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The Future of the Creative Economy

A report by Deloitte

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The Final Report considers, where possible, the potential impact of Coronavirus (Covid-19) on the Creative Economy. However, the situation is continuing to evolve, and many uncertainties remain as to the effect the Covid-19 crisis will have on the

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The purpose of the projections is to provide an illustrative estimate for the implications of plausible medium-term growth in the creative economy, if past trends continue. The projection therefore does not take into account Covid-19 impacts on the creative industries or other potential shocks, from which the sector could revert to trend by 2025 and 2030 (see analysis in the Final Report). This extrapolation reflects the stability in creative economy growth (across multiple economies studied) from 2011-2018, the fundamental association with long-term rising incomes and the diversity of the creative economy (meaning that the creative economy as a whole can grow on trend despite pressures on certain parts, e.g. the newspaper industry in recent years). However, this analysis should still be seen as illustrating the potential impact of those long-term trends rather than a forecast (particularly for any specific year).

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Executive Summary

Executive Summary

What is the creative economy?

The creative economy is an ecosystem that comprises a wide range of occupations distinguished by the generation of wealth and jobs through individual creativity driving the generation and use of intellectual property. It includes both:

- The creative industries, including film and TV; publishing; museums; music and the performing arts; computer programming; crafts; and architecture and design; and
- Those working outside those creative industries, but still working in creative occupations.

How large is the creative economy?

The creative economy is large and growing. New analysis for this report looks at six large economies in Europe: Germany, the UK, France, Italy, Spain, Turkey; and three large economies in Asia Pacific (APAC): Japan, South Korea and Australia. It finds that the creative economy employed nearly 20 million people across those nine economies in 2018.

“Creative economy...represents around 7% of total employment”

Across those nine economies, creative economy employment represents around 7% of total employment. The creative economy has been growing faster than the wider economy in all nine countries and total creative economy employment is up 4 million from 2011.

How could the creative economy grow in the future?

Over the longer term, **the creative economy is likely to be a key driver of economic growth** as governments around the world look to rebuild their economies in the wake of the down-

turn associated with Covid-19. It is reasonable to expect that the sector will return to its long-term trend of growing faster than the wider economy as, for example, advertising is likely to recover strongly with the wider economy and other sources of income have been more resilient.

The fundamental driver of creative economy growth remains that when consumers have more to spend, and have increasingly satiated their demand for other goods and services, they are more likely to spend that additional income on outputs of the creative economy. Extrapolating from earlier trends suggests that the creative economy could grow 40% by 2030, adding more than 8 million additional jobs, in the 9 economies studied. This is shown in **Table 1**.

“The creative economy is likely to be a key driver of economic growth over the long term”

The importance of the creative economy for overall economic performance is therefore likely to grow. This means its importance for policymaking is also likely to continue to grow, with countries more or less well-positioned to take advantage of that underlying growth in global demand. While this study focuses on developed economies, middle-income countries are likely to show even stronger growth to the extent their overall national income grows faster.

20

million people

The **creative economy** employs nearly 20 million people across the nine economies studied

Table 1: Summary findings, by country.

Country	Creative economy employment, 2011, 000s	Creative economy employment, 2018, 000s	Creative economy, share of total employment, 2011, %	Creative economy, share of total employment, 2018, %	Creative economy employment, 2030, 000s
Japan	6,203	7,893	9.9	11.9	10,519
UK	2,309	3,107	7.9	9.6	4,344
Germany	2,432	2,915	6.3	7.0	3,970
France	981	1,155	3.8	4.3	1,600
South Korea	842	1,093	3.4	4.1	1,725
Australia	796	987	7.1	7.8	1,344
Spain	750	889	4.1	4.6	1,041
Italy	518	586	2.3	2.5	626
Turkey	392	604	1.6	2.1	1,047

How are the linkages within the creative economy contributing to growth?

The nature of the creative economy will continue to change, and new sectors could emerge entirely (as radio, television, video games and podcasts have in the 20th and 21st centuries so far). **Symbiotic relationships between segments are likely to mean advances in one part will stimulate growth in other parts of the creative economy, an ecosystem which – in many ways – thrives (or not) in a virtuous circle together.**

These relationships include:

- **Creative supply chains**
Strength in software, music or craft (making sets, costumes, etc.) sectors can make a country or region more attractive as a destination for, say, investment in new film and TV, and investment in new films and TV series can provide demand that increases growth in the supplying sectors (including those like music that have been affected by the Covid-19 pandemic).
- **Shared IP**
Where different parts of the creative economy exploit common designs, stories, characters and worlds. This effect can be seen in popular franchises from Pokémon to Harry Pot-

ter with major revenues across multiple creative industries. It can also be seen in less well-known books, songs and other creative works used as IP in movies, television shows, video games and other settings which introduce that content to new audiences.

- **Creative technology**
There is increasing overlap between the digital and creative industries and this is only likely to increase with the growing role of AI, new approaches to VFX (including the use of gaming platforms in making new film and TV) and collaboration tools in production.
All of this will have implications for public policy as the creative economy recovers from Covid-19, in areas including:
- **Regional development**
With creative industry clusters likely to play a more important role in a greater range of regions over time.
- **Skills policy**
With cultivating creativity an increasingly important priority for the education system and the wide range of technical skills needed to support the creative economy in increasing demand.
- **Global competitiveness**
With growth in the size of the global creative economy increasing the rewards for those countries and regions that are competitive in the production of creative goods and services.

What is the Creative Economy?

1

What is the Creative Economy?

1.1 Introduction

The creative economy addresses important social and cultural needs, including cultural representation and social cohesion.

It has also become an increasingly important sector contributing to economic growth in recent years. Now, however, it faces unprecedented pressure as in-person events and attractions (e.g. cinemas, theatres, concerts) are forced to operate at a reduced capacity or close entirely due to Covid-19 and the advertising budgets which underpin many business models are cut. At the same time, its distinctive cultural role means that businesses need to respond effectively to growth in society, including demands for greater representation of diverse backgrounds.

Against this backdrop, the results in this study provide an evidence base that should inform the discourse on the economic role of the creative economy and how commercial decisions and public policy can support its growth. They can sit alongside a wider consideration of the role for creative industries in addressing wider social and cultural goals. While there is considerable uncertainty over the nature of the creative economy that will emerge over time, there is good reason to think that it will continue to grow in size and importance around the world. As questions of representation and identity continue to be central to global politics, the creative economy, which plays a central role in how citizens engage with one another, is also likely to remain the subject of political debate and public interest.

1.2 Definition of the creative economy

This report is based upon a broad conception of the creative economy including film and TV; advertising and marketing; architecture, crafts and design; and creative roles in the IT sector. It is a definition used (with some variation in approach) by governments, statistics agencies and third party researchers in many countries around the world.

NESTA - an innovation foundation in the UK - developed the concept of the creative economy, which draws on creative talent, expanding upon the creative industry concept that had been studied by the UK Government.¹ They and other researchers based estimates of its scope on the incidence of creative roles in each economic sector (reflecting a view that the creative industries are those that employ the most people in creative occupations). The same approach, or a narrower one focused on the creative industries, has been applied to a number of European and APAC economies.

- Yoshimoto (2003) provided a narrower study for Japan of the creative industries using industry classifications.
- Higgs & Lennong (2011) produced estimates for Australia based on a re-estimation of the sectors that are included under the creative industries.

¹ NESTA, *A Manifesto For The Creative Economy*, 2013, <https://media.nesta.org.uk/documents/a-manifesto-for-the-creative-economy-april13.pdf>; DCMS, *Creative Industries Economic Estimates Methodology*, 2016, https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/499683/CIIEE_Methodology.pdf, pg. 14

What is the Creative Economy

- Nathan et al (2015) studied the size of the creative economy in selected EU countries, using less granular industry and occupation classifications.
- Content Industry Statistics (2018) for South Korea provide a narrower estimate of employment in content industries, which are similar – but not identical – to the creative industries.

More detail on those studies and their results is provided in the methodology appendix. This study extends that literature by considering more countries, over a longer period of time and extrapolating forward to understand how the sector might grow further.

That earlier analysis has defined the creative industries as “those industries which have their origin in individual creativity, skill and talent, and which have a potential for wealth and job creation through the generation and exploitation of intellectual property.”² They provide a range of goods and services to consumers, often connected with how we spend our leisure time. They also provide a range of intermediate inputs for other sectors, from jewellery design through to software code, often in the form of intellectual property that manufacturing and other service industries can use in the provision of better goods and services. The relevant occupations under this definition are those listed in **Table 2** (and linked to standard industrial codes in the Methodology Appendix).

Table 2: Creative industries groups

Creative Occupations Group	Example subsectors
Advertising and Marketing	Public relations and communication activities Advertising agencies Media representation
Architecture	
Crafts	Manufacture of jewellery and related articles
Design	Product, graphic and fashion design
Film, TV, video, radio and photography	Programme production Post-production Distribution

² DCMS, *DCMS Sector Economic Estimates Methodology*, 2019, <https://www.gov.uk/government/publications/dcms-sectors-economic-estimates-methodology/dcms-sector-economic-estimates-methodology>, pg. 7

What is the Creative Economy

The creative economy reflects the reality that many people work in creative jobs, fitting the description above, but outside the creative industries themselves. Almost all industries have some level of demand for creative work and some creative specialists employed within businesses in the sector. In many ways, these creative roles have been generating an increasing impact on typically non-creative industries – this can range

from design thinking in manufacturing to development of gaming-style reward systems built into customer engagement. The creative economy is therefore all those employed in the creative industries plus those in creative roles outside the creative industries. The relevant occupations under this definition are those listed in **Table 3** (and linked to standard industrial codes in the Methodology Appendix).

Table 3: Creative occupation groups

Creative Occupations Group	Example subgroups
Advertising and Marketing	<ul style="list-style-type: none"> Marketing and sales directors Advertising and public relations directors Public relations professionals Advertising accounts managers and creative directors Marketing associate professionals
Architecture	<ul style="list-style-type: none"> Architects Town planning officers Chartered architectural technologists Architectural and town planning technicians
Crafts	<ul style="list-style-type: none"> Smiths and forge workers Weavers and knitters Glass and ceramics makers, decorators and finishers Furniture makers and other craft woodworkers Other skilled trades not elsewhere classified
Design: product, graphic and fashion design	<ul style="list-style-type: none"> Graphic designers Product, clothing and related designers
Film, TV, video, radio and photography	<ul style="list-style-type: none"> Arts officers, producers and directors Photographers, audio-visual and broadcasting equipment operators
IT, software and computer services	<ul style="list-style-type: none"> Information technology and telecommunications directors IT business analysts, architects and systems designers Programmers and software development professionals Web design and development professionals

What is the Creative Economy

Publishing	Journalists, newspaper and periodical editors
	Authors, writers and translators
Museums, galleries and libraries	Librarians
	Archivists and curators
Music, performing and visual arts	Artists
	Actors, entertainers and presenters
	Dancers and choreographers
	Musicians

Even amongst traditionally separate creative sectors the lines have become blurred, as in the case of games technology increasingly being employed to support film and TV. Some activity might also not be captured effectively in industry statistics because it is non-market activity, e.g. amateur dramatics and volunteers at museums, or user-generated content on digital platforms.

However, while other definitions are possible, and might be more appropriate for studies of specific national economies, for this report it was important to have the most consistent standard possible. The DCMS approach provides a standard amenable to estimation over time and across countries (with approximations reflecting the additional challenges associated with collecting data across nine countries).

1.3 Why is a healthy creative economy important?

The creative economy is a means of addressing important social and cultural needs. It can provide cultural representation by presenting a diverse range of human experiences. It can aid social cohesion, among the population at large or particular communities, by enabling the sharing of common narratives about the contemporary, historical or mythical world in which we live. The creative economy is the part of the economy that tells our stories and the creative works we leave behind as a society are likely to define how future generations understand us.

The creative economy is also valuable to the extent that its association with individual creativity implies that it often involves the creation of new knowledge, which will create wider benefits through spillovers to other sectors. Creative industries often create technical innovations, most notably in the IT sector. The creative industries also support the diffusion of knowledge, for example through publishing. The news media in particular, but other parts of the creative economy as well, can also support democratic accountability through sharing information about current events, investigating institutions, and challenging decision-making.

Consumers also value the outputs of the creative economy like other goods and services, as a source of entertainment. This value is likely to increase over time in part because the consumer goods and services associated with the creative economy are often associated with how people spend their leisure time: listening to music, reading books, watching TV or films.

The creative economy can also support output in other sectors. Creative economy intellectual property can make output in other sectors more distinctive and valuable to consumers. This kind of effect exists within the creative economy, e.g. consumers learning about music through hearing about it in a video-on-demand show, but also through enriching the consumer experience in the wider economy, where customers buy consumer goods from t-shirts to alarm clocks to breakfast cereal which feature IP from favourite TV shows and movies. It can also more directly enhance productivity in other sectors through creating new software tools in the IT industry or connecting new and innovative goods and services with customers through sales and marketing. In all these ways, the creative economy might increase overall prosperity.

“The creative economy is the part of the economy that tells our stories and **the creative works we leave behind** as a society are likely to **define how future generations understand us.**”

How large is the Creative Economy?

2

How large is the Creative Economy?

2.1 Size and growth of the Creative Economy

The creative economy has a cultural impact beyond its economic contribution. At the same time, the creative economy includes a number of different occupations and industries that are not grouped together in standard classifications of economic activity. Its contribution is therefore often not reported and easy to understate.

The new analysis for this report shows that the creative economy is a large part of developed economies. The creative

economy employs nearly 20 million people across the nine economies studied. This represents more than 7% of total employment in those countries. In some countries, this share was higher, up to nearly 13% of total employment.

Crucially, the creative economy has been growing in every country studied, both in absolute terms and as a share of total employment – adding 4 million jobs from 2011 to 2018. Some of the largest national creative economies include:

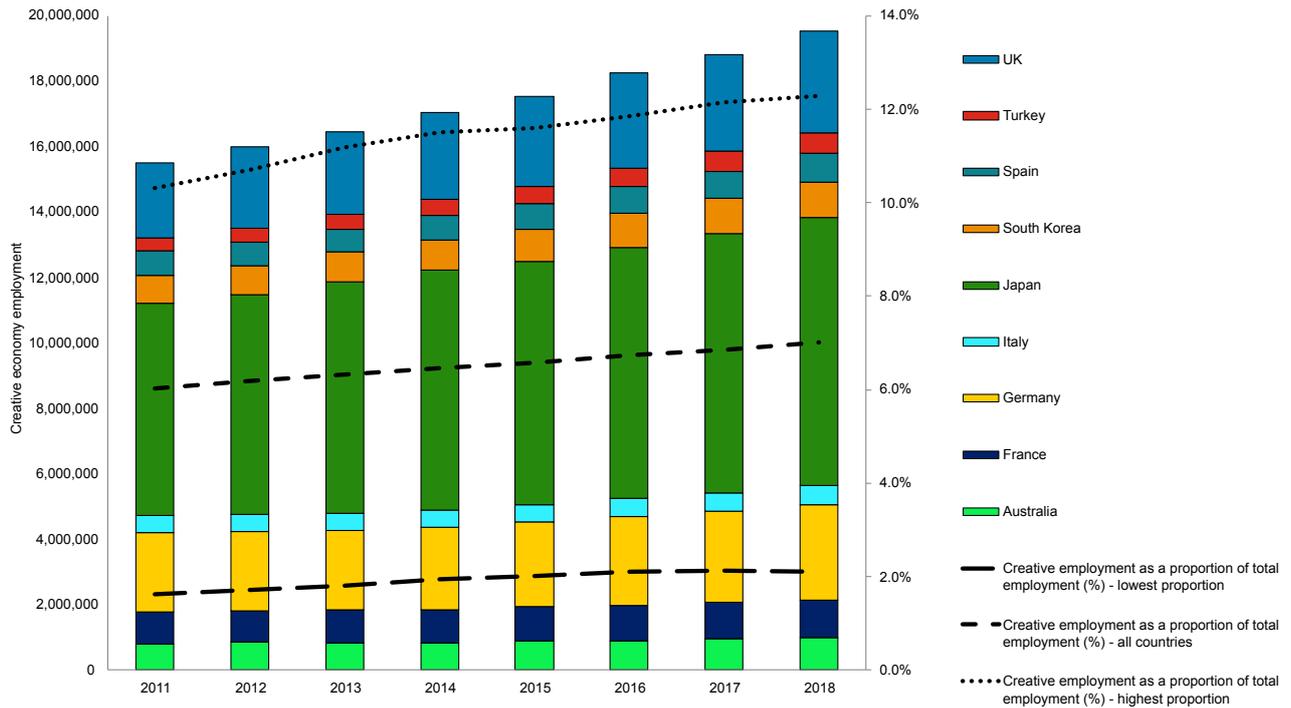
Employment trends in the creative economy

Country	Creative Economy - Signs of Growth
Japan	Between 5.1m and 7.3m in Japan in 2011, rising to between 6.5m and 9.3m in 2018, 10-14% of total employment in Japan.
UK	Around 2.3m in the UK in 2011, rising to over 3.1m in 2018, 10% of total employment in the UK.
Germany	Around 2.2m in Germany in 2011, rising to over 2.9m in 2018, 7% of total employment in Germany.
France	Nearly 1m in France in 2011, rising to nearly 1.2m in 2018, around 4% of total employment in France.
South Korea	Around 850,000 in South Korea, rising to over 1m in 2018, around 4% of total employment in South Korea.
Australia	Around 800,000 in Australia, rising to nearly 1m in 2018, around 8% of total employment in Australia.
Spain	Around 750,000 in Spain, rising to nearly 900,000 in 2018, around 5% of total employment in Spain.
Italy	Around 500,000 in Italy, rising to nearly 600,000 in 2018, around 2.5% of total employment in Italy.
Turkey	Around 400,000 in Turkey, rising to over 600,000 in 2018, around 2% of total employment in Turkey.

How large is the creative economy?

There is more detail across all nine countries in the Country Summaries and the approach to estimating these figures is described in the Methodology appendix. These estimates are based on data from domestic and international institutions but normal caution should be taken in interpreting differences between countries, where definitions and the interpretations of sector boundaries, for example, might vary.

Figure 1: Creative economy size, by country and year, total and % of total employment, 9 selected economies



This growth reflects an economic process where, as per capita incomes rise, beyond a certain level of development people satisfy their other demands and have more disposable income with which to purchase outputs from the creative economy (and more leisure time in which to enjoy them). While we can expect country differences to persist, reflecting a range of factors from language to the size of related sectors (e.g. other services industries might have a greater need for inputs from parts of the IT sector that are included in the creative economy), we can also therefore expect considerable convergence. As poorer countries catch up in terms of their overall prosperity, they are likely to catch up in terms of the prominence of the creative economy as well.

This overall progress notwithstanding, there are likely to be considerable changes in the nature of the goods and services provided by the creative economy, how those goods and services are provided, and the fortunes of particular businesses.

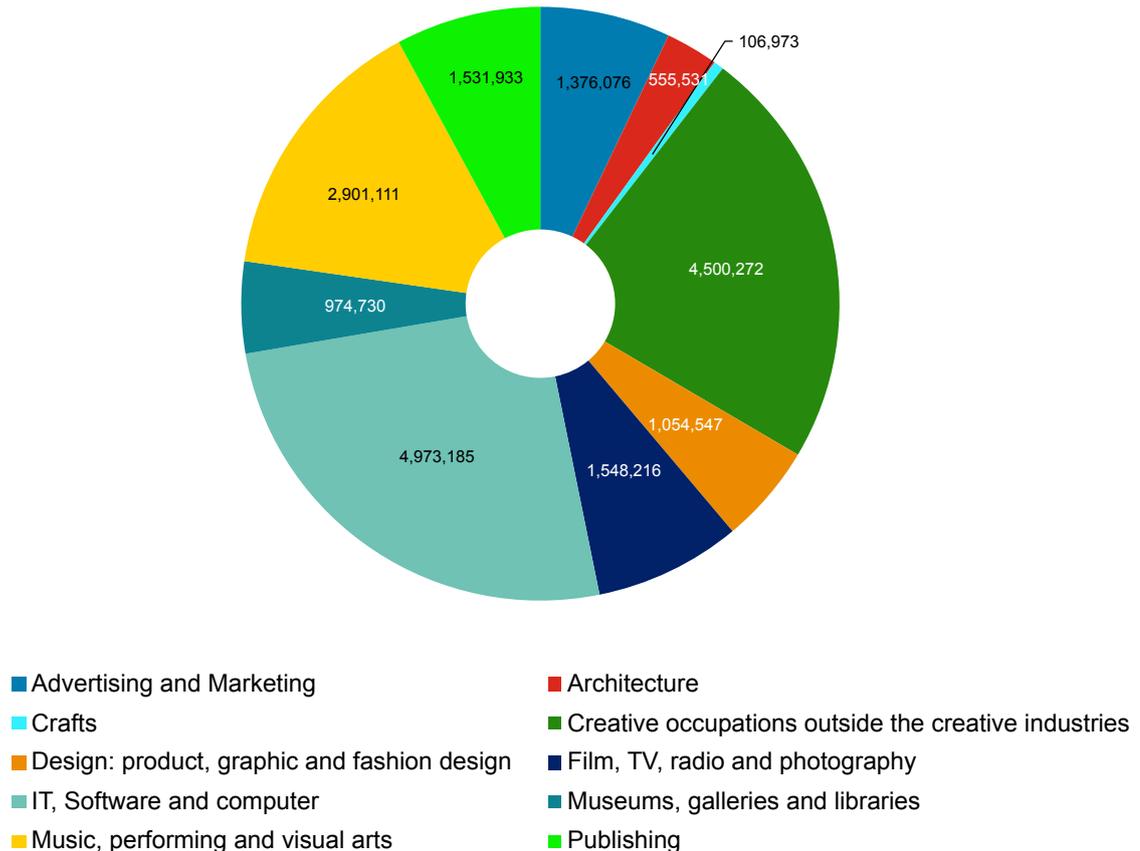
How large is the creative economy?

2.2 Size of specific creative industries

The breakdown of employment in the creative economy globally has been relatively stable over time and is shown in **Figure 2**. This reflects creative economy employment in the nine economies mentioned above: Germany, the UK, France, Italy, Spain, Turkey, Japan, Australia and South Korea. The largest

categories are the IT sector and employment in creative occupations outside the creative industries. However, there is also extensive employment in a range of other creative sectors, particularly film, TV, music, the performing arts, advertising and marketing and publishing, among others.

