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**Monitoring Cultural and Creative Activities  
and their Impact in European Cities'  
Development: Challenges and the Way  
Forward**

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## **Monitoring Cultural and Creative Activities and their Impact in European Cities' Development: Challenges and the Way Forward**

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### **Abstract**

Cultural and creative sectors (CCS) in Europe have shown strong resilience to the recent economic crisis and they are expected to expand further due to their function as forerunners in digital innovation. The creative population, one of Europe's key strengths and the CCS, the 3<sup>rd</sup> biggest employer in the EU, have a strategic role to play in the economic recovery, especially in providing jobs and career opportunities to young Europeans who have been hard-hit by the recent slow-down. The cities with the highest concentration of the creative employment have proven to be the most resilient during the post-2008 turmoil, thus making them a focus of the national and regional policies. Over the last years composite indices have gained recognition as comprehensive monitoring tools that support evidence-based urban policies and corporate strategies. Consequently, a plethora of city indices that capture aspects related to cultural or creative activities have been developed to suit the needs of a specific audience. Nevertheless, there exists no single index describing the CCS that is accepted by the majority. To fill the gaps in the existing measures we aim at creating an index summarizing the CCS in a way that is of added value to EU policy makers and to urban planners interested in fostering the development of creativity and diversity. The main challenges faced during the construction processes are: lack of precise definitions of cultural and creative activities; existence of many different socio-cultural structures and lifestyles within the EU; difficulties in measuring economic spill-over effects; lack of systematic procedures for producing harmonized data on the CCS in Europe; and many more. We discuss each of the aforementioned obstacles and explain how they could be handled.

**Keywords:** Composite indicator, creativity, culture, evidence-based policy, monitoring, urban policy

## **Introduction: The Cultural and Creative Sectors**

The cultural and creative sectors (CCS) are believed to be not only forerunners in digital innovation but also a locomotive of the economic growth in Europe. They seem to be resilient to the economic slowdown that has been observed since 2007. Despite the high cultural diversity of Europe it is interesting to note that, at least in terms of generated GDP, the CCS are constantly growing across all the European Union (EU) countries. In terms of employment, the findings are not so unequivocal. Here, the European heterogeneity is more visible and although (Ernst & Young, 2014) confirmed the net growth of CCS employment for Europe, (Stumpo and Manchin, 2015) have recently shown that the CCS employment declined in some EU countries. Thus, it cannot be claimed that in the whole EU employment in the CCS has remained resistant to the economic crisis.

Nonetheless, we have observed that the CCS have been re-positioning from a trailing to a leading sector (Potts et al., 2008). Thinking about the CCS has changed, too. Although in the past they were perceived as a frivolous and expensive luxury, currently they are considered an industrial priority and a laboratory for the transformation of modern economies and societies (Mangematin et al., 2014). This is in line with the opinions of evolutionary economists who have long argued that economic growth stems from the growth of knowledge and knowledge, as cultural economists claim, stems from the creative arts. The CCS are said to be based on culturally creative activity including the production of goods and services that rely on innovation, including many types of research and software development (UNESCO, 2013).

Classification of the CCS is often contested; maybe this explains the existence of numerous taxonomies (UNESCO, 2013).

According to a classification proposed by (EC-CEU, 2013), the CCS include all sectors whose activities revolve around cultural values and/or artistic and other creative expressions, whether those activities are market- or non-market-oriented, whatever the structure that carries them out, and irrespective of how finance is sourced. Activities include the development, creation, production, dissemination and preservation of goods and services which embody cultural, artistic or other creative expression, extending to related functions such as education or management. The cultural and creative sectors include, *inter alia*, architecture, archives, libraries and museums, artistic crafts, audio-visual (including film, television, video games and multimedia), tangible and intangible cultural heritage, design, festivals, music, literature, performing arts, publishing, radio and visual arts.

According to a taxonomy advocated by the British Department of Culture, Media and Sport (DCMS, 1998), the CCS are defined as having their origin in creativity, skills and talent, having potential for wealth and job creation through the generation and exploitation of intellectual property. Therefore, sectors such as advertising, architecture, art and antiques, computer games, crafts, design, designer fashion, film and video, music, performing arts, publishing, software, TV and radio are classified as belonging to the CCS. Following this reasoning, creativity, innovation, imagination and inspiration

are not only characteristics of an individual but represent economic factors contributing to entrepreneurship and economic growth.

