-existence, systems of values, traditions and views.</td>
<td>2004</td>
<td>€ 6.83 billion</td>
<td>€ 0.3 billion</td>
<td>41,255 employees</td>
</tr>
<tr>
<td>Sweden</td>
<td>Denmark in the culture and experience economy: 5 new steps. The Danish growth strategy. Danish Ministry of Culture, Copenhagen, September 2001, 56 p.</td>
<td>Culture and experience economy</td>
<td></td>
<td>2000-2001</td>
<td>€ 17.1 billion</td>
<td>8% of national GDP</td>
<td>404,030 people</td>
</tr>
<tr>
<td>Lithuania</td>
<td>Evaluation of Contribution of Creative Industries to the Lithuanian Economy. Dr. Stankeviciute, International Business School of Vilnius University. Vilnius, 2003.</td>
<td>Creative industries</td>
<td>Advertising, architecture, the art and antiques market, crafts, design, designer fashion, film and video, interactive leisure software, music, the performing arts, publishing, software and computer games, television and radio.</td>
<td>2002</td>
<td>€ 63.60 billion (or €3.6 billion including the state subsidies)</td>
<td>€3.04 billion</td>
<td>57,900 people</td>
</tr>
<tr>
<td>Poland</td>
<td>The National Strategy for the Development of Culture in 2004-2012.</td>
<td></td>
<td></td>
<td>2002</td>
<td>€ 6.7 billion (€4.9 billion Polish zlotys)</td>
<td>€1.73 billion</td>
<td>4% of total workforce</td>
</tr>
</tbody>
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* CIA’s World Factbook 2013 figures
Annex 2: Statistical matrix used by KEA et al. (2006)\textsuperscript{311}

<table>
<thead>
<tr>
<th>Domain</th>
<th>Sectors</th>
<th>Sub-sectors/activities</th>
<th>Nace</th>
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</thead>
<tbody>
<tr>
<td>Visual arts</td>
<td>Crafts</td>
<td>Ranges in most categories in manufacturing and retail, can only be captured in individual firm's trade description including “crafts” “hand-made products” etc.</td>
<td>Amadeus database</td>
</tr>
<tr>
<td></td>
<td>Paintings</td>
<td>A portion of companies whose main activities are classified as retail in specialised and non-specialised stores, renting own property (e.g. for exhibitions) creation of arts and operation of arts facilities and museums</td>
<td>Paintings, picture framing and sale of art 5212 Other retail sale in non-specialised stores 5246 Other retail sale in specialised stores 7020 Letting of own property 7467 Other business activities n.e.c. 9231 Artistic and literary creation and interpretation 9232 Operation of arts facilities 9252 Museums activities and preservation of historical sites</td>
</tr>
<tr>
<td></td>
<td>Sculpture</td>
<td>Idem as for paintings.</td>
<td>Amadeus database</td>
</tr>
<tr>
<td></td>
<td>Photography</td>
<td>Commercial and consumer photograph production, Photography for commercials, publishers, fashion, real estate or tourism purposes and news and photo agencies</td>
<td>7281 Photography activities 9246 News agency activities</td>
</tr>
<tr>
<td>Performing Arts</td>
<td>Theatre</td>
<td>i.e. a portion of companies whose main activities are classified as artistic and literary creation and interpretation</td>
<td>9251 Artistic and literary creation and interpretation</td>
</tr>
<tr>
<td></td>
<td>Dance</td>
<td>Idem as for theatre.</td>
<td>9251 Artistic and literary creation and interpretation</td>
</tr>
<tr>
<td></td>
<td>Circus</td>
<td>Idem as for theatre.</td>
<td>9251 Artistic and literary creation and interpretation</td>
</tr>
</tbody>
</table>

