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EUROPE INNOVA
European Cluster Observatory

Creative and Cultural Industries

Priority Sector Report

Draft Version

Draft report presented during the expert workshop entitled “Towards a Pan-European initiative in support of innovative creative industries in Europe” in Amsterdam, 04-05 February 2010

February 2010

Dominic Power, Uppsala University

Tobias Nielsen, QNB Analysis

European Cluster Observatory

cip competitiveness and innovation framework programme 2007-2013

European Commission
Enterprise and Industry

Executive summary

- In 2006 European creative and cultural industries firms employed a total of 5,240,630 persons.
- The creative and cultural industries have overall average annual employment growth rates nearly double that of the general economy: Between 2001 and 2006 annual average growth rates were 2.21% compared to 1.2% for total European employment.
- Regions with high concentrations of creative and cultural industries have Europe's highest prosperity levels.
- Large urban areas and capital city regions dominate the creative and cultural industries, but some city regions do better than others.
- The creative and cultural industries are significant generators of intellectual property, in particular copyrights, and the largest creative and cultural industry regions are also among the largest employment centres for copyright-based industries.
- Among the regions of Europe which rank among the top 25 either by population or creative and cultural industries employment the following have a larger creative and cultural sector than expected: Athens, Berlin, Budapest, Bucharest, Denmark, Helsinki, Inner London, Outer London, Maastricht, Madrid, München, Nijmegen, Rome, Stockholm, and Valencia.
- As a share of the regional labour market, creative and cultural industries account for the largest shares in Inner London (5.12%), Praha (4.97%), Hamburg (3.94%) and Bratislava (3.90%).
- Most of the regions in the top 25 highest cultural and creative growth regions are small and medium sized regions. However, the following regions with labour markets over 1 million people were in the top 25 for annual employment growth: Seville (7.33%), Valencia (6.93%), Bilbao (4.52%), Liege (4.25%), Lithuania (4.24%).
- The highest employment growth rates in the period 2001-2006 are found in Austria (24.9%), Latvia (15.11%), Lithuania (13.26%), Spain (12.84%), Estonia (11.3%) and Slovenia (10.1%).
- Creative and cultural industry manufacturing activities are the most regionally concentrated, and consumer oriented activities such as retail the least regionally concentrated.
- Further statistical work is needed to measure the true size of the creative and cultural industries. The data used in this report covers employees but not sole traders (i.e. firms with no employees but one active owner) or freelancers. Statistics show that 82.7% of Swedish creative and cultural establishments have no employees.

The European cultural and creative industries (CCI) represent a significant set of industries. Social, cultural and technological changes have helped fuel our thirst and demand for cultural products, new forms of entertainment, distraction, and inspiration. Driven by these changes entirely new industries have emerged (e.g. computer games, web design), older cultural industries have gone from being the preserve of the elite to mass market global industries (e.g. books, high fashion, designer goods), and traditional consumer industries have tried to redesign and repackage what they have always done to suit consumers' insatiable desire for culture and creativity.

Europe's creative and cultural industries are global leaders and competitive exporters in a wide range of fields. They are the heart of creating Europe's culture and identity, and central to promoting Europe's identity around the world. Moreover they are an aggregate group of industries that in 2006 employed a total of **5,240,630 persons or 2.21% of the European labour market**.

This report presents regionalized data and trends for these 5.2 million employees in 30 European countries. The report rests upon a methodology that has aimed at caution, minimalism and accuracy above all[1]. It is important to note at the outset then that, the number of people working in Europe's creative and cultural industries is likely much higher. The data used in this report covers employees but does not include sole traders: i.e. it excludes firms with no employees but one active owner. The cultural and creative industries are fields where many micro-businesses and freelancers are active and it is important to note they may account for a significant number of people actively engaged in the European creative and cultural economy. Taking Sweden as an example, the number of establishments with no employees in Sweden is presently 73,150 out of a total of 88,372 creative and cultural industries establishments: i.e. Sweden 82.7% of establishments are not covered by employment statistics compared to 73.2% in the overall Swedish economy.

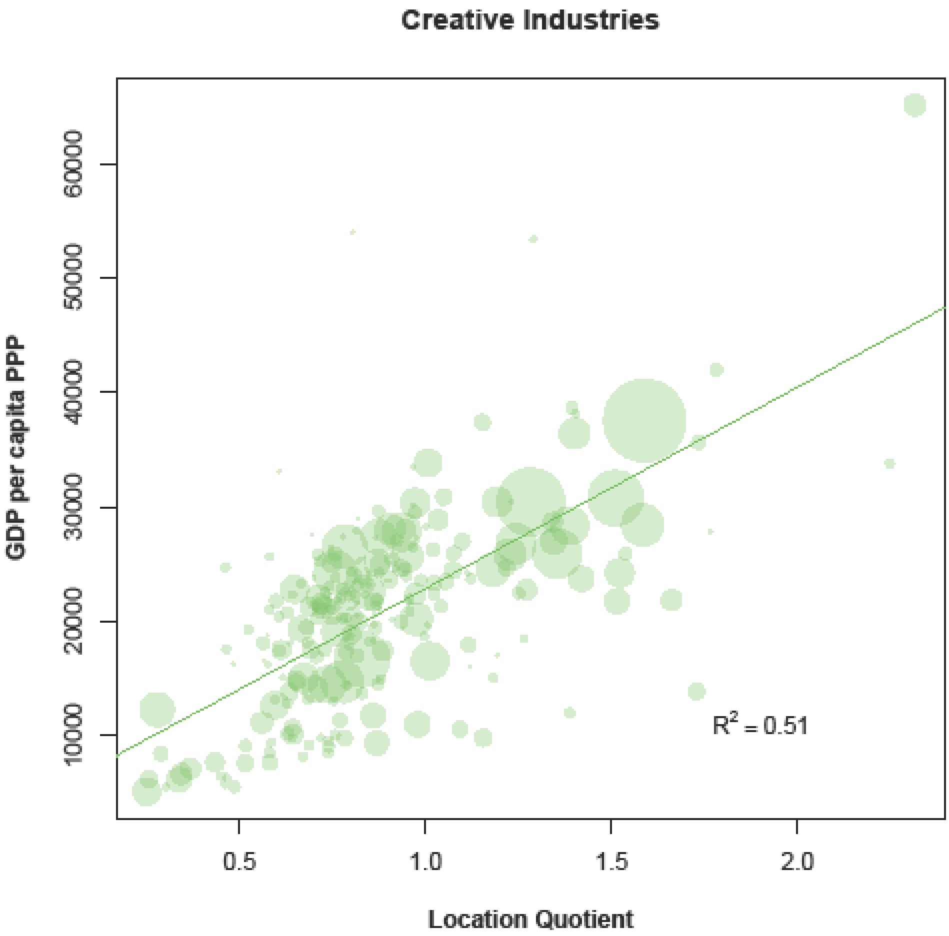
1 Creative and Cultural Industries and Prosperity

The creation of employment opportunities is crucial to economic and social well-being. There is a strong relationship between the presence of creative and cultural industries and regional prosperity. Figure 1 shows that those regions with above average concentrations[2] of Europe's creative and cultural industry employees are generally those where economic prosperity is highest.

[1] An extensive methodological appendix to this report goes into detail in how we have defined creative and cultural industries and the various measures and data we have used in this report.

[2] Measured by location quotients. Location quotients measure the level of regional specialization. Values over 1 indicate above-average levels of concentration.

Figure 1: Creative and cultural industry concentration and regional prosperity.



If we take into account no other factors, regional creative and cultural specialization explains 51% of the variance in GDP per capita. Europe's wealthiest regions are home to disproportionate levels of creative and cultural industry concentration. It is likely that creative and cultural firms and employees are drawn to the markets represented by prosperous regions but also that the creative and cultural industries are themselves important components of and contributors to the economies of Europe's wealthiest regions.

2 Principal Labour Markets

The largest concentrations of creative and cultural industry employees in Europe are major urban areas. This confirms academic research findings and literature that suggests that creative and cultural activities that become industrialized are concentrated in and attracted to large urban areas. Creativity and cultural innovation, of course, happen in many different types of region across Europe but it seems that large scale industrialization of these activities occurs in large urban areas.

Table 1. Europe's Top 25 regions for creative and cultural industry employment.