Finally, there is the classification related to the labour market and the workforce nature. The term “creative-worker” introduced by (Florida, 2002) describes a person whose occupation involves a significant input of creativity. This, in turn, implies that each sector in which creative workers work can be classified as creativity-related. Then, all creative-workers constitute the “creative class”, i.e., a group of professionals of different kinds, who spread innovative energy and cultural dynamism in the present-day urban societies.

### **Culture and Creativity in the Policy Domain**

According to (Vickery, 2011), the ‘Creative City’ idea emerged in the mid-1990s as a type of avant-garde cultural policy. It was presented as an opposition to the modernist urban paradigms, which collapsed in the 1970s. Its aim was to orient the city’s urban policy towards the arts, public art and urban design perceived as symbolic leaders in a new city transformation and regeneration. As a consequence, putting emphasis on “creativity” became a new way of thinking of policy makers, urban planners, city officials, and even industrialists.

However, although scientific and political debates about the notions of creativity, creative class and creative cities are numerous, the terms – as claimed by (Pratt, 2010) – not only have lost their precision and specificity and are used in many incongruent ways, but also have many overlapping and sometime contradictory roots, associations and implications. Nevertheless, the main focus of an urban, social and economic policy is currently on cities, which seek both attract capital and investors to develop large-scale urban projects (Vivant, 2013) and to attract creative individuals (Florida, 2005). Not only has the term “creative city” become popular, but more and more cities seek to be transformed into an appealing urban environment for those contributing to the local economic development.

The CCS are perceived as important contributors to the fight against discrimination, racism and xenophobia, and as an important platform for freedom of expression, promotion of respect for cultural and linguistic diversity (EC-CEU, 2013). It has been noted that the CCS have the potential of contributing to Europe’s response to challenges due to globalization, “*especially through the creativity and innovation they generate*” (European Commission, 2010). Therefore, the culture and creativity have been the focus of policies at a pan-European level. In particular, since the adoption of the European Agenda for Culture in 2007, the European Commission has been intensively promoting the development of smart, sustainable and inclusive growth of the CCS while safeguarding European cultural diversity. These efforts have been reinforced by establishing the Creative Europe Programme (EC-CEU, 2013) that aims at strengthening the competitiveness of the CCS in Europe and promoting cultural diversity and intercultural dialogue, culture as a

catalyst for creativity in the framework for growth and jobs and culture, vital to the Union's international relations.

As the knowledge economy, with its key element of the creative economy, is believed to be essential for economic development, all cities, regions and nations are encouraged to be more creative. It should be noted, however, that cultural activity is not of primary importance in the directed economic value generation. It plays a role of the facilitating factor, making a city more attractive and distinctive for foreign direct investment. There are four elements of policy making with respect to cultural and creative cities (Pratt, 2010):

- 1) culture as a civilizing factor for society, with the heritage and its role in attracting tourism and tourist incomes to cities being the focal point;
- 2) economic development, place marketing and place-based competition in order to attract investors and to 'compensate' employees for their relocation;
- 3) social inclusion with the focus on participation via involvement in the small scale and neighborhood projects whose purpose is to ameliorate social tensions and to improve health and welfare of the people;
- 4) Intrinsic focus on the cultural and creative industries understood in terms of promoting the cultural economy.

### **Composite Indices as Multidimensional Measures**

Recent years have seen a turbulent growth of composite indices<sup>1</sup> and their use in research and policy discourse. (Bandura, 2011) provides a comprehensive inventory of over 400 country-level indices that span a variety of topics from economic progress to educational quality. (Rotberg et al., 2013) identify over a hundred country-level indices and databases that seek to measure broadly defined governance or some core component of it. Similarly, a more recent inventory by the United Nations (Yang, 2014) details 101 composite measures of human well-being and progress, covering a broad range of themes from happiness-adjusted income to environmentally-adjusted income, from child development to information and communication technology development. This is a truly spectacular development given that as recently as in 2001 there existed only one scientific journal, the *Social Indicators Research*, devoted exclusively to indicators studies.

