

The Creative Economy in Europe

Interactive
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Why Human Beings Remain the Economy's Key Asset



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As we move deeper into the digital era, the economy is changing – on that we can all agree.¹ And yet conventional wisdom may sometimes give a false impression of the nature of that transformation. These days, the world's most advanced countries are showing hidden strengths in places different than those that are so often described as the heart of the economy. The truth is, the new economy is being built not just around movements to introduce digital technologies more broadly throughout society; or efforts to make previously silent machines talk to one another and exchange real-time data; or even engineering-led moves to harness the power of algorithms and artificial intelligence to offer better, more tailored services. To be sure, all of these things are happening. But an equally important shift in economic value-added is taking place alongside these technological changes. And it is taking place on a level much closer to home, in a place we might all easily recognise as essentially human.

The true revolution lies in the huge boost to creativity – not just as a purveyor of leisure-based pastimes, but as a vital economic resource – which these technological changes enable. As some early evidence presented on these pages will show, the power of the Internet is being felt most clearly in the dramatic rise of creative input to the forefront of economic activity in the world's most advanced economies. It has already empowered a new generation of creators, giving them access to knowledge and human culture at the click of a mouse – and a concurrent box of tools for expression, self-learning and direct access to the world. And it has brought together two powerful resources – human creativity and zero-marginal-cost global distribution – in a vast web of unique connections whose creative potential makes even the once-fabled Royal Library of Alexandria seem like little more than a corner shop in a town bypassed long ago.

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'Creative work cannot be accomplished by machines alone, so it stands the least threat of being automated.'

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[*Scale Up Europe: A Manifesto for Change and Empowerment in the Digital Age* \(Brussels: the Lisbon Council, Nesta and Open Evidence, 2016\).](#)

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See especially, [Peter Higgs, Stuart Cunningham and Hasan Bakhshi, *Beyond the Creative Industries: Mapping the Creative Economy in the United Kingdom* \(London: Nesta, 2008\).](#) [Hasan Bakhshi, Alan Freeman and Peter Higgs, *A Dynamic Mapping of the United Kingdom's Creative Industries* \(London: Nesta, 2013\).](#) [Hasan Bakhshi, Ian Hargreaves and Juan Mateos-Garcia, *A Manifesto for the Creative Economy* \(London: Nesta, 2013\).](#) [Hasan Bakhshi, Carl Frey and Michael Osborne, *Creativity versus Robots: The Creative Economy and the Future of Employment* \(London: Nesta, 2015\).](#) [Hasan Bakhshi, John Davies, Alan Freeman and Peter Higgs, *The Geography of the United Kingdom's Creative and High-Tech Economies* \(London: Nesta, 2015\).](#)

Seen in context, “economic value added” – the life blood of an advanced economy – is fast becoming less the exclusive domain of complex manufacturing chains built around our 21st century organisational capabilities, though these remain important. These days, economic value added is more and more the direct outcome of our powerful, Internet-amplified imaginations. And the labour market itself is starting to reflect that, with a pronounced rise in the number of jobs which can be classified as “creative” – and an equally large rise in the “creative” component of jobs that were previously classified as “routine cognitive.”

These changes have enormous implications – not just for the way our working lives will develop, but also for the educational system and social safety net as well. It puts a huge onus on policymakers first and foremost. Their responsibility now – if they wish to help countries move definitively into the 21st century as economic leaders, while deepening the social commitments which growth in economic value added has enabled – is to ensure that our human-capital base is second to none and that our economy is attractive enough to retain its most talented, creative people. Successful economic areas will be places where people want to work, and where their ideas can be best realised.² And they must help us use the Internet in the ways where its immense economic and cultural value is most evident – as a vital “web” of lateral transactions, giving direct global access to creators who were formerly shut out, putting the once exclusive knowledge of the world at the fingertips of the many, and allowing human minds to combine and re-combine ideas around a dizzying array of new associations – including culture, services, manufactured goods and information.