	CCI Rank	Employment	LQ
Île de France (Paris)	1	246,693	1.59
Inner London	2	192,623	2.31
Lombardia (Milan)	3	155,406	1.28
West-Nederland (Amsterdam)	4	149,687	1.51
Madrid	5	136,126	1.58
Cataluña (Barcelona)	6	125,992	1.35
Danmark	7	95,529	1.24
Lazio (Rome)	8	85,466	1.39
Attiki (Athens)	9	75,555	1.52
Oberbayern (München)	10	67,110	1.40
Andalucía (Sevilla)	11	64,679	0.83
Kozep-Magyarorszag (Budapest)	12	62,347	1.66
Oost-Nederland (Nijmegen)	13	59,955	1.42
Outer London	14	59,220	1.18
Zuid-Nederland (Maastricht)	15	58,918	1.34
Ireland	16	57,018	1.19
Valencia	17	54,308	0.97
Stockholm	18	53,549	1.73
Bucuresti – Ilfov	19	50,271	1.73
Veneto (Venice)	20	49,619	0.87
Köln	21	49,398	1.23
Piemonte (Turin)	22	48,263	0.95
Etelä-Suomi (Helsinki)	23	47,617	1.34
Berlin	24	47,472	1.51
Emilia-Romagna (Bologna)	25	46,552	0.90

Note: LQ is an indicator of CCI employment relative to the total employment of the region, where LQ>1 indicates an over-representation of CCI employment.

Most of the largest employment clusters have higher than average levels of CCI concentration. This can be seen from location quotients listed in the Table above. However, some of the top 25 clusters have lower than average shares of CCI employment: Sevilla, Valencia, Venice, and Bologna.

Whilst there is a relationship between CCI and large urban areas this is not always so. Though many of Europe's most populous regions are home to highly ranked CCI clusters, some of the largest regions are lagging in CCI employment.

Table 2. Regions which rank in the top 25 either by regional population or creative and cultural industries employment.

Region	Largest City	Population Size	CCI Rank
Île de France (FR)	Paris	1	1
Lombardia (IT)	Milan	2	3
Andalucía (ES)	Sevilla	3	11
West-Nederland (NL)	Amsterdam	4	4
Cataluña (ES)	Barcelona	5	6
Vlaams Gewest (BE)	Antwerpen	6	31
Rhône-Alpes (FR)	Lyon	7	32
Campania (IT)	Naples	8	37
Madrid (ES)	Madrid	9	5
Danmark (DK)	Danmark	10	7
Düsseldorf (DE)	Düsseldorf	11	27
Lazio (IT)	Rome	12	8
Mazowieckie (PL)	Warszawa	13	39
Sicilia (IT)	Palermo	14	51
Provence-Alpes-Côte d'Azur (FR)	Marseille	15	43
Slaskie (PL)	Katowice	16	177
Veneto (IT)	Venice	17	20
Outer London (UK)	Outer London	18	14
Valencia (ES)	Valencia	19	17
Köln (DE)	Köln	20	21
Piemonte (IT)	Turin	21	22
Oberbayern (DE)	München	22	10
Emilia-Romagna (IT)	Bologna	23	25
Ireland (IE)	Ireland	24	16
Puglia (IT)	Bari	25	66
Attiki (GR)	Athens	28	9
Zuid-Nederland (NL)	Maastricht	35	15
Oost-Nederland (NL)	Nijmegen	36	13
Berlin (DE)	Berlin	39	24
Inner London (UK)	Inner London	46	2
Kozep-Magyarorszag (HU)	Budapest	49	12
Etelä-Suomi (FI)	Helsinki	60	23
Bucuresti - Ilfov (RO)	Bucuresti - Ilfov	76	19
Stockholm (SE)	Stockholm	98	18

Note: CCI rank is the rank in CCI employment

Among the regions of Europe which rank among the top 25 either by population or CCI employment the following have a larger creative and cultural sector than expected: Athens, Berlin, Budapest, Bucuresti, Denmark, Helsinki, Inner London, Outer London, Maastricht, Madrid, München, Nijmegen, Rome, Stockholm, and Valencia.

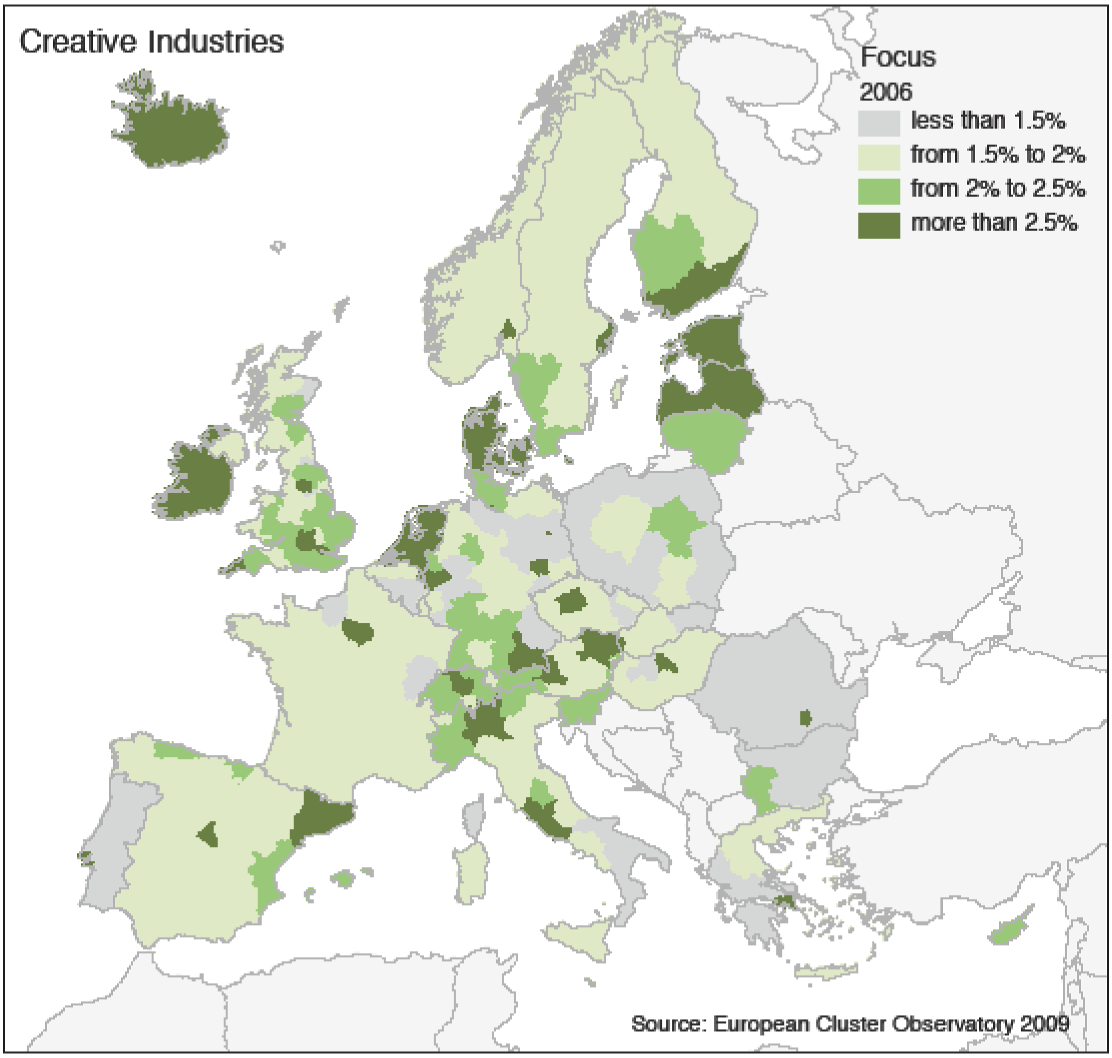
Of the regions with 25 largest populations the following have a far lower than expected representation of creative and cultural industries: Antwerpen, Bari, Düsseldorf, Katowice, Lyon, Marseille, Naples, Palermo, Sevilla, Warszawa.