In simple words, composite indices are quantitative tools that make possible to grasp a latent phenomenon or an overall trend, which is not observed directly. This is usually achieved by simplifying a real-life concept through a mathematical model that entails data collection and detailed statistical analysis. As a result, one obtains a summary figure of a convoluted

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<sup>1</sup> Up to date no standardized terminology has emerged regarding the composite indices, which can create a little confusion. To avoid that, in this paper we adopt the following notation: we use the terms "composite indicator" and "index" (indices – plural) interchangeably to refer to a multi-dimensional measure. To describe a one-dimensional variable we use the term "indicator" (indicators – plural).

issue that is easy to understand for policy makers and the general public. Consequently, indices are used to facilitate cross-regional comparisons, to monitor progress over time, and to identify strategic goals and set long-term policy targets.

Nevertheless, such simplifications often come at the expense of information loss during the aggregation process, thus sparking heated debates about the theoretical foundations of prominent indices and their practical relevance to the decision making (Paruolo et al., 2013). The problem is both philosophical and practical. The philosophical question is about understanding what type of information an indicator can convey and it is strongly related to the theory of signs and the theory of communicative and pragmatic nature of indicators (Boulanger, 2014). The practical question is about the usefulness of the indicators in, for example, monitoring systems or in setting policy targets and it is intimately related to the field of science, or policy, from which the indicators under consideration originated.

Thus, the users of indices need to confront a highly polarized audience, varying from enthusiastic supporters to skeptical reviewers. The most serious issues raised by the latter group refer to a subjective nature of the index construction. These include, among others, problems such as: framework specification, variable selection, weights assignment, aggregation method, normalization procedure (Saisana and Philippas, 2012). Fortunately, over the last years an extensive number of publications address the technical aspects of index buildings and a number of procedures, such as Sensitivity Analysis (Saltelli et al., 2008), Multi-criteria Analysis (Munda and Saisana, 2011), Uncertainty Analysis (Saisana et al., 2005), have been proposed to help solving the aforementioned problems. Most notably, the OECD and the European Commission JRC jointly published a handbook (OECD and JRC, 2008) of good practices for index construction. The guide contains a comprehensive list of steps that should be adhered to in order to develop a technically sound multi-dimensional measure. Nevertheless, it should be kept in mind that, above all, an index must be a practical tool. Unavoidably, an index is a compromise between scientific rigor and the information available at a reasonable cost.

### **Composite Indices for Cultural and Creative Sector**

As cities are replacing nation-states as key units of global competition (The Competitiveness of Cities, 2014), the need for sound analytical tools assessing attractiveness of urban environments becomes apparent. In the globalized world a composite indicator related to cultural and creative activities, by allowing international benchmarking between peer cities, provides such a tool. Such a comparison is instrumental in promoting good practices among the involved stakeholders such as policy makers, entrepreneurs, investors, academics, managers and urban planners, to name just a few. Thus, it comes with no surprise that over the last years a plethora of indices measuring various aspects of culture and creativity have been developed. By now, more than 40 (Saisana et al., 2015) indices addressing the

CCS-related issues have been published. Cities are in the center of attention when it comes to monitoring the CCS. Indeed, out of the 10 most cited academic publications in the field nine focus on cities (Chuluunbaatar et al., 2013) and out of 40 indices reviewed in (Saisana et al., 2015) 24 are designed for the city-level analysis. These indices often look at cities from different perspectives. Some analyze only global cities (Global Cities Index, 2010) other focus on large (City Brands Index) or medium-sized cities (Smart Cities Index, 2007), some have worldwide coverage (Cities of Opportunity, 2014) while others consider only geographically close cities (Future Laboratory, 2007). Different points of view are also present in the remaining, non-city oriented, indices as they look at the CCS from the perspective of nation-states (Martin Prosperity Institute, 2011), regions (Creative Community Index, 2010) and even firms (Globalisation and World Cities Index).