\textsuperscript{311} Source: KEA et. al. (2006) The Economy of Culture in Europe, pp. 308-311.
<table>
<thead>
<tr>
<th>Domains</th>
<th>Sectors</th>
<th>Sub-sector activities</th>
<th>Nace</th>
</tr>
</thead>
<tbody>
<tr>
<td>Audiovisual</td>
<td>Film and video</td>
<td>Production (including the production of commercials, activities of studios) Distribution Exhibition Video sale-through and rental</td>
<td>8211 Motion picture production 8212 Motion picture distribution 8213 Motion picture exhibition 5248 Other retail sale of specialised stores 7169 Renting of personal and household goods n.e.c. Amadeus database except for video sale through and rental where data from the European Audiovisual Observatory were used.</td>
</tr>
<tr>
<td>Radio and Television</td>
<td>- Production of radio and television programmes whether or not combined with the broadcasting - Cable and satellite distribution of TV- programmes</td>
<td>8229 Radio and television activities 6429 Telecommunications</td>
<td>Amadeus database</td>
</tr>
<tr>
<td>Software publishing including games</td>
<td>Development, production, supply and distribution of ready-made (non-customized) software including games.</td>
<td>7221 Publishing of software 7224 Publishing of sound recordings</td>
<td>Eurostat database + compliments from the Amadeus database</td>
</tr>
<tr>
<td>Advertising</td>
<td>Operations of advertising agencies and services</td>
<td>7449 Advertising agencies</td>
<td>Eurostat database</td>
</tr>
<tr>
<td>Music</td>
<td>Creation and interpretation Publication revenues Production activities Distribution activities Wholesalers and retail Performance rights</td>
<td>8251 Artistic and literary creation and interpretation 5248 Other retail sale of specialised stores</td>
<td>Eurostat database + compliments from the Amadeus database</td>
</tr>
<tr>
<td>Books And Press</td>
<td>Publishing of books, magazines, newspapers and wholesale of books, Retail of magazines and newspapers and books Mail order retail of books</td>
<td>7211 Publishing of books 7212 Publishing of newspapers 7213 Publishing of magazines 5247 Wholesale of other household goods 5247 Retail sale of books and newspapers 5261 Retail sale via mail order houses</td>
<td>Eurostat database. Exclusion of &quot;directory publishing&quot; was approved by the European Commission. It was published with the help of the Amadeus database</td>
</tr>
<tr>
<td>Heritage</td>
<td>Museums</td>
<td>9251 Library and archives activities 9252 Museums activities and preservation of historical sites</td>
<td>Amadeus database + data from UNESCO, databases</td>
</tr>
</tbody>
</table>
Annex 3: SIC Code at 4 and 5 levels

A Standard Industrial Classification (SIC) was first introduced into the United Kingdom in 1948 for use in classifying business establishments and other statistical units by the type of economic activity in which they are engaged. The classification provides a framework for the collection, tabulation, presentation and analysis of data and its use promotes uniformity. In addition, it can be used for administrative purposes and by non-government bodies as a convenient way of classifying industrial activities into a common structure. The system is identical to the EUROSTAT System NACE at the four digit class level and the United Nations system ISIC at the two digit Divisional level. The classification framework is broken down into its different levels in the table below.

Table A – UK SIC Structure 2003

<table>
<thead>
<tr>
<th>17</th>
<th>SECTIONS</th>
<th>62</th>
<th>DIVISIONS</th>
<th>225</th>
<th>GROUPS</th>
<th>517</th>
<th>CLASSES</th>
<th>285</th>
<th>SUBCLASSES</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(e.g.) (O Other Community, Social &amp; Personal Service Activities)</td>
<td>(e.g.) (92 Recreational, Cultural &amp; Sporting Activities)</td>
<td>(e.g.) (92.1 Motion picture and video activities)</td>
<td>(e.g.) (92.11 Motion picture and video production)</td>
<td>(e.g.) (92.11/1 Motion picture production on film or video)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A – Q</td>
<td>International Level (ISIC)</td>
<td>2-digits</td>
<td>3-digits</td>
<td>4-digits</td>
<td>5-digits</td>
<td>5-digits</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Annex 4: Frontier Economics definition of creative industries using 5digits-codes

Advertising activities

<table>
<thead>
<tr>
<th>SIC Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Layer 1</td>
<td>74.40/2 Planning, creating and putting in place advertising campaigns</td>
</tr>
<tr>
<td></td>
<td>74.40/9 A &quot;catch all&quot; code for advertising, including handing out free samples and aerial advertising</td>
</tr>
<tr>
<td></td>
<td>74.40/1 Selling or leasing advertising space or time</td>
</tr>
</tbody>
</table>

