



Territorial Observation No. 5  
November 2011

5

Territorial Dynamics in Europe  
The Creative Workforce



EUROPEAN UNION  
Part-financed by the European Regional Development Fund  
INVESTING IN YOUR FUTURE

The ESPON 2013 Programme

Coordination Unit  
73, rue Adolphe Fischer  
Luxembourg  
GRAND DUCHY OF LUXEMBOURG  
Phone: +352 545580700  
Fax: +352 545580701  
Email: info@espon.eu

This publication is part-financed by the European Regional Development Fund, the EU Member States and the Partner States, Iceland, Liechtenstein, Norway and Switzerland. The Managing Authority responsible for the ESPON 2013 Programme is the Ministry for Sustainable Development and Infrastructures of Luxembourg.

ISBN: 978-2-919777-05-1

© ESPON 2013 Programme

Reproduction is authorised provided the source is acknowledged and a copy is sent to the ESPON Coordination Unit.

First edition, printed in November 2011.

In the same series of ESPON publications:

Territorial Observation No.1:

“Territorial Dynamics in Europe – Trends in Population development”, November 2008

Territorial Observation No.2:

“Territorial Dynamics in Europe – Trends in Accessibility”, November 2009

Territorial Observation No.3:

“Territorial Dynamics in Europe – Trends in Economic Performance of European Regions 2000-2006”, September 2010

Territorial Observation No.4:

“Territorial Dynamics in Europe – Trends in Internet Roll-out”, April 2011

Printed on paper produced environmentally friendly

Disclaimer:

The content of this publication is based on applied research results provided by the ESPON 2013 Programme. As such, the maps and their corresponding texts do not necessarily reflect the opinion of the ESPON Monitoring Committee.

## Foreword

The purpose of this report is to present territorial evidence, trends and dynamics of European regions related to the creative workforce.

The creative workforce, stimulating the creative economy, opting for more creative jobs, interest in attracting creative people, all these perspectives are currently in demand by policy makers as drivers of innovation and a knowledge-based economy.

The Europe 2020 Strategy emphasises the important role of innovation and knowledge as bearer of economic growth and job creation in Europe. Opting for a smart, sustainable and inclusive growth has however a clear territorial dimension. Regions and cities have to contribute, but the territorial diversity of Europe implies different starting points, endowments and preconditions for success. The EU Cohesion Policy 2014-2020 will take up and support regions and cities in meeting these ambitions and unleashing their potentials.

Understanding the diversity between regions and cities when it comes to the presence of a creative workforce is key for policy makers, not least at the regional level. To be informed about the position of their territory in a European context, to be able to benchmark their region or city, serves as an ever more important input for considerations on the most appropriate, tailor-made development path to take.

ESPON plays the role within EU Structural Funds of providing territorial knowledge, facts and evidence to inform policy development from European to local level. Key messages for policy makers based on applied research and analyses are being communicated, also in the form of ESPON publications.

This ESPON Territorial Observation no. 5 on the creative workforce in Europe uses results from ESPON projects, in particular a recent data and map-update<sup>1</sup>. It uses regional (NUTS 2 level) census data made available by the EUROSTAT Labour Force Survey, covering (as far as possible) all 27 EU Member States, Iceland, Norway and Switzerland, as well as EU Candidate Countries.

A people rather than industry approach is taken by measuring the share of occupations related to the creative workforce complementing conventional human capital measures such as educational attainment. The share of local workers (active population) engaging in creative and cultural professions has been taken as an indication of how “embedded” creativity and culture is in local production systems and its importance for economic development.

The key messages presented in this Territorial Observation are related to the most recent available dataset from 2001-2004 and 2005-2008. Territorial effects of the economic crisis affecting the world economy, its regions and cities can therefore not be reflected in this publication. However, the ESPON Programme has commissioned applied research that will provide more insight on the territorial dimension of the current crisis.

**The underlying reports and data are available at [www.espon.eu](http://www.espon.eu)**

<sup>1</sup> ESPON (2011) – “Update of maps and related data on creative workforce as bearer of innovation”, elaborated by Antonio Russo, University Rovira i Virgili – Department of Geography, Tarragona, Spain, October 2011.

# Table of Content

## Territorial Dynamics in Europe

### The Creative Workforce

<b>Foreword</b>		<b>page</b>	<b>3</b>
<b>1</b>	<b>Executive Summary</b> 11 key messages for policy makers	<b>page</b>	<b>5</b>
<b>2</b>	<b>Creative workforce and economic growth</b> - Are regions with high contingents of creative workers the most economic successful regions in Europe? - Does the creative workforce have an effect on regional growth?	<b>page</b>	<b>7</b>
<b>3</b>	<b>Territorial evidence and trends on creative workforce</b> - What is the contribution of the creative workforce in the European labour market? - How is it increasing the competitiveness of Europe, its regions and cities? - Are development trends related to the creative workforce supporting European polycentric territorial development? - What spatial patterns can be observed at a local level? Is the creative workforce contributing to an inclusive growth of the urban agglomerations and specific territories? - What are the main drivers of creative workers in the local context?	<b>page</b>	<b>10</b>
<b>Maps and Figures</b>			
Map 1:	Relation between the creative workforce and GDP per capita in European regions (2005-2008)	<b>page</b>	<b>7</b>
Map 2:	Trends in the creative workforce and GDP per capita in European regions (2001-2004; 2005-2008)	<b>page</b>	<b>8</b>
Map 3:	Creative workforce in European regions related to active population (2005-2008)	<b>page</b>	<b>11</b>
Map 4:	Evolution of the number of creative professionals (2001-2004; 2005-2008)	<b>page</b>	<b>14</b>
Map 5:	Evolution of the creative workforce related to active population (2001-2004; 2005-2008)	<b>page</b>	<b>15</b>
Map 6:	Employment in creative / digital / new media in Manchester urban agglomeration (2008)	<b>page</b>	<b>16</b>
Map 7:	Evolution of the employment in creative / digital / new media (2003-2008)	<b>page</b>	<b>17</b>
Figure 1:	National creative workforce related to active population in Europe (2005-2008)	<b>page</b>	<b>10</b>
Figure 2:	Hotspots of the creative workforce in Europe (2005-2008)	<b>page</b>	<b>12</b>

## 1 – Executive Summary

Creative people matter. Regions with high concentrations of creative and cultural industries have Europe's highest prosperity levels. Evidence suggests that jobs and growth follow these creative people as much as creative people follow jobs and growth, and attractive places.

As such, creative people are important assets for economic and territorial development. They can support innovation, and their presence can counterbalance migratory flows of the active population to more economic successful regions in Europe.

The significance of having a strong creative workforce is being increasingly recognised throughout the world. Europe and the US are current leaders, but countries like Australia, Canada, Brazil, India and China are actively pursuing the same vision of a strong creative sector. Thus, cities and regions in Europe are faced with growing global competition in attracting members of the creative workforce.

In Europe, the creative workforce numbered around 19 million people in 2008, making up 7% of the EU's labour force. From 2001-2008, significant growth took place with an increase of 2.2 million people to this workforce, corresponding to 13% increase in numbers. When comparing to the total growth of the active population, the creative workforce increased at a rate 3 times faster.

A key factor in this global competition for creative workers is the ability of cities and regions to offer attractive places and lifestyles. This is usually associated with place-based qualities such as cultural and recreational amenities, diverse neighbourhoods, architectural quality, access to nature, etc. Thus, the ability to attract the creative workforce is largely place-dependent and creates opportunities for cities as well as rural areas, islands, etc.