Figure 2: Creative economy employment, 9 selected economies, 2018



2.3 Results by country

The largest source of variation between countries at a similar level of economic development is creative employment outside the creative sector which is a large share of the total in the UK and only a small share in Germany, Spain and South Korea. Given the approach to estimate the extent of such employment (see the methodology appendix) this will reflect the wider sectoral mix (e.g. a large services sector will entail material creative employment). However, there are other variations across the economies studied.

The results for each country studied, including extrapolations from those earlier trends for 2025 and 2030 which are considered in more detail in the next chapter, are presented in the Country Summaries for Australia, France, Germany, Italy, Japan, Spain, South Korea, Turkey and the UK.

How could the Creative Economy grow in future?

3

How could the Creative Economy grow in future?

3.1 Immediate impact of major events in 2020

2020 was a disruptive year for creative industries due to the impacts of Covid-19 and interventions intended to limit its spread, which led to a large shock to demand in a range of sectors. Many economic impacts were either estimated in advance, or have been observed in practice. For example:

- It was estimated that the global live events lost \$30 billion USD in 2020.³ The German music industry was estimated to have lost €5.5 billion to the end of September, of which €3.6 billion reflected losses in music concerts,⁴ although there does appear to have been a stronger performance in recorded music revenues through digital channels.⁵
- The global advertising market was estimated to potentially lose \$50 billion USD in 2020, declining by 8% rather than the forecasted 7% growth. This affected a range of industries such as broadcast TV and the news media for which advertising is all or part of their business model.⁶
- The Opera de Paris, to give a specific example in France, is estimated to have lost 45 million euros and around 35-45% of its season ticket sales for the 2020/2021 season.⁷

- 9,000 cinemas were estimated to have closed in the EU.⁸

Governments have provided diverse support, intended to address challenges created for those in the creative economy. This includes:⁹

- The Rights Sector Support Fund in the Netherlands is a public-private intervention aiming to provide 10 million euros to support affected creative industry professionals.
- The Ministry of National Education, Youth and Sports and the Ministry of Culture in France launched a platform for artists and other creatives to propose upcoming projects and local authorities and teachers to find and engage with them. This small scheme is part of a wider €5bn package of support for the sector.¹⁰
- The Danish government provided compensation of an estimated DKK 180m for the loss of advertising income to the news media, other magazines and commercial radio, with the compensation targeted on the businesses that have seen the largest declines in revenue.
- Subnational governments have also intervened, e.g. in Belgium the Wallonia-Brussels Federation provided support for filming in 2020.

3 Concert Industry Lost \$30 Billion in 2020, Variety, <https://variety.com/2020/music/news/concertindustry-lost-30-billion-2020-1234851679/>

4 Bericht der Verbände der deutschen Musikwirtschaft zu den wirtschaftlichen Auswirkungen der Corona-Pandemie, BDKV, <https://www.gvl.de/musik-wirtschaft-bericht-der-verbaende-zu-covid19>

5 Die Umsätze der Musikindustrie mit Recorded Music sind 2020 weiter gestiegen, Backstage Pro, <https://www.backstagepro.de/thema/die-umsaetze-der-musikindustrie-mit-recorded-music-sind-2020-weiter-gestiegen-2021-03-05-mMZg91Qsxx>

6 The coronavirus is set to wipe \$50 billion off ad budgets this year — here's where that will hit hardest, CNBC, <https://www.cnbc.com/2020/05/28/the-coronavirus-is-set-to-wipe-50-billion-off-ad-budgets-this-year.html>

7 Opéra de Paris. Baisse du tiers du mécénat et d'environ 50 % des abonnements, Ouest France, <https://www.ouest-france.fr/culture/opera-de-paris-baisse-du-tiers-du-mecenat-et-d-environ-50-des-abonnements-6907753>

8 Coronavirus and the European film industry, European Parliament, [https://www.europarl.europa.eu/RegData/etudes/BRIE/2020/649406/EPRS_BRI\(2020\)649406_EN.pdf](https://www.europarl.europa.eu/RegData/etudes/BRIE/2020/649406/EPRS_BRI(2020)649406_EN.pdf)

9 Covid-19 Audiovisual Sector Measures, European Audio-visual Observatory, <https://www.obs.coe.int/en/web/observatoire/Covid-19-audiovisual-sector-measures>

10 France, Compendium of Cultural Policies & Trends, <https://www.culturalpolicies.net/Covid-19/country-reports/fr/>

Outlook for the Creative Economy

Businesses provided additional funding, including Netflix donations in countries including Australia,¹¹ France,¹² Italy,¹³ Japan¹⁴ and multiple projects in the UK¹⁵ and Spotify providing matching contributions through its Covid-19 Music Relief project.¹⁶

These trends have also been mitigated to some extent by the rise in the consumption of film, TV, video games and other content online across a number of countries. Selected examples of areas where activity has increased include:

- **Rising engagement with news.**

National newspapers in Germany, for example, were able to increase their digital reach by 64.8 percent from the end of January and reached 40.2 percent of Germans or 27.7 million unique users by mid-March. There was also a large rise in the numbers paying for news.¹⁷

- **More consumers playing and watching video games.**

Video gaming activity in the US rose 75% from the beginning of the crisis, according to Verizon.¹⁸ The e-sports market is also growing globally and “on track to surpass \$1.5B by 2023”.¹⁹

- **Increase in television viewing.**

Linear TV viewing increased, with broadcast television rising 32 minutes a day in the UK (with most of the increase due to news viewing).²⁰

- **Increase in streaming across multiple media sectors.**

While definitions vary, this has been observed in:

Japan where streaming rose after Covid-19.²¹

Italy where research found a 60% rise in streaming videos watched.²²

Germany where 45% of video-on-demand users reported viewing more films and series.²³

Overall, however, there has been a material shock to the creative economy, creating serious challenges for many people working within it.

11 Support Act, <https://supportact.org.au/about-support-act/donors-and-sponsors/>

12 Netflix, <https://about.netflix.com/fr/news/netflix-and-audiens-establish-new-Covid-19-film-and-tv-emergency-fund>

13 Italian Film Commissions, <https://www.italianfilmcommissions.it/news/netflix-e-italian-film-commissions>

14 Visual Industry Promotion Organization, <https://www.vipo.or.jp/en/>

15 Film & TV Charity, <https://filmtvcharity.org.uk/we-can-help/financial-support/>; Society of London Theatre, <https://solt.co.uk/>; Netflix Documentary Talent Fund, <https://www.netflixdocfund.co.uk/>

16 Spotify Covid-19 Music Relief, <https://artists.spotify.com/blog/spotify-Covid-19-music-relief>

17 Digitale Reichweiten der Zeitungen steigen sprunghaft, BDZV, <https://www.bdzv.de/service/presse/pressemitteilungen/2020/digitale-reichweiten-der-zeitungen-steigen-sprunghaft>

18 Gaming Usage Up 75 Percent Amid Coronavirus Outbreak, Verizon Reports, Hollywood Reporter, <https://www.hollywoodreporter.com/news/general-news/gaming-usage-up-75-percent-coronavirus-outbreak-verizon-reports-1285140/#/>

19 Esports Ecosystem Report 2021: The key industry companies and trends growing the esports market which is on track to surpass \$1.5B by 2023, Business Insider, <https://www.businessinsider.com/esports-ecosystem-market-report?r=US&IR=T>

20 Ofcom, Media Nations 2020: UK Report, August 2020, https://www.ofcom.org.uk/_data/assets/pdf_file/0010/200503/media-nations-2020-uk-report.pdf

21 Competition between streaming services heating up in Japan amid pandemic, Japan Times, <https://www.japantimes.co.jp/news/2020/07/12/business/corporate-business/competition-streaming-heating-up/#.XxAbOyhKiUk>

22 Il lockdown ha fatto la fortuna dei contenuti in streaming, AGI, <https://www.agi.it/spettacolo/news/2020-07-23/streaming-crescita-lockdown-netflix-9236853/>

23 Corona verändert Mediennutzung, Deloitte, <https://www2.deloitte.com/de/de/pages/presse/contents/corona-veraendert-mediennutzung.html>

3.2 Recovering to the new normal

There are several reasons to expect that the creative economy will recover to its trend of growing faster than the wider economy.

- **The expectation that the economy as a whole will recover towards trend.**

While this is not certain and could be undone if, for example, the Covid-19 economic shock leads to financial crises, most economic forecasters continue to expect a robust recovery to take place between now and 2025 (even if some scarring remains).²⁴ As noted in Chapter 2, as per capita incomes rise, beyond a certain level of development people satisfy their other demands and have more disposable income with which to purchase outputs from the creative economy (and more leisure time in which to enjoy them).

- **The cyclical nature of advertising revenues.**

Advertising tends to exaggerate the business cycle.²⁵ While this means the shock has been more pronounced than for the economy as a whole, it also implies that advertising is likely to recover faster as economies begin to grow again.

- **In some sectors, particularly in person experiences, there might be pent up demand that is realised once restrictions ease.**

In a Deloitte survey, 53 percent of respondents in Australia expect to attend live events more frequently post restrictions, compared to pre-pandemic levels.²⁶

- **Resilience in other income streams, including:**

Public sector support is likely to continue where it reflects a view that creative industries provide public goods.

The software industry is likely to recover and grow with digitalisation across the economy.

- **The diversity of the creative economy.**

While some parts of the creative economy might take longer to recover, we can expect consumers to substitute for this, at least in part, with other creative economy output – as alternative means to satisfy a desire for more rewarding leisure time.

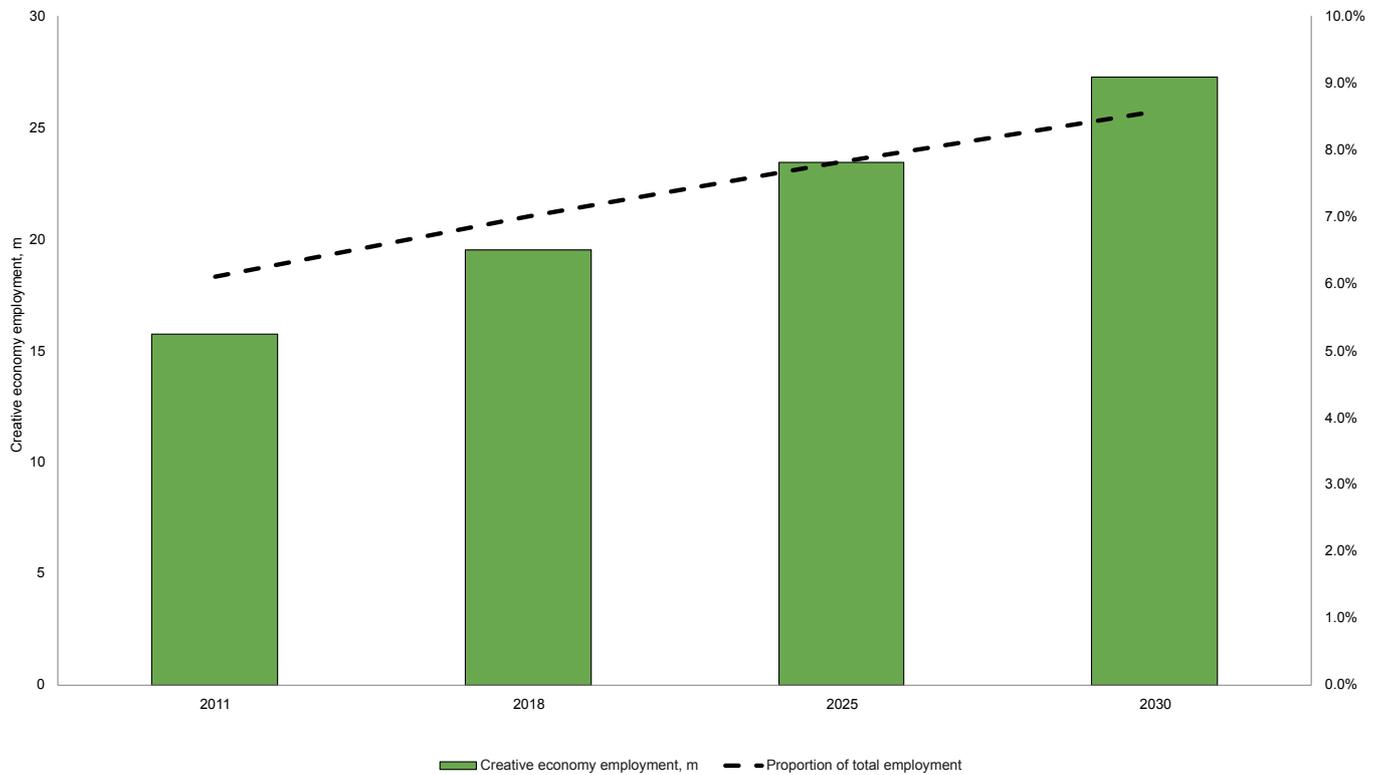
For all those reasons, it seems reasonable to extrapolate beyond the current shock based on the past relationship with per capita income in each country. This provides estimates for 2025 and 2030. However, this analysis should still be seen as illustrating the potential impact of those long-term trends rather than a forecast (particularly for any specific year). The results are shown in **Figure 3** on the follow page.

²⁴ The European Commission, for example, projected that, while the euro area economy would contract by 8.7% in 2020, it would then grow by 6.1% in 2021. https://ec.europa.eu/commission/presscorner/detail/en/ip_20_1269

²⁵ Deleersnyder, B. et al, *The Role of National Culture in Advertising's Sensitivity to Business Cycles: An Investigation across Continents*, 2009, <https://journals.sagepub.com/doi/10.1509/jmkr.46.5.623>

²⁶ COVID creates an alternate entertainment reality, Deloitte Media Consumer Survey 2020, Deloitte, <https://www2.deloitte.com/au/en/pages/media-releases/articles/covid-creates-an-alternate-entertainment-reality-070920.html>

Figure 3: Creative economy employment, 9 selected economies, 2011-2030



The size of the creative economy was projected to 2025 and 2030 based on the econometric relationship between creative employment and GDP per capita. This is inspired by a method of estimating long-term sector trends set out by Fogel in 2008.²⁷ It follows the assumption that people tend to spend a greater share of their incomes on leisure and entertainment (driving increased creative economy employment) when their income increases. This relationship was then extrapolated to 2025 and 2030 based on long-term forecasts of GDP per capita from the OECD. This extrapolation reflects

the stability in creative economy growth (across multiple economies studied) from 2011-2018, the fundamental association with long-term rising incomes and the diversity of the creative economy (meaning that the creative economy as a whole can grow on trend despite pressures on certain parts, e.g. the newspaper industry in recent years). These are still best understood, however, as illustrating the potential impact of those long-term trends rather than a forecast (particularly for any specific year).

²⁷ Fogel, R. W. *Forecasting the Cost of U.S. Health Care in 2040, 2008, NBER Working Paper*, <https://www.nber.org/papers/w14361>

Outlook for the Creative Economy



Across the nine economies, employment rises by eight million jobs by 2030 (over 40%) and as a share of employment in every economy. Employment will grow most quickly in the countries where per capita income growth is expected to be greatest. There is more detail in the Country Summaries and on the approach taken to generate these forecasts in the Methodology section. The country estimates include:

- Growth in the largest European creative economies from 3 to 4 million in Germany, taking the share of total employment from around 7% to over 8%, and a similar increase from just over 3 million to over 4 million in the UK.
- Material increases in the other European economies including an increase from 1.2 million to 1.6 million in France; an increase from around 900,000 to 1 million in Spain; an increase from around 580,000 to around 620,000 in Italy; and from around 600,000 to around 1 million in Turkey.
- A large increase in Japan from the 7-9 million estimated today to 9-14 million in 2030, albeit with greater uncertainty reflecting the relatively thin labour market data available in Japan.
- Increases in the other APAC economies, from almost 1 million in Australia to over 1.3 million; and from around 1 million in South Korea to over 1.7 million.

All this means that we can expect the role of the creative economy in overall economic performance to rise. This means the success of an interconnected creative economy ecosystem will be increasingly important to overall prosperity.

How do linkages within the Creative Economy contribute to growth?

4

How do linkages within the Creative Economy contribute to growth?

4.1 Creative economy value chain

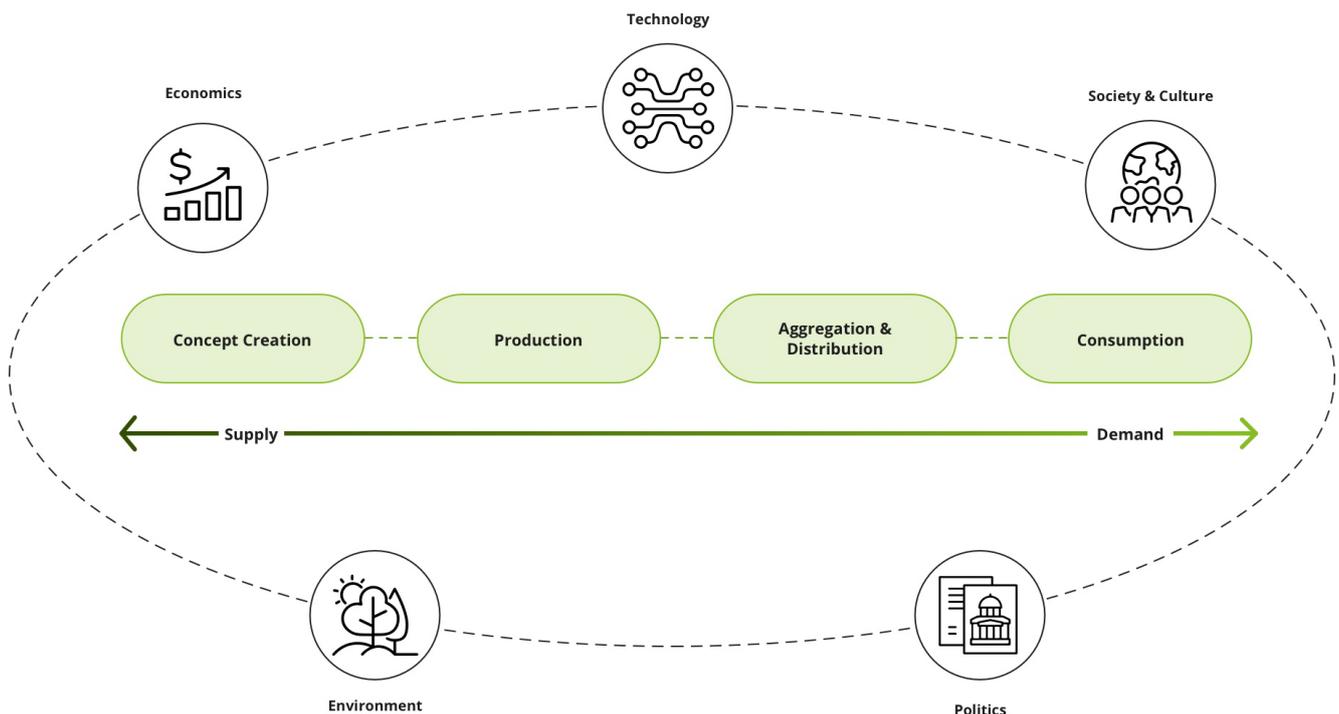
Creative economy sectors can be visualised as a value chain from idea to product to distribution and consumption, responding to changes in supply and demand. While the steps might vary across different sectors (e.g. production in the news media might include writing and printing, whereas in the film and TV sector it might include principal photography and in the software sector it might include coding), in every part of the creative economy there is some need for concept creation, production and distribution to consumers.

This creates symbiotic relationships where growth in one part of the creative economy can stimulate growth in other parts. At the concept creation stage, video-on-demand services can drive sales in related games, shows and books, while authors

generate the IP that allows video-on-demand services to make compelling shows. At the production stage, among others, strength in sectors ranging from software to music to financial services can make a country more attractive as a destination for investment in new shows. Investment in new films and TV series can then provide demand that allows these industries to invest and grow. The result can be a virtuous circle as growth in each sector reinforces the potential for growth in the others.

These interdependencies are only likely to grow as, for example, advancing video game technology is used to create immersive worlds on screen. The relationships between segments are likely to continue to play an important role in driving the overall growth of the creative economy.

Figure 4: Creative economy value chain



How do linkages within the creative economy contribute to growth?

In this chapter, we consider three categories of linkages within the sector:

- **Creative supply chains**
Where businesses within the creative industries are suppliers to and from each other.
- **Shared IP**
Where different parts of the creative economy use common designs, stories, characters and worlds.
- **Creative technology**
Where the increasing overlap between the digital and creative industries enables growth in the creative economy.

4.2 Creative supply chains

Many creative industries have substantial supply chains, reflecting more expansive versions of the value chain described above. The multipliers that measure the amount of indirect economic activity associated with direct activity in the motion picture, video, television, sound recording, programming and broadcasting sector, for example, vary between 1.7 and 1.9 in Germany, the UK and France.²⁸ In other words, an extra \$100 spent in those sectors generates around an extra \$70-90 in the supply chain.

This demand will include:

- Intermediate inputs from outside the creative economy, such as raw materials for printing books, financial and other services to support productions, and construction for facilities used in filming.
- Intermediate inputs from within the creative economy. This would include, in the film and TV industry for example, independent production companies; audio and visual effects specialists; music labels licensing songs; advertising agencies; and a range of others.

These supply chain linkages mean that growth in one business can drive demand both upstream – suppliers for which that firm is a source of demand; and downstream – distributors for which that firm is a source of supply.

4.3 Shared IP

Many businesses are generating spillovers by creating and consolidating intellectual property across multiple media (IP, which includes stories, characters, settings, designs, theme tunes and other defining content).