This paper builds on a decade of cutting-edge work at [Nesta](#), the London-based innovation foundation, where a team of researchers set out to measure the role of creativity in the economy.³ The work produced some surprises. For starters, the researchers found that the creative industries already make up around 5.21% of the European workforce. See Chart 1 on page 3 for a more detailed presentation.

What’s more, employment in the creative industries grew at 3.57% in the crucial 2011-2013 period, a time when many European sectors were shedding jobs or experiencing at best stagnant employment. And, in several leading European Union member states, the growth of creative jobs is outpacing employment creation in other sectors, including manufacturing. In the United Kingdom, for example, the creative sector already outsizes advanced manufacturing in terms of jobs.

This trend seems set to continue as digital technologies extend the role and importance of creative work within the manufacturing sector itself. With the growing pervasiveness of digital technologies and automation, it is likely that manufacturing industries will employ fewer people in direct manufacturing roles. At the same time, the commoditisation of manufacturing through technologies such as 3D printing means that creative skills are becoming more important, for example in adding value through brand development and marketing. These two effects are likely to increase the creative intensity of manufacturing industries in the future.

So manufacturing clearly still matters, particularly to the communities that have been built around it, but products and services designed with the sharpest creative

'Creative tasks are roles where workers deploy cognitive skills to bring about novelty whose final form cannot be fully specified in advance.'

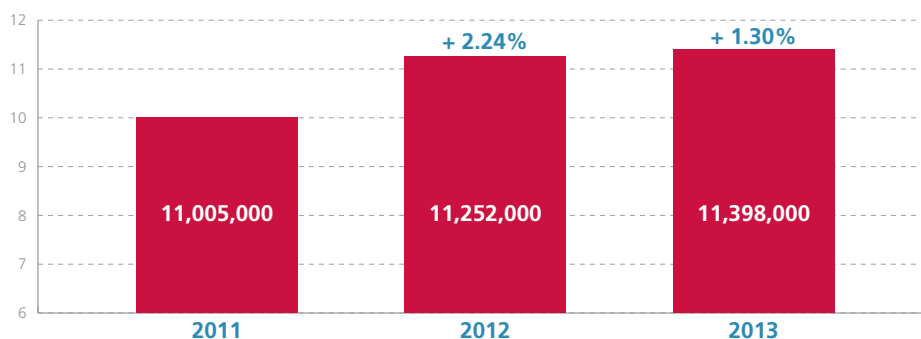
edge will be those that succeed. This is an argument well understood, for example, in China where the motto “created in China” has replaced “made in China” as the government’s official objective.⁴ Creative work – defined as “roles which deploy cognitive skills to bring about novelty whose final form cannot be fully specified in advance” – is work that cannot be accomplished by machines alone, so it stands the least threat of being automated.⁵ And it is here where a vast amount of economic value is already being added – in marketing, graphic design, brand development, complex product integration, engineering and other concepts that a modern economy cedes to the developing world in return for cheaper manufacturing. This is why the “intangible assets” column of our most successful companies is becoming increasingly bloated: more and more value lies in concepts whose very nature is hard to define.⁶ And we ignore this mounting evidence at our peril. Our economic future depends on our ability to be competitive in this new creative economy. It follows that the social wellbeing of millions and millions of people rides upon our success in this area as well.

Mapping the Creative Economy: A European and Global Perspective

What, then, is the creative economy? First and foremost, it is made up of the so-called “creative industries,” whose role in the economy was first defined and articulated in the 1990s.⁷ Put simply, these are the industries which “specialise in the use of creative talent for commercial purposes,” which include household-facing sectors producing cultural goods and services and other intellectual property, usually copyright-protected, as well as business-facing sectors producing creative services for other sectors.⁸ They are a juggernaut of a sector, particularly at the international level, where film, music and video games have grown over the years to form a major pillar of some of the world’s most successful advanced economies. At the local level, these industries are frequently supported by regional government and international institutions. And their voice is heard in debates on how creative content ought to be best and most effectively managed.