Identifying and mobilising the territorial capital of individual European regions is therefore important, not least due to Europe's current economic challenges and the differing starting points for European regions and cities in contributing efficiently to the Europe 2020 Strategy.

For regions and cities to foster innovation, economic growth and prosperity based on a creative workforce requires evidence and better understanding of their European context.

## 11 key messages for policy makers

Policy makers engaged with competitiveness and territorial cohesion at regional/local, national and/or European level should in particular take the following key territorial dynamics into consideration in further policy development:

- Europe and the US score rather equal and hold currently the highest levels of the creative workforce. However, other major global players are seeking to catch up, enhancing the global competition in attracting members of the creative workforce.
- Economically successful regions tend to have high levels of creative workers among their active population. There is a strong association between GDP per capita and levels of creative occupations. Regions in the most favourable situation are mainly located in Sweden, Finland, Iceland and Central Europe.
- The countries with the highest share of creative workers in the active population are Finland, Switzerland, Sweden and the Netherlands, all with more than 10% of the active population being creative professionals.

- Countries strongly increasing their creative workforces as a share of the total workforce are mostly in Eastern Europe, albeit starting from a low base (2%-6%). The highest growth rates in creative workers (more than 30%) occurred in Poland, Lithuania and Czech Republic. Italy with high growth in the creative workforce is the major exception in Western Europe, where country-level growth rates were generally single figures or even negative.
- These changes distributed Europe's creative workforce more evenly by 2008 than at 2001, supporting European balanced and polycentric territorial development. Territorial competitiveness outside the Pentagon area of London, Paris, Milan, Munich and Hamburg, has over these years gained in relative terms.
- Regional hotspots/concentrations of the creative workforce are mainly the capital and metropolitan regions located in Central and Northern Europe. Capital city regions tend to have a higher share of creative workers than other regions within the same country.
- However, urbanised regions in general have not been the biggest winners over the period 2001-2008. While they have experienced an average increase of 9.2% of the share of the creative workforce related to the total active population, predominantly rural regions experienced a much higher increase of 12.6%.
- Particularly in industrial regions, the creative workforce is declining as a share of the overall workforce. This trend can be seen in Germany and the Netherlands, but also regions in Northern France, Spain and Bulgaria. These regions are likely to face challenges related to creative driving forces.
- More peripheral regions appear to be enhancing their competitiveness with significant increases in their creative workforce. In particular, predominantly rural or mountain regions and some island, which are attracting many tourists (e.g. Corsica, Madeira, the Balearic Islands and Sardinia).
- The creative workforce is a powerful driver in some cities in Europe of inclusive and sustainable growth but public policies encouraging the development of the sector seem an important element at this scale. Within urban agglomerations, the creative workforce appears to concentrate in areas that are attractive in terms of accessibility and urban amenities.
- The fact that some less economically strong regions are experiencing simultaneous growth in GDP and employment in the creative workforce, indicates that creative occupations can contribute to better territorial balance and cohesion. Tailor-made strategies at regional and local level should therefore address the creative workforce as an asset and a development opportunity.

## 2 – Creative workforce and economic growth

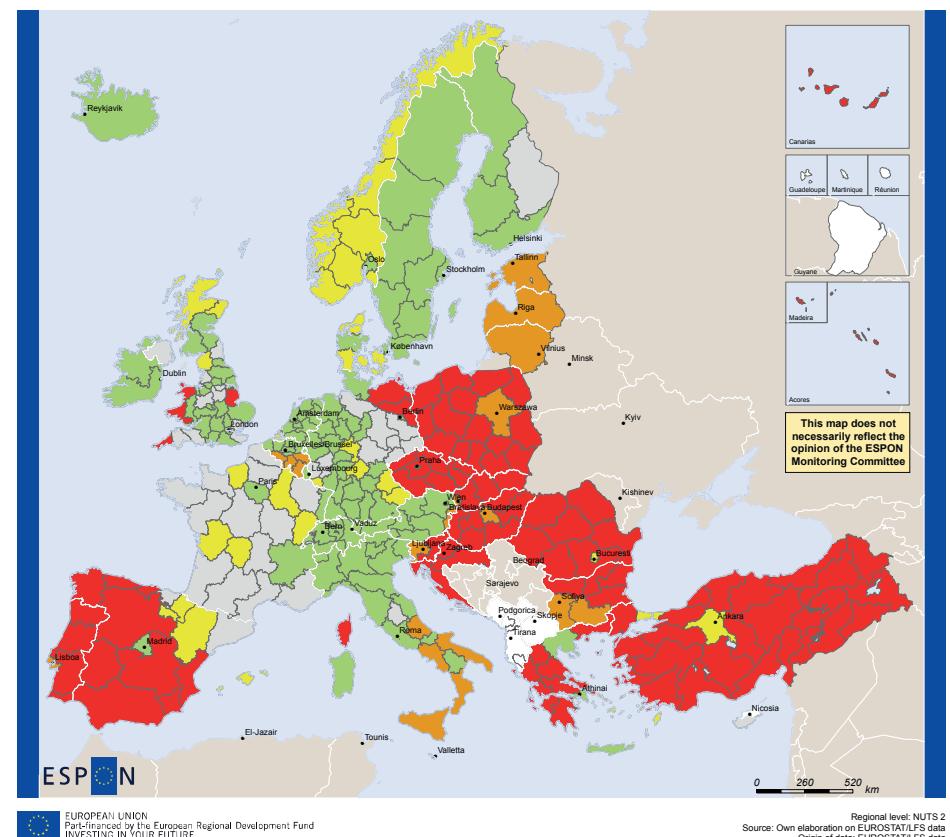
- Are regions with high contingents of creative workers the most economic successful regions in Europe?
- Does the creative workforce have an effect on regional growth?

Evidence shows that regional economic growth is powered by the creative workforce and it is in attracting and retaining human capital that regions now compete. The most economically favourable regions have the highest share of creative workers among their active population and the contrary seems also true. More than one third (36%) of the European regions show a similar situation for creative workers and GDP per capita.

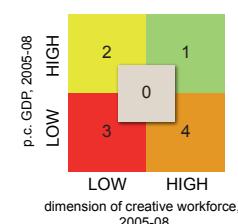
Regions in a double favourable situation (high GDP per capita and high creative workforce) are mainly concentrated in Sweden, Finland, Iceland, and Central Europe (map 1). In addition, some regions in Ireland and United Kingdom reveal a good situation both in economic and creative human capital assets. This group includes also most of the predominantly urban regions and capital regions in Europe, showing the competitive advantages of this type of territories.

On the other side, peripheral regions in Eastern and Western Europe are in a double negative situation and face important challenges. Only very few regions including large urban areas such as Valencia, Lodz and Zagreb as a capital city region are in this category.