In some cases, this involves assembling businesses across sectoral boundaries within the creative economy. Disney has assembled intellectual property in businesses such as Pixar, National Geographic, Marvel, Star Wars, and Fox. These assets can drive growth from Disney+ through to highly profitable offerings such as theme parks.²⁹ Netflix has purchased the comic powerhouse Millarworld.³⁰

In other cases, this kind of ecosystem can also be created through intellectual property licensed by separate companies. An example here would be *The Witcher* where the books by Andrzej Sapkowski provided the IP that allowed CD Projekt to create a series of video games which were central to it becoming what is reported to be the most valuable European video games business.³¹ Then the same IP was used by Netflix in a TV show. Sales of the already successful game then rose considerably and an additional 500,000 copies of the books were printed.³²

This kind of IP licensing relationship is a longstanding practice at public service and other established broadcasters, with soft toys based on children's television characters, for example. It can result in spillovers inside and outside the creative economy. Many firms are experimenting with new forms of these linkages based on digital assets. For example, Louis Vuitton and Riot Games, publishers of *League of Legends*, collaborated on a common marketing effort in 2019 including the sale of digital assets designed by the luxury goods company.³³ Gucci launched a digital recreation of a fashion line in the *Sims* video game in 2020.³⁴ Over time, new business models in this space might be enabled by non-fungible tokens (NFTs) - unique digital assets with the potential to enable new kinds of relationships between consumers and digital content and creators, mediated through diverse technological platforms.³⁵

28 Eurostat, *Input-Output Tables, 2015*, note that these will not necessarily reflect the emergency of new sectors such as music streaming.

29 The Walt Disney Company: *Fiscal Year 2019 Annual Financial Report*, Disney, <https://thewaltdisneycompany.com/app/uploads/2020/01/2019-Annual-Report.pdf>

30 Netflix Acquires Millarworld, Netflix, <https://media.netflix.com/en/press-releases/netflix-acquires-millarworld-1>

31 CD Projekt is now Europe's most valuable game company ahead of Ubisoft, Video Games Chronicle, <https://www.videogameschronicle.com/news/cd-projekt-is-now-europes-most-valuable-game-company-ahead-of-ubisoft/>

32 *The Witcher 3 sales were up 554% thanks to the Netflix show*, PC Gamer, <https://www.pcgamer.com/uk/the-witcher-3-sales-were-up-554-thanks-to-the-netflix-show/>

33 Louis Vuitton x *League of Legends*, <https://uk.louisvuitton.com/eng-gb/magazine/articles/louis-vuitton-x-league-of-legends#>

34 Gucci Off The Grid Debuts in The Sims 4 Player Community, Equilibrium, <https://equilibrium.gucci.com/gucci-off-the-grid-debuts-as-sustainability-first-for-virtual-world-in-the-sims-4/>

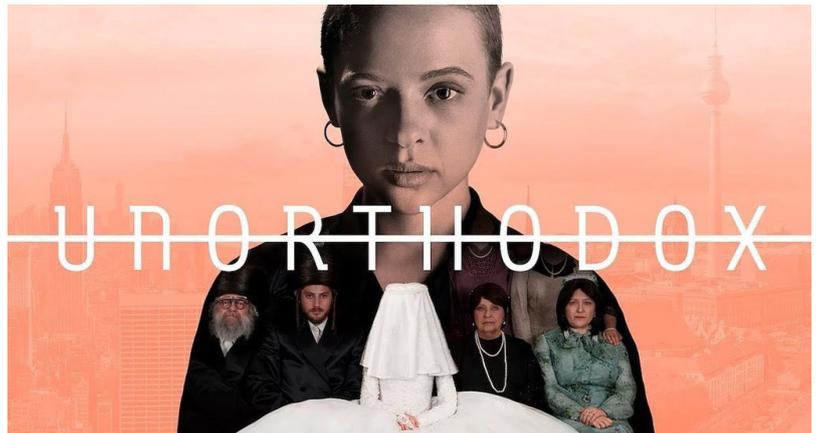
35 All about NFTs, a16z, <https://a16z.simplecast.com/episodes/nfts-explainer-faqs-hype-reality-innovation-crypto-creator-economy-ydUxYsvO>

How do linkages within the creative economy contribute to growth?

TV spin-offs of major films (such as long-running series such as MASH) have been customary for many years. Plays can transition to the TV (streamed plays have been part of the response to lockdowns resulting from Covid-19, but films based on plays were already common) and films can transition to the stage (e.g. Harry Potter).

There are important franchises that have been successful across multiple media. In many cases, including among the largest media franchises, the largest revenues are not in the original sector where the IP was first deployed, but in adjacent sectors. Examples include:³⁶

- Pokémon, the largest media franchise, which begins as a video game in Japan but also generates multi-billion dollar global revenues in each of merchandise, card games, movies and manga magazines.
- Although book sales for Harry Potter are very high globally, they are lower than box office revenues and merchandise sales.
- Winnie the Pooh begins as a book in the UK, but generates a range of retail sales and box office revenues.
- Mario begins as a video game character in Japan but also generates multi-billion dollar revenues in merchandise and manga magazines.



Spillovers through IP licensing can also take place at a more specific scale, however, with many movies, TV series and other content drawing upon books for their inspiration. As an example, the German-American Netflix miniseries *Unorthodox* was inspired by an autobiography written by Deborah Feldman, with the same title. Shows will also feature other creative economy output. Soundtracks will include both original music and licensed existing music. While this creates income and represents part of the supply chain impact described above, it can also draw the attention of viewers to music they may not have heard before and might want to listen to in other settings.

When IP created in one segment is deployed in other creative industries in this way, that can make new goods and services more attractive for consumers. At the same time, the use of that IP in new settings can drive demand in the original sector. Books used as the source for films and TV will be more prominent, for example, attracting new readers.



³⁶ List of highest-grossing media franchises, Wikipedia, https://en.wikipedia.org/wiki/List_of_highest-grossing_media_franchises. Note that this is an amateur source, but has been cited extensively and appears to be carefully researched.

4.4 Creative technology

Many creative industries outside the ICT sector (e.g. film, TV, music, design) are making increasing use of digital technologies to facilitate growth. In many cases, the barriers between those creative industries and the ICT sector itself are blurring as organisations emerge which operate across those sectoral boundaries and existing creative industry businesses launch new digital propositions in order to respond to consumer demand and grow.

This collaboration and convergence has included technology used in the production process. This role is changing and often growing over time as, for example, production processes that are too difficult or time consuming for humans are increasingly being completed automatically, a process enabled through AI and machine learning. In television, historically labour-intensive processes are starting to be streamlined through artificial intelligence and machine learning, such as metadata tagging, visual effects, and captioning / subtitling.³⁷

Modern sets are leveraging gaming technology more over time, relying on the game engine to generate a dynamic set.³⁸ This enables a 'digital studio' model, which can exist anywhere and is seamlessly connected to other studios. Virtual productions range in settings from fictional worlds for the Mandalorian, through a fictional representation of Dodger Stadium for the movie Rocketman³⁹ through to a stylised desert landscape for a lyric video to accompany a Bruce Springsteen song.⁴⁰ Deployment includes a range of models from initial visualisation - mostly planning a scene before shooting; motion capture - with greater automation and shrinking hardware form factors; hybrid cameras improving on traditional greenscreens; and LED live-action to replace shooting against green screens with shooting against LED panels with final-quality VFX. LED panels replaced windows in Murder on the Orient Express, for example.⁴¹

There are a number of factors that earlier Deloitte research has identified as driving this trend, including the popularity of the VFX-heavy genres in which it is used most; the increasing accessibility of the technology and competition between game



engines and studios; increasing demand from streaming platforms and film studios driving creative solutions to a squeeze on content production resources; and the need to mitigate a "content desert" resulting from Covid-19.⁴²

At the same time, in the creative industries, like many others, the Covid-19 crisis has normalised the use of virtual ways of working and collaboration platforms.⁴³ Budget meetings are happening over collaboration platforms and studio post-production and animation has been happening from living rooms.⁴⁴ Bands have been able to practice music over open-source software like JackTrip, which transfers high quality audio data across the internet at low enough latencies (within certain geographic parameters), mimicking a collaborative studio environment of 30 feet of distance.⁴⁵

These technology linkages mean that the combination of a strong ICT sector and strength in the other creative industries can make a country more attractive for new production and other creative economy investments.

37 How AI is Transforming the Media Industry, Technology Record, <https://www.technologyrecord.com/Article/how-artificial-intelligence-is-transforming-the-media-industry-72457>

38 How Gaming Tech Could Be Harnessed For Film & TV Production Post-Coronavirus, Deadline, <https://deadline.com/2020/05/gaming-tech-harnessed-post-coronavirus-film-tv-production-1202927286/>

39 Why Hollywood needs computer games tech more than ever, BBC, <https://www.bbc.co.uk/news/business-51799504>

40 Born to run at 60 fps: how real-time technology drove Bruce Springsteen across the desert, Unreal Engine, <https://www.unrealengine.com/en-US/spotlights/born-to-run-at-60-fps-how-real-time-technology-drove-bruce-springsteen-across-the-desert>

41 The future of content creation: Virtual production, Deloitte, <https://www2.deloitte.com/us/en/pages/technology-media-and-telecommunications/articles/the-future-of-content-creation-virtual-production.html>

42 Ibid.

43 Why Hollywood movie-making may become more virtual in a post-coronavirus world, CNBC, <https://www.cnbc.com/2020/05/23/how-hollywood-movie-making-becomes-virtual-after-coronavirus.html>

44 How Hollywood is working from home to meet streaming demand, Protocol, <https://www.protocol.com/hollywood-working-home-streaming-video>

45 Playing Music Together Online Is Not As Simple As It Seems, NPR, https://www.npr.org/2020/07/14/891091995/playing-music-together-online-is-not-as-simple-as-it-seems?fbclid=IwAR0_bd-Pi73t4RmpTmz2VU3XX2KdLbLYkLJLHppq1D7h2AkJJYBFQHIS8AKc

Conclusions

5 Conclusions

Events in the last year have created enormous challenges for people working in the creative economy. Covid-19 and the associated lockdowns have shut down the live experiences that were previously one of the most exciting (and profitable) parts of many creative industries. Advertising budgets have declined dramatically. Artists have had to maintain a relationship with their audience and find what income they can in other ways. While governments have provided support, it has not always reached the temporary workers that need it most.

If we turn to the future of the creative economy, however, it remains fundamentally bright. People want to spend a larger share of their income on creative economy goods as they grow more prosperous. Advertising budgets are likely to return as the economy recovers. While automation and other tools can increase productivity in the creative industries, creative tasks are generally expected to be among the hardest to automate (and the creative economy, specifically the software sector, plays a vital part in that automation). Most people would welcome a world in which a larger share of the workforce is engaged with creative work.

In some ways, the creative economy will recover stronger; potentially better able to collaborate across geographical boundaries and take advantage of a range of new technologies.

Symbiotic relationships between segments are likely to mean advances in one part stimulate growth in other parts of the creative economy, an ecosystem which – in many ways – thrives (or not) together. Video-on-demand services are likely to continue to drive sales in related games, shows and books, while authors continue to generate the IP that allows video-on-de-

thrive. These interdependencies are only likely to grow as, for example, advancing video game technology is put to work creating immersive worlds on screen. The relationships between segments within the creative economy are likely to continue to play an important role in driving its overall growth by creating a virtuous circle as growth in each sector reinforces the potential for growth in the others.

All of this will have implications for public policy as the creative economy recovers from Covid-19, in areas including:

- **Regional development**
With creative industry clusters likely to play a more important role in a greater range of regions over time.
- **Skills policy**
With cultivating creativity an increasingly important priority for the education system and the wide range of technical skills needed to support the creative economy in increasing demand.
- **Global competitiveness**
With growth in the size of the global creative economy increasing the rewards for those countries and regions that are competitive in the production of creative goods and services.

The nature of the creative economy will continue to change and specific businesses and sectors will thrive or decline. New sectors could emerge entirely (as radio, television, video games and podcasts have in the 20th and 21st centuries so far). However, we can be optimistic that the creative economy as a whole is likely to grow over time.

“Most people would welcome a world in which a larger share of the workforce is engaged with creative work.”

mand services to make compelling shows. The same goes for suppliers, where a strong software, music or craft sector can make a country more attractive as a destination for investment in new films and TV series, and investment in new films and TV series can provide demand that allows these industries to

Country Summaries

Australia

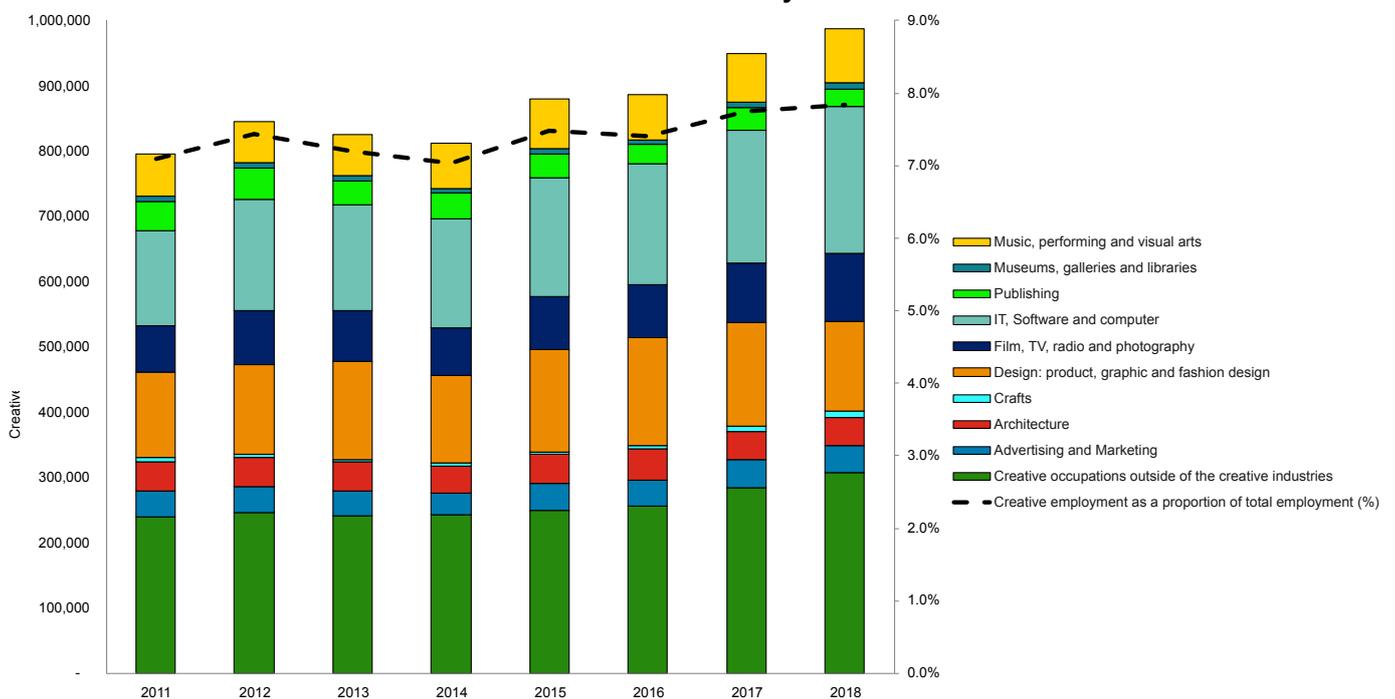
Country Summary

Australia

How large is the creative economy?

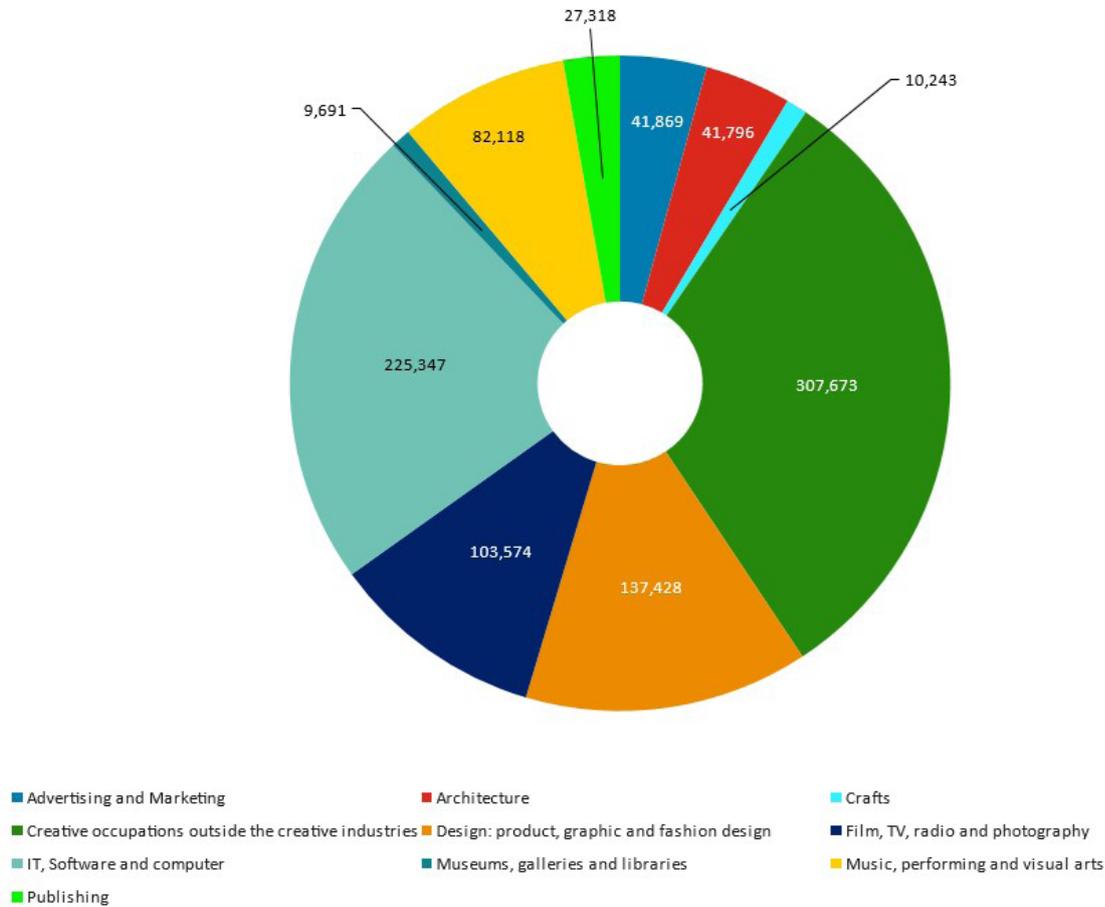
Employment in the creative economy in Australia was almost 1 million in 2018. The number of jobs grew by around 200,000 workers from 2011 to 2018.

Australia - creative economy breakdown, 2018



The largest segments for creative economy employment were the IT and the design industry in 2018. However, there was substantial employment across a number of other creative industries (particularly the TV and Music industries) and in creative occupations outside the creative industries. Growth is expected to take place across these high-level segments, though there is likely to be substantial variation in the fortunes of individual businesses.

Australia - creative economy breakdown, 2018



How could the creative economy grow in future?

Live events and creative economy services connected to tourism have been particularly affected by Covid-19 with scenarios for recovery continuing to hinge on the global recovery.⁴⁶ Television news, live-streaming and streaming services have all seen increased demand. During the pandemic, the increase in time spent online on mobile devices accessing current events and global news rose by 52% in Australia.⁴⁷ There might also be distinctive growth in live events after Covid-19 restrictions ease, as consumers return to services they appreciate more af-

ter a long absence. In a Deloitte survey, 53 percent of respondents in Australia expect to attend live events more frequently post restrictions, compared to pre-pandemic levels.⁴⁸

Extrapolating from pre-Covid trends, we can expect further growth to over 1.3 million jobs by 2030. This will take the creative economy share of total employment from 7.8% to around 8.3%.

⁴⁶ Covid-19 recovery for the tourism sector, Deloitte Access Economics, <https://www2.deloitte.com/au/en/pages/economics/articles/Covid-19-recovery-tourism-sector.html>

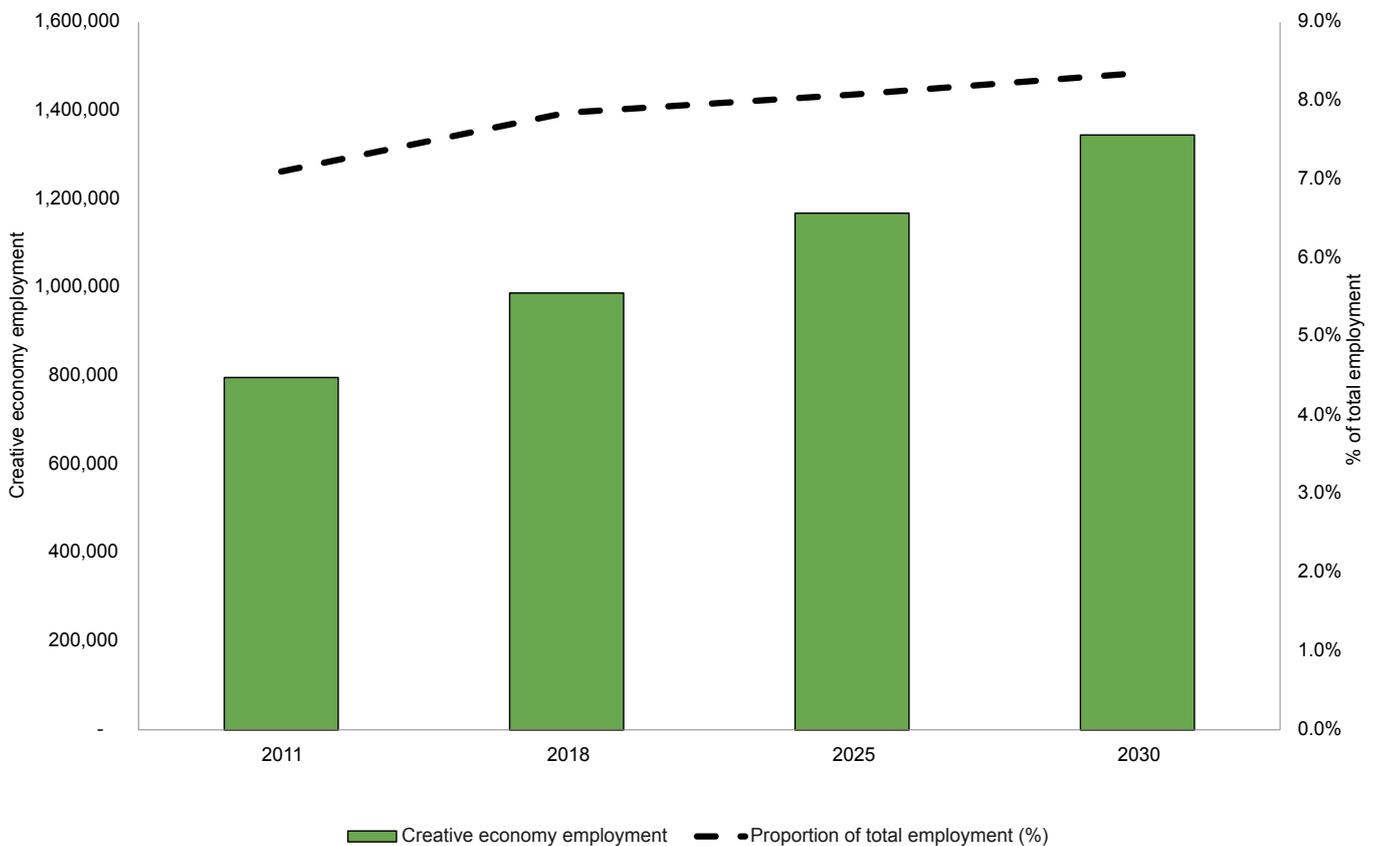
⁴⁷ Covid-19: tracking the impact on media consumption, Nielsen, <https://www.nielsen.com/us/en/insights/article/2020/Covid-19-tracking-the-impact-on-media-consumption/>

⁴⁸ COVID creates an alternate entertainment reality, Deloitte Media Consumer Survey 2020, Deloitte, <https://www2.deloitte.com/au/en/pages/media-releases/articles/covid-creates-an-alternate-entertainment-reality-070920.html>

How do the linkages within the creative economy contribute to growth?

