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Initiative of the
Federal Government

Monitoring of Selected Economic Key Data on the Culture and Creative Industries 2014

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1 Introduction

1.1 Purpose and Scope of the Report

In 2011, the Federal Ministry for Economic Affairs and Energy commissioned the Centre for European Economic Research (ZEW) in Mannheim and the Fraunhofer Institute for Systems and Innovation Research ISI in Karlsruhe to conduct an annual audit of the culture and creative industries (CCI) in Germany. The 2014 monitoring report builds upon the audits carried out over the past two years.¹ It evaluates the importance of the culture and creative industries for the overall economy and shows how the relevant economic indicators have developed between 2009 and 2014. The analyses contained in the report are based on data from publicly available sources and from a representative survey carried out within the culture and creative industry sector in Germany.

The audit focuses on the following key aspects:

- What is the economic importance of the culture and creative industries for the overall economy, and how does this sector compare to other more traditional sectors in Germany?
- What are the key distinguishing features of the individual submarkets in the culture and creative industries?
- How have the culture and creative industries and their submarkets developed over the last few years in terms of core indicators (turnover, value added, number of companies, employment) and export activities?
- How are company start-ups developing in the culture and creative industries in Germany?
- How innovative are businesses in the Germany's culture and creative sector overall and in the individual submarkets? What kind of innovative activities are being implemented? What are the plans for the future? How do companies and the self-employed in the culture and

creative industries support their corporate customers in their innovation process? To address these questions, a representative nationwide survey of companies and the self-employed in the culture and creative industries was conducted. The survey was supplemented by a workshop and case studies in selected submarkets.

1.2 Definition

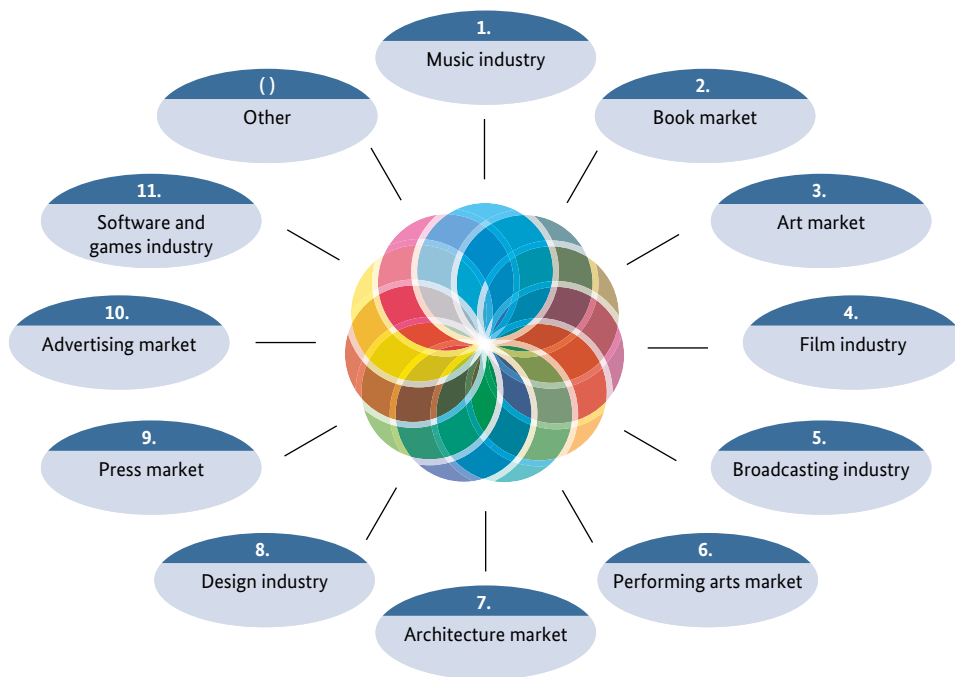
The definition of culture and creative industries underlying this report is based on the definition proposed by the Conference of Economics Ministers, which places the focus on commercial companies:² "The culture and creative industries comprise all culture and creative enterprises that are mainly market-oriented and deal with the creation, production and/or dissemination through the media of cultural/creative goods and services. The main criterion for the definition is the commercial character of the company.

All market-based companies that are subject to VAT or that simply desire to generate revenue from art, culture and creativity, belong to this group of companies. Companies not included in this group are institutions or other types of associations, which are largely not financed by the market, but instead receive funds from public financing, licence fees or are supported by non-profit funds or private investors. Such a distinction between commercial or market-based companies on the one hand and non-market based companies on the other is of particular importance for the situation in Germany for reasons concerning policies of regulation and governance."

1 Federal Ministry for Economic Affairs and Energy (2014a), Monitoring of Selected Economic Key Data on the Culture and Creative Industries 2012, unabridged version, Berlin; Federal Ministry for Economic Affairs and Energy (2014b), Monitoring of Selected Economic Key Data on the Culture and Creative Industries 2013, unabridged version, Berlin.

2 Wirtschaftsministerkonferenz (2009), Leitfaden zur Erstellung einer statistischen Datengrundlage für die Kulturwirtschaft und eine länderübergreifende Auswertung kulturwirtschaftlicher Daten, Köln. (available in German only)

Figure 1: Submarkets in the culture and creative industries



Source: The Federal Ministry for Economic Affairs and Energy, 2009

2 Overview of the Overall Economic Importance of the Culture and Creative Industries

2.1 Key Data on the Culture and Creative Industries in Germany

The following analyses are based on official statistics data from the Federal Statistical Office of Germany 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 the report.

Rise in turnover of 2.2%

In 2014, approximately 249,000 companies were active in the culture and creative industries. This represents an increase of about 2,000 companies compared to the previous year.³ These companies generated a turnover of EUR 146 billion, a year on year increase of approximately 2.2%. In total, this branch of the economy employed around 809,000 people, thus accounting for 2.7% of all employees liable to social insurance contributions. A further 249,000 self-employed people also worked in these industries. In other words, around 1,057,000 people earned their main income in the culture and creative industries in 2014. This figure is nearly 2% higher than last year's. When we also take into account the 349,000 marginal employees and 210,000 marginally self-employed (self-employed individuals and freelancers with an annual turnover of under EUR 17,500), the overall number of people employed in this sector in 2014 was nearly 1.62 million. The culture and creative industries contributed EUR 67.5 billion and therefore about 2.3% to total gross value added.

Steady increase since 2010 in jobs liable to social insurance contributions; decline in marginal employment

In 2014 the key indicators of the culture and creative industries improved once again in relation to the previous year, continuing the positive trend in the sector observed since 2009. The number of companies rose by just under 1% over the prior year, turnover increased by 2.2% and gross value added grew by 2.4% to EUR 67.5 billion.

In terms of many indicators, the culture and creative industries are following the same trends as the overall economy. The number of companies has thus remained relatively stable, while the share of people employed in the overall economy has barely changed in recent years. As a share of Germany's overall turnover, the turnover generated by the culture and creative industries has now largely stabilised around the 2011 level, following a drop in 2010 and 2011.

Overall employment figures in the culture and creative industries rose by nearly 1.5%, recovering after a slight decrease in the previous year. Compared to last year, the number of people employed in the culture and creative industries has risen by nearly 1.5%. At the same time, the number of employees liable to social insurance contributions rose by 2.3% over the previous year, while the number of people in marginal employment decreased once again. The decline observed again in 2014 in the number of people in marginal employment and the increase in jobs liable to social insurance contributions indicates that more people in this sector have switched to regular employment.

Average of EUR 138,000 turnover and EUR 64,000 gross value added per employed person

Structurally, the culture and creative industries are still dominated by a large number of small and micro enterprises. The average company in this sector employs 4.25 people, 3.25 of whom have jobs requiring social insurance contributions. Although the turnover per company has also increased year on year (1.3%), the average turnover per company – EUR 589,000 – remains relatively low compared to average company turnover in the overall economy. Viewing the culture and creative industries in Germany as a whole, each employed person in the sector generates a turnover of EUR 138,400 and contributes EUR 63,800 to gross added value. The proportion of self-employed people among the total number of people employed in the culture and creative industries remains stable at 24%.

³ The values estimated in the previous year's report for 2013 have been replaced in the current report with the actual values recorded for 2013. Deviations may therefore occur between the figures for 2013 in the current report compared to the previous year's report.

Tabelle 2.1: Key Data on the Culture and Creative Industries in Germany from 2009 to 2014

| Category | 2009 | 2010 | 2011 | 2012 | 2013 | 2014* | Change 2013/2014 |
|--|---------|---------|---------|---------|---------|---------|---------------------|
| Number of businesses ('000)¹ | | | | | | | |
| Culture and creative industries (CCI) | 238.5 | 239.5 | 244.3 | 245.8 | 246.4 | 248.6 | 0.90 % |
| Contribution of CCI to overall economy | 7.61 % | 7.57 % | 7.60 % | 7.56 % | 7.60 % | 7.58 % | |
| Turnover (in EUR bn) | | | | | | | |
| Culture and creative industries (CCI) | 134.3 | 137.3 | 141.0 | 143.3 | 143.2 | 146.3 | 2.19 % |
| Contribution of CCI to overall economy | 2.74 % | 2.62 % | 2.48 % | 2.49 % | 2.48 % | 2.39 % | |
| Employment | | | | | | | |
| Number of employed people ('000)² | | | | | | | |
| Culture and creative industries (CCI) | 952.9 | 952.4 | 976.6 | 1,011.5 | 1,037.1 | 1,057.3 | 1.95 % |
| Contribution of CCI to overall economy | 3.10 % | 3.06 % | 3.07 % | 3.11 % | 3.16 % | 3.16 % | |
| <i>Employees liable to social insurance contributions ('000)³</i> | | | | | | | |
| Culture and creative industries (CCI) | 714.5 | 712.8 | 732.3 | 765.7 | 790.7 | 808.8 | 2.28 % |
| Contribution of CCI to overall economy | 2.59 % | 2.55 % | 2.56 % | 2.62 % | 2.67 % | 2.68 % | |
| <i>Self-employed people ('000)⁴</i> | | | | | | | |
| Culture and creative industries (CCI) | 238.5 | 239.5 | 244.3 | 245.8 | 246.4 | 248.6 | 0.90 % |
| Contribution of CCI to overall economy | 7.61 % | 7.57 % | 7.60 % | 7.56 % | 7.60 % | 7.58 % | |
| <i>Marginally employed people ('000)⁵</i> | | | | | | | |
| Culture and creative industries (CCI) | 573.9 | 592.9 | 593.2 | 586.9 | 555.7 | 559.0 | 0.58 % |
| Contribution of CCI to overall economy | 6.80 % | 6.94 % | 6.80 % | 6.78 % | 6.41 % | 4.64 % | |
| <i>Marginally self-employed people ('000)⁶</i> | | | | | | | |
| Culture and creative industries (CCI) | 197.1 | 214.0 | 224.8 | 221.9 | 203.3 | 209.5 | 3.07 % |
| Contribution of CCI to overall economy | 18.26 % | 19.57 % | 18.90 % | 20.84 % | 20.42 % | 22.96 % | |
| <i>Marginal employees ('000)⁷</i> | | | | | | | |
| Culture and creative industries (CCI) | 376.8 | 378.9 | 368.4 | 365.0 | 352.4 | 349.4 | -0.86 % |
| Contribution of CCI to overall economy | 5.12 % | 5.09 % | 4.89 % | 4.81 % | 4.57 % | 4.47 % | |
| Total number of employed people ('000)⁸ | | | | | | | |
| Culture and creative industries (CCI) | 1,526.8 | 1,545.3 | 1,569.9 | 1,598.4 | 1,592.8 | 1,616.3 | 1.47 % |
| Contribution of CCI to overall economy | 3.90 % | 3.89 % | 3.87 % | 3.88 % | 3.83 % | 3.56 % | |
| Gross value added (in EUR bn)⁹ | | | | | | | |
| Culture and creative industries (CCI) | 58.1 | 59.7 | 61.3 | 63.6 | 65.9 | 67.5 | 2.39 % |
| Contribution of CCI to GDP | 2.36 % | 2.32 % | 2.27 % | 2.31 % | 2.34 % | 2.31 % | |
| Gross Domestic Product (GDP) | 2,456.7 | 2,576.2 | 2,699.1 | 2,749.9 | 2,820.8 | 2,915.7 | 3.36 % |

Note: * Data for 2014 based partly on own estimations and preliminary official figures. Estimates based on developments in previous years, economic statistics for the service sector for 2014, and employment statistics for 2014.

- 1 Taxable business owners with at least EUR 17,500 in annual turnover.
- 2 Employed people include taxable business owners with at least EUR 17,500 in annual turnover and employees liable to social insurance contributions.
- 3 Employees liable to social insurance contributions (full-time and part-time) but excluding marginal employees.
- 4 Number of self-employed corresponds to number of taxable business owners with at least EUR 17,500 in annual turnover.
- 5 Marginally employed people include marginally self-employed people and marginal employees.
- 6 Marginally self-employed people include freelancers and self-employed people with less than EUR 17,500 in annual turnover based on the microcensus.
- 7 Marginal employees (employees on low pay and temporarily employed people) based on the employment statistics of the Federal Employment Agency (cut-off date: 30 June).
- 8 Total number of employed people includes all self-employed and dependent employees, including marginal employees and marginally self-employed people. Figures may deviate from those in the previous years' monitoring reports owing to changes in the definition of the various groups.
- 9 Based on national accounts; corresponds to the following two-digit codes from the 2008 Classification of Economic Activities: 58, 59-60, 73, 90-92. Data for 2012 estimated. Figures may deviate from those in the prior-year report due to amendments to the data from the Federal Employment Agency and the microcensus.

Tabelle 2.1: Key Data on the Culture and Creative Industries in Germany from 2009 to 2014*

| Category | 2009 | 2010 | 2011 | 2012 | 2013 | 2014* | Change 2013/2014 |
|--|---------|---------|---------|---------|---------|---------|------------------|
| Additional key indicators for the culture and creative industries | | | | | | | |
| Turnover per company (in EUR '000) | 563.3 | 573.3 | 577.1 | 583.1 | 581.1 | 588.5 | 1.28 % |
| Turnover per employee liable to social insurance contributions (in EUR '000) | 188.0 | 192.7 | 192.5 | 187.2 | 181.0 | 180.9 | 0.09 % |
| Turnover per employed person (in EUR '000) | 141.0 | 144.2 | 144.3 | 141.7 | 138.0 | 138.4 | 0.23 % |
| Employees liable to social insurance contributions per company | 3.00 | 2.98 | 3.00 | 3.12 | 3.21 | 3.25 | 1.37 % |
| No. of employed people per company | 4.00 | 3.98 | 4.00 | 4.12 | 4.21 | 4.25 | 1.04 % |
| Gross value added per employed person (in EUR '000) | 61.0 | 62.7 | 62.8 | 62.9 | 63.5 | 63.8 | 0.43 % |
| Share of self-employed vs. all employed people | 25.03 % | 25.15 % | 25.01 % | 24.30 % | 23.75 % | 23.51 % | |

Note: * Data for 2014 based partly on own estimations and preliminary official figures. Estimates based on developments in previous years, economic statistics for the service sector for 2014, and employment statistics for 2014

Source: Destatis 2015a,b,c; Federal Employment Agency 2015; ZEW's own computations

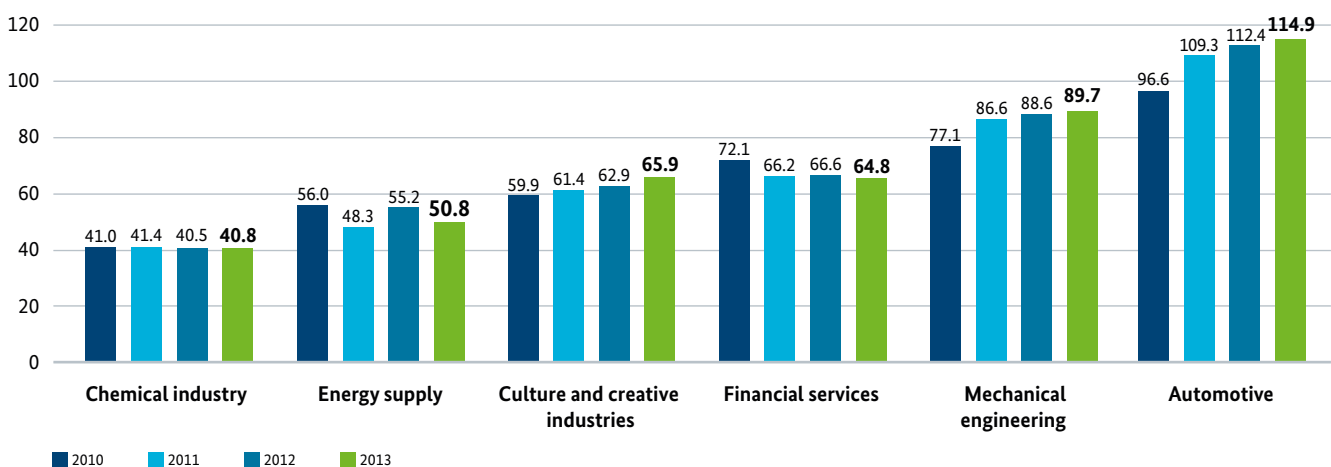
2.2 Contribution of the Culture and Creative Industries towards Value Added

Steady growth in gross value added

Gross value added in the culture and creative industries has enjoyed steady growth. From 2010 to 2013, gross value added increased to approximately EUR 6 billion. During the same period, other sectors such as the chemical industry, energy supply and financial services experienced a decline in gross value added. Gross value added continued to rise

for the mechanical engineering and automotive sectors, both of which benefitted from strong export performances. For the first time ever, the culture and creative industries was a bigger contributor to gross value added than the financial services sector: gross value added for the culture and creative industries grew, while simultaneously shrinking in the financial services sector. However, the culture and creative industries still lag some distance behind the traditional mechanical engineering and automotive sectors in the period under review.