**Map 1** Relation between the creative workforce and GDP per capita in European regions (2005-2008)



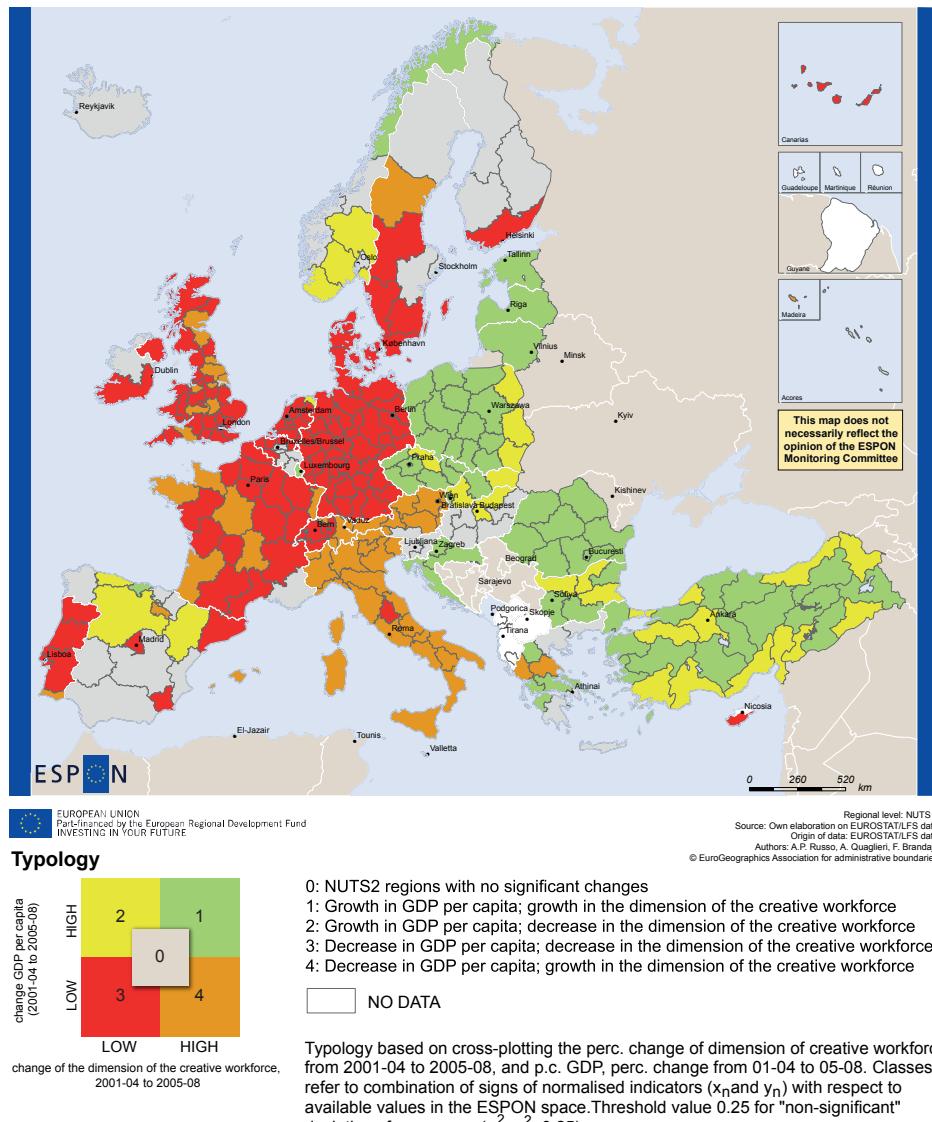
**Typology**



Typology based on cross-plotting the dimension of creative workforce and p.c. GDP in 2005-08 period. Classes refer to combination of signs of normalised indicators ( $x_n$  and  $y_n$ ) with respect to available values in the ESPON space. Threshold value 0.25 for "non-significant" deviations from means ( $x_n^2 + y_n^2 < 0.25$ ).

## 2 – Creative workforce and economic growth

**Map 2 Trends in the creative workforce and GDP per capita in European regions (2001-2004; 2005-2008)**



Besides this main pattern, indicating a relation between GDP per capita and creative workforce, a few regions, mainly located in the Baltic countries exhibit a different situation with high contingents of creative workforce and low GDP per capita. In addition, particularly predominantly urban areas, such as Liege, the metropolitan area of Lisbon, Bratislava as capital region and some Southern Italian regions (Campania, Sicily and Apulia) reveal important potentials in the creative workforce despite a less favourable economic situation.

On the contrary, regions in Western and Central Europe in France, Northern England, Scotland and Norway are economic successful regions but have low contingents of creative workforce.

The most favourable development trends (positive changes both in the creative workforce and in GDP per capita in relation to the ESPON average) are occurring mainly in regions in Eastern Europe, primarily in Poland, Czech Republic and Baltic countries (Map 2). It is interesting to point out that some catching up regions in economic terms have also experienced a considerable a growth in the creative workforce, which gives these regions important territorial potentials for development.

## 2 – Creative workforce and economic growth

On the other hand, regions posing particular concern related to balanced regional development and competitiveness are mainly located in Portugal with a negative evolution both in the GDP per capita and creative workforce. In addition other types of regions in Europe show the same situation. However, it needs to be considered that some of these regions (mainly located in Sweden and Central Europe) are highly developed economically with already a high proportion of creative workers in the labour market. This situation may also cover other types of regions (such as Catalonia in Spain, Cyprus and some Irish regions) that have lost momentum in their economic progress and in their capacity to attract creative talent and cultural workers in a permanent way.

A trend showing a relative growth in GDP per capita but at the same time a relative decrease of the creative workforce is related to regions where the economic growth in the last decade has been mainly driven by traditional sectors. This trend is observed in a few regions in Eastern Europe (mainly rural and industrial regions) and in Spain (associated to the boom of the construction sector). These regions have problems in terms of innovative capacity and perhaps are more exposed to economic downturns and decline in terms of competitiveness.

Finally, many regions in Italy and some regions in Austria and France (coloured in orange) show a positive evolution of the creative workforce but a low increase of the GDP per capita. This situation is related to regions that have not yet been able to fully capitalise on their creative workforce, perhaps due to a weaker institutional capacity or governance structures.

The analysis of the relation between the evolution of the creative workforce and economic growth shows a complex picture with a large variety of situations. A high proportion of creative workers seems to be strongly related to strong economic regions. However, the evolution shows that creative workers can be bearers of more territorial cohesion in Europe. Especially in the current global economic situation is positive that some less economic favourable regions are experiencing an important growth in the creative workforce and are showing signs of “catching up”. Tailor made territorial strategies at regional and local level should (continue to) consider the creative workforce as a territorial asset and better exploit it as a development opportunity in some of European regions.