Chart 1. Creative industries employment in the European Union (2011-2013)

Number of creative industries employees in the European Union, in millions



Source: European Union Labour Force Survey data; cited in Max Nathan, Andy Pratt and Ana Rincon-Aznar, *Creative Economy Employment in the European Union and the United Kingdom: A Comparative Analysis* (London: Nesta, 2015)

4 See especially [Bloomberg Benchmark](#), “From Made-in-China to Created-in-China,” [Bloomberg](#), 14 November 2016. See also [The State Council, People’s Republic of China press release](#), 31 August 2016.

5 [Hasan Bakhshi, Alan Freeman and Peter Higgs](#), *A Dynamic Mapping of the United Kingdom’s Creative Industries* (London: Nesta, 2013).

6 [European Commission](#), “Unlocking Investment in Intangible Assets in Europe,” [Quarterly Report on the Euro Area](#), Vol. 16, No. 1 (2017).

7 [Chris Smith](#), *Creative Britain* (London: Faber, 1998); See also, [John Howkins](#), *The Creative Economy: How People Make Money from Ideas* (London: Penguin, 2013).

8 [Nesta](#), *Creating Growth: How the United Kingdom Can Develop World Class Creative Businesses* (London: NESTA, 2006). See also [Hasan Bakhshi, Ian Hargreaves and Juan Mateos-Garcia](#), *A Manifesto for the Creative Economy* (London: Nesta, 2013).

'The power of the Internet is being felt most clearly in the dramatic rise of creative input to the forefront of economic activity.'

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The six countries are France, Germany, Netherlands, Poland, Sweden and the United Kingdom. The six were chosen to reflect different economies within the European Union, subject to availability of the data needed to enable robust comparisons based on the dynamic-mapping methodology used in this paper.

But the key argument of this policy brief is that the creative economy goes way beyond this specialised territory. Of wider importance is the new role for creative input that has spread throughout the brick and mortar economy, bringing a creative component to many tasks that were formerly routine and administrative. These are also jobs, in Nesta's definition, which deploy cognitive skills to bring about novelty whose final form cannot be fully specified in advance. And it turns out that these jobs are among the fastest-growing category in advanced economies throughout the world, accounting for more and more economic value in this age of transition.

The creative economy growth rate differs from country to country. In a study of six leading European economies, which collectively account for 63.6% of EU gross domestic product, Nesta found that some countries are already strong, some are fast growing stronger and some have comparatively modest footprints in the creative economy and are showing fewer signs of growth.⁹ See Table 1 below for a comparison of the overall creative-economy employment footprint in 2013 in the six countries analysed, and Table 2 on page 5 for a comparison by creative-economy employment growth rates (2011-2013).

Of the six EU countries, Netherlands has the fastest growth, with jobs in the creative economy increasing some 9.3% per annum on average in the 2011-2013 period. The United Kingdom is No. 2 – rising 5.8% per annum in the two-year period and reinforcing its relatively high rating in the standings. Of greater concern, notwithstanding the volatility of growth rates in individual years, should be the relatively slow growth in France and Germany. Creative economy jobs in France, for example, grew on average by a relatively meagre 1.3% per annum in the two-year period, coming off a relatively low 2.02% percentage of the overall employment (jobs in the creative industries sector in France actually shrank 1.7% per annum in this same period).

Table 1. Creative economy employment (2013): A six-country comparison

The six countries surveyed represent 63.6% of European Union gross domestic product

Rank	Country	Creative economy		Creative industries		Embedded	
		Share of overall employment	Total	Share of overall employment	Total	Share of overall employment	Total
1	Sweden	11.92%	557,000	8.88%	415,000	3.04%	142,000
2	Netherlands	10.90%	834,000	7.68%	588,000	3.21%	246,000
3	UK	9.93%	2,941,000	7.91%	2,343,000	2.02%	598,000
4	Germany	7.96%	3,142,000	5.76%	2,276,000	2.19%	866,000
5	Poland	5.62%	873,000	3.73%	580,000	1.89%	293,000
6	France	7.54%	1,922,000	5.52%	1,407,000	2.02%	515,000

Source: European Labour Force Survey data in Max Nathan, Andy Pratt and Ana Rincon-Aznar, *Creative Economy Employment in the European Union and the United Kingdom: A Comparative Analysis* (London: Nesta, 2015)

'These changes have enormous implications not just for the way our working lives will develop but for the educational system and social safety net as well.'

