

# Europe in the creative age, revisited

The rise of the ‘creative class’ as the motor of economic growth means that countries which promote technology, talent and tolerance will do best. Will this lead to higher inequality? Not necessarily argues [Richard Florida](#).

For the past several decades the developed nations of the world have been undergoing a wrenching transformation, as the older, industrially based mode of production shifts to a still-emergent knowledge and creative one. I’m not the first person to write about this: Daniel Bell<sup>1</sup>, Peter Drucker<sup>2</sup>, John Howkins<sup>3</sup> and many others before me have chronicled aspects of this shift. I call our era the ‘Creative Age’ because human creativity has become the motor of economic growth. Creativity lies deep within each and every human being (it is what distinguishes us from other species) and following Paul Romer,<sup>4</sup> it is a fully and completely renewable resource, one that grows over time.

A decade or so ago, on the heels of the publication of my book, *The Rise of the Creative Class*,<sup>5</sup> I published a report with Demos, [Europe in the Creative Age](#),<sup>6</sup> extending my basic framework to cover the European nations. Co-authored with Irene Tinagli, who was my student at Carnegie Mellon University at the time, it rated and ranked 13 European nations alongside the United States on my theory of the 3Ts of economic development, which argues that to grow and prosper, nations and cities need to invest in and perform well on Technology, Talent, and Tolerance. Each is a necessary but in itself insufficient condition for sustained economic development.

While some European nations were adapting well and in fact leading the transformation to the creative age, we found a clear divide between leaders and laggards across Europe. Sweden was the leading nation on the overall Creativity Index (an overall measure of performance across the 3Ts), topping the United States on this score. The Scandinavian and Northern European countries, especially Finland and the Netherlands, also performed exceptionally well, with creative-competitiveness levels comparable to the United States.

Denmark, Germany, Belgium and the UK made up a second tier of nations that were also adapting well to the creative age. Interestingly, and well before the onset of the economic crisis, we pointed out that a cluster of Southern European nations, Portugal, Italy, Greece and Spain – later derisively dubbed the PIGS because of their difficulties during and after the crisis – were adapting less well to the creative age.

Since *Rise*’s original publication, many have sought to shoot holes in the Creative Class, 3Ts approach. In particular, critics took aim at the notion that tolerance and openness were correlated with economic growth, insisting instead that they were simply

products of it. They called it a chicken-and-egg problem. My own research as well as that of others, including a detailed study<sup>7</sup> of global economic performance by Marcus Noland of the [Petersen Institute for International Economics](#), has confirmed that openness and tolerance, alongside technological capacity and talent or human capital accumulation all contribute to economic growth.

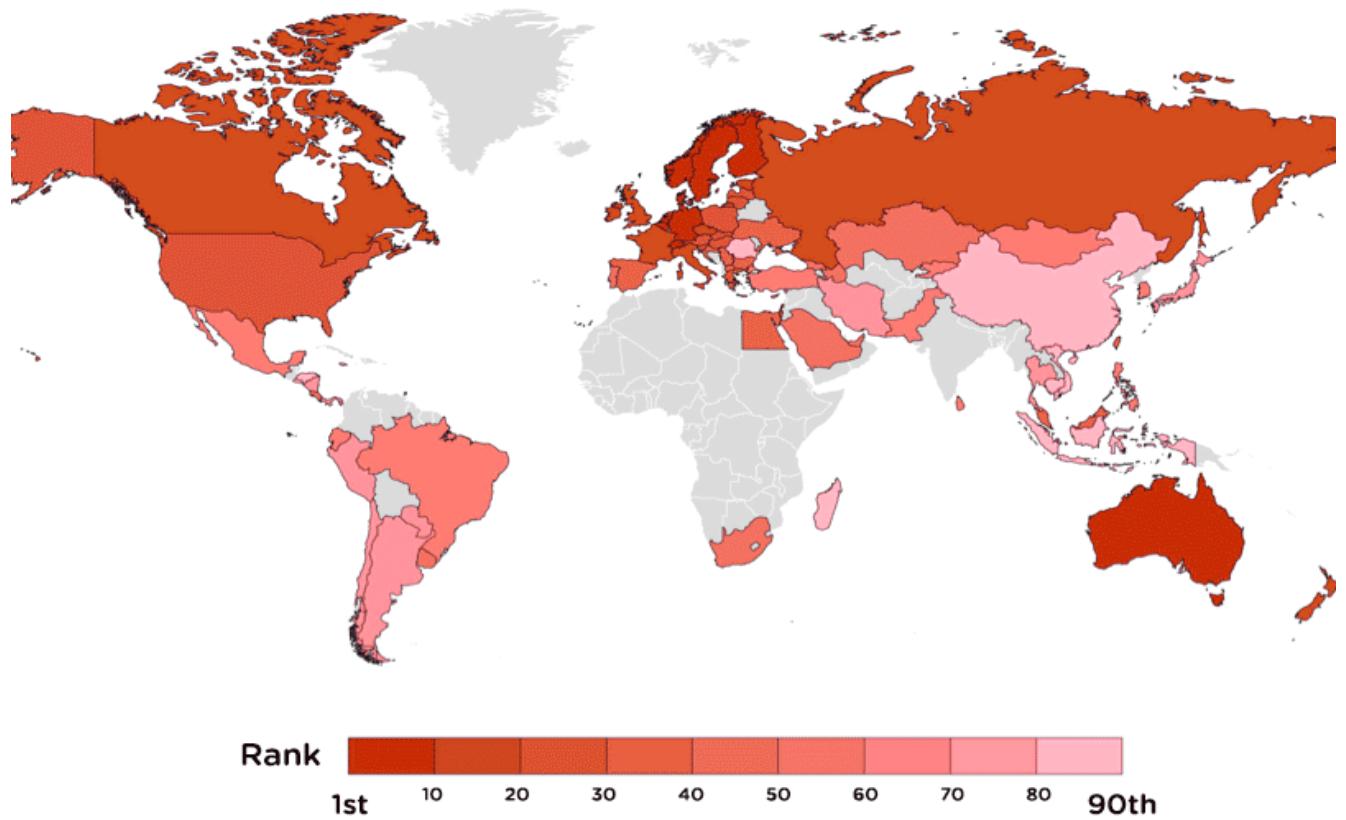
In fact, given the traumatic events of the past decade—the tech crash of the early 2000s, the rise of terrorism as a global threat, and most importantly the economic and financial crisis of 2008, it is highly notable that the progress of the creative economy has not been derailed. Far from challenging the creative model, the crisis has borne them out. The 2008 meltdown and the banking and sovereign debt crises that followed are symptoms of the systemic crisis of the old order of industrial capitalism; the inflection point between it and the emergent knowledge-based creative economy. Even while rates of unemployment overall and in the industrial sector soared into the double digits, the creative sector remained much more stable in most nations.

