Federal Ministry
for Economic Affairs
and Energy

Federal Government Commissioner
for Culture and the Media

Cultural and Creative Industries
Initiative of the
Federal Government

2019 Cultural and Creative Industries Monitoring Report

Summary

Imprint

Publisher
Federal Ministry for Economic Affairs and Energy (BMWi)
Public Relations
11019 Berlin, Germany
www.bmwi.de

Text and editing
Raphaela Andres, ZEW Mannheim
Dr Daniel Erdsiek, ZEW Mannheim
Dr Jörg Ohnemus, ZEW Mannheim
Dr Christian Rammer, ZEW Mannheim
Dr Steffen Viete, ZEW Mannheim
Contact:
Dr Jörg Ohnemus, joerg.ohnemus@zew.de
Dr Daniel Erdsiek, daniel.erdsiek@zew.de
Leibniz Centre for European Economic Research
(ZEW), Mannheim

Status
October 2019

Design
PRpetuum GmbH, 80801 Munich

Illustrations
BMWi / title

This publication as well as further publications can be obtained from:
Federal Ministry for Economic Affairs and Energy
Public Relations
Email: publikationen@bundesregierung.de
www.bmwi.de

Central procurement service:
Tel.: +49 30 182722721
Fax: +49 30 18102722721

Contents

Overview of the Cultural and Creative Industries in 2018

256,600 companies

€ 100.5 bn gross value added

2.9% more gross value added (compared to 2017)

€ 168.3 bn turnover

4.66 No. of core workers per company

3.1% more core workers (compared to 2017)

3.9% more employees subject to the payment of social insurance contributions (compared to 2017)

1,195,035 core workers

4.6% start-up rate

500,888 people in marginal employment and marginal self-employment

3.6% of total spending on innovation in Germany

€140,800 sales per worker in core sectors

€84,000 gross value added per core worker

21.5% self-employed (proportion of core workers)

approx. 9,500 start-ups

3.0% share of gross domestic product

938,411 employees subject to the payment of social insurance contributions

339,609 mini-self-employed

1,695,923 total workforce in CCI

1 Introduction

On behalf of the Federal Ministry for Economic Affairs and Energy, the Centre for European Economic Research (ZEW) in Mannheim and the Fraunhofer Institute for Systems and Innovation Research ISI in Karlsruhe undertake continual research into the cultural and creative industries (CCI) in Germany. The results of this work appear in an annual monitoring report that presents key economic indicators[1] on the cultural and creative industries.[2] The analyses contained in the report are based on data from publicly available sources[3], data held by ZEW, and from a survey on the cultural and creative industries sector in Germany conducted by ZEW specifically for this project. This summary of the report presents the key results for the project year 2019.[4]

This year's report focuses on the following questions:

- What is the current economic importance of the cultural and creative industries within the overall economy and compared to other traditional sectors in Germany?
- What are the key distinguishing features of the individual submarkets in these industries?
- How have the cultural and creative industries and their submarkets developed over the last few years in terms of core indicators such as turnover, value added, number of companies and employment, etc.?
- What start-up activities are being seen in the cultural and creative industries in Germany?

This year's report also focuses on the specific issue of the cultural and creative industries in rural areas, and studies the following questions:

- What is the breakdown of the cultural and creative industries between urban and rural areas?
- What is the situation of companies and the self-employed in the cultural and creative industries in rural areas?

This monitoring report is based on the definition of the cultural and creative industries developed by the Conference of Economic Affairs Ministers, which is as follows: "The cultural and creative industries comprise all cultural and creative enterprises that are mainly market-oriented and deal with the creation, production and/or dissemination through the media of cultural/creative goods and services."[5]

The main criterion for the definition is the commercial character of the company. All market-based companies (or parts thereof) that are subject to Value Added Tax (VAT) or that aim to generate revenue from art, culture and creativity belong to this group of companies. Companies not included in this group are companies or entities that do not derive most of their funding through the market, but rather receive government funding or licence fees, or are supported by non-profit funds or private investors.

According to the definition used by the Conference of Economic Affairs Ministers,[6] the cultural and creative industries are made up of a total of 11 submarkets (see Figure 1.1). The cultural industry is made up of (1) the music industry, (2) the book market, (3) the art market, (4) the film industry, (5) the broadcasting industry, (6) the performing arts market, (7) the design industry, (8) the architecture market and (9) the press market. For its part, the creative industry comprises (10) the advertising market and (11) the software and games industry.[7]

This means that Germany takes a sector-specific approach to considering the two industries, focusing on companies that mainly carry out activities that fall under the cultural and creative industries. From an economic policy perspec-

1 These include indicators such as the number of companies, turnover, gross value added, and various definitions used to measure employment.

2 Most of the key figures for the cultural and creative industries are available from 2009 and are presented in this report as far as possible. Where this is not the case, these figures can be obtained upon request from the authors of this report.

3 The main source of data is official statistics from the Federal Statistical Office and the Federal Employment Agency. Detailed explanations of the various data sources and calculation methods are provided in the annex to the unabridged version of this report.

4 For last year's report, see Federal Ministry for Economic Affairs and Energy, 2019.

5 See Conference of Economic Affairs Ministers, 2009.

6 See Söndermann, 2012, and Conference of Economic Affairs Ministers, 2009.

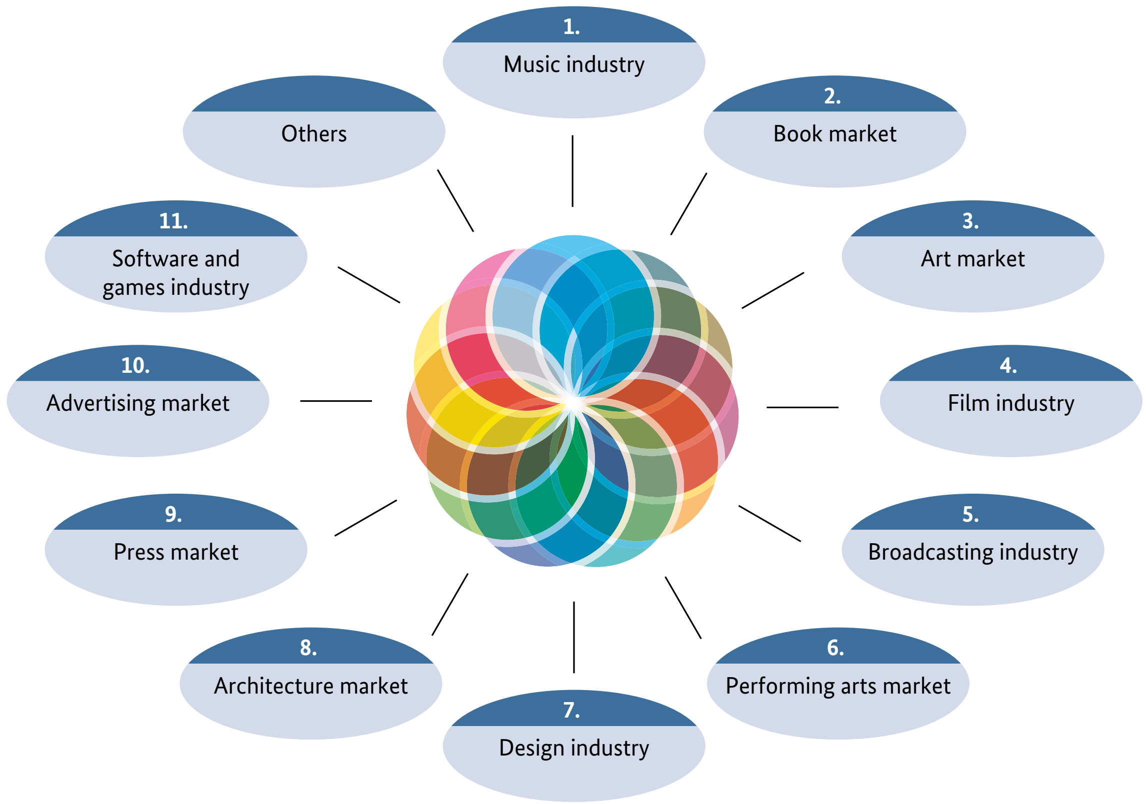
7 The "Others" sector is a statistical residual group which contains those branches of the industry which cannot be assigned to any of the submarkets. It includes, for example, libraries and archives, the management of historic buildings, botanical gardens and the fairground business.

tive, this approach makes good sense, as most statistics are available at sectoral level and it allows for comparisons to be drawn with other sectors. In contrast to the sector-specific approach used in this report, alternative analytical methods for considering the cultural and creative industries can also be used. These notably include looking at the two industries in terms of the cultural and creative occupations or activities involved, or methods that specifically focus on the goods and services provided.

Various other studies on the cultural and creative industries, particularly on their individual submarkets[8], often diverge from the definition used by the Conference of Economic Affairs Ministers, which can lead to differing results in the respective reports compared with those shown in this monitoring report.

The aim of this monitoring report is to present the cultural and creative industries in a way that is as transparent and uniform as possible, and to show how they have developed over time. The data held relating to the past years are therefore constantly rechecked and are updated where necessary. In-house estimates are replaced with actual figures from official statistics as soon as these are available. As the official statistics are often not published straight away, certain data have to be (either fully or partially) estimated – particularly data close to the final period that is covered, i.e. in this case, data for the year 2018. These estimations are made using a prognosis model developed by ZEW. All estimates are labelled as such.

Figure 1.1: The submarkets of the cultural and creative industries



Source: Federal Ministry of Economics and Technology, 2009.

8 For example, the study on the music industry in Germany (Seufert, Schlegel and Sattelberger, 2015), the study on the economic importance of the film industry in Germany (Goldmedia/HMS/DIW Econ, 2017) and the study on the computer and video games market in Germany (Castendyk and Müller-Lietzkowen, 2017) define the respective market considerably more broadly than is the case in the definition established by the Conference of Economic Affairs Ministers.

2 Overview over the Overall Economic Importance of the Cultural and Creative Industries

Most of the economic indicators for the cultural and creative industries in Germany recorded a positive development in 2018. Both the turnover, the number of core workers, i.e. the sum of self-employed persons and of employed persons subject to the payment of social insurance contributions, and gross value added[9] continued to rise from the previous year's level and reached new records. The number of companies in the cultural and creative industries in 2018 stayed at a similar level to that seen the year before, and the number of persons in marginal employment continued the decline seen in the preceding years.

2.1 Key Data on the Cultural and Creative Industries in Germany

Number of companies in Germany's cultural and creative industries maintains preceding year's level

The number of companies in the cultural and creative industries (CCIs) in Germany maintained the previous year's level, at an estimated 256,600 businesses (see Table 2.1).[10] In the long-term perspective, the number of companies in the cultural and creative industries has kept rising since 2009, by more than 18,000 businesses. However, the proportion of all companies in Germany which are part of the CCIs has remained relatively constant, i.e. this indicator shows that the cultural and creative industries have grown at a similar rate to the economy as a whole. In 2018, the CCIs accounted for around 7.8% of all companies in Germany.

Total turnover attains new record at more than €168 billion

Following considerable growth in revenue in 2017 to around €165.2 billion, revenue for 2018 lies at an estimated €168.3 billion – 1.9% above the previous year's level.

The development in turnover in the German CCIs has thus been positive since 2014, and some of the rates of growth have been remarkable. The development in the CCIs' turnover is also impressive in the long-term comparison. Since 2009, turnover has risen by a total of €34 billion, or 25%. In 2018, around 2.6% of turnover in Germany was generated by the CCIs. Like the proportion of CCI companies in the overall economy, this figure is also relatively constant over time.

€100.5 billion: gross value added at record level[11]

Based on the new calculation method established two years ago[12], gross output in the cultural and creative industries in Germany in 2018 amounted to an estimated €100.5 billion. This is a new record and an increase of approximately 2.9% over 2017. In the long-term comparison, gross output has kept rising – by nearly €29 billion from the initial level of €71.8 billion in 2009. This equates to an increase of 40%. The sector currently contributes approximately 3.0% of Germany's GDP.

The number of core workers rises further to nearly 1.2 million

The number of core workers[13] rose by nearly 40,000 in 2017, and 2018 saw another clear increase of more than 35,000. Once again, this rise is largely attributable to an increase in the number of jobs subject to the payment of social insurance contributions. The number of self-employed persons in 2017 remained almost constant.

With a current total of approx. 1.195 million core workers, the CCIs in Germany again provided work for a record number of people in 2018. Compared with 2009, the cultural and creative industries now have more than 25% more core workers.

9 Due to a comprehensive revision of the national accounts system in 2019, the current figures for value added by the creative industries are lower for all years than they were in last year's monitoring report.

10 The estimates in the 2017 report have been replaced in this report by the actual figures for 2017. Deviations may therefore occur between the figures for 2017 in the current report compared to the previous year's report.

11 See footnote 9.

12 See Section 2.2 for an explanation of the new calculation method for gross value added.

13 The core workers are taxable entrepreneurs with an annual income of at least €17,500 and employees subject to social insurance contributions.

The number of employees subject to the payment of social insurance contributions rose to 938,400 in 2018. This means that more than 223,000 new jobs subject to the payment of social insurance contributions have been added to the sector since 2009, more than 100,000 of these being created just from 2016 to 2018. It is also remarkable to note that the proportion of jobs subject to the payment of social insurance contributions created in the CCIs has been rising more strongly than in the rest of the economy.

Only just over half a million people in marginal employment and marginal self-employment

Whilst the number of people in marginal employment and marginal self-employment in the cultural and creative industries rose by roughly 199,000 people, or around, 2.2%, in 2018, the number of people in marginal employment dropped by 2.6% year-on-year to just under 302,000. In total, this means that only roughly half a million people were in marginal employment in the cultural and creative industries in 2018. From the peak level seen in 2011, this form of employment in the cultural and creative industries has become less and less significant. Whilst in 2009, the CCIs still accounted for some 6.8% of all marginally employed and marginally self-employed persons, today its share is just 4.2%.

Total number of persons working in the CCI sector also shows significant rise

Thanks to the strong rise in the number of core workers, which is largely accounted for by the rise in the number of jobs subject to the payment of social insurance contributions, the overall number of persons working in the CCIs – comprising the sum of both core workers and marginally employed persons – rose significantly, going up to nearly 1.7 million. In comparison to 2017, this represents an increase of around 1.9%.

Average of €140,800 turnover and €84,000 gross value added per core worker

Structurally, the cultural and creative industries are traditionally dominated by a large number of small and micro enterprises. On average, CCI companies only employed 4.7 core workers in 2018. The figure across the economy is much higher, at 11 core workers per company. Viewing the CCIs in Germany as a whole, each core worker in the sector generates a turnover of €140,800 and contributes €84,000 to gross added value. This means that the sector continued to fail significantly to achieve the average figure of €179,500 per core worker achieved across the economy in 2018, but its per-capita figure is slightly higher than that of the economy as a whole. The two figures reflect the fact that the CCIs make less use of upstream inputs and require greater labour input than is the case for the overall economy. The percentage of core workers in the cultural and creative industries currently lies at around 21.5%.

Current status of the key economic data for the cultural and creative industries in Germany

In addition to the detailed overview of the key indicators for the cultural and creative industries in Germany as a whole and over time presented in Table 2.1, Table 2.2 provides an overview of the current status of the key indicators in 2018, broken down into submarkets. The submarkets with the highest and lowest percentages for each indicator are marked in green and red respectively.

Whilst the art market is among the smallest submarkets within the CCIs in all the indicators, the software and games industry and the advertising market represent the highest percentages for almost all indicators.

Table 2.1: Key data on the cultural and creative industries in Germany 2009 – 2018*

Category	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018*	Change 2017/2018
No. of companies (in thousands)[1a]											
Cultural and creative industries (CCIs)	238.5	239.5	244.3	245.8	246.4	247.0	250.4	254.5	256.6	256.6	0.01%
Contribution of CCIs to overall economy	7.61 %	7.57 %	7.60 %	7.56 %	7.60 %	7.62 %	7.69 %	7.79%	7.85%	7.80%	
Turnover (in € billion)											
Cultural and creative industries (CCIs)	134.3	137.3	141.0	143.3	143.2	146.9	152.1	158.8	165.2	168.3	1.87%
Contribution of CCIs to overall economy	2.74%	2.62%	2.48%	2.49%	2.48%	2.50%	2.54%	2.61%	2.60%	2.59%	
Employment											
Core workers (in thousands)[2a]											
Cultural and creative industries (CCIs)	953.1	952.5	976.8	1.011.7	1.037.3	1.056.0	1.084.9	1.120.1	1.159.6	1.195.0	3.05%
Contribution of CCIs to overall economy	3.10%	3.06%	3.07%	3.11%	3.16%	3.16%	3.19%	3.23%	3.27%	3.30%	
Employees subject to the payment of social security contributions (in thousands)[3a]											
Cultural and creative industries (CCIs)	714.6	713.0	732.5	765.9	790.9	809.1	834.5	865.6	903.0	938.4	3.92%
Contribution of CCIs to overall economy	2.59%	2.55%	2.56%	2.62%	2.67%	2.68%	2.71%	2.75%	2.81%	2.85%	
No. of self-employed persons (in thousands)[4a]											
Cultural and creative industries (CCIs)	238.5	239.5	244.3	245.8	246.4	247.0	250.4	254.5	256.6	256.6	0.01%
Contribution of CCIs to overall economy	7.61%	7.57%	7.60%	7.56%	7.60%	7.62%	7.69%	7.79%	7.85%	7.80%	
No. of persons in marginal employment (in thousands)[5a]											
Cultural and creative industries (CCIs)	574.2	593.4	593.6	586.8	556.1	561.3	519.3	520.0	504.8	500.9	-0.77%
Contribution of CCIs to overall economy	6.80%	6.95%	6.80%	6.78%	6.38%	6.44%	4.38%	4.37%	4.24%	4.18%	
No. of marginally self-employed persons (in thousands)[6a]											
Cultural and creative industries (CCIs)	197.1	214.0	224.8	221.9	203.3	211.1	211.2	209.5	194.7	199.0	2.19%
Contribution of CCIs to overall economy	18.26%	19.57%	18.90%	20.84%	20.42%	22.17%	23.34%	23.93%	23.51%	24.67%	
No. of marginally employed persons (in thousands)[7a]											
Cultural and creative industries (CCIs)	377.1	379.3	368.8	365.0	352.8	350.2	308.1	310.5	310.1	301.9	-2.63%
Contribution of CCIs to overall economy	5.12%	5.09%	4.89%	4.81%	4.57%	4.48%	4.00%	4.00%	3.97%	3.83%	
Total no. of workers (in thousands)[8a]											
Cultural and creative industries (CCIs)	1,527.3	1,545.9	1,570.4	1,598.6	1,593.4	1,617.3	1,604.2	1,640.0	1,664.4	1,695.9	1.89%
Contribution of CCIs to overall economy	3.90%	3.90%	3.87%	3.88%	3.83%	3.84%	3.50%	3.52%	3.52%	3.52%	
Gross value added (in € billion)[9a]											
Cultural and creative industries (CCIs)	71.8	75.2	79.8	83.4	88.1	89.9	92.2	97.1	97.7	100.5	2.86%
CCIs' share of GDP	2.94%	2.93%	2.96%	3.04%	3.13%	3.07%	3.04%	3.10%	3.01%	3.00%	
Gross domestic product (GDP, nominal)	2,445.7	2,564.4	2,693.6	2,745.3	2,811.4	2,927.4	3,030.1	3,134.1	3,245.0	3,344.4	3.06%
Additional key indicators of the cultural and creative industries											
Turnover per company (in € thousand)	563.3	573.3	577.1	583.1	581.1	594.8	607.2	624.1	643.8	655.8	1.86%
Turnover per worker subject to social insurance (in € thousand)	188.0	192.6	192.5	187.1	181.0	181.6	182.2	183.5	182.9	179.3	-1.97%

1a Taxable entrepreneurs with annual income of at least €17,500.

2a Core workers consist of taxable entrepreneurs with an annual income of at least €17,500 and employees subject to social insurance contributions.

3a Employees subject to the payment of social insurance contributions in full and part time employment, but not people in marginal employment.

4a Number of self-employed people corresponds to the number of taxable entrepreneurs with an annual income of at least €17,500.

5a People in marginal employment and marginal self-employment

6a Marginal self-employment includes freelancers and self-employed persons with less than €17,500 annual income based on the micro-census.

7a People in marginal employment (marginal low-paid and temporary employment) based on employment statistics from the Federal Employment Agency (deadline used in each case 30 June).

8a Total number of workers includes all self-employed and employed persons including people in marginal employment and marginal self-employment.

9a Gross value added based on reports of the national accounts, calculated on basis of breakdown of sales in VAT statistics.

→

Table 2.1: Key data on the cultural and creative industries in Germany 2009 – 2018*

Category	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018*	Change 2017/2018
Turnover per core worker (in € thousand)	140.9	144.2	144.3	141.7	138.0	139.1	140.2	141.8	142.4	140.8	-1.15%
Employees subject to the payment of social insurance contributions per company	3.00	2.98	3.00	3.12	3.21	3.28	3.33	3.40	3.52	3.66	3.91%
No. of core workers per company	4.00	3.98	4.00	4.12	4.21	4.28	4.33	4.40	4.52	4.66	3.04%
Gross value added per core worker (in € thousand)	75.4	79.0	81.7	82.4	84.9	85.1	84.9	86.7	84.2	84.1	-0.18%
Proportion of core workers who are self-employed	25.02%	25.15%	25.01%	24.30%	23.75%	23.39%	23.08%	22.72%	22.13%	21.47%	-2.95%

*Data for 2018 based partly on in-house estimates and preliminary official figures. Estimates partly based on development rates of previous years. Discrepancies from figures in previous reports due to revisions of data in the underlying statistics.

Source: Destatis 2019a,b,c; Federal Employment Agency 2019; in-house calculations by ZEW.

Table 2.2: Key economic data for the cultural and creative industries in 2018 by submarket

	Number of companies*	Turnover* (€ million)	Gross value creation* (€ million)	Core workers*	Employees subject to the payment of social insurance contributions	Marginal employees	Mini self-employed persons*
Cultural and creative industries (CCIs)	**256,624**	**168,282**	**100,475**	**1,195,035**	**938,411**	**301,894**	**339,609**
Overall economy	*3,288,647*	*6,491,332*	*3,012,310*	*36,158,875*	*32,870,228*	*7,878,276*	*3,190,617*
Ratio of CCIs to overall economy	*7.80 %*	*2.59 %*	*3.34 %*	*3.30 %*	*2.85 %*	*3.83 %*	*10.64 %*
Breakdown by market segment, absolute and percentage							
1. Music industry	14,382 **4.65 %**	8,668 4.61 %	5,804 5.21 %	53,502 4.03 %	39,120 3.84 %	15,415 4.24 %	23,096 **5.39 %**
2. Book market	17,411 5.63 %	13,488 7.17 %	5,322 **4.78 %**	68,991 5.19 %	51,580 5.06 %	15,804 4.35 %	31,400 7.32 %
3. Art market	12,419 **4.02 %**	2,177 **1.16 %**	1,300 **1.17 %**	17,696 **1.33 %**	5,276 **0.52 %**	3,763 **1.04 %**	27,298 6.37 %
4. Film industry	19,199 6.21 %	9,823 5.22 %	7,295 6.55 %	61,136 4.60 %	41,937 4.11 %	21,896 6.02 %	45,880 10.70 %
5. Broadcasting industry	17,808 5.76 %	10,363 5.51 %	7,697 6.91 %	42,761 **3.22 %**	24,954 **2.45 %**	1,644 **0.45 %**	28,627 6.67 %
6. Performing arts market	20,132 6.52 %	5,469 **2.91 %**	7,475 6.71 %	46,192 3.48 %	26,060 2.56 %	20,741 5.71 %	49,828 **11.62 %**
7. Design industry	60,822 **19.68 %**	20,533 10.91 %	10,508 9.43 %	153,066 **11.52 %**	92,244 9.04 %	58,512 **16.10 %**	74,972 **17.48 %**
8. Architecture market	39,285 **12.71 %**	11,874 6.31 %	7,463 6.70 %	132,593 9.98 %	93,308 9.15 %	19,483 5.36 %	26,737 **6.23 %**
9. Press market	31,197 10.10 %	28,976 **15.40 %**	12,488 **11.21 %**	143,470 10.80 %	112,273 **11.01 %**	78,005 **21.46 %**	35,267 8.22 %
10. Advertising market	27,727 8.97 %	30,337 **16.12 %**	12,150 **10.91 %**	154,700 **11.64 %**	126,973 **12.45 %**	98,142 **27.00 %**	26,751 6.24 %
11. Software and games industry	40,363 **13.06 %**	45,025 **23.92 %**	32,692 **29.35 %**	439,276 **33.06 %**	398,913 **39.11 %**	28,507 7.84 %	47,033 **10.97 %**
12. Other	8,250 **2.67 %**	1,460 **0.78 %**	1,184 **1.06 %**	15,498 **1.17 %**	7,248 **0.71 %**	1,614 **0.44 %**	11,982 **2.79 %**
Cultural and creative industries (including double counts)	**308,994**	**188,195**	**111,376**	**1,328,881**	**1,019,887**	**363,525**	**428,871**

*Data based partly on estimates. Figures are percentages of the cultural and creative industries as a whole, including double counts. Values marked in green are three highest figures per indicator; values marked in red are the three lowest figures per indicator.

Source: Destatis 2019a,b,c; Federal Employment Agency 2019; in-house calculations by ZEW.

2.2 Contribution of the Cultural and Creative Industries towards Value added[14]

New calculation of gross value added in the cultural and creative industries

The original computation of the gross value added by the German cultural and creative industries, i.e. the value added in the course of the production process, was replaced by a more comprehensive approach in the 2017 Monitoring Report.

Until then, the calculation of value added was based on a rough aggregation of the cultural and creative industries, as defined by economic sectors 58 (publishing), 59 – 60 (audiovisual media and broadcasting), 73 (advertising and market research) and 90 – 92 (art and culture, games of chance) according to the 2008 classification of economic sectors. This made it possible to take the figures for value added directly from the national accounts tables of the Federal Statistical Office. The disadvantage of this definition was however that many companies which are generally regarded as being part of the cultural and creative industries in Germany and which are included in the definition of the cultural and creative industries used elsewhere in this report are not included in the calculation of gross value added since they did not fall within the definition used for this very rough aggregation. On the other hand, the definition included some companies which are not part of the cultural and creative industries.[15]

The new calculation method used for the first time in the 2017 Monitoring Report is based on the customary definition of the submarkets. This means that, for the first time, information about value added in the submarkets was provided, and the figures for gross value added have been able to be compared with the other indicators (e.g. sales, number of companies, core workers) in the cultural and creative industries since this change.

The new calculation method is based on the gross value added figures contained in the national accounts. Since these figures are only available in rather aggregated form (mainly at sectoral level), a weighting of the figures is undertaken on the basis of the breakdown of turnover according to the VAT statistics, in order to assign individual value added figures to the various branches of the cultural and creative industries. The figures for the comparative sectors, such as mechanical engineering, were also taken from the national accounts. These figures did not need to be weighted on the basis of VAT statistics as they are homogeneous sectors whose gross value added figures are directly available in the national accounts.

The new calculation method for the cultural and creative industries provides a more comprehensive and precise picture of gross value added. In particular, due to the fact that far more companies from the cultural and creative industries are now included in the value added figures (e.g. in the past, the software and games submarket was largely disregarded), the gross value added figures recorded since the last reporting year (for the reference year and the preceding years) are much higher than the figures in previous reports.[16] It should be noted that the high gross value added figures reported for the software and games industry are mainly attributable to the software industry.

Gross value added reaches new record figure of €100.5 billion in 2018

Gross value added reflects the value created in the production or service provision process and derives from the total value of the goods and services produced, minus the value of the upstream input.

Following a clear rise in 2016, gross value added in the cultural and creative industries only saw a moderate increase of just under €600 million in 2017. 2018, on the other hand, saw another clear jump upwards. With an estimated increase of nearly €2.8 billion, or 2.9% in year-on-year terms, gross value added in the cultural and creative industries exceeded €100 billion for the first time. Since the redefinition of the cultural and creative industries due to the changes to the definitions of economic sectors, this was the ninth consecutive year that gross value added in the CCIs has risen. Since 2009, gross demographic product in the cultural and creative industries has risen by almost €28.6 billion (2009: €71.8 billion).

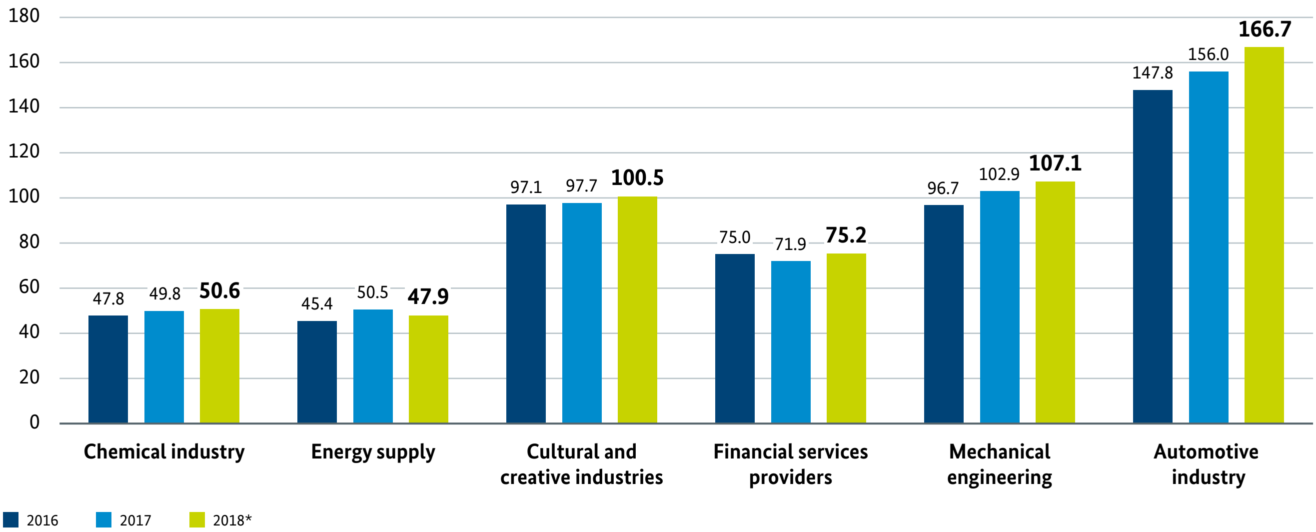
At €100.5 billion, gross value added in the CCIs continues to be at around the same level as that in machinery and equipment manufacturing (see Figure 2.1). The CCIs are

14 Due to a comprehensive revision of the national accounts system in 2019, the current figures for value added by the creative industries are lower for all years than they were in last year's monitoring report. Generally, the revision has meant that nominal gross domestic product is slightly lower on average.