Figure 2.2: Contribution of culture and creative industries towards gross value added compared to other economic sectors 2010-2013 (in EUR bn)



Aid to interpretation: Gross value added in the culture and creative industries in 2013 was EUR 65.9 billion, lower than in the mechanical engineering and automotive sectors, but higher than in the chemical and energy supply industries.

Note: The culture and creative industries correspond to the following two-digit codes from the 2008 Classification of Economic Activities: 58, 59-60, 73, 90-92.

Source: National Accounts, Destatis 2015c; ZEW's own computations

2.3 Employment in the Culture and Creative Industries

Number of people employed exceeds 1.6 million for the first time

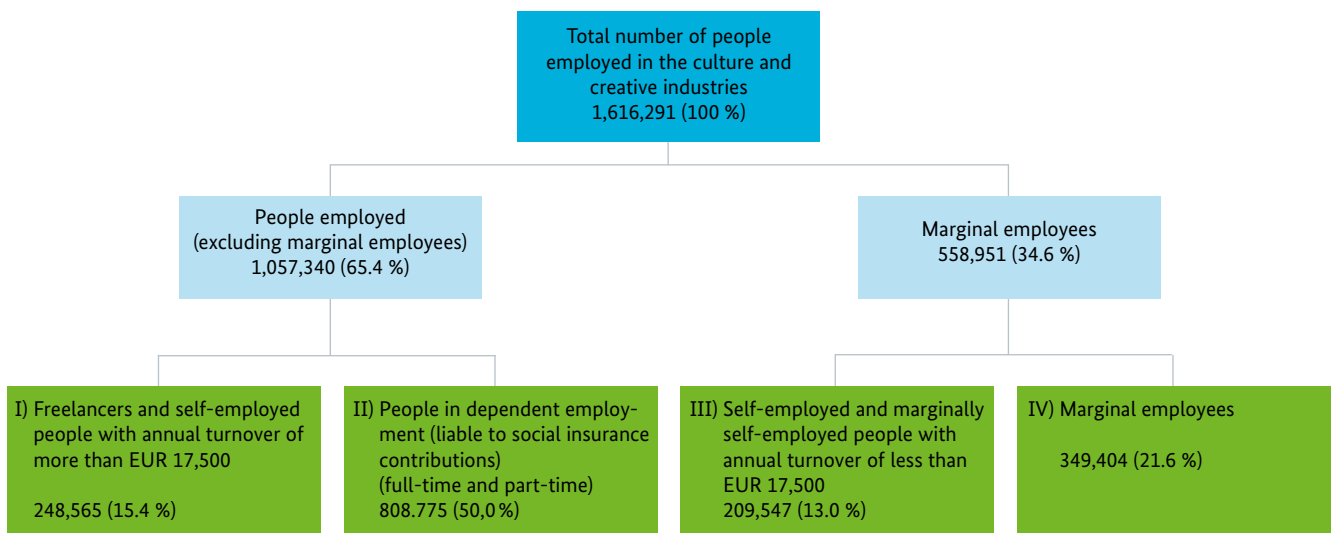
The total number of people employed in the culture and creative industries in 2014 exceeded the 1.6 million mark for the first time. This was consistent with the long-term upwards trend in the sector, following a slight decrease in the previous year. The number of people earning their main income in this sector (employees and the self-employed liable to social insurance contributions) also increased considerably over the previous year. This was mainly due to the growing number of employment contracts in the culture and creative industries that are subject to social insurance contributions. The number of marginal employees has continued to fall.

In 2014, a total of 1,057,340 people were employed as freelancers and self-employed individuals or as dependent employees. Those in dependent employment (or employees liable to social insurance contributions) have traditionally

accounted for a smaller proportion of the workforce than in other sectors or the overall economy. This is due to the relatively high proportion of freelancers and self-employed people in the culture and creative industries. In addition, at a total of 558,951, the number of marginally employed people (self-employed and marginally self-employed with an annual turnover of less than EUR 17,500 and marginally employed) in these industries is comparatively high compared to other sectors and the overall economy. This brings the total number of people employed in the culture and creative industries in 2014 to 1,616,291 million.

Compared to 2013, more people were employed in the culture and creative industries than in the mechanical engineering sector and significantly more than in each of the automotive, chemical, energy supply and financial services sectors.

Figure 2.3: Structure of employment in the culture and creative industries in 2014*



Note: *Some values estimated

Source: Destatis, 2015a,b; employment statistics, Federal Employment Agency 2015; ZEW's own computations

3 Company Start-ups in the Culture and Creative industries

Company start-ups play a vital economic role – and not only for the culture and creative industries in Germany. New companies frequently bring new ideas to the market and expand the sector’s existing range of products and services. An examination of the statistics on start-up activity in the culture and creative industries must bear in mind that company start-ups (partnerships or corporations that have their own capital, are profit-making entities, invest in the development of new markets and assume entrepreneurial risk) represent only one form of market presence. Many providers in the culture and creative industries are self-employed people who perform cultural or creative activities for clients within the framework of contracts for work and services and therefore only use their own capital to a very limited extent (apart from their human capital). They have very limited entrepreneurial freedom. Such “free agents” are found particularly in the performing arts market, in the press market and in the music and film industry. Liberal professions are very common in other submarkets, e.g. architecture.

To illustrate start-up activity, this section primarily examines companies that have entered the market. The market entry of self-employed people and those in the liberal professions is only considered if the self-employment or professional activity concerned is comparable to a corporate activity performed by a partnership or corporation. The data for the study comes from the Mannheim Enterprise Panel (MUP), a project initiated by the Centre for European Economic Research (ZEW). The MUP is a panel dataset of firms located in Germany. It contains data on virtually all active companies in trade and industry in Germany and facilitates the identification of companies entering the market (start-ups) and leaving the market (closures) as well as the number of companies that are active in the period under review. 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 based on the latest figures. At the same time, this means that details on the number of company start-ups and on the number of existing companies according to the current figures (i.e. for the years 2012 to 2014) are provisional and may subsequently be revised in later years.

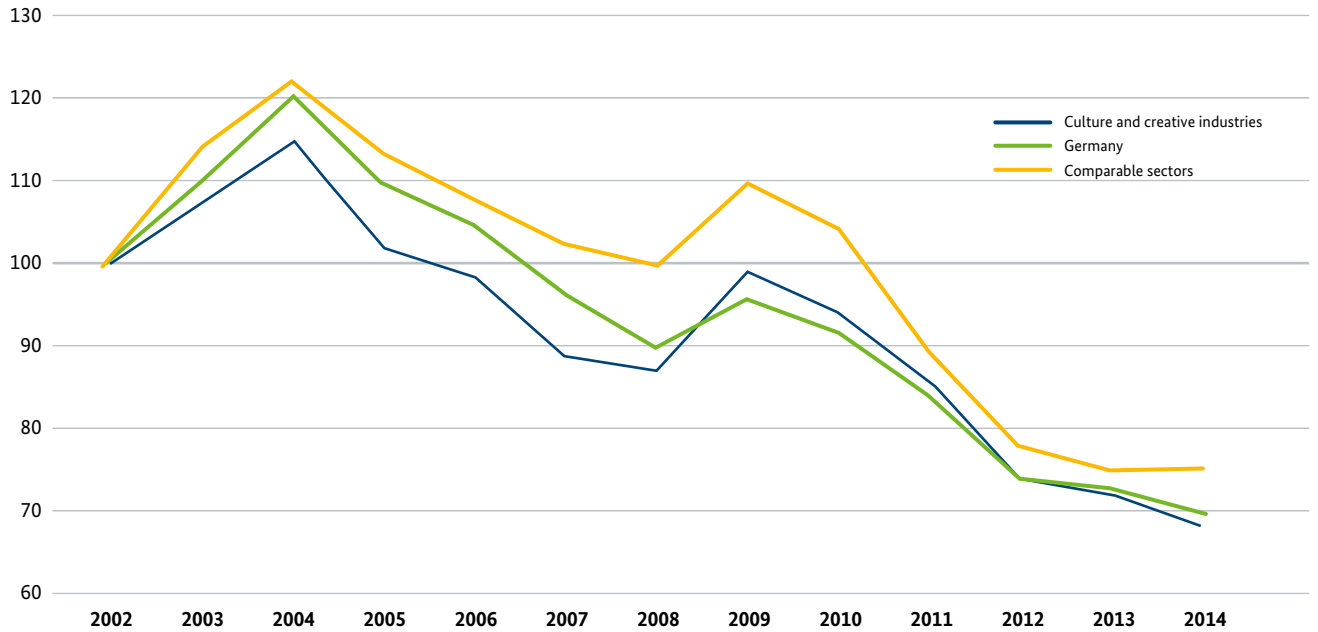
According to the MUP, almost 12,000 active companies were set up in the culture and creative industries in Germany in 2014. At just 68% of the corresponding figure in

2002, this is the lowest number of start-ups since reunification. The culture and creative industries are thus following the prevailing trend in Germany of a decline in start-ups since 2005. One of the reasons for the temporary rise in start-up figures in 2009 was the introduction of the legal form of a limited liability entrepreneurial company (“Unternehmergesellschaft” or “mini-GmbH”). A number of self-employed people switched to this type of GmbH (limited liability company) as virtually no share capital needs to be subscribed in such entities. A very similar entrepreneurial dynamic to that witnessed in the culture and creative industries is apparent in comparable sectors (research-intensive industry and the information and communications technology sector (ICT) excluding software and games), even though the development was considerably healthier up to 2010.

The entrepreneurial dynamic in the culture and creative industries must be seen against the backdrop of the overall economic situation. In a sector that is based heavily on micro enterprises, start-up activity is closely related to job prospects: at times of strong economic growth, and consequently increased demand for labour, potential employees have a variety of different options for (attractive) paid employment in existing companies. Setting up your own company is a less attractive option in these circumstances. When the economic situation is less favourable, there are fewer job opportunities in paid employment - this is when people are more likely (or more obliged) to take the risk of setting up their own business. This pattern, which can be seen in many industries, also appears to be a growing trend in the German culture and creative industries in recent years. In any case, the number of new start-ups increased in 2003 and 2004, and in 2009, the year of the global financial crisis. They were in decline in all other years. In addition to the economic situation, legal and political conditions also play an important role in the change in start-up figures. Therefore the start-up figures in 2003/2004 are in part due to the labour market policy of promoting self-employment that was pursued at that time and the establishment of so-called “Ich-AGs” (literally “Me Plc”). As explained above, the higher start-up figures in 2009 must also be seen in conjunction with the introduction of the “mini-GmbH” option.

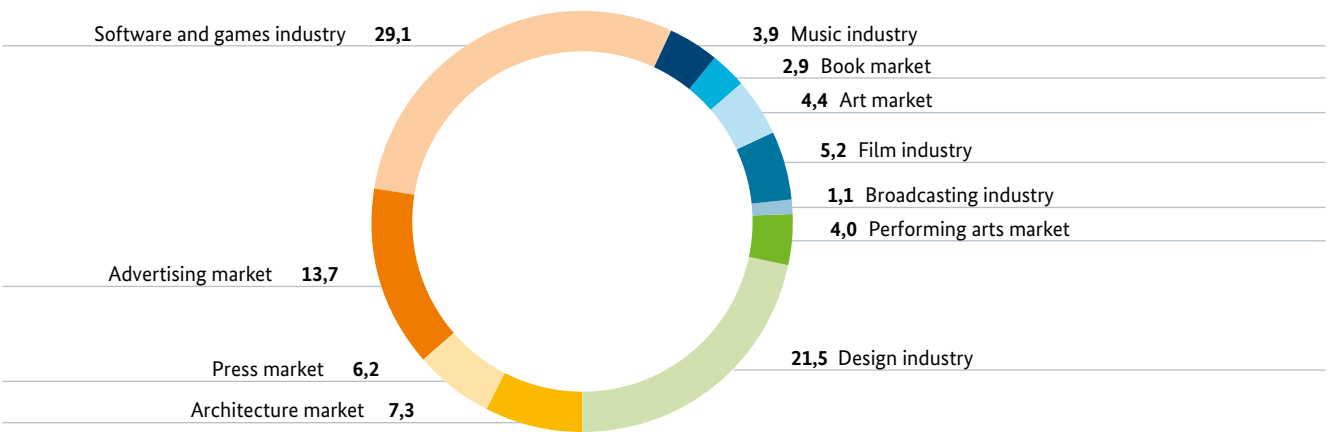
Start-up activity in the culture and creative industries is heavily concentrated in three submarkets. Almost two-thirds of all company start-ups in 2014 were in the design industry (22%), the software and games industry (29%) and in the advertising market (14%). The two submarkets of architecture and media accounted for another 13% (7% and

Figure 3.1: Trend in the number of company start-ups in the culture and creative industries in Germany between 2002-2014 compared with other countries and Germany as a whole (2002 = 100)



Note: Note: Comparable sectors include research-intensive industry and the ICT sector, excluding software and games.
 Aid to interpretation: In 2014, the number of start-ups in the culture and creative industries was around 32% lower than in 2002.
 Source: ZEW, Mannheim Enterprise Panel (MUP)

Figure 3.2: Composition of company start-ups in the culture and creative industries in Germany in 2014 by submarket (in %)



Aid to interpretation: Most of the start-ups within the culture and creative industries in 2014 were in the software and games industry (29.1%).
 Source: ZEW, Mannheim Enterprise Panel (MUP). Note: The difference to 100% refers to the share of start-ups in the category "others".

6% respectively). The other six submarkets, which have a stronger cultural focus, together account for less than one-quarter of all start-ups in the culture and creative industries in Germany.

Over the last 12 years, start-up activity within the culture and creative industries has shifted to the software and games industry and to the design industry, two submarkets that cater primarily for commercial customers. The soft-

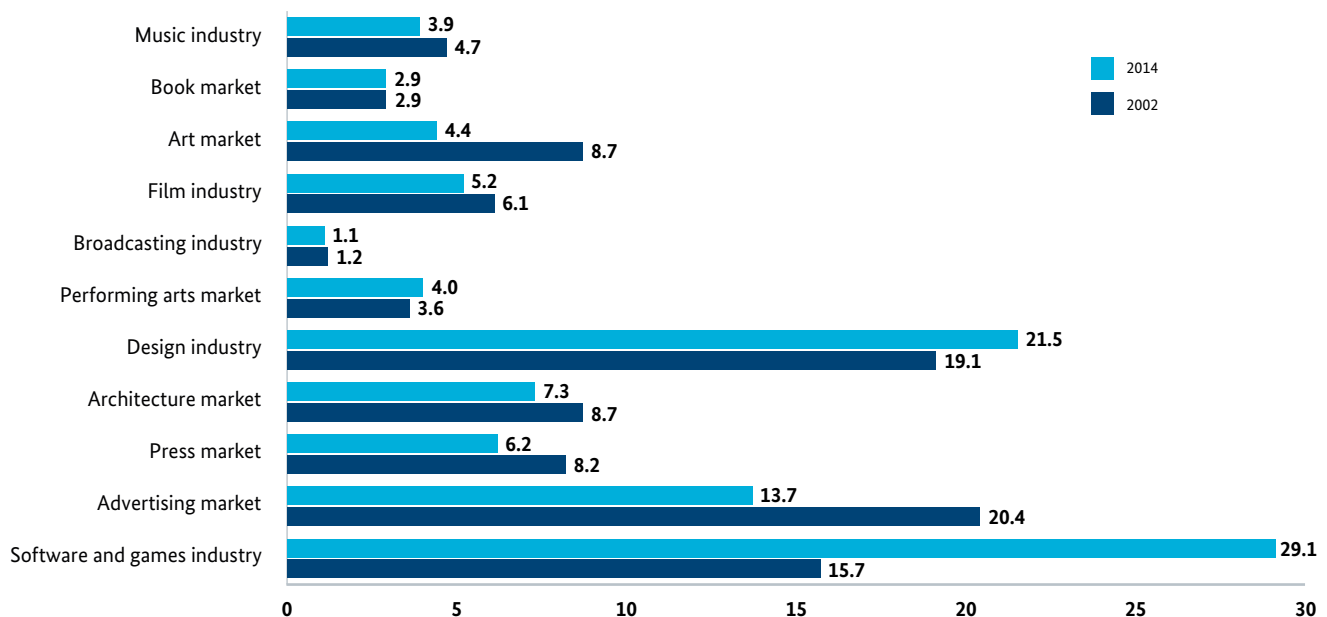
ware and games submarket accounts for a particularly large proportion of all start-ups. In 2002, almost 16% of all start-ups in the culture and creative industries were in this sector; by 2014, the figure had risen to more than 29%. In the design industry, the performing arts market and to a very limited extent in the book market, the share of start-ups increased between 2002 and 2014. In all other submarkets the share of start-ups decreased.