Each index is developed to serve a specific audience. Thus, the indices differ, often significantly, in stressing the importance of various aspects related to culture and creativity. In the overview of the 40 most influential indices (Saisana et al., 2015) we have identified 19 dimensions that are discussed in the context of the CCS by different indices:

Cultural, Recreation & Tourism; Creative Industries Diversification; Creative Citizens' Microproductivity; Creative Output & Employment; Cultural Capital & Participation; Venues, Resources & Facilities; Liveability & Amenities; Transportation & Accessibility; Globalization & Economy of Attention; Networks & Exchange; Openness, Tolerance & Diversity; Human Capital, Talent & Education; Social Capital, Engagement & Support; Government & Regulations; Business Activity & Economy; Entrepreneurship; Innovation & Research; Technology & ICT; Environment & Ecology

Hundreds of indicators populate the aforementioned dimensions. Examples of CCS-related indicators used in aforementioned indices to describe three selected dimensions are presented in Table 1.

**Table 1.** *Examples of CCS-related Dimensions and Indicators*

DIMENSION	EXAMPLE OF INDICATORS	INDEX
<b>Creative Output &amp; Employment</b>	Percentage of workforce defined as the 'creative class'	Florida's Creative Cities Index
	Share of services trade of creative industries relative to total services trade	Hong Kong Creativity Index
	Size of the creative sector (dollars at PPP)	ARC Creative City Index
<b>Liveability &amp; Amenities</b>	Quality of life	Quality of Life Index
	Well-being	Creative Space Index
	Living environment	Global Power City Index
<b>Transportation &amp; Accessibility</b>	Incoming/outgoing passengers flows	Cities of Opportunity
	Public transport network per inhabitant	Smart Cities Index
	International freight (tonnes)	ARC Creative City Index



Note that each of the selected dimensions in Table 1 captures a different aspect. The indicators included in the “*Creative Output & Employment*” dimension, measure directly the production and productivity of the CCS and are considered to be the core variables. The dimension “*Liveability & Amenities*” covers the variables that quantify the overall satisfaction of the population. It has been argued that the citizens’ overall satisfaction is positively influenced by the strong presence of the CCS in the city (Insch & Florek, 2008). Thus, the indicators such as “*Well-being*” or “*Quality of life*” belong to the class of outcomes variables that measure the impact of the CCS on the city’s residents. Finally, indicators included in the “*Transportation & Accessibility*” dimension, describe a city’s environment. Therefore, these background variables do not measure CCS-related activities but rather the factors that might facilitate, or obstruct, the development of the CCS.

Many indices draw from a similar pool of indicators however it is worth noticing that none of the indices covers all 19 dimensions. Most of the reviewed indices agree upon the importance of measuring features such as openness and tolerance (Florida, 2005), education and human capital (Martin Prosperity Institute, 2011), innovation (Global Innovation Index, 2014) or employment in creative industries (ARC Creative City Index) but disagree on the relative significance of these issues. Others investigate relations between background variables, such as livability (Quality of Living Survey, 2011), sustainable environment (Sustainable Cities, 2011), and the development of CCS, while yet some others put stress on measuring output variables such as cultural tourism (Correia and da Silva Costa, 2014) or cultural expenditure (ARC Creative City Index). Another distinction between the indices stems from the purpose they were developed for. Namely, each index is tailored to satisfy the needs of specific stakeholders, which might be expatriates seeking a more livable environment to relocate (Quality of Living Survey, 2011), CEOs looking for a place rich in talents to set up a business center (Cities of Opportunity, 2014), urban managers interested in sustainable policies (Sustainable Cities, 2011), investors looking for an optimal place to allocate their capital (Tom Fleming Creative Consultancy, 2010), and many more perspectives (visitor, resident, researcher, artist, cultural manager, national policy maker, etc.). It is worth mentioning that while most indices take a point of view of a single actor, there are some that account for multiple perspectives. For example, the (Global Power City Index, 2014) assesses cities’ performance through the lenses of a manager, a researcher, an artist, a visitor, and a resident.

Finally, an important distinction between the CCS-related indices relates to the data sources. To cover such a variety of perspectives, multiple data sources (Saisana et al., 2015), both publicly available and private databases have been used. This means that the raw indicators originate from sources as distinct as: regional and national statistical offices; international institutions such as Eurostat, OECD, WIPO, UNESCO; targeted surveys (e.g., Mercer survey studies), and others. Consequently, due to the lack of harmonized data framework on which all the CCS-related composite indices could be based, the

comparability and, perhaps more importantly, the quality of existing indices is often difficult to assess.