15 According to the VAT statistics for 2015, roughly half (approx. 125,000) of the companies in the cultural and creative sector did not feature in the previous calculations. The figures also include nearly 11,000 companies in the fields of market research and opinion polling, and also gambling and lotteries, which are not really defined as CCI companies.

16 Other methodological notes about the calculation of gross value added can be found in the annex to the unabridged version of this report.

Figure 2.1: Contribution of the cultural and creative industries to gross value added compared with other sectors 2016 – 2018* (in € bn)

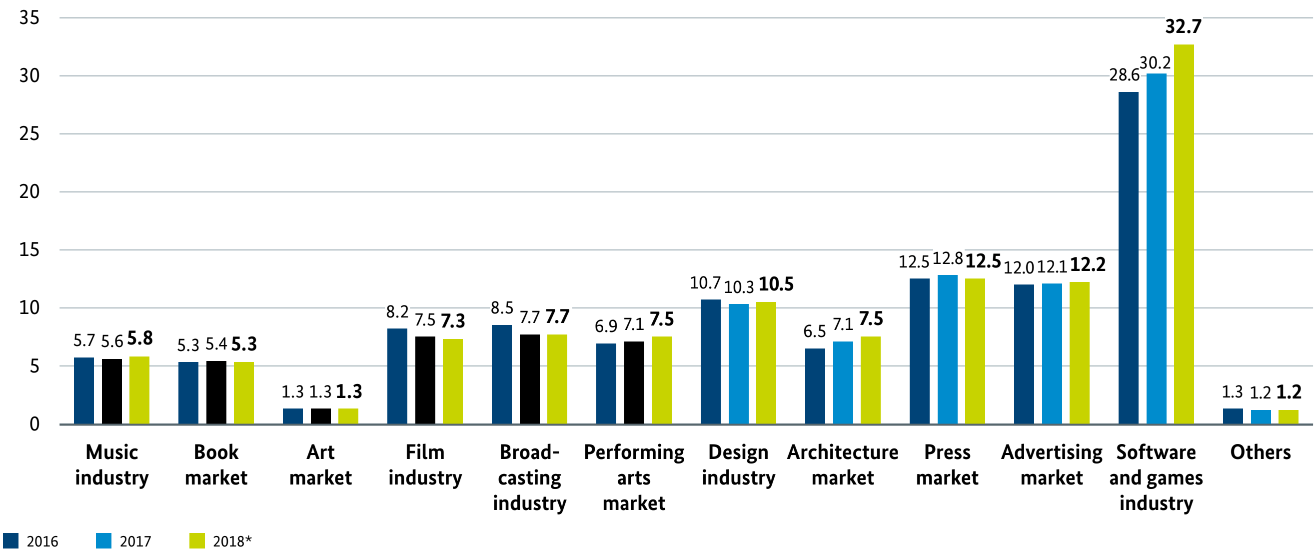


Aid to interpretation: Gross value added in the cultural and creative industries amounted to €100.5 billion in 2018. Lower than in the mechanical engineering and vehicle construction, but higher than in the chemical and energy supply industries and financial services.

*Some figures estimated. Gross value added based on national accounts figures, calculated for the CCIs on basis of breakdown of sales in VAT statistics.

Source: VAT statistics, Destatis, 2019b; national accounts, Destatis, 2019c; in-house calculations by ZEW.

Figure 2.2: Contribution of the CCI submarkets towards gross value added of CCIs 2016-2018* (in € billion)



Aid to interpretation: In 2018, gross value added in the music industry amounted to €10.5 billion and to €5.8 billion in the design industry.

*Figures estimated.

Source: VAT statistics, Destatis, 2019b; national accounts, Destatis, 2019c; in-house calculations by ZEW.

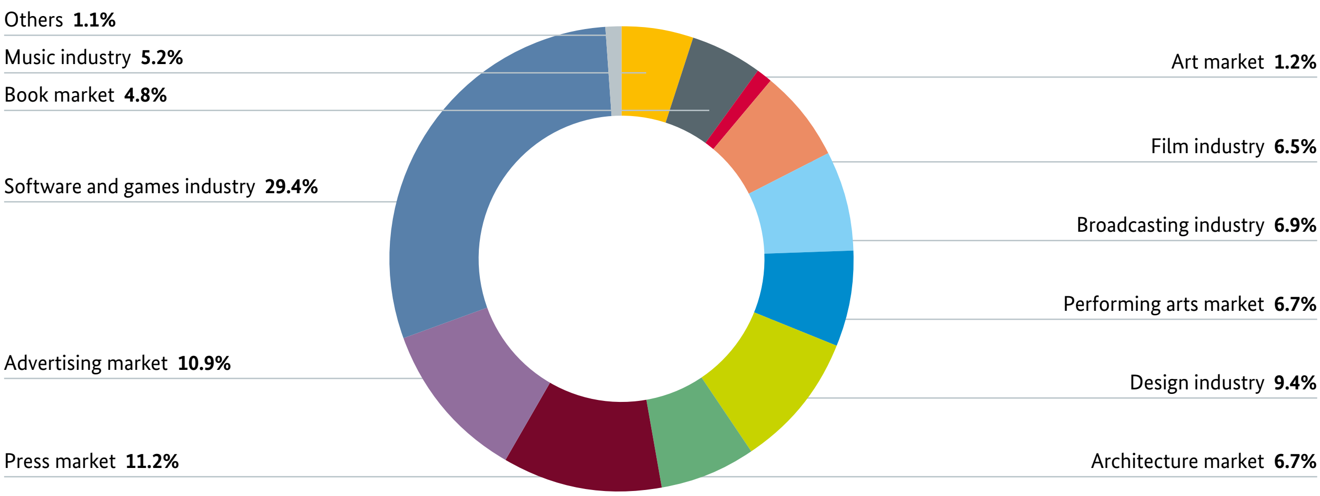
clearly ahead of other important sectors in Germany, such as the chemical industry, energy supply and financial services, in terms of value added. Only the vehicle construction sector (automotive industry and other vehicle construction) is a considerable distance ahead.

Figure 2.2 shows the development of gross value added in the various CCI submarkets (cf. also Table 6.7 in the annex). Whilst eight of the twelve submarkets registered a positive year-on-year development, gross value added declined in four submarkets. The submarkets with a negative year-on-year development were the art market (-3.1%), the press market (-2.5%), the film industry (-2.1%) and the book market (-1.6%). The development in output was particularly positive in the architecture market (+4.6%), the performing arts market (+5.1%) and the software and games industry (+8.1%).

When it comes to the CCIs, the software and games industry continues to be of key importance. This is true both for the overall output of the cultural and creative industries in Germany, and for the growth in output. In 2018, more than 29% of gross value added in the CCIs was generated by the games industry (see Figure 2.3). Expressed in absolute figures, output in the software and games industry currently stands at €32.7 billion.

All of the other submarkets generate (much) less than half of the value created by the software and games industry, even though the press market, the advertising market and the design industry currently generate output of more than €10 billion. At €1.3 billion, the art market, along with “others”, generated the least value of all the CCI submarkets in 2018.

Figure 2.3: Share of individual submarkets in total value added in the cultural and creative industries in 2018* (in %)



Aid to interpretation: The design industry submarket generated 9.4% of gross value added in the CCIs in Germany in 2018.

*Figures estimated. These calculations are based on gross value added in the cultural and creative industries including double counts. Altogether, these figures add up to produce a total of 100%.

Source: VAT statistics, Destatis, 2019b; national accounts, Destatis, 2019c; in-house calculations by ZEW.

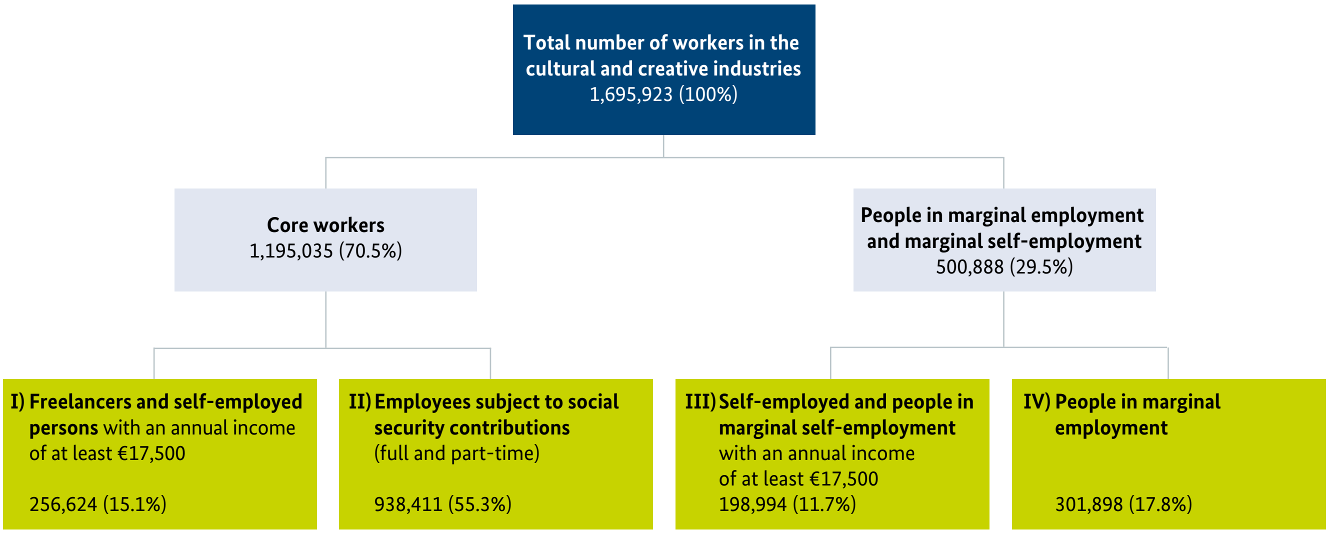
2.3 Employment in the Cultural and Creative Industries

Total workforce close to 1.7 million

The number of workers in the cultural and creative industries rose to nearly 1.7 million last year, posting a new post-2009 record (see Figure 2.4 and Table 2.3). The important statistic of the number of core workers, consisting of employees subject to the payment of social insurance contributions and the self-employed, also rose significantly and accounts for 70.5% of total employment in the CCIs. The increase in the number of core workers is mainly attributable to a rising number of jobs subject to the payment of social insurance contributions and only fractionally to an increase in the number of self-employed persons. In contrast to the number of core workers in the CCIs, the number of persons in marginal employment declined and currently only accounts for around 29.5% of the total number of workers.

In 2018, a total of 1,195,035 people were in (core) employment as freelancers and self-employed individuals or as dependent employees. In addition, at a total of 500,888, the number of persons in marginal jobs (self-employed and marginally self-employed with an annual turnover of less than €17,500, and marginally employed) in these industries is comparatively high compared to other sectors and the overall economy. In particular, the number of marginally self-employed in the cultural and creative industries is extremely high and comprises almost one-fourth (24.7%) of this group in the entire economy. This brings the total number of people working in the cultural and creative industries in 2018 to 1,695,923. Table 2.3 and Figure 2.5 provide a clear picture of the development of the numbers of workers in the cultural and creative industries in recent years.

Figure 2.4: Structure of employment in the cultural and creative industries in 2018*



Aid to interpretation: The total number of workers in the cultural and creative industries stood at 1,695,923 in 2018, and 70.5% or 1,195,035 of these are core workers.

*Some figures estimated. Any discrepancies due to rounding. Percentages as proportion of total number of workers.

Source: Destatis, 2019a, Federal Employment Agency 2019; in-house calculations by ZEW.

Table 2.3: Structure and development of all workers in the cultural and creative industries 2009 – 2018*

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018*
I) Freelancers and self-employed persons[1b]	238,479 15.6%	239,534 15.5%	244,290 15.6%	245,816 15.4%	246,353 15.5%	246,967 15.3%	250,439 15.6%	254,484 15.5%	256,600 15.4%	256,624 15.1%
II) Employees subject to the payment of social insurance contributions[2b]	714,629 46.8%	712,986 46.1%	732,483 46.6%	765,913 47.9%	790,915 49.6%	809,071 50.0%	834,488 52.0%	865,597 52.8%	903,026 54.3%	938,411 55.3%
Core workers (I + II)	**953,108** **62.4%**	**952,520** **61.6%**	**976,772** **62.2%**	**1,011,729** **63.3%**	**1,037,268** **65.1%**	**1,056,038** **65.3%**	**1,084,927** **67.6%**	**1,120,080** **68.3%**	**1,159,626** **69.7%**	**1,195,035** **70.5%**
III) People in marginal self-employment[3b]	197,081 12.9%	214,042 13.8%	224,790 14.3%	221,883 13.9%	203,305 12.8%	211,145 13.1%	211,236 13.2%	209,467 12.8%	194,732 11.7%	198,994 11.7%
IV) People in marginal dependent employment[4b]	377,070 24.7%	379,328 24.5%	368,803 23.5%	364,956 22.8%	352,819 22.1%	350,158 21.7%	308,051 19.2%	310,499 18.9%	310,051 18.6%	301,894 17.8%
People in marginal employment and marginal self-employment (III + IV)	**574,150** 37.6%	**593,370** 38.4%	**593,593** 37.8%	**586,840** 36.7%	**556,124** 34.9%	**561,303** 34.7%	**519,287** 32.4%	**519,966** 31.7%	**504,783** 30.3%	**500,888** 29.5%
Total number of workers (I + II + III + IV)	**1,527,258** 100.0%	**1,545,890** 100.0%	**1,570,366** 100.0%	**1,598,569** 100.0%	**1,593,392** 100.0%	**1,617,341** 100.0%	**1,604,213** 100.0%	**1,640,047** 100.0%	**1,664,409** 100.0%	**1,695,923** 100.0%

*Data for 2018 based partly on in-house estimates and preliminary official figures. Discrepancies from figures in previous reports due to revisions of data in the underlying statistics.

1b Taxable entrepreneurs with annual income of at least €17,500.

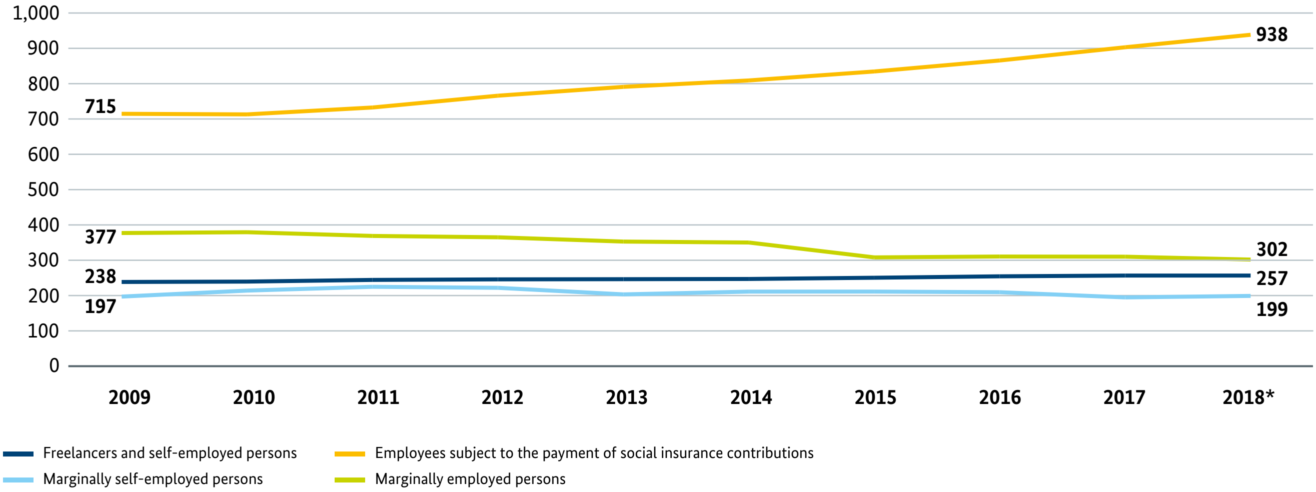
2b Employees subject to the payment of social insurance contributions in full and part time employment, but not people in marginal employment.

3b Marginal self-employment includes freelancers and self-employed persons with less than €17,500 annual income based on the microcensus.

4b People in marginal employment (marginal low-paid and temporary employment) based on employment statistics from the Federal Employment Agency (deadline used in each case 30 June).

Source: Microcensus, Destatis, 2019a; VAT statistics, Destatis, 2019b, employment statistics, Federal Employment Agency 2019; in-house calculations by ZEW

Figure 2.5: Structure and development of total labour force in the cultural and creative industries 2009 – 2018*
(in thousands)



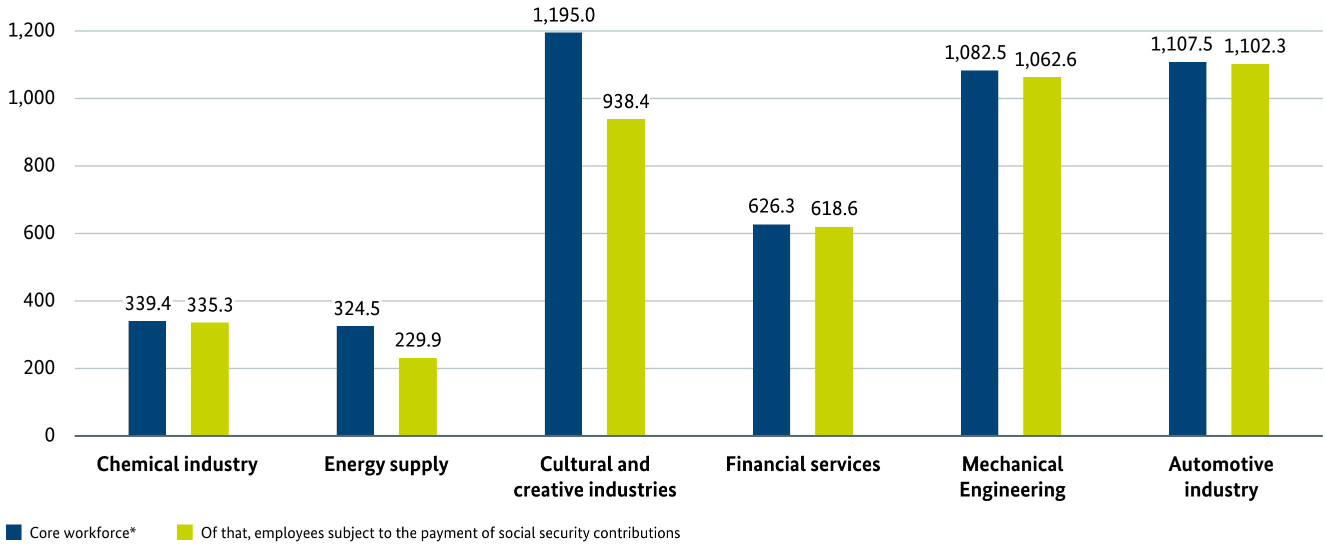
Aid to interpretation: The number of employees in the cultural and creative industries subject to the payment of social insurance contributions rose from 715,000 in 2009 to 938,000 in 2018.

*Some data for 2018 estimated.

Source: VAT statistics, Destatis, 2019b, employment statistics, Federal Employment Agency 2019; in-house calculations by ZEW.

The cultural and creative industries again had more core workers in 2018 than any comparable sector. Machinery and equipment manufacturing and vehicle construction (automotive industry and other vehicle construction) came closest to it (see Figure 2.6). It is also apparent that in all comparable sectors – with the exception of energy supply[17] – the percentage of self-employed persons is significantly lower than in the cultural and creative industries.

Figure 2.6: Comparison of core workers (self-employed persons and employees subject to the payment of social insurance contributions) across different sectors in 2018* (in thousands)



Aid to interpretation: 1,195,000 core workers were working in the cultural and creative industries in 2018. Of these, 938,400 were in jobs subject to social insurance contributions.

*Some figures estimated. The number of self-employed people corresponds to the number of taxable entrepreneurs with an annual income of at least €17,500.

Source: VAT statistics, Destatis, 2019b, employment statistics, Federal Employment Agency 2019; in-house calculations by ZEW.

2.4 Mini-Self-Employment in the Cultural and Creative Industries

The term “mini-self-employment” or “solo self-employment” basically means people who work in self-employment on their own, i.e. with no dependent employees. In this report, mini-self-employment is used to describe the work of entrepreneurs with an annual income of less than €17,500. The only difference between self-employed persons with mini-jobs and micro-enterprises is the income limit of €17,500 per annum for the former. Other criteria such as the company’s legal form or qualitative classifications, such as marginal, part-time or full-time self-employment, do not – as a general rule – make any difference.[18]

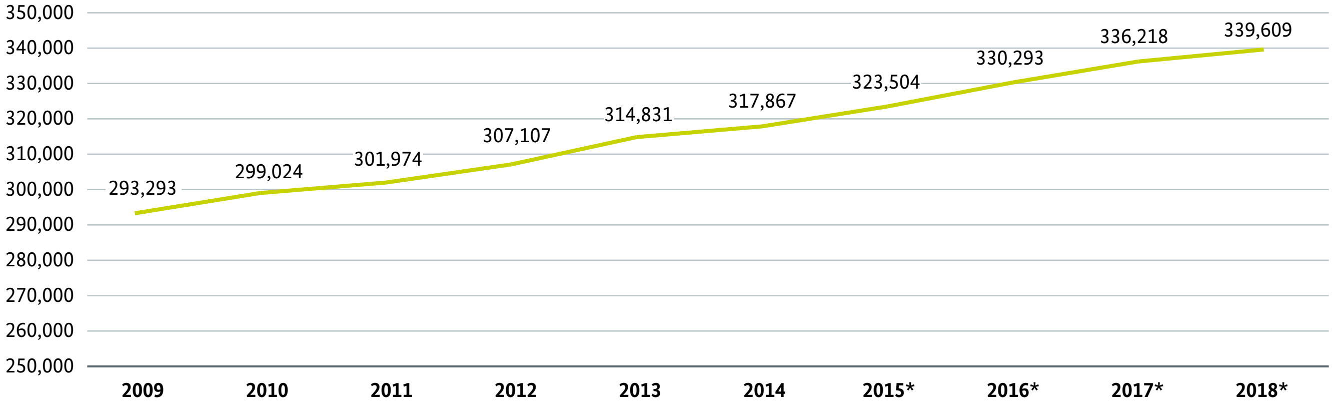
Under the conventional classifications used for measuring employment in the CCIs, not all of these mini-self-employed persons are taken account of in the category of marginal self-employment. Given that this group of workers makes up such an important part of the cultural and creative industries, it therefore makes sense to measure it independently.

In 2018, it is estimated that there were nearly 340,000 mini-self-employed persons in Germany’s cultural and creative industries. This represents an increase of around 1% over 2017. In general terms, it can be said that the number of mini-self-employed persons is continuing to rise. Whilst only around 293,000 mini-self-employed persons were active in the cultural and creative industries in 2009, this figure has since risen by more than 46,000 mini-self-employed persons.

17 This is likely due to the high number of self-employed persons in the field of renewable energy.

18 See Working Group on the Cultural and Creative Industries in the Conference of Economic Affairs Ministers, Überarbeitung des Leitfadens zur Erfassung von statistischen Daten für die Kultur- und Kreativwirtschaft (Revision of the Guidelines on the Collection of Statistical Data for the Cultural and Creative Industries), 2016 edition, 20 July 2016.

Figure 2.7: Development of the number of self-employed persons with mini-jobs in the cultural and creative industries 2009 – 2018*



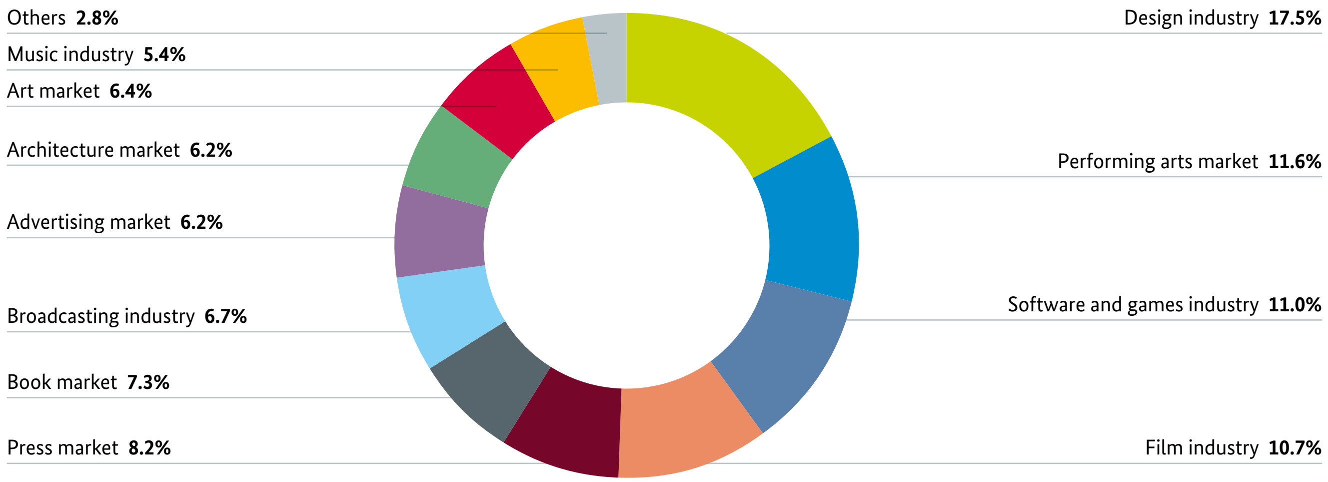
*Data based on estimates.

Source: VAT statistics, Destatis 2019b; in-house calculations by ZEW.

At 17.5%, the design industry accounted for the largest number of self-employed persons with mini-jobs in the cultural and creative industries (see Figure 2.8). A further 11.6% are in performing arts, and 11.0% fall under the software and games industry. At 5.4%, the music industry accounted for the lowest number of self-employed persons with mini-jobs in the cultural and creative industries. Further figures for mini-self-employment can be found in Table 6.6 and Table 6.11 in the Annex, where they are broken down by submarket and individual branch of the economy.

Among the different submarkets, the software and games industry experienced the highest growth in self-employed persons with mini-jobs between 2009 and 2018 (at +47.6%, not shown), closely followed by the performing arts market (+46.2%) and the design industry (+32.7%). The number of persons in mini-self-employment in the advertising market (-29.3% between 2009 and 2018) and the architecture market (-10.9%) is declining greatly over time.

Figure 2.8: Share of persons in mini-self-employment in in the individual submarkets of the cultural and creative industries in 2018* (in %)



Aid to interpretation: At 17.5%, the design industry accounted for the most self-employed persons with mini-jobs in the cultural and creative industries. Just 5.4% of self-employed persons with mini-jobs come from the music industry.

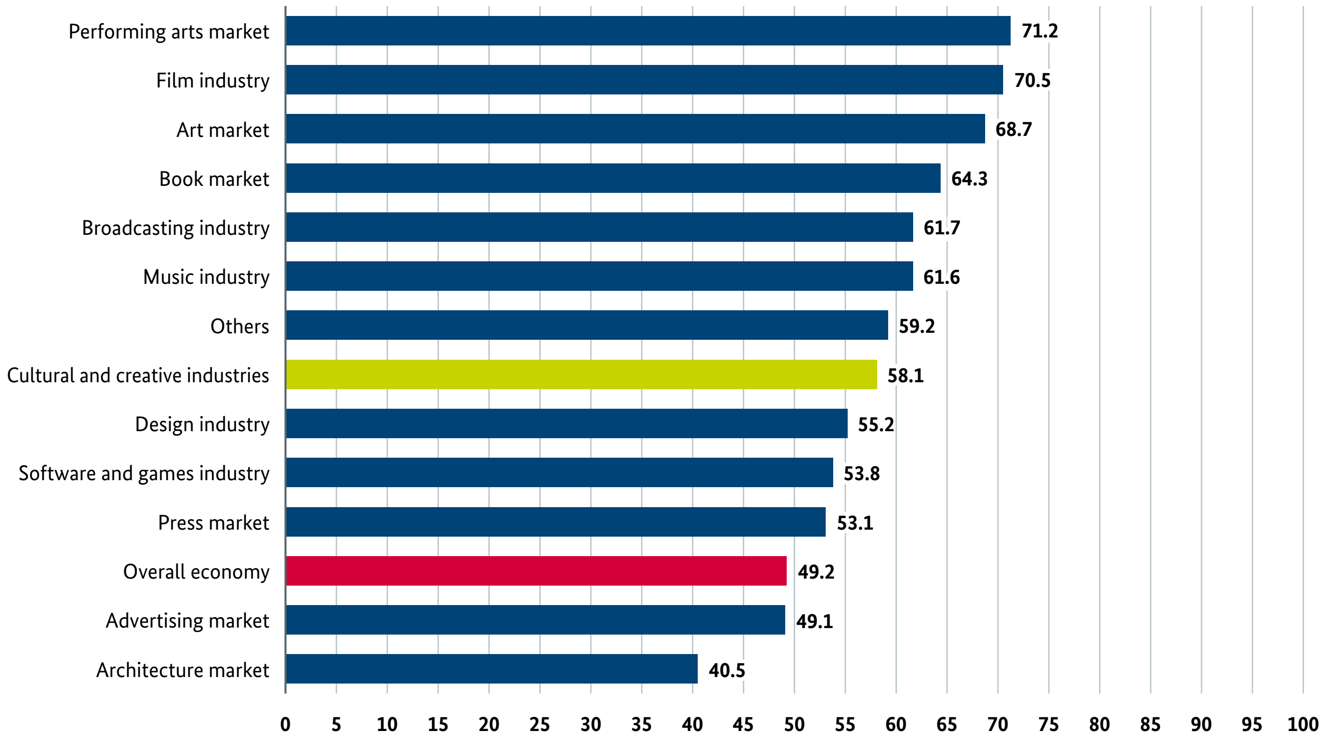
*Data based on estimates. Figures are percentages of the cultural and creative industries as a whole, including double counts. Discrepancies possible due to rounding.

Source: VAT statistics, Destatis 2019b; in-house calculations by ZEW.

Looking at the figures for all self-employed persons together (regular self-employed persons and self-employed persons with mini-jobs), the CCIs account for 58.1% of self-employed persons with mini-jobs (cf. Figure 2.9). Seven individual submarkets have higher proportions than the average for the cultural and creative industries as a whole, with the performing arts representing the largest of these at 71.2%.