### 3 – Territorial evidence and trends on creative workforce

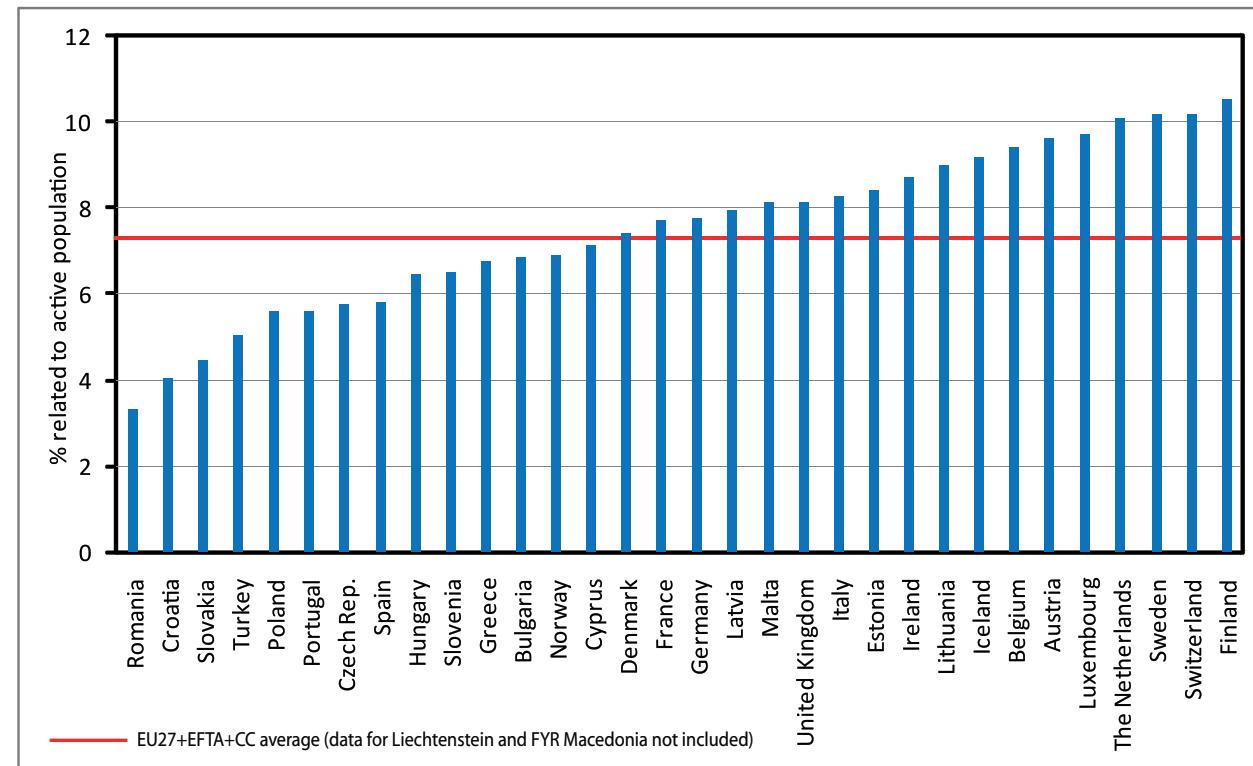
- What is the contribution of the creative workforce in the European labour market?
- How is it increasing the competitiveness of Europe, its regions and cities?

The significance of having a strong creative workforce is being increasingly recognised throughout the world. By attracting and retaining creative people, cities and regions stand to gain important economic advantages, which can drive innovation and encourage growth and improvements in productivity. Innovation and growth in cities and regions, to a large extent is an outcome of the presence of creative people.

In absolute terms, the number of creative workers in Europe is 19.2 million people. The largest countries have the highest share of creative workers: Germany, UK, France and Italy lead the ranking. Together they hold 51.6% of the total European creative workforce. Not all countries in Europe seem to have the same potentials to attract and mobilize creative assets.

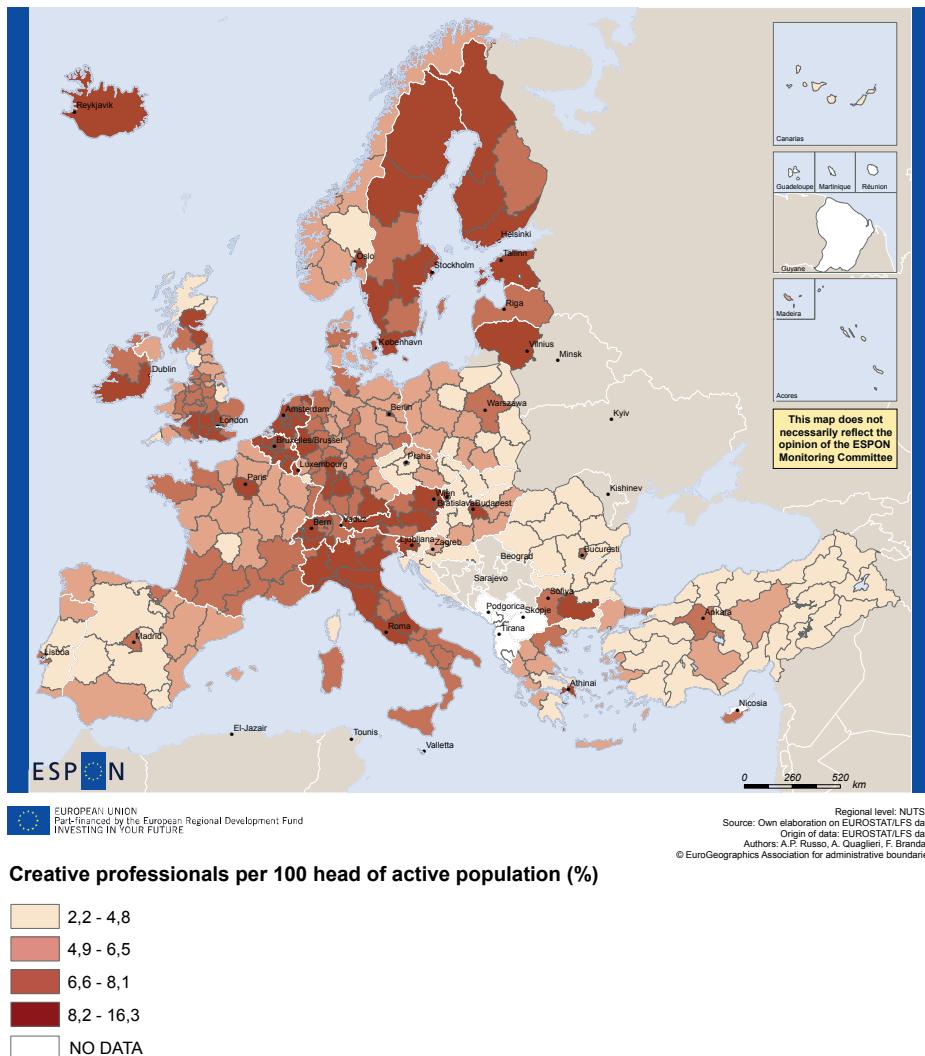
When considering the relation of the creative workforce to active population, it represents 7.2% of the entire European labour market in 2005-2008. The countries with the highest share of creative workers in the active population are Finland, Switzerland, Sweden and the Netherlands, all with more than 10% of the active population being creative professionals (Figure 1).

**Figure 1** National creative workforce related to active population in Europe (2005-2008)



### 3 – Territorial evidence and trends on creative workforce

**Map 3 Creative workforce in European regions related to active population (2005-2008)**



Looking at regional level in Europe, the highest percentage of creative workers in the labour market can be identified in an area extending from Scandinavia and Baltic countries down to the Mediterranean regions (Map 3). Not surprisingly, the capital regions in Europe also seem to attract creative people.

In the period 2005-2008, the hotspots of Europe's creative workforce are mainly capital and metropolitan regions located in central and Northern Europe (Figure 2). United Kingdom, Belgium, Netherlands and Switzerland include 3 regions with more than 10% of the workforce being employed in the creative sector.