As with many industrial sectors, firms and labour are unequally distributed and this indicates the existence of regional industrial and innovation systems and clusters underpinned by favourable regional conditions. Employment and competitiveness in the creative and cultural industries is not directly related to labour market size or population and cannot be considered a simple by-product of human habitation. Creative and culture activities are knowledge driven industries that are drawn to specialized labour markets and to clusters. Clusters and large labour markets support organizational and project-base scale and scope.

3 Regional Specialization and Focus

Regional creative and cultural industry specialization is not limited to the largest urban areas but capital city regions and certain of the largest cities exhibit strong CCI Focuses. The table and map below show the share of a region’s labour force employed by creative and cultural industries.

Figure 2. CCI Focus: Creative and cultural industries share of regional labour force 2006



Of the 10 regions with the highest CCI Focus most are capital city regions. Three countries are exceptions to this: Germany where Munich is the largest employment centre and Hamburg the city with the highest CCI Focus; Italy where Milan is the largest employment centre (though Rome has the highest CCI Focus); and Switzerland where Zurich is the largest employment centre and Basel the city with the highest CCI Focus.

Of the top 10 CCI Focus regions, four are in Central and Eastern Europe: Praha, Bratislava, Bucharest, and Budapest. The creative and cultural industries have almost the same share of the entire regional labour market in Prague as is the case in Inner London.

Table 3. Top ten regions by CCI Focus.

	CCI Focus	Employment	CCI Rank
Inner London	5.12%	192,623	2
Praha	4.97%	43,810	29
Hamburg	3.94%	43,747	30
Bratislavsky kraj (Bratislava)	3.90%	16,291	94
Stockholm	3.83%	53,549	18
Bucuresti – Ilfov	3.82%	50,271	19
Kozep-Magyarorszag (Budapest)	3.67%	62,347	12
Île de France (Paris)	3.51%	246,693	1
Madrid	3.50%	136,126	5
Ísland	3.45%	7,179	188

Note: Focus indicates how large share of the region's total employment the CCI sector constitutes.

Creative and cultural industries command unusually high share of regional employment in Iceland and Bratislava. This demonstrates that relatively small European regions can also score highly on specialization and focus measures.

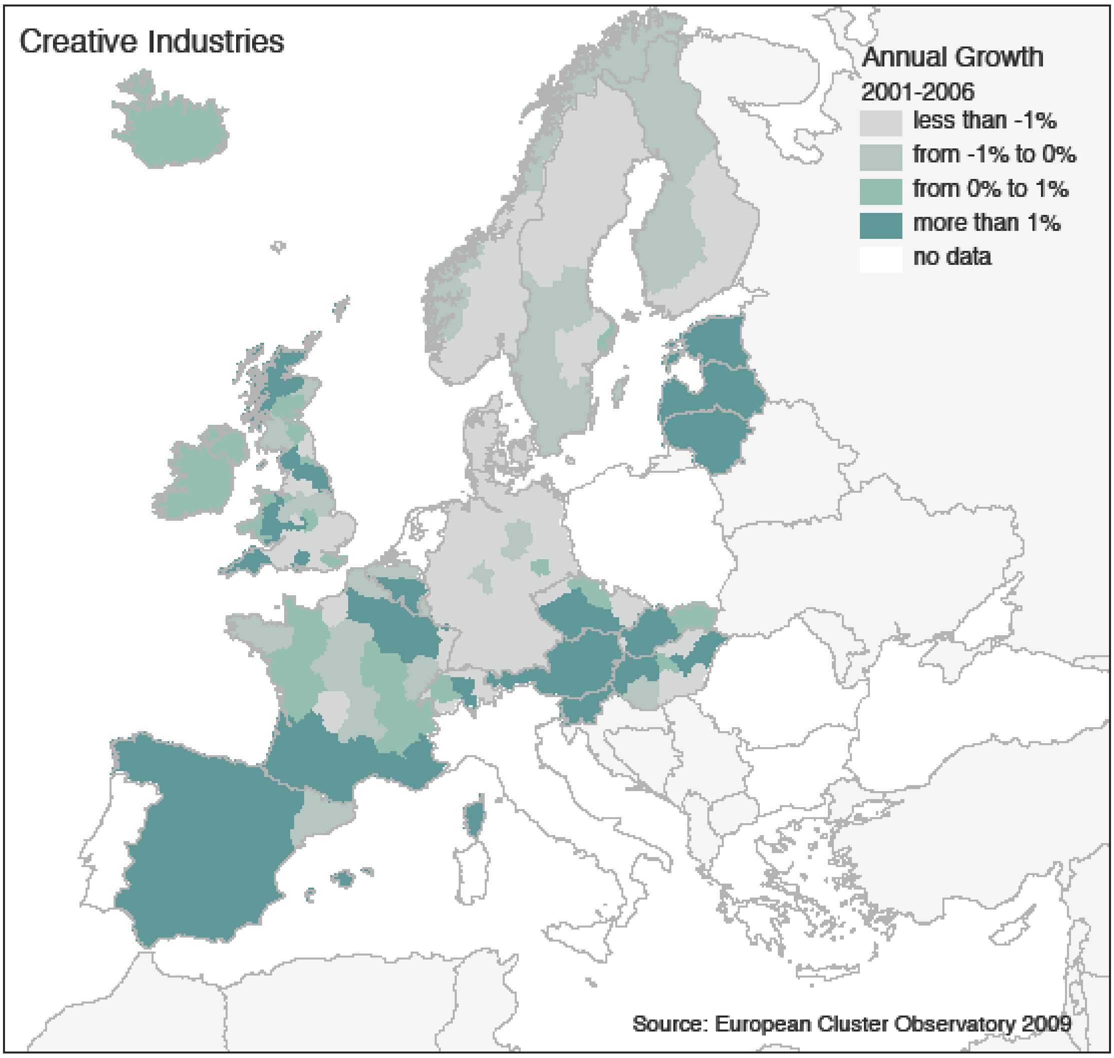
4 Growth

The creative and cultural industries are a sector of the European economy that exhibit strong growth[3]. Between 2001 and 2006 the creative and cultural industries grew annually at an average rate of 2.21% compared to annual average increases of 1.2% for total European employment. The creative and cultural industries had average annual growth rates nearly double that of the general economy.

The map below shows that growth is not evenly spread over Europe. As can be seen growth was broadly concentrated in areas of central Europe, Southern France and Spain, and the Baltic States. In Germany and Scandinavia creative and cultural industries suffered employment decline in the period.

[3] Time series data was not available for the following countries: Bulgaria, Cyprus, Greece, Italy, Netherlands, Poland, Portugal, Romania.

Figure 3. Creative and cultural industries average annual growth 2001-2006.



Note: Growth is measured using compound annual growth rates (CAGR).

In all of the top 25 CCI growth regions the creative and cultural industries grew at a faster rate than the rest of the labour market.

Table 4. Regions with the highest average annual growth in CCI employment 2001-2006.

	CCI Growth	Rest of the economy	LQ	CCI Rank	CCI Employment
Niederösterreich (St. Pölten), AT	19.33%	7.60%	1.25	70	20,984
La Rioja (Logroño), ES	12.34%	5.64%	0.89	233	3,315
Salzburg, AT	11.52%	6.32%	1.23	152	9,529
Zapadne Slovensko (Nitra), SK	10.54%	1.96%	0.77	96	16,213
Oberösterreich (Linz), AT	10.00%	6.97%	0.71	131	11,337
Kärnten (Klagenfurt), AT	9.18%	4.55%	0.79	219	4,269
Asturias (Oviedo), ES	9.03%	3.05%	1.00	139	10,689
Castilla-La Mancha (Toledo), ES	8.82%	4.79%	0.82	95	16,225
Steiermark (Graz), AT	7.75%	5.63%	0.76	159	9,185
Murcia, ES	7.74%	5.25%	0.68	149	9,886
Cantabria (Santander), ES	7.53%	3.44%	0.88	208	5,446
Andalucía (Sevilla), ES	7.33%	5.27%	0.83	11	64,679
Valencia, ES	6.93%	4.48%	0.97	17	54,308
Nyugat-Dunantul (Györ), HU	6.89%	-0.51%	0.79	166	8,851
Tirol (Innsbruck), AT	6.38%	5.72%	1.00	176	7,846
Vorarlberg (Bregenz), AT	6.27%	4.56%	0.82	229	3,492
Jihovychod (Brno), CZ	6.25%	0.39%	0.87	85	17,621
Picardie (Amiens), FR	5.61%	1.31%	0.68	165	8,880
Extremadura (Mérida), ES	5.45%	3.11%	0.79	179	7,693
Corse (Ajaccio), FR	4.93%	4.08%	0.57	246	1,126
País Vasco (Bilbao), ES	4.52%	2.52%	1.10	48	28,607
E Riding and N Lincs, UK	4.51%	1.61%	0.84	173	8,172
Canarias (Tenerife), ES	4.34%	4.16%	0.93	73	20,609
Région Wallonne (Liege), BE	4.25%	0.80%	0.66	98	15,927
Lietuva, LT	4.24%	3.63%	0.98	62	23,231

Note: LQ is an indicator of CCI employment relative to the total employment of the region, where LQ>1 indicates an over-representation of CCI employment. Growth is measured using compound annual growth rates (CAGR).