As in other economies, the creative economy is likely to return to above-average growth, which will mean it is increasingly important for public policy, with strong linkages to other recovering sectors such as tourism. For example, the Tourism Australia initiative to partner with a South Korean TV network, bringing a reality-comedy series to Australia.⁴⁹

Australia - size of the creative economy (2011-2030)



⁴⁹ Tourism Australia's Smart Move to Attract new Asian Audiences, 2014, Gen C Traveller, <https://genctraveller.com/2014/03/17/tourism-australia-smart-move-to-attract-new-asian-audiences/>

France

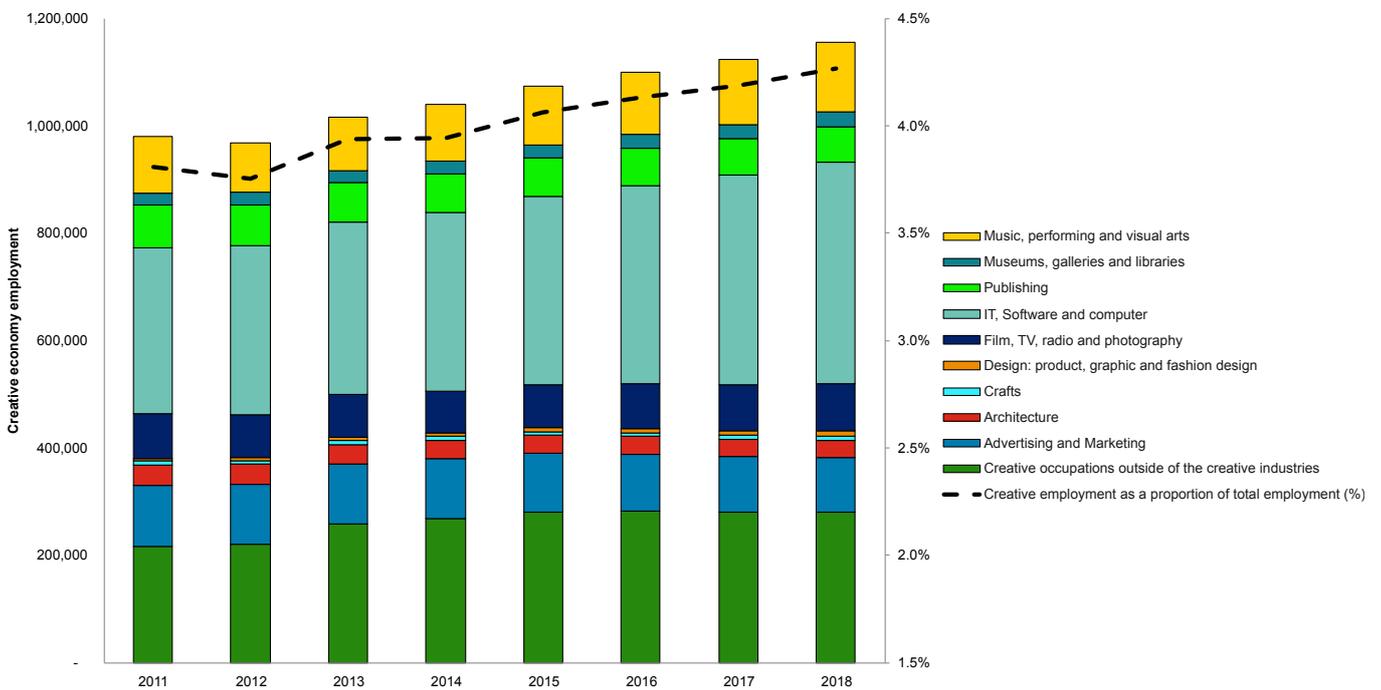
Country Summary

France

How large is the creative economy?

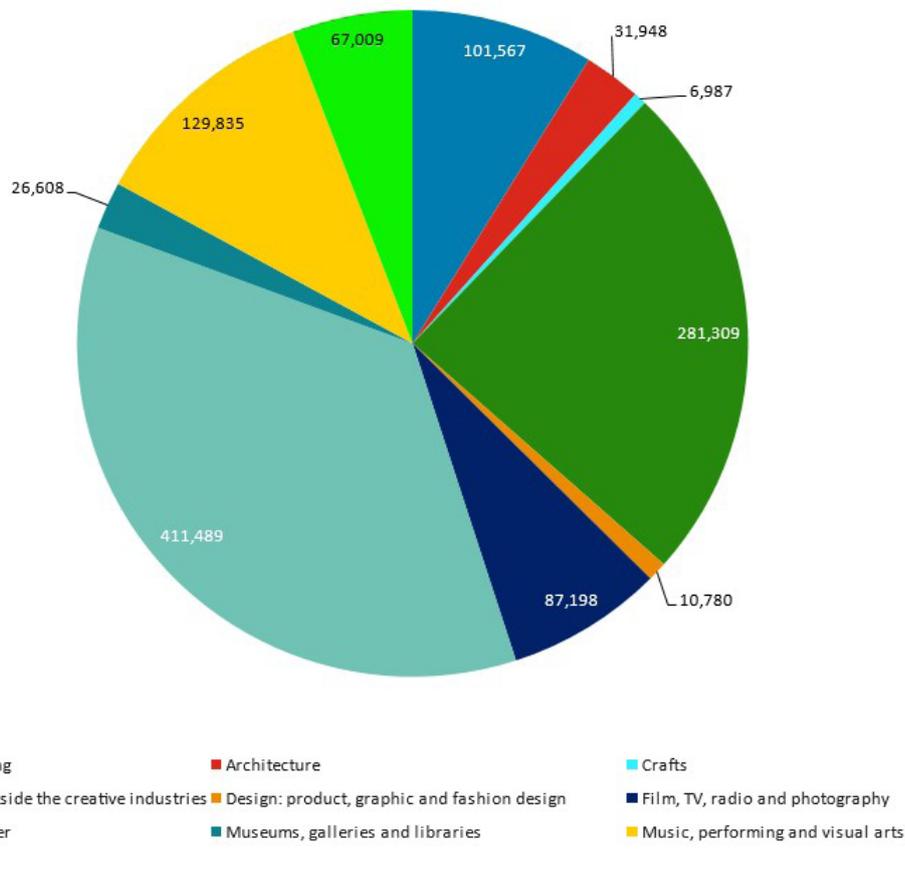
Employment in the creative economy in France was around 1.2 million in 2018. The number of jobs grew by almost 200,000 workers from 2011 to 2018.

France - creative economy breakdown, 2018



The largest single segment for creative economy employment was the IT industry in 2018. However, there was substantial employment across other creative industries such as the Music and Advertising industry, and a large share of workers with creative occupations was employed outside the creative industries. Growth is expected to take place across these high-level segments, though there is likely to be substantial variation in the fortunes of individual businesses.

France - creative economy breakdown, 2018



How could the creative economy grow in future?

There are a range of official schemes aiming to mitigate the impact of Covid-19 adding up to a €5bn package of support for the sector,⁵⁰ reflecting its economic and social importance. The Ministry of Culture has estimated large impacts on turnover in a range of sub sectors including performing arts (-98%), heritage (-89%), books (-72%) and audio-visual / cinema (-64%) with only the gaming subsector showing a positive impact (+63%).⁵¹

Extrapolating from pre-Covid trends, we can expect further growth to around 1.6 million jobs by 2030. This will take the creative economy share of total employment from 4.3% to around 5.5%.

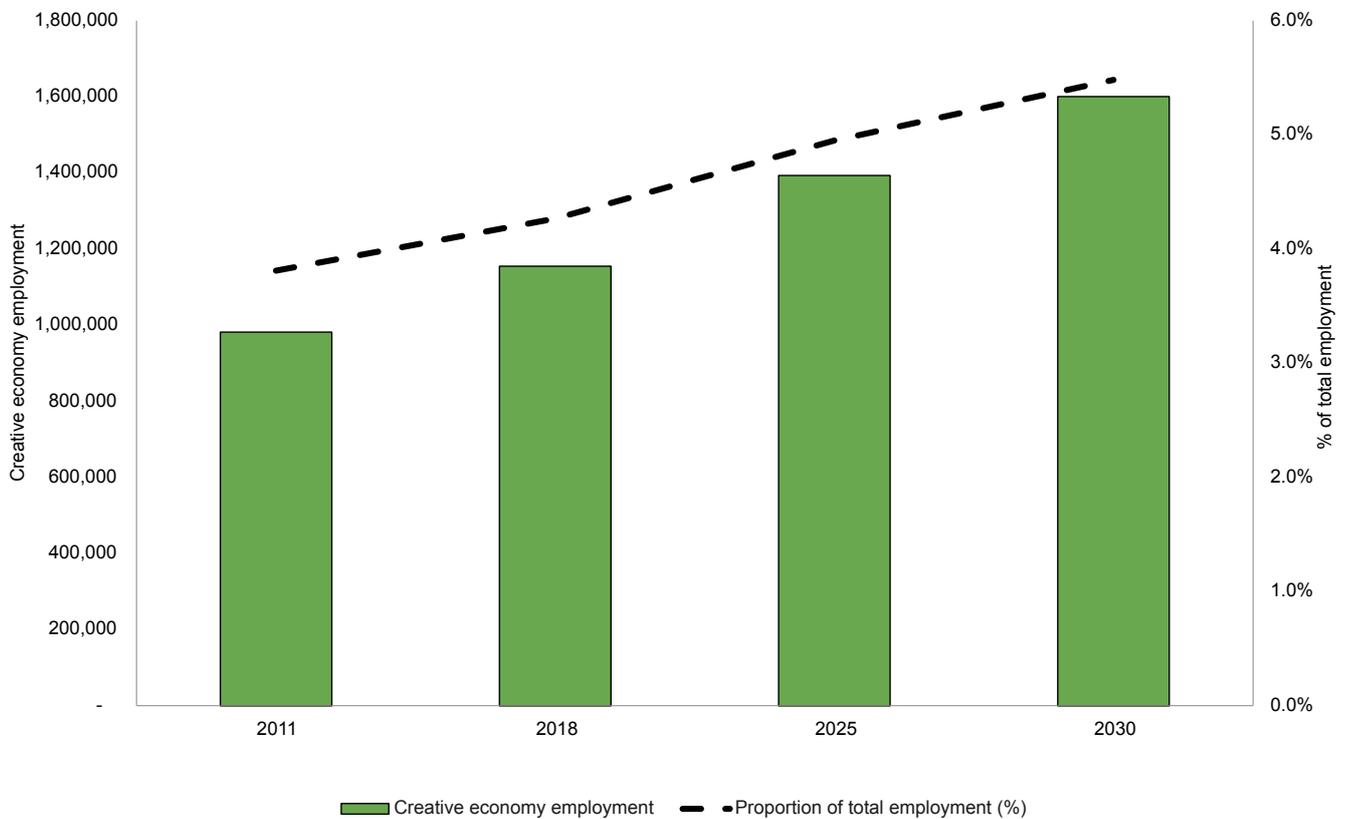
⁵⁰ France, *Compendium of Cultural Policies & Trends*, <https://www.culturalpolicies.net/Covid-19/country-reports/fr/>

⁵¹ Research requested by the CULT committee of the European Parliament, [https://www.europarl.europa.eu/RegData/etudes/STUD/2021/652242/IPOL_STU\(2021\)652242_EN.pdf](https://www.europarl.europa.eu/RegData/etudes/STUD/2021/652242/IPOL_STU(2021)652242_EN.pdf)

How do the linkages within the creative economy contribute to growth?

As in other economies, the creative economy is likely to return to above-average growth, which will mean it is increasingly important for public policy, with creative industries supporting each other and performance in other sectors. For example, Louis Vuitton and Riot Games, publishers of League of Legends, collaborated on a common marketing effort in 2019 including the sale of digital assets designed by the luxury goods company.⁵²

France - size of the creative economy (2011-2030)



⁵² Louis Vuitton x League of Legends, <https://uk.louisvuitton.com/eng-gb/magazine/articles/louis-vuitton-x-league-of-legends#>

Germany

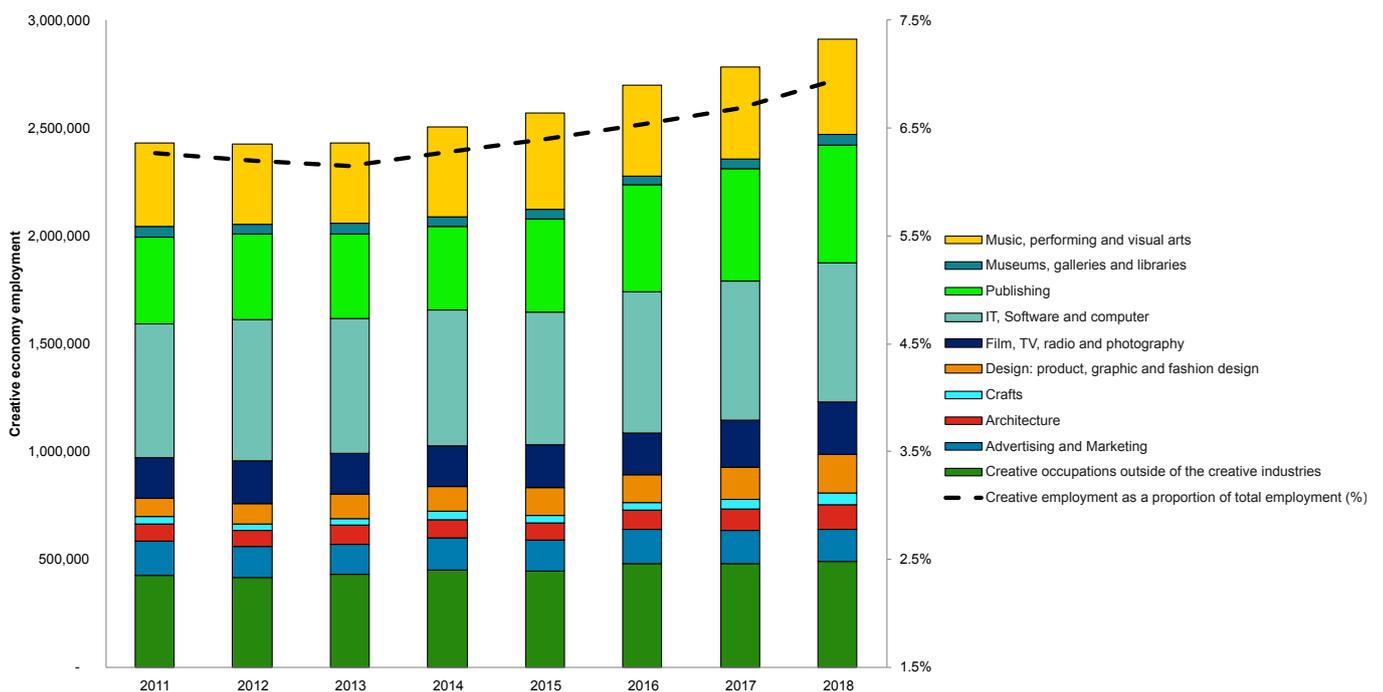
Country Summary

Germany

How large is the creative economy?

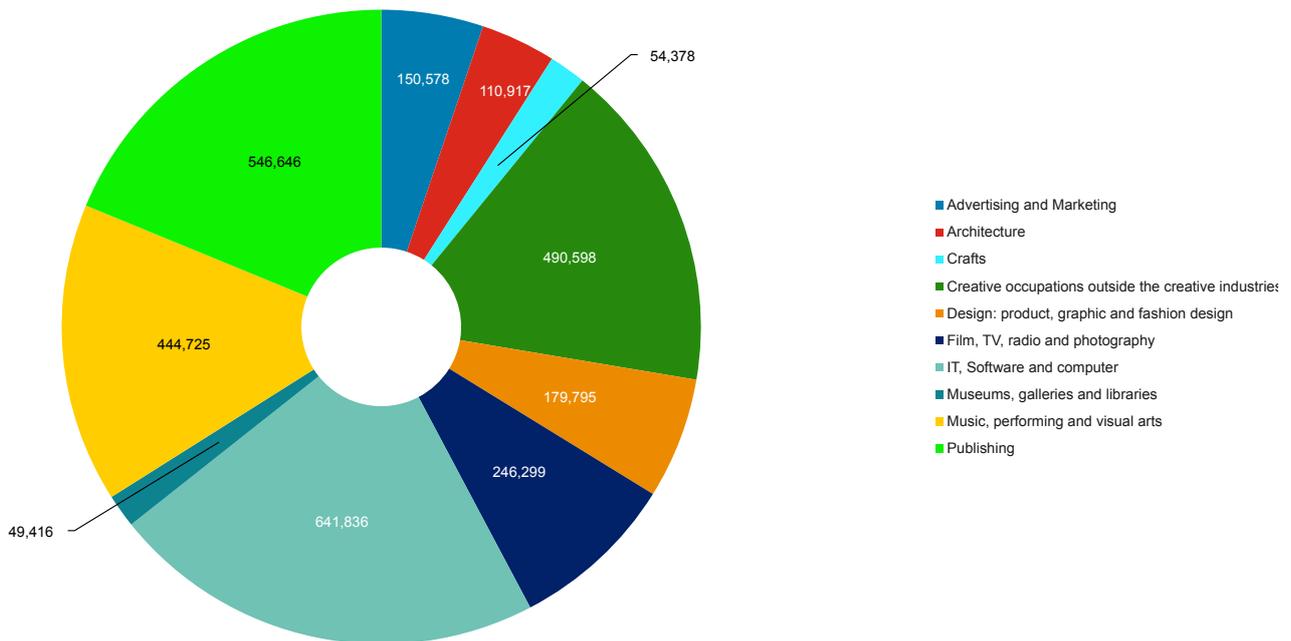
Employment in the creative economy in Germany was nearly 3 million in 2018. The number of jobs grew by nearly half a million workers from 2011 to 2018.

Germany - creative economy breakdown, 2018



The largest single segment for creative economy employment was the IT industry in 2018. However, there was substantial employment across a number of other creative industries (particularly publishing) and in creative occupations outside the creative industries.

Germany - creative economy breakdown, 2018



How could the creative economy grow in future?

The impact of Covid-19 on different segments has varied. The German music industry is estimated to have lost €5.5 billion to the end of September, of which €3.6 billion reflected losses in music concerts.⁵³ There are a range of official schemes aiming to mitigate the impact. For example, support for the self-employed and microenterprises, which was specifically reformed to enhance support for cultural institutions and treat media companies as critical infrastructure.⁵⁴

Other sectors saw increases in demand. National newspapers in Germany, for example, were able to increase their digital reach by 64.8 percent from the end of January and reached 40.2 percent of Germans or 27.7 million unique users by mid-March. There was also a large rise in the numbers paying for news.⁵⁵

Extrapolating from pre-Covid trends, we can expect further growth to around 4 million jobs by 2030. This will take the creative economy share of total employment from around 7% to around 8.4%.