Before comparing start-up activity between the individual submarkets and with other sectors, it is advisable to establish a link between the start-up figures and the number of active companies. The start-up rate calculated in this way provides information about the speed at which the number of companies is renewed by start-ups. The average start-up rate in Germany's culture and creative industries for the years 2012 to 2014 was 5.1%, exactly the same as in the overall economy (5.1%). The start-up rate in the comparable sectors as a whole (research-intensive industry and the ICT sector, excluding software and games)⁴ was slightly lower at 5.0%. In the individual sectors in the research-intensive industry, the start-up rate is only slightly higher in the chemical industry than in the culture and creative industries. In the ICT services sector, on the other hand, it is considerably higher at 6.9%.

Within the culture and creative industries, the software and games industry has the highest start-up rate (8.9%). The film industry, design industry and performing arts markets report a start-up rate equivalent to the average for the culture and creative industries. Start-up rates in the architecture and art market are lower at approximately 3%.

In the individual submarkets of the culture and creative industries, start-up figures vary considerably. Start-up figures in the software and games industry performed most favourably across the entire period from 2002 to 2014. Since 2009, the number of company start-ups is more than 10% above the level for the years 2002 to 2004 and significantly higher than the low point seen between 2005 and 2008. Here also, no clear downward trend can be discerned after 2009. In all other submarkets, on the other hand, start-up figures have been steadily declining since 2009 and in some cases even started declining before that. If the current level of company start-ups is compared with the 2002 level, start-up activity – apart from in the software and games industry – prospered most in the design industry and in the performing arts market. In contrast, there was a particularly sharp drop in start-up figures in the art market, advertising market, media market and architecture market.

Figure 3.3: Share of submarkets in all company start-ups in the culture and creative industries in Germany in 2002 and 2014 (share in % in all start-ups in the culture and creative industries)

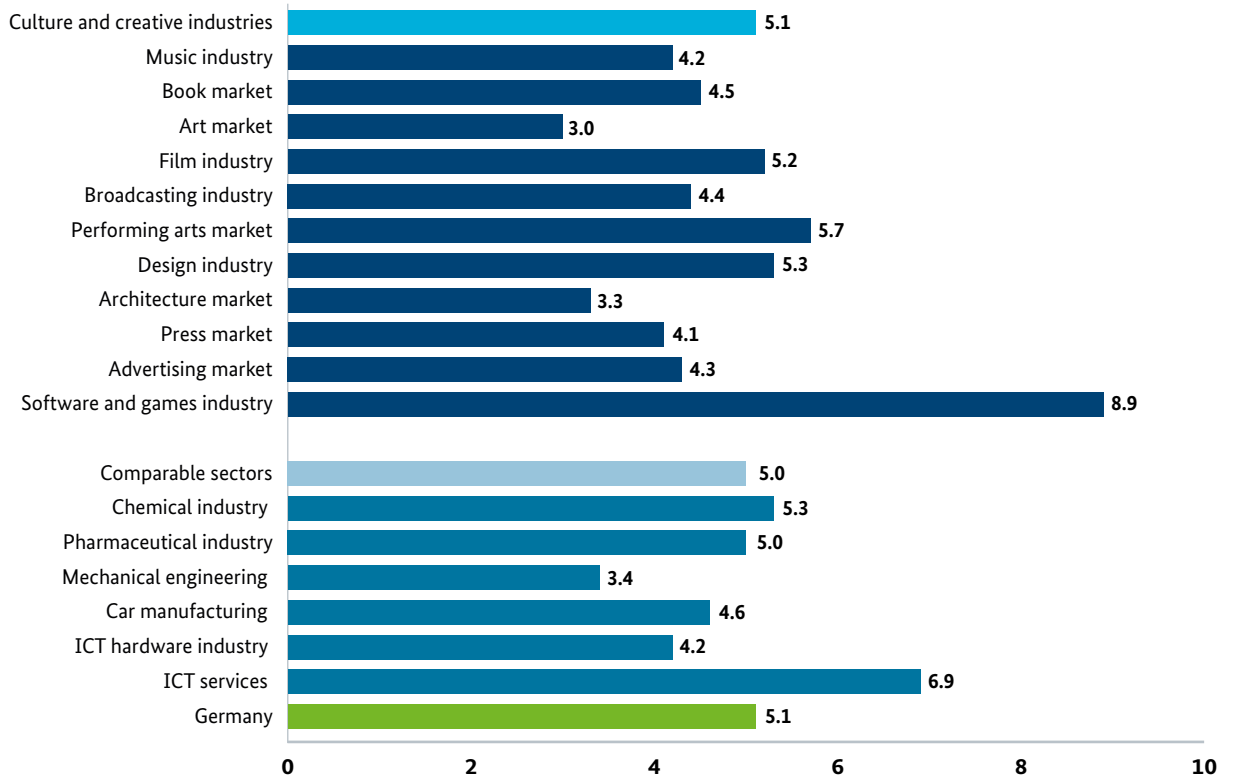


Aid to interpretation: The share of start-ups from the software and games industry within the culture and creative industries rose from 15.7% in 2002 to 29.1% in 2014.

Source: ZEW, Mannheim Enterprise Panel (MUP)

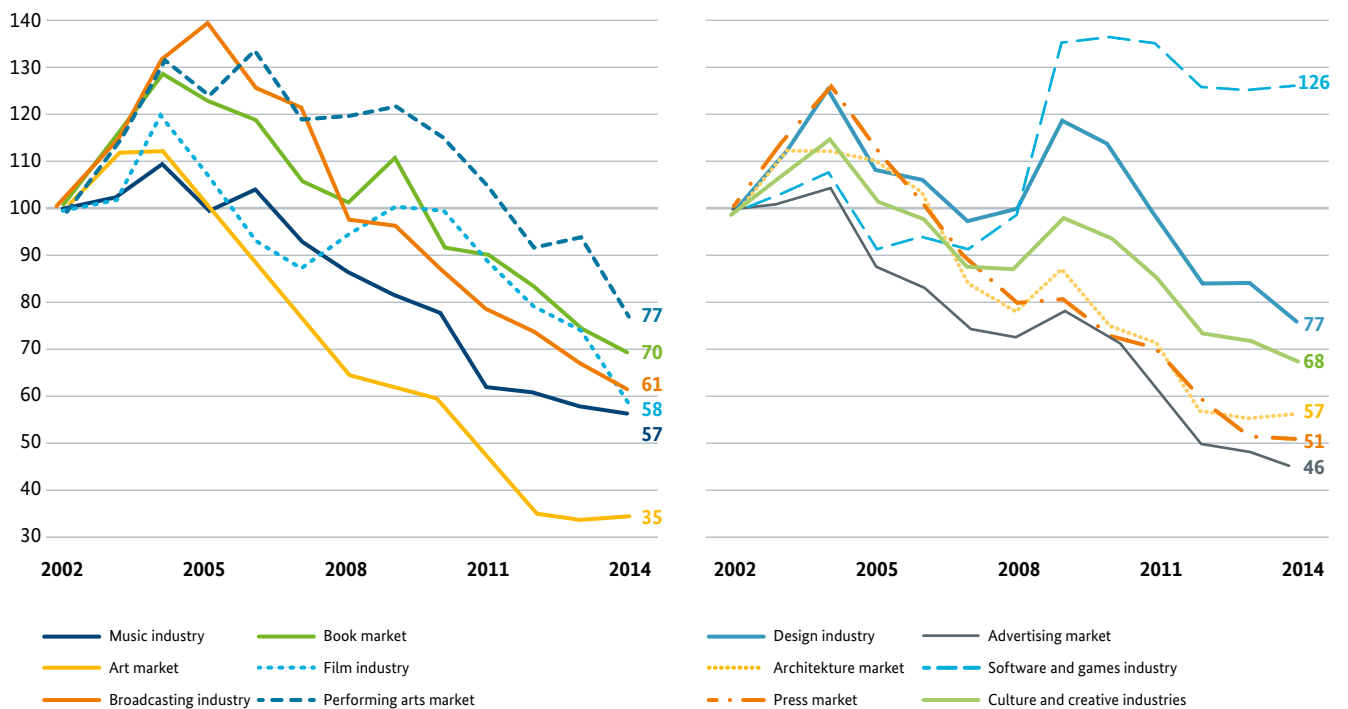
4 The comparable sectors include the chemical industry, pharmaceutical industry, mechanical engineering, car manufacturing and the information and communications technology sector

Figure 3.4: Start-up rates in the culture and creative industries in Germany in 2012/2014 by submarket and in comparison (in %)



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 2012-2014.
 Aid to interpretation: The average start-up rate in Germany's culture and creative industries for the years between 2012 and 2014 was 5.1%, exactly the same rate as the average level in Germany as a whole.
 Source: ZEW, Mannheim Enterprise Panel (MUP)

Figure 3.5: Entrepreneurial dynamic in the culture and creative industries in Germany between 2002 and 2014 by submarket (2002 = 100)



Aid to interpretation: Start-up figures in the software and games industry performed most favourably across the entire period from 2002 to 2014 and in 2014 were 26% higher than in 2002.
 Source: ZEW, Mannheim Enterprise Panel (MUP)

4 Innovations in the Culture and Creative Industries

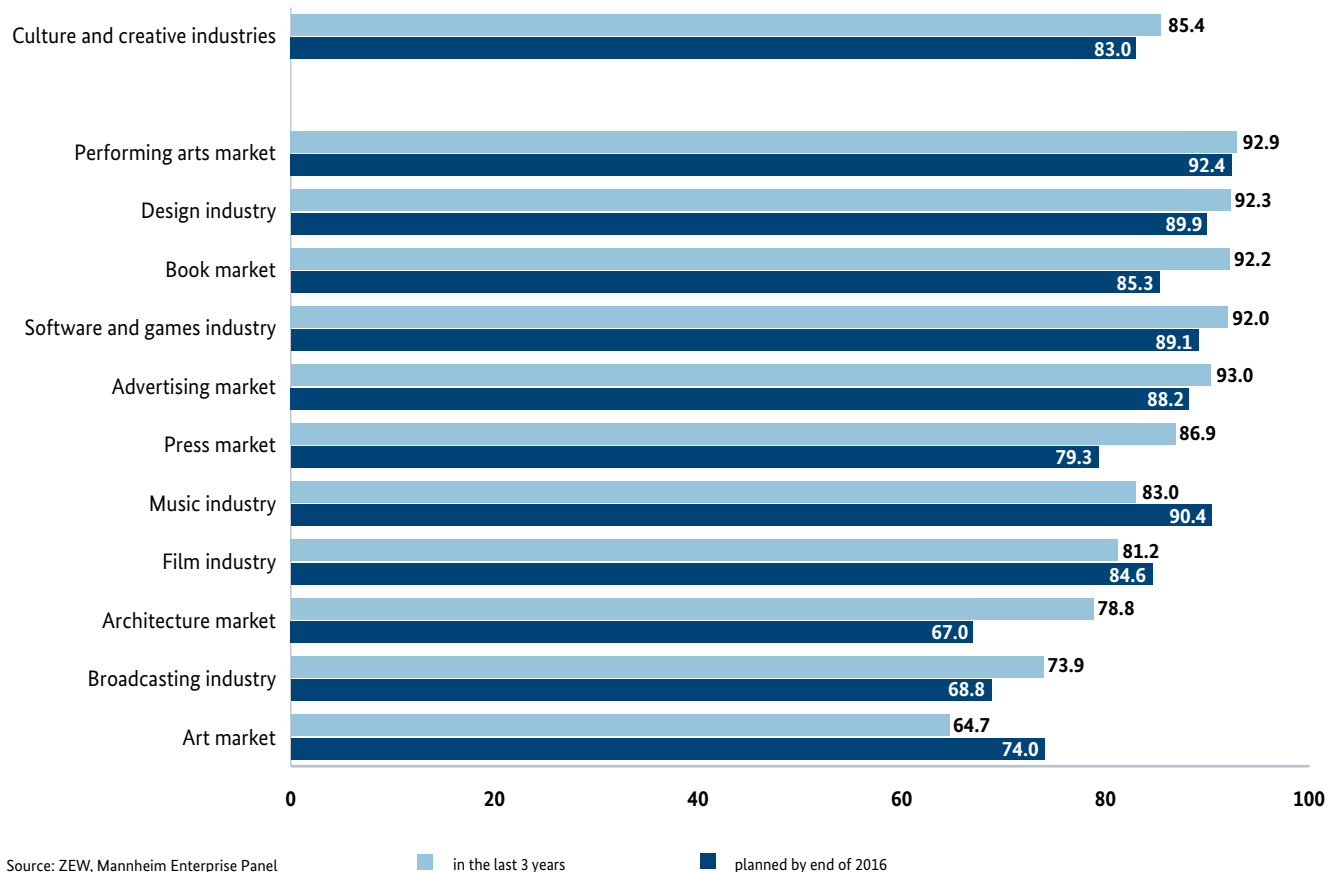
While the monitoring reports published in the last two years focused in particular on the topics of digitisation and cooperation, this year's monitoring report turns the spotlight on the subject of innovation. In addition to theoretical reflections and case studies, a representative survey of companies and self-employed people working in the culture and creative industries was conducted in order to gather extensive, up-to-date information about innovation behaviour within these industries and their submarkets. The survey centred on the current and planned innovation behaviour of the self-employed people and companies in these industries themselves, as well as the support provided by the culture and creative industries to other companies for their innovation processes.

A selection of the results are shown on the pages below. Additional analyses that examine this subject area in more detail, both at an aggregated level and at submarket level, are provided in the extended version of this report.

Widespread innovation – now and in the future

Companies in the culture and creative industries are characterised by a particularly high level of innovation activity. In total, 85% of the companies surveyed in the culture and creative industries implemented innovations within the last three years. The survey revealed a wide range of innovations, ranging from product and process innovations to the introduction of new forms of customer and user communication (see the next section). The performing arts market, the design industry and the book market are the three submarkets within the culture and creative industries that implemented the greatest number of innovations. In each of these submarkets, more than 90% of companies implemented innovations. In the performing arts market in particular, almost all types of innovation (see the next section) were implemented with relative frequency. The software and games industry, the advertising market and the press market similarly recorded figures that were well above the average for the

Figure 4.1: Introduction of innovations in the culture and creative industries (proportion of companies in %)



Source: ZEW, Mannheim Enterprise Panel

culture and creative industries as a whole. Innovations were least prevalent in the art market, although even here a significant proportion (65%) demonstrated innovation over the last three years.

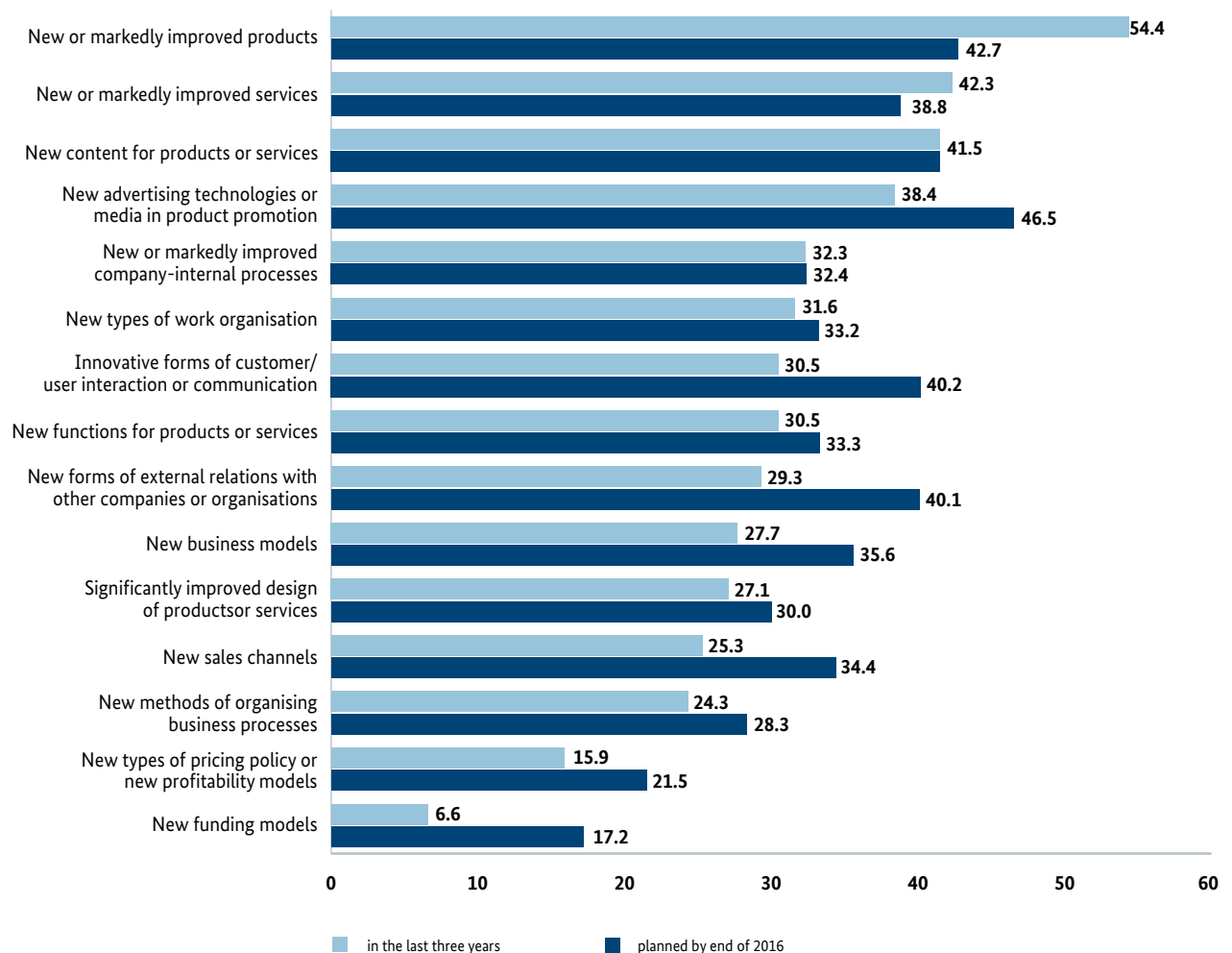
The vast majority (83%) of companies in the culture and creative industries plan to implement further innovations by the end of 2016. The performing arts submarket, which outstripped all other submarkets in relation to innovation activities in the prior period, was once again ahead of the pack in terms of planned innovations. It was followed in second place by the music industry, in which 90% of companies plan to introduce innovations by the end of 2016. Lagging behind the rest in terms of future innovations is the

architecture submarket, in which approximately two thirds of companies have innovation activities planned within the same timeframe.