A couple of years ago, with the collaboration of Charlotta Mellander and my colleagues at the [Martin Prosperity Institute](#), I updated and expanded the analysis of global creativity to cover 82 nations world wide, a report entitled [Creativity and Prosperity: The Global Creativity Index](#). Our definition of European nations includes the 27 [member states of the European Union](#). The findings confirm those of *Europe in the Creative Age*: while some European nations are global leaders in the creative age, not all are adapting equally well.

## The Creative Class

The first map shows how the nations of the world stack up on the creative class—the professionals who work in science and engineering, research and development, technology-based industries, in the arts, music, culture, aesthetic and design industries, or in the knowledge-based professions of health care, finance and law: some 300 million workers in the countries for which data are available. This figure should be interpreted carefully, however. It is a very rough estimate that in all likelihood vastly underestimates the true number of creative class workers worldwide.

Figure 1 – The Global Creative Class map



Although the United States has the largest population of creative class workers, it ranks just twenty-seventh in terms of its creative class share, which is roughly 35 per cent of its workforce. The highest-ranked countries have nearly half of their workforces in the creative class.

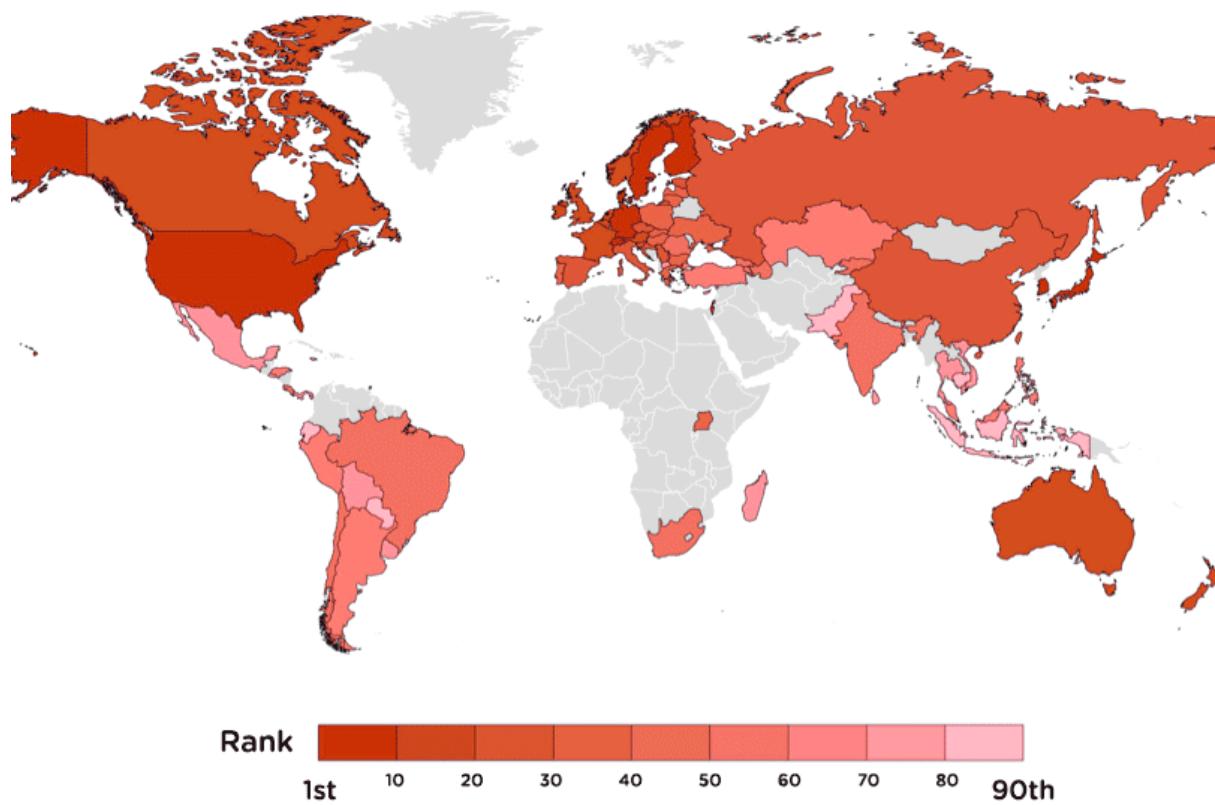
With 47.3 per cent of its workforce in the creative class, Singapore takes the top spot. Ten of the top 15 countries for the creative class are European, including the Netherlands, Switzerland, Sweden, Belgium, Denmark, Finland, Norway, Germany, the UK and Estonia—

43.7 million creative class workers in all. As noted above, a substantial divide is still present in Europe. The creative class makes up a much smaller share of the workforce in Portugal, Spain and Greece, who rank 41st, 34th and 29th respectively.

## **Technology**

The first of the three Ts is Technology. We measure this with the Global Technology Index, which employs three key technology metrics—the Global Research & Development Investment Index (R&D spending as a per cent of GDP), the Global Researchers Index (the number of professionals engaged in R&D, controlling for population), and the Global Innovation Index (patents per capita).

Figure 2 – The global technology map



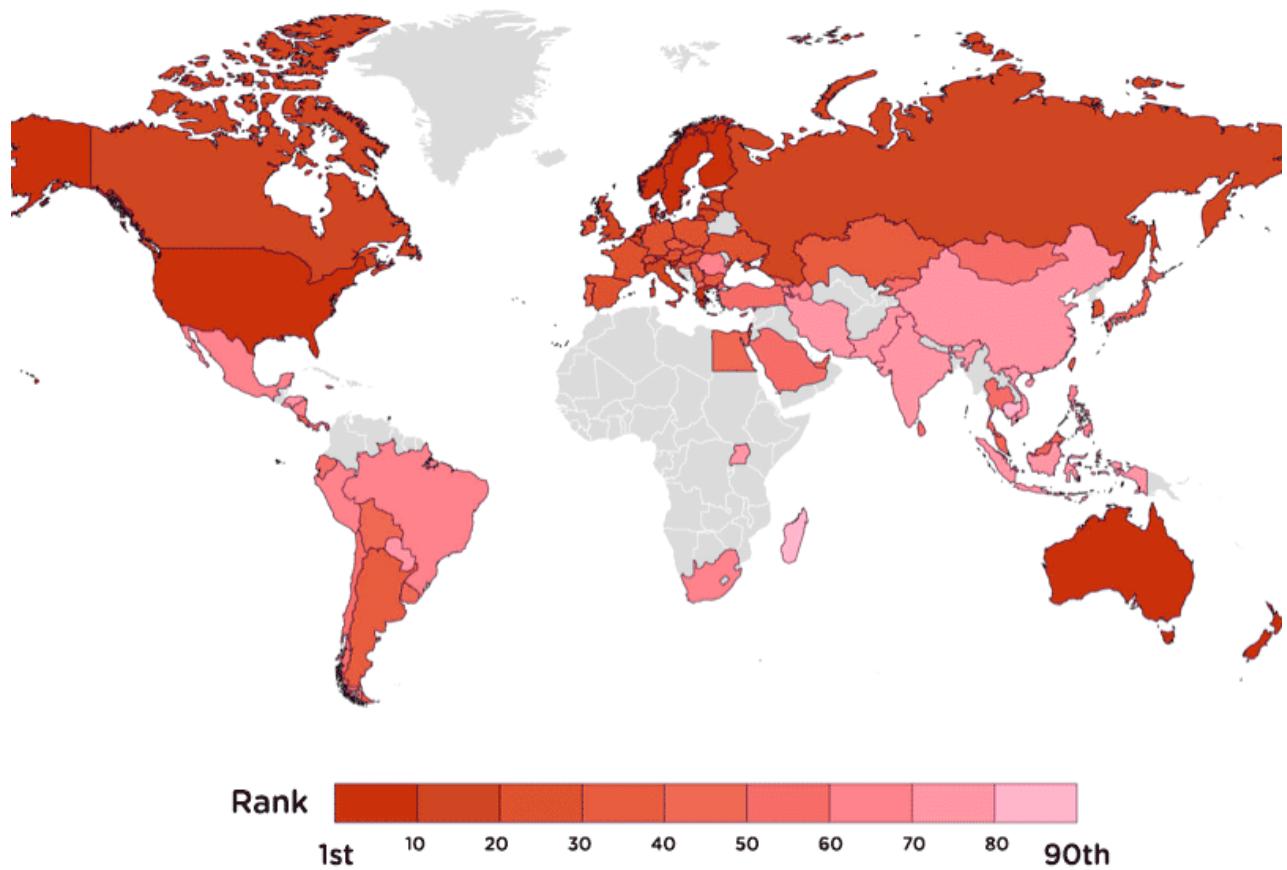
The second map shows how nations stack up on technology. Finland ranks first, Japan second, the US third and Israel fourth. Denmark, Korea, Germany, and Singapore round out the top ten; Canada is 11th. Eight European countries rank among the top 15 countries in technology, including Sweden, Switzerland, Denmark, Germany, Norway, Austria and France.