Architecture activities

<table>
<thead>
<tr>
<th>Layer</th>
<th>SIC Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Layer 1</td>
<td>74.20/1</td>
<td>Architectural design and construction supervision</td>
</tr>
<tr>
<td></td>
<td>74.20/2</td>
<td>Urban planning and landscape architecture</td>
</tr>
<tr>
<td>Layer 2</td>
<td>74.20/4</td>
<td>Engineering advice and design for construction projects</td>
</tr>
<tr>
<td>Layer 3</td>
<td>74.20/6</td>
<td>Scientific consultancy like weather and geological surveying</td>
</tr>
<tr>
<td></td>
<td>74.15/3</td>
<td>Construction holding companies and head offices</td>
</tr>
<tr>
<td></td>
<td>70.11</td>
<td>Real estate developers</td>
</tr>
<tr>
<td></td>
<td>45.21/1, 45.21/2, 45.21/3, 45.22, 45.23, 45.24, 45.25</td>
<td>All types of construction work, like residential buildings, bridges, roads, sports facilities, dams and related work like laying foundations and putting up scaffolding.</td>
</tr>
<tr>
<td>Layer 4</td>
<td>74.20/3</td>
<td>Quantity surveying</td>
</tr>
<tr>
<td></td>
<td>51.54</td>
<td>Wholesale of hardware, plumbing and heating equipment and supplies</td>
</tr>
<tr>
<td></td>
<td>51.53</td>
<td>Wholesale of construction materials and sanitary equipment (e.g. toilets and sinks)</td>
</tr>
<tr>
<td></td>
<td>51.13</td>
<td>Agents who sell timber and building materials</td>
</tr>
<tr>
<td></td>
<td>45.41, 45.42, 45.43, 45.44, 45.45</td>
<td>All types of building completion like plastering, painting and glazing, Floor and wall covering and installing swimming pools</td>
</tr>
<tr>
<td></td>
<td>45.31, 45.32, 45.33, 45.34</td>
<td>All types of building installation like electrical work, insulation work and plumbing</td>
</tr>
</tbody>
</table>

---

### Arts, Antiques and Crafts activities

<table>
<thead>
<tr>
<th>Layer</th>
<th>SIC code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Layer 2</td>
<td>74.87/3</td>
<td>Exhibition and fair organisation</td>
</tr>
<tr>
<td></td>
<td>52.50/1, 52.48/6</td>
<td>Retail sale of antiques and retail sale in commercial art galleries</td>
</tr>
<tr>
<td>Layer 3</td>
<td>36.63/9</td>
<td>Catch all SIC code for &quot;other manufacturing&quot; (potentially some craft firms, if they are large enough to be covered by the IDBR)</td>
</tr>
<tr>
<td></td>
<td>36.22, 36.61</td>
<td>Manufacture of jewellery and dinnerware made of precious metals and imitation jewellery</td>
</tr>
<tr>
<td></td>
<td>36.30, 33.50</td>
<td>Making musical instruments and watch &amp; clock making</td>
</tr>
<tr>
<td></td>
<td>28.75, 28.61</td>
<td>Making various metal products like swords but also ship propellers etc. and making cutlery</td>
</tr>
<tr>
<td></td>
<td>27.54, 27.41, 26.82/9</td>
<td>Casting and production of heavy and precious metals and manufacture of mineral products</td>
</tr>
<tr>
<td></td>
<td>26.30, 26.25, 26.21, 26.70</td>
<td>Making ceramic tiles, pots, tableware, statuettes etc. and cutting stone for building and ornamental use</td>
</tr>
<tr>
<td></td>
<td>17.51/9, 17.51/2, 17.51/1</td>
<td>Carpet and rug making</td>
</tr>
<tr>
<td>Layer 4</td>
<td>51.47/9</td>
<td>A catch all SIC code that includes the wholesale of floor coverings but also stationary and sportswear etc.</td>
</tr>
<tr>
<td></td>
<td>51.44, 51.47/8</td>
<td>Wholesale of china and of travel and fancy goods</td>
</tr>
<tr>
<td></td>
<td>51.47/3, 51.47/4</td>
<td>Wholesale of jewellery and imitation jewellery</td>
</tr>
</tbody>
</table>

### Design activities

<table>
<thead>
<tr>
<th>Layer</th>
<th>SIC code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Layer 1</td>
<td>74.20/5</td>
<td>Engineering design for industry</td>
</tr>
</tbody>
</table>
### Designer Fashion activities

<table>
<thead>
<tr>
<th>Layer</th>
<th>SIC Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Layer 1</td>
<td>74.87/2</td>
<td>Fashion design but also interior design and graphic design</td>
</tr>
<tr>
<td>Layer 3</td>
<td>17.53, 17.71, 17.72, 18.10, 18.22/1, 18.22/2, 18.23/1, 18.23/2, 18.24/1, 18.24/3, 18.24/9, 18.30, 19.20, 19.30</td>
<td>Manufacture of clothing items like hats, shoes, outerwear and underwear or accessories like bags and luggage.</td>
</tr>
<tr>
<td>Layer 4</td>
<td>17.11, 17.12, 17.13, 17.14, 17.15, 17.16, 17.17, 17.21, 17.22, 17.23, 17.24, 17.25, 17.30, 17.54/1, 17.54/2, 17.54/9, 17.60, 19.10</td>
<td>Manufacture of fibres, textiles, prepared fur and prepared leather</td>
</tr>
<tr>
<td>Layer 5</td>
<td>52.42/1, 52.42/2, 52.42/3, 52.42/4, 52.43/1</td>
<td>Wholesale of, and activates of agents involved in the sale of, fabrics, fur and clothing,</td>
</tr>
</tbody>
</table>