Many and varied types of innovation

In the culture and creative industries in particular, an investigation of the innovation activities of companies necessitates a broad approach to defining the term “innovation”. To take account of the diversity of possible innovation projects in these industries, the survey question on innovation activities comprised a total of 15 categories of innovation.

Figure 4.2: Types of innovation in the culture and creative industries (proportion of companies in %)



Aid to interpretation: New or markedly improved products were introduced by 54.4% of companies in the culture and creative industries over the past three years. 42.7% plan to introduce product innovations by the end of 2016.

Source: ZEW company surveys. H1 2015

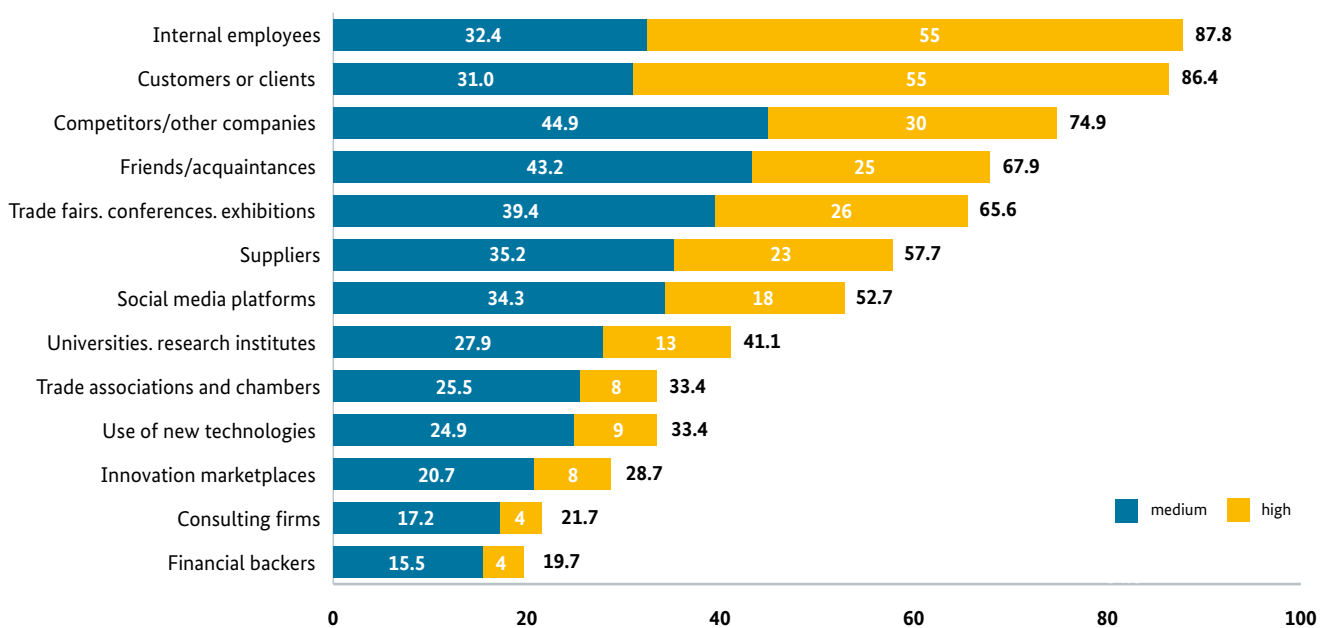
The companies taking part in the survey specified the categories among these 15 in which they had already implemented innovations or were planning to do so. In this context, the innovation had to be new for the company in question, although it did not necessarily have to represent a market innovation.

Product innovations were the most frequently cited type of innovation. Over half (54%) of the companies in the culture and creative industries introduced new or markedly improved products (including software) within the last three years. New or markedly improved services, which represent the counterpart of product innovations in the services area, were offered by around 42% of the companies within the last three years. An almost equal proportion of companies created new content for their products or services. In fourth position came the introduction of new advertising technologies or media in product promotion – an innovation introduced by 38% of companies. This type

of innovation includes, for example, the use of new media or methods for building customer loyalty. Most of the other types of innovation were introduced by between one-third and one-fourth of the companies surveyed. However, a far smaller proportion of the companies had implemented new types of pricing policy and new profitability models (16%) or new funding models (7%).

In terms of future innovation projects planned up to the end of 2016, the largest proportion of companies (47%) plan to introduce new advertising technologies or media for product promotion. Around 40% of companies are planning to use new forms of communication or customer and user interaction. These include, for example, customer reviews and recommendations, greater involvement of users in brainstorming and the use of social media. 40% of companies are also planning to introduce new types of external relations with other companies and organisations, for example, through cooperation agreements.

Figure 4.3: Importance of sources of information for innovation projects (proportion of companies in %)



Aid to interpretation: In the culture and creative industries, 87.8% of companies regard their own employees as an important source of information for innovation projects. Of the companies surveyed, 55.4% rate the importance of this source as "high", while 32.4% rate its importance as "medium".
 Source: ZEW company surveys, H1 2015

Sources of information for innovation – internal employees, customers and clients

Companies in all sectors require a constant stream of new and creative ideas for further enhancing their products, services and processes or developing new ones, thereby ensuring that they remain competitive in the long term.

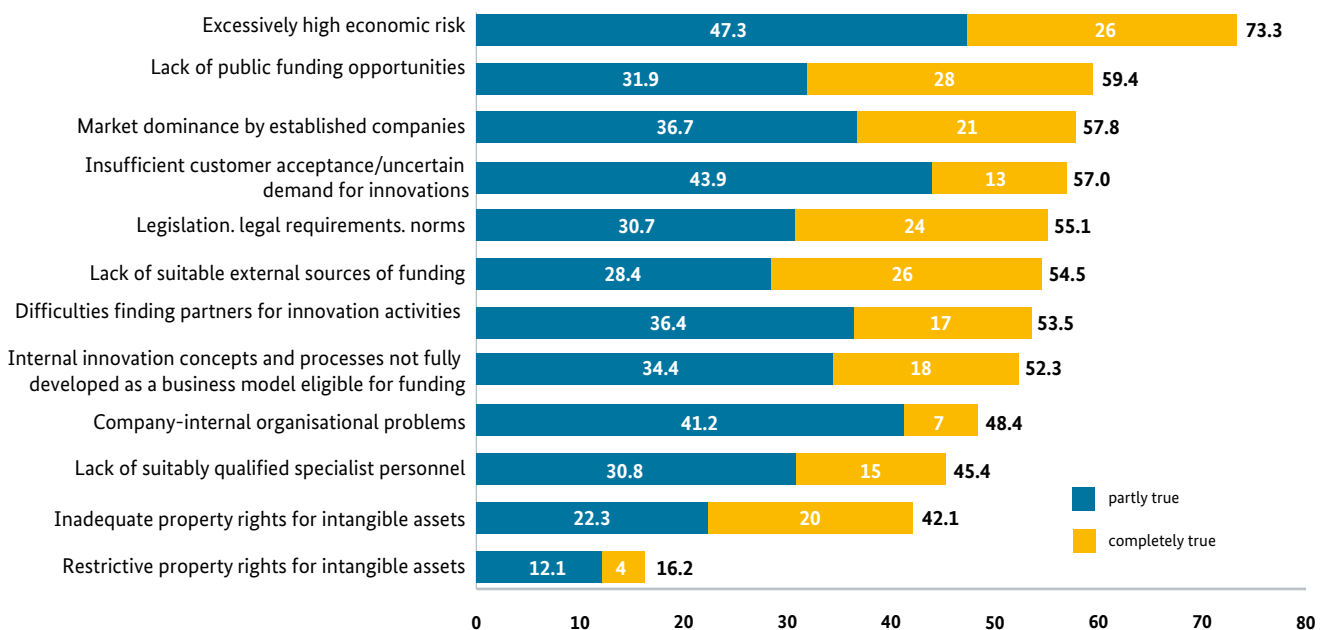
The companies' own employees represent the most important source of information for innovation projects in the culture and creative industries. 55% of companies rate the importance of their own employees as a source of information for potential innovation projects as "high". If we add to this the proportion of companies that view their employees as being of "medium" importance as a source of such information, this means that no less than 88% of companies benefit from their employees' ideas. Customers and clients are similarly regarded as an important source of information for innovations. Competitors or other companies play a role in the innovation activities of three-quarters of companies in the culture and creative industries. Friends and acquaintances also serve as a source of inspiration for a relatively large proportion of companies (68%). It would therefore appear that knowledge concerning the innova-

tion process is frequently exchanged wherever close contact occurs over the regular course of business. Meanwhile, innovation marketplaces, consulting firms and financial backers are only rarely viewed as an important source of inspiration.

Economic risk curbs innovation

Companies in the culture and creative industries view themselves as facing a wide range of factors that render the development of innovations more difficult and complicated and, in some cases, impossible. By far the greatest proportion of companies surveyed (73%) cited an excessively high economic risk as an obstacle to innovation. 26% of companies even went so far as to rate as "completely true" the statement that a high economic risk had hindered or prevented the development of innovations. Other factors viewed with particular frequency as impediments to innovation were a lack of public funding opportunities, market dominance by established companies, insufficient numbers of suitably qualified specialist personnel and inadequate property rights to protect immaterial assets.

Figure 4.4: Obstacles to the development of innovations in the culture and creative industries
(proportion of companies in %)



Aid to interpretation: Some 73.3% of companies in the culture and creative industries agreed with the statement that an excessively high economic risk represents an obstacle to the development of innovations. 47.3% appraised the statement as "partly true", while 26% rated it as "completely true".

Source: ZEW company surveys, H1 2015

Companies in the culture and creative industries drive innovation far beyond the boundaries of their own submarkets

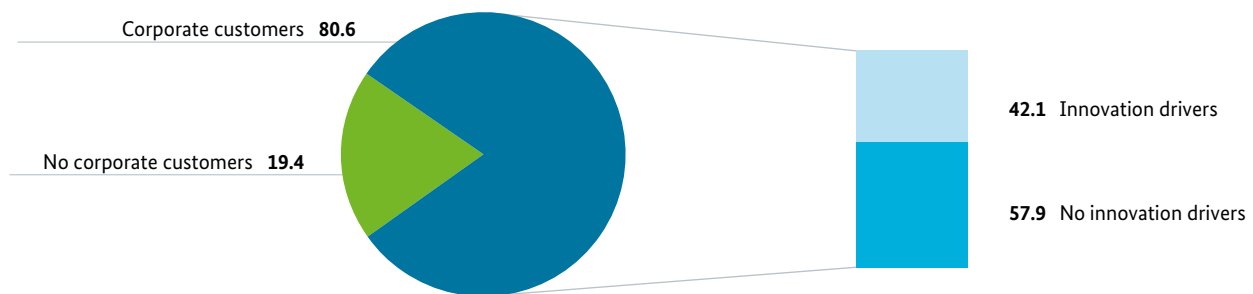
Companies in the culture and creative industries play an important role in driving innovation, both within these industries and beyond. Some 42% of self-employed people and companies in these industries previously provided their corporate customers with support for the implementation of innovations. These innovations include the introduction of new products or services and the implementation of new processes.

The proportion of companies that support their corporate customers in relation to innovation varies widely between the various submarkets within the culture and creative industries. While just 11% of companies in the architecture market act as a driving force for innovation, this figure ranges between 25% and 62% in the other submarkets. Companies in the software and games industry were those that most frequently enabled their own corporate customers to be innovative. Also well above the average figure for the culture and creative industries as a whole were companies operating in the advertising market, the design industry and the broadcasting industry – all of which frequently helped enabled innovation among their customers. In this context, it is interesting to note that innovation is driven primarily by companies operating in submarkets that also exhibit high take-up rates for innovative products, processes and technologies.

Companies in the culture and creative industries deliver ideas for innovation

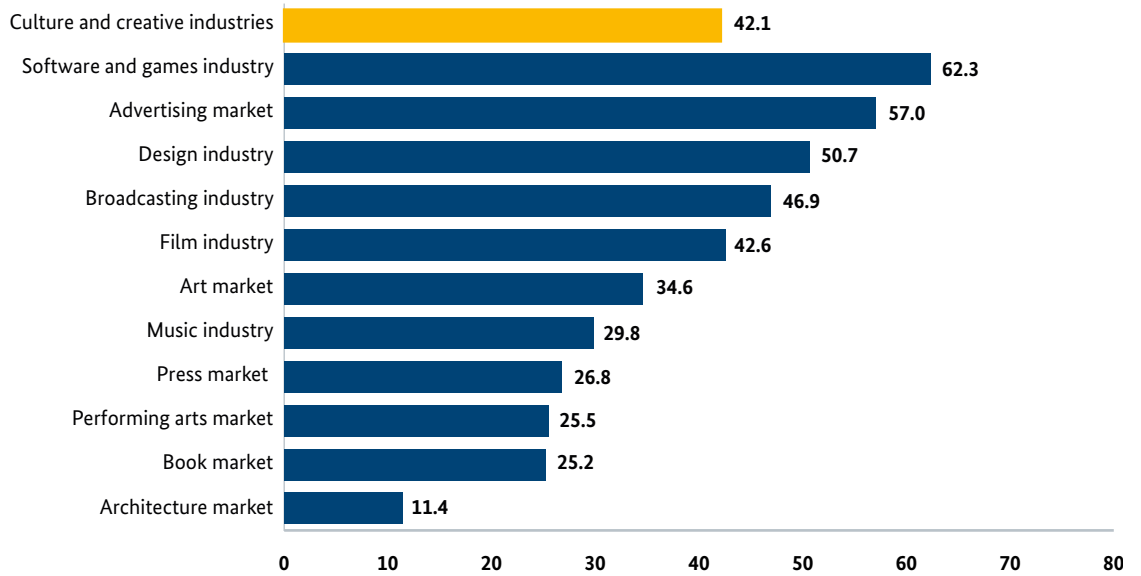
In most cases (64%), companies in the culture and creative industries assist their corporate customers with brainstorming. This phase of the innovation process tends to be driven by self-employed individuals or by small companies with up to four employees. Companies in the culture and creative industries with five or more employees tend to support their corporate customers during the “concept and design” phase of innovation projects. In total, 56% of companies in the culture and creative industries offered their corporate customers support for the “concept and design” of new products or services. One in five companies offered support for the more technical and less creative phases of setup for production and operation, as well as for research, development and construction.