### Talent

Talent is the second T. We measure it with the Global Talent Index, a composite that includes the Creative Class and a measure of

educational attainment, which is the share of adults who have completed ‘tertiary education,’ which includes graduates of technical and vocational schools as well as colleges and universities. Research conducted by the Martin Prosperity Institute finds that while nearly three-fourths of college-degreed US workers (72.2 per cent to be exact) hold Creative Class jobs less than 60 per cent (59.3 per cent) of Creative Class workers have college degrees. In other words, four in ten members of the Creative Class in America do not have college degrees.

Figure 3 – The global talent map

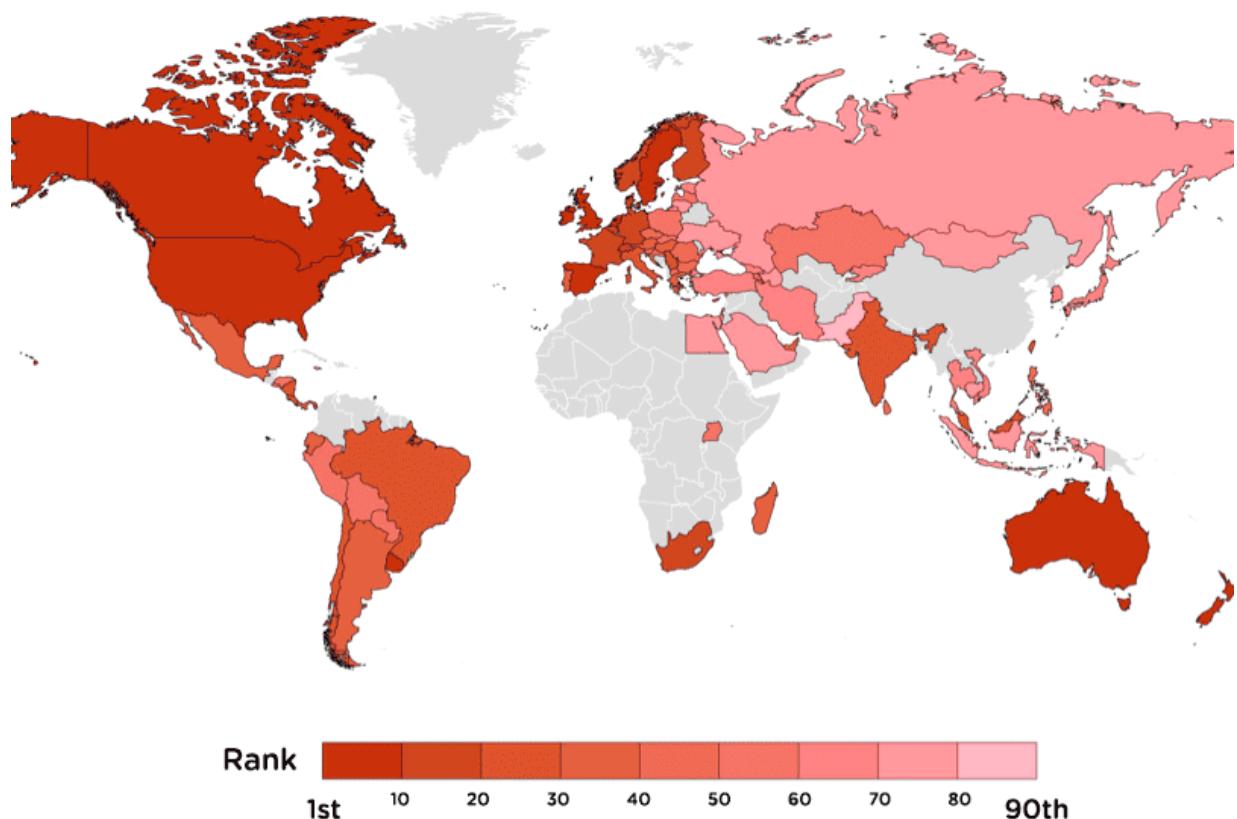


The third map tracks global talent. European nations perform exceptionally well on talent, accounting for ten of the top 15 countries. The Scandinavian countries score the highest, with Finland and Sweden taking first and second place and Denmark and Norway in fourth and sixth place. Singapore ranks third, with New Zealand in fifth and Australia in seventh. The United States is eighth, just ahead of Greece and Slovenia in the ninth and tenth spots.