But the larger question is, how does Europe compare with its principle economic competitors, and most notably with the advanced economies of North America? Here, robust data which can be used to build useful comparisons is scarce, but there are some useful indications. For example, in a 2016 study, Nesta found that both Canada and the United States ranked ahead of the United Kingdom – the No. 2 country in the pan-European rankings – in terms of the share of the workforce deployed in creative work. This would put Canada and United States among the league table leaders were they to be added systematically to a pan-European ranking, suggesting that a larger portion of their workforce is employed in the creative economies than in most of Europe. Specifically, Nesta found that Canada had the deepest footprint, with the creative economy's share of jobs in that country at an eye-poppingly high 12.9%. This is larger than in the U.S. (9.5%), and well ahead of the United Kingdom figure on a comparable methodology (8.2%).¹⁰ The United States, by contrast, weighs in at a respectable 3.1% annual growth, lower than some of its competitors but starting from a vastly larger base than most of its global competitors.

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[Max Nathan, Tom Kemeny, Andy Pratt and Greg Spencer. *Creative Economy Employment in the United States, Canada and the United Kingdom: A Comparative Analysis* \(London: Nesta, 2016\).](#)

But the more interesting comparison is in the geographical distribution of creative economy jobs. And, while comparative European data has yet to be systematically developed in this area, we can learn a lot by comparing the United Kingdom with the two leading North American countries. Turning to the structure of the creative industries workforce in the two continents, three interesting points of difference emerge. See Table 3 on page 7 for a more precise comparison.

- Canada and the U.S. have similar employment distributions across the creative industries, but both differ markedly from the United Kingdom. Notably, the advertising and marketing industries – general business-facing sectors – in Canada

Table 2. Average annual growth rates for creative economy employment (2011-2013): A six-country comparison

The six countries surveyed represent 63.6% of European Union gross domestic product. The German growth rates are based on 2012-2013 only.

Rank	Country	Creative economy		Creative industries		Embedded	
		Total	Increase in share of overall employment	Total	Increase in share of overall employment	Total	Increase in share of overall employment
1	Netherlands	9.3%	7.9%	3.7%	2.4%	28.9%	27.2%
2	UK	5.8%	4.8%	6.1%	5.0%	4.6%	3.7%
3	Poland	3.7%	3.7%	3.7%	3.7%	3.7%	3.8%
4	Germany	2.2%	1.3%	1.8%	0.7%	3.5%	2.3%
5	France	1.3%	1.5%	-1.7%	-1.5%	12.0%	12.4%
6	Sweden	1.0%	0.2%	1.1%	0.3%	0.8%	0.0%

Source: European Labour Force Survey data in Max Nathan, Andy Pratt and Ana Rincon-Aznar, *Creative Economy Employment in the European Union and the United Kingdom: A Comparative Analysis* (London: Nesta, 2015)



'Post-industrial knowledge economies are increasingly reliant on creative work.'

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[Hasan Bakhshi, John Davies, Alan Freeman and Peter Higgs. *The Geography of the United Kingdom's Creative and High-Tech Economies* \(London: Nesta, 2015\).](#)

and the U.S. are almost three times larger as a percentage of the total creative industries workforce than those of the United Kingdom. The United Kingdom's numbers are a little higher in other areas e.g. design, film and television and information and communication technology.

- Data on city and city region agglomerations in the creative economy show some notable patterns. For example, the metropolitan area of New York-Newark-New Jersey shows creative economy employment of 1.2 million in 2013, which is twice the size of London's creative economy workforce, but similar to the figure for the wider London commuter area sometimes referred to as the Greater South East. Two competitive equals facing each other across the Atlantic. Measured by employment share, however, the U.S. has a number of other very significant creative economy metro regions: San Jose (20.3%); Washington DC (18.3%); San Francisco (17.4%), Austin and Seattle (15.1% each). United Kingdom concentrations match this intensity only in Inner London (21.5%). The comparable figure for the whole London and South East region is around 12%. No other city-region of the United Kingdom makes this list. The data adds further context to the long-running debate about the concentration of public funded arts activities in London and its spillover benefits for London's very strong creative industries. In other work, Nesta has shown that 43% of all United Kingdom creative economy jobs are to be found in the London and the South East region.¹¹
- The regional data also confirms the insight that London's creative economy is built more heavily upon the creative industries than in the application of creative labour to other businesses. This can be seen as a strength built upon specialisation.