Figure 4.5: Corporate customers and innovation drivers in the culture and creative industries (proportion of companies in %)



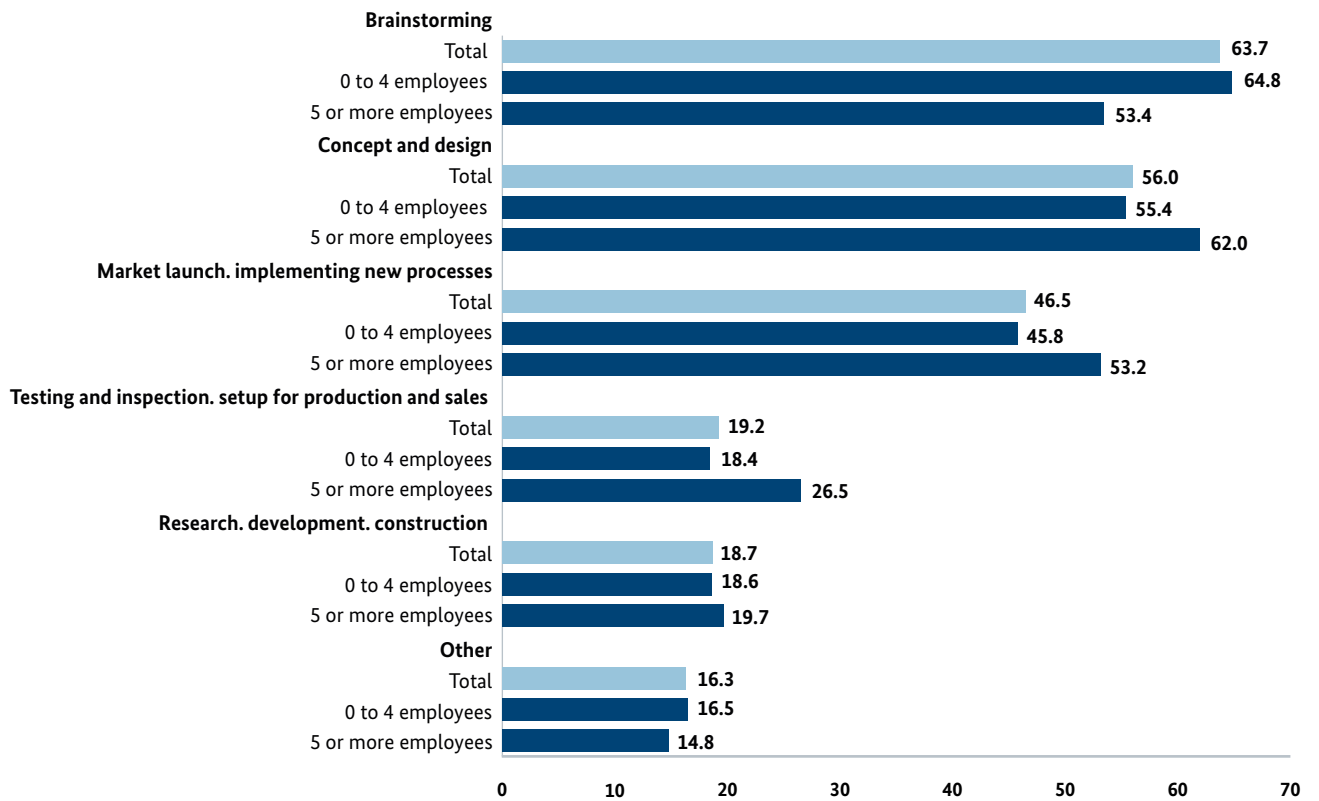
Aid to interpretation: 80.6% of companies in the culture and creative industries count corporate customers among their customer base. 42.1% of these companies in the culture and creative industries previously supported their corporate customers with the introduction of innovations. Source: ZEW company surveys. H1 2015

Figure 4.6: Support for introducing innovations in the culture and creative industries
 (Companies in the culture and creative industries with corporate customers. Proportions in %)



Aid to interpretation: Of the companies in the culture and creative industries with corporate customers among their customer base, 42.1% had supported their corporate customers with the introduction of innovations. In the software and games submarket, this figure was 62.3%.
 Source: ZEW company surveys, H1 2015

Figure 4.7: Phases of the innovation process for which support is provided to corporate customers
 (Companies in the culture and creative industries that support corporate customers with the introduction of innovations. Proportions in %)



Aid to interpretation: In total, 63.7% of companies in the culture and creative industries that count corporate customers among their customer base supported these customers with the introduction of innovations and acted as a driving force for innovation during the brainstorming phase. Among companies with five or more employees, this figure was 53.4%.
 Source: ZEW company surveys, H1 2015

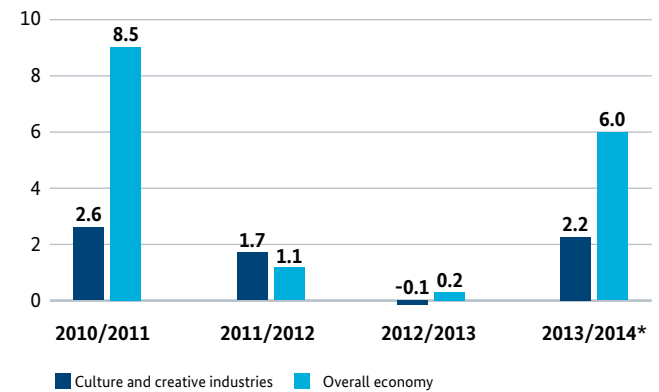
5 Summary

In 2014 the turnover generated in the culture and creative industries rose by 2.2 % year on year. However, this rise lagged behind growth in the overall economy (see Figure 5.1). In 2014 the year on year turnover growth in the overall economy was 6%.

Turnover in the culture and creative industries rises, but trails behind growth in overall economy

With an average annual growth rate of 2.1%, the culture and creative industries continued to flourish in the period 2010 to 2014. However, as in previous years, there was considerable variation in turnover growth in the individual submarkets (see Figure 5.2). In the period from 2010 to 2014, the music industry was ahead of the pack with an annual growth rate of 7.6%. It was followed in second place by the broadcasting industry with a turnover growth rate of 6.2%, just exceeding the average turnover growth for the culture and creative industries as a whole over the last year. In addition to these two submarkets, the performing arts market, software and games industry and the architecture market were also strong contributors to overall turnover growth. Annual turnover in these submarkets grew by 6.2%, 5.9% and 5.3% respectively.

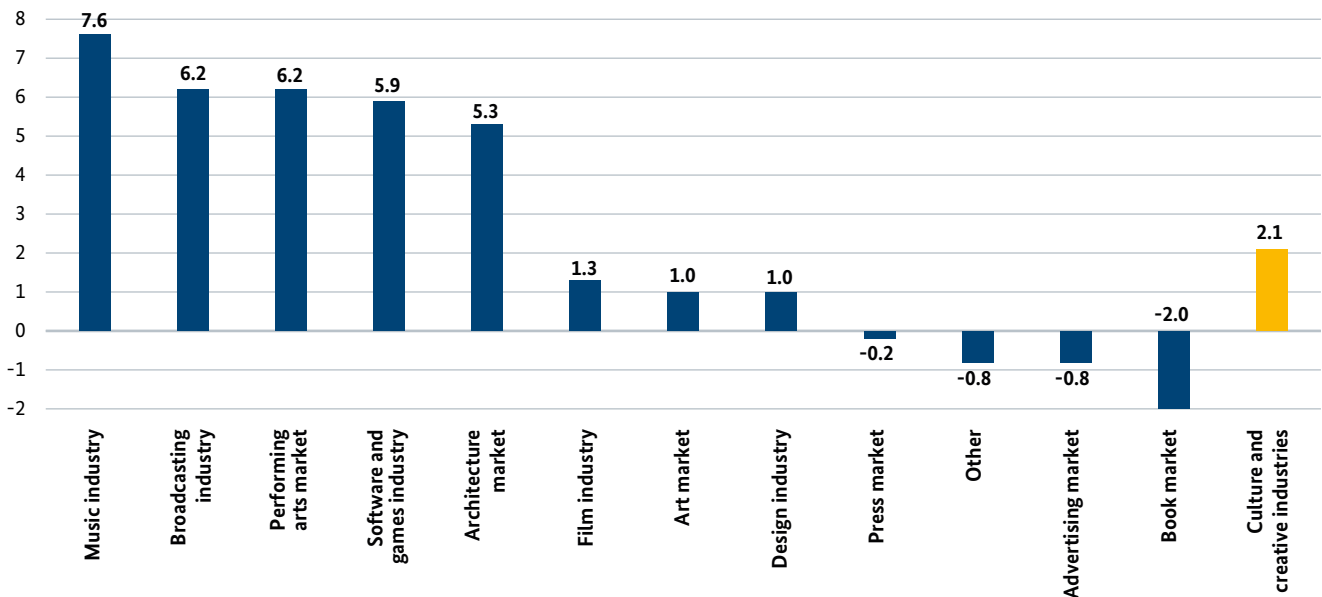
Figure 5.1: Turnover in the culture and creative industries and in the overall economy (change in %)



Aid to interpretation: Turnover in the culture and creative industries grew by 1.7% between 2011 and 2012. Note: * Data for 2014 based on estimations. Source: Turnover tax statistics, Destatis 2015b; ZEW's own computations.

Performance in the remaining submarkets was weaker than in the culture and creative industries as a whole. The submarkets for press, advertising and books posted negative annual growth rates of - 0.2, - 0.8 and -2.0% respectively.

Figure 5.2: Turnover in the individual submarkets of the culture and creative industries (average change p.a. 2010-2014* in %)



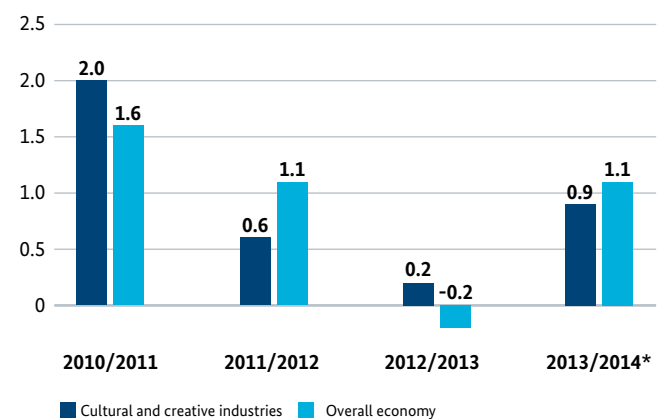
Aid to interpretation: Turnover in the music industry grew by 7.6% each year between 2010 and 2014. Note: * Data for 2014 based on estimations. Source: Turnover tax statistics, Destatis 2015b; ZEW's own computations

Moderate rise in the number of companies in the culture and creative industries

In 2014 the number of companies in the culture and creative industries rose by 0.9% over the previous year. This growth rate fell slightly below the corresponding rate for the overall economy (1.1%) but was 0.7 percentage points above the growth rate for the previous year (see Figure 5.3).

In the period under review (2010 to 2014), the number of companies in the culture and creative industries rose by an average of 1.2% per annum (see Figure 5.4). There were above-average increases in the number of businesses in the software and games industry (7.0%), the market for performing arts (4.3%) and the design industry (4.0%). The art, press and advertising markets all posted negative annual growth rates, well below average performance in the sector.

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

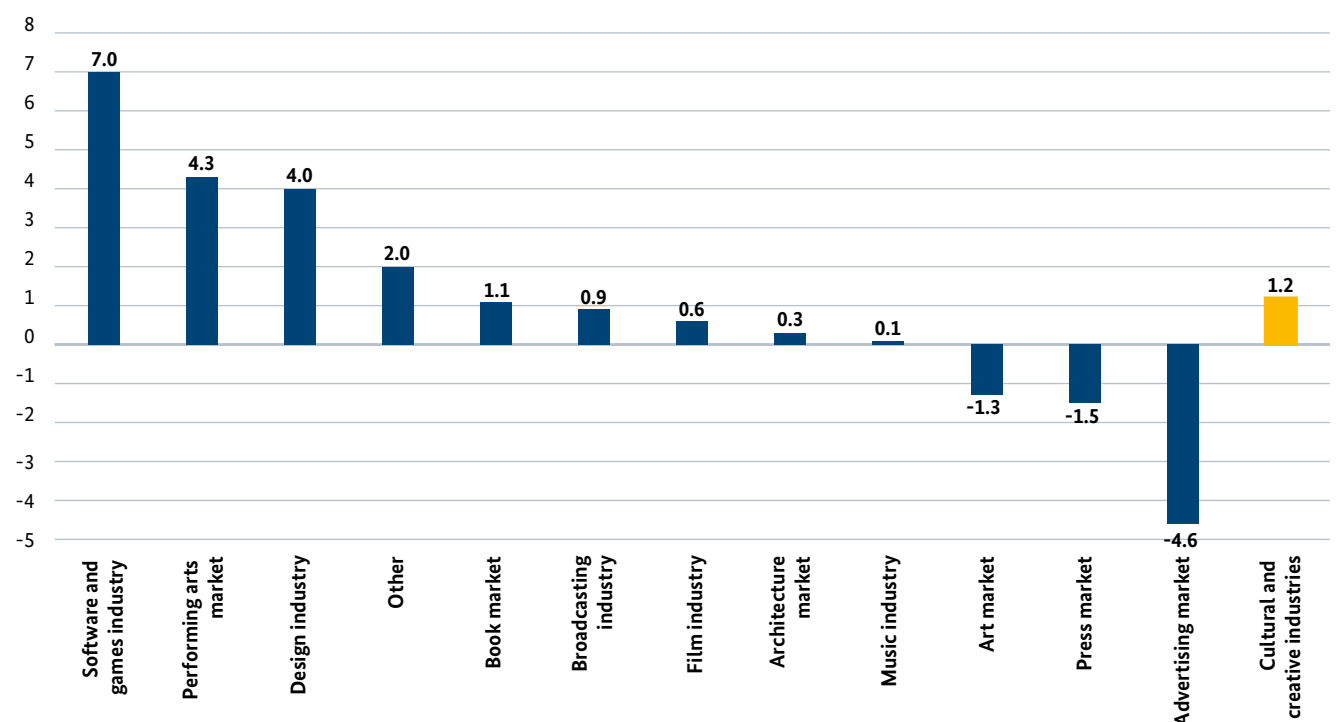


Aid to interpretation: Between 2011 and 2012 the number of companies in the overall economy rose by 1.1%.

Note: * Data for 2014 based on estimations.

Source: Turnover tax statistics, Destatis 2015b; ZEW's own computations

Figure 5.4: Development in the number of businesses in the submarkets of the culture and creative industries (average change p.a. 2010-2014* in %)

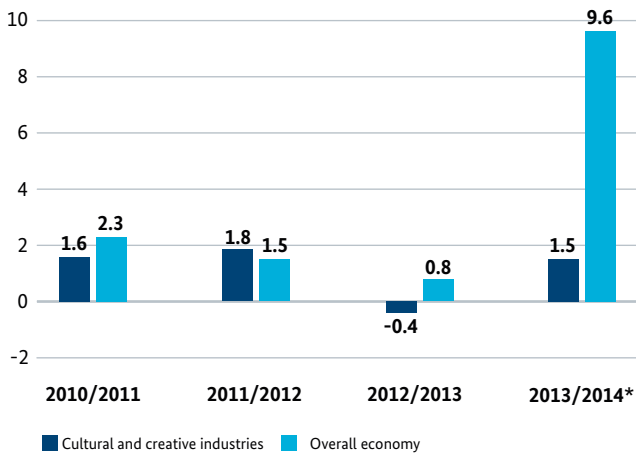


Aid to interpretation: The number of businesses in the book market grew by an average of 1.2% each year between 2010 and 2014.

Note: * Data for 2014 based on estimations.

Source: Turnover tax statistics, Destatis 2015b; ZEW's own computations

Figure 5.5: Development in the number of employed people in the culture and creative industries compared to the overall economy (change in %)



Aid to interpretation: The number of people employed in the overall economy rose by 0.8% between 2012 and 2013.
 Note: * Data for 2014 partly based on estimations.
 Source: Turnover tax statistics. Destatis 2015b; employment statistics Federal Employment Agency 2015; ZEW's own computations

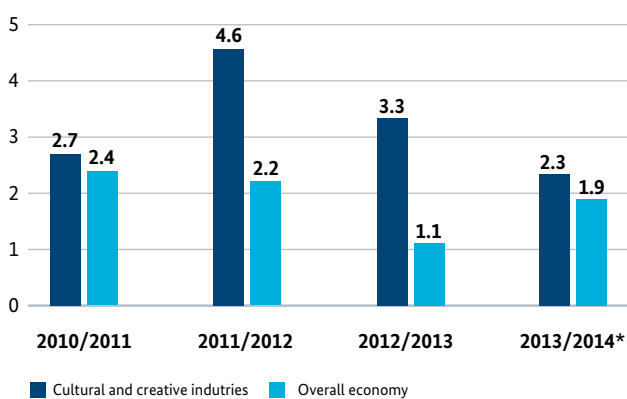
Employment on the rise, more jobs liable to social insurance contributions in particular

Following a slight decline in employment in 2013, the number of people employed in the culture and creative industries in 2014 rose by 1.5% over the previous year (see Figure 5.5). However, this figure is still some way behind the corresponding growth in the overall economy, where the number of people employed rose by 9.6% over the previous year.

On a more positive note, as in the previous year, the rise in the number of employees liable to social insurance contributions has been greater in the culture and creative industries (2.3%) than in the overall economy (1.9%). In addition, the number of people in marginal employment dropped by 0.9%, compared to a year on year increase (1.2%) in the number of marginal employees in the overall economy (see Figures 5.6 and 5.7).

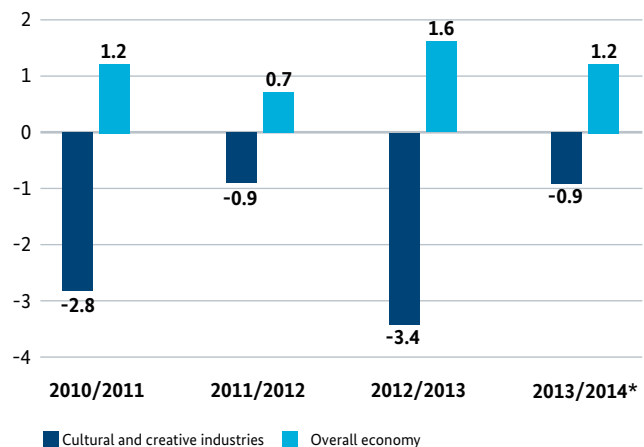
Between 2010 and 2014, the number of self-employed people and employees liable to social insurance contributions rose by an average of 3.5% per annum (see Figure 5.8). The software and games industry was the main contributor here, with a growth rate of 10.3% per annum. Trailing in second place was the market for performing arts with 5.3%. The press, art and books submarkets all experienced contractions in employment.