⁵³ Bericht der Verbände der deutschen Musikwirtschaft zu den wirtschaftlichen Auswirkungen der Corona-Pandemie, BDKV, <https://www.gvl.de/musik-wirtschaft-bericht-der-verbaende-zu-covid19>

⁵⁴ Covid-19 Audiovisual Sector Measures, European Audio-visual Observatory, <https://www.obs.coe.int/en/web/observatoire/Covid-19-audiovisual-sector-measures>

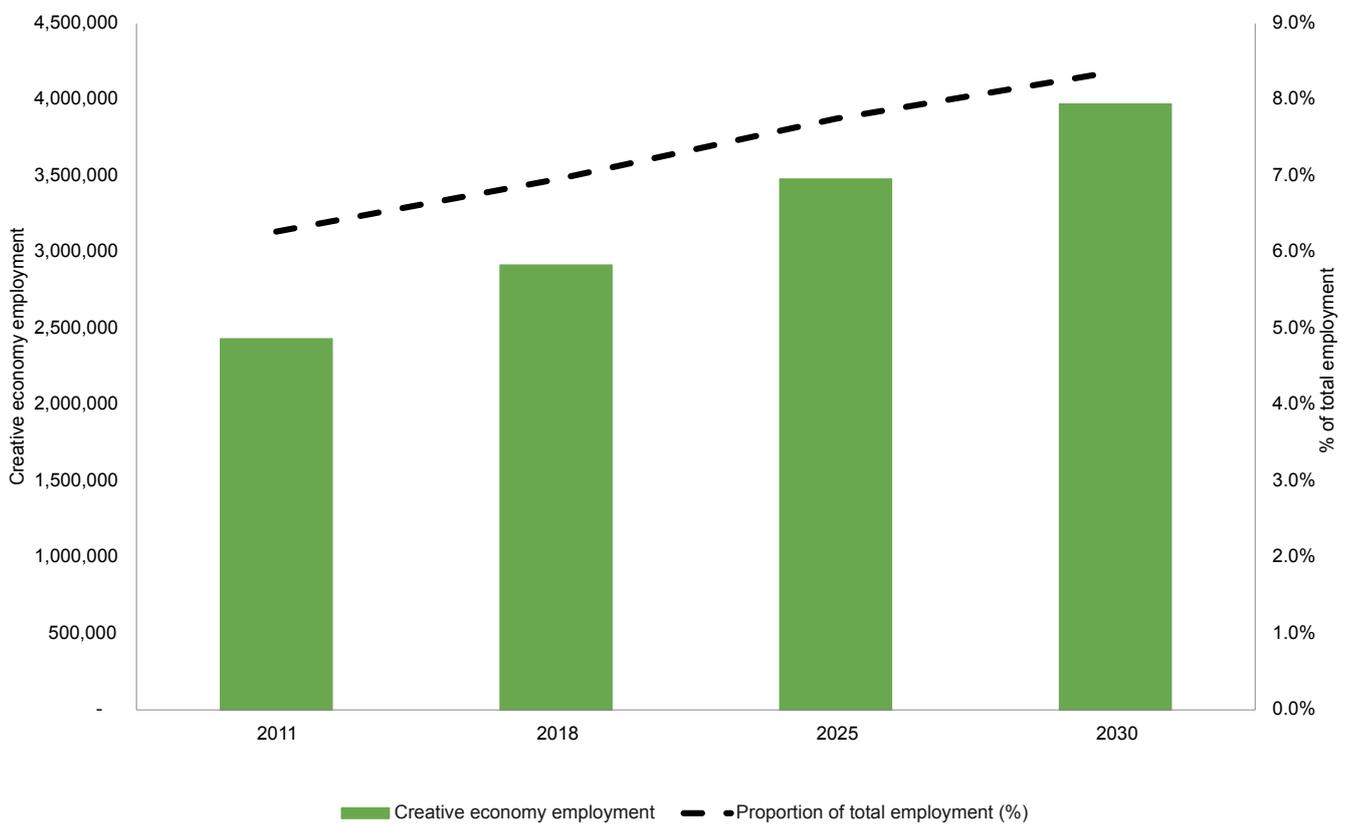
⁵⁵ Digitale Reichweiten der Zeitungen steigen sprunghaft, BDZV, <https://www.bdzv.de/service/presse/pressemitteilungen/2020/digitale-reichweiten-der-zeitungen-steigen-sprunghaft>

How do the linkages within the creative economy contribute to growth?

Looking ahead, symbiotic relationships within the creative economy will continue to support its overall growth. The Unorthodox series (film and TV), for example, draws upon a book (publishing) and will then increase awareness of that book and thereby drive additional sales in the publishing sector.

As in other economies, the creative economy is likely to return to above-average growth, which will mean it is increasingly important for public policy, with creative industries supporting each other and performance in other sectors (e.g. manufacturing industries using creative IP).

Germany - size of the creative economy (2011-2030)



Italy

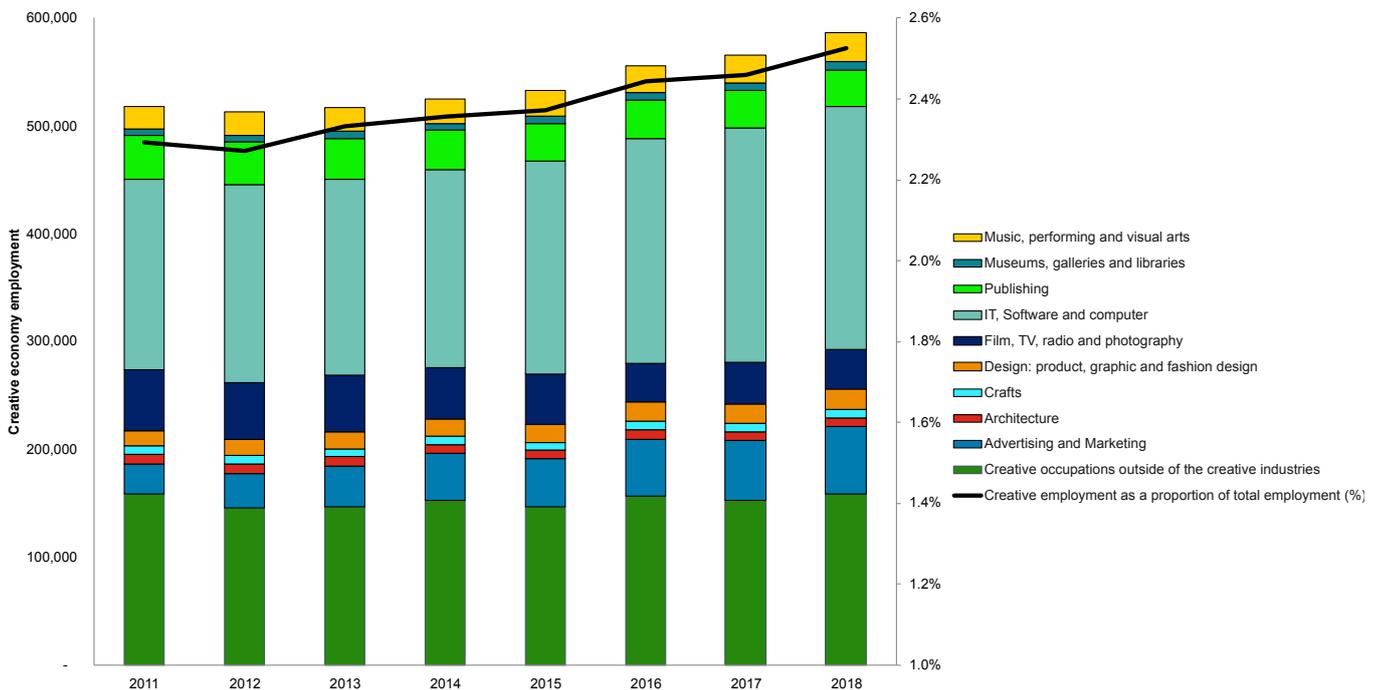
Country Summary

Italy

How large is the creative economy?

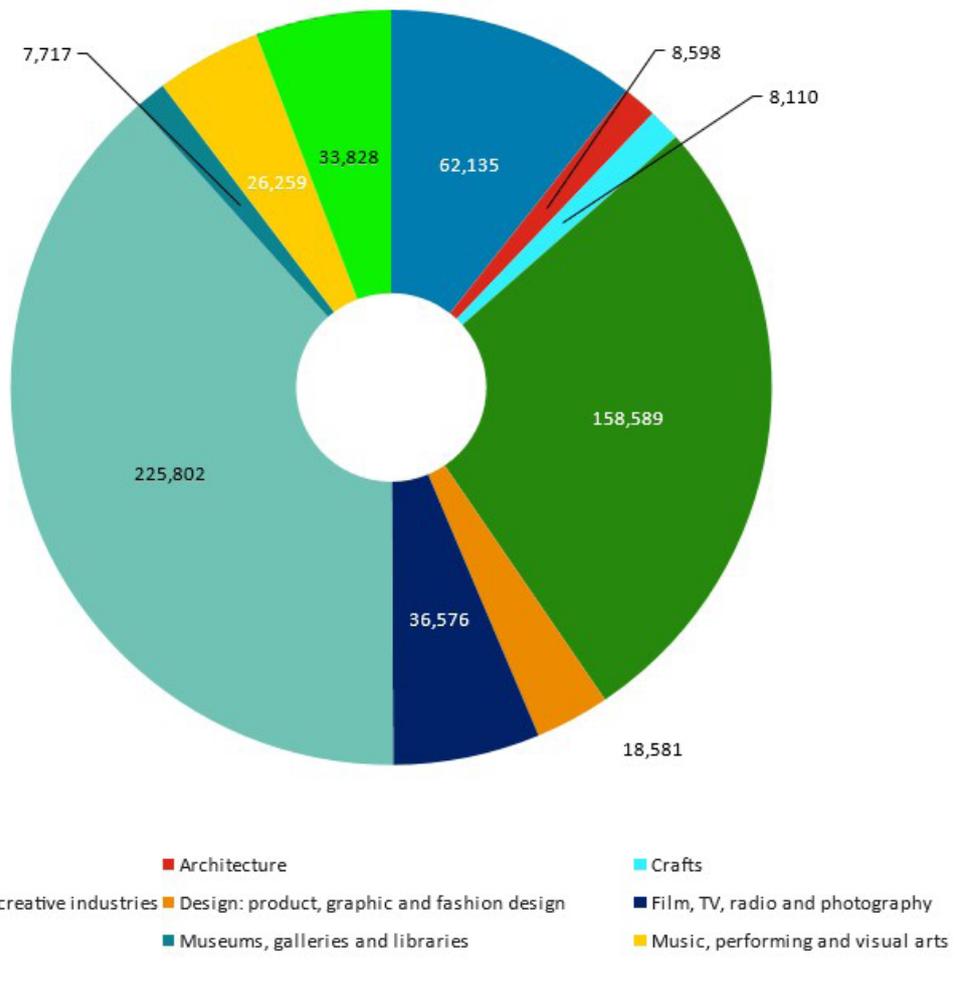
Employment in the creative economy in Italy was around 580,000 in 2018. The number of jobs grew by almost 70,000 workers from 2011 to 2018.

Italy - creative economy breakdown, 2018



The largest single segment for the creative economy employment was the IT industry in 2018. However, there was substantial employment across a number of other creative industries (particularly advertising) and in creative occupations outside the creative industries. Growth is expected to take place across these high-level segments, though there is likely to be substantial variation in the fortunes of individual businesses.

Italy - creative economy breakdown, 2018



How could the creative economy grow in future?

Live events and creative industries connected to tourism will have seen large Covid-19 impacts. There are a range of official schemes aiming to mitigate the impact. For example, the Cura Italia decree includes multiple specific funds intended to support media businesses.⁵⁶

Other creative industries have seen increased demand. During the pandemic, the increase in time spent online on mobile devices accessing current events and global news rising by 180% in Italy⁵⁷ and a 60% rise in streaming videos watched has been reported.⁵⁸

Extrapolating from pre-Covid trends, we can expect further growth to around 620,000 jobs by 2030. This will take the creative economy share of total employment from 2.5% to around 2.6%.

⁵⁶ Covid-19 Audiovisual Sector Measures, European Audio-visual Observatory, <https://www.obs.coe.int/en/web/observatoire/Covid-19-audiovisual-sector-measures>

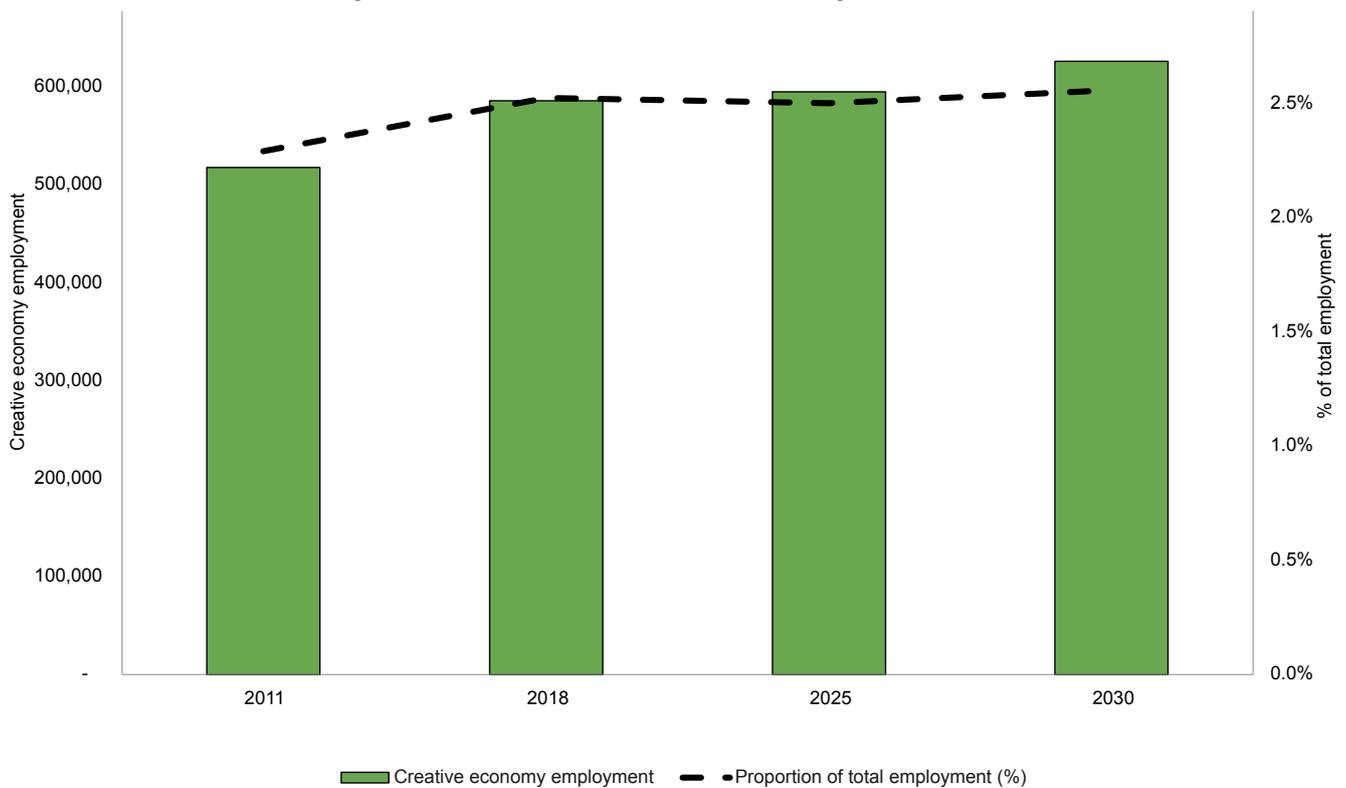
⁵⁷ Covid-19: tracking the impact on media consumption, Nielsen, <https://www.nielsen.com/us/en/insights/article/2020/Covid-19-tracking-the-impact-on-media-consumption/>

⁵⁸ Il lockdown ha fatto la fortuna dei contenuti in streaming, AGI, <https://www.agi.it/spettacolo/news/2020-07-23/streaming-crescita-lockdown-netflix-9236853/>

How do the linkages within the creative economy contribute to growth?

As in other economies, the creative economy is likely to return to above-average growth, which will mean it is increasingly important for public policy, with strong linkages to other recovering sectors such as tourism and fashion. For example, Gucci launched a digital recreation of a fashion line in the Sims video game in 2020.⁵⁹

Italy - size of the creative economy (2011-2030)



⁵⁹ Gucci Off The Grid Debuts in The Sims 4 Player Community, Equilibrium, <https://equilibrium.gucci.com/gucci-off-the-grid-debuts-as-sustainability-first-for-virtual-world-in-the-sims-4/>

Japan

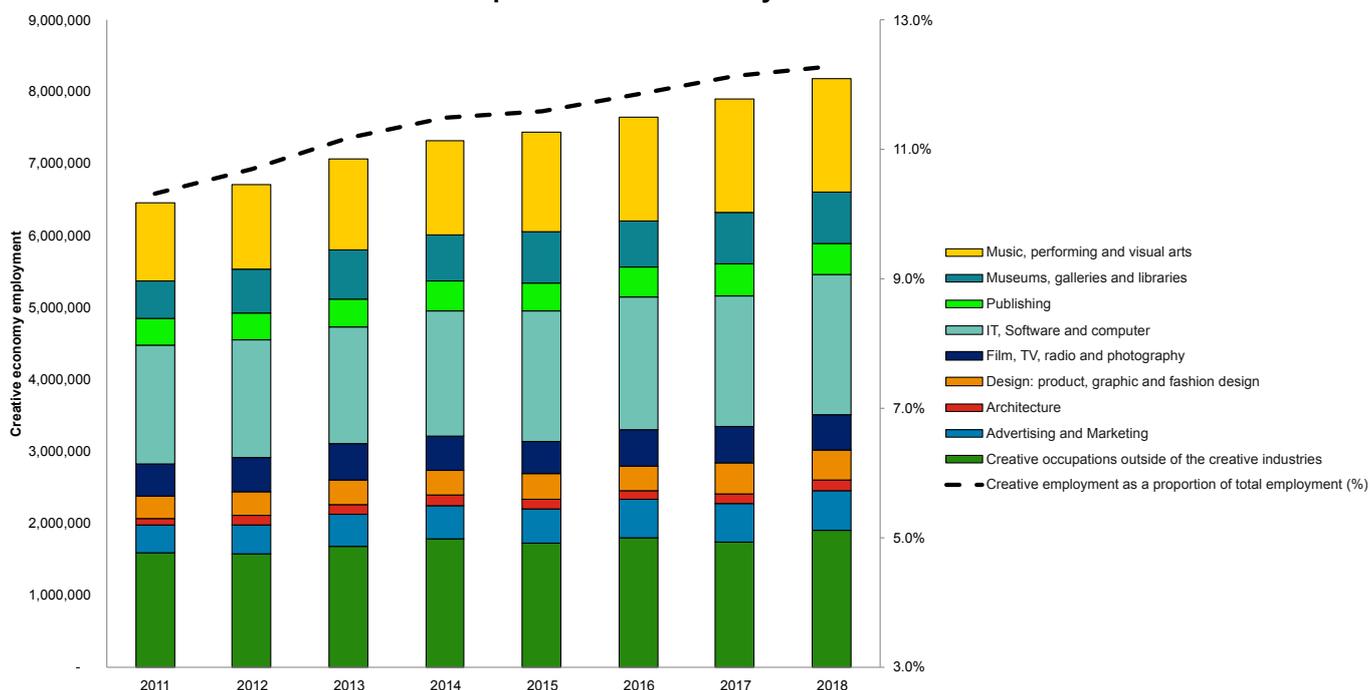
Country Summary

Japan

How large is the creative economy?

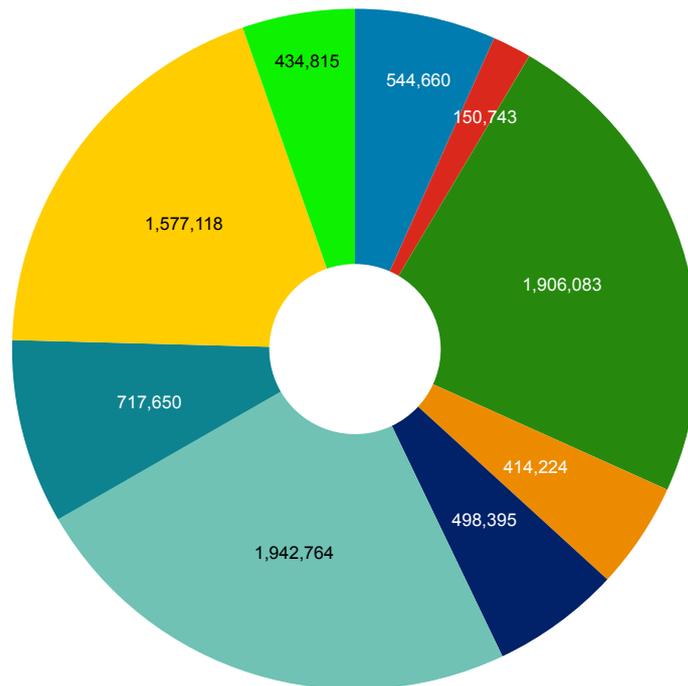
Employment in the creative economy in Japan was around 7-9 million in 2018. The number of jobs grew by around 1.4-1.9 million workers from 2011 to 2018.

Japan - creative economy breakdown, 2018



The largest segments for creative economy employment were the IT and Music industries in 2018. However, there was substantial employment across a number of other creative industries (particularly museums) and in creative occupations outside the creative industries.

Japan - creative economy breakdown, 2018



- Advertising and Marketing
- Architecture
- Creative occupations outside the creative industries
- Design: product, graphic and fashion design
- Film, TV, radio and photography
- IT, Software and computer
- Museums, galleries and libraries
- Music, performing and visual arts
- Publishing

How could the creative economy grow in future?

Sectors reliant on live events, e.g. performing arts, have struggled with the impact of Covid-19. The Government has attempted to mitigate the impact with nearly 60 billion yen in support, including 25 billion to support streaming performances online.⁶⁰ Demand for other media remains strong and, while streaming has been increasing in Japan for several years, growth has increased through Covid-19.⁶¹ During the pandemic, the increase in time spent online on mobile devices accessing current events and global news rose by 78% in Japan.⁶²

Extrapolating from pre-Covid trends, we can expect further growth to around 9-14 million jobs by 2030. This will take the creative economy share of total employment from 10-14% to 13-18%.