**Conceptual Challenges, Practical Problems, and the Responses**

There is a lack of consensus among the scientists and the practitioners regarding a proper way to monitor the cultural and creative activities in the cities. To understand better which points of disagreement are crucial, we have categorized the theoretical disputes into five conceptual challenges to be faced with by those who wish to develop such a monitoring tool. In order to deal with these theoretical dilemmas, we have identified practical problems that are associated with each of the conceptual challenge. Performing this step helps to grasp the essence of the issue by splitting a vague theoretical question into simpler down-to-earth problems, for which it is easier to envisage proper solutions. Thus, we have arrived with a set of responses designed to tackle each of the identified challenges. This is presented in Table 2, which describes all five challenges with corresponding practical problems and the proposed responses.

**Table 2.** *Monitoring Cultural and Creative Activities: Conceptual Challenges, Practical Problems and Responses*

<b>Conceptual challenges</b>	<b>Practical problems</b>	<b>Responses</b>
1. Lack of precise definitions of the CCS, which creates a lot of confusion in the debate and increases the chances of miscommunication and misunderstanding	<ul style="list-style-type: none"> <li>• Too broad definition of creativity, aka mixing creativity with non-CCS related concepts</li> <li>• Too many CCS-related indicators (e.g. over 80) put together, which results in relevant information being lost in aggregation</li> </ul>	<ul style="list-style-type: none"> <li>✓ Use definitions from a single framework, (e.g. ESSnet-Culture);</li> <li>✓ Be precise about statistical indicators selected (CC occupations vs sectors);</li> <li>✓ Be fully transparent in the indicators’ selection procedure, which should be openly accessible to general public;</li> <li>✓ Do not overpopulate the conceptual framework (yet, use a sufficient number of indicators)</li> </ul>
2. Existence of different socio-economic structures within Europe, which makes it difficult to design one uniform framework that fits all and does not reflect one particular model (e.g., Western European)	<ul style="list-style-type: none"> <li>• Limited number of cities included in an index</li> <li>• Limited number of dimensions included in an index (danger of cultural “imperialism”)</li> </ul>	<ul style="list-style-type: none"> <li>✓ Put emphasis on diversity by selecting sufficient range of indicators;</li> <li>✓ Construction of two versions of index: a standardized for benchmarking and a flexible one that adapts to specific local conditions</li> </ul>

<p>3. Difficulties in capturing the economic spill-over effects</p>	<ul style="list-style-type: none"> <li>• Analysis done at too general level (e.g. only country level)</li> <li>• Index is built on specific data (e.g. personal interviews and surveys) from specific regions</li> </ul>	<ul style="list-style-type: none"> <li>✓ Use extended urban definitions from Urban Audit;</li> <li>✓ Complement the city-level analysis with the country level analysis;</li> <li>✓ Use a three-block structure: [background variables] ↔ [core variables] ↔ [outcomes variables]</li> </ul>
<p>4. Lack of unified CCS-related data structure across the European cities, which makes the comparability of cities problematic</p>	<ul style="list-style-type: none"> <li>• Insufficient information about metrics and methodology provided by the developers</li> <li>• Insufficient or complete lack of conceptual or statistical analysis of the index</li> </ul>	<ul style="list-style-type: none"> <li>✓ Use the pan-European data sources, (e.g., Eurostat);</li> <li>✓ Supplement the index results with a full conceptual &amp; statistical analysis of the framework (full replicability)</li> </ul>
<p>5. Difficulties in designing a framework that encourages strategic thinking and supports long-term urban policies</p>	<ul style="list-style-type: none"> <li>• Insufficient benchmarking with peers</li> <li>• Too general (focus only on the final rankings). Lack of detail analysis tailored to specific local conditions</li> </ul>	<ul style="list-style-type: none"> <li>✓ Long-term commitment to the index (should be updated regularly in future);</li> <li>✓ Allow for benchmarking with peers (based on economic development, population size) to identify best practices and bottlenecks;</li> <li>✓ Allow for detailed interpretation of the results from the city-specific perspective</li> </ul>

For better understanding of the structure *conceptual challenge* → *practical problems* → *responses* let us analyze the first row of Table 2 in detail.