Figure 5.6: Development in the number of employees liable to social insurance contributions in the culture and creative industries compared to the overall economy (change in %)



Aid to interpretation: The number of employees liable to social insurance contributions in the culture and creative industries rose by 3.3% between 2012 and 2013.
 Note: * Data for 2014 partly based on estimations.
 Source: Employment statistics. Federal Employment Agency 2015; ZEW's own computations

Figure 5.7: Development in the number of marginal employees in the culture and creative industries compared to the overall economy (change in %)



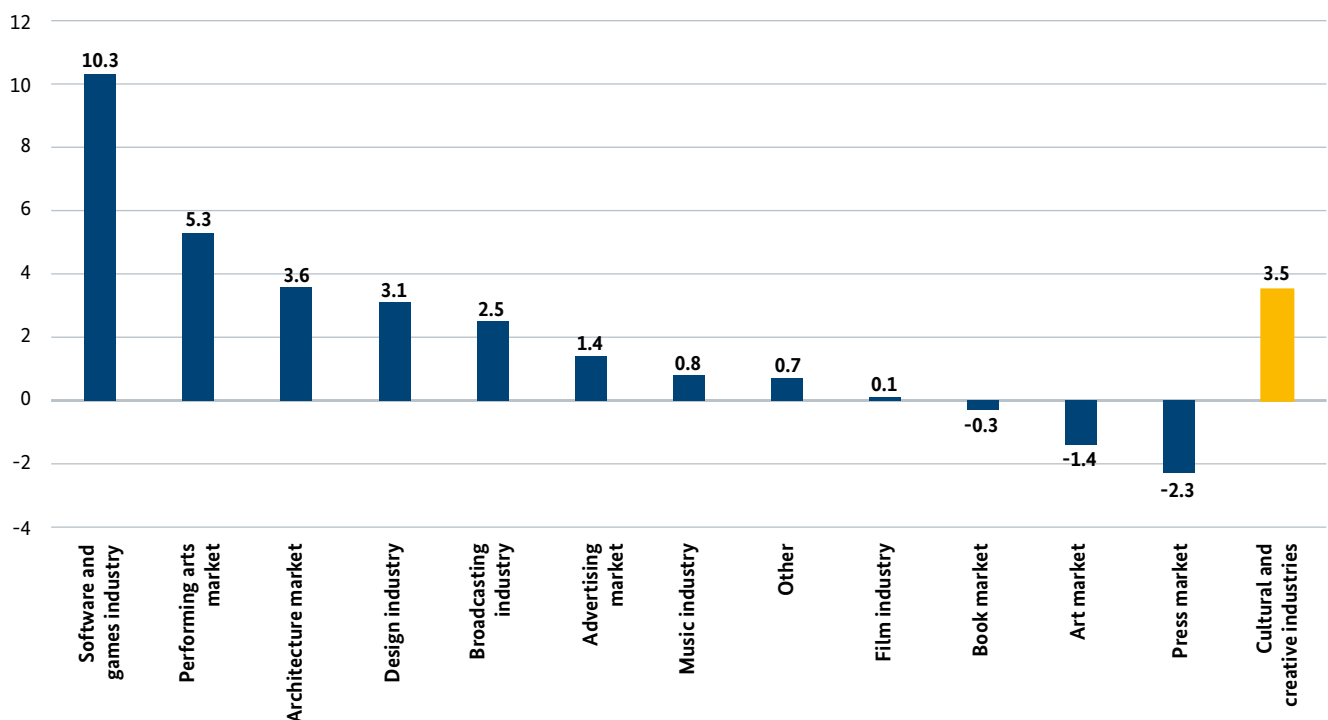
Aid to interpretation: The number of marginal employees in the culture and creative industries declined by 3.4% between 2012 and 2013.
 Note: * Data for 2014 partly based on estimations.
 Source: Employment statistics. Federal Employment Agency 2015; ZEW's own computations

Marked variation across submarkets in the culture and creative industries

Even though turnover growth in the culture and creative industries fell short of that in the overall economy between 2010 and 2014 (with the exception of 2012), growth in the number of businesses in the culture and creative industries more or less kept pace with the national economy. In terms of an increase in the number of jobs liable to social insurance contributions, the culture and creative industries per-

formed better than the overall economy during the period under review. All economic indicators reflected the wide diversity across the culture and creative industries. The submarkets for software and games, design and performing arts reported particularly strong indicators, while performance in other submarkets such as press, advertising, art and books was below average. In 2014, the music and broadcasting industry boasted turnover growth well above average.

Figure 5.8: Development of employment (self-employed people and employees liable to social insurance contributions) in the submarkets of the culture and creative industries (average change p.a. 2010–2014* in %)



Aid to interpretation: Employment in the design industry grew by an average of 3.5% per annum between 2010 and 2014.

Note: * Data for 2014 partly based on estimations (in relation to turnover tax statistics).

Source: Turnover tax statistics, Destatis, 2015b; employment statistics, Federal Employment Agency 2015; ZEW's own computations

Almost 12,000 company start-ups in the culture and creative industries

Just under 12,000 active companies were set up in the culture and creative industries in Germany in 2014. At just 68% of the corresponding figure in 2002, this is the lowest number of start-ups since reunification. The culture and creative industries are thus following the prevailing trend in Germany of a decline in start-ups since 2005. Start-up activities in the culture and creative industries is heavily concentrated in three submarkets. Almost two-thirds of all company start-ups in 2014 were in the design industry (22%), the software and games industry (29%) and in the advertising market (14%). The architecture and press markets accounted for another 13% (7% and 6% respectively).

Innovation behaviour in the culture and creative industries

Companies in the culture and creative industries are characterised by a particularly high level of innovation activity. In total, 85% of the companies surveyed in the culture and creative industries implemented innovations within the last three years. The performing arts market, the design industry and the book market are the three submarkets within the culture and creative industries with the greatest number of innovators. In each of these submarkets, more than 90% of companies implemented innovations.

The vast majority (83%) of companies in the culture and creative industries plan to implement further innovations by the end of 2016. The performing arts submarket, which outstripped all other submarkets in relation to innovation activities in the prior period, once again led the field in terms of planned innovations. In second place was the music industry.

Product innovations were the most frequently cited type of innovation. Over half (54%) of the companies in the culture and creative industries introduced new or markedly improved products (including software) within the last three years. New or markedly improved services, which represent the counterpart of product innovations in the services area, were offered by around 42% of the companies

within the last three years. An almost equal proportion of companies created new content for their own products or services. The companies' own employees represent the most important source of information for innovation projects in the culture and creative industries. Over half of all companies rate the importance of their own employees as a source of information for potential innovation projects as "high". Customers and clients are similarly regarded as an important source of information for innovations.

Companies in the culture and creative industries play an important role in driving innovation, both within these industries and beyond. A total of 42% of self-employed people and companies in these industries provided their corporate customers with support for the implementation of innovations. These innovations include the introduction of new products or services and the implementation of new processes.

Conclusion

Overall, the economic indicators indicate that the culture and creative industries (CCI) are continuing to develop at a steady pace. The increase in jobs requiring social insurance contributions has been a particular highlight. A detailed breakdown reveals major differences in the development of the individual submarkets. The software and games industry in particular is enjoying dynamic growth, while the music and design industries are also thriving. In contrast, the submarkets for press, books, advertising and art are at the lower end of the development scale. Given the diverse characteristics and market conditions across the CCI submarkets, a range of differentiated economic policy measures is essential. These measures must be tailored to suit the individual requirements of each submarket.

Recommendations for action

Possible economic policy approaches to promote culture and creative businesses include:

- Measures to help leverage the innovation capacity of culture and creative industries as a driver of growth and value added in the overall economy.
- Providing cooperation and networking structures to help companies in their search for partners to carry out their innovation activities.
- Optimising access to funding for innovative products, services and ideas from culture and creative industries, in particular by creating greater transparency and adapting existing offerings (Federal Government, *Länder*, private funds).

6 Annex

6.1 Detailed Tables

Table 6.1: Culture and creative industries (CCI) by submarket: Number of companies, 2009 to 2014

| Submarket | 2009 | 2010 | 2011 | 2012 | 2013 | 2014* |
|--|----------------|----------------|----------------|----------------|----------------|----------------|
| 1. Music industry | 13,862 | 13,723 | 13,894 | 13,796 | 13,811 | 13,769 |
| 2. Book market | 16,232 | 16,481 | 16,702 | 16,828 | 16,811 | 17,039 |
| 3. Art market | 13,763 | 13,464 | 13,422 | 13,203 | 13,153 | 12,938 |
| 4. Film industry | 18,312 | 17,956 | 18,199 | 18,282 | 18,440 | 18,308 |
| 5. Broadcasting industry | 17,853 | 17,751 | 18,128 | 18,154 | 18,159 | 18,214 |
| 6. Performing arts market | 14,993 | 15,402 | 15,982 | 16,497 | 17,004 | 17,475 |
| 7. Design industry | 48,332 | 50,111 | 52,439 | 53,676 | 54,454 | 56,343 |
| 8. Architecture market | 39,956 | 40,159 | 40,702 | 40,762 | 40,205 | 40,496 |
| 9. Press market | 34,317 | 33,564 | 33,498 | 33,131 | 32,557 | 32,049 |
| 10. Advertising market | 37,082 | 35,330 | 34,577 | 33,448 | 32,107 | 30,717 |
| 11. Software and games industry | 27,018 | 28,527 | 30,413 | 31,915 | 33,365 | 34,986 |
| 12. Other | 7,353 | 7,506 | 7,736 | 7,751 | 7,812 | 7,974 |
| Total, including double counts | 289,073 | 289,974 | 295,692 | 297,442 | 297,877 | 300,308 |
| Duplicate categories of economic activity | 50,594 | 50,440 | 51,402 | 51,627 | 51,525 | 51,743 |
| Culture and creative industries (excluding double counts) | 238,479 | 239,534 | 244,290 | 245,816 | 246,353 | 248,565 |
| Overall economy | 3,135,542 | 3,165,286 | 3,215,095 | 3,250,319 | 3,243,538 | 3,279,850 |
| <i>Contribution of CCI to overall economy</i> | <i>7.61%</i> | <i>7.57%</i> | <i>7.60%</i> | <i>7.56%</i> | <i>7.60%</i> | <i>7.58%</i> |

Note: *estimates. Source: Turnover tax statistics, Destatis 2014; ZEW's own computations

Table 6.2: Culture and creative industries (CCI) by submarket: Turnover (in EUR m), 2009 to 2014

| Submarket | 2009 | 2010 | 2011 | 2012 | 2013 | 2014* |
|--|----------------|----------------|----------------|----------------|----------------|----------------|
| 1. Music industry | 6,307 | 6,270 | 6,639 | 7,099 | 7,674 | 7,808 |
| 2. Book market | 14,848 | 14,182 | 14,255 | 14,032 | 13,737 | 13,337 |
| 3. Art market | 2,146 | 2,332 | 2,341 | 2,316 | 2,292 | 2,403 |
| 4. Film industry | 8,734 | 8,925 | 9,283 | 9,228 | 9,060 | 9,276 |
| 5. Broadcasting industry | 7,445 | 7,671 | 7,905 | 8,327 | 8,942 | 9,190 |
| 6. Performing arts market | 3,316 | 3,478 | 3,742 | 3,909 | 3,971 | 4,164 |
| 7. Design industry | 17,595 | 18,243 | 18,353 | 18,535 | 18,338 | 18,778 |
| 8. Architecture market | 7,967 | 8,031 | 8,708 | 8,813 | 9,130 | 9,383 |
| 9. Press market | 31,341 | 31,398 | 31,711 | 31,931 | 31,065 | 31,215 |
| 10. Advertising market | 25,508 | 25,714 | 24,929 | 24,965 | 25,175 | 25,067 |
| 11. Software and games industry | 24,296 | 26,496 | 28,442 | 29,642 | 29,418 | 31,442 |
| 12. Other | 1,578 | 1,588 | 1,652 | 1,587 | 1,531 | 1,549 |
| Total, including double counts | 151,080 | 154,327 | 157,960 | 160,385 | 160,332 | 163,613 |
| Duplicate categories of economic activity | 16,751 | 16,993 | 16,990 | 17,047 | 17,178 | 17,328 |
| Culture and creative industries (excluding double counts) | 134,329 | 137,333 | 140,970 | 143,338 | 143,155 | 146,285 |
| Overall economy | 4,897,938 | 5,240,997 | 5,687,179 | 5,752,249 | 5,765,567 | 6,111,764 |
| <i>Contribution of CCI to overall economy</i> | <i>2.74%</i> | <i>2.62%</i> | <i>2.48%</i> | <i>2.49%</i> | <i>2.48%</i> | <i>2.39%</i> |

Note: *estimates. Source: Turnover tax statistics, Destatis 2014; ZEW's own computations

Table 6.3: Culture and creative industries (CCI) by submarket: Employed people, 2009 to 2014

| Submarket | 2009 | 2010 | 2011 | 2012 | 2013 | 2014* |
|--|----------------|----------------|----------------|------------------|------------------|------------------|
| 1. Music industry | 46,813 | 46,690 | 46,627 | 46,532 | 47,494 | 47,798 |
| 2. Book market | 78,831 | 76,850 | 79,498 | 78,808 | 78,158 | 76,156 |
| 3. Art market | 19,422 | 19,160 | 18,943 | 18,910 | 18,788 | 18,391 |
| 4. Film industry | 58,496 | 57,280 | 57,740 | 57,627 | 57,082 | 57,457 |
| 5. Broadcasting industry | 38,890 | 38,881 | 39,690 | 39,867 | 41,351 | 41,828 |
| 6. Performing arts market | 32,295 | 33,220 | 34,112 | 35,383 | 37,889 | 38,802 |
| 7. Design industry | 125,426 | 125,854 | 128,415 | 131,740 | 134,252 | 137,959 |
| 8. Architecture market | 100,064 | 101,889 | 105,079 | 107,737 | 110,153 | 113,218 |
| 9. Press market | 168,283 | 163,294 | 161,083 | 158,863 | 156,082 | 152,313 |
| 10. Advertising market | 140,935 | 136,963 | 138,870 | 140,388 | 140,522 | 142,811 |
| 11. Software and games industry | 243,753 | 251,676 | 268,405 | 299,357 | 321,022 | 338,136 |
| 12. Other | 15,345 | 14,991 | 15,184 | 15,434 | 15,532 | 15,302 |
| Total, including double counts | 1,068,553 | 1,066,748 | 1,093,644 | 1,130,646 | 1,158,326 | 1,180,172 |
| Duplicate categories of economic activity | 115,621 | 114,378 | 117,012 | 119,101 | 121,229 | 122,832 |
| Culture and creative industries (excluding double counts) | 952,932 | 952,370 | 976,633 | 1,011,544 | 1,037,096 | 1,057,340 |
| Overall economy | 30,738,823 | 31,131,887 | 31,858,678 | 32,530,353 | 32,859,218 | 33,454,355 |
| <i>Contribution of CCI to overall economy</i> | <i>3.10%</i> | <i>3.06%</i> | <i>3.07%</i> | <i>3.11%</i> | <i>3.16%</i> | <i>3.16%</i> |

Note: *Estimates concerning number of self-employed people (correspond to number of companies). Source: Turnover tax statistics, Destatis 2014; Employment statistics, Federal Employment Agency 2014; ZEW's own computations

Table 6.4: Culture and creative industries (CCI) by submarket: dependent employees (liable to social insurance contributions), 2009 to 2014

| Submarket | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 |
|--|----------------|----------------|----------------|----------------|----------------|----------------|
| 1. Music industry | 32,951 | 32,967 | 32,733 | 32,736 | 33,683 | 34,029 |
| 2. Book market | 62,599 | 60,369 | 62,796 | 61,980 | 61,347 | 59,117 |
| 3. Art market | 5,659 | 5,696 | 5,521 | 5,707 | 5,636 | 5,453 |
| 4. Film industry | 40,184 | 39,324 | 39,541 | 39,345 | 38,642 | 39,149 |
| 5. Broadcasting industry | 21,037 | 21,130 | 21,562 | 21,713 | 23,192 | 23,615 |
| 6. Performing arts market | 17,302 | 17,818 | 18,130 | 18,886 | 20,885 | 21,327 |
| 7. Design industry | 77,094 | 75,743 | 75,976 | 78,065 | 79,799 | 81,617 |
| 8. Architecture market | 60,108 | 61,730 | 64,377 | 66,975 | 69,948 | 72,722 |
| 9. Press market | 133,966 | 129,730 | 127,585 | 125,732 | 123,525 | 120,264 |
| 10. Advertising market | 103,853 | 101,633 | 104,293 | 106,940 | 108,415 | 112,094 |
| 11. Software and games industry | 216,735 | 223,149 | 237,992 | 267,442 | 287,657 | 303,150 |
| 12. Other | 7,992 | 7,485 | 7,448 | 7,683 | 7,720 | 7,328 |
| Total, including double counts | 779,480 | 776,774 | 797,953 | 833,203 | 860,449 | 879,864 |
| Duplicate categories of economic activity | 65,027 | 63,938 | 65,610 | 67,475 | 69,705 | 71,089 |
| Culture and creative industries (excluding double counts) | 714,453 | 712,836 | 732,343 | 765,729 | 790,744 | 808,775 |
| Overall economy | 27,603,281 | 27,966,601 | 28,643,583 | 29,280,034 | 29,615,680 | 30,174,505 |
| <i>Contribution of CCI to overall economy</i> | <i>2.59%</i> | <i>2.55%</i> | <i>2.56%</i> | <i>2.62%</i> | <i>2.67%</i> | <i>2.68%</i> |