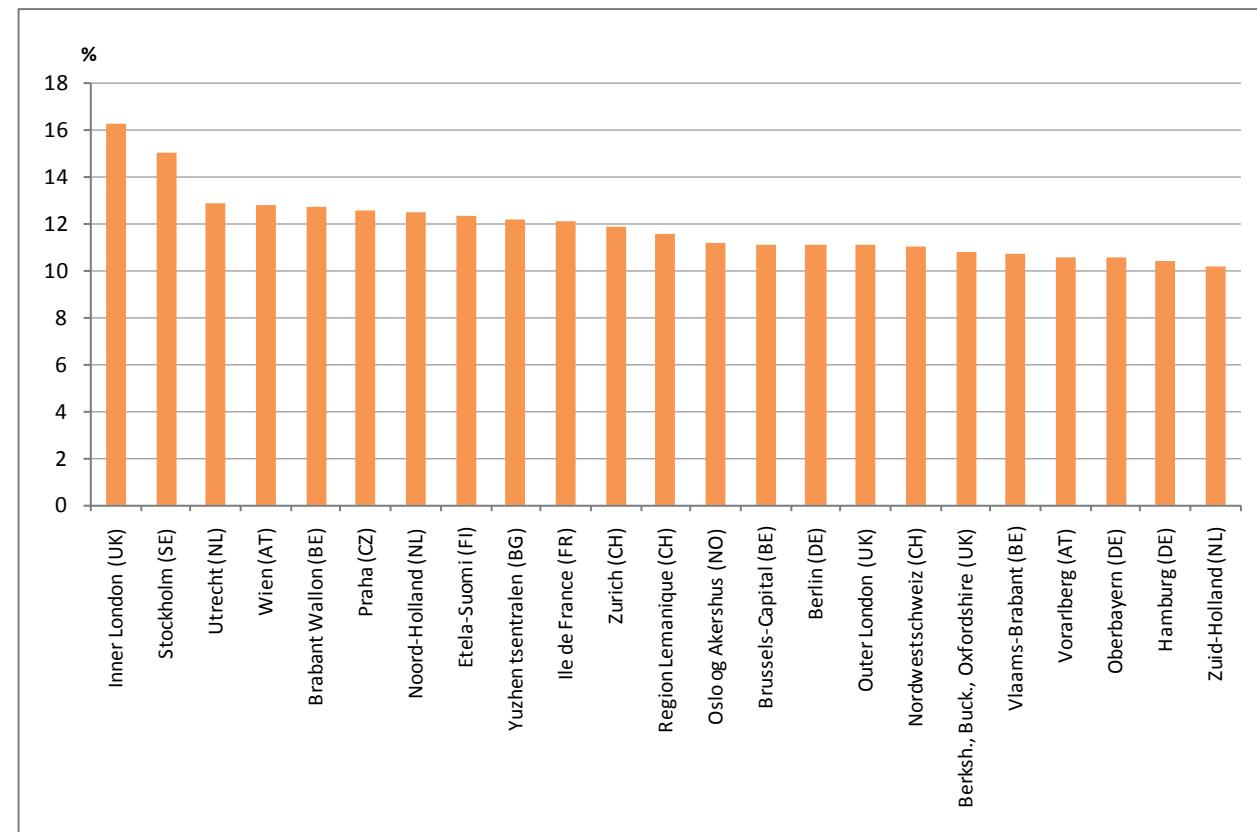
### 3 – Territorial evidence and trends on creative workforce

Positive shifts within these hotspots between 2001 and 2008 occurred mainly in regions located in Eastern Europe. Yuzhen tsentralen in Bulgaria doubled its creative workforce (+5.7%) and Prague, Czech Republic (+2.4%) also increased significantly. In addition, Stockholm and Oslo have also experienced an important upward trend in this period.

Considering territories with specific territorial features, urban areas and especially capital cities show a strong concentration of the creative workforce. The creative workers represent 7.3% of the labour force of predominantly urban regions in Europe and 6.1% in predominantly rural regions.

Understanding the dynamism of the urban regions, one should also consider the distance and the interconnection between urban areas. For instance, the strength of the creative labour market in the Netherlands can be partly explained with the polycentric urban character of the territory and the short distances between the regional poles at national level and in the Europe context (in relation to North-Western Europe). In this sense, the Dutch urban regions constitute a creative network city, included in a cross-border polycentric creative region together with the Belgian city region of Brussels-Antwerp-Gent and the Rhein-Ruhr region.

**Figure 2** Hotspots of the creative workforce in Europe (2005-2008)



### 3 – Territorial evidence and trends on creative workforce

In the European context, island and mountain regions are relatively behind in their creative workforce endowments, however some are catching up. A clear pattern exists on the European territory: the share of creative workers is more important in the labour market in Western and Northern Europe (representing 7.9% and 7.8% of the workforce of these regions, respectively), while in Southern-Eastern regions it represents less than 5%.

#### - Are development trends related to the creative workforce supporting European polycentric territorial development?

In Europe, the creative workforce increased 12.7% (2.165.519 people) between 2001 and 2008. However, the dynamics of the creative workforce in Europe vary widely across Europe. Italy (+427,623), United Kingdom (+266,888) and Poland (+245,499) registered the largest increases in absolute terms (Map 4). In relative terms Luxembourg, Poland, Lithuania and Czech Republic showed more than 30% increase. On the other side, Malta (-9,408), Germany (-28,310), and The Netherlands (-38,467) are experiencing a decrease of the creative workforce.

When considering the share of creative workforce in relation to active population, Poland, Luxembourg, Lithuania and Czech Republic are again the countries experiencing the largest increase (25-40%).

Taken as a whole, regional trends in the territorial pattern of the creative workforce are mixed and displaying a profound diversity (Map 5).

In general, regions attracting a creative workforce are located in Eastern and Northern Europe, in particular Poland, Baltic and Nordic countries, as well as in Bulgaria and Turkey. In addition, some western regions in France and scattered regions in the UK register a moderate increase in the creative professions. Italy stands out as it includes a large number of regions who increased their creative workforce in the short period considered.