Across the economy as a whole, there are slightly more regular self-employed persons than self-employed persons with mini-jobs, at 49.2% in 2018. In all of the CCI submarkets (excluding the architecture market and the advertising market at 40.5% and 49.1% respectively), the percentage of self-employed persons with mini-jobs is above the average for the economy as a whole.

Figure 2.9: Percentage of self-employed persons with mini-jobs among all self-employed persons in 2018* (in per cent)



Aid to interpretation: Looking at the figures for all self-employed persons together (regular self-employed persons and self-employed persons with mini-jobs), the CCIs account for 58.1% of self-employed persons with mini-jobs. Among all CCI submarkets, the percentage of self-employed persons with mini-jobs is the highest for the performing arts, at 71.2%.

*Data based on estimates. The number of regular self-employed persons corresponds to the number of taxable entrepreneurs with an annual income of at least €17,500.

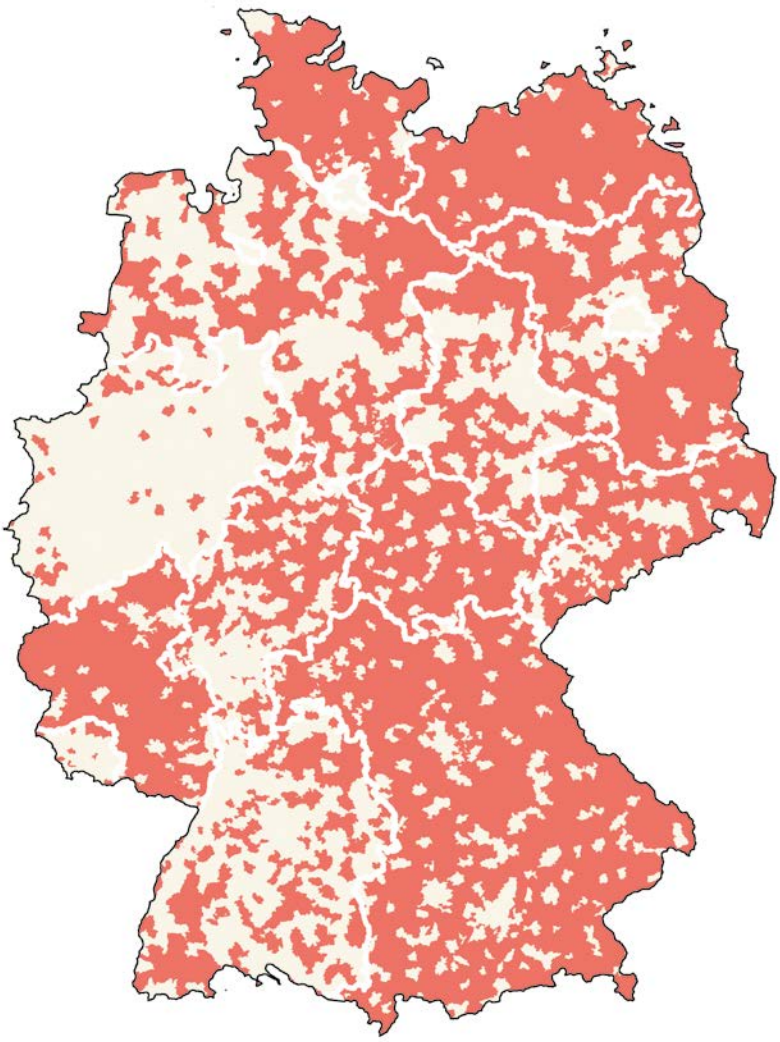
Source: VAT statistics, Destatis 2019b; in-house calculations by ZEW.

3 Cultural and Creative Industries in Rural Areas

What role is played by the cultural and creative industries in rural areas? This question is the focal topic of this year's Monitoring Report. Various analyses have been undertaken, and their findings are presented on the following pages.[19]

The following regional differentiation of the cultural and creative industries in Germany is based on the spatial definitions of urban areas and types of municipalities of the Federal Institute for Research on Building, Urban Affairs and Spatial Development (BBSR). Individual municipalities and associations of municipalities are categorised as large city, medium-sized city, large town, small town and rural municipality. The two-pronged definition of urban/rural used here is based on the categorisation of rural municipalities and small towns as rural areas, and the three other groups as urban areas (see Figure 3.1).

Figure 3.1: Definition of urban and rural areas in Germany by type of municipality (BBSR definition) in 2017



Note: Rural areas are highlighted in orange. Large city, medium-sized city and large town are urban regions, small town and rural municipality are rural regions.

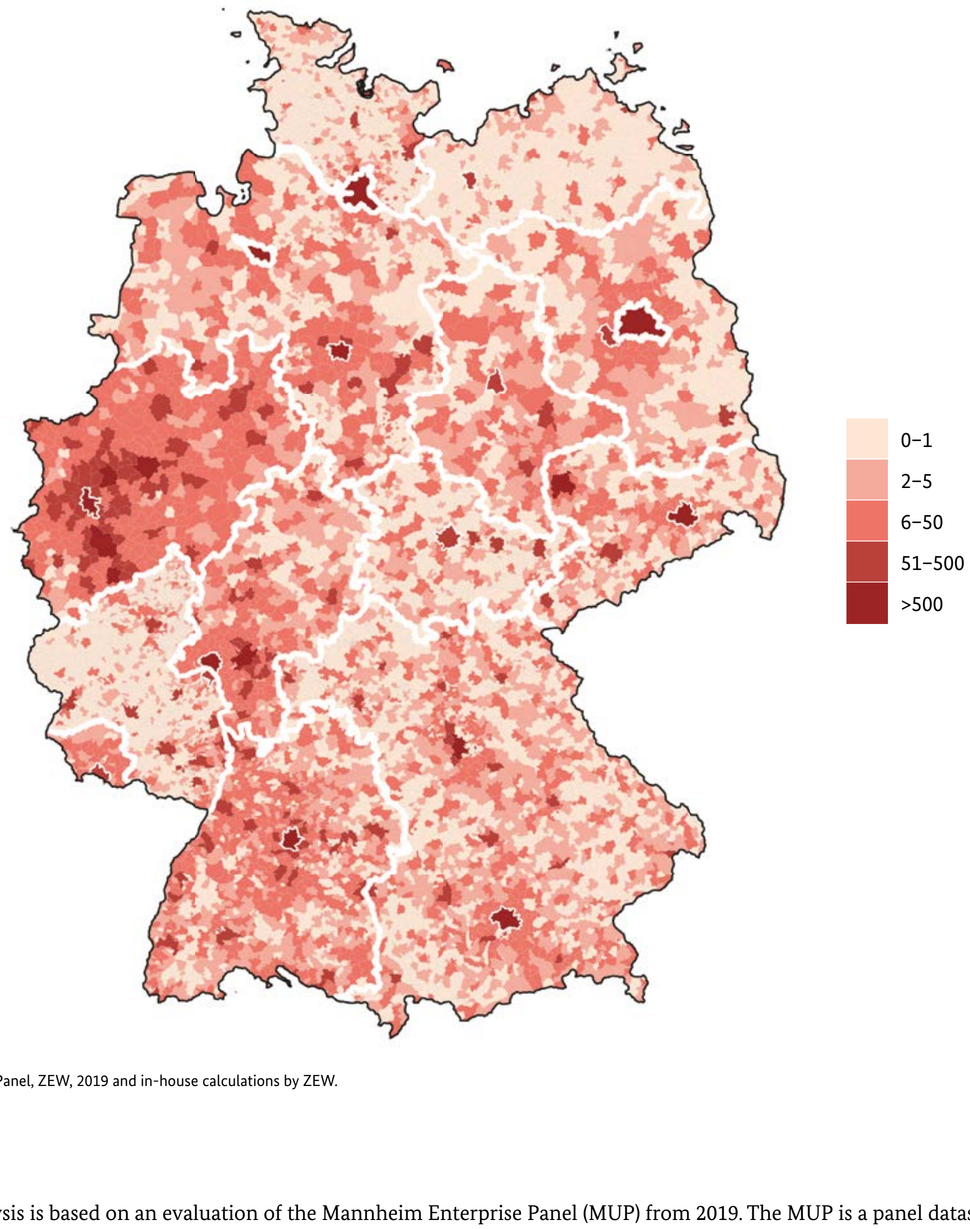
Source: Urban and rural areas in Germany by type of municipality (BBSR definition) 2017 and in-house calculations by ZEW.

19 Further insights into the issue of the cultural and creative industries in rural areas can be found in the unabridged version of the report (in German).

3.1 Regional Distribution of Cultural and Creative Industries in Germany

The companies in cultural and creative industries are not distributed evenly across Germany, but form regional clusters in and around conurbations.[20] For example, Berlin, the largest municipality, also has the largest number of companies in the cultural and creative industries. Since around three-quarters of the municipalities in Germany are home to between zero and three companies in the cultural and creative industries, the average number of companies in the cultural and creative industries per municipality for the whole of Germany is only approximately eight companies. It is necessary to take note of the large differences between municipalities due not only to the population density, but also to the area covered by the municipality. As with large parts of the overall German economy, the spatial distribution of the companies in the cultural and creative industries

Figure 3.2: Number of companies in the cultural and creative industries per municipality



Source: Mannheim Enterprise Panel, ZEW, 2019 and in-house calculations by ZEW.

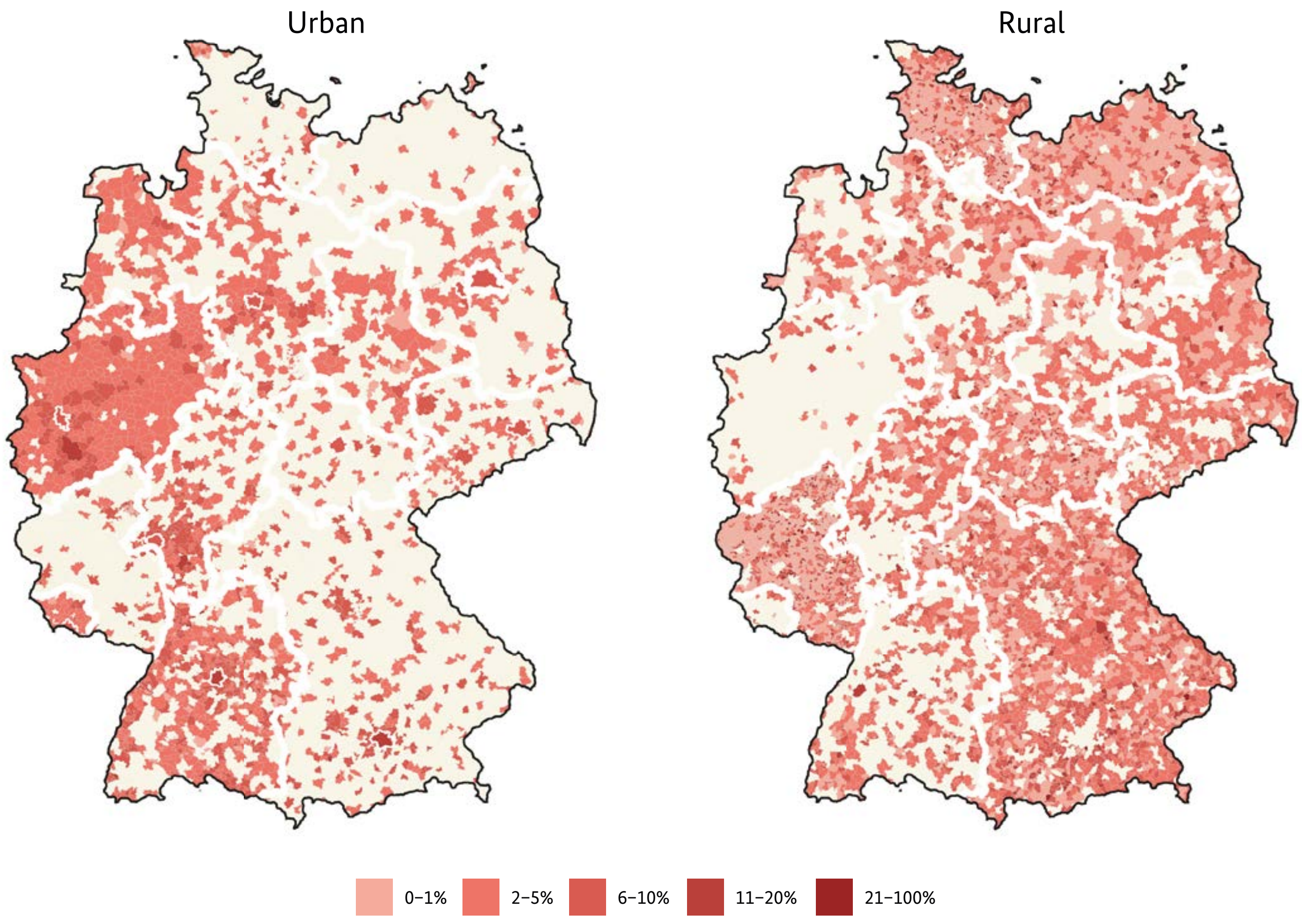
20 This cluster analysis is based on an evaluation of the Mannheim Enterprise Panel (MUP) from 2019. The MUP is a panel dataset of firms located in Germany prepared and curated at the ZEW. The MUP provides the most comprehensive panel dataset of firms in Germany outside official statistics. For further information about the MUP, see https://www.zew.de/PJ92.

roughly tallies with the distribution of the population. Companies in the cultural and creative industries tend to set up in more densely populated regions with greater local demand for their products and services and a higher availability of labour.

The distribution of companies in the cultural and creative industries across municipalities in Germany is depicted in Figure 3.2. The capital cities of the Länder are highlighted (by a thin white line around them); together with a few other cities, they are the centres where the cultural and creative industries is concentrated. A large number of adjacent municipalities, each hosting more than 50 CCI companies, can be found in North Rhine-Westphalia around the cities of Cologne, Dusseldorf, Essen and Dortmund. In rural areas, in contrast, there are far fewer companies in general, and correspondingly fewer CCI companies.

The following section considers the significance of the cultural and creative industries for the overall economy in the municipalities. Figure 3.3 shows the proportion of companies in the cultural and creative industries in terms of the overall economy per municipality, in each case separately for urban and rural areas. The proportion of

Figure 3.3: Proportion of companies in the cultural and creative industries in terms of the overall economy per municipality (as a percentage of the companies)

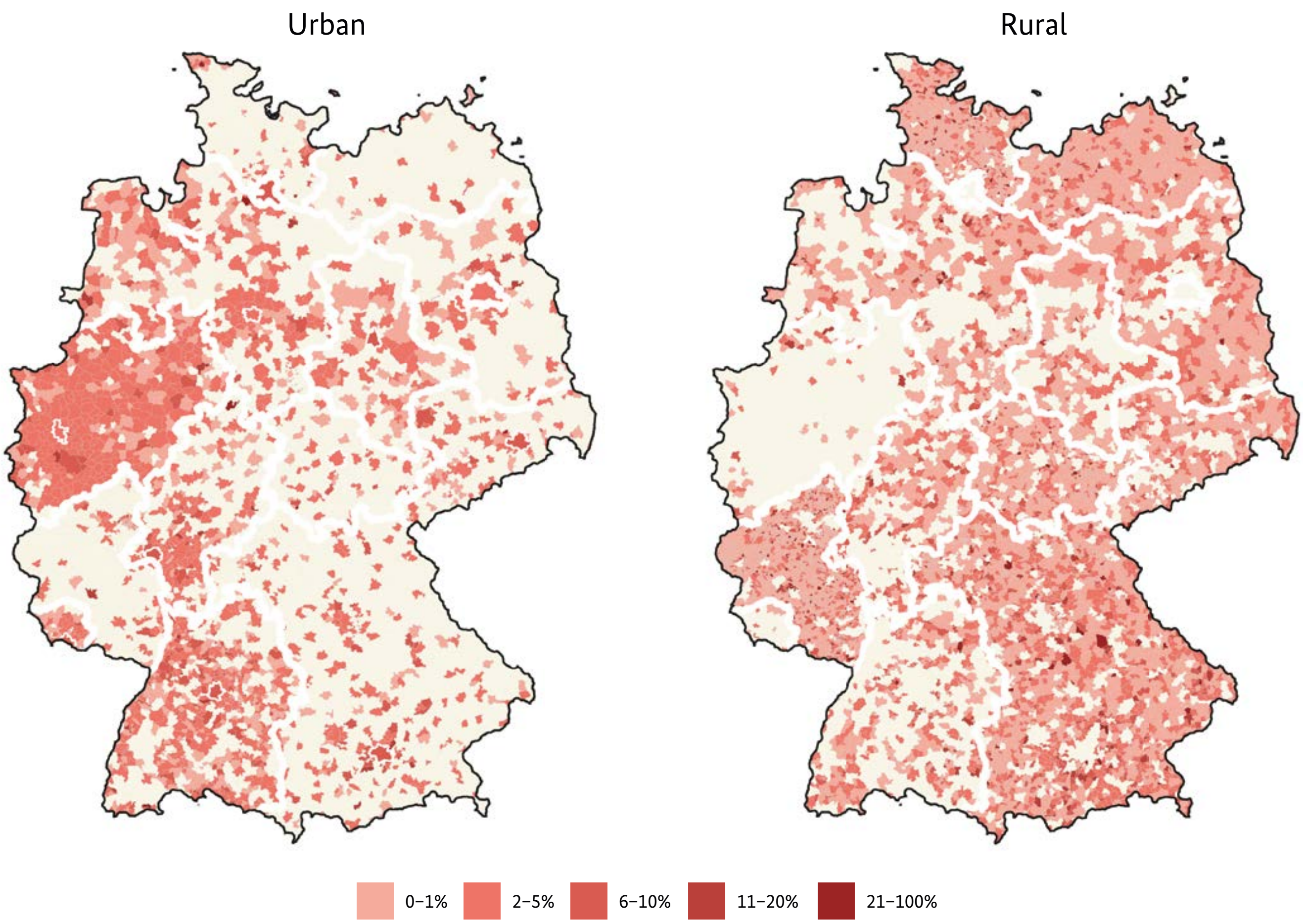


Source: Mannheim Enterprise Panel, ZEW, 2019 and in-house calculations by ZEW.

companies in the cultural and creative industries in terms of the overall economy averages roughly 4% in urban areas. In the large cities in particular, this share is much higher, exceeding 10% in cities like Cologne or Munich. In the countryside, in contrast, the average proportion of companies in cultural and creative industries in terms of the overall number of companies in the municipalities is only just under 3%. Further to this, many municipalities in rural areas have a very small proportion of companies in cultural and creative industries. However, many of these municipalities have very little economic activity in general. Similarly, there are a large number of rural municipalities in which CCI companies account for a high share – more than 20% – of the overall economy. Once again, the explanation of this lies in the generally low level of economic activity in those municipalities, in which even a small absolute number of companies from the cultural and creative industries can generate a high proportion of local output.

Figure 3.4 depicts the significance of the cultural and creative industries in the municipalities, weighted by number of employees. Since the cultural and creative industries are dominated by small and micro-enterprises, the proportion

Figure 3.4: Proportion of employees in the cultural and creative industries in terms of the overall economy (as a percentage of employees)



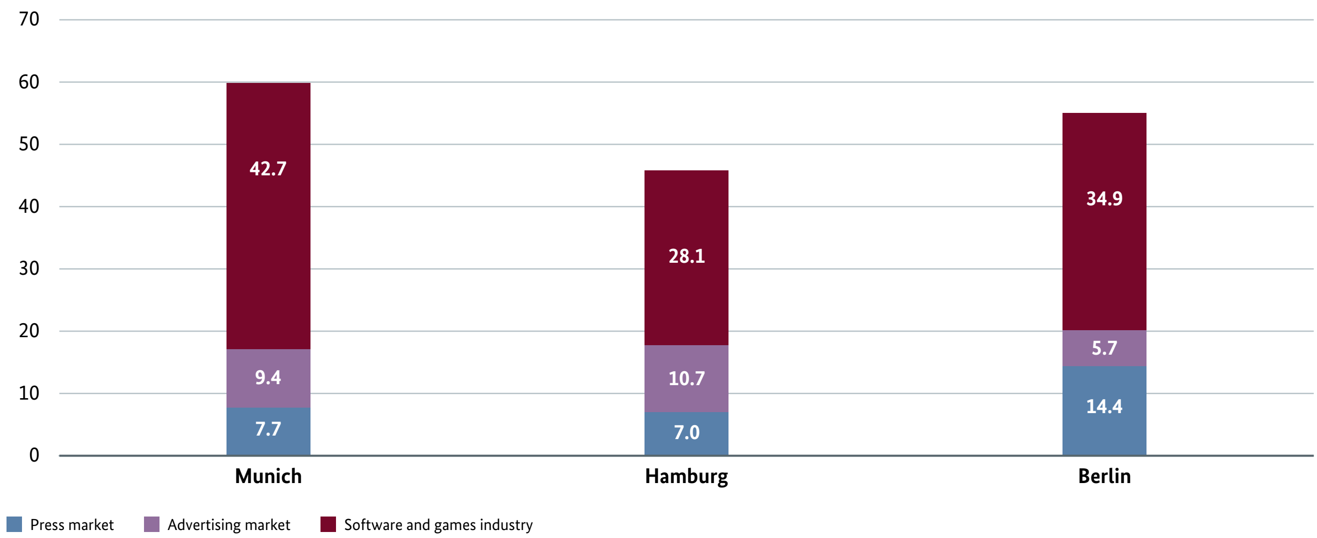
Source: Mannheim Enterprise Panel, ZEW, 2019 and in-house calculations by ZEW.

of employment in each municipality provided by CCI companies is smaller than the proportion of CCI companies in terms of the number of companies. For example, the proportion of employment provided by the cultural and creative industries is also only just under 2.5% of the overall economy, even in urban municipalities. Even in large cities like Cologne and Munich, the cultural and creative industries account for less than 6% of employment. On average, the cultural and creative industries account for just under 2% of employment in rural municipalities.

In rural areas, the cultural and creative industries do not form significant regional clusters of companies in terms of the proportion of companies or of employees in the overall economy. Rather, the CCI companies are distributed fairly evenly across the countryside. This may be due to the corporate structure of the cultural and creative industries, dominated as it is by many small businesses offering local services in the various submarkets of the cultural and creative industries.

A consideration of the regional distribution of CCI companies broken down by submarket also does not reveal any concentration of certain submarkets in certain regions in Germany. This is particularly true of rural areas. The only regional disparities in the sectoral structure of the cultural and creative industries are to be found in the municipalities. Figure 3.5 shows by way of example for selected submarkets the proportions of employment provided by the cultural and creative industries in the cities of Munich, Hamburg and Berlin. In Hamburg, the press market only accounts for 7% of all employees in the cultural and creative industries, whilst the figure is twice as high in Berlin, at 14.4%. In contrast, the proportion of jobs provided by the advertising market is much higher in Hamburg (10.7%) than Berlin (5.7%). In Munich, the software and games industry is very significant in terms of the companies in the cultural and creative industries. It employs 42.7% of all the people working in the cultural and creative industries in the city. In Hamburg, in contrast, the software and games industry only provides 28.1% of the CCI jobs.

Figure 3.5: Breakdown of overall employment in the cultural and creative industries by submarket (in %)

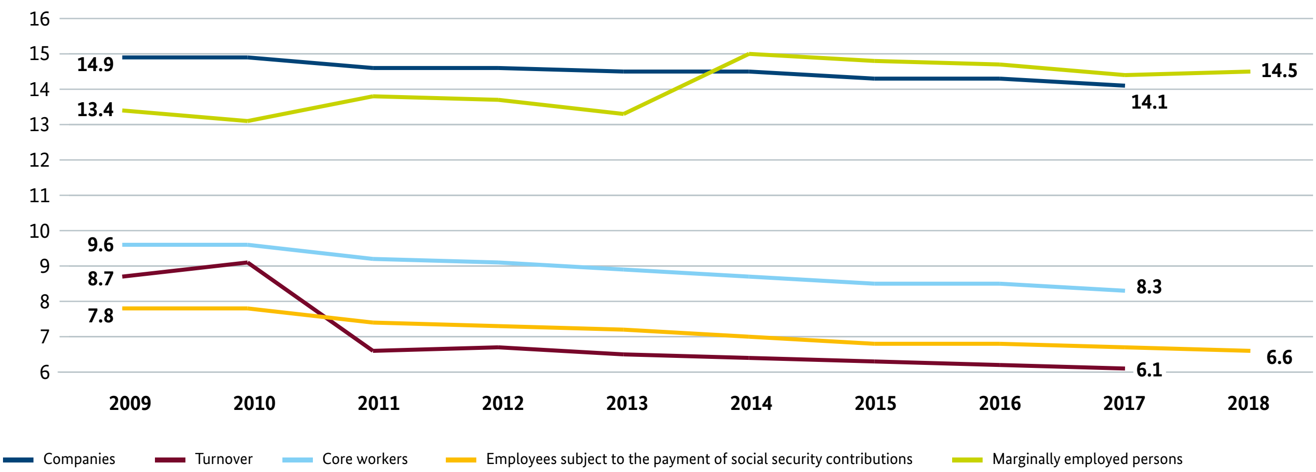


Source: Mannheim Enterprise Panel, ZEW, 2019 and in-house calculations by ZEW.

Declining significance of the cultural and creative industries in rural areas

Almost all of the main economic indicators show a steady decline in the relative significance of the cultural and creative industries in rural areas. In 2009, 14.9% of the companies were based in rural areas, but this figure had fallen to 14.1% by 2017[21]. This trend is expressed even more clearly in terms of sales. In 2009, rural areas accounted for 8.7% of the turnover generated by the cultural and creative industries. This figure has declined – with a particularly striking drop in 2011[22] – and stood at just 6.1% in 2017. The proportion of core workers in rural areas is also declining over time. In 2017, only 8.3% of all core CCI workers were in rural areas, compared with 9.6% back in 2009. Most of this decline is due to the similarly large fall in the proportion of people in jobs subject to social insurance contributions, which dropped from 7.8% in 2009 to 6.6% in 2018. The only increase seen over time in rural areas has been in the proportion of people in marginal employment. In 2009, 13.4% of all people in marginal employment in the cultural and creative industries were located in rural areas, but the latest figure for 2018 is 14.5%.

Figure 3.6: Proportion of entire cultural and creative industries in Germany in rural areas (in %)



Note: "Rural areas" encompass all the municipalities and territorial authorities which are defined as a rural district or small town in the BBSR definition. This categorisation takes place once a year and varies over time. No forecasts for 2018 have been made for the number of companies, level of turnover and number of core workers, since the underlying breakdown of urban/rural figures is not available in sufficient detail at the level of individual sectors, but rather only at submarket level.

Source: Destatis, 2019a, Federal Employment Agency 2019; in-house calculations by ZEW.

21 No forecasts for 2018 have been made for the number of companies, level of turnover and number of core workers, since the underlying breakdown of urban/rural figures is not available in sufficient detail at the level of individual sectors, but rather only at submarket level.

22 Whilst the precise cause of this sudden fall is unknown, there seems to have been a relocation from the countryside to the city by one or several CCI companies with a high turnover.

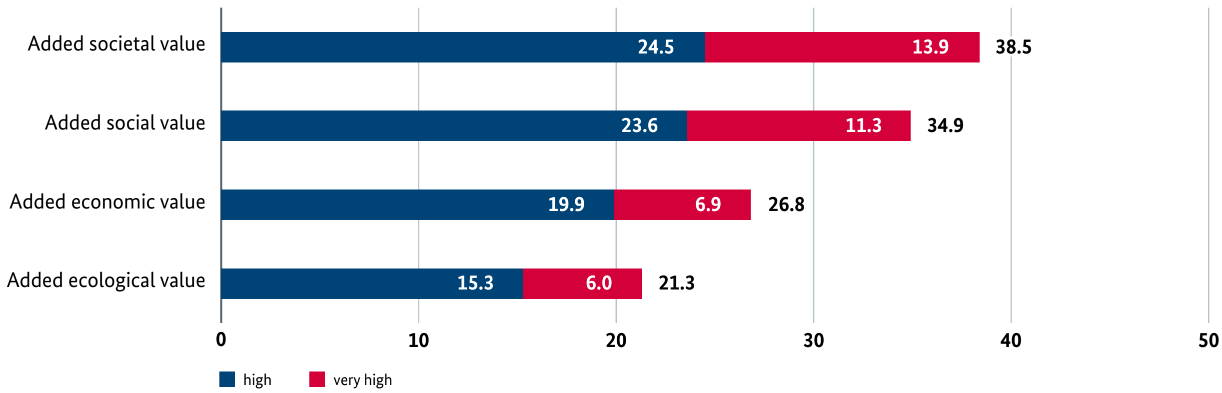
3.2 Cultural and Creative Industries in Rural Areas – Findings of a Business Survey

The ZEW conducted a survey of self-employed people and companies in order to gather extensive data and up-to-date information about “the cultural and creative industries – creative stimuli for rural areas”.[23] The survey covers the entire cultural and creative industries and submarkets in rural areas in line with the definition set out in Chapter 3 and also investigates the local economic importance of the cultural and creative industries, underlying economic factors relating to the structures of companies, clients and cooperation, and the rates of usage of digital services. The following section gives an overview of the situation across the cultural and creative industries in general, spotlighting submarkets in rural areas.[24]

The cultural and creative industries generate added value in various areas

The individual services provided by companies in the cultural and creative industries in rural areas generate added value in various areas. Around 14% of companies in the cultural and creative industries in rural areas regard the added local social value contributed by their company as very high (see Figure 3.7). Furthermore, 24.5% of the companies believe that they add a lot of value to society. The added social value is also deemed to be significant, with around 35% of the companies assessing their contribution as high or very high. Just under 27% of the companies believe that they generate high or very high added economic value, and more than one in five companies say that they generate high or very high added ecological value.

Figure 3.7: Value added by people working in the cultural and creative industries in rural areas (percentage of companies)



Aid to interpretation: 13.9% of companies in the cultural and creative industries in rural areas regard the added local social value contributed by their company as very high.

Source: ZEW survey of the cultural and creative industries in rural areas, 1st half of 2019.

23 In total, 989 self-employed persons and companies in the cultural and creative sectors in rural areas participated in the survey.

24 A breakdown of figures to submarket level can be found in the relevant sections of the unabridged version of the report.