**Layer 5** 52.42/1, 52.42/2, 52.42/3, 52.42/4, 52.43/1 | Retail sale of clothes, accessories and footwear |

### Television and Radio activities

<table>
<thead>
<tr>
<th>Layer</th>
<th>SIC code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Layer 1</td>
<td>92.20/1</td>
<td>Radio production and broadcast</td>
</tr>
<tr>
<td>92.20/2</td>
<td>Television production and broadcast</td>
<td></td>
</tr>
<tr>
<td>Layer 3</td>
<td>32.20/2</td>
<td>Transmitters and television cameras</td>
</tr>
<tr>
<td>Layer 4</td>
<td>51.43/9</td>
<td>Wholesale of radios, TV's, lighting equipment and some other appliances</td>
</tr>
<tr>
<td>32.30</td>
<td>Manufacture of TV's, video recorders, camcorders, record decks, microphones and similar goods</td>
<td></td>
</tr>
<tr>
<td>Layer 5</td>
<td>52.45</td>
<td>Retail sale of radios, TV's, DVD's, musical instruments and musical scores</td>
</tr>
</tbody>
</table>
### Film, Video and Photography activities

<table>
<thead>
<tr>
<th>Layer</th>
<th>SIC code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Layer 1</td>
<td></td>
</tr>
<tr>
<td></td>
<td>74.81/3</td>
<td>Specialist photography (e.g. underwater)</td>
</tr>
<tr>
<td></td>
<td>74.81/9</td>
<td>Photos for commercials, fashion, tourism etc.</td>
</tr>
<tr>
<td></td>
<td>92.11/1</td>
<td>Producing films, cartoons and documentaries</td>
</tr>
<tr>
<td></td>
<td>92.11/9</td>
<td>Dubbing, editing, post production etc.</td>
</tr>
<tr>
<td></td>
<td>Layer 2</td>
<td></td>
</tr>
<tr>
<td></td>
<td>74.81/2</td>
<td>Portrait photos (mainly passport photo companies, although doesn't include photo machines)</td>
</tr>
<tr>
<td></td>
<td>Layer 3</td>
<td></td>
</tr>
<tr>
<td></td>
<td>92.12</td>
<td>Motion picture distribution</td>
</tr>
<tr>
<td></td>
<td>74.81/4</td>
<td>Film processing</td>
</tr>
<tr>
<td></td>
<td>52.48/2</td>
<td>Retail sale of cameras but also office equipment</td>
</tr>
<tr>
<td></td>
<td>51.47/6</td>
<td>Wholesale of photographic goods</td>
</tr>
<tr>
<td></td>
<td>33.40/3</td>
<td>Manufacture of cameras, projectors etc.</td>
</tr>
<tr>
<td></td>
<td>24.65</td>
<td>Manufacture of unrecorded media (also includes unrecorded media for computers)</td>
</tr>
<tr>
<td></td>
<td>24.64</td>
<td>Manufacture of photographic chemicals</td>
</tr>
<tr>
<td></td>
<td>22.32</td>
<td>Reproduction of DVD's and tapes</td>
</tr>
<tr>
<td></td>
<td>Layer 5</td>
<td></td>
</tr>
<tr>
<td></td>
<td>92.13</td>
<td>Cinemas</td>
</tr>
</tbody>
</table>