## Tolerance

Tolerance, the third T, is more than a matter of political correctness—it's an economic growth imperative: places that welcome diversity foster creativity. The Global Tolerance Index combines two measures, both taken from the Gallup World Poll. The first is the percentage of respondents who believe that the community they live in is a good place for ethnic and racial minorities to live. The second is the percentage that says that their community is a good place for gay and lesbian people to live.

Figure 4 – The global tolerance map

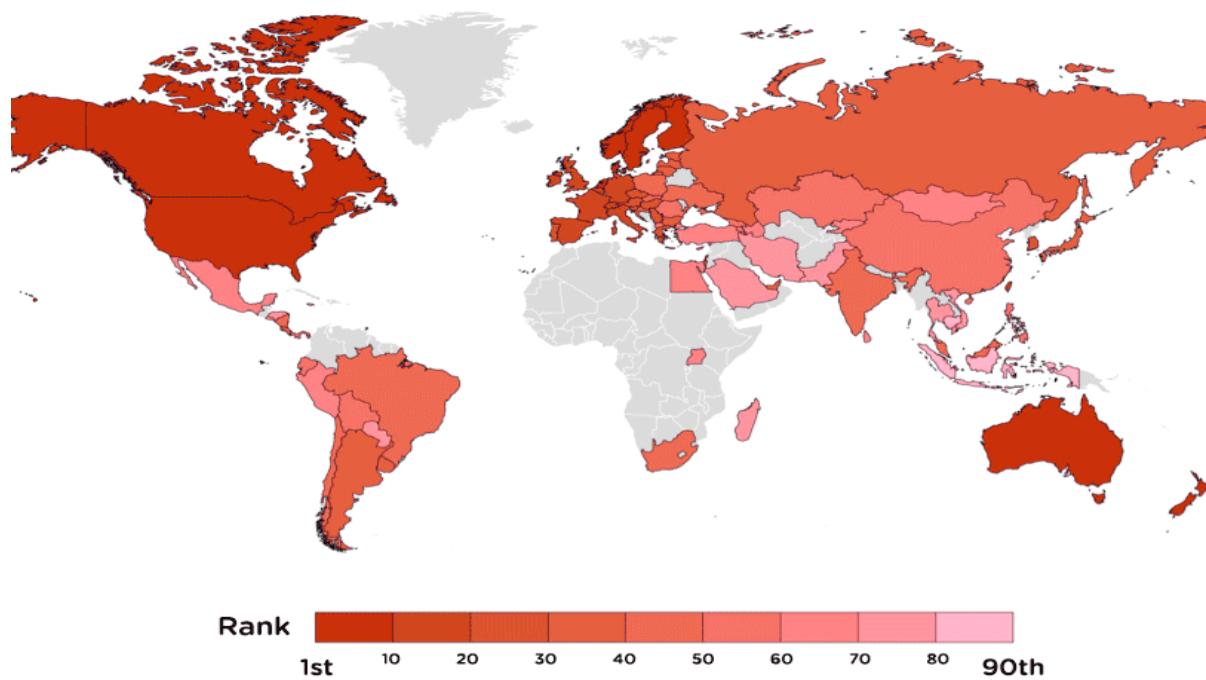


The fourth map tracks global tolerance. European nations stack up slightly less well on tolerance than they do on talent; accounting this time for only eight of the top 15 countries. Canada takes the top spot on this list and Ireland ranks second. The Netherlands ranks third: it is the only country among the top five that is more open to gay and lesbian people (83 per cent) than it is to racial and ethnic minorities (73 per cent). New Zealand ranks fourth, followed by nearby Australia in fifth place. Both have open immigration systems and have made it a priority to attract foreign talent. Spain is in sixth place, followed by Sweden and the US, with the UK in tenth place.