Source: Employment statistics, Federal Employment Agency 2014; ZEW's own computations

Table 6.5: Culture and creative industries (CCI) by submarket: marginal employees, 2009 to 2014

| Submarket | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 |
|--|----------------|----------------|----------------|----------------|----------------|----------------|
| 1. Music industry | 11,848 | 11,909 | 12,114 | 12,669 | 12,892 | 13,158 |
| 2. Book market | 21,269 | 20,914 | 20,362 | 19,762 | 18,950 | 18,308 |
| 3. Art market | 4,588 | 4,465 | 4,392 | 4,347 | 4,287 | 4,172 |
| 4. Film industry | 29,082 | 27,983 | 26,692 | 26,535 | 25,779 | 24,323 |
| 5. Broadcasting industry | 2,141 | 2,041 | 1,748 | 1,722 | 1,839 | 1,839 |
| 6. Performing arts market | 12,797 | 12,972 | 13,699 | 14,751 | 15,794 | 16,443 |
| 7. Design industry | 65,255 | 66,942 | 63,950 | 62,095 | 61,746 | 65,392 |
| 8. Architecture market | 18,102 | 18,069 | 18,372 | 18,451 | 19,099 | 19,355 |
| 9. Press market | 134,805 | 133,683 | 131,198 | 130,350 | 123,364 | 113,220 |
| 10. Advertising market | 118,970 | 123,134 | 115,252 | 110,717 | 103,957 | 111,434 |
| 11. Software and games industry | 20,685 | 21,173 | 22,353 | 23,696 | 24,786 | 25,869 |
| 12. Other | 1,914 | 1,770 | 1,754 | 1,682 | 1,650 | 1,611 |
| Total, including double counts | 441,456 | 445,055 | 431,885 | 426,777 | 414,143 | 415,124 |
| Duplicate categories of economic activity | 64,624 | 66,190 | 63,442 | 61,762 | 61,708 | 65,721 |
| Culture and creative industries (excluding double counts) | 376,832 | 378,865 | 368,443 | 365,014 | 352,435 | 349,404 |
| Overall economy | 7,359,609 | 7,450,194 | 7,536,790 | 7,591,384 | 7,716,104 | 7,811,376 |
| <i>Contribution of CCI to overall economy</i> | 5.12% | 5.09% | 4.89% | 4.81% | 4.57% | 4.47% |

Source: Employment statistics, Federal Employment Agency 2014; ZEW's own computations

Table 6.6: Number of companies in the culture and creative industries according to submarkets and categories of economic activity ("WZ") from 2009 to 2014

| Submarket/ Category of economic activity WZ-2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014* |
|--|---------------|---------------|---------------|---------------|---------------|---------------|
| 1. Music industry | | | | | | |
| 32.20 Manufacture of musical instruments | 1,165 | 1,180 | 1,197 | 1,204 | 1,218 | 1,233 |
| 47.59.3 Retail sale of musical instruments, etc. | 2,235 | 2,142 | 2,087 | 1,998 | 1,922 | 1,841 |
| 47.63 Retail sale of music and video recordings, etc. | 238 | 282 | 306 | 319 | 333 | 368 |
| 59.20.1 Sound-recording studios, etc. | 479 | 539 | 583 | 610 | 634 | 686 |
| 59.20.2 Publishing of sound recordings | 395 | 390 | 383 | 366 | 376 | 369 |
| 59.20.3 Publishing of printed music | 1,200 | 1,149 | 1,134 | 1,095 | 1,062 | 1,023 |
| 90.01.2 Ballet companies, orchestras, bands and choirs | 1,828 | 1,661 | 1,666 | 1,560 | 1,510 | 1,401 |
| 90.02 Support activities to performing arts | 2,024 | 2,109 | 2,249 | 2,395 | 2,471 | 2,579 |
| 90.03.1 Own-account composers, etc. | 2,656 | 2,643 | 2,683 | 2,695 | 2,752 | 2,757 |
| 90.04.1 Organisation of theatre performances and concerts | 1,414 | 1,400 | 1,378 | 1,337 | 1,325 | 1,306 |
| 90.04.2 Operation of opera houses, theatre and concert halls, etc. | 228 | 228 | 228 | 217 | 208 | 207 |
| Submarket total | 13,862 | 13,723 | 13,894 | 13,796 | 13,811 | 13,769 |

Table 6.6: Number of companies in the culture and creative industries according to submarkets and categories of economic activity (“WZ”) from 2009 to 2014

| Submarket/ Category of economic activity WZ-2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014* |
|---|---------------|---------------|---------------|---------------|---------------|---------------|
| 2. Book market | | | | | | |
| 18.14 Binding and related services | 1,070 | 1,041 | 1,010 | 993 | 961 | 933 |
| 47.61. Retail sale of books | 4,290 | 4,195 | 4,137 | 4,038 | 3,896 | 3,812 |
| 47.79.2 Retail sale of second-hand books | 479 | 459 | 448 | 429 | 428 | 411 |
| 58.11 Book publishing | 2,193 | 2,220 | 2,243 | 2,209 | 2,170 | 2,190 |
| 74.30.1 Translation activities | 1,584 | 1,625 | 1,718 | 1,811 | 1,884 | 1,946 |
| 90.03.2 Own-account writers | 6,616 | 6,941 | 7,146 | 7,348 | 7,472 | 7,749 |
| Submarket total | 16,232 | 16,481 | 16,702 | 16,828 | 16,811 | 17,039 |
| 3. Art market | | | | | | |
| 47.78.3 Retail sale of art, etc. | 1,797 | 1,712 | 1,685 | 1,632 | 1,560 | 1,495 |
| 47.79.1 Retail sale of antiques, etc. | 2,193 | 2,115 | 2,041 | 2,007 | 1,949 | 1,877 |
| 90.03.3 Own-account visual artists | 8,883 | 8,814 | 8,932 | 8,892 | 9,010 | 9,000 |
| 91.02 Museums activities | 890 | 823 | 764 | 672 | 634 | 567 |
| Submarket total | 13,763 | 13,464 | 13,422 | 13,203 | 13,153 | 12,938 |
| 4. Film industry | | | | | | |
| 47.63 Retail sale of music and video recordings, etc. | 238 | 282 | 306 | 319 | 333 | 368 |
| 59.11 Motion picture, video and TV programme production | 5,785 | 5,253 | 5,118 | 4,988 | 4,894 | 4,521 |
| 59.12 Motion picture, video and TV programme post-production | 696 | 767 | 851 | 861 | 856 | 925 |
| 59.13 Motion picture, video and TV programme distribution | 929 | 865 | 792 | 711 | 654 | 586 |
| 59.14 Motion picture projection | 888 | 878 | 865 | 843 | 849 | 837 |
| 77.22 Renting of video tapes and disks | 1,321 | 1,201 | 1,087 | 969 | 864 | 746 |
| 90.01.4 Own-account stage, motion picture, radio and TV artists, etc. | 8,455 | 8,710 | 9,180 | 9,591 | 9,990 | 10,325 |
| Submarket total | 18,312 | 17,956 | 18,199 | 18,282 | 18,440 | 18,308 |
| 5. Broadcasting industry | | | | | | |
| 60.10 Radio broadcasting | 266 | 262 | 255 | 255 | 262 | 258 |
| 60.20 Television programming and broadcasting | 87 | 88 | 91 | 89 | 94 | 95 |
| 90.03.5 Own-account journalists and press photographers | 17,500 | 17,401 | 17,782 | 17,810 | 17,803 | 17,861 |
| Submarket total | 17,853 | 17,751 | 18,128 | 18,154 | 18,159 | 18,214 |
| 6. Performing arts market | | | | | | |
| 85.52 Cultural education | 1,986 | 2,080 | 2,105 | 2,111 | 2,147 | 2,212 |
| 90.01.1 Theatre ensembles | 126 | 124 | 128 | 131 | 133 | 133 |
| 90.01.3 Own-account performers and circus groups | 564 | 573 | 546 | 550 | 584 | 582 |
| 90.01.4 Own-account stage, motion picture, radio and TV artists, etc. | 8,455 | 8,710 | 9,180 | 9,591 | 9,990 | 10,325 |
| 90.02 Support activities to performing arts | 2,024 | 2,109 | 2,249 | 2,395 | 2,471 | 2,579 |
| 90.04.1 Organisation of theatre performances and concerts | 1,414 | 1,400 | 1,378 | 1,337 | 1,325 | 1,306 |
| 90.04.2 Operation of opera houses, theatre and concert halls, etc. | 228 | 228 | 228 | 217 | 208 | 207 |
| 90.04.3 Operation of variety theatres and cabarets | 196 | 178 | 168 | 165 | 146 | 132 |
| Submarket total | 14,993 | 15,402 | 15,982 | 16,497 | 17,004 | 17,475 |

Table 6.6: Number of companies in the culture and creative industries according to submarkets and categories of economic activity (“WZ”) from 2009 to 2014

| Submarket/ Category of economic activity WZ-2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014* |
|---|---------------|---------------|---------------|---------------|---------------|---------------|
| 7. Design industry | | | | | | |
| 32.12 Manufacture of jewellery and related articles | 3,777 | 3,706 | 3,661 | 3,603 | 3,477 | 3,415 |
| 71.11.2 Consulting architectural activities in interior design | 2,675 | 3,185 | 3,577 | 3,862 | 3,987 | 4,439 |
| 73.11 Advertising agencies (50% share) | 18,060 | 17,125 | 16,702 | 16,096 | 15,408 | 14,659 |
| 74.10.1 Industrial, product and fashion designers | 1,606 | 2,164 | 2,586 | 2,975 | 3,372 | 3,872 |
| 74.10.2 Graphics and communications designers | 5,506 | 7,269 | 8,725 | 10,054 | 11,100 | 12,727 |
| 74.10.3 Interior decorators | 8,017 | 7,679 | 7,773 | 7,303 | 6,898 | 6,676 |
| 74.20.1 Photographers | 8,691 | 8,983 | 9,415 | 9,783 | 10,212 | 10,554 |
| Submarket total | 48,332 | 50,111 | 52,439 | 53,676 | 54,454 | 56,343 |
| 8. Architecture market | | | | | | |
| 71.11.1 Consulting architectural activities in building construction | 28,140 | 27,587 | 27,554 | 27,137 | 26,465 | 26,082 |
| 71.11.2 Consulting architectural activities in interior design | 2,675 | 3,185 | 3,577 | 3,862 | 3,987 | 4,439 |
| 71.11.3 Consulting architectural activities in town, city and regional planning | 4,664 | 4,828 | 4,990 | 5,088 | 5,050 | 5,207 |
| 71.11.4 Consulting architectural activities in landscape architecture | 3,072 | 3,088 | 3,108 | 3,156 | 3,168 | 3,188 |
| 90.03.4 Own-account restorers | 1,405 | 1,471 | 1,473 | 1,519 | 1,535 | 1,580 |
| Submarket total | 39,956 | 40,159 | 40,702 | 40,762 | 40,205 | 40,496 |
| 9. Press market | | | | | | |
| 47.62 Retail sale of newspapers and stationery | 9,536 | 9,219 | 8,891 | 8,563 | 8,208 | 7,887 |
| 58.12 Publishing of directories and mailing lists | 211 | 200 | 217 | 211 | 212 | 210 |
| 58.13 Publishing of newspapers | 831 | 829 | 826 | 845 | 849 | 849 |
| 58.14 Publishing of journals and periodicals | 1,848 | 1,782 | 1,741 | 1,722 | 1,689 | 1,635 |
| 58.19 Other publishing activities (excluding software) | 3,396 | 3,144 | 3,053 | 3,002 | 2,906 | 2,722 |
| 63.91 News agency activities | 995 | 989 | 988 | 978 | 890 | 885 |
| 90.03.5 Own-account journalists and press photographers | 17,500 | 17,401 | 17,782 | 17,810 | 17,803 | 17,861 |
| Submarket total | 34,317 | 33,564 | 33,498 | 33,131 | 32,557 | 32,049 |
| 10. Advertising market | | | | | | |
| 73.11 Advertising agencies (50% share) | 36,120 | 34,250 | 33,404 | 32,191 | 30,815 | 29,318 |
| 73.12 Media representation | 962 | 1,080 | 1,173 | 1,257 | 1,292 | 1,399 |
| Submarket total | 37,082 | 35,330 | 34,577 | 33,448 | 32,107 | 30,717 |
| 11. Software and games industry | | | | | | |
| 58.21 Publishing of computer games | 392 | 354 | 336 | 326 | 295 | 266 |
| 58.29 Other software publishing | 354 | 474 | 534 | 529 | 543 | 633 |
| 62.01.1 Web-page design and programming | 7,457 | 8,256 | 9,037 | 9,603 | 10,073 | 10,843 |
| 62.01.9 Other software development | 18,625 | 19,172 | 20,165 | 21,042 | 21,919 | 22,633 |
| 63.12 Web portals | 190 | 271 | 341 | 415 | 535 | 612 |
| Submarket total | 27,018 | 28,527 | 30,413 | 31,915 | 33,365 | 34,986 |

Table 6.6: Number of companies in the culture and creative industries according to submarkets and categories of economic activity (“WZ”) from 2009 to 2014

| Submarket/ WZ-2008 | Category of economic activity | 2009 | 2010 | 2011 | 2012 | 2013 | 2014* |
|--|---|----------------|----------------|----------------|----------------|----------------|----------------|
| 12. Other | | | | | | | |
| 32.11 | Striking of coins | 49 | 54 | 54 | 53 | 50 | 53 |
| 32.13 | Manufacture of imitation jewellery | 303 | 289 | 304 | 303 | 305 | 301 |
| 74.30.2 | Interpretation activities | 6,006 | 6,237 | 6,456 | 6,547 | 413 | 378 |
| 74.20.2 | Photographic laboratories | 518 | 466 | 466 | 428 | 6,637 | 6,850 |
| 91.01 | Libraries and archives | 111 | 100 | 101 | 81 | 80 | 72 |
| 91.03 | Operation of historical sites and buildings and similar visitor attractions | 104 | 95 | 95 | 92 | 87 | 81 |
| 91.04 | Botanical and zoological gardens and nature reserves | 262 | 265 | 260 | 247 | 240 | 239 |
| Submarket total | | 7,353 | 7,506 | 7,736 | 7,751 | 7,812 | 7,974 |
| Total, including double counts | | 289,073 | 289,974 | 295,692 | 297,442 | 297,877 | 300,308 |
| Duplicate categories of economic activity | | 50,594 | 50,440 | 51,402 | 51,627 | 51,525 | 51,743 |
| Culture and creative industries (excluding double counts) | | 238,479 | 239,534 | 244,290 | 245,816 | 246,353 | 248,565 |
| <i>Contribution of CCI to overall economy</i> | | <i>7.61%</i> | <i>7.57%</i> | <i>7.60%</i> | <i>7.56%</i> | <i>7.60%</i> | <i>7.58%</i> |

Note: * Data for 2014 estimated, based on previous year's developments and economic statistics

Source: Turnover tax statistics, Destatis 2015b; ZEW's own computations

Table 6.7: Turnover (in EUR m) in the culture and creative industries according to submarkets and categories of economic activity (“WZ”) from 2009 to 2014

| Submarket/ WZ-2008 | Category of economic activity | 2009 | 2010 | 2011 | 2012 | 2013 | 2014* |
|--------------------------|--|--------------|--------------|--------------|--------------|--------------|--------------|
| 1. Music industry | | | | | | | |
| 32.20 | Manufacture of musical instruments | 532 | 551 | 579 | 592 | 616 | 637 |
| 47.59.3 | Retail sale of musical instruments, etc. | 1,105 | 1,175 | 1,207 | 1,245 | 1,187 | 1,242 |
| 47.63 | Retail sale of music and video recordings, etc. | 113 | 126 | 140 | 158 | 155 | 169 |
| 59.20.1 | Sound-recording studios, etc. | 93 | 109 | 125 | 134 | 126 | 142 |
| 59.20.2 | Publishing of sound recordings | 1,215 | 989 | 1,016 | 983 | 866 | 736 |
| 59.20.3 | Publishing of printed music | 587 | 549 | 571 | 918 | 1,675 | 1,693 |
| 90.01.2 | Ballet companies, orchestras, bands and choirs | 225 | 210 | 239 | 233 | 228 | 227 |
| 90.02 | Support activities to performing arts | 379 | 402 | 440 | 461 | 501 | 528 |
| 90.03.1 | Own-account composers, etc. | 261 | 261 | 274 | 283 | 275 | 281 |
| 90.04.1 | Organisation of theatre performances and concerts | 1,437 | 1,509 | 1,644 | 1,639 | 1,597 | 1,681 |
| 90.04.2 | Operation of opera houses, theatre and concert halls, etc. | 361 | 389 | 403 | 453 | 447 | 473 |
| Submarket total | | 6,307 | 6,270 | 6,639 | 7,099 | 7,674 | 7,808 |