### Music and the Performing Arts activities

<table>
<thead>
<tr>
<th>Layer</th>
<th>SIC code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Layer 1</td>
<td></td>
</tr>
<tr>
<td></td>
<td>92.31/1</td>
<td>Live theatrical presentation</td>
</tr>
<tr>
<td></td>
<td>92.31/9</td>
<td>Artistic and literary creation and interpretation</td>
</tr>
<tr>
<td></td>
<td>Layer 2</td>
<td></td>
</tr>
<tr>
<td></td>
<td>92.72/1</td>
<td>Casting for theatres, motion pictures or television</td>
</tr>
<tr>
<td></td>
<td>92.32</td>
<td>Theatres, concert halls, arts facilities and ticket agencies</td>
</tr>
<tr>
<td></td>
<td>22.14</td>
<td>Music publishing</td>
</tr>
<tr>
<td></td>
<td>Layer 3</td>
<td></td>
</tr>
<tr>
<td></td>
<td>92.34/9</td>
<td>&quot;Other entertainment activities&quot; code that includes VUE and Tussauds</td>
</tr>
<tr>
<td></td>
<td>51.47/5</td>
<td>Wholesale of musical instruments</td>
</tr>
<tr>
<td></td>
<td>22.31</td>
<td>Reproduction of sound recording</td>
</tr>
<tr>
<td></td>
<td>Layer 4</td>
<td></td>
</tr>
<tr>
<td></td>
<td>51.43/1</td>
<td>Wholesale of records, CD's etc. and players</td>
</tr>
<tr>
<td></td>
<td>Layer 5</td>
<td></td>
</tr>
<tr>
<td></td>
<td>92.72/9</td>
<td>&quot;Other recreational activities&quot; code</td>
</tr>
</tbody>
</table>
### Publishing Supply activities

<table>
<thead>
<tr>
<th>Layer</th>
<th>SIC Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Layer 1</td>
<td>92.40</td>
<td>Journalists, press photographers and news syndicates</td>
</tr>
<tr>
<td>Layer 2</td>
<td>22.13</td>
<td>Publishing journals</td>
</tr>
<tr>
<td></td>
<td>22.12</td>
<td>Publishing newspapers</td>
</tr>
<tr>
<td></td>
<td>22.11</td>
<td>Publishing books</td>
</tr>
<tr>
<td>Layer 3</td>
<td>74.87/9</td>
<td>Business activities note covered by other SIC codes, including author's agents but also consultants etc.</td>
</tr>
<tr>
<td></td>
<td>22.25</td>
<td>Activities like embossing and laminating</td>
</tr>
<tr>
<td></td>
<td>22.24</td>
<td>Pre-press work, like composition and typesetting</td>
</tr>
<tr>
<td></td>
<td>22.23</td>
<td>Bookbinding</td>
</tr>
<tr>
<td></td>
<td>22.22</td>
<td>Printing maps, magazines, music manuscripts, diaries and similar items</td>
</tr>
<tr>
<td></td>
<td>22.21</td>
<td>Printing newspapers</td>
</tr>
<tr>
<td></td>
<td>22.15</td>
<td>Publishing photos, posters, timetables etc.</td>
</tr>
<tr>
<td>Layer 4</td>
<td>24.30/2</td>
<td>Manufacture of printing ink</td>
</tr>
<tr>
<td></td>
<td>21.12</td>
<td>Manufacture of paper and paperboard</td>
</tr>
<tr>
<td></td>
<td>21.11</td>
<td>Manufacture of pulp</td>
</tr>
<tr>
<td>Layer 5</td>
<td>52.47</td>
<td>Retail sale of books, newspapers and stationery</td>
</tr>
<tr>
<td></td>
<td>52.11/1</td>
<td>Retail sale by newsagents, confectioners etc.</td>
</tr>
</tbody>
</table>

### Software and Computer Games activities

<table>
<thead>
<tr>
<th>Layer</th>
<th>SIC code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Layer 1</td>
<td>36.50/9</td>
<td>Manufacture of video game machines but also chess sets, dolls, playing cards etc.</td>
</tr>
<tr>
<td></td>
<td>72.21</td>
<td>Development and supply of ready made software &quot;off the shelf&quot;</td>
</tr>
<tr>
<td></td>
<td>72.22</td>
<td>Development of made to order software, software consultancy and web page design</td>
</tr>
<tr>
<td>Layer 2</td>
<td>72.60</td>
<td>Computer related work not covered under other SIC codes</td>
</tr>
<tr>
<td>Layer 3</td>
<td>72.10</td>
<td>Hardware consultancy</td>
</tr>
<tr>
<td></td>
<td>22.33</td>
<td>Reproduction of software</td>
</tr>
<tr>
<td>Layer 4</td>
<td>51.84</td>
<td>Wholesale of computers, peripherals and software</td>
</tr>
<tr>
<td></td>
<td>51.47/7</td>
<td>Wholesale of toys, including video games</td>
</tr>
<tr>
<td></td>
<td>36.50/1</td>
<td>Manufacture of arcade games, including billiards etc.</td>
</tr>
<tr>
<td>Layer 5</td>
<td>52.48/5</td>
<td>Retail sale of toys (including video games), spots goods, stamps and coins</td>
</tr>
</tbody>
</table>
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http://ec.europa.eu/eurostat/ramon/index.cfm?TargetUrl=DSP_PUB_WELC


**C. Alphabetical list – Chapter 3**


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