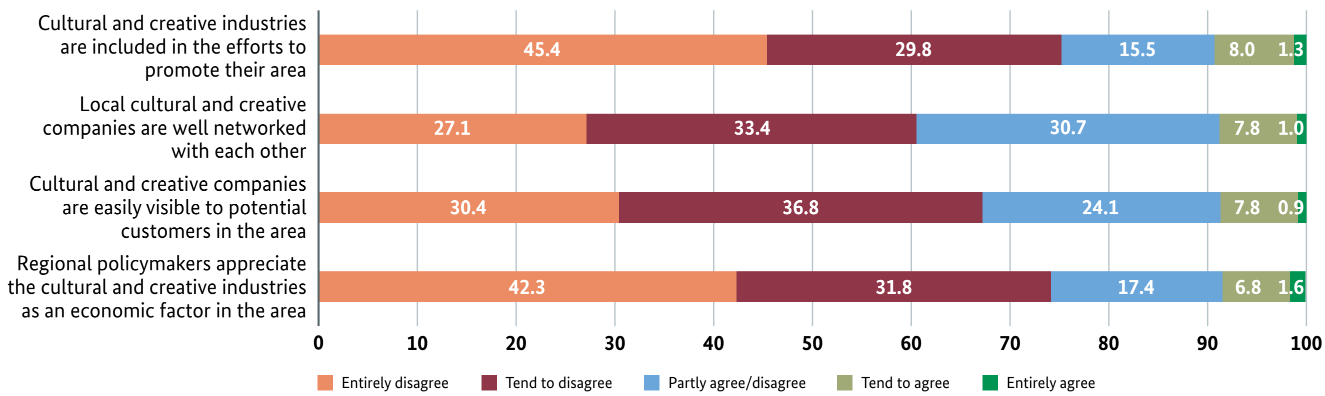
Low visibility for regional policy and potential clients

Whilst the people working in the cultural and creative industries generate significant added value in rural areas, those surveyed believe that much of the related potential is ignored. For example, only 8.4% of the companies agree that regional policymakers appreciate the cultural and creative industries as an economic factor in their area (see Figure 3.8). A higher overall proportion of companies disagree partly (31.8%) or entirely (42.3%) with this statement. Accordingly, only around 9% of the companies say that the cultural and creative industries are included in the efforts to promote their area. Similarly, only just under 9% agree fully or partly with the statement that the local cultural and creative companies are well networked with each other. A lack of visibility of their own services crops up frequently as an impediment to the general development of the cultural and creative industries. This factor is also predominant in rural areas, where only 8.8% of the companies agree that cultural and creative companies are easily visible to potential customers in the area.

Greater visibility of the potential for innovation in the cultural and creative industries

In terms of the visibility of the potential for innovation in the cultural and creative industries, the companies surveyed still see clear room for improvement. In total, nearly 65% of the companies see a need to raise awareness of the potential of the cultural and creative industries to drive innovation (see Figure 3.9). Roughly one in three companies even sees a great need to make this more visible. Improved visibility of the potential for innovation is important for companies in all CCI submarkets, although the degree to which this is the case varies between submarkets. In particular, companies in the film industry believe there is a need (24.6%) or a great need (56.1%) for greater visibility. In the software and games industry, in contrast, "only" 52.9% believe greater visibility is needed or greatly needed. One possible explanation is that the major potential for innovation in the software and games industry is already better known across Germany than that of the other submarkets of the cultural and creative industries.

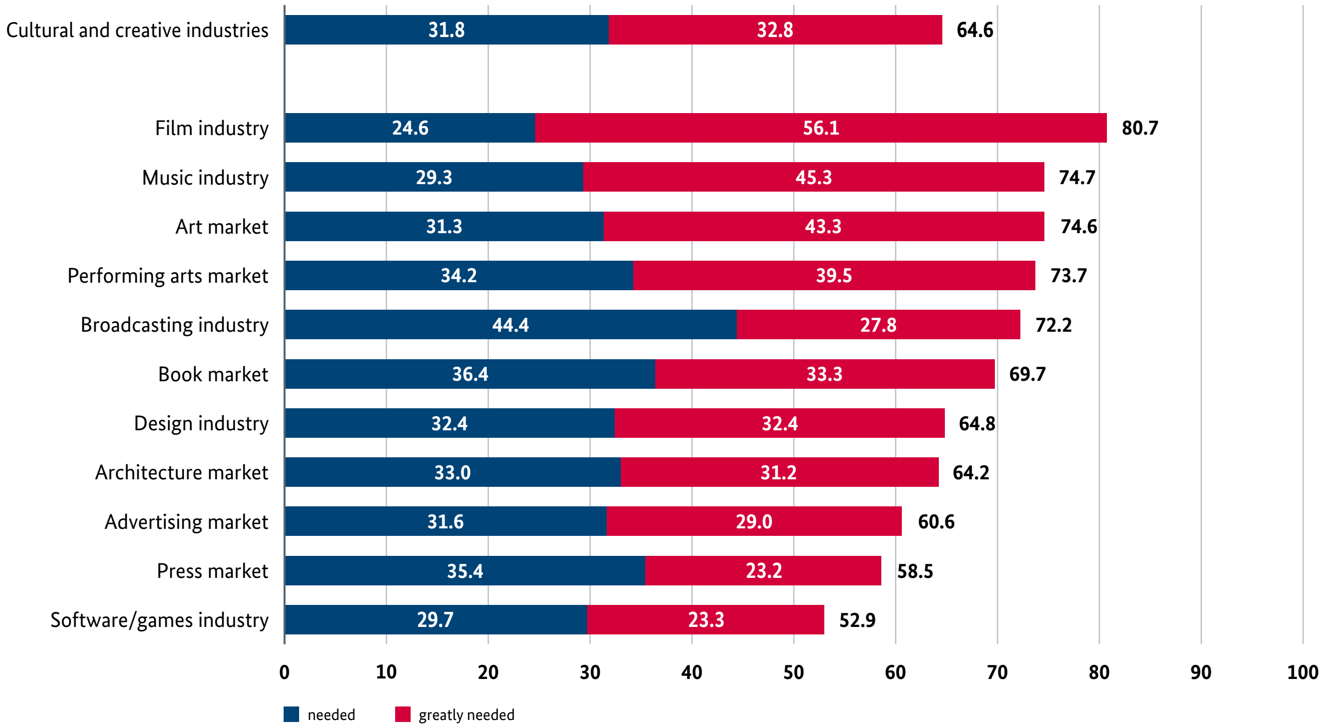
Figure 3.8: Economic integration of the cultural and creative industries in rural areas (percentage of companies)



Aid to interpretation: 27.1% of companies in the cultural and creative industries in rural areas do not agree at all that the cultural and creative industries form part of the efforts to promote their locality.

Source: ZEW survey of the cultural and creative industries in rural areas, 1st half of 2019

Figure 3.9: Need for greater visibility of the potential for innovation offered by the cultural and creative industries (percentage of companies)



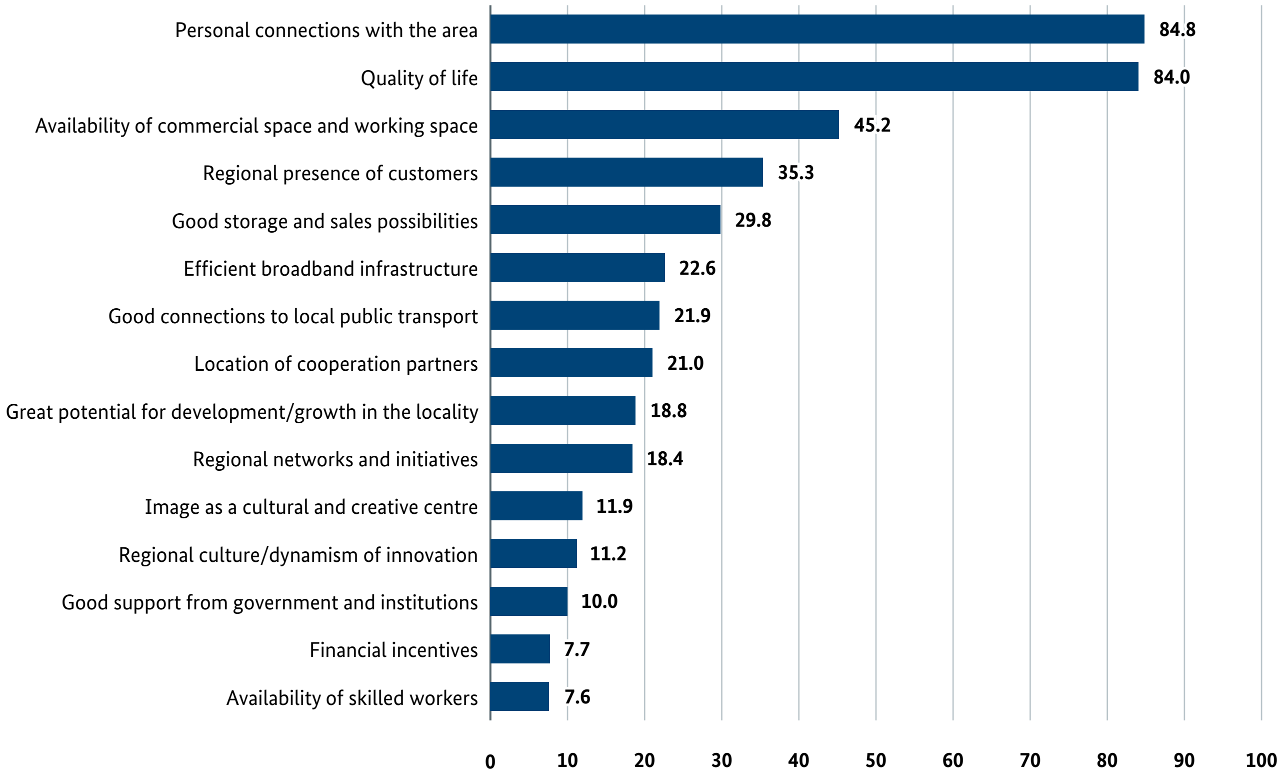
Aid to interpretation: 31.8% of companies in the cultural and creative industries in rural areas see a need to raise the profile of the sector. 32.8% see a great need for this.

Source: ZEW survey of the cultural and creative industries in rural areas, 1st half of 2019.

Quality of life and private connections greatly influence the choice of location

When analysing the situation of the people working in the cultural and creative industries in rural areas, it is interesting to identify the factors influencing where people choose to locate. Two main motivating factors stand out in terms of influencing the choice of location for the business. Nearly 85% of the companies state that their personal connections with this location are a main reason for their choice (see Figure 3.10). At 84%, almost the same number of companies state that quality of life played a decisive role in their choice of rural location. Other key factors affecting the choice are the far-reaching availability of commercial sites and workspaces (45.2%), the regional presence of customers (35.3%) and the possibility to store and sell their products (29.8%). Fewer companies view infrastructure like fast broadband (22.6%) or local public transport (21.9%) as a reason to locate the business in a rural area. Less influential factors affecting the choice of location are, according to the companies, support from government and institutions (10%), financial incentives (7.7%) and the local availability of skilled workers (7.6%).

Figure 3.10: Factors influencing the choice of location in rural areas (percentage of companies)



Aid to interpretation: 84.8% of companies in the cultural and creative industries in rural areas were significantly influenced by personal connections when choosing their location.
The "quality of life" option was only added to the survey during the field phase, so the number of companies answering this was 555.

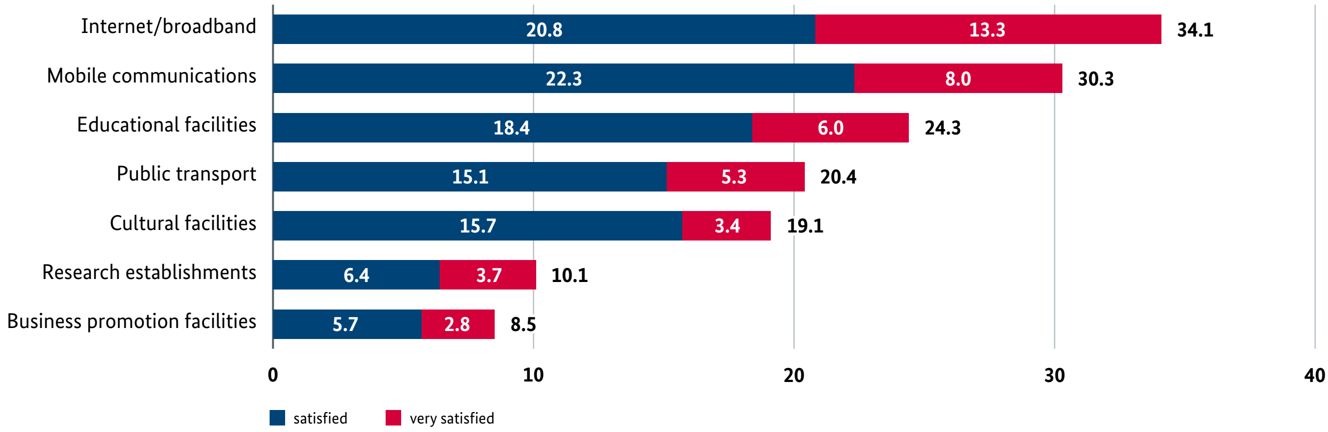
Source: ZEW survey of the cultural and creative industries in rural areas, 1st half of 2019.

Moderate satisfaction with infrastructure and great need to improve the digital infrastructure

The CCI companies are no more than moderately satisfied with the infrastructure available in rural areas. Roughly one third of companies are satisfied with the local availability of internet and broadband (see Figure 3.11). Of these, nearly 21% are satisfied, and around 13% very satisfied. Around 30% of companies say that local mobile communications infrastructure is satisfactory. Satisfaction with other forms of local infrastructure is even lower. These areas include educational facilities (24.3%), local public transport (20.4%) and cultural facilities (19.1%). Only one in ten companies is happy with the local availability of business promotion and research establishments.

People working in the cultural and creative industries in rural areas see the greatest need for better infrastructure in the provision of internet and broadband. In total, 58% of companies see a great need to expand broadband coverage (see Figure 3.12). Highlighted by nearly 46% of CCI workers, however, the need to improve mobile coverage also cannot be overlooked. Beyond this, more than half of the companies hope to see an improved local public transport service. To a much lesser extent – well over 20% of those surveyed – there is also a widespread desire to see more cultural, business promotion and educational facilities.

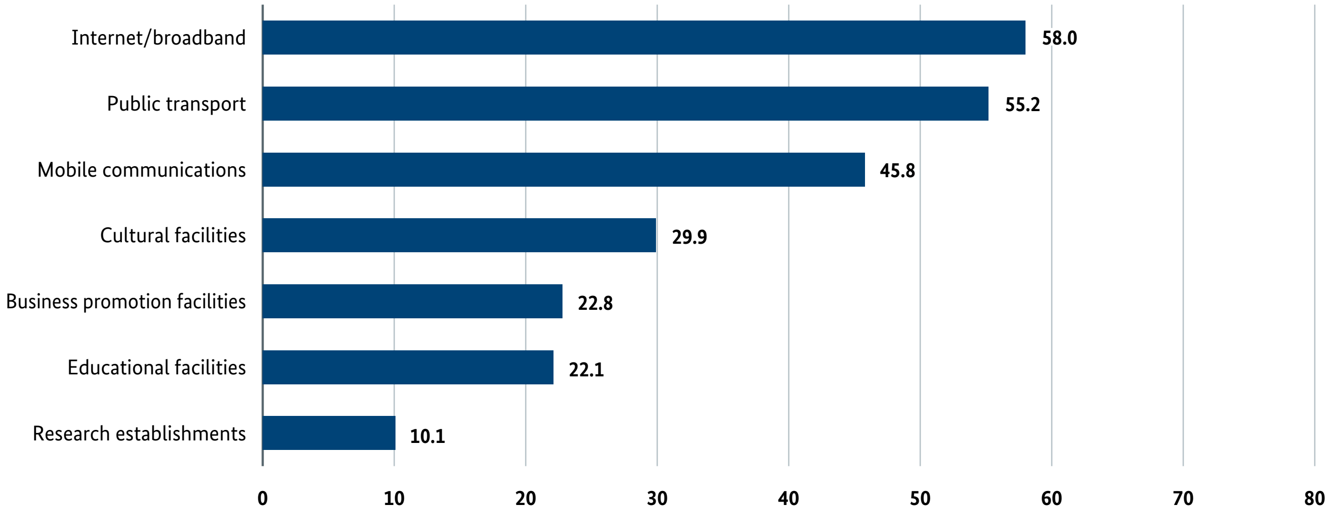
Figure 3.11: Satisfaction with local infrastructure in rural areas (percentage of companies)



Aid to interpretation: 13.3% of CCI companies said that they were very satisfied with the availability of internet and broadband at their rural site.

Source: ZEW survey of the cultural and creative industries in rural areas, 1st half of 2019.

Figure 3.12: Need to improve infrastructure (percentage of companies surveyed)



Aid to interpretation: The CCI companies in rural areas believe that the greatest need for improvements in infrastructure is to be found in internet and broadband coverage.

Source: ZEW survey of the cultural and creative industries in rural areas, 1st half of 2019.

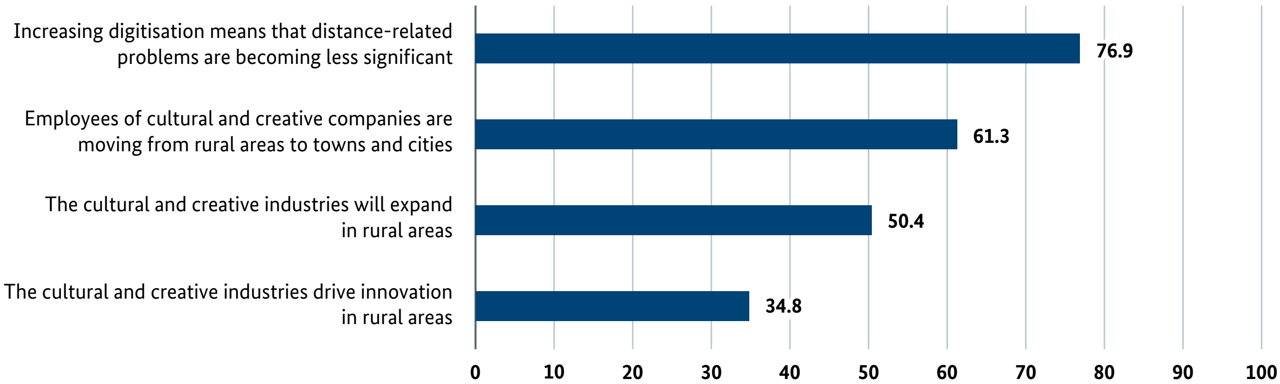
Potential for development and growth in the cultural and creative industries in rural areas

More than three quarters of those working in the cultural and creative industries in rural areas see prospects for development and growth due to the advance in digitisation. From the companies' perspective, the increasing level of digitisation is reducing distance-related problems (see Figure 3.13). Half of the companies generally believe that the cultural and creative industries will grow in rural areas, and nearly 35% of the companies see the cultural and creative industries as a driving force for innovation in rural areas. However, the companies surveyed believe that the fact that potential staff move to towns and cities is a brake on the potential of the CCI sector. In total, 61.3% of the companies share this view.

Challenges in terms of finance, customer acquisition and staff

People working in the cultural and creative industries in rural areas feel that they face a number of different challenges. For 67.3% of the companies in rural areas, the greatest challenge is ensuring their long-term survival (see Figure 3.14). In line with this, 65.9% are stepping up the effort they put into customer acquisition. The challenges posed by the search for and retention of skilled workers (65.6%) and a declining willingness to pay for cultural and creative services (63.8%) are just as significant. Almost half of the companies believe that the visibility of their company is a great challenge for the cultural and creative industries in rural areas. This is accompanied by a difficult order situation for about 45% of the companies. Personal work-life balance is also regarded as a great challenge by 44.2%.

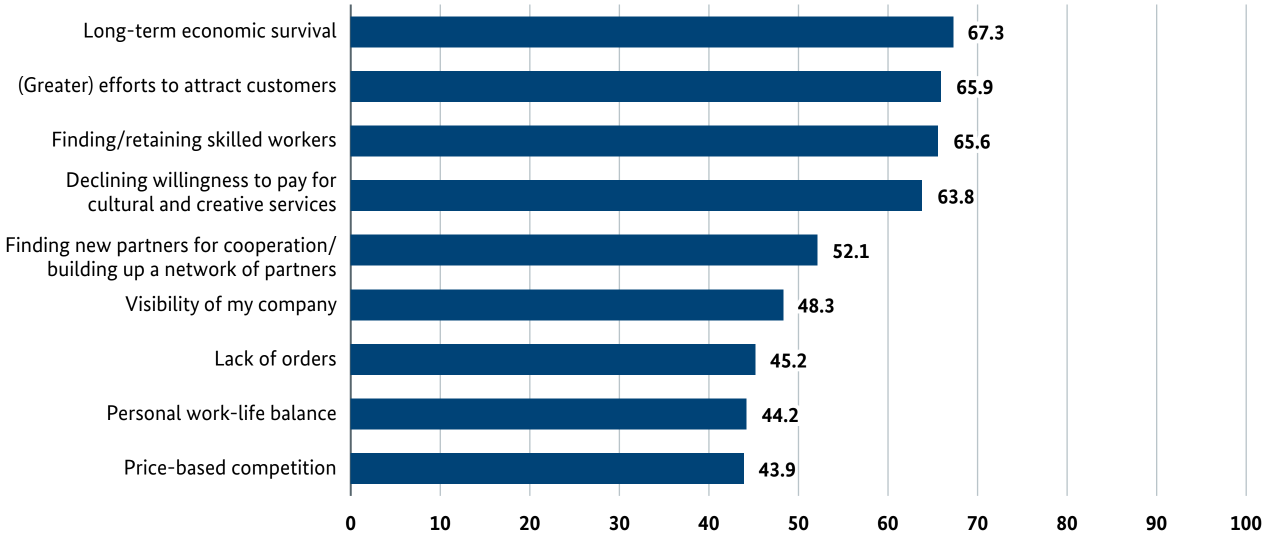
Figure 3.13: Potential for development and growth in the cultural and creative industries in rural areas (percentage of companies surveyed)



Aid to interpretation: 76.9% of CCI companies in rural areas believe that distance-related problems will diminish in significance due to the advance in digitisation.

Source: ZEW survey of the cultural and creative industries in rural areas, 1st half of 2019.

Figure 3.14: Challenges for the cultural and creative industries in rural areas (percentage of companies)



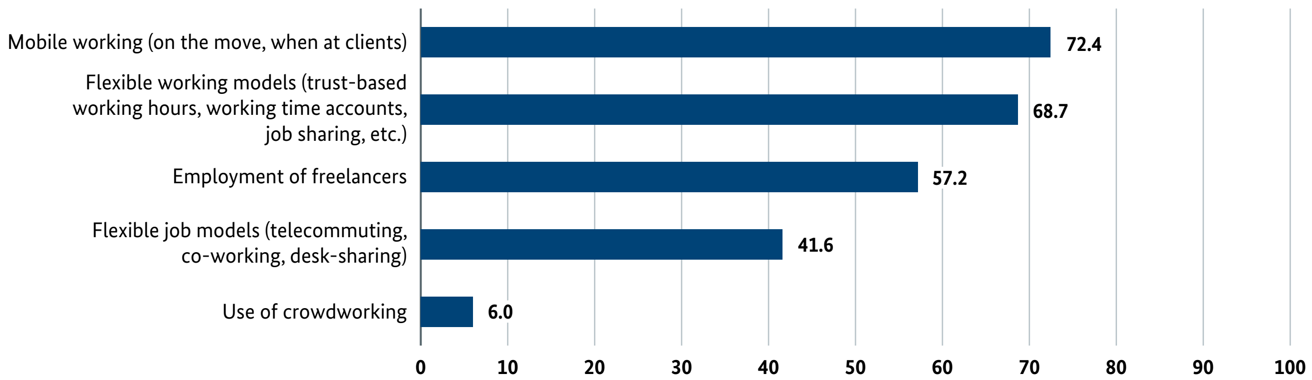
Aid to interpretation: 67.3% of companies in the cultural and creative industries in rural areas say that long-term survival is the greatest challenge facing rural CCIs.

Source: ZEW survey of the cultural and creative industries in rural areas, 1st half of 2019.

Flexible forms of work and the use of digital technologies are widespread

CCI companies attach great importance to the use of flexible forms of work. At around 72.4%, mobile work is the most common form of flexible work in rural CCI companies (see Figure 3.15). Other key forms of work are flexible working hour models (68.7%), the employment of freelancers (57.2%), and adaptable job models (41.6%). Crowdworking, i.e. the assignment of traditionally in-house tasks and projects to external workers via online platforms, has so far been used only rarely by companies in the cultural and creative industries (6.0%).

Figure 3.15: Use of flexible forms of work (percentage of companies)



Aid to interpretation: 68.7% of companies in the cultural and creative industries in rural areas make use of flexible forms of work.

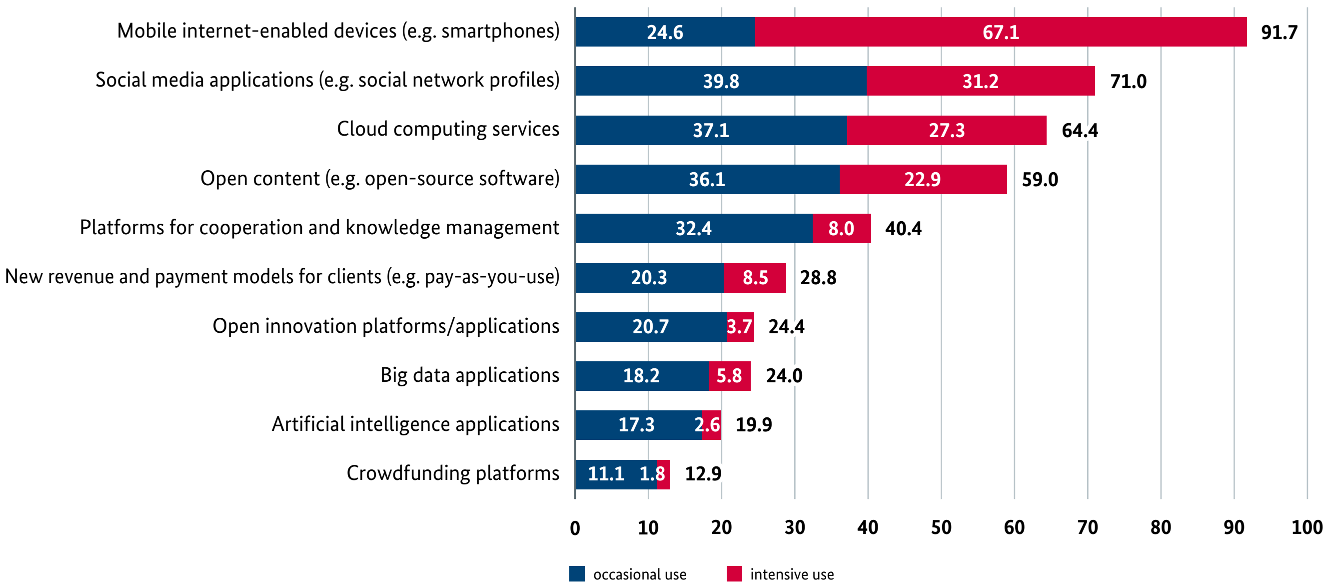
Source: ZEW survey of the cultural and creative industries in rural areas, 1st half of 2019.

People working in the cultural and creative industries in rural areas use a wide variety of digital services and technologies. In particular, the use of mobile internet-enabled devices like smartphones has become an essential part of their work. Two-thirds of the companies make intensive use of mobile terminal equipment, whilst a further 25% make at least sporadic use of smartphones and laptops (see Figure 3.16). Social media are also widely used by people working in the cultural and creative industries: in total, 71% of the companies make sporadic or intensive use of social networks and similar applications. In addition to this, the companies use cloud computing (64.4%), open content (59%) and platforms for cooperation and knowledge management (40.4%). A few companies also use new revenue and payment models, open innovation platforms, big data, artificial intelligence and crowdfunding platforms.

Lack of awareness of public-sector funding programmes and high need for advice

Despite the large number of public-sector funding programmes for cultural and creative companies, very few of the companies in rural areas are aware of their existence. Asked about the importance of public-sector funding programmes for their own company, roughly 68% of the people working in the cultural and creative industries said they were unaware that such programmes existed for cultural and creative companies (see Figure 3.17). Approximately one in five of the companies says that it is aware of such programmes, but does not use them. Around 10% of rural CCI companies use public-sector funding programmes. On top of this, nearly 3% of the companies plan to make use of such programmes in future.

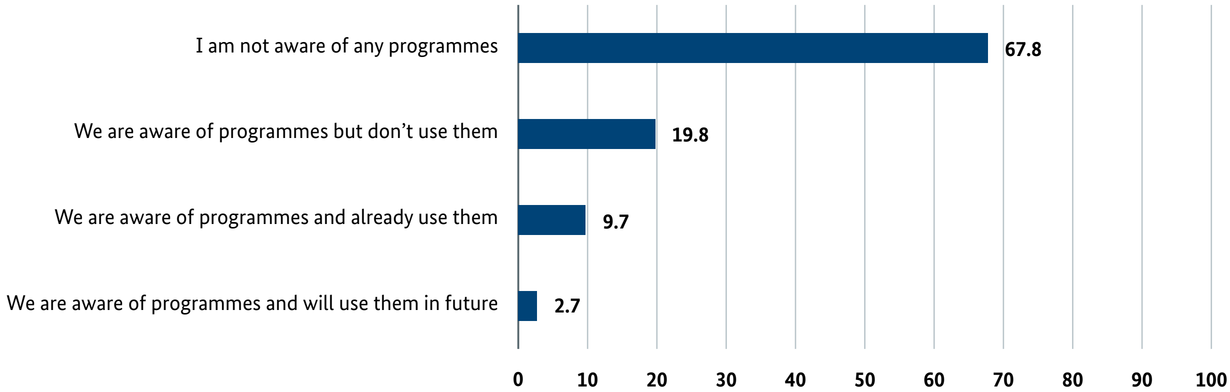
Figure 3.16: Use of digital services (percentage of companies)



Aid to interpretation: 31.2% of companies in the cultural and creative industries in rural areas make intensive use of social media.

Source: ZEW survey of the cultural and creative industries in rural areas, 1st half of 2019.