New Times, New Data: Towards a New Paradigm

It would be unwise to draw too many hard and fast conclusions from the necessarily incomplete data summarised in this paper. But it is not difficult to see how the collection and publication of more consistent creative economy data across the EU would contribute to a better understanding of the structure and prospects of the EU economy. Comparison of employment patterns and growth rates is fundamental to serving a wider public interest. Without data of this kind, it is impossible to run a well-evidenced 21st century debate about key policy choices, including innovation, education, digital infrastructure, competition policy and much else.

The research presented in this paper is technical in its detail – and interested readers are encouraged to read the longer, more academically presented versions on the [Nesta](#) website. But in the overarching picture that the data paints and the argument it supports, the point is really quite simple. Post-industrial knowledge economies are increasingly reliant and will over time further rely even more on the creative work undertaken in their economies to achieve competitive advantage against providers of goods and services with other advantages, such as lower labour costs.¹² This landscape also includes the cultural sector, where demand is increasing, driven partly by extensions to leisure time and life expectancy. More generally, the rise of creativity is a key feature of the dematerialisation of advanced economies, where investment in intangible assets, such as brand identity, exceeds by an increasing margin investment in tangible assets,

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As such, the argument developed in this policy brief echoes earlier debates about the shifting comparative advantage of advanced developed economies and the growing importance of design. See Vivien Walsh, Robin Roy, Margaret Bruce and Stephen Potter, *Winning by Design: Technology, Product Design and International Competitiveness* (Oxford: Blackwell, 1992).

'This trend seems set to continue as digital technologies extend the role and importance of creative work within the manufacturing sector itself.'

such as machines and buildings.¹³ At the heart of all of this is the need for a searching rethink in our approach to educating young people, providing greater educational access to mid-career and retired people and regulating the EU economy in a way that spurs growth and innovation, particularly in the key fields of data protection, intellectual property and Internet access.

But the most specific challenge emerging is that without accurate, consistent statistics and analysis, Europe is in danger of failing to register and respond to this creative economy turn. The creative industries emerged as a point of focus in the late 1990s in the United Kingdom, initially unsupported by rigorous data, but subsequently strengthened by an iteratively refined framework of data and methodology in the “dynamic mapping” described in this paper, which for the first time produced statistics on the creative economy. In 2014, this approach and its definitions were adopted by the United Kingdom government.¹⁴ As a result, United Kingdom official statistics include estimates for creative jobs in all sectors, not just in the creative industries. Policymakers can now start to understand the United Kingdom creative economy in the same way that they seek to understand longer established categories. The knowledge that as of 2013 some 43% of the United Kingdom creative economy workforce was employed in London and the South East of England, compared with 32% of the science, technology, engineering and mathematics (STEM) economy workforce and just 28% of the workforce as a whole, for example, carries demanding implications for priorities in regional economic development. And there are many other implications implying necessary interventions in key policy areas, ranging from education and intellectual policy to telecoms and competition law.

The European Union lacks comparable estimates. The creative economy represents a huge component in the digital single market proposal prioritised by Jean-Claude Juncker, president of the European Commission, in 2014, but the strategy does not yet have a viable underpinning of evidence. In order to evaluate a potential digital single market, we need to know in outline and in detail about the functioning of Europe’s creative-economy labour market; about skills strengths and deficits; about the interaction between EU-wide policymaking and the decisions taken at national and city-regional level. We also need to make sure that the decisions the EU takes about issues such as data protection, intellectual property, competition policy, the

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[Carol Corrado, Jonathan Haskel, Cecilia Jona-Lasinio and Massimiliano Iommi, *Innovation and Intangible Investment in Europe, Japan and the United States*, *Oxford Review of Economic Policy*, 29\(2\) 2013: 261-286.](#)

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 See [Department for Culture, Media and Sport, *Creative Industries Economic Estimates January 2014 Statistical Release*, 14 January 2014](#). For more background on the merits of adopting “dynamic mapping” in official statistics, see [ibid., *Classifying and Measuring the Creative Industries: Consultation on Proposed Changes*, April 2013](#).