It is striking that many of the top 25 growth regions between 2001 and 2006 were in either Austria or Spain. Only two of the top 25 CCI clusters also appear in the top 25 CCI Growth regions and both are Spanish regions: Seville and Valencia.

Indeed growth and contraction are highly regionalized in Europe. This can be seen for instance in the United Kingdom where certain regions had high annual growth rates - East Riding and North Linconshire 4.51%; North Yorkshire (York) 3.6%; Eats Wales (Cardiff) 3.4% - whilst some of the larger regions suffered decline – West Midlands (Birmingham) -3.05%; Greater Manchester -2.28%; Inner London -2.23%.

Many of the fastest growing regions are relatively small and are growing from a lower than average baseline. Indeed 20 of the top 25 growth regions have CCI shares of regional employment well or well below the average European region. Higher than average growth in certain of these regions may reflect lower base lines as well as the quickening pace of catch-up. The Table below shows a general trend

For those European regions we have growth data for, more regions suffered declines in CCI employment than there were regions that experienced growth: 78 regions grew versus 103 which declined (63 regions with no growth data).

From the data at our disposal it is difficult to draw any conclusions about why there is such a mixed growth picture. One possible explanation, for which there is some evidence, is that CCI growth/decline is linked to cycles in the rest of the regional labour market and that CCI will grow where there is growth and decline where there is general decline. This would indicate that creative and cultural industries are embedded and interdependent with the surrounding economy; rather than independent of the region as entirely export oriented industries may be.

An alternative explanation is that the data only concentrates on employment trends and it may be that declines in employment are due to, or compensated for, by increases in sole-trading and other entrepreneurial activity that would not appear in our statistics. Certainly many sectors within the creative and cultural industries have come under pressure from digital transitions which have created new opportunities and threats as well as leading to productivity gains and changing organizational that may have led to employment decreases.

A third explanation may be that the patterns are indicative of labour mobility as workers move from one region to another to find better or new jobs in higher growth clusters. Certainly the fact that the European creative and cultural industries enjoyed overall positive annual growth in the period 2001-2006 would suggest that growth in certain regions may have attracted or been fuelled by labour mobility.

Regionalized patterns of growth and change seem to be a strong feature of the creative and cultural industries.

5 National Perspectives on Growth and Size

In most cases employment in the creative and cultural industries seems to largely reflect growth rates in the entire economy. For many countries creative and cultural industry employment growth was an amplified version of general growth: if employment was going up it went up faster in creative and cultural industries and vice versa. For example in Austria overall employment growth was strong in the period 2001-2006 and creative and cultural industry employment reflected and bettered this positive upturn. In Germany the opposite was the case: as employment in the overall economy turned negative, employment in the creative and cultural industries fell even faster. Spain, Ireland, Luxembourg, Belgium, United Kingdom and France are exceptions to this tendency.

Table 5. Total employment growth 2001-2006 in creative and cultural industries and for all sectors of the economy.

	CCI	All sectors
Austria	24.90%	17.17%
Latvia	15.11%	16.48%
Lithuania	13.26%	11.30%
Spain	12.84%	16.38%
Estonia	11.30%	8.35%
Slovenia	10.10%	3.16%
Slovakia	9.19%	2.56%
Czech Republic	5.65%	1.19%
Iceland	1.50%	0.41%
Hungary	0.83%	0.30%
Ireland	0.53%	11.69%
France	0.34%	5.73%
Sweden	-1.70%	-1.29%
Belgium	-1.98%	0.21%
Luxembourg	-3.08%	6.36%
Finland	-4.42%	-0.42%
United Kingdom	-6.23%	1.29%
Switzerland	-6.43%	-0.52%
Denmark	-9.25%	-4.23%
Norway	-10.97%	-1.10%
Germany	-14.89%	-6.78%

Note: Growth is total employment growth over the period.

As can be seen from Table 6 a very similar story is told when average annual growth rates during the period are examined. Once again the general pattern is that overall employment increases in the country are equalled or bettered by creative and cultural industries, whilst negative overall growth is coupled by higher levels of decline in the creative and cultural industries.

Table 6. Average annual employment growth 2001-2006 in creative and cultural industries and for all sectors of the economy.

	CCI	All sectors
Austria	7.69%	5.42%
Lithuania	4.24%	3.63%
Estonia	3.63%	2.71%
Latvia	3.58%	3.89%
Spain	3.07%	3.86%
Slovenia	2.43%	0.78%
Slovakia	2.22%	0.63%
Czech Republic	1.38%	0.30%

Iceland	0.37%	0.10%
Hungary	0.21%	0.08%
Ireland	0.18%	3.75%
France	0.08%	1.40%
Sweden	-0.43%	-0.32%
Belgium	-0.67%	0.07%
Luxembourg	-0.78%	1.55%
Finland	-1.12%	-0.10%
United Kingdom	-1.59%	0.32%
Switzerland	-1.65%	-0.13%
Denmark	-2.40%	-1.07%
Norway	-2.86%	-0.28%
Germany	-3.17%	-1.39%

Note: Growth is calculated here as a Compound Annual Growth Rate (CAGR) over the period.

Small countries tend to have a higher CCI Focus than large countries. As Table 7 shows, of the 10 countries with the highest CCI Focus only one has a population of over 10 million: the Netherlands. The lower share of total employment that CCI account for in larger countries may be due to the ability to exploit greater economies of scale in creative and cultural product provision. It may also be that smaller countries own language, cultural heritage and specificity mean that substitutes are harder to import or demand more labour to tailor to local conditions and demands.

Table 7. National labour markets and CCI Focus.

	CCI Focus	CCI Rank	CCI Employment
Iceland	3.45%	28	7,179
Netherlands	3.23%	6	300,966
Estonia	3.07%	26	22,952
Denmark	2.75%	15	95,529
Ireland	2.64%	21	57,018
Latvia	2.55%	23	30,598
Finland	2.51%	18	72,672
Sweden	2.50%	9	132,333
Malta	2.48%	29	4,754
Slovenia	2.47%	24	24,452
Switzerland	2.44%	12	116,438
Spain	2.40%	4	560,067
United Kingdom	2.38%	1	841,391
Austria	2.37%	14	107,725
Czech Republic	2.33%	8	135,075
Hungary	2.31%	13	112,050
Greece	2.29%	10	126,376
Cyprus	2.22%	27	9,319
France	2.20%	5	543,457
Lithuania	2.16%	25	23,231
Italy	2.16%	3	609,103
Norway	2.14%	20	57,804
Germany	2.12%	2	709,354
Slovakia	1.90%	22	50,310
Portugal	1.89%	16	84,202
Belgium	1.89%	17	83,314
Luxembourg	1.78%	30	4,438
Poland	1.52%	7	143,116
Bulgaria	1.48%	19	58,685
Romania	1.10%	11	116,723
Europe	**2.21%**		**5,240,630**

Note: Focus indicates how large share of the nation's total employment the CCI sector constitutes.