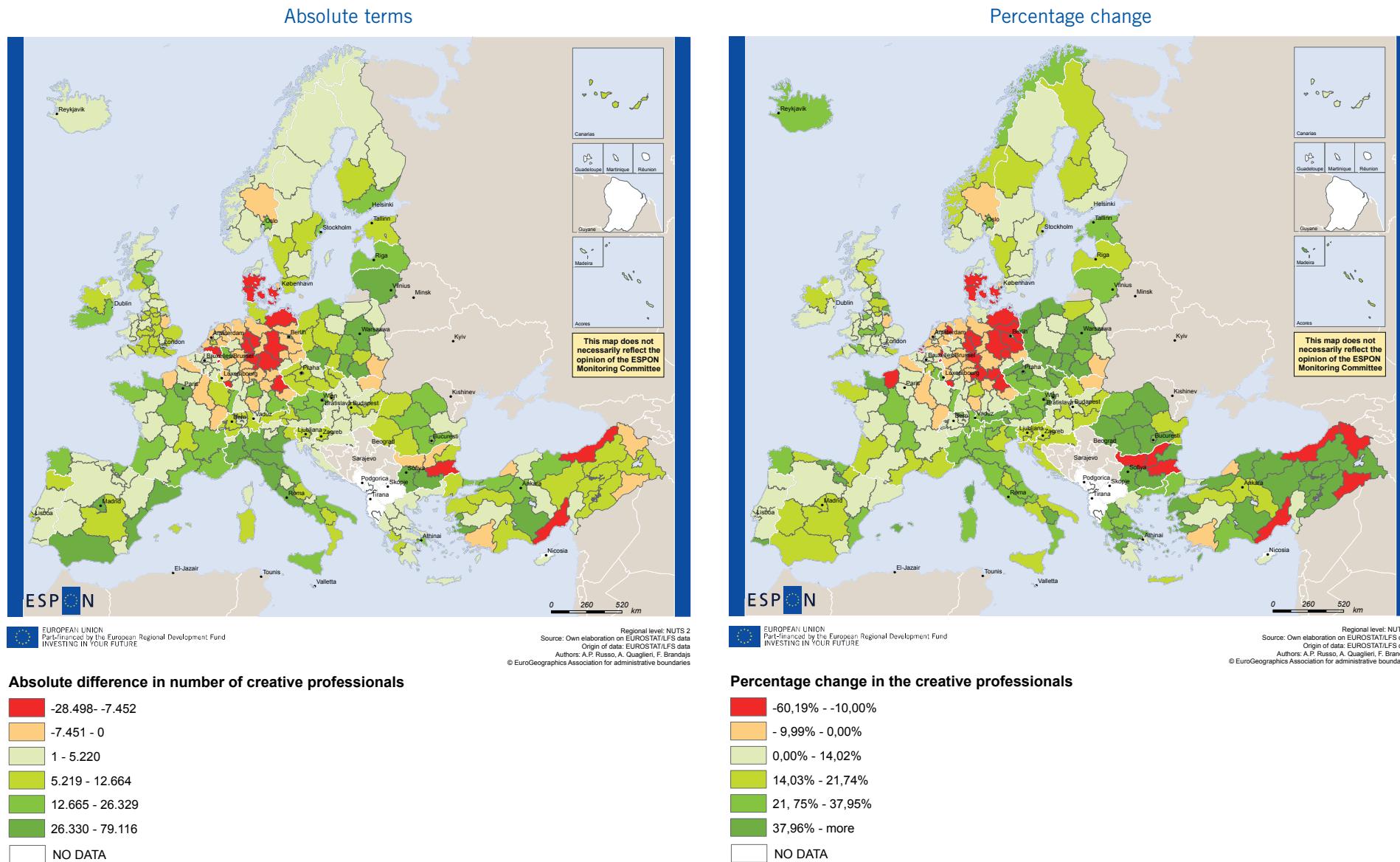
Regions located in Sweden, Finland and Ireland register similar performances: either maintaining or slightly increasing the number of creative workers in relation to the active population.

Looking at territories with specific geographical features, regions that experienced the highest growth rates in the two periods considered are predominantly rural or mountain regions, such as Basilicata (in Italy, 6%), La Rioja (in Spain 5.9%), Lincolnshire (in the UK, 4.9%) and West Macedonia (in Greece 4.3%). In addition, island regions being attractive tourist destinations, like Corsica (7.4%), Madeira (5.1%), the Balearic Islands (4.7%) and Sardinia (3.1%), also registered important increases in the creative workforce.

For urban regions, a few regions including second tier cities in their national urban systems (e.g. Dolnoslaskie in the Breslau region, Malopolskie in the Krakow region in Poland), as well as a number of regions including small university cities, like Olomuc (Czech Republic) or Durham (United Kingdom) managed to mobilise and to attract creative workers.

### 3 – Territorial evidence and trends on creative workforce

**Map 4 Evolution of the number of creative professionals (2001-2004; 2005-2008)**

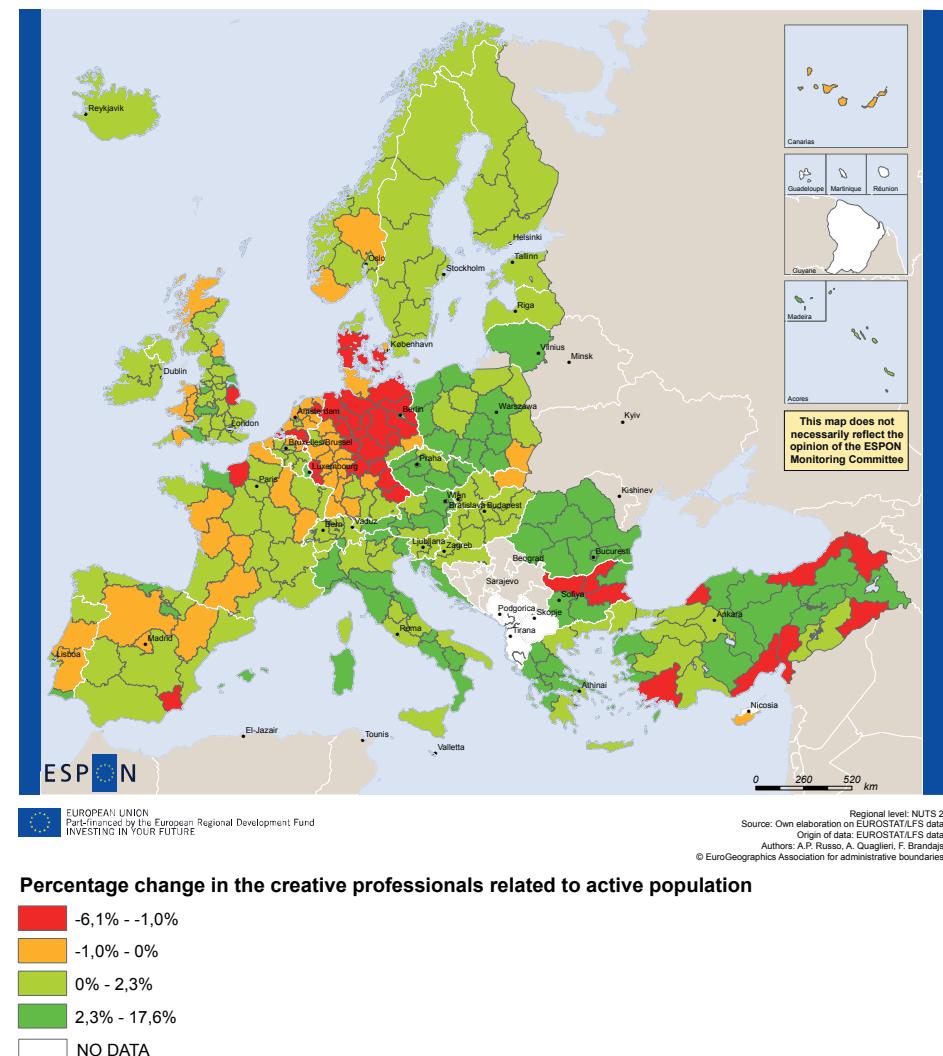


### 3 – Territorial evidence and trends on creative workforce

Surprisingly, this positive trend does not include any of the largest urban regions in Europe. In fact the creative workforce as share of the active population in predominantly rural areas increased 12.6% compared to 9.2% registered in urban areas. This clearly indicates that because place is important, the creative workforce is highly relevant for rural territories offering attractive amenities and quality of life.

Among the regions with the negative growth rates, there are mostly industrial regions in Germany (Bremen -2.1%, Hannover -2.1%, Kassel -2.6%, Saarland -2.8%), and in the Netherlands (Noord-Brabant -1.9%, Drenthe -1.5%). Additionally, some industrial regions in North of France, Spain and Bulgaria also have negative growth rates.