#### *Conceptual Challenge 1*

As aforementioned, there are many classifications of the CCS, which, unfortunately, do not coincide with each other. Thus, existing, frequently country-specific, estimates of generated GDP or workforce employed in these sectors are not comparable. Then, the problem of definition of creativity, creative skills and creative occupations arises (Bakhshi et al., 2013). For example, in the educational field, creativity is defined as an everyday activity, which helps people adapt to new situations and which brings something new and useful (Clark, 2009). In the field of economics, creativity is defined in terms of innovations, which is a process of introducing an invention into the market and which constitutes an essential feature of the entrepreneurship (Maridal, 2013). Psychologists define creativity as the ability to produce new ideas that are both new and functional. All these definitions speak about novelty and functionality, but the common understanding of these notions may be different.

Given such an immense number of definitions, and even a greater number of their interpretations, it is not surprising that hundreds of indicators have been identified as measures of different aspects of the CCS (see Table 1 for examples). When many indicators (e.g., more than 80) are put together not only do they often mix input and output perspectives but also they do not distinguish cultural and creative sectors from cultural and creative occupations. Additionally, being so numerous they risk being lost in aggregation while incorporated in a composite indicator.

Therefore, in order to provide comparability of data and thus reliability of a composite indicator it is essential to agree on one common definition and classification of the CCS and cultural and creative occupations. Having in mind the European perspective, a good reference point is the report published by (ESSnet Culture, 2012), which provides an extensive overview of various aspects of CCS, also from the perspective of statistical data bases. Then, the process of indicator selections must be fully transparent and the choice of indicators well justified. Finally, in order not to measure “everything”, only carefully selected, not too many but also not too few, indicators should be used.

### **Way Forward**

In the previous section we have discussed (see Table 2) the conceptual challenges, their practical implications, and the suggested responses to them. While the challenges and the practical problems have been identified by careful studying of the relevant literature and are thus well-defined, the responses are still only proposals and therefore, they require further consideration. Each and every one of the responses drafted in Table 2 should be scrutinized with respect to the following criteria:

- 1) Feasibility – is it “physically” possible to implement the proposals? If so, in what time frame? How much would that cost? Etc.
- 2) Completeness – are the suggested responses sufficient to solve the problems they address?
- 3) Adequacy – are all the proposed responses necessary? Would it be possible to address the challenges with fewer responses?
- 4) Coherence – are the proposals compatible with each other, i.e., is it possible that implementation of one of the responses would preclude another to be enforced?

In the forthcoming months we plan to answer all the above questions and, if necessary, to revise the responses to challenges proposed in Table 2. As has been shown in the previous sections, both creativity and culture can be looked at from many different perspectives. Because these perspectives are sometimes very distant, there is a lot of miscommunication between the researchers, which in absence of uniformly accepted definitions, only adds to confusion. By designing a clear and simple framework, *conceptual challenge* → *practical*

*problems* → *responses*, we aimed at finding a common ground for a structured discussion that would facilitate the development of a broadly accepted index of CCS. The framework is tentative and as the debate continues it will be updated accordingly.

## Conclusions

The need of having a comprehensive tool to measure the cultural and creative activities of the European cities, which can be easily used by various, also non-technical, stakeholders, is apparent. We believe that a composite indicator approach, which is frequently used to describe and analyze multi-dimensional phenomena, can provide such a tool. There exist plenty of indices that address the issue from various perspectives and for different stakeholders. Nevertheless, after reviewing more than forty composite indices we have concluded that none of them seems to capture a complete picture of such complex phenomena as culture and creativity, especially in the European context. Thus, it is our strong belief that a completely new composite indicator needs to be developed that is useful to all the stakeholders in a very diverse Europe but at the same time can be used for benchmarking exercise with the global peer cities.

In order to design such an index we have identified five main conceptual challenges that have to be dealt with during the development process. Because these challenges are highly abstract, we have designed a practical taxonomy, *conceptual challenge* → *practical problems* → *response*, to assign to each of the abstract concept a collection of tangible problems for which it is easier to conceive a practical solution. We have produced a list of such responses and sketched a plan to implement and test them in a hope to further pave the way towards the desired composite indicator.

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