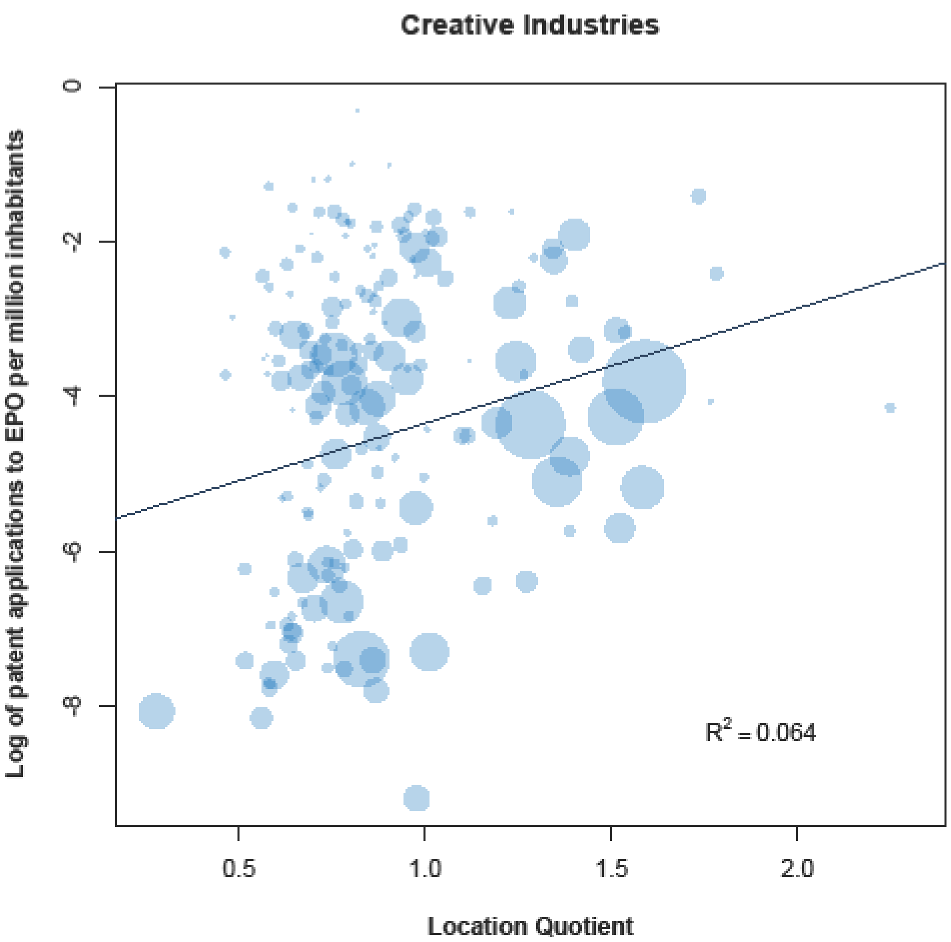
The Table above clearly demonstrates the need to take a regional and cluster approach to these industries. For example whilst Romania has the lowest share of its total employment in creative and cultural industries, as a nation it ranks 11th in Europe and the capital region of Bucharest ranks 19th of European regions whilst being home to 43% of the nation's creative and cultural industry employees.

6 Innovation

The Lisbon Treaty as well as a significant academic literature posits a relation between regional innovation and the presence creative and cultural industries. Since creative and cultural industries operate in fast moving and often fashion oriented markets continual innovation and creativity is core to competitive advantage. Regional clusters must innovate in order to survive or grow and innovation is likely to be reflected in employment growth. Equally one might expect to see knowledge and innovation spill-over from creative and cultural industries to other areas of the economy.

There is a relationship between CCI employment and traditional innovation indicators such as patent applications but as can be seen in the Figure below it is not a definite or direct relationship. Thus the thesis that creative and cultural industries and workers are interlinked to other types of 'creative' and innovative industries is not definitely provable.

Figure 4. Creative and cultural industry concentration and patent applications.



Note: LQ is an indicator of CCI employment relative to the total employment of the region, where LQ>1 indicates an over-representation of CCI employment.

Similarly it is not possible to draw direct relationships between standard regional innovation performance measures and creative industries growth. With the exceptions of Stockholm, Prague and

Vienna those regions with the 20 highest RIS all suffered negative creative and cultural industry growth. RIS is therefore not an adequate predicator of growth in this area.

Table 8. Top 20 regions on the Regional Innovation Scoreboard (RIS) and average annual growth in creative and cultural industries.[4]

Region	Annual CCI growth (CAGR)	RIS 2006
Stockholm	0.14%	0.8952
Västsverige (Gothenburg)	-0.13%	0.8276
Oberbayern (München)	-2.88%	0.7909
Etelä-Suomi (Helsinki)	-1.28%	0.7821
Karlsruhe	-3.68%	0.775
Stuttgart	-3.91%	0.7684
Braunschweig	-2.03%	0.7591
Sydsverige (Malmö)	-0.87%	0.7576
Île de France (Paris)	-0.36%	0.7465
Östra Mellansverige (Uppsala)	-1.10%	0.7424
Berlin	-2.24%	0.7368
Tübingen	-2.58%	0.7179
Praha	2.90%	0.6985
Darmstadt (Frankfurt am Main)	-4.85%	0.6927
Dresden	-1.83%	0.6868
Köln	-3.09%	0.6857
Danmark	-2.40%	0.6811
Pohjois-Suomi (Oulu)	-0.74%	0.6791
Mittelfranken (Nürnberg)	-4.28%	0.6759
Wien	2.11%	0.6755

The mixed results above likely point to the difficulty of using standard innovation performance indicators – such as RIS and patent data – to measure innovation levels and conditions in creative and cultural industries. Many of the types of knowledge, goods, services and business models produced by the creative and cultural industries simply cannot be protected by patents. Other types of intellectual property appropriation and exploitation regimes are much more central to the creative and cultural industries. In particular copyright is a more prevalent form of intellectual property appropriation in creative and cultural industries than patent. RIS measures tend to stress a region's science and high technology emphasis and it is not clear that all of the creative and cultural industries are reliant upon such types of 'innovation' system to maintain their own creativity and innovation.

Innovation performance indicators better attuned to the innovation dynamics (and likely spill over areas) of the creative and cultural industries are needed in order to make more definite conclusions about their impact on and role in regional innovation.

7 Intellectual Property

[4] Regional Innovation Scoreboard 2006 conducted by Maastricht Economic and social Research and training centre on Innovation and Technology (MERIT): 2006 European Regional Innovation Scoreboard, MERIT, 2006.

The creative and cultural industries are significant generators of intellectual property in particular copyrights. Using the World Intellectual Property Organization (WIPO) definition for Copyright-Based Industries[5], it can be seen that the largest creative and cultural industry regions are also the largest employment centres for copyright-based industries.

Table 9. Top 10 regions by employees in CCI and Copyright-based Industries.

	CCI			WIPO	
1	Île de France (Paris)	246,693	1	Île de France (Paris)	371,400
2	Inner London	192,623	2	Inner London	212,479
3	Lombardia (Milan)	155,406	3	Madrid	209,784
4	West-Nederland (Amsterdam)	149,687	4	West-Nederland (Amsterdam)	193,344
5	Madrid	136,126	5	Lombardia (Milan)	182,503
6	Cataluña (Barcelona)	125,992	6	Cataluña (Barcelona)	151,286
7	Danmark	95,529	7	Lazio (Rome)	123,822
8	Lazio (Rome)	85,466	8	Danmark	122,189
9	Attiki (Athens)	75,555	9	Oberbayern (München)	101,417
10	Oberbayern (München)	67,110	10	Zuid-Nederland (Maastricht)	86,830

Regions with a high creative and cultural industries focus - the share of a region's labour force employed by creative and cultural industries – also have a high focus on copyright-based industries.

Table 10. Top 10 regions by CCI Focus and Copyright-based Industries Focus.

	CCI Employment	Focus	WIPO Employment	Focus
Inner London	192,623	5.12%	212,479	5.64%
Praha	43,810	4.97%	57,113	6.48%
Hamburg	43,747	3.94%	51,170	4.60%
Bratislavsky kraj (Bratislava)	16,291	3.90%	21,287	5.10%
Stockholm	53,549	3.83%	76,601	5.48%
Bucuresti – Ilfov	50,271	3.82%	64,136	4.87%
Kozep-Magyarorszag (Budapest)	62,347	3.67%	73,615	4.34%
Île de France (Paris)	246,693	3.51%	371,400	5.29%
Madrid	136,126	3.50%	209,784	5.39%
Ísland	7,179	3.45%	8,842	4.25%

Note: Focus indicates how large share of the region's total employment the CCI sector constitutes.