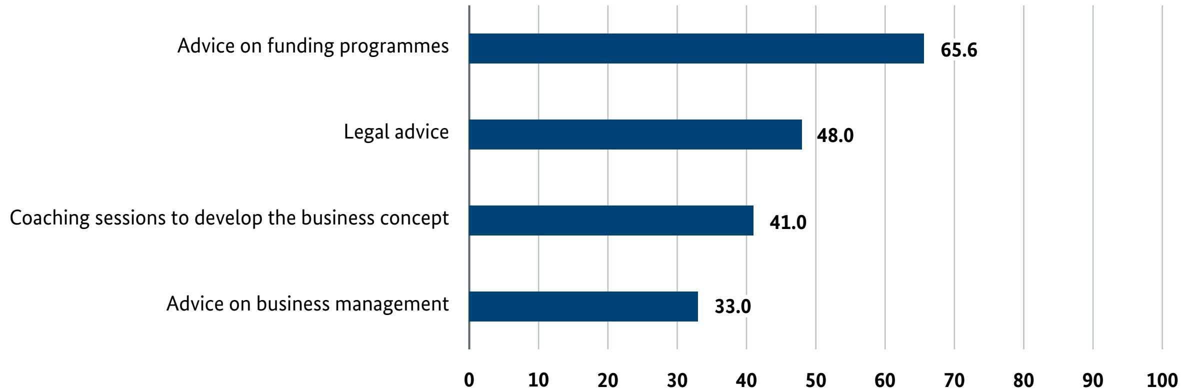
Figure 3.17: Importance of public-sector funding programmes (percentage of companies)



Aid to interpretation: 67.8% of companies in the cultural and creative industries in rural areas say they are unaware of any public-sector funding programmes for cultural and creative companies.
Source: ZEW survey of the cultural and creative industries in rural areas, 1st half of 2019.

The lack of awareness of public funding programmes is also reflected in an increased need for advice on the part of the companies. Nearly 66% of the companies see a need for advice on funding programmes (see Figure 3.18). Also, 48% of the companies say they need legal advice. 41% of the companies see a need for coaching sessions to develop their business concept. The need for basic business management consulting is important for one in three companies.

Figure 3.18: Need for advice services (percentage of companies)



Aid to interpretation: 65.6% of companies in the cultural and creative industries in rural areas see a need for advice about funding programmes.
Source: ZEW survey of the cultural and creative industries in rural areas, 1st half of 2019.

4 Start-ups in the Cultural and Creative Industries

Start-ups play a key role in the dynamism of a sector and the modernisation of products and services. New companies tend to bring new ideas to the market. The figures only cover start-ups whose economic activity is above a certain, minimum size. The market entry of self-employed people and freelancers is only considered if the self-employment or professional activity concerned is comparable to a corporate activity performed by a partnership or corporation. Self-employed persons who perform cultural or creative activities for clients as part of contracts for work and services and therefore only use their own capital to a very limited extent (apart from their human capital), only have limited entrepreneurial freedom and are therefore not usually included in the statistics. Such "free agents" are found particularly in the performing arts market, in the press market and in the music and film industries. Freelancers are very common in other submarkets, e.g. architecture.

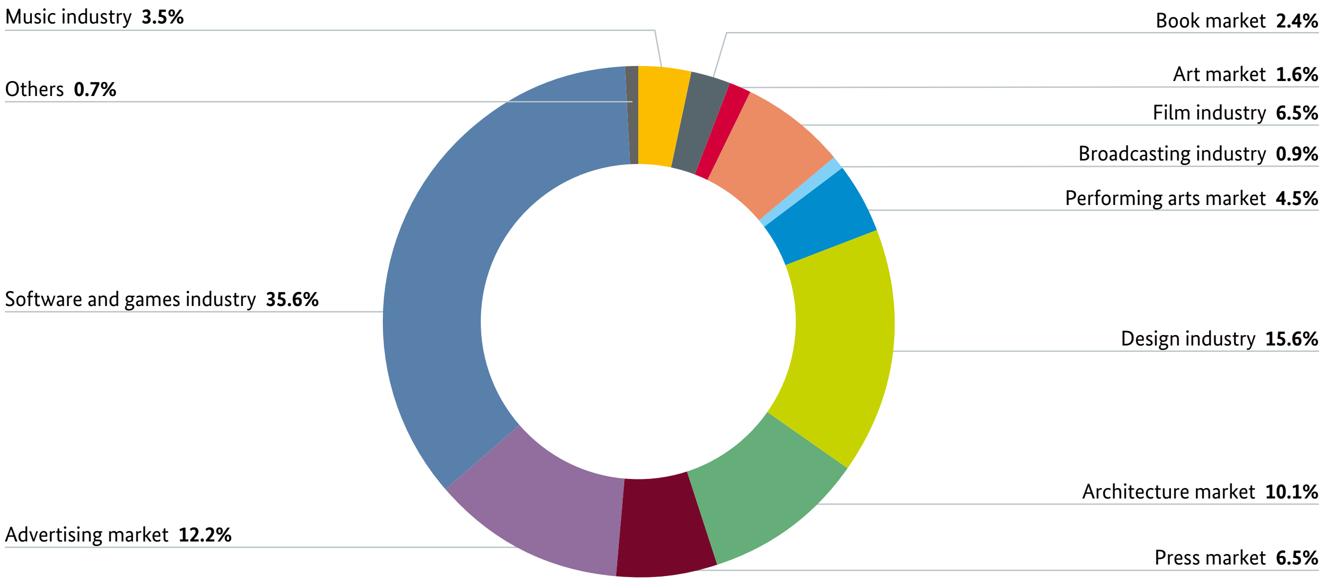
According to the MUP, almost 9,500 active companies were set up in the cultural and creative industries in Germany in 2018. More than a third (35.6%) of the start-ups were in the software and games industry submarket (see Figure 4.1). The next most important submarkets in terms of start-ups are the design industry (15.6%), the advertising market (12.2%)

Data basis: Mannheim Enterprise Panel (MUP)

The MUP is a panel dataset of firms located in Germany. The panel was created out of a cooperation between ZEW and Creditreform, the largest German credit rating agency. Creditreform provides its data on the companies to ZEW every six months.

The MUP includes all economically active companies in the industrial economy in Germany and makes it possible to identify market entry (start-ups) and market departures (closures), as well as the number of economically active companies over time. Self-employed people and companies with no obligation to register and very little economic activity are only recorded in the MUP in exceptional cases. The number of company start-ups is extrapolated from the MUP data, taking into consideration the delayed recording of data on newly established companies by Creditreform. This also means that the information on the number of start-ups and the latest figures on the number of companies (that is, for the period 2016 – 2018) are preliminary and may be revised in later years. For this reasons, the following uses only rounded numbers.

Figure 4.1: Breakdown by submarket of start-ups in the cultural and creative industries in Germany in 2018



Aid to interpretation: In 2018, 35.6% of all start-ups in the cultural and creative industries took place in the software and games industry.

Note: These calculations are based on number of start-ups including double counts. Altogether, these figures add up to a total of 100%. Minimal discrepancies possible due to rounding.

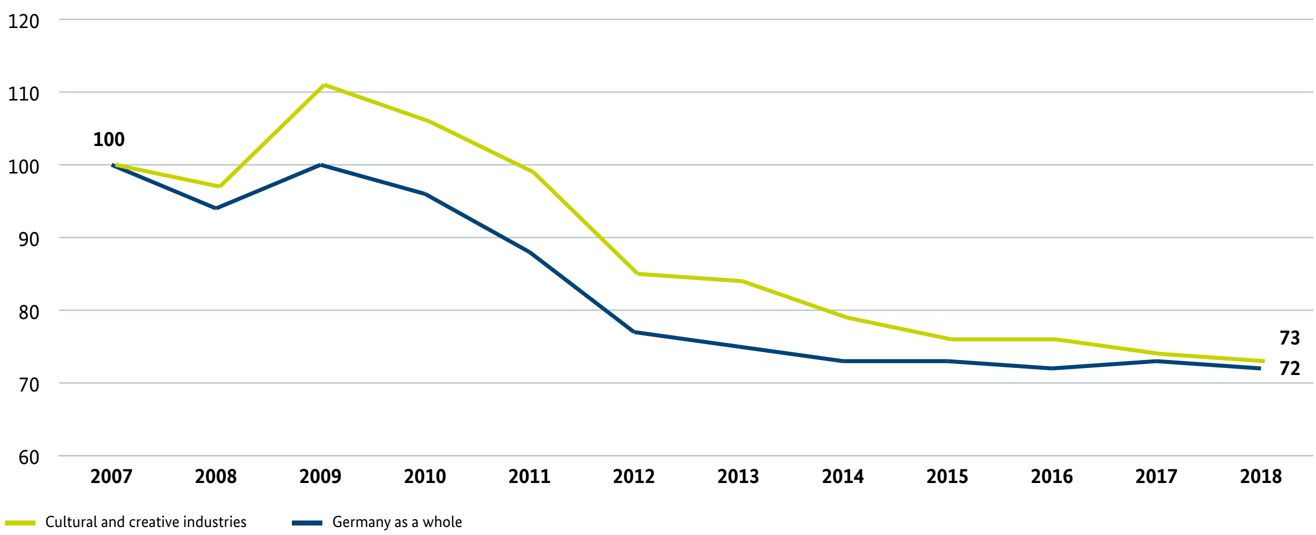
Source: Mannheim Enterprise Panel, ZEW, 2019.

and the architecture market (10.1%). These four submarkets account for nearly three quarters of all start-ups in the cultural and creative industries. Annual start-up figures of between 500 and 700 new firms can be found in the film industry, the press market and the performing arts market. The lowest number of start-ups per year (fewer than 100) are in the broadcasting industry and the "other" sectors of the cultural and creative industries.

This means that the number of new start-ups remained a roughly the same level as the year before. However, there has been a declining trend in the number of start-ups over the 2012 – 2018 period. The start-up figures in the overall economy have remained pretty much stable in Germany since 2014. As a result, there has been an alignment in the level of start-up activity, taking 2007 as a base year, in the cultural and creative industries and in the overall economy (see Figure 4.2). One of the reasons for the sharp rise in start-up figures in 2009 was the introduction of the legal form of a limited liability entrepreneurial company ("Unternehmergesellschaft" or "mini-GmbH"). At the time, many self-employed people switched to this type of limited-liability-company as virtually no share capital needs to be subscribed in such entities.

The number of start-ups varies widely between submarkets (Figure 4.3). The only submarket in which the rate of start-ups picked up speed in the 2007 – 2018 period was the software and games industry. 42% more companies were founded in this submarket in 2018 than was the case in 2007. The highest start-up figures were attained in 2009 – 2011; they have remained steady at a high level since then, rising again in 2017 and 2018. Some other submarkets also saw an increase in the rate of start-ups in 2009, but this was followed by a decline, significantly so in some submarkets. This is true of the advertising market, the design industry, the book market, the architecture market and the film industry. In the other submarkets, almost every year since 2007 has seen a decline in the start-up figures. The drop has been particularly great in the art market and the broadcasting industry. 2018 saw the start-up figures rise in some submarkets. This was particularly true of the architecture market, where the number of start-ups has been rising since 2016. Slight increases from a very low level are currently being seen in the performing arts market, the press market, the book market and the film industry.

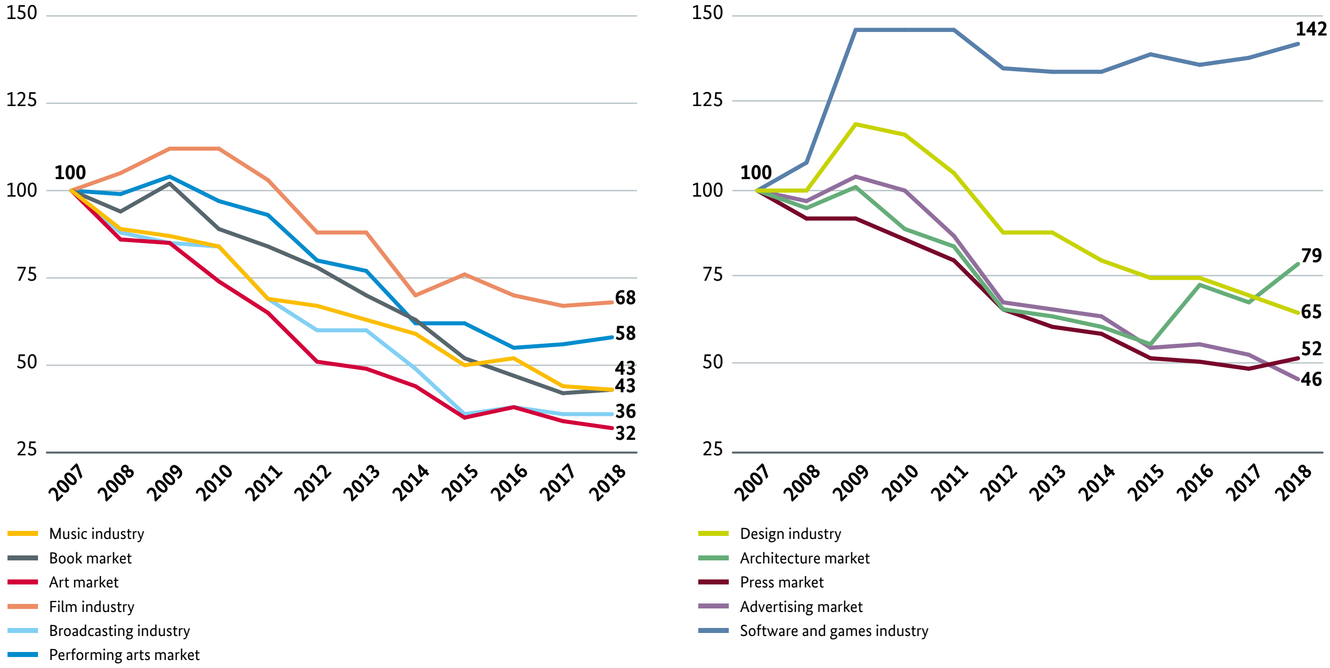
Figure 4.2: Number of start-ups in the cultural and creative industries and in the overall economy in Germany, 2007 – 2018 (Index, 2007 = 100)



Aid to interpretation: In 2018, the number of start-ups in the cultural and creative industries was 73% of the amount in 2007. The figure for the overall economy was 72%.

Source: Mannheim Enterprise Panel, ZEW, 2019.

Figure 4.3: Start-up rate in the cultural and creative industries in Germany by submarket 2007 – 2018 (Index, 2007 = 100)

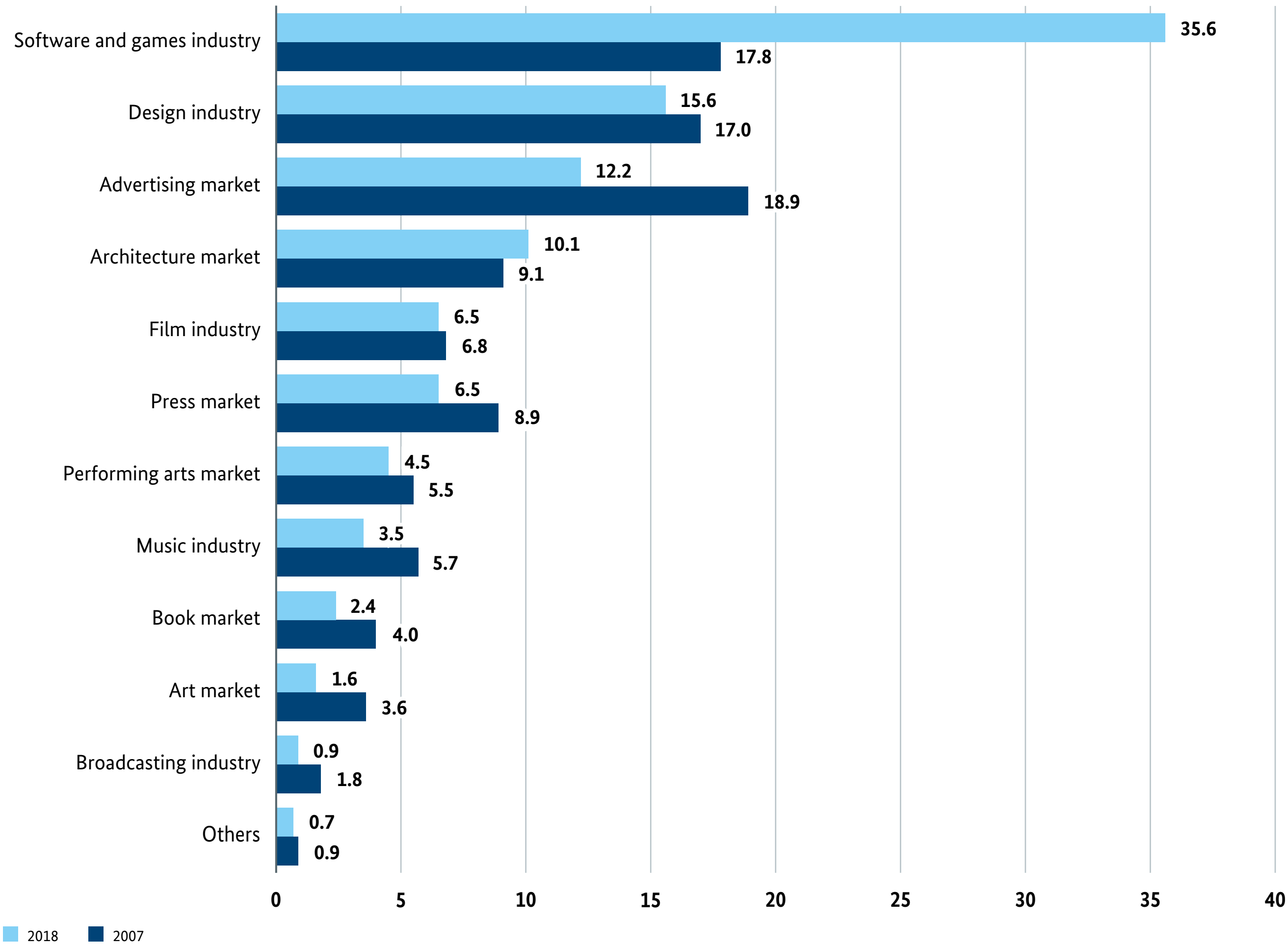


Aid to interpretation: The largest growth in the number of new start-ups between 2007 and 2018 was in the software and games industry (+42%).

Source: Mannheim Enterprise Panel, ZEW, 2019.

The start-up scene in the cultural and creative sector has shifted strongly in the last decade in the direction of the software and games industry, that is, to a submarket aimed primarily at commercial customers. Between 2007 (just under 18% of all start-ups in the cultural and creative industries) and 2018, this submarket's share of overall start-up activity in the cultural and creative industries doubled (see Figure 4.4). The only other submarket which increased its share over this period is the architecture market (from 9 to 10%). All of the other submarkets have become less significant in terms of start-up activities in the cultural and creative industries. The advertising market suffered the greatest absolute decline in its share (6.7 percentage points). The greatest relative losses of shares were in the art market and the broadcasting industry. Both of their shares halved. The main reason behind the shift toward the software and games industry is the digitalisation trend, which opens up endless possibilities to link creative business ideas to software solutions. For this reason, many new firms in this sector are specialised in the programming of new digitalisation applications, from web-based solutions to apps and online platforms.

Figure 4.4: Start-ups in the cultural and creative industries in Germany broken down by submarket 2007 and 2018 (in %)



Aid to interpretation: The share of start-ups from the software and games industry within the cultural and creative industries rose from 17.8% in 2007 to 35.6% in 2018.

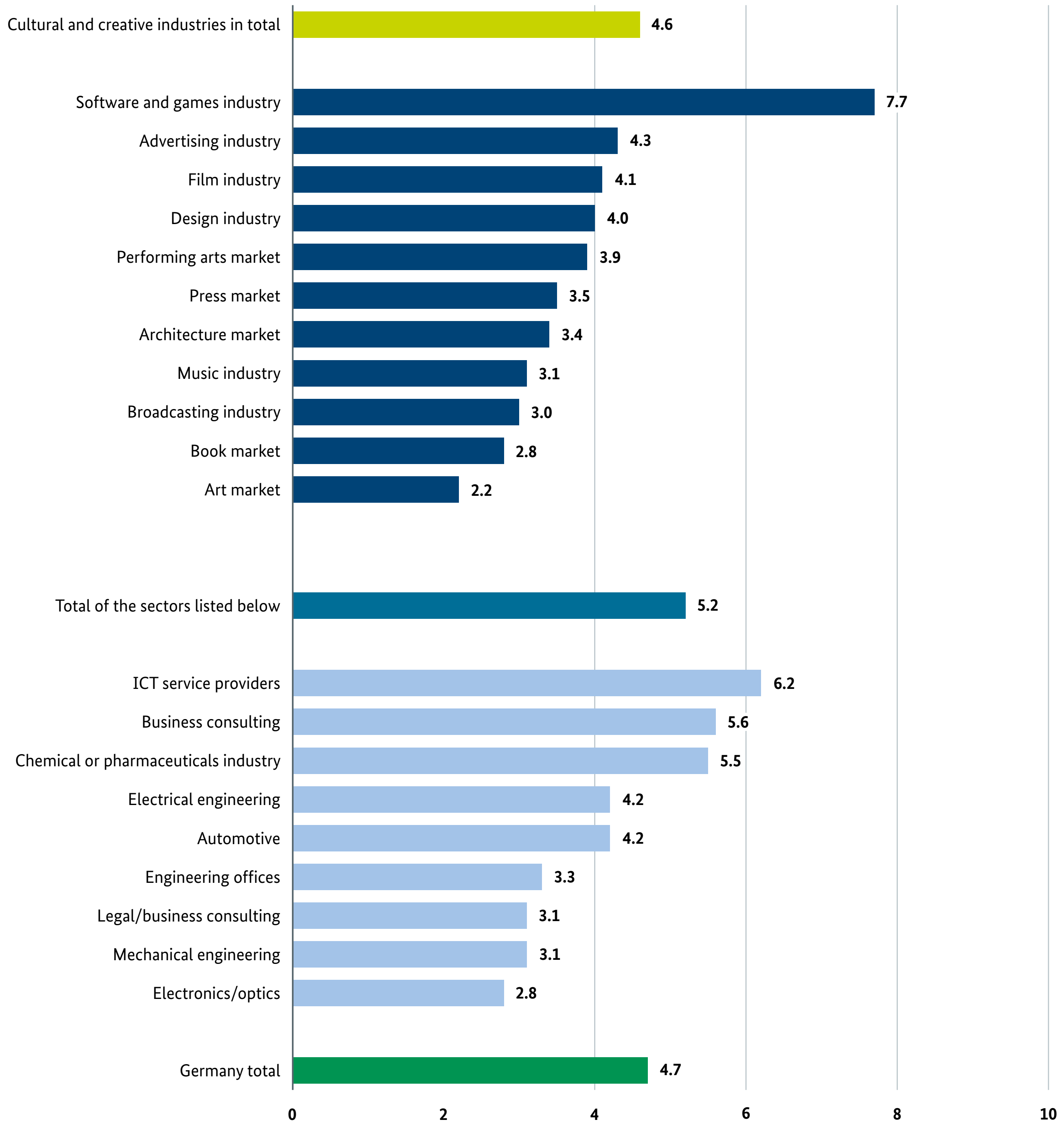
Note: Figures are percentages of the cultural and creative industries as a whole, including double counts.

Source: Mannheim Enterprise Panel, ZEW, 2019.

To compare the start-up activity between the individual submarkets and with other sectors, the start-up rate is a place to start. This rate compares the number of start-ups with the amount of economically active companies and provides information on the rate at which the existing company stock is renewed with start-ups. The start-up rate in the cultural and creative industries in Germany was 4.6% on average over the years 2016 – 2018, and therefore roughly at the level seen in the overall economy (4.7% – see Figure 4.5). In the sectors used in the comparison, the average start-up rate was slightly higher, at 5.2%, which is primarily due to the very high start-up rate in the ICT services sector, business consulting, and the chemical and pharmaceutical industry. In all the other sectors in the comparison, the start-up rate is lower than in the cultural and creative industries.

In the cultural and creative industries, the software and games industry has the highest start-up rate by far at 7.7%. In all the other submarkets, the start-up rate is lower than the average for the cultural and creative industries. The advertising market registered the second highest start-up rate, at 4.3%. The film industry, the design industry and the performing arts market recorded start-up rates of around 4%. The lowest start-up rates are in the book market (2.8%) and the art market (2.2%).

Figure 4.5: Start-up rates in the cultural and creative industries in Germany in 2016/2018 by submarket and in comparison (in %)



Aid to interpretation: The average start-up rate in the CCI sector during the period between 2016 and 2018 was 4.6%.

Note: Start-up rate corresponds to the number of company start-ups as a percentage of the number of companies in existence, average for the years 2016 – 2018.

Source: Mannheim Enterprise Panel, ZEW, 2019.

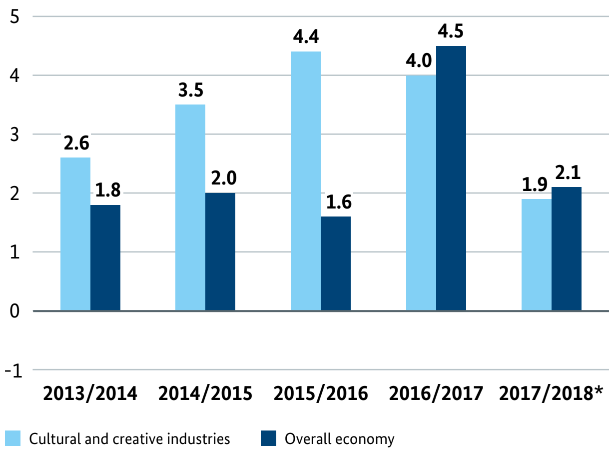
5 Summary

Sales in the cultural and creative industries recorded a positive development in 2018, up 1.9% in year-on-year terms. The total development in sales was slightly better over the same period, with an overall 2.1% rise (see Figure 5.1). This means that the development in sales in the cultural and creative industries, unlike in previous years, was weaker than that seen across the economy for the second time in succession.

Long-term overall development in sales in the cultural and creative industries is positive

Viewed in the long term, the development in sales in the cultural and creative industries is clearly positive, with an average annual growth rate of 3.3%. However, this is not true of every submarket: average sales in the book market, press market, art market and "others" are declining over the long term (see Figure 5.2). The strongest long-term positive development in sales is in the software and games industry, where the average annual growth rate is 8.9%. Similarly high growth rates can be seen in the performing arts market (6.6%), the architecture market (5.4%) and the advertising market (3.8%). Turnover growth in the broadcasting industry (3.0%), the music industry (2.5%), the design industry (2.3%) and the film industry (1.6%) was somewhat lower, but still positive.

Figure 5.1: Development of sales in the cultural and creative industries compared to the overall economy (change in %)

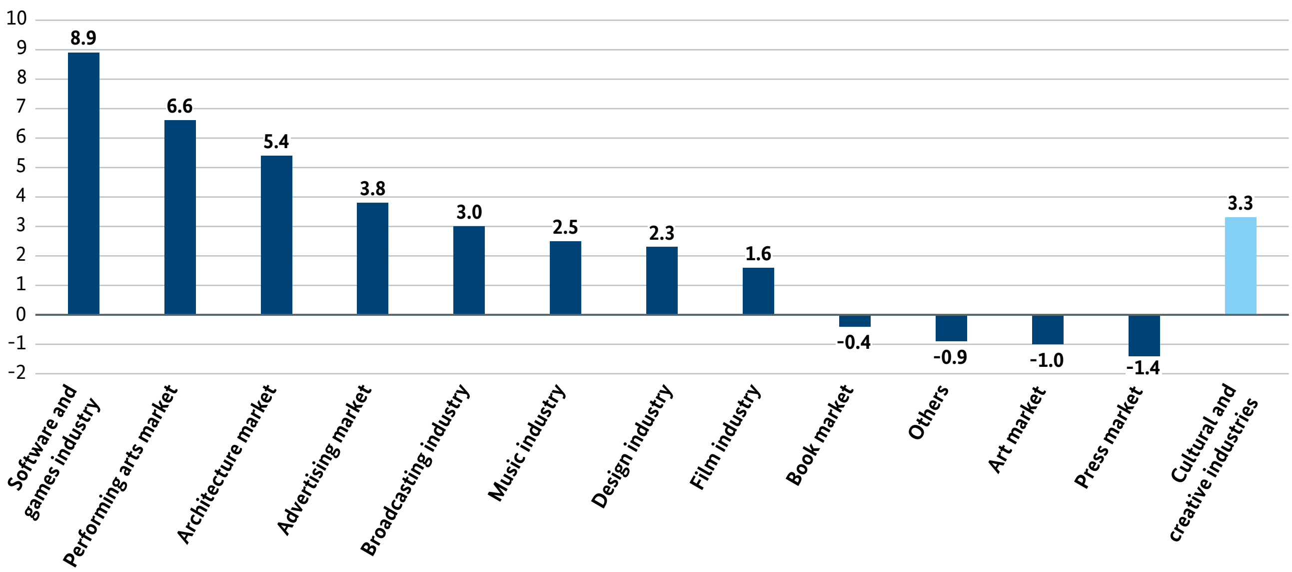


Aid to interpretation: Turnover in the cultural and creative industries grew by 4.4% between 2015 and 2016; the figure for the overall economy was 1.6%.

*Data for 2018 based on estimates.

Source: VAT statistics, Destatis 2019b; in-house calculations by ZEW.

Figure 5.2: Development of sales in the various submarkets of the cultural and creative industries (average annual change in % 2013 – 2018*)



Aid to interpretation: Sales in the film industry grew by 1.6% each year between 2013 and 2018.

*Data for 2018 based on estimates.

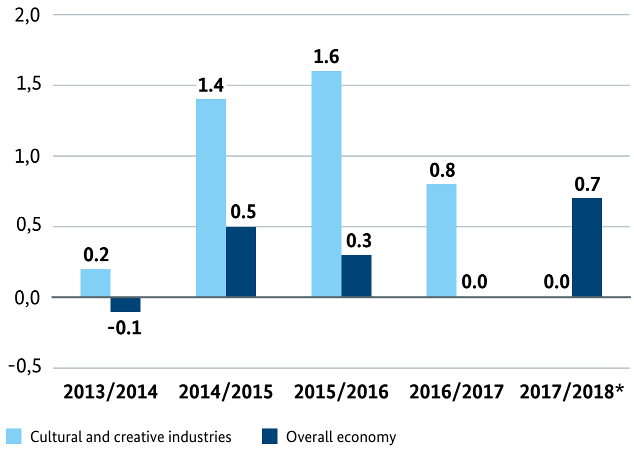
Source: VAT statistics, Destatis 2019b; in-house calculations by ZEW.