⁶⁰ Theatre in Japan During the Covid-19 Pandemic: A Time of Uncertainty and Innovation, Tokyo Weekender, <https://www.tokyoweekender.com/2020/08/theater-in-japan-covid-19-pandemic/>

⁶¹ Competition between streaming services heating up in Japan amid pandemic, Japan Times, <https://www.japantimes.co.jp/news/2020/07/12/business/corporate-business/competition-streaming-heating-up/#.XxAbOyhKiUk>

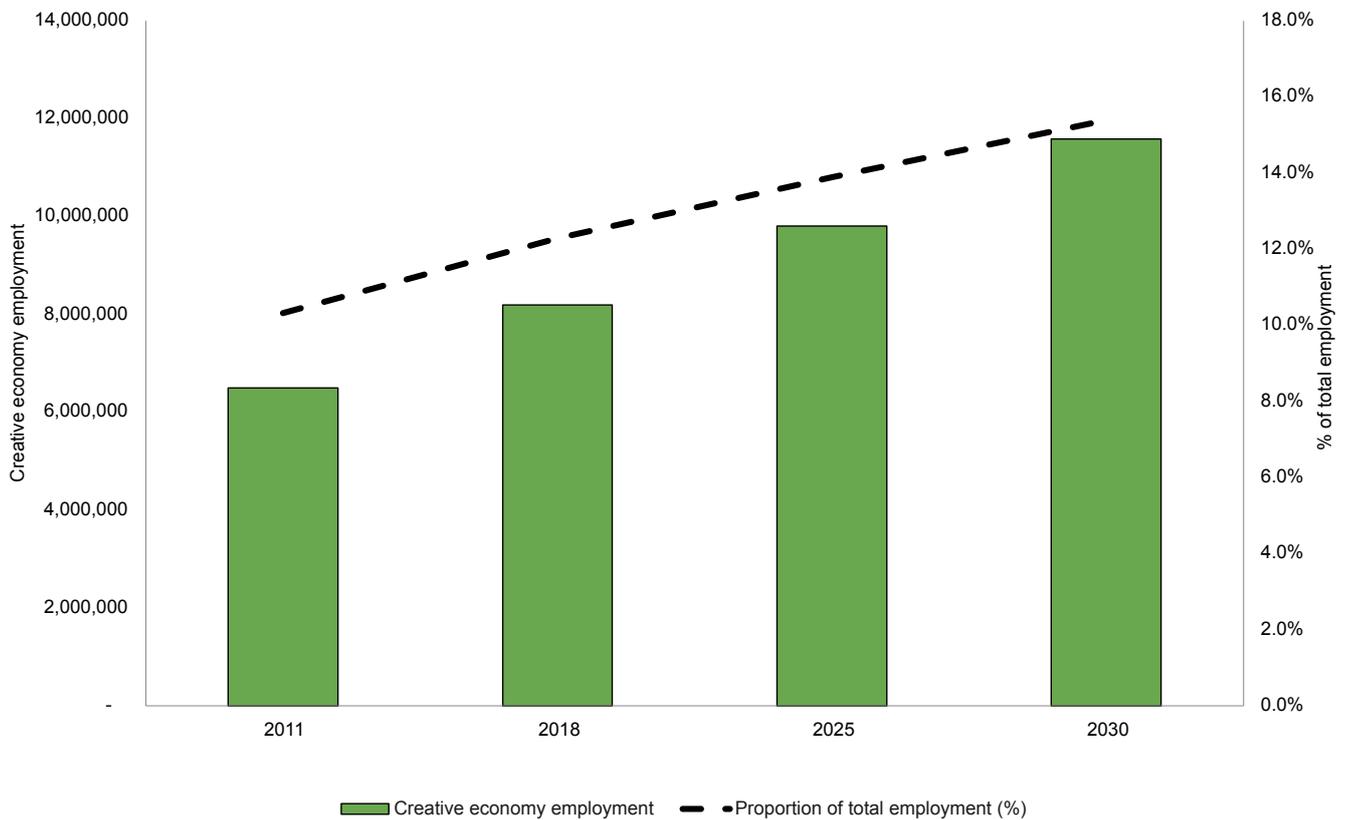
⁶² Covid-19: tracking the impact on media consumption, Nielsen, <https://www.nielsen.com/us/en/insights/article/2020/Covid-19-tracking-the-impact-on-media-consumption/>

How do the linkages within the creative economy contribute to growth?

As in other economies, the creative economy is likely to return to above-average growth, which will mean it is increasingly important for public policy, with creative industries supporting each other and performance in other sectors (e.g. manufacturing industries using creative IP).

Some of the largest franchises across media originate in Japanese video games, e.g. Pokémon or Mario, or manga, e.g. Anpanman.⁶³ Looking ahead, symbiotic relationships within the creative economy like these will continue to support its overall growth.

Japan - size of the creative economy (2011-2030)



⁶³ List of highest-grossing media franchises, Wikipedia, https://en.wikipedia.org/wiki/List_of_highest-grossing_media_franchises. Note that this is an amateur source, but has been cited extensively and appears to be carefully researched.

Spain

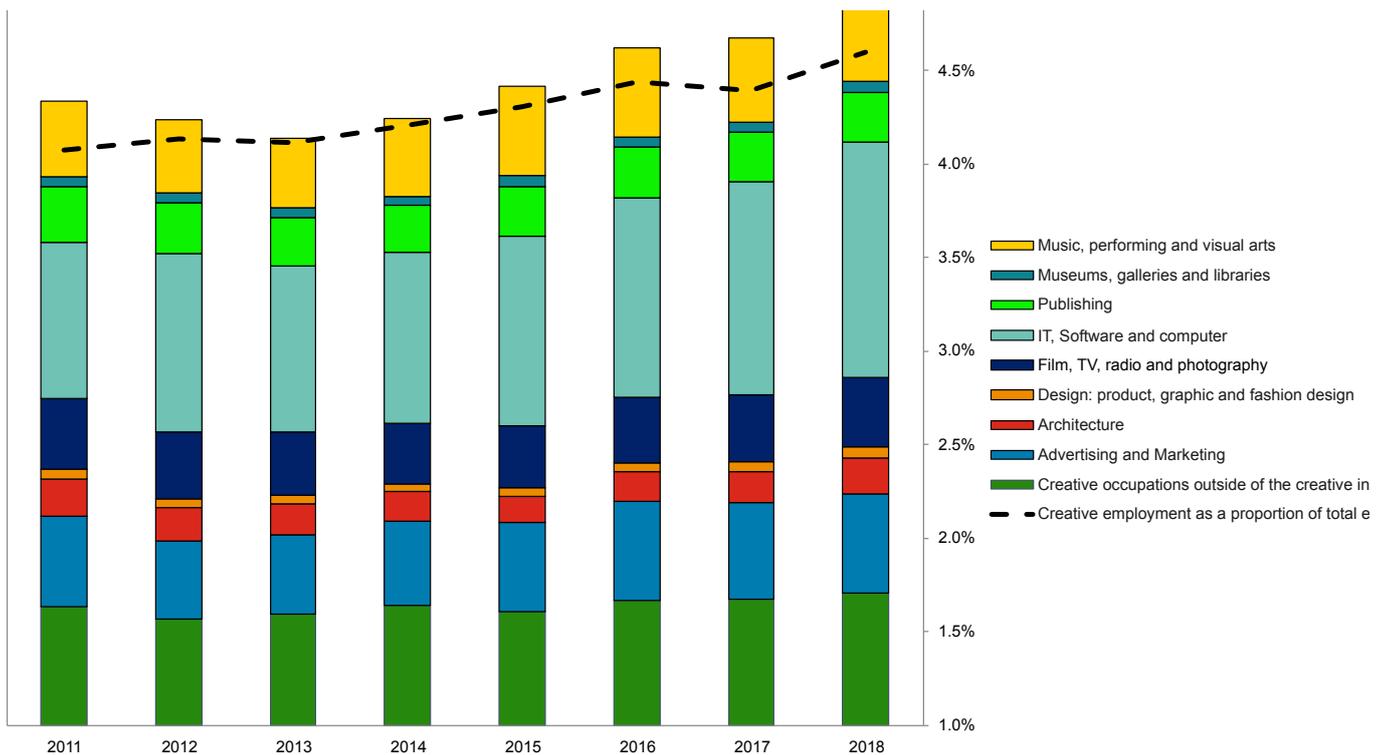
Country Summary

Spain

How large is the creative economy?

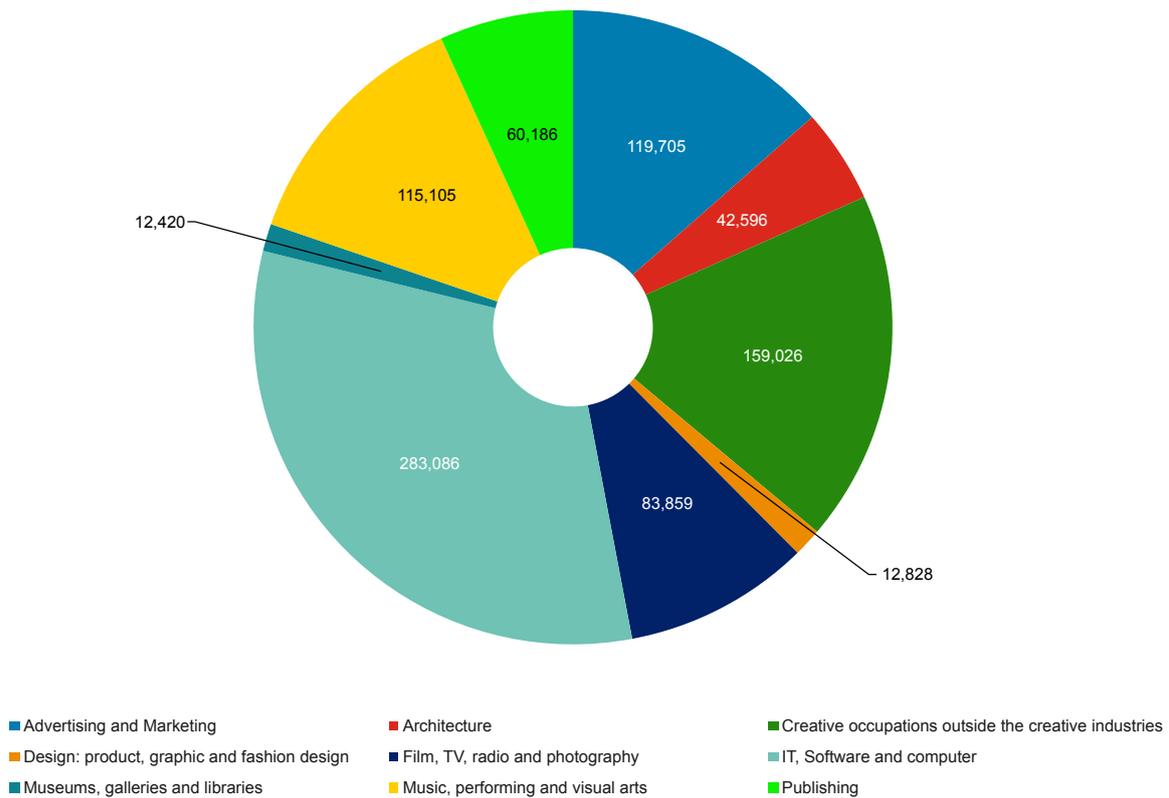
Employment in the creative economy in Spain was almost 900,000 in 2018. The number of jobs grew by around 140,000 workers from 2011 to 2018.

Spain - creative economy breakdown, 2018



The largest single segment for creative economy employment was the IT industry in 2018. However, there was substantial employment across other creative industries such as Advertising, Music and the TV industry. A large share of workers with creative occupations were further employed outside of the creative industries. Growth is expected to take place across these high-level segments, though there is likely to be substantial variation in the fortunes of individual businesses.

Spain - creative economy breakdown, 2018



How could the creative economy grow in future?

Live events have been closed on a significant scale and, where they have remained open, there has been controversy over the extent of social distancing.⁶⁴ There are a range of official schemes at the national and regional levels aiming to mitigate the impact. For example, an advance of payments to support feature film production.⁶⁵ Other creative industries have performed more strongly with recorded music revenues, for example, continuing to grow, reflecting rising streaming income.⁶⁶

Extrapolating from pre-Covid trends, we can expect further growth to around 1 million jobs by 2030. This will take the creative economy share of total employment from 4.6% to around 4.8%.

⁶⁴ Madrid opera halted by audience protest over lack of social distancing, Guardian, <https://www.theguardian.com/world/2020/sep/21/madrid-opera-halted-by-audience-protest-over-lack-of-social-distancing>

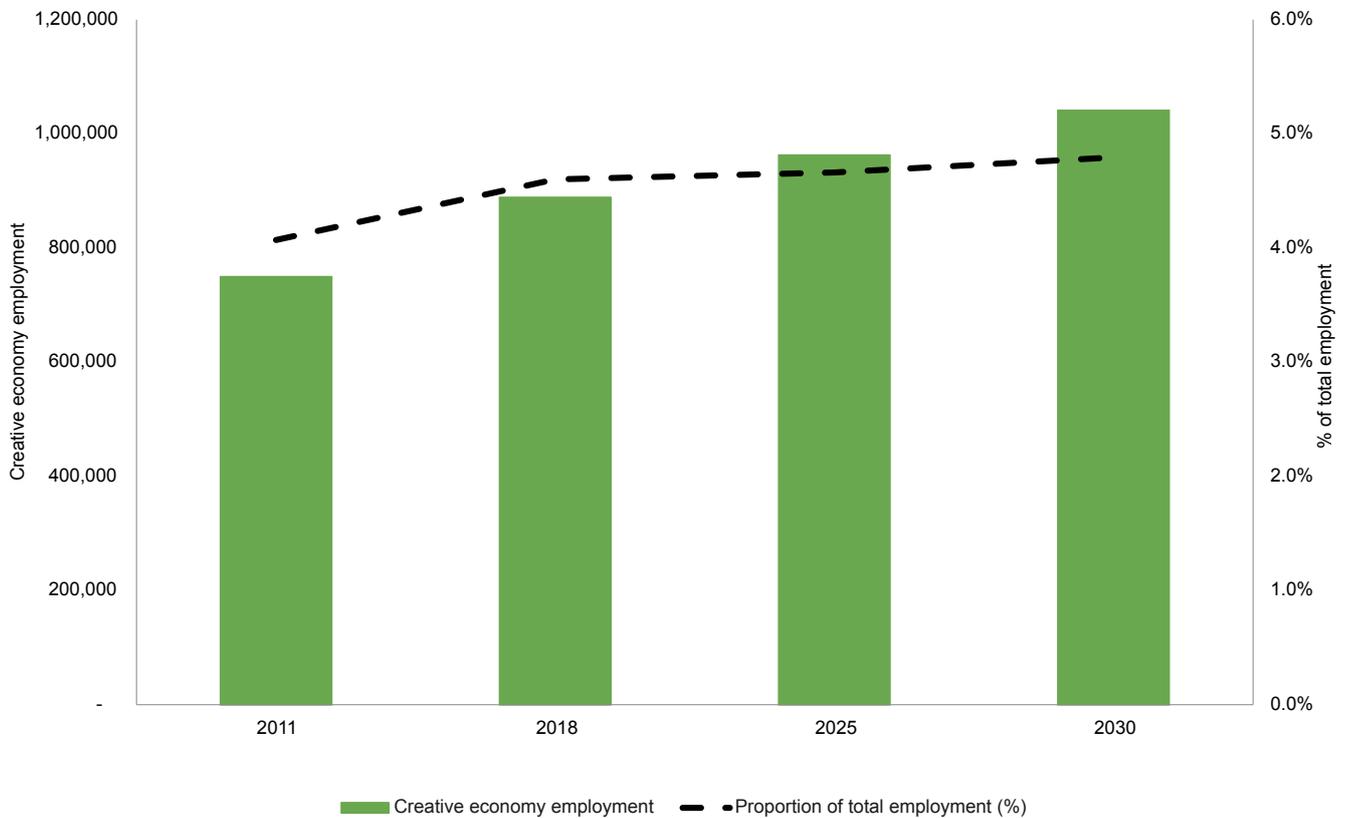
⁶⁵ Covid-19 Audiovisual Sector Measures, European Audio-visual Observatory, <https://www.obs.coe.int/en/web/observatoire/Covid-19-audiovisual-sector-measures>

⁶⁶ Spain's recorded music revenues growing despite Covid-19, Musically, <https://musically.com/2020/09/09/spains-recorded-music-revenues-growing-despite-Covid-19/>

How do the linkages within the creative economy contribute to growth?

As in other economies, the creative economy is likely to return to above-average growth, which will mean it is increasingly important for public policy, with strong linkages to other recovering sectors such as tourism. Successes in one creative industry can support others, e.g. Cecilia Krull in the music sector after My Life Is Going On was featured in the TV series La Casa De Papel.

Spain - size of the creative economy (2011-2030)



South Korea

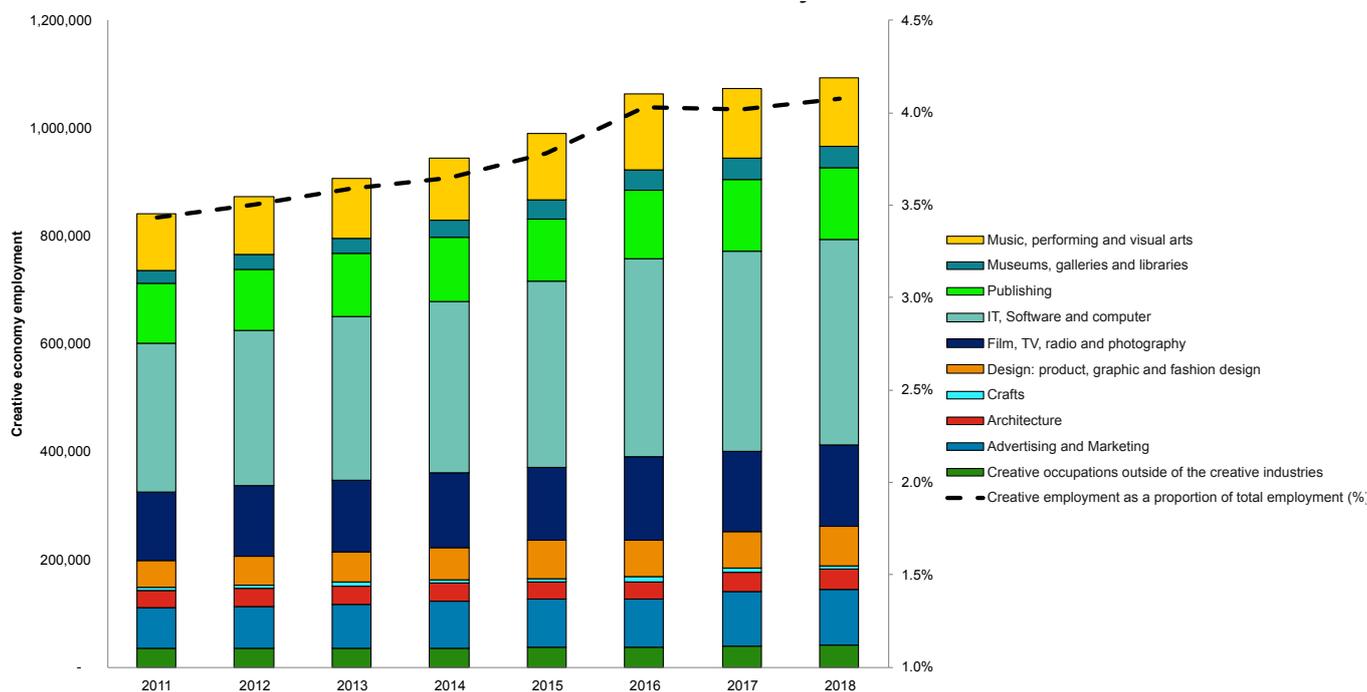
Country Summary

South Korea

How large is the creative economy?

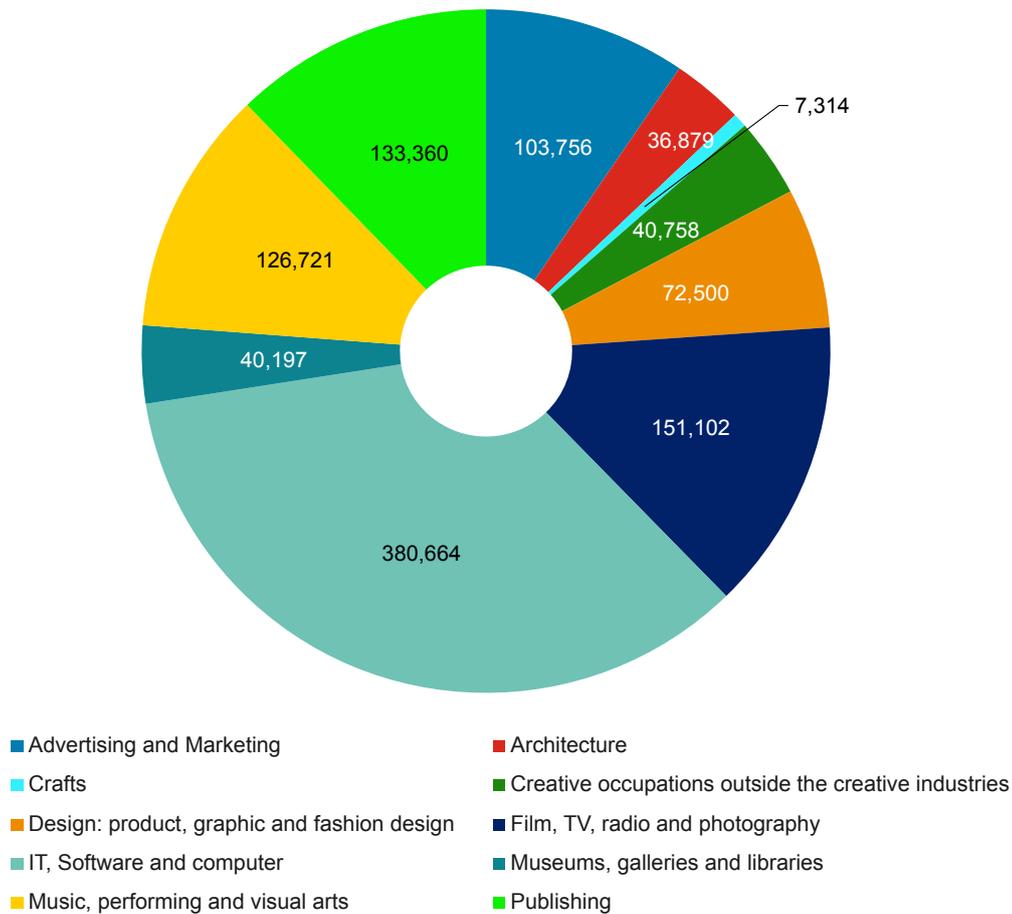
Employment in the creative economy in South Korea was around 1 million in 2018. The number of jobs grew by around 250,000 workers from 2011 to 2018.

South Korea - creative economy breakdown, 2018



The largest segment for creative economy employment was the IT industry in 2018. However, there was substantial employment across a number of other creative industries such as the Publishing and TV industries. Growth is expected to take place across the high-level segments, though there is likely to be substantial variation in the fortunes of individual businesses.

South Korea - creative economy breakdown, 2018



How could the creative economy grow in future?

Live events and some launches were initially cancelled, and film and TV production has been forced to halt on more than one occasion.⁶⁷ However, globally successful creative industries such as music (K-pop) remain active with a global audience.⁶⁸ #Alive (a new movie about a pandemic) was seen to be a turning point for cinema attendance and is also being distributed globally by Netflix.⁶⁹

Extrapolating from pre-Covid trends, we can expect further growth to over 1.7 million jobs by 2030. This will take the creative economy share of total employment from 4.1% to around 5.6%.