**Map 5 Evolution of the creative workforce related to active population (2001-2004; 2005-2008)**



### 3 – Territorial evidence and trends on creative workforce

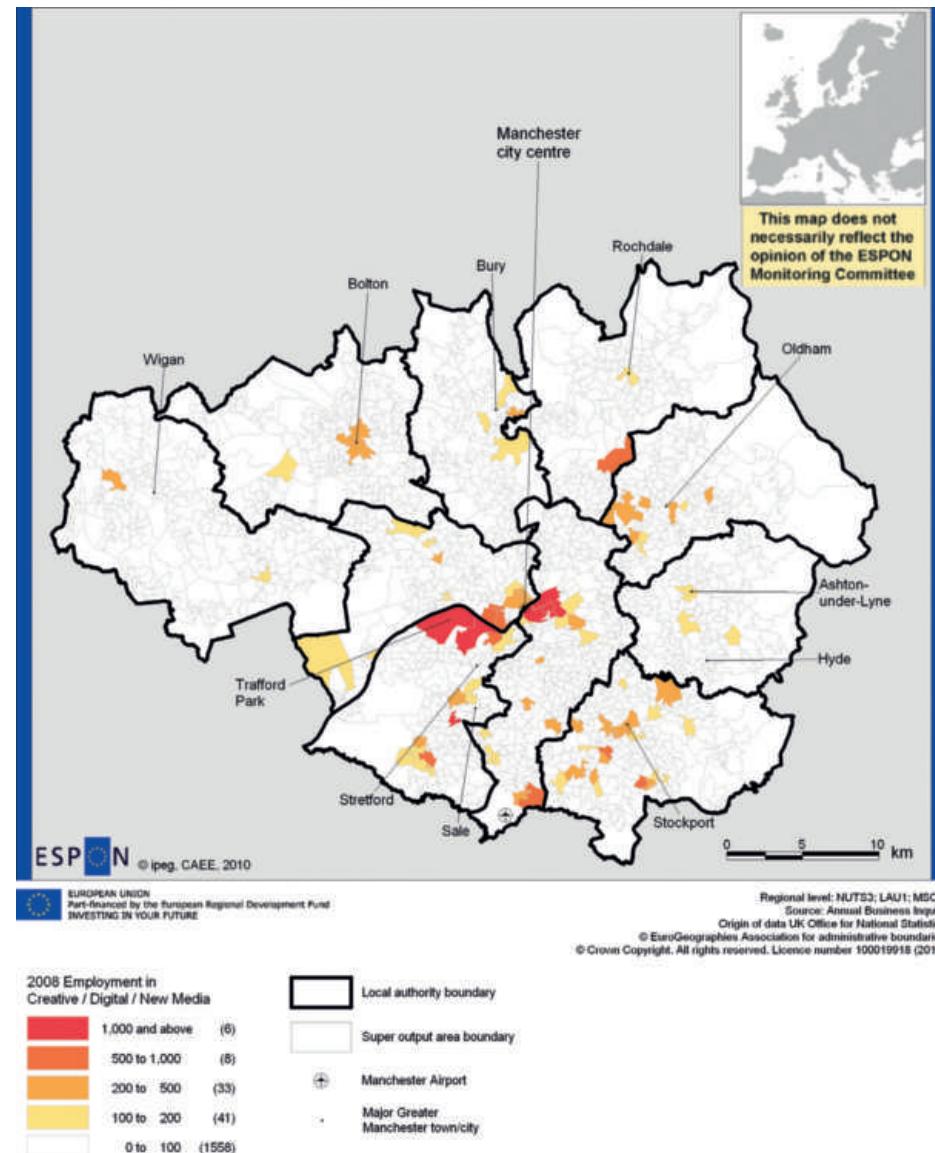
- What spatial patterns can be observed at a local level? Is the creative workforce contributing to an inclusive growth of the urban agglomerations and specific territories?
- What are the main drivers of creative workers in the local context?

Evidence tells that creative people are a key driver of urban and regional development and that people in creative occupations are socially relevant because of their ability to spur local economic growth through innovation. Creative people can contribute to the entrepreneurial spirit and business environment of a place.

One example is Manchester, which has the UK's largest concentration of employment in the media and creative industries outside London. The centre of Manchester is a dominant location (Map 6 and 7) for the creative workforce and the biggest gains in jobs were made here over the period 2003 to 2008.

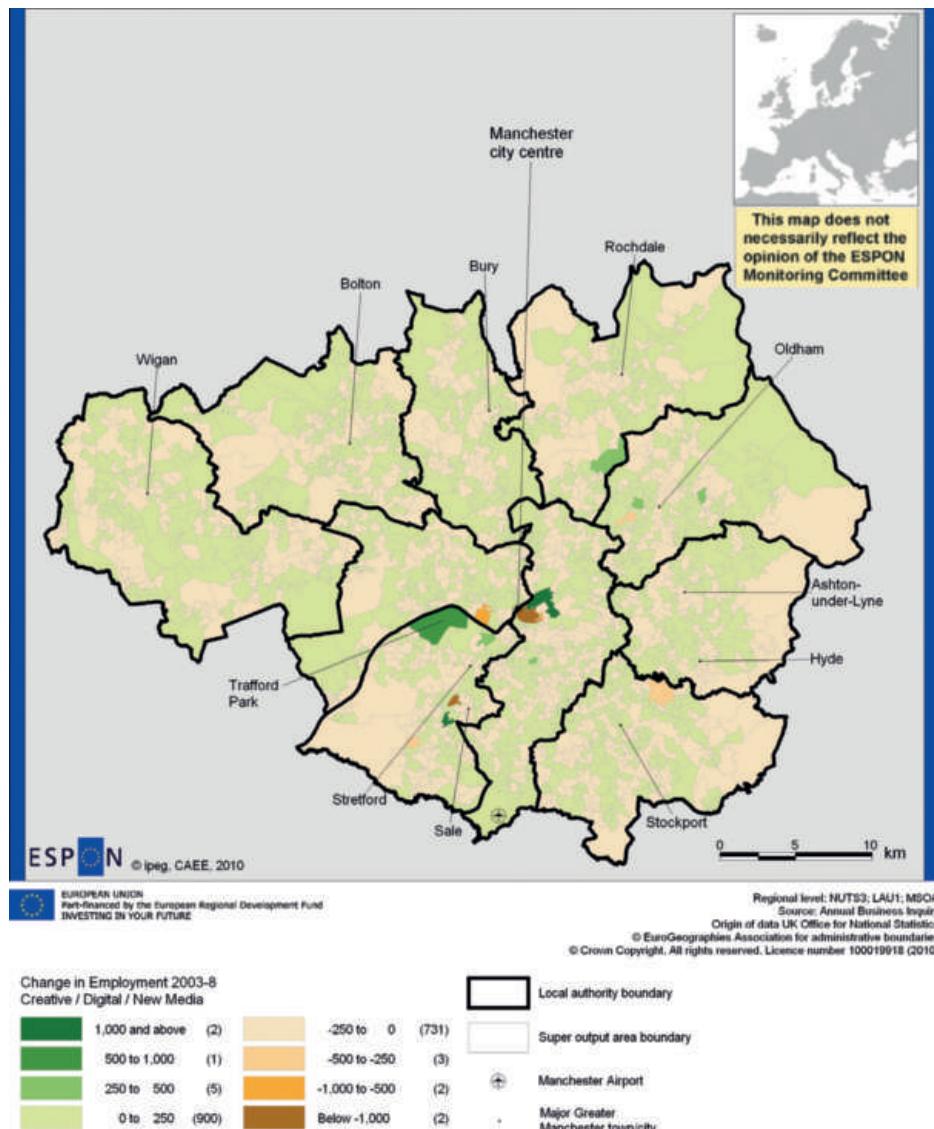
Manchester has a longstanding reputation for creativity in both music and TV and the creative workforce is expected to grow further with the partial relocation of the BBC. Institutions have played a major role in its continued growth, though not always with the creative economy in mind. While Salford Quays is now a centre for the creative workforce, this canal-side area was targeted for investment (with significant ERDF resources) in the 1990s with the aim of generating tourism and related jobs.