Number of companies in the cultural and creative industries steady in year-on-year terms

In 2018 the number of companies in the cultural and creative industries remained fairly steady in year-on-year terms (see Figure 5.3). This means that, for the first time since 2014, there has not been a rise in the number of companies in the cultural and creative industries. In year-on-year terms, in contrast, there is a different development: whilst the rate of growth in the number of companies in the overall economy stood at 0% in 2017, it did increase in 2018 to 0.7%, the highest growth rate since 2014. Looking back as far as 2014, the highest growth rate in the number of CCI companies was seen in in 2016, at 1.6%.

Despite the current flat trend, the long-term development in the number of companies in the cultural and creative industries is positive: the average growth rate was roughly 0.8% between 2013 and 2018 (see Figure 5.4). However, some submarkets have been recording negative growth rates. The number of companies in the broadcasting industry, architecture market, press market, art market and advertising market have been declining by an average ranging from 0.4% (broadcasting industry) to up to 2.9% (advertising market). On average, the number of companies has been increasing in the other submarkets. The highest annual growth rate is to be found in the software and games industry, at 3.9%, followed by the performing arts market (3.4%) and the design industry (2.2%).

Figure 5.3: Development of number of companies in the cultural and creative industries compared to the overall economy (change in %)

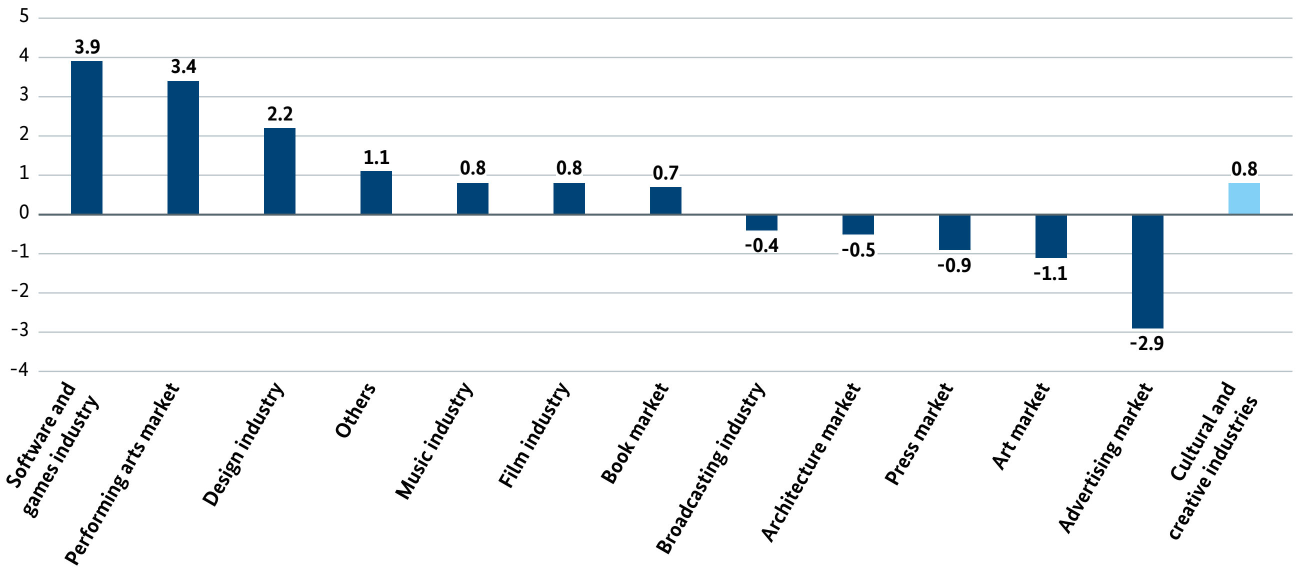


Aid to interpretation: Between 2013 and 2014 the number of companies in the overall economy fell by 0.1%; the figure for the CCI sector rose by 0.2%.

*Data for 2018 based on estimates.

Source: VAT statistics, Destatis 2019b; in-house calculations by ZEW.

Figure 5.4: Development in the number of companies in the various submarkets of the cultural and creative industries (average annual change in % for 2013 – 2018*)

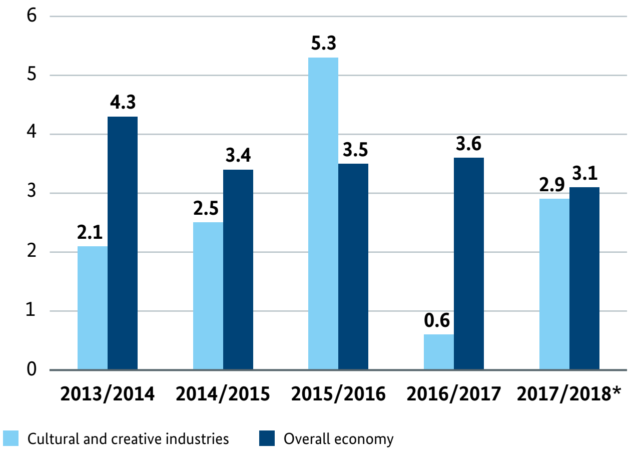


Aid to interpretation: The number of companies in the design industry grew by an average of 2.2% each year between 2013 and 2018.

*Data for 2018 based on estimates.

Source: VAT statistics, Destatis 2019b; in-house calculations by ZEW.

Figure 5.5: Development of marginal employment in the cultural and creative industries compared to the overall economy (change in %)



Aid to interpretation: Gross value added in the cultural and creative industries grew by 5.3% between 2015 and 2016; the figure for the overall economy was 3.5%.

*Data for 2018 based on estimates.

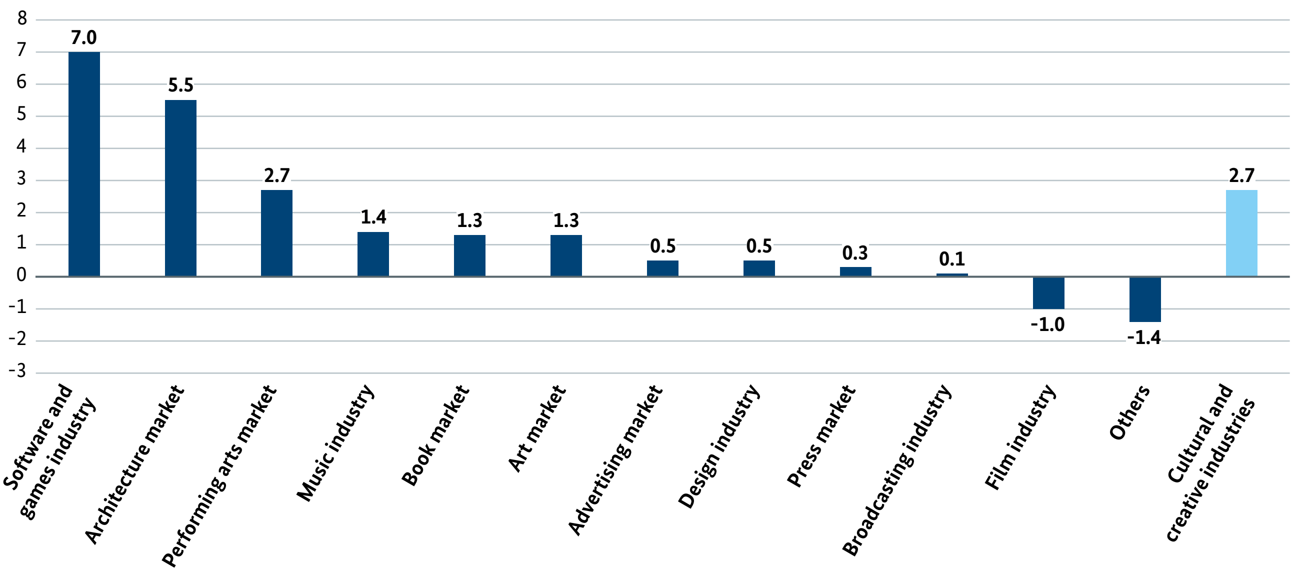
Source: VAT statistics, Destatis, 2019b; national accounts, Destatis, 2019c; in-house calculations by ZEW.

Gross value added is continuing to develop positively

The development in gross value added has consistently been positive in recent years, both in the cultural and creative industries and in the overall economy (see Figure 5.5). In year-on-year terms, gross value added rose by 3.1% in the overall economy, and by 2.9% in the cultural and creative industries. Whilst the growth rate in gross value added in the cultural and creative industries is clearly up in year-on-year terms (0.6%), the year-on-year growth rate in the overall economy is slightly lower (3.6%).

The development in gross value added is also positive in the cultural and creative industries over the longer term. The average annual growth rate in gross value added was 2.7% between 2013 and 2018 (see Figure 5.6). If one looks at the individual submarkets of the cultural and creative industries, only the film industry (-1.0%) and “others” (-1.4%) recorded a negative annual growth rate in the 2013-2018 period. The best average annual development in gross value added was seen in the software and games industry: gross

Figure 5.6: Development of gross value added in the various submarkets of the cultural and creative industries (average annual change in % 2013 – 2018*)



Aid to interpretation: Gross value added in the book market grew by an average of 1.3% per annum between 2013 and 2018.

*Data for 2018 based on estimates.

Source: VAT statistics, Destatis, 2019b; national accounts, Destatis, 2019c; in-house calculations by ZEW.

value added has been rising by 7.0% a year since 2013. Gross value added in the architecture market has also seen a comparatively strong increase, at 5.5% a year.

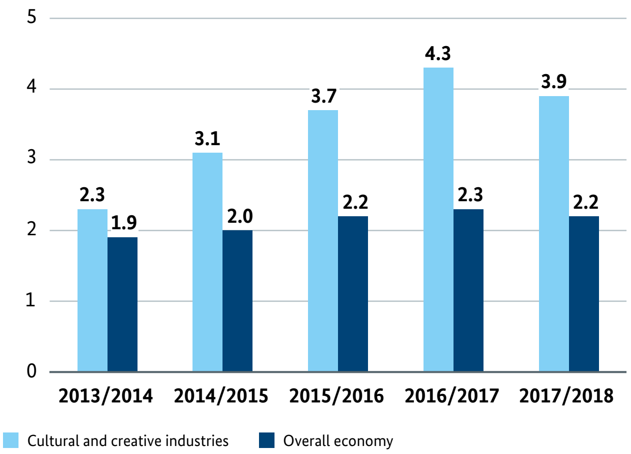
Number of persons in employment subject to compulsory social insurance payments is continuing to rise

The development in the number of employees in jobs subject to social insurance contributions is positive, both in the cultural and creative industries and in the overall economy. Even though the number of companies in the cultural and creative industries was flat against the previous year, the number of people in jobs subject to social insurance contributions rose by 3.9% (see Figure 5.7). In the same period, the number of people in jobs subject to social insurance contributions rose by 2.2% in the overall economy.

Marginal employment in the cultural and creative industries is developing differently from marginal employment in the overall economy: in the latter, the number of people in marginal employment fell by 0.9% in year-on-year terms, but the number of people in marginal employment dropped by 2.6% in the cultural and creative industries (see Figure 5.8). This roughly reflects the development since 2014: looking at the development over the last five years, it can be said that the number of people in marginal employment is tending to fall in the cultural and creative industries, whilst it is tending to rise in the overall economy.

In 2018, the number of core workers (i.e. the total of self-employed and employees subject to social insurance contributions) rose in year-on-year terms both in the cultural and creative industries and in the overall economy. Whilst the number of core workers in the overall economy rose by 2.1%, in the cultural and creative industries it grew by 3.1% (see Figure 5.9). This means that the two growth rates are close to the levels seen in the two preceding years.

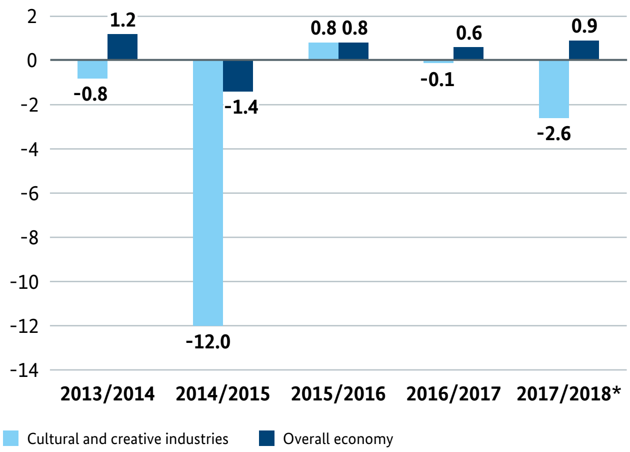
Figure 5.7: Development of number of employees subject to social insurance contributions in the cultural and creative industries compared to the overall economy (change in percentages)



Aid to interpretation: The number of employees subject to social insurance contributions in the cultural and creative industries rose by 3.7% between 2015 and 2016. In the overall economy, the equivalent rise was 2.2%.

Source: Employment statistics, Federal Employment Agency 2019; in-house calculations by ZEW.

Figure 5.8: Development of marginal employment in the cultural and creative industries compared to the overall economy (change in %)

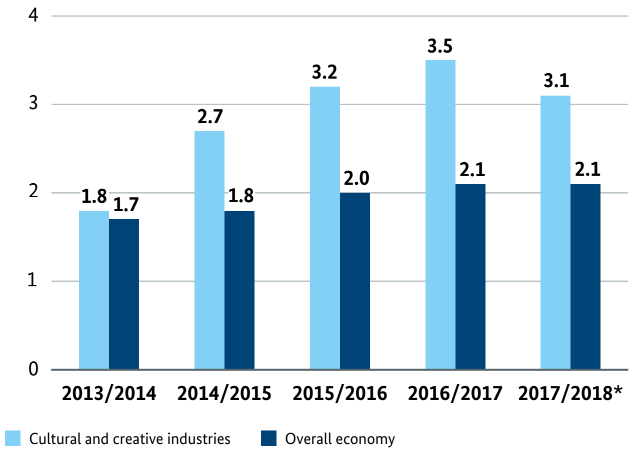


Aid to interpretation: The number of people in marginal employment in the cultural and creative industries dropped by 0.8% between 2013 and 2014, whilst it rose by 1.2% in the overall economy.

*Data for 2018 based on estimates.

Source: Employment statistics, Federal Employment Agency 2019; in-house calculations by ZEW.

Figure 5.9: Development of the number of core workers (self-employed persons and employees subject to the payment of social insurance contributions) in the cultural and creative industries compared to the overall economy (change in %)



Aid to interpretation: The number of core workers in the overall economy rose by 2.1% between 2016 and 2017; the figure for the CCIs was 3.5%.

*Data for 2018 based partly on estimates.

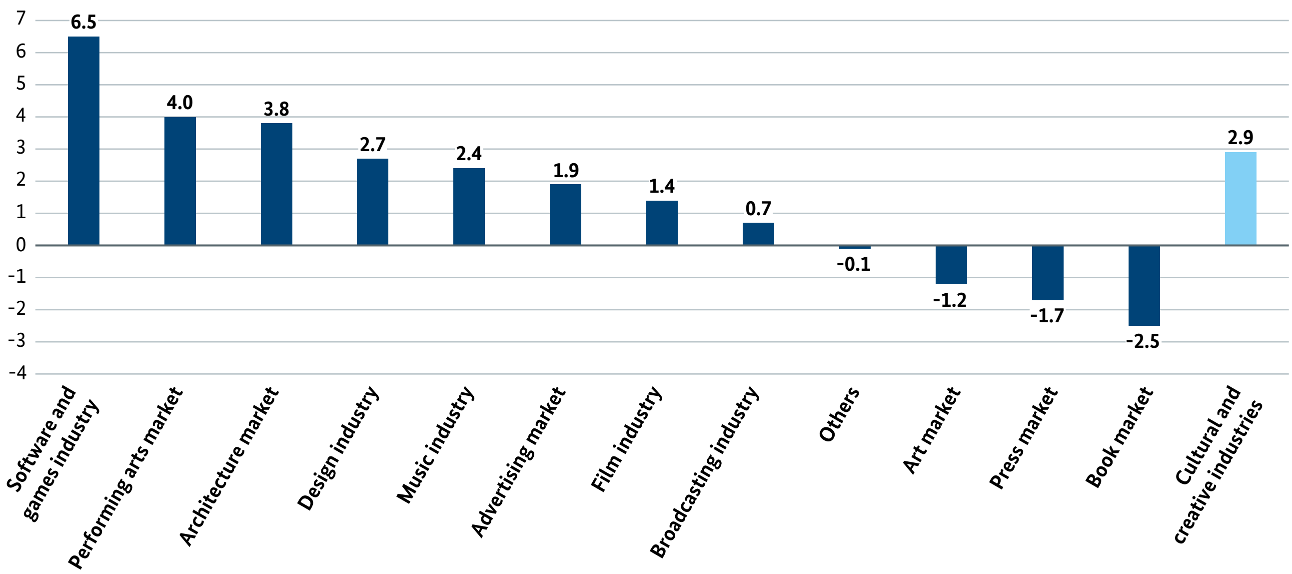
Source: VAT statistics, Destatis, 2019b, employment statistics, Federal Employment Agency 2019; in-house calculations by ZEW.

Taking the long-term view from 2013 – 2018, the number of core workers (self-employed persons and employees subject to the payment of social insurance contributions) rose by an annual average of 2.9% (see Figure 5.10). There was a particularly great rise in the number of core workers in the software and games industry, where the average annual growth rate is 6.5%. Annual declines can however be seen in some submarkets: the number of core workers has fallen each year since 2013 in the book market, the press market, the art market and "others".

Number of start-ups at previous year's level

According to the Mannheim Enterprise Panel, around 9,500 active companies were set up in the cultural and creative industries in Germany last year. This means that the number of new start-ups remained at roughly the same level as the year before. The 2012 – 2018 period, however, shows a declining trend in the number of start-ups in the cultural and creative industries, whilst the number of start-ups in the overall German economy has been fairly stable since 2014.

Figure 5.10: Development of core workers (self-employed persons and employees subject to social insurance contributions) in the various submarkets of the cultural and creative industries (average annual change in % 2013 – 2018*)



Aid to interpretation: The number of core workers in the advertising market grew by an average of 1.9% each year between 2013 and 2018.

*Data for 2018 partly based on estimates (in relation to VAT statistics).

Source: VAT statistics, Destatis, 2019b, employment statistics, Federal Employment Agency 2019; in-house calculations by ZEW.

As a result, there has been an alignment in the level of start-up activity, taking 2007 as a base year, in the cultural and creative industries and in the overall economy. More than a third (35.6%) of the start-ups were in the software and games industry submarket. This is also the only submarket on which the rate of start-up activity rose over the 2007 – 2018 period. All the other submarkets recorded a declining start-up rate over the longer term, although the architecture market in particular has seen a clear recovery since 2015.

Cultural and creative industries in rural areas

Almost all of the main economic indicators show a steady decline in the relative significance of the cultural and creative industries in rural areas. The definition of rural areas is in line with the definition of types of urban and rural areas of the Federal Institute for Research on Building, Urban Affairs and Spatial Development (BBSR). Rural areas are rural municipalities and small towns. In 2009, 14.9% of the companies were based in rural areas, but this figure had fallen to 14.1% by 2017. This trend is expressed even more clearly in terms of sales. In 2009, rural areas accounted for 8.7% of the turnover generated by the cultural and creative industries. This figure has declined – with a particularly striking drop in 2011 – and stood at just 6.1% in 2017. There is also a clear drop in the ratio of core workers in rural areas from 9.6% in 2009 to 8.3% in in 2017.

According to an analysis by the Mannheim Enterprise Panel (MUP), the companies in cultural and creative industries are not distributed evenly across Germany, but form regional clusters in and around conurbations. For example, Berlin, the largest municipality, also has the largest number of companies in the cultural and creative industries. Since around three-quarters of the municipalities in Germany are home to between zero and three companies in the cultural and creative industries, the average number of companies in the cultural and creative industries per municipality for the whole of Germany is only approximately eight companies. It is necessary to take note of the large differences between municipalities due not only to the population density, but also to the area covered by the municipality. As with large parts of the overall German economy, the spatial distribution of the companies in the cultural and creative industries roughly tallies with the distribution of the population. Companies in the cultural and creative industries tend to set up in more densely populated regions with greater local demand for their products and services and a higher availability of labour.

A survey of the cultural and creative industries in rural areas carried out in the first half of 2019 shows that very few people working in the cultural and creative industries in rural areas assess their visibility positively. For example, only just under 9% of the companies believe that regional policymakers appreciate the cultural and creative industries as an economic factor in their area or that they are easily visible to potential customers. Furthermore, almost half of the companies believe that the visibility of their company is a great challenge for the cultural and creative industries in rural areas. Also, in terms of the visibility of the potential for innovation in the cultural and creative industries, the companies still see clear room for improvement.

Digital infrastructure in rural areas is still unsatisfactory for a large proportion of people working in the cultural and creative industries, and there is a great need for improvement. 34% of the companies are satisfied with the current availability of internet and broadband, and the companies see the highest demand for infrastructure expansion in the supply of internet and broadband. A total of 58% of people working in the cultural and creative industries in rural areas estimate the need for broadband expansion to be high. The desire to expand the mobile network is also clearly widespread (45.8%).

Very few of the companies in rural areas are aware of the public-sector funding programmes for cultural and creative companies. Roughly 68% of the people working in the cultural and creative industries said they were unaware of such programmes. At present, just under 10% of the companies surveyed make use of the available programmes. With regard to the question about the need for advisory services, the wish most frequently expressed by the companies was therefore for more advice on funding programmes.

Recommended action

This report gives rise to the following recommendations for action in economic policy in order to foster the cultural and creative industries, particularly in rural areas:

- Available public funding programmes for the cultural and creative industries in rural areas should be made more visible.

- A key aim for future (funding) programmes should be improved visibility of the cultural and creative industries amongst policy-makers, potential customers and potential partners.

- Current broadband availability is unsatisfactory for cultural and creative companies, particularly in rural areas. The aim should be nation-wide provision of high-speed internet.

6 Annex

6.1 Detailed Tables

Table 6.1: Cultural and creative industries by submarket: number of companies, 2009 – 2018*

Submarket	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018*
1. Music industry	13,862	13,723	13,894	13,796	13,811	13,759	14,057	14,430	14,677	14,382
2. Book market	16,232	16,481	16,702	16,828	16,811	16,798	17,079	17,268	17,390	17,411
3. Art market	13,763	13,464	13,422	13,203	13,153	12,794	12,752	12,874	12,752	12,419
4. Film industry	18,312	17,956	18,199	18,282	18,440	18,267	18,624	19,075	19,639	19,199
5. Broadcasting industry	17,853	17,751	18,128	18,154	18,159	18,074	18,179	17,880	17,492	17,808
6. Performing arts market	14,993	15,402	15,982	16,497	17,004	17,473	18,249	19,080	19,929	20,132
7. Design industry	48,332	50,111	52,439	53,676	54,454	55,624	57,127	58,431	59,323	60,822
8. Architecture market	39,956	40,159	40,702	40,762	40,205	40,040	39,849	39,691	39,144	39,285
9. Press market	34,317	33,564	33,498	33,131	32,557	32,119	32,341	32,241	31,828	31,197
10. Advertising market	37,082	35,330	34,577	33,448	32,107	30,855	30,221	30,220	29,892	27,727
11. Software and games industry	27,018	28,527	30,413	31,915	33,365	34,725	35,933	37,375	38,803	40,363
12. Others	7,353	7,506	7,736	7,751	7,812	7,775	7,887	8,249	8,254	8,250
Total, including double counts	289,073	289,974	295,692	297,442	297,877	298,302	302,298	306,813	309,122	308,994
Duplicate categories of economic activity	50,594	50,440	51,402	51,627	51,525	51,336	51,859	52,330	52,523	52,370
Cultural and creative industries (excluding double counts)	**238,479**	**239,534**	**244,290**	**245,816**	**246,353**	**246,967**	**250,439**	**254,484**	**256,600**	**256,624**
Overall economy	3,135,542	3,165,286	3,215,095	3,250,319	3,243,538	3,240,221	3,255,537	3,266,429	3,266,806	3,288,647
Ratio of CCIs to overall economy	*7.61%*	*7.57%*	*7.60%*	*7.56%*	*7.60%*	*7.62%*	*7.69%*	*7.79%*	*7.85%*	*7.80%*

Note: *Data for 2018 estimated. Source: VAT statistics, Destatis, 2019b; in-house calculations by ZEW.

Table 6.2: Cultural and creative industries by submarket: sales (in € million), 2009 – 2018*

Submarket	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018*
1. Music industry	6,307	6,270	6,639	7,099	7,674	7,896	8,178	8,139	8,440	8,668
2. Book market	14,848	14,182	14,255	14,032	13,737	13,686	13,657	14,024	13,910	13,488
3. Art market	2,146	2,332	2,341	2,316	2,292	2,091	2,170	2,249	2,252	2,177
4. Film industry	8,734	8,925	9,283	9,228	9,060	9,328	9,844	9,572	9,987	9,823
5. Broadcasting industry	7,445	7,671	7,905	8,327	8,942	9,378	9,578	9,892	10,334	10,363
6. Performing arts market	3,316	3,478	3,742	3,909	3,971	4,262	4,502	4,770	5,244	5,469
7. Design industry	17,595	18,243	18,353	18,535	18,338	18,566	19,078	19,764	20,321	20,533
8. Architecture market	7,967	8,031	8,708	8,813	9,130	9,554	10,236	10,700	11,348	11,874
9. Press market	31,341	31,398	31,711	31,931	31,065	30,657	30,133	30,054	29,820	28,976
10. Advertising market	25,508	25,714	24,929	24,965	25,175	26,130	27,033	29,405	30,078	30,337
11. Software and games industry	24,296	26,496	28,442	29,642	29,418	31,619	34,362	37,727	41,632	45,025
12. Others	1,578	1,588	1,652	1,587	1,531	1,418	1,381	1,425	1,454	1,460
Total, including double counts	151,080	154,327	157,960	160,385	160,332	164,586	170,151	177,720	184,820	188,195
Duplicate categories of economic activity	16,751	16,993	16,990	17,047	17,178	17,691	18,084	18,906	19,633	19,913
Cultural and creative industries (excluding double counts)	**134,329**	**137,333**	**140,970**	**143,338**	**143,155**	**146,895**	**152,067**	**158,814**	**165,187**	**168,282**
Overall economy	4,897,938	5,240,997	5,687,179	5,752,249	5,765,567	5,870,875	5,989,743	6,088,287	6,360,802	6,491,332
Ratio of CCIs to overall economy	*2.74%*	*2.62%*	*2.48%*	*2.49%*	*2.48%*	*2.50%*	*2.54%*	*2.61%*	*2.60%*	*2.59%*

Note: *Data for 2018 estimated. Source: VAT statistics, Destatis, 2019b; in-house calculations by ZEW.

Table 6.3: Cultural and creative industries by submarket: number of "core" workers, 2009 – 2018*

Submarket	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018*
1. Music industry	46,827	46,698	46,627	46,533	47,493	47,941	48,496	50,533	52,147	53,502
2. Book market	78,846	76,860	79,504	78,846	78,157	75,917	73,048	71,836	71,031	68,991
3. Art market	19,424	19,161	18,945	18,912	18,793	18,249	18,177	18,292	18,132	17,696
4. Film industry	58,503	57,313	57,772	57,633	57,090	57,429	58,866	59,712	61,615	61,136
5. Broadcasting industry	38,890	38,881	39,694	39,865	41,353	41,688	42,477	42,420	42,351	42,761
6. Performing arts market	32,298	33,225	34,112	35,389	37,886	38,805	40,278	42,158	44,189	46,192
7. Design industry	125,452	125,878	128,427	131,767	134,274	137,262	141,297	145,593	149,893	153,066
8. Architecture market	100,082	101,897	105,087	107,750	110,169	112,775	116,695	121,688	126,950	132,593
9. Press market	168,312	163,305	161,101	158,860	156,097	152,409	150,380	148,641	147,021	143,470
10. Advertising market	140,958	137,006	138,881	140,431	140,562	142,978	145,863	150,715	154,170	154,700
11. Software and games industry	243,807	251,708	268,456	299,427	321,092	337,923	358,800	381,364	408,169	439,276
12. Others	15,346	14,991	15,182	15,436	15,548	15,104	15,140	15,376	15,433	15,498
Total, including double counts	1,068,745	1,066,923	1,093,788	1,130,848	1,158,513	1,178,480	1,209,516	1,248,326	1,291,100	1,328,881
Duplicate categories of economic activity	115,637	114,403	117,016	119,119	121,245	122,442	124,589	128,246	131,474	133,846
Cultural and creative industries (excluding double counts)	**953,108**	**952,520**	**976,772**	**1,011,729**	**1,037,268**	**1,056,038**	**1,084,927**	**1,120,080**	**1,159,626**	**1,195,035**
Overall economy	30,738,823	31,131,887	31,858,678	32,530,353	32,859,218	33,414,726	34,026,834	34,709,747	35,431,779	36,158,875
Ratio of CCIs to overall economy	*3.10%*	*3.06%*	*3.07%*	*3.11%*	*3.16%*	*3.16%*	*3.19%*	*3.23%*	*3.27%*	*3.30%*

Note: *Estimates. Estimates concerning the number of self-employed persons (corresponds to the number of companies).

Source: VAT statistics, Destatis, 2019; employment statistics, Federal Employment Agency, 2019; in-house calculations by ZEW.

Table 6.4: Cultural and creative industries by submarket: employees subject to social security contributions, 2009 – 2018

Submarket	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
1. Music industry	32,965	32,975	32,733	32,737	33,682	34,182	34,439	36,103	37,470	39,120
2. Book market	62,614	60,379	62,802	62,018	61,346	59,119	55,969	54,568	53,641	51,580
3. Art market	5,661	5,697	5,523	5,709	5,641	5,455	5,425	5,419	5,380	5,276
4. Film industry	40,191	39,357	39,573	39,351	38,650	39,162	40,242	40,637	41,976	41,937
5. Broadcasting industry	21,037	21,130	21,566	21,711	23,194	23,614	24,298	24,540	24,859	24,954
6. Performing arts market	17,305	17,823	18,130	18,892	20,882	21,332	22,029	23,078	24,260	26,060
7. Design industry	77,120	75,767	75,988	78,091	79,820	81,639	84,170	87,162	90,570	92,244
8. Architecture market	60,126	61,738	64,385	66,988	69,964	72,735	76,846	81,997	87,806	93,308
9. Press market	133,995	129,741	127,603	125,729	123,540	120,290	118,039	116,400	115,193	112,273
10. Advertising market	103,876	101,676	104,304	106,983	108,455	112,123	115,642	120,495	124,278	126,973
11. Software and games industry	216,789	223,181	238,043	267,512	287,727	303,198	322,867	343,989	369,366	398,913
12. Others	7,993	7,485	7,446	7,685	7,736	7,329	7,253	7,127	7,179	7,248
Total, including double counts	779,672	776,949	798,096	833,406	860,636	880,178	907,218	941,513	981,978	1,019,887
Duplicate categories of economic activity	65,043	63,963	65,614	67,492	69,721	71,107	72,731	75,917	78,952	81,476
Cultural and creative industries (excluding double counts)	**714,629**	**712,986**	**732,483**	**765,913**	**790,915**	**809,071**	**834,488**	**865,597**	**903,026**	**938,411**
Overall economy	27,603,281	27,966,601	28,643,583	29,280,034	29,615,680	30,174,505	30,771,297	31,443,318	32,164,973	32,870,228
Ratio of CCIs to overall economy	*2.59%*	*2.55%*	*2.56%*	*2.62%*	*2.67%*	*2.68%*	*2.71%*	*2.75%*	*2.81%*	*2.85%*

Source: Employment statistics, Federal Employment Agency 2019; in-house calculations by ZEW.