8 Breaking down the creative and cultural industries

There has been considerable debate over the idea that the industries we suggest comprise the creative and cultural industries can in fact be aggregated. We agree that despite many similarities and interdependencies the activities gathered under the umbrella of creative and cultural industries need

[5] See Methodological Appendix for details and comparison of the WIPO definition to the Cluster Observatory definition.

also to be understood as separate industries in their own rights. The knowledge requirements, working methods, business and organizational models and consumer interfaces that define competitiveness in computer games are, for instance, very different to those that shape competitiveness in performance arts.

It is necessary to understand the creative and cultural industries not as a unified category but as an aggregate category. It is necessary to understand that the industries that make up the European creative and cultural industry competitiveness share much but also exhibit unique and different cluster dynamics.

The following maps show employment concentrations for four activity areas within the creative and cultural industries: Artistic creation and literary interpretation; Advertising; Radio and television activities; Museum activities and preservation of historical sites and buildings.

The maps indicate that for these parts of the creative and cultural industries clustering is a prominent feature. In particular Inner London and its surrounding regions and the Paris region are the largest centres in each of the four industries. Amsterdam, Madrid and Milan are also important centres. However despite the existence of prominent clusters in each of the industries many other centres exist.

Figure 5. Artistic creation and literary interpretation

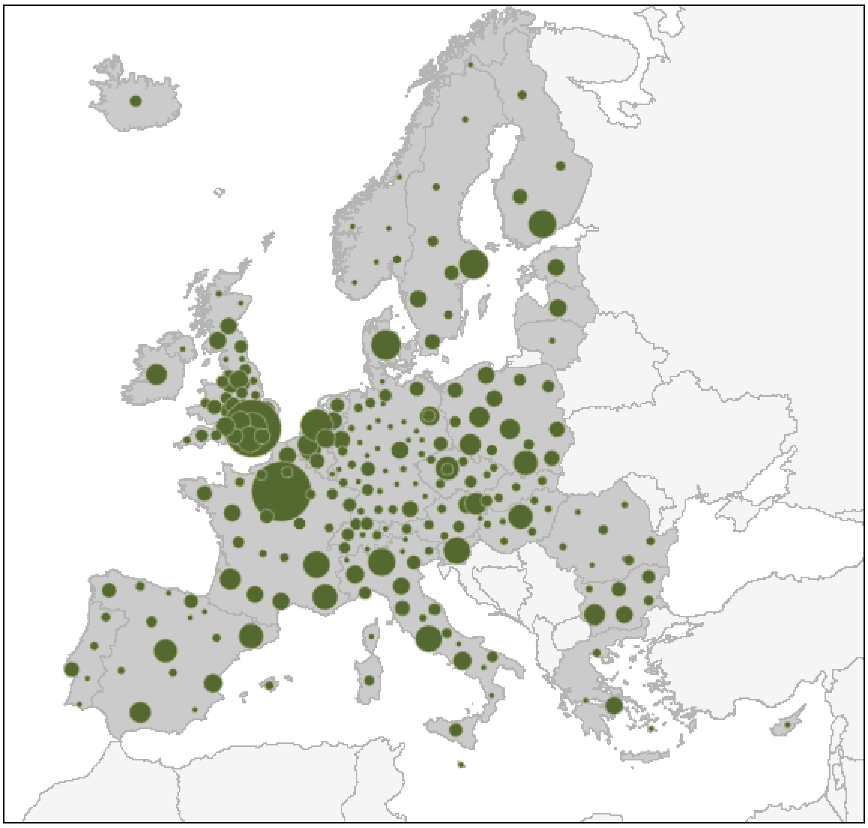


Figure 6. Advertising

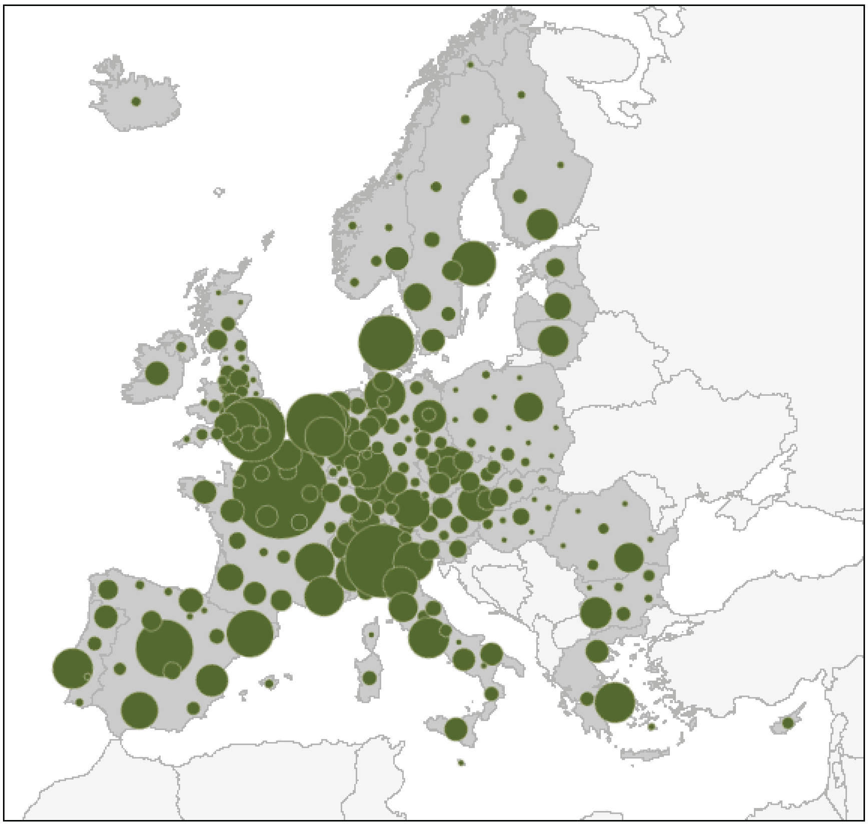


Figure 7. Radio and television activities

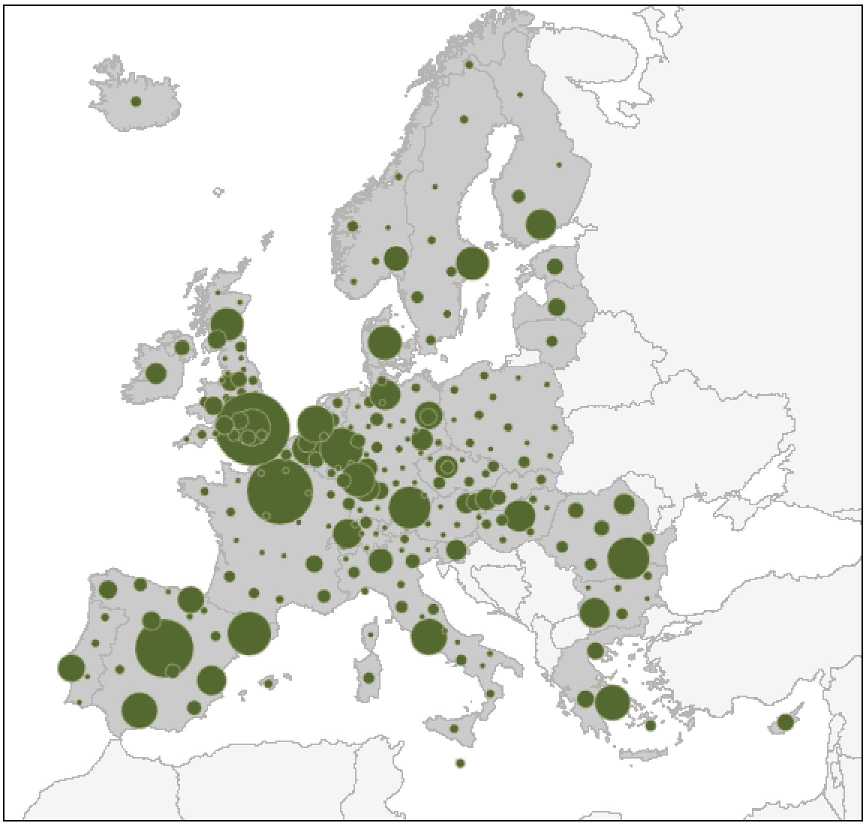
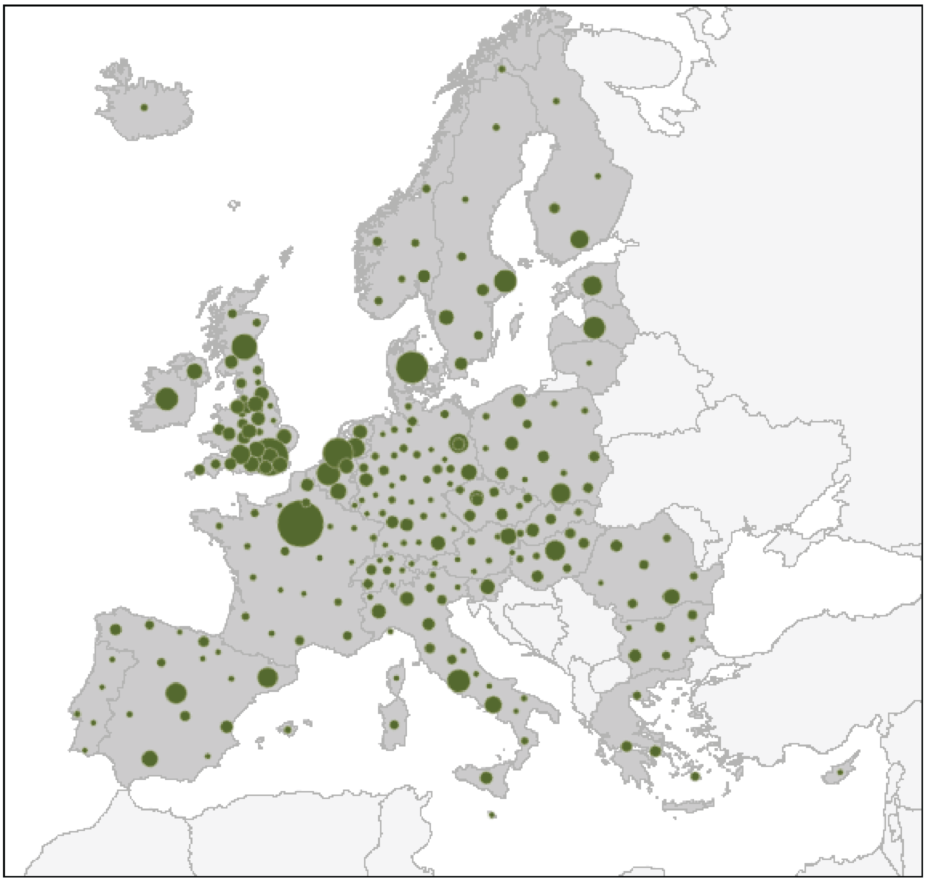


Figure 8. Museum activities and preservation of historical sites and buildings



The Table below lists the top 15 clusters (defined by employment and share of total European employment in that category) in the four fields illustrated above: Artistic creation and literary interpretation; Advertising; Radio and television activities; Museum activities and preservation of historical sites and buildings. These figures clearly show the role of Paris, London, Milan, Amsterdam and Madrid as Europe's most important employment centres for creative and cultural industries. Of these super clusters London and Paris stand out.