### **Bringing it all together – the Global Creativity Index**

The Global Creativity Index, or GCI, brings all these measures together, providing an integrated and comprehensive assessment of a nation's standing on the 3Ts of economic development. European countries stack up very well on this overall index.

Figure 5 – The Global Creativity Index map

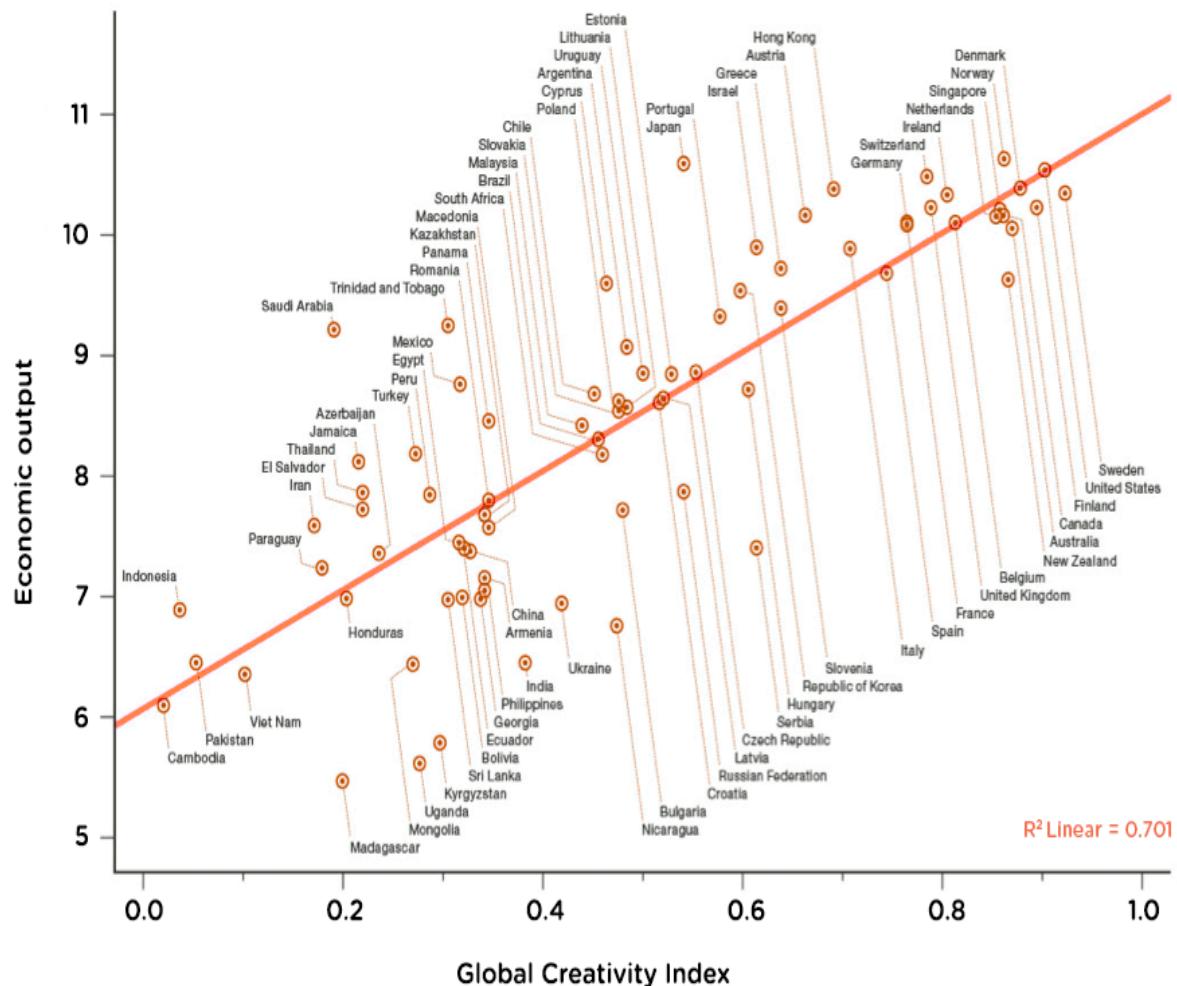


The fifth map charts the Global Creativity Index. Sweden is first, topping the United States in second place. Ten other European countries rank among the top 15 creative centers in the world, including third-ranked Finland, fourth-ranked Denmark, and Norway (7), Netherlands (10), Belgium (11), Ireland (12), the UK (13), Switzerland (14) and France and Germany (which tie at 15).