⁶⁷ Film, TV series production suspended in South Korea due to coronavirus resurgence, CGTN, <https://news.cgtn.com/news/2020-08-26/Film-TV-production-halted-in-S-Korea-due-to-Covid-19-resurgence-Tgv7c8js3K/index.html>

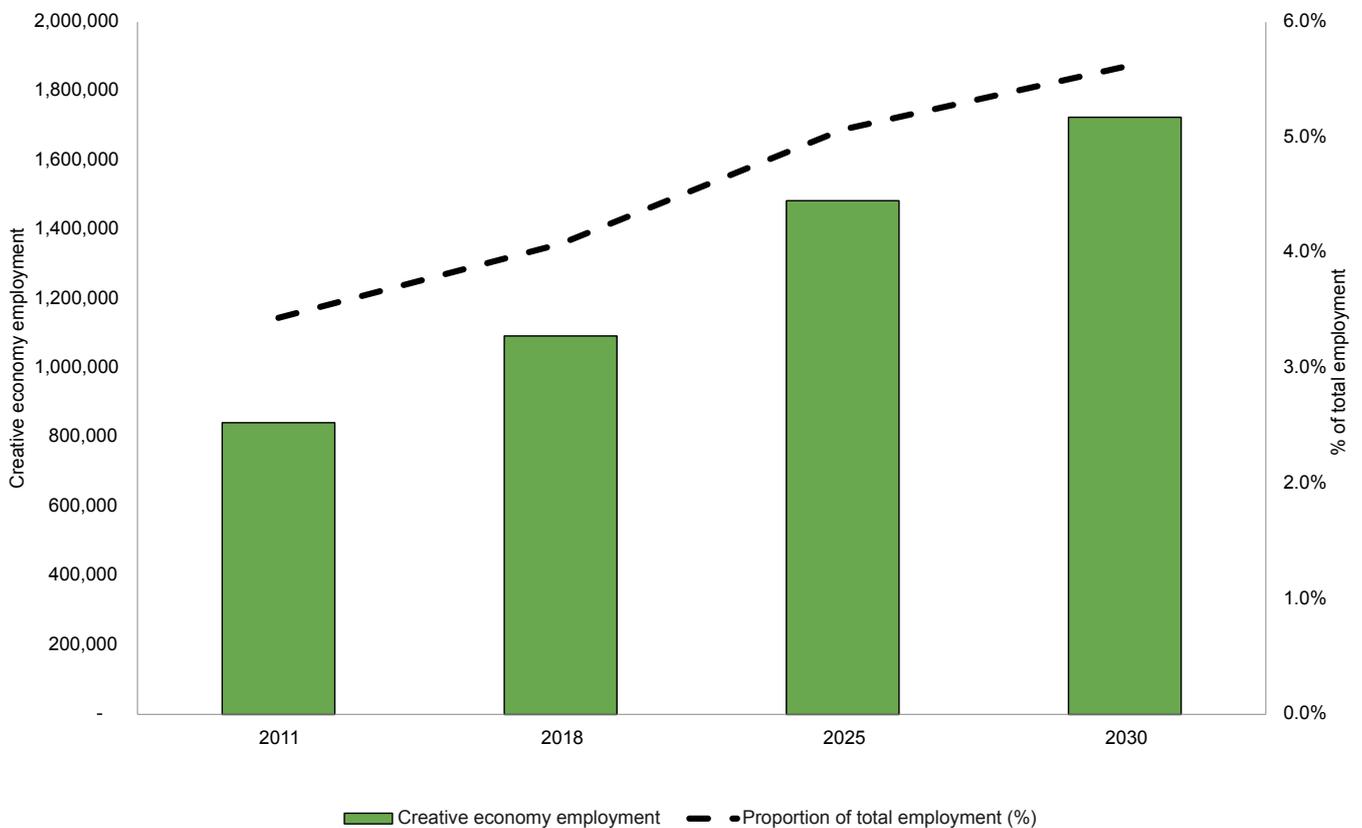
⁶⁸ K-Pop Industry Moves Forward as South Korea Controls Coronavirus Spread, Billboard, <https://www.billboard.com/articles/news/international/9347980/k-pop-industry-moves-forward-south-korea-coronavirus>

⁶⁹ How South Korea Lured Cinemagoers Back with a Film about a Deadly Pandemic, Syfy Wire, <https://www.syfy.com/syfywire/alive-netflix-horror-movie-pandemic-south-korea>

How do the linkages within the creative economy contribute to growth?

As in other economies, the creative economy is likely to return to above-average growth, with creative industries supporting each other and performance in other sectors (e.g. manufacturing industries using creative IP). An example across sectors would be collaboration between the video games industry and K-pop bands.⁷⁰

South Korea - size of the creative economy (2011-2030)



⁷⁰ BTS Game Lets ARMYs Explore Big Hit Group MV Universe, 13 August 2020, <https://screenrant.com/bts-game-universe-story-txt-cat-crossover-kpop/>

Turkey

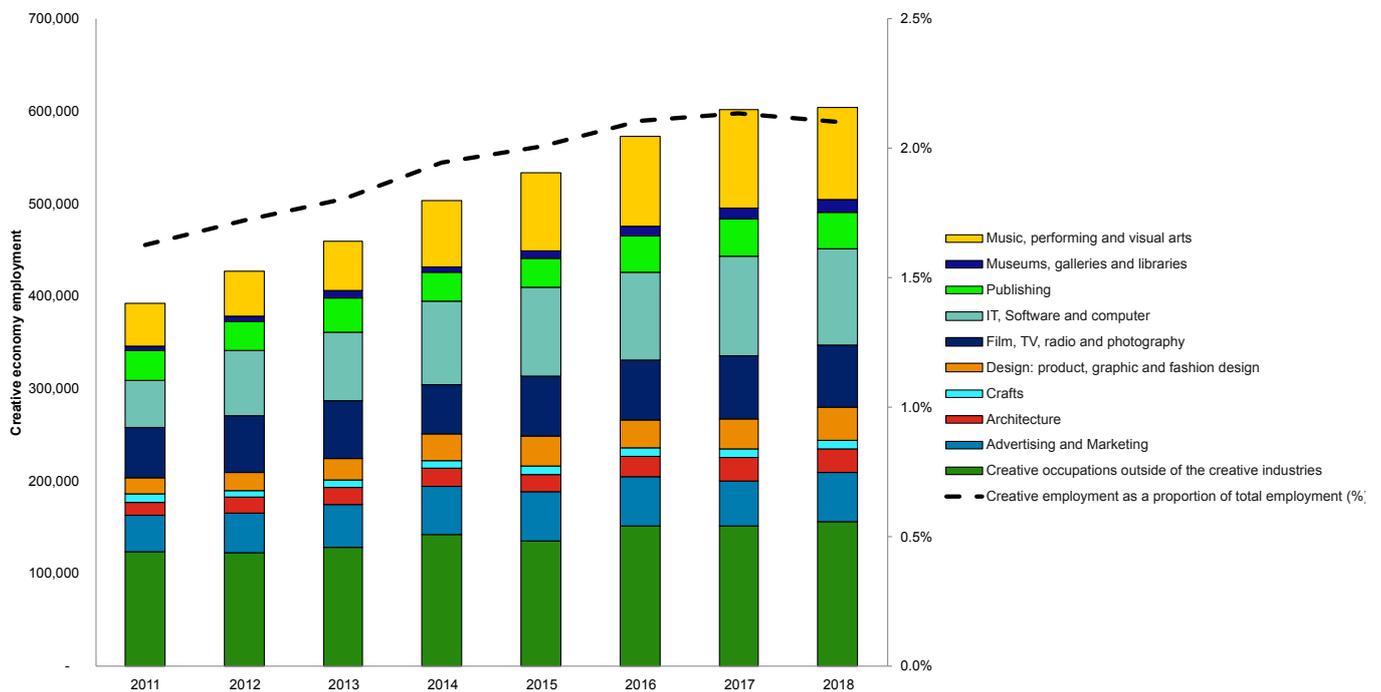
Country Summary

Turkey

How large is the creative economy?

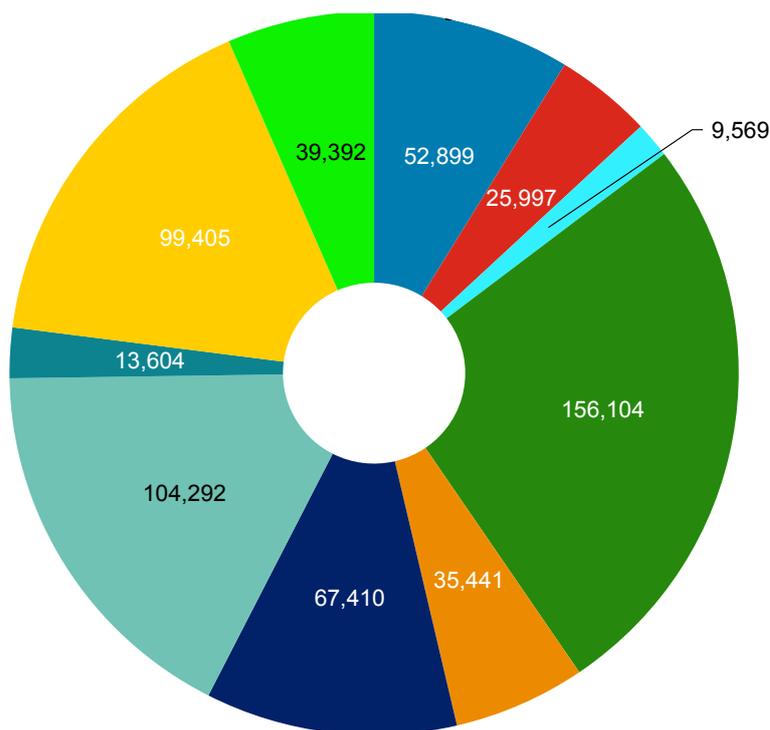
Employment in the creative economy in Turkey was around 600,000 in 2018. The number of jobs grew by over 200,000 workers from 2011 to 2018.

Turkey - creative economy breakdown, 2018



The two largest segments for the creative economy employment were the IT and Music industries in 2018, followed by the TV and Advertising industry. A large share of workers with creative occupations was further employed outside of the creative industries. Growth is expected to take place across these high-level segments, though there is likely to be substantial variation in the fortunes of individual businesses.

Turkey - creative economy breakdown, 2018



- Advertising and Marketing
- Architecture
- Crafts
- Creative occupations outside the creative industries
- Design: product, graphic and fashion design
- Film, TV, radio and photography
- IT, Software and computer
- Museums, galleries and libraries
- Music, performing and visual arts
- Publishing

How could the creative economy grow in future?

Live events and cinema have been affected by Covid-19, but the Istanbul Film Festival has managed to go ahead online.⁷¹ Government and regulators have worked to ease the pressure with, for example, advancement of support payments and VAT relief (which included the cinema and publishing industries).⁷² Turkish programmes have also been relatively successful recently on international platforms.⁷³

Extrapolating from pre-Covid trends, we can expect further growth to around 1 million jobs by 2030. This will take the creative economy share of total employment from 2.1% to around 3.0%.

⁷¹ Turkish cinephilia in the time of Covid-19: quarantined but not forgotten, BFI, <https://www2.bfi.org.uk/news-opinion/sight-sound-magazine/comment/festivals/istanbul-film-festival-2020-covid-quarantine-virtual-festival-mubi-online-atlas-rexx-cinemas>

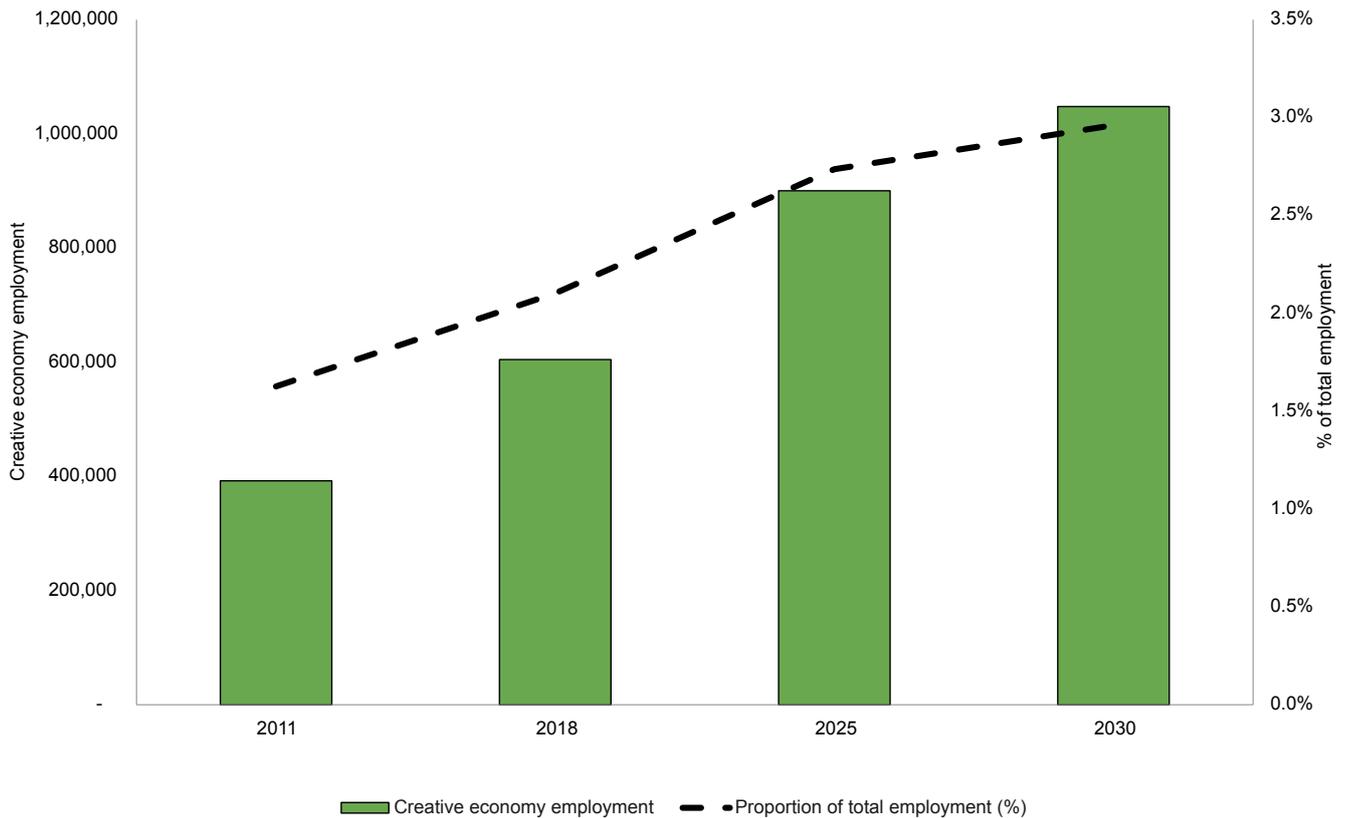
⁷² Covid-19 Audiovisual Sector Measures, European Audio-visual Observatory, <https://www.obs.coe.int/en/web/observatoire/Covid-19-audiovisual-sector-measures>

⁷³ Turkish TV: Dramas become a global streaming success, <https://www.bbc.co.uk/news/av/world-europe-53267576>

How do the linkages within the creative economy contribute to growth?

In 2010, Turkey was ranked as the 4th largest developing economy exporter of creative goods (after China, Hong Kong and India) in a report for UN agencies.⁷⁴ As noted, the creative economy has grown considerably in Turkey since then and is likely to continue to grow particularly quickly, reflecting strong expected macro-economic growth in the Turkish economy overall. The sector is therefore likely to become increasingly important for public policy. This will raise the importance of linkages within the creative economy which enable its growth (e.g. the use of Turkish books as inspiration for new TV shows) and its linkages into the wider economy (e.g. manufacturing businesses using IP produced in the creative economy to enhance or market new products).

Turkey - size of the creative economy (2011-2030)



⁷⁴ UNDP & UNCTAD, *Creative Economy Report 2010*, https://unctad.org/system/files/official-document/ditctab20103_en.pdf

United Kingdom

Country Summary

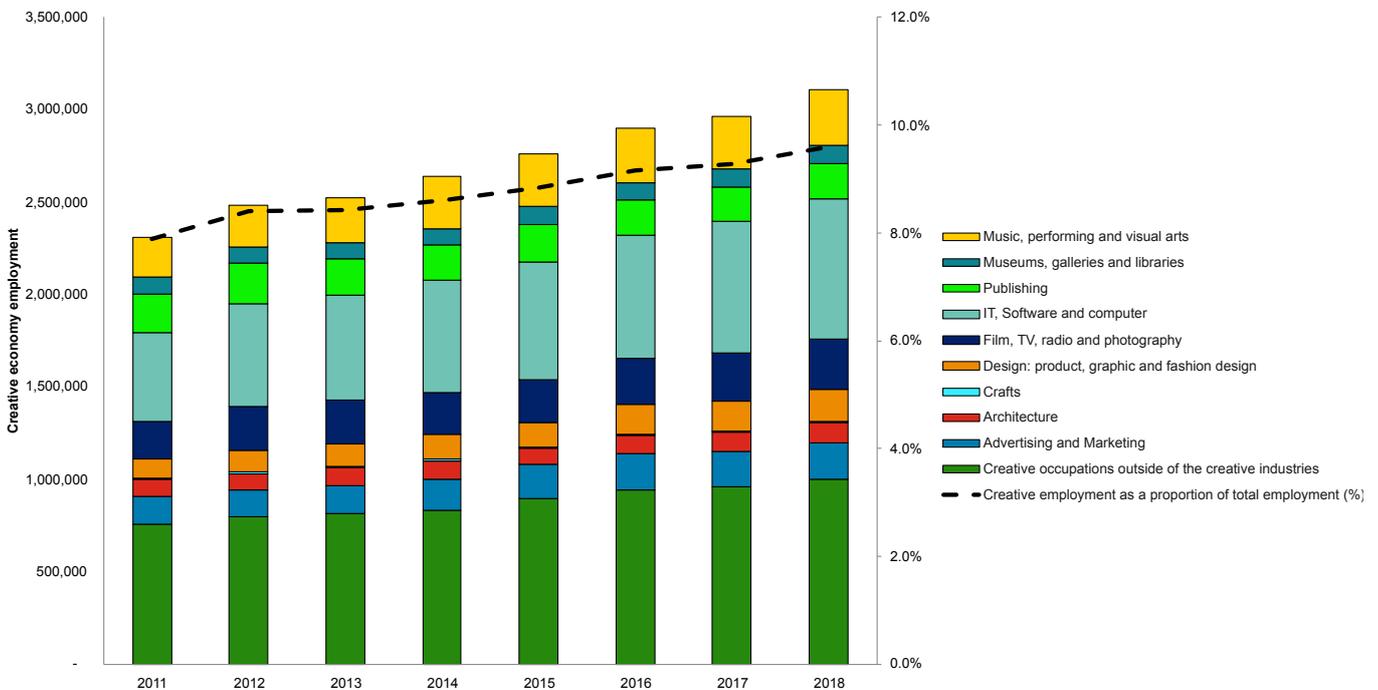
UK

How large is the creative economy?

Employment in the creative economy in the United Kingdom was around 3.1 million in 2018. The number of jobs grew by almost 800,000 workers from 2011 to 2018.

The Department for Digital, Culture, Media and Sport (DCMS) established the creative economy definition used in this report and has its own ongoing estimates, these are similar to the numbers here with differences stemming from the sources used, reflecting that this report covers several countries.

United Kingdom - creative economy breakdown, 2018



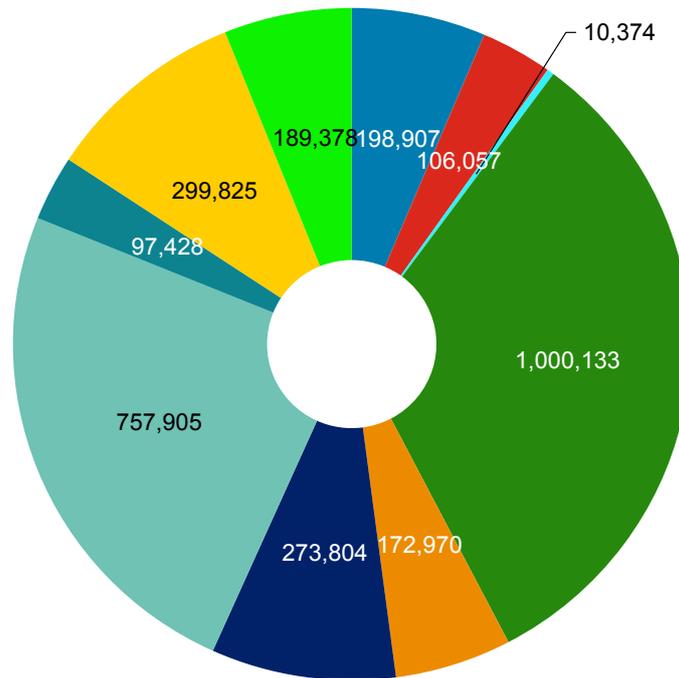
The largest single segment for the creative economy employment was the IT industry in 2018,⁷⁵ followed by the Music and TV industry. The UK has a large music sector which was estimated to employ nearly 200,000 people in 2018. It is also the place that a number of the largest media franchises originate from, such

as Winnie the Pooh and Harry Potter.⁷⁶ A large share of workers with creative occupations was employed outside of the creative industries. This is likely to reflect the needs of related business and other service industries that require creative inputs (including design, advertising and marketing and software).

⁷⁵ UKMusic, *Music by Numbers 2019*, <https://www.ukmusic.org/research-reports/music-by-numbers-2019/>

⁷⁶ List of highest-grossing media franchises, Wikipedia, https://en.wikipedia.org/wiki/List_of_highest-grossing_media_franchises. Note that this is an amateur source, but has been cited extensively and appears to be carefully researched.

United Kingdom - creative economy breakdown, 2018



- Advertising and Marketing
- Architecture
- Crafts
- Creative occupations outside the creative industries
- Design: product, graphic and fashion design
- Film, TV, radio and photography
- IT, Software and computer
- Museums, galleries and libraries
- Music, performing and visual arts
- Publishing

How could the creative economy grow in future?