Table 11: Top 15 regions by number of employees and share of European employment in four sectors of the creative and cultural industries.

		Employment	European share		Employment	European share
	Radio and television activities			**Advertising**		
1	Inner London	31231	8.08%	Île de France (Paris)	52202	7.56%
2	Île de France (Paris)	24472	6.33%	Lombardia (Milan)	30020	4.35%
3	Madrid	19105	4.95%	Inner London	24348	3.53%
4	Cataluña (Barcelona)	10756	2.78%	West-Nederland (Amsterdam)	19876	2.88%
5	Köln	10317	2.67%	Madrid	18738	2.71%
6	Bucuresti – Ilfov	10122	2.62%	Danmark	17343	2.51%
7	Oberbayern (München)	10037	2.60%	Cataluña (Barcelona)	12410	1.80%
8	West-Nederland (Amsterdam)	7647	1.98%	Düsseldorf	11653	1.69%
9	Lazio (Rome)	7516	1.95%	Stockholm	11230	1.63%
10	Outer London	7515	1.95%	Darmstadt (Frankfurt am Main)	10053	1.46%
11	Andalucía (Sevilla)	7385	1.91%	Hamburg	9664	1.40%
12	Attiki (Athens)	7100	1.84%	Attiki (Athens)	9266	1.34%
13	Danmark	6648	1.72%	Lazio (Rome)	9246	1.34%
14	Rheinhessen-Pfalz (Mainz)	6644	1.72%	Lisboa	9217	1.33%
15	E Scotland (Edinburgh)	6351	1.64%	Zuid-Nederland (Maastricht)	8970	1.30%
	Artistic and literary creation and interpretation			**Museum activities and preservation of historical sites and buildings**		
1	Île de France (Paris)	20113	6.80%	Île de France (Paris)	10675	6.24%
2	Inner London	18434	6.23%	Inner London	6993	4.09%
3	West-Nederland (Amsterdam)	5774	1.95%	Danmark	5162	3.02%
4	Outer London	5357	1.81%	West-Nederland (Amsterdam)	4525	2.64%
5	Danmark	5156	1.74%	E Scotland (Edinburgh),	3370	1.97%
6	Stockholm	4983	1.68%	Vlaams Gewest (Antwerpen),	2850	1.66%
7	Etelä-Suomi (Helsinki)	4549	1.54%	Lazio (Rome)	2720	1.59%
8	Lombardia (Milan)	4448	1.50%	Stockholm	2648	1.55%
9	Rhône-Alpes (Lyon)	4165	1.41%	Ireland	2631	1.54%
10	Slovenija	4119	1.39%	Latvija	2497	1.46%
11	Lazio (Rome)	4000	1.35%	Madrid	2240	1.31%
12	Provence-Alpes-Côte d'Azur (Marseille)	3767	1.27%	Kozep-Magyarorszag (Budapest)	2120	1.24%
13	Surrey, E and W Sussex (Brighton)	3714	1.26%	Cataluña (Barcelona)	2102	1.23%
14	Cataluña (Barcelona)	3539	1.20%	Malopolskie (Kraków)	2040	1.19%
15	Kozep-Magyarorszag (Budapest)	3533	1.19%	Oost-Nederland (Nijmegen)	2010	1.17%