### Creativity, wealth and happiness

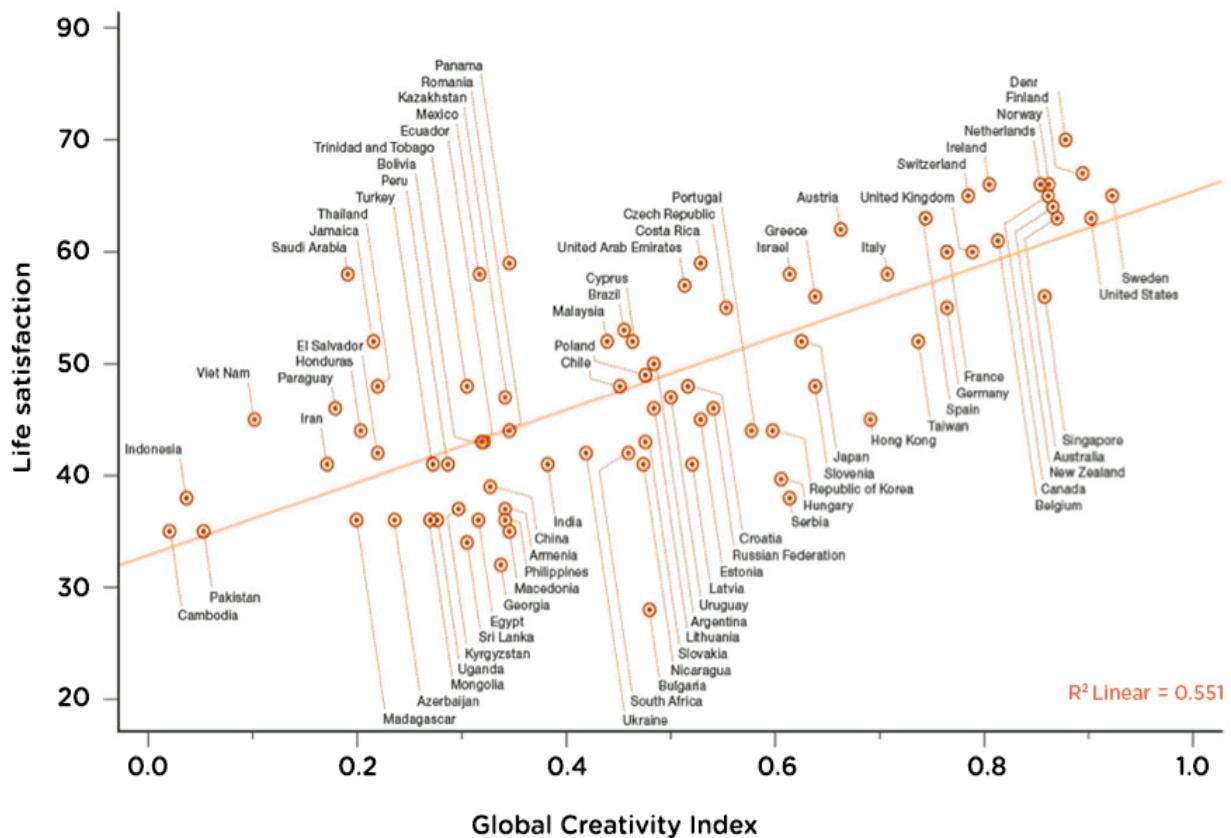
But how does creativity, measured as above, relate to the wealth and happiness of nations? To get at this, we compared the Global Creativity Index to conventional measures of innovation, economic development, and wellbeing. Two things stand out from our analysis.

## Economic output



First, creativity, measured by the GCI, is closely associated with key gauges of economic output, innovation, entrepreneurship and competitiveness.

## Life satisfaction



Second, creativity is closely associated with the happiness and wellbeing of nations.