Existing estimates suggest that the UK’s creative industries may lose £74 billion because of Covid-19.⁷⁷ The Government announced £1.57bn in spending to support cultural organisations and heritage sites. In the arts sector, for example, this translated into a Culture Recovery Fund that included grants, loans, and other support.⁷⁸ More recently, the 2021 Budget announced “£700 million to support our incredible arts, culture

and sporting institutions as they reopen”.⁷⁹ Demand for some media, including e.g. news, is strong and 40% of consumers were considering purchasing new media subscriptions to pass the time in late March 2020.⁸⁰

Extrapolating from pre-Covid trends, we can expect further growth to around 4.3 million jobs by 2030. This will take the creative economy share of total employment from 9.6% to

⁷⁷ The projected economic impact of Covid-19 on the UK creative industries, Oxford Economics, https://www.creativeindustriesfederation.com/sites/default/files/inline-images/20200619_OE_Slides.pdf

⁷⁸ Covid-19 support, Arts Council England, <https://www.artscouncil.org.uk/covid19>

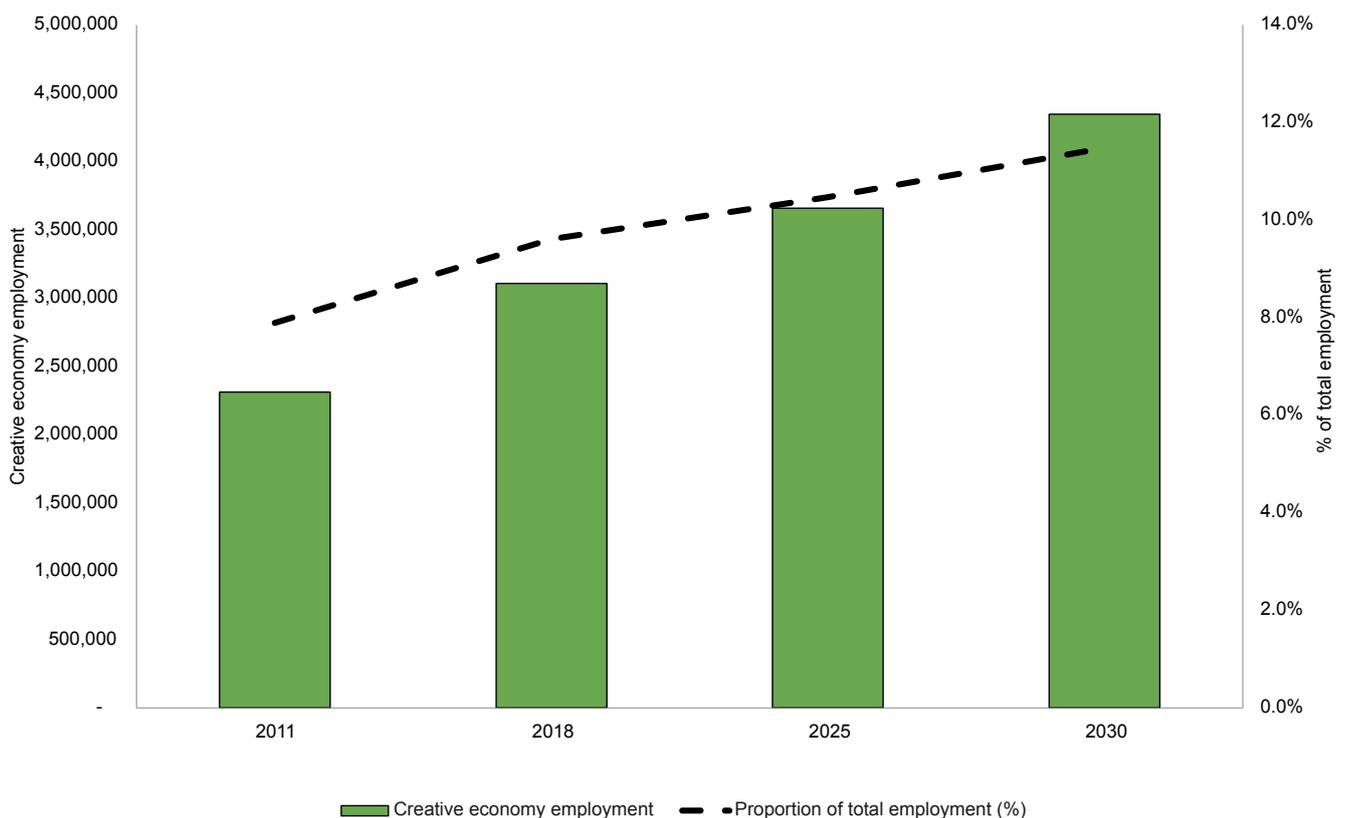
⁷⁹ Budget Speech 2021, HM Treasury, <https://www.gov.uk/government/speeches/budget-speech-2021>

⁸⁰ Coronavirus Research, April 2020, Series 4: Media Consumption and Sport, GlobalWebIndex, [https://www.globalwebindex.com/hubfs/1.%20Coronavirus%20Research%20PDFs/GWI%20coronavirus%20findings%20April%202020%20-%20Media%20Consumption%20\(Release%204\).pdf](https://www.globalwebindex.com/hubfs/1.%20Coronavirus%20Research%20PDFs/GWI%20coronavirus%20findings%20April%202020%20-%20Media%20Consumption%20(Release%204).pdf)

How do the linkages within the creative economy contribute to growth?

As in other economies, the creative economy is likely to return to above-average growth in the UK. This growth is likely to be driven by the continued success of the three largest sectors - IT, music and TV industries. These three sectors are highly interconnected - for example the inclusion of music tracks in TV shows has resulted in increased revenues from sales of music downloads.⁸¹ The relationships that link these three sectors to each other will help to fuel recovery across the creative economy more generally. Other resources are required across multiple parts of the creative economy, e.g. studios where there is a need for space for the film and TV segments.⁸²

United Kingdom - size of the creative economy (2011-2030)



⁸¹ 'Golden age of TV' gives boost to music industry, Guardian, <https://www.theguardian.com/music/2019/oct/18/tv-streaming-services-revitalise-music-industry-netflix-amazon-prime-video>

⁸² Behind the scenes of Britain's film studio scramble, Telegraph, <https://www.telegraph.co.uk/technology/2021/03/08/behind-scenes-britains-film-studio-scramble/>

Methodology

Methodology

The purpose of the quantitative analysis for this report is to estimate the size of the creative economy and expected growth in the creative economy to 2025 and 2030 for the UK, Germany, France, Spain, Italy, Turkey, Australia, South Korea and Japan.

The methodology is broken down into six sections:

1. Defining the Creative Economy
2. Data gathering and matching
3. Data disaggregation
4. Building SIC-SOC country matrices
5. Estimating the size of the Creative Economy
6. Projection to 2025 and 2030

Defining the creative economy

This analysis is based on the definition of the creative economy used by the UK's Department for Digital, Culture, Media & Sport (DCMS). The DCMS defines a creative economy as "all occupations within the creative industries, plus all creative occupations outside the creative industries",⁸³ as shown in **Figure 5**.

The creative occupations were defined by DCMS through a consultation in 2013. Table 4 provides an overview of the creative occupations and their 4-digit Standard Occupation Classification (SOC) codes. DCMS obtained these creative occupations

by calculating the "creative intensity" – measured as the proportion of creative occupations in an industry – in order to determine which industries (at a 4-digit level) are most creative. Industries which have more than 6,000 jobs and a creative intensity of at least 30% are considered as creative industries. Table 4 presents all creative industries and their 4-digit Standard Industry Classification (SIC) codes.

Figure 5: The Creative Economy



⁸³ Department for Culture Media & Sports (2016): *Creative industries: Focus on Employment*, https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/534305/Focus_on_Employment_revised_040716.pdf

Table 4: Creative Occupations Groups based on the DCMS definition

Creative Occupations Group	UK SOC (2007)	Description
Advertising and Marketing	1132	Marketing and sales directors
	1134	Advertising and public relations directors
	2472	Public relations professionals
	2473	Advertising accounts managers and creative directors
	3543	Marketing associate professionals
Architecture	2431	Architects
	2432	Town planning officers
	2435	Chartered architectural technologists
	3121	Architectural and town planning technicians
Crafts	5211	Smiths and forge workers
	5411	Weavers and knitters
	5441	Glass and ceramics makers, decorators and finishers
	5442	Furniture makers and other craft woodworkers
	5449	Other skilled trades not elsewhere classified
Design: product, graphic and fashion design	3421	Graphic designers
	3422	Product, clothing and related designers
Film, TV, video, radio and photography	3416	Arts officers, producers and directors
	3417	Photographers, audio-visual and broadcasting equipment operators
IT, software and computer services	1136	Information technology and telecommunications directors
	2135	IT business analysts, architects and systems designers
	2136	Programmers and software development professionals
	2137	Web design and development professionals
Publishing	2471	Journalists, newspaper and periodical editors
	3412	Authors, writers and translators

Table 4 — Continues on Page 71

Table 4 — Continued from Page 70

Museums, galleries and libraries	2451	Librarians
	2452	Archivists and curators
Music, performing and visual arts	3411	Artists
	3413	Actors, entertainers and presenters
	3414	Dancers and choreographers
	3415	Musicians

Source: Department for Culture Media & Sports – DCMS (2016): “Creative industries: Focus on Employment, Annex A, Table 13: Creative occupations, https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/534305/Focus_on_Employment_revised_040716.pdf

Table 5: Creative Industries Groups based on the DCMS definition

Creative Occupations Group	UK SIC (2007)	Description
Advertising and Marketing	70.21	Public relations and communication activities
	73.11	Advertising agencies
	73.12	Media representation
Architecture	71.11	Architectural activities
Crafts	32.12	Manufacture of jewellery and related articles
Design: product, graphic and fashion design	74.10	Specialised design activities
Film, TV, video, radio and photography	59.11	Motion picture, video and television programme production activities
	59.12	Motion picture, video and television programme post-production
	59.13	Motion picture, video and television programme distribution
	59.14	Motion picture projection activities
	60.10	Radio broadcasting
	60.20	Television programming and broadcasting activities
	74.20	Photographic activities

Table 5 — Continues on Page 72

Table 5 — Continued from Page 71

IT, software and computer services	58.11	Publishing of computer games
	58.29	Other software publishing
	62.01	Computer programming activities
	62.02	Computer consultancy activities
Publishing	58.11	Book publishing
	58.12	Publishing of directories and mailing lists
	58.13	Publishing of newspapers
	58.14	Publishing of journals and periodicals
	58.19	Other publishing activities
	74.30	Translation and interpretation activities
Museums, galleries and libraries	91.01	Library and archive activities
	92.02	Museum activities
Music, performing and visual arts	59.20	Sound recording and music publishing activities
	85.52	Cultural education
	90.01	Performing arts
	90.02	Support activities to performing arts
	90.03	Artistic creation
	90.04	Operation of arts facilities

Source: Department for Culture Media & Sports – DCMS (2016): “Creative industries: Focus on Employment, Annex B, Table 14: Creative industries,” https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/534305/Focus_on_Employment_revised_040716.pdf

Methodology

Data gathering and matching

In order to estimate the size of the creative economy for the 6 European and 3 APAC countries, industry and occupation employment data was collected from official national statistical agencies at the most granular industry/occupation breakdown available. For countries, where employment data at this level

was not available, official employment statistics were gathered from international organisations such as the International Labour Organization (ILO). Table 6 lists the data sources used for each country in this analysis.

Table 6: Industry / Occupation data sources

Country	Source – Industry data	Source – Occupation data
United Kingdom	UK's Department for Digital, Culture, Media & Sport (DCMS)	Office for National Statistics (ONS)
German	International Labour Organization (ILO)	International Labour Organization (ILO)
France	National Institute of Statistics and Economic Studies (Insee)	International Labour Organization (ILO)
Spain	National Statistics Institute (Ine)	International Labour Organization (ILO)
Italy	Italian National Institute of Statistics (Istat)	International Labour Organization (ILO)
Turkey	International Labour Organization (ILO)	International Labour Organization (ILO)
Australia	Australian Bureau of Statistics (ABS)	Australian Bureau of Statistics (ABS)
South Korea	Korean Statistical Information Service (KOSIS)	Korean Statistical Information Service (KOSIS)
Japan	Official Statistics of Japan (e-Stat)	Korean Statistical Information Service (KOSIS)

Methodology

To standardise across geographies, country-by-country employment data was translated according to the UK SIC (2007) and UK SOC (2007), which are functionally identical to international classifications. For example, at a 4, 3 and 2-digit level, UK SIC (2007) follows the Statistical Classification of Economic Activities in the European Community (NACE Rev. 2). Where necessary, the 3 and 4-digit UK SIC classes were further converted to the International Standard Industrial Classifications (ISIC) headings.⁸⁴

Similarly, UK SOC classifications are equivalent to the International Standard Classification of Occupations (ISCO-08).⁸⁵ Based on this Standard Classification, occupation codes were directly converted for the European countries. The APAC countries use country-specific classification codes. Industry and occupation codes for Australia (ANZSIC/ANZSCO), South Korea (KSIC/KSOC) and Japan (JSIC/JSOC) were converted based on official correspondence tables obtained from national and international statistical offices. Data for creative occupations in Japan was not available, which required a disaggregation approach to fill these gaps. This approach is further explained in the next section.

Data disaggregation

Data was collected at the most granular level of occupation/industry breakdown publicly available from international organisations and/or national statistical agencies. For countries where 4-digit industry and/or occupation employment data was not available, higher-level employment data was disaggregated to the required level of granularity by using the distribution within each category in other countries where such data is available as a proxy. This follows the approach of a previous research paper for CISCO by Oxford Economics on the impact of technology on ASEAN jobs.⁸⁶

4-digit Industry employment data was only available for the UK, France and Spain (and, in France and Spain, not for every subsector).⁸⁷

For those countries, or sectors, where only 3 or 2-digit industry data was available, the reported employment in each category was distributed among the 3 and 4-digit industries based on the average distribution where data was available in the UK, France and/or Spain.

The same imputation approach was repeated to disaggregate employment data to 4-digit occupation codes. 4-digit occupation data was available for the UK and Australia. For the European countries, UK data was used to estimate the propensity of workers within creative occupations for each year. For South Korea, Australia was used as a proxy country. Occupation employment data for Japan was not available at any level of granularity for the occupations of interest. Industry employment data for Spain was only available for the years 2016 and 2017.

Building SIC-SOC country matrices

In order to estimate the number of creative occupations outside of the creative industries, an employment structure that matches industry and occupational categories was required. Industry-Occupation matrices at the most granular level were collected from national and international statistical agencies. As most statistical offices do not publish those matrices at the 4-digit level, the analysis used the 4-digit Industry-Occupation (SIC-SOC) matrix from the UK published in 2011.⁸⁸ The year used reflects that these results are generated as part of the general census.

For the other countries, an imputation approach that uses the UK shares of creative occupations within each industry as a proxy was required to create the Industry-Occupation matrices for the time period 2011-2018.

Due to data constraints, it is assumed that these shares stay constant over time. As occupation data is not available for Japan, it was not possible to create an Industry-Occupation matrix. In order to estimate the creative occupations outside of the creative industries in Japan, creative occupations outside the creative industries as a proportion of creative industry employment was calculated for the other countries and used as a proxy. The results for Japan are shown as a range, with the middle range using the average proportion of the other eight countries; the low range using the lowest proportion out of the country sample; and the high range using the highest proportion out of the country sample.

⁸⁴ Detailed information on the correspondence between UK SIC, NACE and ISIC-08 can be found on the UK's Office for National Statistics website. Available at: <https://www.ons.gov.uk/methodology/classificationsandstandards/ukstandardindustrialclassificationofeconomicactivities>

⁸⁵ *Classifying the Standard Occupational Classification 2020 (SOC 2020) to the International Standard Classification of Occupations (ISCO-08)*, ONS, <https://www.ons.gov.uk/methodology/classificationsandstandards/standardoccupationalclassificationsoc/soc2020/classifyingthestandardoccupationalclassification-2020soc2020totheinternationalstandardclassificationofoccupationsisco08>

⁸⁶ Oxford Economics/CISCO (2018): *Technology and the future of ASEAN jobs*. Appendix 4: *Creating ASEAN SIC-SOC matrices*, <https://www.oxfordeconomics.com/recent-releases/dd577680-7297-4677-aa8f-450da197e132>

⁸⁷ Industry employment data for Spain was only available for the years 2016 and 2017

⁸⁸ UK Office for National Statistics – ONS (Census 2011): *CTO144 Occupation (full) by Industry (full) (national)*, <https://www.nomisweb.co.uk/census/2011/ct0144>

Estimating the size of the creative economy

The size of the creative economy was estimated for the time period 2011-2018 by adding up total 4-digit creative industry employment and 4-digit creative occupations outside of the creative industries for each of the nine countries. As mentioned in the previous section, the creative occupations outside of the creative industries is illustrated as a range for Japan. The estimates for the size of the Japanese creative economy are therefore also shown as a range. Cross-country results in this report use the middle range estimates for Japan, whereas the country fact sheet for Japan provides the full range of estimates. As all countries follow the same approach with the same underlying

assumptions, country results should be as comparable to each other as is practical in a high-level exercise of this kind.

The results for the size of the creative economy were compared to existing research where country estimates are available, although we should expect differences reflecting variation in approach and data availability. Table 6 provides a comparison of the estimates from this analysis with earlier estimates from existing research. As far as we are aware, earlier estimates for Italy, Spain and Turkey are not available.

Table 7: Earlier estimates for the size of the creative economy

Country	New Estimate	Earlier Estimate	Source	Note
United Kingdom	3.1m in 2018	3.2m in 2018	Creative industries Council (CIC)	<p>The Creative industries Council (CIC) published the results based on the DCMS methodology and data.</p> <p>As this research is based on the DCMS methodology and definitions of creative industries and occupations estimates are almost identical.</p> <p>Small differences in the results are likely to reflect DCMS having access to more detailed data.</p>
Germany	2.4m in 2013	3.1m in 2013	Nathan et. al (2015): Creative economy Employment in the EU and the UK – A comparative analysis	<p>This research is based on the DCMS industry classifications and the definition of the creative economy. The research uses three digit data.</p> <p>Using three digit rather than four digit data will lead to slightly higher results as more four digit groups are included in the analysis.</p>
France	1m in 2013	1.9m in 2013	Nathan et. al (2015): Creative economy Employment in the EU and the UK – A comparative analysis	<p>This research is based on the DCMS industry classifications and the definition of the creative economy. The research uses three digit data.</p> <p>Using three digit rather than four digit data will lead to slightly higher results as more four digit groups are included in the analysis.</p>
Australia	769,137 in 2011	530,944 in 2011	Higgs & Lennon (2011): Australian Creative Employment in 2011 – applying the NESTA Dynamic Mapping definition methodology to Australian classifications	<p>The paper uses the Dynamic Mapping methodology developed by NESTA and applied to DCMS.</p> <p>While our research takes the DCMS's definition of creative industries as given, Higgs & Lennon (2011) calculated the creative intensity for each Australian industry to decide which industries are creative and which are non-creative.</p> <p>The research uses a lower creative intensity threshold (>20%) compared to DCMS (>30%).</p> <p>Higgs & Lennon (2011) were able to use six digit occupation employment data and four digit industry employment data.</p>
South Korea	1m in 2018	644,847 in 2018	Content Industry Statistics (2018)	<p>The paper estimates employment within the “Content Industries”. Those are similar to the creative industries as defined by DCMS, although not identical.</p> <p>The paper also only includes employment within the Content Industries and does not include relevant occupations outside these industries.</p>

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Japan	Middle range: 6.6m in 2011	1.8m in 2001	Yoshimoto (2003): The status of Creative industries in Japan and Policy Recommendations for their Promotion	<p>This research estimates Japan's creative industry employment in 2001, 10 years before the earliest year for which estimates are generated in this research.</p> <p>The research only includes creative industry employment, and does not add creative occupations outside the creative industries.</p> <p>The paper uses slightly different definitions of creative industry groups.</p> <p>Yoshimoto (2003) used the 1993 Japanese Standard Industry Classifications (JSIC). Those classifications have been changed in 2002, 2007)⁹⁰</p>
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Projection to 2025 and 2030

The size of the creative economy was projected to 2025 and 2030 based on the econometric relationship between creative employment and GDP per capita. This is inspired by a method of estimating long-term sector trends set out by Fogel in 2008.⁹¹ It follows the assumption that people tend to spend a greater share of their incomes on leisure and entertainment when their income increases. A linear regression analysis was conducted to estimate the relationship between the creative employment and GDP per capita over the time period 2011-2018. Results of the linear regression were statistically significant, although the time series is obviously limited in duration. It was not possible to use a longer time series due to changes in industry/occupation classifications before 2011 across a number of countries included in this analysis. This relationship was then extrapolated to 2025 and 2030 based on long-term forecasts of GDP per capita (measured in USD at 2010 Purchasing Power Parity) from OECD.⁹²

The purpose of the projection is to provide an illustrative estimate for the implications of plausible medium-term growth in the creative economy, if past trends continue. The projection therefore does not take into account Covid-19 impacts on the creative industries or other potential shocks, from which the sector could revert to trend by 2025 and 2030 (see analysis earlier in this report). This extrapolation reflects the stability in creative economy growth (across multiple economies studied) from 2011-2018, the fundamental association with long-term rising incomes and the diversity of the creative economy (meaning that the creative economy as a whole can grow on trend despite pressures on certain parts, e.g. the newspaper industry in recent years). However, this analysis should still be seen as illustrating the potential impact of those long-term trends rather than a forecast (particularly for any specific year).

⁸⁹ Development of the Japanese Standard Industry Classifications (JSIC), https://www.soumu.go.jp/main_content/000325988.pdf

⁹⁰ Fogel, R. W. Forecasting the Cost of U.S. Health Care in 2040, 2008, NBER Working Paper, <https://www.nber.org/papers/w14361>

⁹¹ OECD published a long-term forecast for Population and GDP, covering all countries in this analysis. GDP per capita was calculated based on this. Population long-term projection, <https://stats.oecd.org/Index.aspx?DataSetCode=POPPROJ>

⁹² OECD GDP long-term projection is based on the assessment of the economic climate in individual countries and the world economy, using a combination of model-based analysis and expert judgement, <https://data.oecd.org/gdp/gdp-long-term-forecast.htm>

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