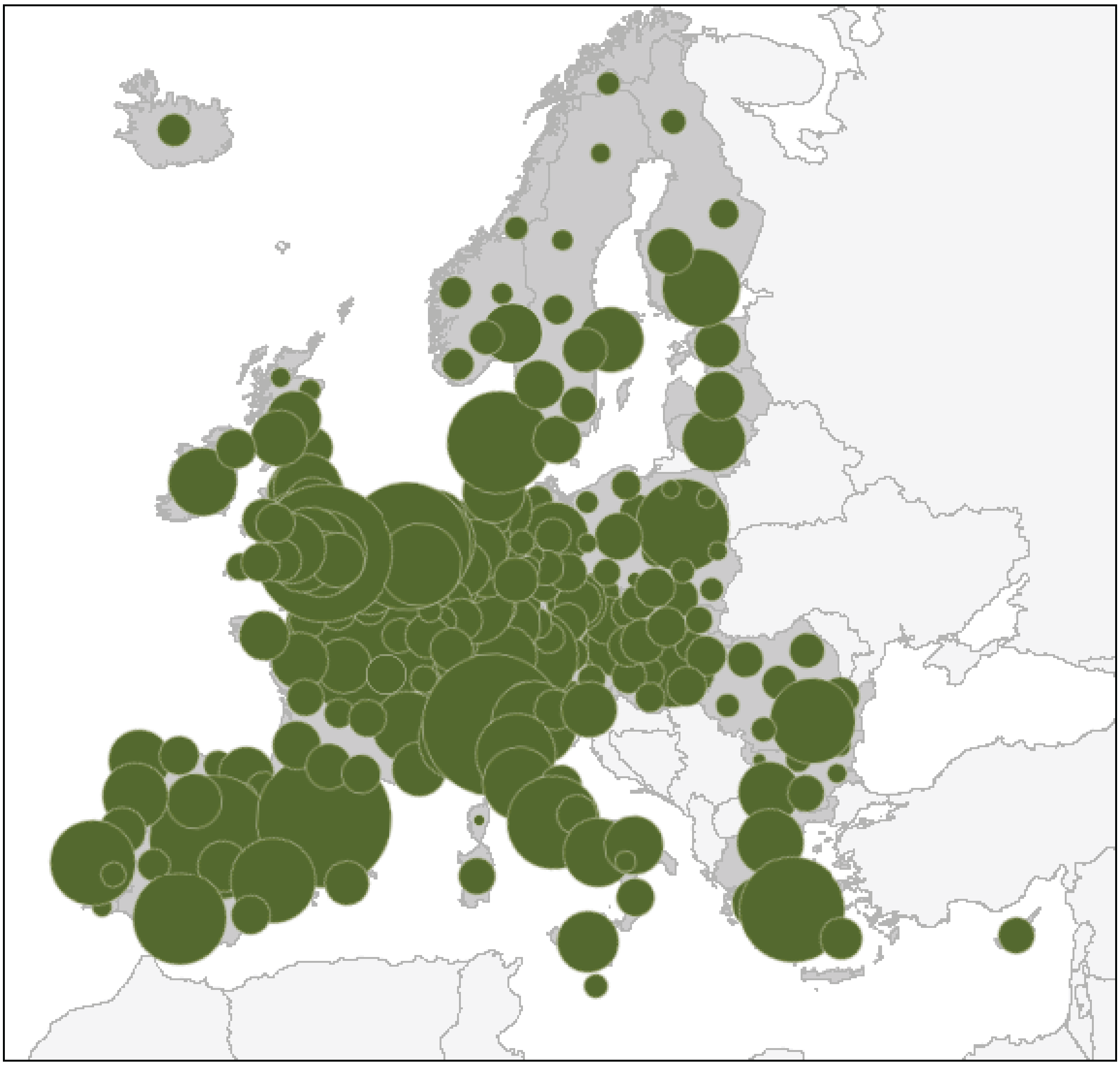
Not all parts of the creative and cultural industries, however, are so dominated by a couple of large cities. As the Table and Map below clearly show in Print Media there is a much more even spread of activities over Europe. This may be explained by the fact that print media employs large numbers of employees in production and distribution and it may not be necessary or desirable to locate these employees in the largest urban areas.

Table 12. Top 15 regions by number of employees and share of European employment in Print Media[6].

Rank		Employment	European share
1	Île de France (Paris)	81696	3.57%
2	Lombardia (Milan)	68582	3.00%
3	Inner London	64323	2.81%
4	Cataluña (Barcelona)	62015	2.71%
5	West-Nederland (Amsterdam)	55884	2.44%
6	Madrid	53244	2.33%
7	Attiki (Athens)	38271	1.67%
8	Danmark	36121	1.58%
9	Oberbayern (München)	30313	1.33%
10	Andalucía (Sevilla)	28753	1.26%
11	Mazowieckie (Warszawa)	28720	1.26%
12	Lazio (Rome)	28420	1.24%
13	Oost-Nederland (Nijmegen)	26580	1.16%
14	Kozep-Magyarorszag (Budapest)	24523	1.07%
15	Bucuresti - Ilfov	24222	1.06%

[6] Print media is an aggregate of the following NACE codes: 22.11, 22.12, 22.13, 22.21, 22.22, 22.23, 22.24, 22.25, 52.47.

Figure 9. Print media employment.



8 Clustering and Value Chains

Whilst there are different cluster and location tendencies for different sectors of the creative and cultural industries it is interesting to note that different phases in the CCI value chain also exhibit different cluster tendencies. Manufacturing activities are the most regionally concentrated, and consumer oriented activities the least regionally concentrated.

Table 13. The most concentrated and clustered creative and cultural industry sub-sectors[7].

NACE category	Gini		Krugman		Theil	
Reproduction of computer media	0.88	(1)	1.46	(1)	2.05	(1)
Reproduction of sound recording	0.85	(2)	1.40	(2)	1.71	(2)
Reproduction of video recording	0.80	(3)	1.25	(3)	1.39	(3)
Manufacture of prepared unrecorded media	0.76	(4)	1.24	(4)	1.17	(5)
Manufacture of musical instruments	0.73	(5)	1.11	(6)	1.30	(4)
Publishing of sound recordings	0.72	(6)	1.14	(5)	1.01	(6)
Motion picture and video distribution	0.66	(7)	1.05	(7)	0.83	(7)
News agency activities	0.65	(8)	1.02	(8)	0.81	(8)
Motion picture and video production	0.61	(9)	0.92	(9)	0.74	(9)
Other publishing	0.60	(10)	0.86	(11)	0.73	(10)
Printing of newspapers	0.59	(11)	0.89	(10)	0.62	(11)
Radio and television activities	0.55	(12)	0.84	(12)	0.56	(12)
Publishing of books	0.53	(13)	0.80	(13)	0.48	(16)
Bookbinding	0.52	(14)	0.76	(15)	0.49	(13)
Publishing of journals and periodicals	0.51	(15)	0.76	(14)	0.48	(14)
Ancillary activities related to printing	0.51	(16)	0.72	(17)	0.48	(15)
Pre-press activities	0.48	(17)	0.69	(18)	0.43	(17)
Library and archives activities	0.48	(18)	0.74	(16)	0.40	(18)
Other entertainment activities n.e.c.	0.47	(19)	0.68	(19)	0.39	(19)
Operation of arts facilities	0.45	(20)	0.65	(20)	0.34	(20)
Publishing of newspapers	0.40	(21)	0.57	(22)	0.27	(21)
Museums activities, etc.	0.39	(22)	0.58	(21)	0.25	(23)
Artistic and literary creation and interpretation	0.39	(23)	0.55	(23)	0.25	(22)
Advertising	0.37	(24)	0.53	(24)	0.23	(24)
Renting of personal and household goods n.e.c.	0.33	(25)	0.49	(25)	0.18	(25)
Printing n.e.c.	0.30	(26)	0.42	(26)	0.15	(27)
Photographic activities	0.29	(27)	0.41	(28)	0.17	(26)
Motion picture projection	0.29	(28)	0.41	(27)	0.15	(28)
Retail sale of books, newspapers and stationery	0.25	(29)	0.36	(29)	0.12	(29)

Concentration measures clearly show that the most concentrated creative and cultural industries are those involved in specialized manufacture: recorded media and musical instruments. There is considerable evidence from other industries that specialized manufacturing benefits from, and is drawn to, industry clusters; it seems this is also the case in creative and cultural industries.

The least concentrated activities are those in the value chain that are nearest the consumer: such as bookshops, cinemas, and exhibition spaces. Such activities do exhibit some cluster tendencies at a European level but locational concentration is likely more apparent within regions: e.g. at the level of shopping or theatre districts.

Employees in firms focused on advertising and in artistic and literary creation and interpretation are also less likely to be concentrated in dominant centres. This is likely due to the need to locally tailor

[7] Based on data for 2006 for 16 countries where 4-digit NACE data was available at a regional level. The countries are: BE, BG, CH, DK, DE, FI, FR, IE, IS, LT LV, NL, NO, RO, SE and UK.

advertising campaigns or artistic and literary products to local conditions: something that is most efficiently done in proximity to end users. Nonetheless as was shown earlier a degree of clustering on a European level can be found in both of these activities and several large urban areas are home to disproportionate concentrations of these activities.

About the European Cluster Observatory

The European Cluster Observatory, launched in June 2007, is the most comprehensive database on clusters, cluster organisations, and cluster reports in Europe. It is managed by the Center for Strategy and Competitiveness (CSC) at the Stockholm School of Economics and funded by the European Commission's Directorate General for Enterprise and Industry.

The European Cluster Observatory website provides a wide variety of data on clusters in Europe, and is focused on the following issues:

- Cluster Mapping providing information on 38 cluster categories in 259 NUTS II regions
- Information, maps and lists of regional or local private-public partnerships focused on cluster improvements
- Providing reports on national and regional cluster policies and programmes;
- Providing detailed knowledge thorough publishing Observatory reports, cluster case studies and other cluster-related documents

In 2009, the Observatory entered the second phase of development bringing new features and introducing a collaboration platform for cluster organisations and SMEs.

Please visit the European Cluster Observatory at www.clusterobservatory.eu.

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