Table 6.5: Cultural and creative industries by submarket: people in marginal employment, 2009 – 2018

Submarket	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
1. Music industry	11,857	11,916	12,128	12,671	12,902	13,213	13,423	13,863	14,675	15,415
2. Book market	21,288	20,920	20,374	19,766	18,959	18,320	17,610	17,188	16,471	15,804
3. Art market	4,591	4,472	4,395	4,355	4,290	4,178	4,046	3,999	3,882	3,763
4. Film industry	29,179	28,317	26,928	26,368	25,994	24,920	24,185	23,332	22,955	21,896
5. Broadcasting industry	2,142	2,045	1,750	1,723	1,841	1,842	1,752	1,785	1,766	1,644
6. Performing arts market	12,804	13,011	13,715	14,754	15,806	16,450	17,084	17,998	19,476	20,741
7. Design industry	65,288	66,974	63,977	62,114	61,783	65,410	56,513	60,399	60,779	58,512
8. Architecture market	18,116	18,080	18,391	18,462	19,109	19,369	18,892	18,989	19,279	19,483
9. Press market	134,817	133,704	131,207	130,370	123,373	113,233	89,870	84,448	81,751	78,005
10. Advertising market	119,006	123,173	115,272	110,736	104,008	111,445	95,069	101,754	102,467	98,142
11. Software and games industry	20,715	21,196	22,373	23,732	24,841	25,900	25,507	26,961	27,863	28,507
12. Others	1,914	1,773	1,754	1,682	1,652	1,614	1,576	1,634	1,698	1,614
Total, including double counts	441,717	445,581	432,264	426,733	414,558	415,894	365,526	372,349	373,063	363,525
Duplicate categories of economic activity	64,647	66,253	63,461	61,777	61,739	65,737	57,475	61,850	63,012	61,631
Cultural and creative industries (excluding double counts)	**377,070**	**379,328**	**368,803**	**364,956**	**352,819**	**350,158**	**308,051**	**310,499**	**310,051**	**301,894**
Overall economy	7,359,609	7,450,194	7,536,790	7,591,384	7,716,104	7,811,376	7,704,750	7,763,218	7,806,047	7,878,276
Ratio of CCIs to overall economy	*5.12%*	*5.09%*	*4.89%*	*4.81%*	*4.57%*	*4.48%*	*4.00%*	*4.00%*	*3.97%*	*3.83%*

Source: Employment statistics, Federal Employment Agency 2019; in-house calculations by ZEW.

Table 6.6: Mini-self employed in Cultural and creative industries by submarket, 2009 – 2018*

Submarket	2009	2010	2011	2012	2013	2014	2015*	2016*	2017*	2018*
1. Music industry	20,668	21,083	21,300	21,668	21,899	22,260	22,234	23,055	23,697	23,096
2. Book market	25,013	26,035	26,838	27,721	28,956	29,424	29,382	30,151	30,967	31,400
3. Art market	26,526	26,795	26,917	27,442	27,917	27,696	27,015	27,568	27,736	27,298
4. Film industry	35,239	36,390	37,416	38,913	40,186	40,859	42,062	43,842	45,880	45,880
5. Broadcasting industry	27,573	28,446	28,743	28,857	29,240	29,249	29,119	28,638	28,070	28,627
6. Performing arts market	34,072	35,586	37,230	39,550	41,610	42,710	44,299	46,610	49,102	49,828
7. Design industry	56,487	58,756	60,334	62,267	65,193	66,367	68,892	70,615	72,160	74,972
8. Architecture market	30,017	29,357	28,454	27,432	27,160	26,276	27,517	27,055	26,539	26,737
9. Press market	35,740	36,706	36,678	36,457	36,590	36,429	36,300	35,792	35,132	35,267
10. Advertising market	37,836	35,780	33,708	32,100	30,790	29,470	29,418	29,180	28,802	26,751
11. Software and games industry	31,873	33,402	34,497	35,953	37,900	39,744	41,769	43,211	44,899	47,033
12. Others	11,023	11,021	10,919	10,995	11,136	11,264	11,423	11,895	11,919	11,982
Total, including double counts	372,067	379,357	383,033	389,355	398,577	401,748	409,431	417,613	424,901	428,871
Duplicate categories of economic activity	78,774	80,333	81,060	82,248	83,746	83,881	85,926	87,320	88,683	89,262
Cultural and creative industries (excluding double counts)	**293,293**	**299,024**	**301,974**	**307,107**	**314,831**	**317,867**	**323,504**	**330,293**	**336,218**	**339,609**
Overall economy	2,730,690	2,852,745	2,978,680	3,088,923	3,191,742	3,206,399	3,093,844	3,136,254	3,158,621	3,190,617
Ratio of CCIs to overall economy	*10.74%*	*10.48%*	*10.14%*	*9.94%*	*9.86%*	*9.91%*	*10.46%*	*10.53%*	*10.64%*	*10.64%*

Note: *Data based on estimates.

Source: VAT statistics, Destatis, 2019b; in-house calculations by ZEW.

Table 6.7: Cultural and creative industries by submarket: gross value added (in € million), 2009 – 2018*

Submarket	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018*
1. Music industry	4,460	4,290	4,496	4,911	5,424	5,514	5,635	5,680	5,633	5,804
2. Book market	4,692	4,686	4,978	4,962	4,980	5,040	5,055	5,338	5,407	5,322
3. Art market	1,234	1,328	1,216	1,255	1,219	1,163	1,220	1,279	1,341	1,300
4. Film industry	7,358	7,317	7,496	7,556	7,685	7,694	7,834	8,183	7,451	7,295
5. Broadcasting industry	6,318	6,357	6,463	6,907	7,650	7,776	7,664	8,482	7,671	7,697
6. Performing arts market	5,475	6,182	6,325	6,625	6,549	6,625	6,937	6,917	7,110	7,475
7. Design industry	9,034	9,404	9,502	9,738	10,268	9,826	9,948	10,686	10,340	10,508
8. Architecture market	4,682	4,723	4,927	5,241	5,723	5,967	6,607	6,544	7,134	7,463
9. Press market	10,359	10,983	11,993	12,274	12,274	12,505	12,493	12,497	12,810	12,488
10. Advertising market	10,653	11,053	10,894	10,746	11,867	11,651	11,508	11,956	12,051	12,150
11. Software and games industry	15,287	16,973	19,758	21,509	23,263	25,163	26,382	28,616	30,229	32,692
12. Others	1,435	1,353	1,322	1,332	1,272	1,113	1,109	1,260	1,180	1,184
Total, including double counts	80,987	84,647	89,368	93,056	98,173	100,036	102,392	107,438	108,357	111,376
Duplicate categories of economic activity	9,157	9,416	9,548	9,663	10,110	10,154	10,227	10,356	10,679	10,901
Cultural and creative industries (excluding double counts)	**71,830**	**75,232**	**79,820**	**83,393**	**88,063**	**89,882**	**92,164**	**97,082**	**97,677**	**100,475**
Overall economy	2,192,834	2,305,684	2,418,099	2,465,800	2,527,883	2,635,393	2,725,924	2,821,803	2,922,328	3,012,310
Ratio of CCIs to overall economy	*3.28%*	*3.26%*	*3.30%*	*3.38%*	*3.48%*	*3.41%*	*3.38%*	*3.44%*	*3.34%*	*3.34%*

Note: *Data for 2018 estimated.

Source: VAT statistics, Destatis, 2019b; national accounts, Destatis, 2019c; in-house calculations by ZEW.

Table 6.8: Number of companies in the cultural and creative industries by submarket and category of economic activity (WZ), 2009 – 2018*

Submarket/ WZ-2008	Sector of activity	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018*
1. Music industry											
32.20	Manufacture of musical instruments	1,165	1,180	1,197	1,204	1,218	1,216	1,265	1,291	1,289	1,298
47.59.3	Retail sale of musical instruments, etc.	2,235	2,142	2,087	1,998	1,922	1,858	1,809	1,742	1,713	1,612
47.63	Retail sale of music and video recordings, etc.	238	282	306	319	333	353	387	389	398	431
59.20.1	Sound-recording studios, etc.	479	539	583	610	634	659	659	700	720	757
59.20.2	Publishing of sound recordings	395	390	383	366	376	380	388	403	392	391
59.20.3	Publishing of printed music	1,200	1,149	1,134	1,095	1,062	1,075	1,055	1,072	1,066	1,021
90.01.2	Ballet companies, orchestras, bands and choirs	1,828	1,661	1,666	1,560	1,510	1,472	1,505	1,556	1,547	1,409
90.02	Support activities to performing arts	2,024	2,109	2,249	2,395	2,471	2,429	2,547	2,720	2,869	2,864
90.03.1	Own-account composers, etc.	2,656	2,643	2,683	2,695	2,752	2,776	2,924	3,016	3,166	3,112
90.04.1	Organisation of theatre performances and concerts	1,414	1,400	1,378	1,337	1,325	1,335	1,316	1,332	1,307	1,290
90.04.2	Operation of opera houses, theatre and concert halls, etc.	228	228	228	217	208	206	202	209	210	198
	Submarket total	**13,862**	**13,723**	**13,894**	**13,796**	**13,811**	**13,759**	**14,057**	**14,430**	**14,677**	**14,382**

→

Table 6.8: Number of companies in the cultural and creative industries by submarket and category of economic activity (WZ), 2009 – 2018*

Submarket/ WZ-2008	Sector of activity	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018*
2. Book market											
18.14	Binding and related services	1,070	1,041	1,010	993	961	909	896	855	819	789
47.61	Retail sale of books	4,290	4,195	4,137	4,038	3,896	3,803	3,716	3,682	3,536	3,428
47.79.2	Retail sale of second-hand books	479	459	448	429	428	414	407	391	369	364
58.11	Book publishing	2,193	2,220	2,243	2,209	2,170	2,117	2,075	2,034	1,982	1,979
74.30.1	Translation activities	1,584	1,625	1,718	1,811	1,884	1,974	2,088	2,244	2,411	2,419
90.03.2	Own-account writers	6,616	6,941	7,146	7,348	7,472	7,581	7,897	8,062	8,273	8,432
	Submarket total	**16,232**	**16,481**	**16,702**	**16,828**	**16,811**	**16,798**	**17,079**	**17,268**	**17,390**	**17,411**
3. Art market											
47.78.3	Retail sale of art, etc.	1,797	1,712	1,685	1,632	1,560	1,469	1,425	1,395	1,336	1,247
47.79.1	Retail sale of antiques, etc.	2,193	2,115	2,041	2,007	1,949	1,853	1,786	1,752	1,649	1,587
90.03.3	Own-account visual artists	8,883	8,814	8,932	8,892	9,010	8,870	8,949	9,127	9,192	9,098
91.02	Museums activities	890	823	764	672	634	602	592	600	575	488
	Submarket total	**13,763**	**13,464**	**13,422**	**13,203**	**13,153**	**12,794**	**12,752**	**12,874**	**12,752**	**12,419**
4. Film industry											
47.63	Retail sale of music and video recordings, etc.	238	282	306	319	333	353	387	389	398	431
59.11	Motion picture, video and TV programme production	5,785	5,253	5,118	4,988	4,894	4,567	4,400	4,409	4,521	4,043
59.12	Motion picture, video and TV programme post-production	696	767	851	861	856	774	833	852	865	855
59.13	Motion picture, video and TV programme distribution	929	865	792	711	654	576	556	518	475	382
59.14	Motion picture projection	888	878	865	843	849	834	841	822	823	812
77.22	Renting of video tapes and disks	1,321	1,201	1,087	969	864	753	653	553	428	318
90.01.4	Own-account stage, motion picture, radio and TV artists, etc.	8,455	8,710	9,180	9,591	9,990	10,410	10,954	11,532	12,129	12,358
	Submarket total	**18,312**	**17,956**	**18,199**	**18,282**	**18,440**	**18,267**	**18,624**	**19,075**	**19,639**	**19,199**
5. Broadcasting industry											
60.10	Radio broadcasting	266	262	255	255	262	262	254	252	247	251
60.20	Television programming and broadcasting	87	88	91	89	94	89	87	79	79	83
90.03.5	Own-account journalists and press photographers	17,500	17,401	17,782	17,810	17,803	17,723	17,838	17,549	17,166	17,474
	Submarket total	**17,853**	**17,751**	**18,128**	**18,154**	**18,159**	**18,074**	**18,179**	**17,880**	**17,492**	**17,808**
6. Performing arts market											
85.52	Cultural education	1,986	2,080	2,105	2,111	2,147	2,204	2,269	2,310	2,366	2,404
90.01.1	Theatre ensembles	126	124	128	131	133	142	166	157	171	173
90.01.3	Own-account performers and circus groups	564	573	546	550	584	588	642	665	724	705
90.01.4	Own-account stage, motion picture, radio and TV artists, etc.	8,455	8,710	9,180	9,591	9,990	10,410	10,954	11,532	12,129	12,358

→

Table 6.8: Number of companies in the cultural and creative industries by submarket and category of economic activity (WZ), 2009 – 2018*

Submarket/ WZ-2008	Sector of activity	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018*
90.02	Support activities to performing arts	2,024	2,109	2,249	2,395	2,471	2,429	2,547	2,720	2,869	2,864
90.04.1	Organisation of theatre performances and concerts	1,414	1,400	1,378	1,337	1,325	1,335	1,316	1,332	1,307	1,290
90.04.2	Private operation of opera houses, theatre and consert halls, etc.	228	228	228	217	208	206	202	209	210	198
90.04.3	Operation of variety theaters and cabarets	196	178	168	165	146	159	153	155	153	140
	Submarket total	**14,993**	**15,402**	**15,982**	**16,497**	**17,004**	**17,473**	**18,249**	**19,080**	**19,929**	**20,132**
7. Design industry											
32.12	Manufacture of jewellery and related articles	3,777	3,706	3,661	3,603	3,477	3,424	3,314	3,308	3,224	3,126
71.11.2	Consulting architectural activities in interior design	2,675	3,185	3,577	3,862	3,987	4,119	4,189	4,216	4,247	4,677
73.11	Advertising agencies (50% share)	18,060	17,125	16,702	16,096	15,408	14,761	14,426	14,383	14,197	13,079
74.10.1	Industrial, product and fashion designers	1,606	2,164	2,586	2,975	3,372	3,590	3,792	3,987	4,122	4,687
74.10.2	Graphics and communications designers	5,506	7,269	8,725	10,054	11,100	12,425	13,598	14,419	15,094	16,907
74.10.3	Interior decorators	8,017	7,679	7,773	7,303	6,898	6,661	6,588	6,512	6,444	5,948
74.20.1	Photographers	8,691	8,983	9,415	9,783	10,212	10,644	11,220	11,606	11,995	12,398
	Submarket total	**48,332**	**50,111**	**52,439**	**53,676**	**54,454**	**55,624**	**57,127**	**58,431**	**59,323**	**60,822**
8. Architecture market											
71.11.1	Consulting architectural activities in building construction	28,140	27,587	27,554	27,137	26,465	26,084	25,772	25,490	24,900	24,444
71.11.2	Consulting architectural activities in interior design	2,675	3,185	3,577	3,862	3,987	4,119	4,189	4,216	4,247	4,677
71.11.3	Consulting architectural activities in town, city and regional planning	4,664	4,828	4,990	5,088	5,050	5,083	5,115	5,185	5,135	5,245
71.11.4	Consulting architectural activities in landscape architecture	3,072	3,088	3,108	3,156	3,168	3,179	3,198	3,193	3,219	3,244
90.03.4	Own-account restorers	1,405	1,471	1,473	1,519	1,535	1,575	1,575	1,607	1,643	1,676
	Submarket total	**39,956**	**40,159**	**40,702**	**40,762**	**40,205**	**40,040**	**39,849**	**39,691**	**39,144**	**39,285**
9. Press market											
47.62	Retail sale of newspapers and stationery	9,536	9,219	8,891	8,563	8,208	8,000	8,256	8,604	8,749	8,000
58.12	Publishing of directories and mailing lists, etc.	211	200	217	211	212	214	203	198	191	196
58.13	Publishing of newspapers	831	829	826	845	849	835	812	808	790	801
58.14	Publishing of journals and periodicals	1,848	1,782	1,741	1,722	1,689	1,643	1,621	1,568	1,531	1,494
58.19	Other publishing activities (excluding software)	3,396	3,144	3,053	3,002	2,906	2,866	2,799	2,739	2,650	2,534
63.91	News agency activities	995	989	988	978	890	838	812	775	751	698
90.03.5	Own-account journalists and press photographers	17,500	17,401	17,782	17,810	17,803	17,723	17,838	17,549	17,166	17,474
	Submarket total	**34,317**	**33,564**	**33,498**	**33,131**	**32,557**	**32,119**	**32,341**	**32,241**	**31,828**	**31,197**

→

Table 6.8: Number of companies in the cultural and creative industries by submarket and category of economic activity (WZ), 2009 – 2018*

Submarket/ WZ-2008	Sector of activity	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018*
10. Advertising market											
73.11	Advertising agencies	36,120	34,250	33,404	32,191	30,815	29,521	28,851	28,765	28,393	26,158
73.12	Media representation	962	1,080	1,173	1,257	1,292	1,334	1,370	1,455	1,499	1,569
	Submarket total	**37,082**	**35,330**	**34,577**	**33,448**	**32,107**	**30,855**	**30,221**	**30,220**	**29,892**	**27,727**
11. Software and games industry											
58.21	Publishing of computer games	392	354	336	326	295	283	279	273	263	229
58.29	Other software publishing	354	474	534	529	543	544	532	563	611	633
62.01.1	Web-page design and programming	7,457	8,256	9,037	9,603	10,073	10,611	11,106	11,559	11,882	12,656
62.01.9	Other software development	18,625	19,172	20,165	21,042	21,919	22,638	23,300	24,182	25,115	25,827
63.12	Web portals	190	271	341	415	535	649	716	798	932	1,019
	Submarket total	**27,018**	**28,527**	**30,413**	**31,915**	**33,365**	**34,725**	**35,933**	**37,375**	**38,803**	**40,363**
12. Others											
32.11	Striking of coins	49	54	54	53	50	45	43	41	41	39
32.13	Manufacture of imitation jewellery and related articles	303	289	304	303	305	318	327	328	324	331
74.20.2	Photographic laboratories	518	466	466	428	413	378	354	338	319	283
74.30.2	Interpretation activities	6,006	6,237	6,456	6,547	6,637	6,638	6,791	7,173	7,188	7,249
91.01	Libraries and archives	111	100	101	81	80	79	73	64	66	58
91.03	Operation of historical sites and buildings and similar visitor attractions	104	95	95	92	87	90	92	85	88	84
91.04	Botanical and zoological gardens and nature reserves	262	265	260	247	240	227	207	220	228	206
	Submarket total	**7,353**	**7,506**	**7,736**	**7,751**	**7,812**	**7,775**	**7,887**	**8,249**	**8,254**	**8,250**
Total, including double counts		289,073	289,974	295,692	297,442	297,877	298,302	302,298	306,813	309,122	308,994
Duplicate categories of economic activity		50,594	50,440	51,402	51,627	51,525	51,336	51,859	52,330	52,523	52,370
Cultural and creative industries (excluding double counts)		**238,479**	**239,534**	**244,290**	**245,816**	**246,353**	**246,967**	**250,439**	**254,484**	**256,600**	**256,624**
Ratio of CCIs to overall economy		*7.61%*	*7.57%*	*7.60%*	*7.56%*	*7.60%*	*7.62%*	*7.69%*	*7.79 %*	*7.85%*	*7.80%*

Note: *Data for 2018 estimated. Minimal discrepancies in the submarket totals or overall totals due to rounding.

Source: VAT statistics, Destatis, 2019b; in-house calculations by ZEW.

Table 6.9: Turnover (in € million) in the cultural and creative industries by submarket and category of economic activity, 2009 – 2018*

Submarket/ WZ-2008	Sector of activity	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018*
1. Music industry											
32.20	Manufacture of musical instruments	532	551	579	592	616	611	628	640	660	674
47.59.3	Retail sale of musical instruments, etc.	1,105	1,175	1,207	1,245	1,187	1,227	1,279	1,345	1,358	1,348
47.63	Retail sale of music and video recordings, etc.	113	126	140	158	155	154	186	169	174	177
59.20.1	Sound-recording studios, etc.	93	109	125	134	126	119	120	130	132	142
59.20.2	Publishing of sound recordings	1,215	989	1,016	983	866	829	793	541	335	325
59.20.3	Publishing of printed music	587	549	571	918	1,675	1,666	1,749	1,698	1,786	1,841
90.01.2	Ballet companies, orchestras, bands and choirs	225	210	239	233	228	209	224	231	224	220
90.02	Support activities to performing arts	379	402	440	461	501	550	597	700	864	945
90.03.1	Own-account composers, etc.	261	261	274	283	275	308	316	313	326	321
90.04.1	Organisation of theatre performances and concerts	1,437	1,509	1,644	1,639	1,597	1,766	1,795	1,897	2,079	2,168
90.04.2	Operation of opera houses, theatre and concert halls, etc.	361	389	403	453	447	456	491	475	501	508
	Submarket total	**6,307**	**6,270**	**6,639**	**7,099**	**7,674**	**7,896**	**8,178**	**8,139**	**8,440**	**8,668**
2. Book market											
18.14	Binding and related services	732	836	871	805	786	733	696	691	710	680
47.61	Retail sale of books	3,667	3,600	3,506	3,551	3,451	3,558	3,866	3,831	3,729	3,414
47.79.2	Retail sale of second-hand books	66	72	70	65	63	56	61	61	60	61
58.11	Book publishing	9,590	8,848	8,945	8,754	8,581	8,480	8,133	8,457	8,430	8,327
74.30.1	Translation activities	271	274	295	287	278	293	315	374	374	382
90.03.2	Own-account writers	522	552	568	570	578	566	585	611	607	625
	Submarket total	**14,848**	**14,182**	**14,255**	**14,032**	**13,737**	**13,686**	**13,657**	**14,024**	**13,910**	**13,488**
3. Art market											
47.78.3	Retail sale of art, etc.	594	660	742	707	729	619	679	667	685	657
47.79.1	Retail sale of antiques, etc.	409	404	432	416	381	324	302	301	288	281
90.03.3	Own-account visual artists	730	750	753	765	766	770	784	874	839	830
91.02	Museum activities	412	518	414	428	416	378	405	407	440	409
	Submarket total	**2,146**	**2,332**	**2,341**	**2,316**	**2,292**	**2,091**	**2,170**	**2,249**	**2,252**	**2,177**
4. Film industry											
47.63	Retail sale of music and video recordings, etc.	113	126	140	158	155	154	186	169	174	177
59.11	Motion picture, video and TV programme production	4,447	4,489	4,458	4,444	4,418	4,664	4,674	4,676	4,901	4,905
59.12	Motion picture, video and TV programme post-production	124	153	164	181	240	210	234	211	230	224
59.13	Motion picture, video and TV programme distribution	1,667	1,815	1,993	1,752	1,569	1,572	1,630	1,528	1,527	1,474
59.14	Motion picture projection	1,315	1,276	1,419	1,527	1,524	1,488	1,761	1,535	1,608	1,585
77.22	Renting of video tapes and disks	348	315	302	296	261	277	309	353	383	270

→

Table 6.9: Turnover (in € million) in the cultural and creative industries by submarket and category of economic activity, 2009 – 2018*

Submarket/ WZ-2008	Sector of activity	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018*
90.01.4	Own-account stage, motion picture, radio and TV artists, etc.	720	752	806	870	892	964	1,049	1,102	1,165	1,188
	Submarket total	**8,734**	**8,925**	**9,283**	**9,228**	**9,060**	**9,328**	**9,844**	**9,572**	**9,987**	**9,823**
5. Broadcasting industry											
60.10	Radio broadcasting	1,004	965	962	969	981	933	942	1,034	1,007	1,014
60.20	Television programming and broadcasting	5,233	5,487	5,686	6,135	6,747	7,238	7,423	7,641	8,123	8,125
90.03.5	Own-account journalists and press photographers	1,208	1,219	1,258	1,223	1,213	1,206	1,212	1,218	1,204	1,224
	Submarket total	**7,445**	**7,671**	**7,905**	**8,327**	**8,942**	**9,378**	**9,578**	**9,892**	**10,334**	**10,363**
6. Performing arts market											
85.52	Cultural education	235	239	252	265	272	275	290	305	328	350
90.01.1	Theatre ensembles	53	54	55	81	91	93	101	103	108	106
90.01.3	Own-account performers and circus groups	51	55	60	57	79	72	89	97	107	111
90.01.4	Own-account stage, motion picture, radio and TV artists, etc.	720	752	806	870	892	964	1,049	1,102	1,165	1,188
90.02	Support activities to performing arts	379	402	440	461	501	550	597	700	864	945
90.04.1	Organisation of theatre performances and concerts	1,437	1,509	1,644	1,639	1,597	1,766	1,795	1,897	2,079	2,168
90.04.2	Private operation of opera houses, theatre and concert halls, etc.	361	389	403	453	447	456	491	475	501	508
90.04.3	Operation of variety theaters and cabarets	81	78	82	84	91	86	89	92	92	93
	Submarket total	**3,316**	**3,478**	**3,742**	**3,909**	**3,971**	**4,262**	**4,502**	**4,770**	**5,244**	**5,469**
7. Design industry											
32.12	Manufacture of jewellery and related articles	2,216	2,531	2,686	2,780	2,336	2,181	2,219	2,110	2,183	2,177
71.11.2	Consulting architectural activities in interior design	401	485	594	634	669	727	768	873	963	1,056
73.11	Advertising agencies (50% share)	12,132	12,112	11,704	11,609	11,703	11,868	11,984	12,473	12,684	12,648
74.10.1	Industrial, product and fashion designers	237	327	419	475	544	599	625	664	685	748
74.10.2	Graphics and communications designers	495	627	749	856	954	1,078	1,210	1,331	1,463	1,604
74.10.3	Interior decorators	1,012	981	1,040	972	922	922	1,028	1,076	1,095	1,035
74.20.1	Photographers	1,102	1,179	1,160	1,209	1,210	1,191	1,244	1,237	1,248	1,266
	Submarket total	**17,595**	**18,243**	**18,353**	**18,535**	**18,338**	**18,566**	**19,078**	**19,764**	**20,321**	**20,533**
8. Architecture market											
71.11.1	Consulting architectural activities in building construction	5,821	5,765	6,126	6,117	6,316	6,569	7,080	7,290	7,689	7,992
71.11.2	Consulting architectural activities in interior design	401	485	594	634	669	727	768	873	963	1,056
71.11.3	Consulting architectural activities in town, city and regional planning	1,022	1,066	1,239	1,288	1,347	1,389	1,486	1,599	1,698	1,778
71.11.4	Consulting architectural activities in landscape architecture	571	543	565	586	603	658	700	737	792	838
90.03.4	Own-account restorers	151	171	183	188	196	211	203	202	206	211
	Submarket total	**7,967**	**8,031**	**8,708**	**8,813**	**9,130**	**9,554**	**10,236**	**10,700**	**11,348**	**11,874**

→

Table 6.9: Turnover (in € million) in the cultural and creative industries by submarket and category of economic activity, 2009 – 2018*

Submarket/ WZ-2008	Sector of activity	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018*
9. Press market											
47.62	Retail sale of newspapers and stationery	3,403	3,351	3,381	3,422	3,303	3,275	3,344	3,458	3,832	3,662
58.12	Publishing of directories and mailing lists	1,369	1,415	1,762	1,875	1,825	1,706	1,599	1,516	1,505	1,427
58.13	Publishing of newspapers	10,930	11,183	11,501	11,781	11,396	10,595	10,112	10,094	10,291	10,013
58.14	Publishing of journals and periodicals	9,918	9,933	9,829	9,934	9,742	9,768	9,708	9,473	9,265	9,117
58.19	Other publishing activities (excluding software)	3,996	3,785	3,458	3,197	3,120	3,622	3,643	3,733	3,166	2,990
63.91	News agency activities	516	513	522	497	466	485	515	561	556	545
90.03.5	Own-account journalists and press photographers	1,208	1,219	1,258	1,223	1,213	1,206	1,212	1,218	1,204	1,224
	Submarket total	**31,341**	**31,398**	**31,711**	**31,931**	**31,065**	**30,657**	**30,133**	**30,054**	**29,820**	**28,976**
10. Advertising market											
73.11	Advertising agencies	24,264	24,223	23,407	23,217	23,406	23,737	23,969	24,946	25,367	25,296
73.12	Media representation	1,244	1,491	1,522	1,748	1,769	2,394	3,064	4,459	4,711	5,041
	Submarket total	**25,508**	**25,714**	**24,929**	**24,965**	**25,175**	**26,130**	**27,033**	**29,405**	**30,078**	**30,337**
11. Software and games industry											
58.21	Publishing of computer games	4,135	3,040	2,327	1,743	1,395	336	269	304	247	240
58.29	Other software publishing	272	429	504	396	425	424	400	442	508	511
62.01.1	Web-page design and programming	2,530	2,732	3,055	3,179	3,208	3,523	3,955	4,670	5,057	5,506
62.01.9	Other software development	17,034	19,818	21,997	23,663	23,509	26,489	28,070	30,298	33,313	35,821
63.12	Web portals	324	477	559	661	881	847	1,667	2,013	2,507	2,947
	Submarket total	**24,296**	**26,496**	**28,442**	**29,642**	**29,418**	**31,619**	**34,362**	**37,727**	**41,632**	**45,025**
12. Others											
32.11	Striking of coins	128	118	159	147	160	109	105	117	125	127
32.13	Manufacture of imitation jewellery and related articles	110	125	128	117	124	131	75	68	70	72
74.20.2	Photographic laboratories	567	518	503	449	372	235	232	225	198	197
74.30.2	Interpretation activities	428	462	495	509	520	536	559	642	630	636
91.01	Libraries and archives	63	66	48	43	44	49	55	30	34	34
91.03	Operation of historical sites and buildings and similar visitor attractions	39	32	36	35	34	36	36	36	37	38
91.04	Botanical and zoological gardens and nature reserves	244	267	283	288	277	323	319	306	360	357
	Submarket total	**1,578**	**1,588**	**1,652**	**1,587**	**1,531**	**1,418**	**1,381**	**1,425**	**1,454**	**1,460**
Total, including double counts		151,080	154,327	157,960	160,385	160,332	164,586	170,151	177,720	184,820	188,195
Duplicate categories of economic activity		16,751	16,993	16,990	17,047	17,178	17,691	18,084	18,906	19,633	19,913
Cultural and creative industries (excluding double counts)		**134,329**	**137,333**	**140,970**	**143,338**	**143,155**	**146,895**	**152,067**	**158,814**	**165,187**	**168,282**
Ratio of CCIs to overall economy		*2.74%*	*2.62%*	*2.48%*	*2.49 %*	*2.48%*	*2.50%*	*2.54%*	*2.61%*	*2.60%*	*2.59%*

Note: *Data for 2018 estimated. Minimal discrepancies in the submarket totals or overall totals due to rounding.