**Map 6 Employment in creative / digital / new media in Manchester urban agglomeration (2008)**



### 3 – Territorial evidence and trends on creative workforce

**Map 7 Evolution of the employment in creative / digital / new media (2003-2008)**



More recently, institutional actions have focused on ways to further facilitate this growth. For example, the ten local authorities in the city region have signed up to a macro-economic strategy and are working together to deliver this. Local actors are now focusing on smaller added value actions – for example bringing large long-vacant electronics factories back into creative use implementing innovative approaches.

The case of Manchester clearly demonstrates the close inter-linkages between the creative workforce, economic development and the significance of place attractiveness in terms of regenerated neighbourhoods, attractive working environments and cultural amenities. More importantly, it shows that strategic and innovative public-private initiatives and investments can play a pivotal role for the development of a place-based, local creative economy.

Another example of the positive contribution of the creative workforce to inclusive, smart and sustainable growth can be found in La Rioja, Spain. Being a predominantly rural region that has experienced a high growth in the creative workforce, it is a good example of a creative rural economy. Approximately 4% of the labour force was made up in the period 2005-2008 by creative professions and shows one of the highest growth rates, mainly related to the wine sector.

### 3 – Territorial evidence and trends on creative workforce

By linking creative skills, high-added value products and the valorisation of knowledge rooted in cultural landscapes, this region has managed to capitalise on its territorial assets and develop a successful creative rural economy based on a well-crafted wine tourism strategy.

The creative music cluster on the island of Ibiza is another example of a creative region in Europe. The creative workforce (as a share of the active population) displayed high growth rates between 2001 and 2008, and exhibits a positive association with economic development.

Being an island region a priori with territorial challenges, in particular small size and limited resources in comparison with other European regions, Ibiza has been for a long time the destination of a cosmopolitan population (bohemians, artists, musicians), who often stayed as residents. This community has developed a music cluster for the island, attracting other creative workers such as creators, promoters, producers, and many upstream sectors like sound engineering.

Presently the music cluster on Ibiza is part of its regional development strategy aiming at strengthening the sector, promoting the attraction of other creative workers and enhancing cross-fertilisation with other cultural industries like design, fashion and events. This is a good example on how creativity can promote endogenous growth and boost the competitiveness of a European island region.

#### Measuring creative workforce

This publication has defined and measured creative workforce in a way that is consistent with an earlier ESPON project using the International Standard Classification of Occupations (ISCO-88). This information is provided by EUROSTAT from the Labour Force Survey (LFS).

The definition of the creative workforce is based on professions, not industries. This is a robust and possible way to measure the creative class as it provides harmonised data across Europe, it ensures international comparisons and comes from an official and reliable source of information.

The report uses averages of data in selected ISCO-88 classes (4 digits) for 2001-2004 and 2005-2008 to better show the broad direction of travel of regions. The ISCO-88 4D classes used are listed on the next page.

The data is presented and analysed at regional level (NUTS2) and provides reliable and comparative data covering EU27 plus Iceland, Norway and Switzerland, as well as the EU Candidate countries Croatia and Turkey. Data for Liechtenstein and Former Yugoslavia Republica of Macedonia has not been available.

GDP-PPS is the gross domestic product (GDP) per power purchasing standard (PPS) where PPS takes into account the relative cost of living and inflation rates. This makes it possible to compare the indicator between countries. This indicator is then divided by the total population in the region (NUTS 2). This information is provided by EUROSTAT.

Active population comprises employed and unemployed persons. Employed persons are persons:

- aged 15 year and over (16 and over in ES, UK and SE (1995-2001); 15-74 years in DK, EE, HU, LV, FI and SE (from 2001 onwards); 16-74 in IS and NO),
- who during the reference week performed work, even for just one hour a week, for pay, profit or family gain,
- who were not at work but had a job or business from which they were temporarily absent because of, e.g., illness, holidays, industrial dispute or education and training.

### 3 – Territorial evidence and trends on creative workforce

Unemployed persons are persons:

- aged 15-74 (in ES, SE (1995-2000), UK, IS and NO: 16-74),
- who were without work during the reference week, but currently available for work,
- who were either actively seeking work in the past four weeks or who had already found a job to start within the next three months.

This information is provided by EUROSTAT.

Finally, in order to include information on territorial trends in specific types of territories, some regional typologies available in the ESPON Database were used for analytical purposes (in particular urban-rural, mountain regions, islands regions and border regions).

#### **Additional considerations**

There were gaps in the data and these have been addressed so that a European wide picture could be presented. The detail methodological approach outlining this and the method generally is available in the full report at [www.espon.eu](http://www.espon.eu)

#### **List of ISCO-88 4D codes:**

2131	Computer systems designers and analysts	3473	Street, night club and related musicians, singers and dancers
2132	Computer programmers	3474	Clowns, magicians, acrobats and related associate professionals
2139	Computing professionals not elsewhere classified	3475	Athletes, sportspersons and related associate professionals
2141	Architects, town and traffic planners	3480	Religious associate professionals
2310	College, university and higher education teaching professionals	5113	Travel guides
2320	Secondary education teaching professionals	5210	Fashion and other models
2431	Archivists and curators	7311	Precision-instrument makers and repairers
2432	Librarians and related information professionals	7312	Musical instrument makers and tuners
2442	Sociologists, anthropologists and related professionals	7313	Jewellery and precious-metal workers
2443	Philosophers, historians and political scientists	7321	Abrasive wheel formers, potters and related workers
2444	Philologists, translators	7322	Glass makers, cutters, grinders and finishers
2451	Authors, journalists and other writers	7323	Glass engravers and etchers
2452	Sculptors, painters and related artists	7324	Glass, ceramics and related decorative painters
2453	Composers, musicians and singers	7331	Handicraft workers in wood and related materials
2454	Choreographers and dancers	7332	Handicraft workers in textile, leather and related materials
2455	Film, stage and related actors and directors	7341	Compositors, typesetters and related workers
3131	Photographers and image and sound equipment operators	7342	Stereotypes and electrotypers
3429	Business service agents and trade brokers not elsewhere classified	7343	Printing engravers and etchers
3460	Social work associate professionals	7344	Photographic and related workers
3471	Decorators and commercial designers	7345	Bookbinders and related workers
3472	Radio, television and other announcers	7346	Silk-screen, block and textile printers



[www.espon.eu](http://www.espon.eu)

#### Interested in ESPON?

The ESPON 2013 Programme is part-financed by the European Regional Development Fund, the EU Member States and the Partner States Iceland, Liechtenstein, Norway and Switzerland. It shall support policy development in relation to the aim of territorial cohesion and a harmonious development of the European territory.

ESPON shall support Cohesion Policy development with European-wide comparable information, evidence, analyses and scenarios on framework conditions for the development of regions, cities and larger territories. In doing so, it shall facilitate the mobilisation of territorial capital and development opportunities, contributing to improving

European competitiveness, to the widening and deepening of European territorial cooperation and to a sustainable and balanced development. The Managing Authority responsible for the ESPON 2013 Programme is the Ministry of Sustainable Development and Infrastructures of Luxembourg.

ISBN 978-2-919777-05-1