Table 3. Employment in the United States, Canada and United Kingdom creative economies (2011)

Rank	Country	Creative economy		Creative industries		Embedded	
		Share of employment	Total	Share of employment	Total	Share of employment	Total
1	Canada	12.90%	2,242,000	8.2%	1,427,500	4.7%	815,000
2	U.S.	9.48%	13,396,000	7.02%	9,939,000	2.46%	3,457,000
3	UK	8.18%	2,326,000	5.12%	1,457,000	3.06%	869,000

Source: Max Nathan, Tom Kemeny, Andy Pratt and Greg Spencer. *Creative Economy Employment in the United States, Canada and the United Kingdom: A Comparative Analysis* (London: Nesta, 2016)

'We need much better statistics about the functioning of Europe's creative-economy labour market.'

digital single market and the working of the EU legal structure take sufficient account of the demands of the creative economy. At present, the EU lacks the statistical data to adequately measure its creative economy, let alone to compare the advantages and disadvantages of one approach versus another.

By way of caveat, much of the work in this paper is still exploratory. The understanding of "creative work" is relatively new. And the data bases upon which we have relied are not always easily comparable. But we have used the best data available. Oddly in an era sometimes referred to as the "machine age," the research shows that human beings and the human imagination are fast emerging as the most vital economic commodity, the cutting edge of the economy. It is here where the success and failure of nations will be most directly determined.

References and further reading

Bakhshi, Hasan, Alan Freeman and Peter Higgs. *A Dynamic Mapping of the United Kingdom's Creative Industries* (London: Nesta, 2012)

Bakhshi, Hasan, Carl Frey and Michael Osborne. *Creativity versus Robots: The Creative Economy and the Future of Employment* (London: Nesta, 2015)

Bakhshi, Hasan, Ian Hargreaves and Juan Mateos-Garcia. *A Manifesto for the Creative Economy* (London: Nesta, 2013)

Bakhshi, Hasan, John Davies, Alan Freeman and Peter Higgs. *The Geography of the United Kingdom's Creative and High-Tech Economies* (London: Nesta, 2015)

Hargreaves, Ian, and Bernt Hugenholtz. "Copyright Reform for Growth and Jobs: Modernising the European Copyright," *Lisbon Council Interactive Policy Brief*, Issue 13/2013

Hargreaves, Ian, and Paul Hofheinz (eds.). *Intellectual Property and Innovation: A Framework for 21st Century Growth and Jobs* (Brussels: the Lisbon Council, 2012)

Henry, Colette, and Anne de Bruin (eds). *Entrepreneurship and the Creative Economy: Process, Practice and Policy* (Cheltenham: Elgar, 2011)

Higgs, Peter, Stuart Cunningham and Hasan Bakhshi. *Beyond the Creative Industries: Mapping the Creative Economy in the United Kingdom* (London: Nesta, 2008)

Hofheinz, Paul, and Michael Mandel. *Uncovering the Hidden Value of Digital Trade: Towards a 21st Century Agenda of Transatlantic Prosperity* (Brussels and Washington: the Lisbon Council and Progressive Policy Institute, 2015)

Nathan, Max, Andy Pratt and Ana Rincon-Aznar. *Creative Economy Employment in the European Union and the United Kingdom: A Comparative Analysis* (London: Nesta, 2015)

Nathan, Max, Tom Kemeny, Andy Pratt and Greg Spencer. *Creative Economy Employment in the United States, Canada and the United Kingdom: A Comparative Analysis* (London: Nesta, 2016)

Smith, Chris. *Creative Britain* (London: Faber, 1998)

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