Source: VAT statistics, Destatis, 2019b; in-house calculations by ZEW.

Table 6.10: Number of "core" workers in the cultural and creative industries by submarket and industry subsector, 2009 – 2018*

Submarket/ WZ-2008	Sector of activity	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018*
1. Music industry											
32.20	Manufacture of musical instruments	6,620	6,396	6,300	6,376	6,339	6,413	6,352	6,385	6,383	6,520
47.59.3	Retail sale of musical instruments, etc.	6,111	6,169	6,232	6,292	6,241	6,105	6,081	6,015	6,074	6,029
47.63	Retail sale of music and video recordings, etc.	1,632	1,662	1,626	1,589	1,328	1,265	1,246	1,229	1,228	1,248
59.20.1	Sound-recording studios, etc.	1,384	1,403	1,449	1,513	1,552	1,556	1,549	1,608	1,683	1,801
59.20.2	Publishing of sound recordings	2,679	2,550	2,666	2,584	1,891	1,776	1,835	1,598	1,656	1,607
59.20.3	Publishing of printed music	2,910	3,199	3,095	2,697	2,716	3,224	3,253	3,436	3,560	3,670
90.01.2	Ballet companies, orchestras, bands and choirs	7,341	6,812	6,312	5,788	5,786	5,815	5,750	6,929	7,062	6,923
90.02	Support activities to performing arts	5,522	5,832	6,144	6,622	6,721	6,951	7,570	8,313	8,984	9,820
90.03.1	Own-account composers, etc.	2,838	2,819	2,865	2,882	2,935	2,944	3,130	3,232	3,370	3,319
90.04.1	Organisation of theatre performances and concerts	6,344	6,365	6,386	6,593	8,419	8,261	8,105	8,327	8,671	9,042
90.04.2	Private operation of opera houses, theatre and concert halls, etc.	3,446	3,491	3,552	3,597	3,565	3,631	3,625	3,461	3,476	3,524
	Submarket total	**46,827**	**46,698**	**46,627**	**46,533**	**47,493**	**47,941**	**48,496**	**50,533**	**52,147**	**53,502**
2. Book market											
18.14	Binding and related services	12,071	11,366	10,895	10,791	10,114	9,923	9,551	8,584	8,326	7,972
47.61	Retail sale of books	28,515	27,926	29,942	29,148	28,522	26,559	23,634	22,155	21,233	19,441
47.79.2	Retail sale of second-hand books	809	776	765	752	767	741	719	721	663	677
58.11	Book publishing	25,805	24,804	25,419	25,260	25,423	24,893	24,619	25,221	25,062	24,755
74.30.1	Translation activities	4,666	4,692	4,961	5,160	5,419	5,708	6,027	6,395	6,726	6,866
90.03.2	Own-account writers	6,980	7,296	7,522	7,735	7,912	8,093	8,498	8,760	9,021	9,280
	Submarket total	**78,846**	**76,860**	**79,504**	**78,846**	**78,157**	**75,917**	**73,048**	**71,836**	**71,031**	**68,991**
3. Art market											
47.78.3	Retail sale of art, etc.	3,560	3,539	3,310	3,290	3,182	3,067	3,100	3,099	3,049	2,925
47.79.1	Retail sale of antiques, etc.	3,566	3,438	3,400	3,422	3,363	3,174	3,015	2,927	2,783	2,714
90.03.3	Own-account visual artists	10,203	10,160	10,265	10,256	10,361	10,129	10,183	10,367	10,473	10,358
91.02	Museum activities	2,095	2,024	1,970	1,944	1,888	1,879	1,879	1,899	1,827	1,699
	Submarket total	**19,424**	**19,161**	**18,945**	**18,912**	**18,793**	**18,249**	**18,177**	**18,292**	**18,132**	**17,696**
4. Film industry											
47.63	Retail sale of music and video recordings, etc.	1,632	1,662	1,626	1,589	1,328	1,265	1,246	1,229	1,228	1,248
59.11	Motion picture, video and TV programme production	26,148	25,524	25,525	26,109	25,764	26,286	26,492	27,190	28,252	28,272
59.12	Motion picture, video and TV programme post-production	5,617	5,384	5,580	5,004	4,900	4,917	4,977	4,858	5,116	4,986
59.13	Motion picture, video and TV programme distribution	3,422	3,291	3,182	2,945	2,956	2,895	2,716	2,700	2,734	2,639
59.14	Motion picture projection	8,771	8,581	8,697	8,696	8,816	8,596	9,582	9,592	9,940	9,801
77.22	Renting of video tapes and disks	3,924	3,608	3,444	3,117	2,744	2,426	2,206	1,824	1,423	1,004

→

Table 6.10: Number of "core" workers in the cultural and creative industries by submarket and industry subsector, 2009 – 2018*

Submarket/ WZ-2008	Sector of activity	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018*
90.01.4	Own-account stage, motion picture, and TV artists, etc.	8,989	9,263	9,718	10,173	10,582	11,044	11,647	12,319	12,922	13,186
	Submarket total	**58,503**	**57,313**	**57,772**	**57,633**	**57,090**	**57,429**	**58,866**	**59,712**	**61,615**	**61,136**
5. Broadcasting industry											
60.10	Radio broadcasting	13,517	13,601	13,745	13,437	14,030	14,230	15,067	15,093	14,674	14,775
60.20	Television programming and broadcasting	6,924	7,007	7,304	7,715	8,659	8,879	8,710	8,775	9,434	9,437
90.03.5	Own-account journalists and press photographers	18,449	18,273	18,645	18,713	18,663	18,579	18,700	18,552	18,243	18,550
	Submarket total	**38,890**	**38,881**	**39,694**	**39,865**	**41,353**	**41,688**	**42,477**	**42,420**	**42,351**	**42,761**
6. Performing arts market											
85.52	Cultural education	4,539	4,708	4,914	5,157	5,385	5,592	5,922	6,184	6,516	6,951
90.01.1	Theatre ensembles	1,240	1,340	1,214	1,214	1,056	1,056	1,080	1,121	1,146	1,127
90.01.3	Own-account performers and circus groups	1,292	1,286	1,262	1,107	1,194	1,222	1,275	1,389	1,359	1,418
90.01.4	Own-account stage, motion picture, radio and TV artists, etc.	8,989	9,263	9,718	10,173	10,582	11,044	11,647	12,319	12,922	13,186
90.02	Support activities to performing arts	5,522	5,832	6,144	6,622	6,721	6,951	7,570	8,313	8,984	9,820
90.04.1	Organisation of theatre performances and concerts	6,344	6,365	6,386	6,593	8,419	8,261	8,105	8,327	8,671	9,042
90.04.2	Private operation of opera houses, theatre and concert halls, etc.	3,446	3,491	3,552	3,597	3,565	3,631	3,625	3,461	3,476	3,524
90.04.3	Operation of variety theaters and cabarets	925	940	923	926	965	1,048	1,054	1,044	1,115	1,124
	Submarket total	**32,298**	**33,225**	**34,112**	**35,389**	**37,886**	**38,805**	**40,278**	**42,158**	**44,189**	**46,192**
7. Design industry											
32.12	Manufacture of jewellery and related articles	14,848	13,847	11,725	11,592	11,396	11,323	11,203	11,202	10,971	10,938
71.11.2	Consulting architectural activities in interior design	4,149	4,743	5,399	5,857	6,379	6,595	6,821	7,164	7,484	8,209
73.11	Advertising agencies (50% share)	67,106	64,774	65,546	65,975	65,589	66,116	66,876	68,882	70,467	70,268
74.10.1	Industrial, product and fashion designers	3,332	4,247	4,871	5,643	6,550	7,134	7,989	8,386	9,555	10,423
74.10.2	Graphics and communications designers	8,364	10,338	12,261	14,245	15,856	17,567	19,140	20,357	21,428	23,495
74.10.3	Interior decorators	10,582	10,482	10,669	10,152	9,829	9,606	9,695	9,911	9,873	9,327
74.20.1	Photographers	17,071	17,447	17,956	18,303	18,675	18,921	19,573	19,691	20,115	20,406
	Submarket total	**125,452**	**125,878**	**128,427**	**131,767**	**134,274**	**137,262**	**141,297**	**145,593**	**149,893**	**153,066**
8. Architecture market											
71.11.1	Consulting architectural activities in building construction	74,651	75,306	77,334	79,473	81,311	83,467	86,553	90,265	94,577	98,301
71.11.2	Consulting architectural activities in interior design	4,149	4,743	5,399	5,857	6,379	6,595	6,821	7,164	7,484	8,209
71.11.3	Consulting architectural activities in town, city and regional planning	11,355	11,600	12,029	11,803	11,721	11,649	11,972	12,369	12,410	12,995
71.11.4	Consulting architectural activities in landscape architecture	7,035	7,314	7,393	7,617	7,822	8,031	8,323	8,778	9,237	9,774
90.03.4	Own-account restorers	2,892	2,934	2,932	3,000	2,936	3,033	3,026	3,112	3,242	3,315
	Submarket total	**100,082**	**101,897**	**105,087**	**107,750**	**110,169**	**112,775**	**116,695**	**121,688**	**126,950**	**132,593**

→

Table 6.10: Number of "core" workers in the cultural and creative industries by submarket and industry subsector, 2009 – 2018*

Submarket/ WZ-2008	Sector of activity	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018*
9. Press market											
47.62	Retail sale of newspapers and stationery	29,143	29,032	28,806	28,622	27,788	27,435	27,650	27,796	27,305	26,089
58.12	Publishing of directories and mailing lists, etc.	5,070	5,049	4,352	4,283	4,074	3,832	3,641	3,540	3,131	2,968
58.13	Publishing of newspapers	51,654	49,515	47,744	47,619	47,020	45,916	44,713	43,885	42,584	41,430
58.14	Publishing of journals and periodicals	43,451	41,341	40,655	38,777	38,111	36,212	34,838	33,464	32,873	32,346
58.19	Other publishing activities (excluding software)	11,518	11,264	11,551	11,188	11,059	10,767	10,081	9,635	9,508	8,979
63.91	News agency activities	9,027	8,831	9,348	9,658	9,382	9,668	10,757	11,769	13,377	13,108
90.03.5	Own-account journalists and press photographers	18,449	18,273	18,645	18,713	18,663	18,579	18,700	18,552	18,243	18,550
	Submarket total	**168,312**	**163,305**	**161,101**	**158,860**	**156,097**	**152,409**	**150,380**	**148,641**	**147,021**	**143,470**
10. Advertising market											
73.11	Advertising agencies	134,212	129,548	131,092	131,949	131,177	132,232	133,751	137,763	140,933	140,536
73.12	Media representation	6,746	7,458	7,789	8,482	9,385	10,746	12,112	12,952	13,237	14,164
	Submarket total	**140,958**	**137,006**	**138,881**	**140,431**	**140,562**	**142,978**	**145,863**	**150,715**	**154,170**	**154,700**
11. Software and games industry											
58.21	Publishing of computer games	1,191	1,517	1,826	1,961	1,583	1,701	1,763	2,080	1,841	1,790
58.29	Other software publishing	12,501	15,417	17,932	20,664	22,028	23,144	25,401	28,690	32,407	32,573
62.01.1	Web-page design and programming	25,566	29,477	34,557	38,343	40,190	41,645	45,011	48,173	51,169	55,720
62.01.9	Other software development	202,254	201,743	208,997	231,515	248,469	260,525	272,735	284,698	301,336	324,024
63.12	Web portals	2,295	3,554	5,144	6,944	8,822	10,908	13,890	17,723	21,416	25,170
	Submarket total	**243,807**	**251,708**	**268,456**	**299,427**	**321,092**	**337,923**	**358,800**	**381,364**	**408,169**	**439,276**
12. Others											
32.11	Striking of coins	465	468	482	511	518	489	538	559	592	602
32.13	Manufacture of imitation jewellery and related articles	832	857	903	891	876	762	754	738	717	732
74.20.2	Photographic laboratories	5,609	5,045	4,862	4,945	5,008	4,704	4,587	4,217	4,003	3,980
74.30.2	Interpretation activities	6,419	6,645	6,930	7,127	7,232	7,200	7,325	7,905	8,005	8,083
91.01	Libraries and archives	1,028	991	991	927	895	931	927	945	1,079	1,066
91.03	Operation of historical sites and buildings and similar visitor attractions	220	210	223	226	223	223	225	205	209	214
91.04	Botanical and zoological gardens and nature reserves	772	774	792	808	795	795	783	807	827	821
	Submarket total	**15,346**	**14,991**	**15,182**	**15,436**	**15,548**	**15,104**	**15,140**	**15,376**	**15,433**	**15,498**
Total, including double counts		1,068,745	1,066,923	1,093,788	1,130,848	1,158,513	1,178,480	1,209,516	1,248,326	1,291,100	1,328,881
Duplicate categories of economic activity		115,637	114,403	117,016	119,119	121,245	122,442	124,589	128,246	131,474	133,846
Cultural and creative industries (excluding double counts)		**953,108**	**952,520**	**976,772**	**1,011,729**	**1,037,268**	**1,056,038**	**1,084,927**	**1,120,080**	**1,159,626**	**1,195,035**
Ratio of CCIs to overall economy		*3.10%*	*3.06%*	*3.07%*	*3.11%*	*3.16%*	*3.16%*	*3.19%*	*3.23%*	*3.27%*	*3.30%*

Note: *Some data for 2018 estimated. Minimal discrepancies in the submarket totals or overall totals due to rounding.

Source: VAT statistics, Destatis, 2019b; Employment statistics, Federal Employment Agency, 2019 in-house calculations by ZEW.

Table 6.11: Mini-self employed in the cultural and creative industries by submarket and industry subsector, 2009 – 2018*

Submarket/ WZ-2008	Sector of activity	2009	2010	2011	2012	2013	2014	2015*	2016*	2017*	2018*
1. Music industry											
32.20	Manufacture of musical instruments	518	531	518	527	550	604	574	587	591	601
47.59.3	Retail sale of musical instruments, etc.	1,378	1,349	1,288	1,271	1,231	1,218	1,150	1,110	1,098	1,035
47.63	Retail sale of music and video recordings, etc.	221	300	328	365	409	423	442	450	467	509
59.20.1	Sound-recording studios, etc.	697	790	871	952	962	1,013	998	1,067	1,102	1,155
59.20.2	Publishing of sound recordings	612	607	617	649	641	662	651	686	674	669
59.20.3	Publishing of printed music	1,963	1,932	1,905	1,898	1,882	1,886	1,819	1,858	1,858	1,781
90.01.2	Ballet companies, orchestras, bands and choirs	4,810	4,805	4,697	4,681	4,725	4,724	4,530	4,720	4,759	4,356
90.02	Support activities to performing arts	3,118	3,353	3,458	3,511	3,492	3,558	3,806	4,012	4,196	4,187
90.03.1	Own-account composers, etc.	5,827	5,943	6,203	6,424	6,660	6,879	6,925	7,216	7,625	7,510
90.04.1	Organisation of theatre performances and concerts	1,351	1,319	1,278	1,263	1,216	1,173	1,214	1,223	1,198	1,175
90.04.2	Operation of opera houses, theatre and concert halls, etc.	173	154	137	127	131	120	124	126	127	120
	Submarket total	**20,668**	**21,083**	**21,300**	**21,668**	**21,899**	**22,260**	**22,234**	**23,055**	**23,697**	**23,096**
2. Book market											
18.14	Binding and related services	481	494	479	462	432	426	418	397	379	365
47.61	Retail sale of books	2,593	2,603	2,638	2,643	2,585	2,508	2,405	2,402	2,318	2,247
47.79.2	Retail sale of second-hand books	531	545	542	547	523	532	503	487	462	454
58.11	Book publishing	2,827	2,846	2,884	2,952	2,991	2,975	2,775	2,743	2,698	2,703
74.30.1	Translation activities	2,793	3,128	3,384	3,685	4,063	4,425	4,313	4,698	5,108	5,166
90.03.2	Own-account writers	15,788	16,419	16,911	17,432	18,362	18,558	18,968	19,423	20,002	20,464
	Submarket total	**25,013**	**26,035**	**26,838**	**27,721**	**28,956**	**29,424**	**29,382**	**30,151**	**30,967**	**31,400**
3. Art market											
47.78.3	Retail sale of art, etc.	1,627	1,581	1,505	1,467	1,433	1,377	1,303	1,273	1,224	1,147
47.79.1	Retail sale of antiques, etc.	1,958	1,833	1,790	1,764	1,691	1,630	1,561	1,534	1,443	1,387
90.03.3	Own-account visual artists	22,054	22,551	22,887	23,515	24,160	24,079	23,557	24,160	24,487	24,273
91.02	Museum activities	887	830	735	696	633	610	594	602	581	490
	Submarket total	**26,526**	**26,795**	**26,917**	**27,442**	**27,917**	**27,696**	**27,015**	**27,568**	**27,736**	**27,298**
4. Film industry											
47.63	Retail sale of music and video recordings, etc.	221	300	328	365	409	423	442	450	467	509
59.11	Motion picture, video and TV programme production	7,004	6,765	6,610	6,398	6,109	5,984	5,650	5,658	5,795	5,181
59.12	Motion picture, video and TV programme post-production	736	888	927	960	968	1,058	976	1,001	1,031	1,032
59.13	Motion picture, video and TV programme distribution	663	644	597	567	516	534	446	422	392	317
59.14	Motion picture projection	316	307	294	288	272	254	279	269	268	261
77.22	Renting of video tapes and disks	713	692	625	550	490	426	372	315	243	181

→

Table 6.11: Mini-self employed in the cultural and creative industries by submarket and industry subsector, 2009 – 2018*

Submarket/ WZ-2008	Sector of activity	2009	2010	2011	2012	2013	2014	2015*	2016*	2017*	2018*
90.01.4	Own-account stage, motion picture, radio and TV artists, etc.	25,586	26,794	28,035	29,785	31,422	32,180	33,897	35,727	37,684	38,398
	Submarket total	**35,239**	**36,390**	**37,416**	**38,913**	**40,186**	**40,859**	**42,062**	**43,842**	**45,880**	**45,880**
5. Broadcasting industry											
60.10	Radio broadcasting	239	213	220	193	176	181	193	189	179	181
60.20	Television programming and broadcasting	49	56	65	55	59	67	58	53	53	56
90.03.5	Own-account journalists and press photographers	27,285	28,177	28,458	28,609	29,005	29,001	28,867	28,396	27,838	28,390
	Submarket total	**27,573**	**28,446**	**28,743**	**28,857**	**29,240**	**29,249**	**29,119**	**28,638**	**28,070**	**28,627**
6. Performing arts market											
85.52	Cultural education	2,267	2,422	2,718	3,164	3,564	3,820	3,334	3,536	3,735	3,833
90.01.1	Theatre ensembles	300	304	321	354	406	432	457	441	491	503
90.01.3	Own-account performers and circus groups	1,028	1,008	1,067	1,139	1,176	1,228	1,269	1,344	1,473	1,429
90.01.4	Own-account stage, motion picture, radio TV artists, etc.	25,586	26,794	28,035	29,785	31,422	32,180	33,897	35,727	37,684	38,398
90.02	Support activities to performing arts	3,118	3,353	3,458	3,511	3,492	3,558	3,806	4,012	4,196	4,187
90.04.1	Organisation of theatre performances and concerts	1,351	1,319	1,278	1,263	1,216	1,173	1,214	1,223	1,198	1,175
90.04.2	Operation of opera houses theatre and concert halls, etc.	173	154	137	127	131	120	124	126	127	120
90.04.3	Operation of variety theaters and cabarets	249	232	216	207	203	199	198	201	199	183
	Submarket total	**34,072**	**35,586**	**37,230**	**39,550**	**41,610**	**42,710**	**44,299**	**46,610**	**49,102**	**49,828**
7. Design industry											
32.12	Manufacture of jewellery and related articles	2,292	2,241	2,273	2,281	2,302	2,300	2,116	2,134	2,096	2,043
71.11.2	Consulting architectural activities in interior design	2,615	2,955	3,180	3,225	3,379	3,402	3,624	3,594	3,590	3,962
73.11	Advertising agencies (50% share)	18,425	17,281	16,186	15,363	14,692	14,024	13,953	13,791	13,584	12,521
74.10.1	Industrial, product and fashion designers	2,767	3,450	4,197	4,790	5,347	5,667	6,061	6,376	6,572	7,457
74.10.2	Graphics and communications designers	8,177	10,417	12,276	14,024	16,121	17,396	19,275	20,394	21,370	24,008
74.10.3	Interior decorators	11,331	10,787	9,758	9,109	8,599	8,072	8,388	8,119	8,024	7,404
74.20.1	Photographers	10,880	11,625	12,464	13,475	14,753	15,506	15,476	16,207	16,924	17,576
	Submarket total	**56,487**	**58,756**	**60,334**	**62,267**	**65,193**	**66,367**	**68,892**	**70,615**	**72,160**	**74,972**
8. Architecture market											
71.11.1	Consulting architectural activities in building construction	20,241	19,224	18,148	17,266	16,845	16,076	16,724	16,296	15,823	15,529
71.11.2	Consulting architectural activities in interior design	2,615	2,955	3,180	3,225	3,379	3,402	3,624	3,594	3,590	3,962
71.11.3	Consulting architectural activities in town, city and regional planning	3,482	3,527	3,470	3,360	3,331	3,289	3,471	3,465	3,403	3,479
71.11.4	Consulting architectural activities in landscape architecture	2,316	2,302	2,232	2,143	2,126	2,001	2,202	2,163	2,154	2,164
90.03.4	Own-account restorers	1,363	1,349	1,424	1,438	1,479	1,508	1,497	1,538	1,569	1,603
	Submarket total	**30,017**	**29,357**	**28,454**	**27,432**	**27,160**	**26,276**	**27,517**	**27,055**	**26,539**	**26,737**

→

Table 6.11: Mini-self employed in the cultural and creative industries by submarket and industry subsector, 2009 – 2018*

Submarket/ WZ-2008	Sector of activity	2009	2010	2011	2012	2013	2014	2015*	2016*	2017*	2018*
9. Press market											
47.62	Retail sale of newspapers and stationery	3,122	3,114	2,964	2,819	2,786	2,815	2,793	2,912	2,970	2,732
58.12	Publishing of directories and mailing lists, etc.	82	94	86	91	90	80	85	81	79	80
58.13	Publishing of newspapers	261	266	281	277	271	275	266	266	258	261
58.14	Publishing of journals and periodicals	810	858	873	838	811	826	795	772	751	734
58.19	Other publishing activities (excluding software)	3,037	3,006	2,838	2,736	2,648	2,543	2,573	2,497	2,407	2,299
63.91	News agency activities	1,143	1,191	1,178	1,087	979	889	921	868	830	771
90.03.5	Own-account journalists and press photographers	27,285	28,177	28,458	28,609	29,005	29,001	28,867	28,396	27,838	28,390
	Submarket total	**35,740**	**36,706**	**36,678**	**36,457**	**36,590**	**36,429**	**36,300**	**35,792**	**35,132**	**35,267**
10. Advertising market											
73.11	Advertising agencies	36,850	34,561	32,371	30,725	29,384	28,047	27,906	27,582	27,168	25,041
73.12	Media representation	986	1,219	1,337	1,375	1,406	1,423	1,512	1,598	1,634	1,709
	Submarket total	**37,836**	**35,780**	**33,708**	**32,100**	**30,790**	**29,470**	**29,418**	**29,180**	**28,802**	**26,751**
11. Software and games industry											
58.21	Publishing of computer games	446	393	366	330	308	317	300	292	280	246
58.29	Other software publishing	355	493	568	594	611	620	584	625	684	707
62.01.1	Web-page design and programming	13,921	14,596	15,065	15,511	16,408	17,012	18,397	18,889	19,339	20,630
62.01.9	Other software development	16,536	17,131	17,465	18,269	19,156	20,283	20,494	21,202	22,073	22,755
63.12	Web portals	615	789	1,033	1,249	1,417	1,512	1,995	2,203	2,523	2,696
	Submarket total	**31,873**	**33,402**	**34,497**	**35,953**	**37,900**	**39,744**	**41,769**	**43,211**	**44,899**	**47,033**
12. Others											
32.11	Striking of coins	29	27	23	21	17	17	18	16	16	15
32.13	Manufacture of imitation jewellery and related articles	480	531	597	687	792	822	736	765	780	807
74.20.2	Photographic laboratories	411	416	389	380	351	311	304	287	272	240
74.30.2	Interpretation activities	9,579	9,544	9,463	9,511	9,612	9,760	10,006	10,488	10,504	10,606
91.01	Libraries and archives	153	163	143	143	117	105	111	96	100	85
91.03	Operation of historical sites and buildings and similar visitor attractions	119	119	99	96	105	106	105	95	100	97
91.04	Botanical and zoological gardens and nature reserves	252	221	205	157	142	143	144	147	147	133
	Submarket total	**11,023**	**11,021**	**10,919**	**10,995**	**11,136**	**11,264**	**11,423**	**11,895**	**11,919**	**11,982**
Total, including double counts		372,067	379,357	383,033	389,355	398,577	401,748	409,431	417,613	424,901	428,871
Duplicate categories of economic activity		78,774	80,333	81,060	82,248	83,746	83,881	85,926	87,320	88,683	89,262
Cultural and creative industries (excluding double counts)		**293,293**	**299,024**	**301,974**	**307,107**	**314,831**	**317,867**	**323,504**	**330,293**	**336,218**	**339,609**
Ratio of CCIs to overall economy		*10.74%*	*10.48%*	*10.14%*	*9.94%*	*9.86%*	*9.91%*	*10.46%*	*10.53%*	*10.64%*	*10.64%*

*Data based on estimates.

Source: VAT statistics, Destatis, 2019b; in-house calculations by ZEW.

6.2 Bibliography

Working Group on the Cultural and Creative Industries in the Conference of Economic Affairs Ministers (2016), Überarbeitung des Leitfadens zur Erfassung von statistischen Daten für die Kultur- und Kreativwirtschaft (ReviĐ sion of the Guidelines on the Collection of Statistical Data for the Cultural and Creative Industries), 2016 edition, 20 July 2016.

Federal Employment Agency (2019), Employment Statistics, various years, Nuremberg.

Federal Ministry for Economic Affairs and Energy (2014), Monitoring of Selected Economic Key Data on the Cultural and Creative Industries 2013, unabridged version, Berlin.

Federal Ministry for Economic Affairs and Energy (2017), Monitoring Report on Selected Economic Key Data on the Cultural and Creative Industries 2016, unabridged version, Berlin.

Federal Ministry for Economic Affairs and Energy (2019), Monitoring Report on Selected Economic Key Data on the Cultural and Creative Industries 2018, unabridged version, Berlin.

Federal Ministry of Economics and Technology (2009a), Endbericht Kultur- und Kreativwirtschaft: Ermittlung der gemeinsamen charakteristischen Definitionselemente der heterogenen Teilbereiche der „Kulturwirtschaft“ zur Bestimmung ihrer Perspektiven aus volkswirtschaftlicher Sicht (Final Report on the Cultural and Creative Industries: Identifying the Common Characteristic Defining Elements of the Various Segments of the Cultural Sector to Determine their Prospects from an Economic Perspective), Cologne, Bremen, Berlin.

Castendyk, Oliver; Müller-Lietzkowen, Jörg (2017), Die Computer- und Videospielindustrie in Deutschland, (The Computer and Video Games Industry in Germany), Forschungs- und Kompetenzzentrum Audiovisuelle Produktion der Hamburg Media School, Hamburg.

Destatis/Federal Statistical Office (2019a), Microcensus, various years, Wiesbaden.

Destatis/Statistisches Bundesamt (2019b), Value-added tax statistics, various years, Wiesbaden.

Destatis/Federal Statistical Office (2019c), National Accounts, Domestic Product Calculations, Detailed Annual Results, 4 September 2018, Wiesbaden.

Goldmedia/HMS/DIW Econ (2017), Wirtschaftliche Bedeutung der Filmindustrie in Deutschland (Economic Significance of the Film Industry in Germany), Study commissioned by the Federal Ministry for Economic Affairs and Energy, Berlin.

Seufert, Wolfgang; Schlegel, Robert; Sattelberger, Felix (2015), Musikwirtschaft in Deutschland, Studie zur volkswirtschaftlichen Bedeutung von Musikunternehmen unter Berücksichtigung aller Teilsektoren und Ausstrahlungseffekte (Music Industry in Germany, Study into the Economic Significance of Music Companies Considering All Subsectors and External Impact), Federal Music Industry Association, Berlin.

Söndermann, Michael (2012), Statistische Anpassung der Kultur- und Kreativwirtschaft in Deutschland – Kurzanleitung zur Erstellung einer statistischen Datengrundlage für die Kulturwirtschaft (Statistical Adjustment for the Cultural and Creative Industries in Germany – Brief Guidelines on the Establishment of a Statistical Data Basis for the Cultural Sector), ARKStat e. V. Arbeitskreis Kulturstatistik, Cologne.

Conference of Economic Affairs Ministers (2009), Leitθ faden zur Erstellung einer statistischen Datengrundlage für die Kulturwirtschaft und eine länderübergreifende Auswertung kulturwirtschaftlicher Daten (Guidelines on the Proє duction of a Statistical Data Base for the Cultural industry and a Cross-Länder Evaluation of Cultural Industry Data), Cologne.

www.kultur-kreativ-wirtschaft.de