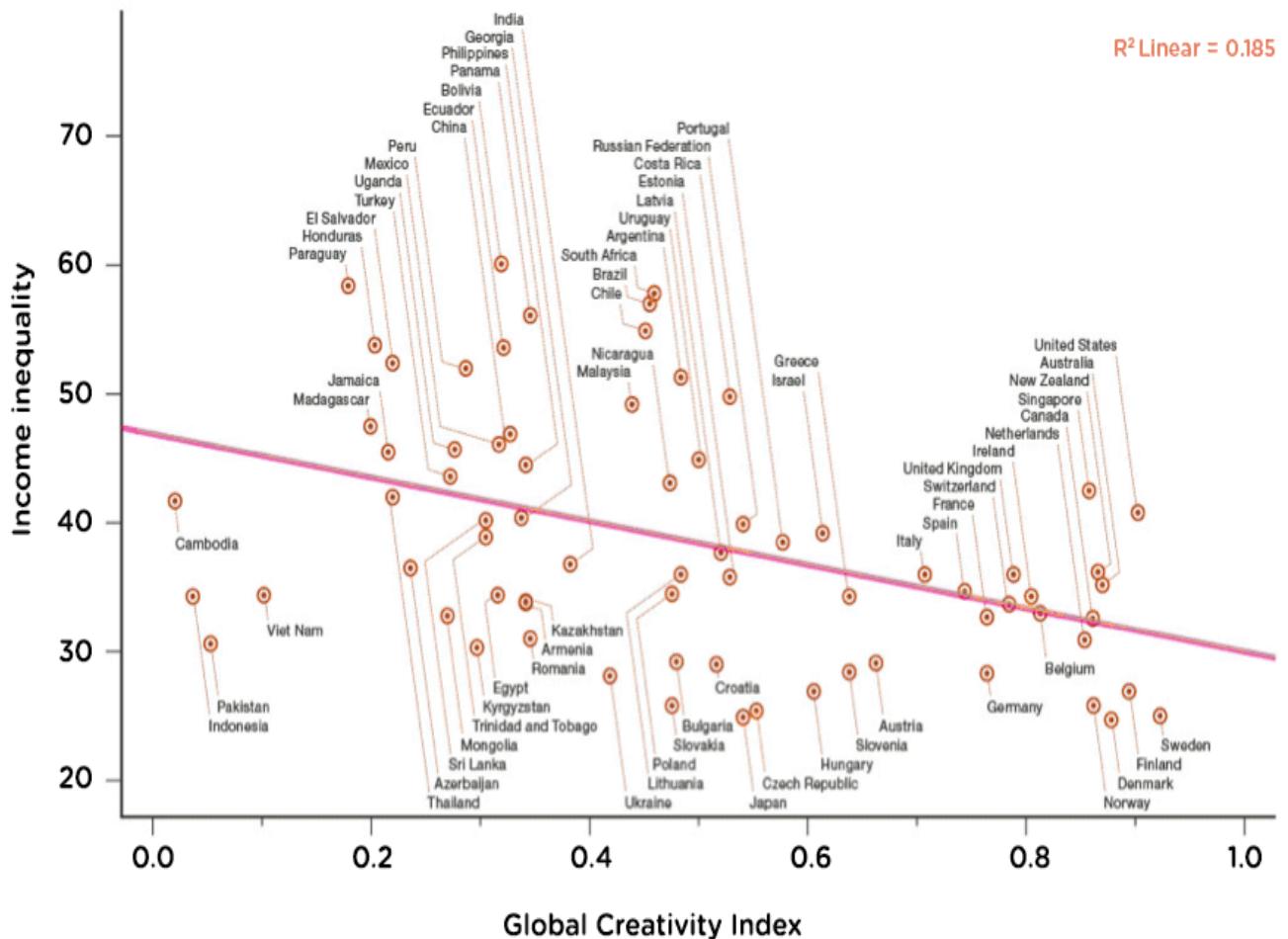
Nations that score high on the GCI have higher levels of economic output, entrepreneurship and overall economic competitiveness.

Nations that invest in creativity and that achieve high scores on each of the 3Ts of economic development also have higher levels of human development, life satisfaction, and happiness.

**Does Europe offer a better model of capitalism?**

Many have argued that the shift to a knowledge-intensive creative economy can't but exacerbate income inequality, as unionised manufacturing jobs fall away and the labour force is increasingly divided between highly-paid creative workers and low-pay, low-skill service workers. Income inequality in the US has reached levels not seen since the Gilded Age.

## Income inequality



But our analysis of the relationship between creativity and inequality reveals an intriguing pattern, which might in fact suggest a reason for some optimism. First off, looking across nations, we find creativity to be *negatively* associated with economic inequality as measured by the [Gini Coefficient](#).

Looking deeper, we find that nations split into two camps. The first camp includes the United States, the UK, Singapore, and to a lesser extent, Australia and New Zealand, where high levels of creativity, productivity, and economic competitiveness go hand in hand with higher levels of inequality.

But there are also large numbers of countries—mostly Scandinavian and Northern European nations, along with Japan—where high levels of creativity combine with much lower levels of inequality. In fact, this pattern appears to be the more general one, with the United States and Singapore appearing more as outliers.

Though the Creative Age brings a unique set of challenges, the countries of northern Europe potentially point the way towards a more broadly shared prosperity, one that draws on the full creative development of each and every human being while causing far less severe socioeconomic divides than the United States is experiencing. Sustained economic progress and social progress can and do go together; for the first time in history, human development and economic development are closely aligned.



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