Table 6.7: Turnover (in EUR m) in the culture and creative industries according to submarkets and categories of economic activity (“WZ”) from 2009 to 2014

| Submarket/ Category of economic activity WZ-2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014* |
|---|---------------|---------------|---------------|---------------|---------------|---------------|
| 2. Book market | | | | | | |
| 18.14 Binding and related services | 732 | 836 | 871 | 805 | 786 | 853 |
| 47.61. Retail sale of books | 3,667 | 3,600 | 3,506 | 3,551 | 3,451 | 3,388 |
| 47.79.2 Retail sale of second-hand books | 66 | 72 | 70 | 65 | 63 | 66 |
| 58.11 Book publishing | 9,590 | 8,848 | 8,945 | 8,754 | 8,581 | 8,146 |
| 74.30.1 Translation activities | 271 | 274 | 295 | 287 | 278 | 285 |
| 90.03.2 Own-account writers | 522 | 552 | 568 | 570 | 578 | 600 |
| Submarket total | 14,848 | 14,182 | 14,255 | 14,032 | 13,737 | 13,337 |
| 3. Art market | | | | | | |
| 47.78.3 Retail sale of art, etc. | 594 | 660 | 742 | 707 | 729 | 790 |
| 47.79.1 Retail sale of antiques, etc. | 409 | 404 | 432 | 416 | 381 | 385 |
| 90.03.3 Own-account visual artists | 730 | 750 | 753 | 765 | 766 | 780 |
| 91.02 Museums activities | 412 | 518 | 414 | 428 | 416 | 449 |
| Submarket total | 2,146 | 2,332 | 2,341 | 2,316 | 2,292 | 2,403 |
| 4. Film industry | | | | | | |
| 47.63 Retail sale of music and video recordings, etc. | 113 | 126 | 140 | 158 | 155 | 169 |
| 59.11 Motion picture, video and TV programme production | 4,447 | 4,489 | 4,458 | 4,444 | 4,418 | 4,433 |
| 59.12 Motion picture, video and TV programme post-production | 124 | 153 | 164 | 181 | 240 | 263 |
| 59.13 Motion picture, video and TV programme distribution | 1,667 | 1,815 | 1,993 | 1,752 | 1,569 | 1,687 |
| 59.14 Motion picture projection | 1,315 | 1,276 | 1,419 | 1,527 | 1,524 | 1,554 |
| 77.22 Renting of video tapes and disks | 348 | 315 | 302 | 296 | 261 | 237 |
| 90.01.4 Own-account stage, motion picture, radio and TV artists, etc | 720 | 752 | 806 | 870 | 892 | 934 |
| Submarket total | 8,734 | 8,925 | 9,283 | 9,228 | 9,060 | 9,276 |
| 5. Broadcasting industry | | | | | | |
| 60.10 Radio broadcasting | 1,004 | 965 | 962 | 969 | 981 | 958 |
| 60.20 Television programming and broadcasting | 5,233 | 5,487 | 5,686 | 6,135 | 6,747 | 7,004 |
| 90.03.5 Own-account journalists and press photographers | 1,208 | 1,219 | 1,258 | 1,223 | 1,213 | 1,228 |
| Submarket total | 7,445 | 7,671 | 7,905 | 8,327 | 8,942 | 9,190 |
| 6. Performing arts market | | | | | | |
| 85.52 Cultural education | 235 | 239 | 252 | 265 | 272 | 280 |
| 90.01.1 Theatre ensembles | 53 | 54 | 55 | 81 | 91 | 94 |
| 90.01.3 Own-account performers and circus groups | 51 | 55 | 60 | 57 | 79 | 83 |
| 90.01.4 Own-account stage, motion picture, radio and TV artists, etc. | 720 | 752 | 806 | 870 | 892 | 934 |
| 90.02 Support activities to performing arts | 379 | 402 | 440 | 461 | 501 | 528 |
| 90.04.1 Organisation of theatre performances and concerts | 1,437 | 1,509 | 1,644 | 1,639 | 1,597 | 1,681 |
| 90.04.2 Operation of opera houses, theatre and concert halls, etc. | 361 | 389 | 403 | 453 | 447 | 473 |
| 90.04.3 Operation of variety theatres and cabarets | 81 | 78 | 82 | 84 | 91 | 90 |
| Submarket total | 3,316 | 3,478 | 3,742 | 3,909 | 3,971 | 4,164 |

Table 6.7: Turnover (in EUR m) in the culture and creative industries according to submarkets and categories of economic activity ("WZ") from 2009 to 2014

| Submarket/ Category of economic activity WZ-2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014* | |
|---|---|---------------|---------------|---------------|---------------|---------------|---------------|
| 7. Design industry | | | | | | | |
| 32.12 | Manufacture of jewellery and related articles | 2,216 | 2,531 | 2,686 | 2,780 | 2,336 | 2,581 |
| 71.11.2 | Consulting architectural activities in interior design | 401 | 485 | 594 | 634 | 669 | 756 |
| 73.11 | Advertising agencies (50% share) | 12,132 | 12,112 | 11,704 | 11,609 | 11,703 | 11,559 |
| 74.10.1 | Industrial, product and fashion designers | 237 | 327 | 419 | 475 | 544 | 631 |
| 74.10.2 | Graphics and communications designers | 495 | 627 | 749 | 856 | 954 | 1,081 |
| 74.10.3 | Interior decorators | 1,012 | 981 | 1,040 | 972 | 922 | 915 |
| 74.20.1 | Photographers | 1,102 | 1,179 | 1,160 | 1,209 | 1,210 | 1,256 |
| | Submarket total | 17,595 | 18,243 | 18,353 | 18,535 | 18,338 | 18,778 |
| 8. Architektur market | | | | | | | |
| 71.11.1 | Consulting architectural activities in building construction | 5,821 | 5,765 | 6,126 | 6,117 | 6,316 | 6,390 |
| 71.11.2 | Consulting architectural activities in interior design | 401 | 485 | 594 | 634 | 669 | 756 |
| 71.11.3 | Consulting architectural activities in town, city and regional planning | 1,022 | 1,066 | 1,239 | 1,288 | 1,347 | 1,429 |
| 71.11.4 | Consulting architectural activities in landscape architecture | 571 | 543 | 565 | 586 | 603 | 595 |
| 90.03.4 | Own-account restorers | 151 | 171 | 183 | 188 | 196 | 213 |
| | Submarket total | 7,967 | 8,031 | 8,708 | 8,813 | 9,130 | 9,383 |
| 9. Press market | | | | | | | |
| 47.62 | Retail sale of newspapers and stationery | 3,403 | 3,351 | 3,381 | 3,422 | 3,303 | 3,285 |
| 58.12 | Publishing of directories and mailing lists | 1,369 | 1,415 | 1,762 | 1,875 | 1,825 | 1,968 |
| 58.13 | Publishing of newspapers | 10,930 | 11,183 | 11,501 | 11,781 | 11,396 | 11,672 |
| 58.14 | Publishing of journals and periodicals | 9,918 | 9,933 | 9,829 | 9,934 | 9,742 | 9,730 |
| 58.19 | Other publishing activities (excluding software) | 3,996 | 3,785 | 3,458 | 3,197 | 3,120 | 2,869 |
| 63.91 | News agency activities | 516 | 513 | 522 | 497 | 466 | 464 |
| 90.03.5 | Own-account journalists and press photographers | 1,208 | 1,219 | 1,258 | 1,223 | 1,213 | 1,228 |
| | Submarket total | 31,341 | 31,398 | 31,711 | 31,931 | 31,065 | 31,215 |
| 10. Advertising market | | | | | | | |
| 73.11 | Advertising agencies (50% share) | 24,264 | 24,223 | 23,407 | 23,217 | 23,406 | 23,118 |
| 73.12 | Media representation | 1,244 | 1,491 | 1,522 | 1,748 | 1,769 | 1,949 |
| | Submarket total | 25,508 | 25,714 | 24,929 | 24,965 | 25,175 | 25,067 |
| 11. Software and games industry | | | | | | | |
| 58.21 | Publishing of computer games | 4,135 | 3,040 | 2,327 | 1,743 | 1,395 | 465 |
| 58.29 | Other software publishing | 272 | 429 | 504 | 396 | 425 | 531 |
| 62.01.1 | Web-page design and programming | 2,530 | 2,732 | 3,055 | 3,179 | 3,208 | 3,438 |
| 62.01.9 | Other software development | 17,034 | 19,818 | 21,997 | 23,663 | 23,509 | 25,999 |
| 63.12 | Web portals | 324 | 477 | 559 | 661 | 881 | 1,008 |
| | Submarket total | 24,296 | 26,496 | 28,442 | 29,642 | 29,418 | 31,442 |

Table 6.7: Turnover (in EUR m) in the culture and creative industries according to submarkets and categories of economic activity (“WZ”) from 2009 to 2014

| Submarket/ Category of economic activity WZ-2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014* |
|---|----------------|----------------|----------------|----------------|----------------|----------------|
| 12. Other | | | | | | |
| 32.11 Striking of coins | 128 | 118 | 159 | 147 | 160 | 165 |
| 32.13 Manufacture of imitation jewellery | 110 | 125 | 128 | 117 | 124 | 133 |
| 74.30.2 Interpretation activities | 428 | 462 | 495 | 509 | 372 | 333 |
| 74.20.2 Photographic laboratories | 567 | 518 | 503 | 449 | 520 | 552 |
| 91.01 Libraries and archives | 63 | 66 | 48 | 43 | 44 | 39 |
| 91.03 Operation of historical sites and buildings and similar visitor attractions | 39 | 32 | 36 | 35 | 34 | 31 |
| 91.04 Botanical and zoological gardens and nature reserves | 244 | 267 | 283 | 288 | 277 | 296 |
| Submarket total | 1,578 | 1,588 | 1,652 | 1,587 | 1,531 | 1,549 |
| Total, including double counts | 151,080 | 154,327 | 157,960 | 160,385 | 160,332 | 163,613 |
| Duplicate categories of economic activity | 16,751 | 16,993 | 16,990 | 17,047 | 17,178 | 17,328 |
| Culture and creative industries (excluding double counts) | 134,329 | 137,333 | 140,970 | 143,338 | 143,155 | 146,285 |
| <i>Contribution of CCI to overall economy</i> | <i>2.74%</i> | <i>2.62%</i> | <i>2.48%</i> | <i>2.49%</i> | <i>2.48%</i> | <i>2.39%</i> |

Note: * Data for 2014 estimated, based on previous year's developments and economic statistics

Source: Turnover tax statistics, Destatis 2015b; ZEW's own computations

Table 6.8: Number of people employed in the culture and creative industries according to submarkets and categories of economic activity from 2009 to 2014

| Submarket/ Category of economic activity WZ-2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014* |
|--|---------------|---------------|---------------|---------------|---------------|---------------|
| 1. Music industry | | | | | | |
| 32.20 Manufacture of musical instruments | 6,620 | 6,396 | 6,300 | 6,378 | 6,339 | 6,280 |
| 47.59.3 Retail sale of musical instruments, etc. | 6,108 | 6,169 | 6,232 | 6,291 | 6,241 | 6,088 |
| 47.63 Retail sale of music and video recordings, etc. | 1,632 | 1,662 | 1,627 | 1,590 | 1,328 | 1,280 |
| 59.20.1 Sound-recording studios, etc. | 1,383 | 1,403 | 1,448 | 1,513 | 1,552 | 1,583 |
| 59.20.2 Publishing of sound recordings | 2,679 | 2,549 | 2,666 | 2,585 | 1,891 | 1,765 |
| 59.20.3 Publishing of printed music | 2,909 | 3,199 | 3,095 | 2,693 | 2,717 | 3,172 |
| 90.01.2 Ballet companies, orchestras, bands and choirs | 7,333 | 6,811 | 6,312 | 5,792 | 5,789 | 5,743 |
| 90.02 Support activities to performing arts | 5,521 | 5,828 | 6,145 | 6,621 | 6,720 | 7,098 |
| 90.03.1 Own-account composers, etc. | 2,838 | 2,818 | 2,864 | 2,882 | 2,933 | 2,925 |
| 90.04.1 Organisation of theatre performances and concerts | 6,344 | 6,364 | 6,385 | 6,591 | 8,419 | 8,233 |
| 90.04.2 Operation of opera houses, theatre and concert halls, etc. | 3,446 | 3,491 | 3,553 | 3,596 | 3,565 | 3,632 |
| Submarket total | 46,813 | 46,690 | 46,627 | 46,532 | 47,494 | 47,798 |

Table 6.8: Number of people employed in the culture and creative industries according to submarkets and categories of economic activity from 2009 to 2014

| Submarket/ WZ-2008 | Category of economic activity | 2009 | 2010 | 2011 | 2012 | 2013 | 2014* |
|----------------------------------|---|---------------|---------------|---------------|---------------|---------------|---------------|
| 2. Book market | | | | | | | |
| 18.14 | Binding and related services | 12,063 | 11,365 | 10,895 | 10,749 | 10,114 | 9,947 |
| 47.61. | Retail sale of books | 28,514 | 27,923 | 29,938 | 29,151 | 28,523 | 26,569 |
| 47.79.2 | Retail sale of second-hand books | 809 | 775 | 765 | 752 | 767 | 738 |
| 58.11 | Book publishing | 25,801 | 24,803 | 25,418 | 25,261 | 25,425 | 24,964 |
| 74.30.1 | Translation activities | 4,664 | 4,692 | 4,960 | 5,160 | 5,417 | 5,679 |
| 90.03.2 | Own-account writer | 6,980 | 7,292 | 7,522 | 7,735 | 7,912 | 8,261 |
| | Submarket total | 78,831 | 76,850 | 79,498 | 78,808 | 78,158 | 76,156 |
| 3. Art market | | | | | | | |
| 47.78.3 | Retail sale of art, etc. | 3,559 | 3,539 | 3,310 | 3,289 | 3,181 | 3,093 |
| 47.79.1 | Retail sale of antiques, etc. | 3,565 | 3,437 | 3,399 | 3,423 | 3,360 | 3,198 |
| 91.02 | Museums activities | 2,095 | 2,024 | 1,969 | 1,944 | 1,984 | 1,824 |
| 90.03.3 | Own-account visual artists | 10,203 | 10,160 | 10,264 | 10,254 | 10,264 | 10,276 |
| | Submarket total | 19,422 | 19,160 | 18,943 | 18,910 | 18,788 | 18,391 |
| 4. Film industry | | | | | | | |
| 47.63 | Retail sale of music and video recordings, etc. | 1,632 | 1,662 | 1,627 | 1,590 | 1,328 | 1,280 |
| 59.11 | Motion picture, video and TV programme production | 26,143 | 25,491 | 25,502 | 26,109 | 25,759 | 26,236 |
| 59.12 | Motion picture, video and TV programme post-production | 5,617 | 5,384 | 5,576 | 4,999 | 4,901 | 5,066 |
| 59.13 | Motion picture, video and TV programme distribution | 3,422 | 3,291 | 3,182 | 2,946 | 2,954 | 2,905 |
| 59.14 | Motion picture projection | 8,771 | 8,581 | 8,691 | 8,696 | 8,813 | 8,595 |
| 77.22 | Renting of video tapes and disks | 3,923 | 3,608 | 3,445 | 3,114 | 2,743 | 2,418 |
| 90.01.4 | Own-account stage, motion picture, radio and TV artists, etc. | 8,988 | 9,263 | 9,717 | 10,173 | 10,584 | 10,957 |
| | Submarket total | 58,496 | 57,280 | 57,740 | 57,627 | 57,082 | 57,457 |
| 5. Broadcasting industry | | | | | | | |
| 60.10 | Radio broadcasting | 13,517 | 13,601 | 13,741 | 13,437 | 14,028 | 14,226 |
| 60.20 | Television programming and broadcasting | 6,924 | 7,007 | 7,305 | 7,718 | 8,661 | 8,886 |
| 90.03.5 | Own-account journalists and press photographers | 18,449 | 18,273 | 18,644 | 18,712 | 18,662 | 18,717 |
| | Submarket total | 38,890 | 38,881 | 39,690 | 39,867 | 41,351 | 41,828 |
| 6. Performing arts market | | | | | | | |
| 85.52 | Cultural education | 4,538 | 4,708 | 4,913 | 5,153 | 5,386 | 5,599 |
| 90.01.1 | Theatre ensembles | 1,240 | 1,340 | 1,214 | 1,214 | 1,056 | 1,047 |
| 90.01.3 | Own-account performers and circus groups | 1,292 | 1,286 | 1,262 | 1,106 | 1,194 | 1,216 |
| 90.01.4 | Own-account stage, motion picture, radio and TV artists, etc. | 8,988 | 9,263 | 9,717 | 10,173 | 10,584 | 10,957 |
| 90.02 | Support activities to performing arts | 5,521 | 5,828 | 6,145 | 6,621 | 6,720 | 7,098 |
| 90.04.1 | Organisation of theatre performances and concerts | 6,344 | 6,364 | 6,385 | 6,591 | 8,419 | 8,233 |
| 90.04.2 | Operation of opera houses, theatre and concert halls, etc. | 3,446 | 3,491 | 3,553 | 3,596 | 3,565 | 3,632 |
| 90.04.3 | Operation of variety theatres and cabarets | 925 | 940 | 923 | 929 | 965 | 1,021 |
| | Submarket total | 32,295 | 33,220 | 34,112 | 35,383 | 37,889 | 38,802 |

Table 6.8: Number of people employed in the culture and creative industries according to submarkets and categories of economic activity from 2009 to 2014

| Submarket/ Category of economic activity WZ-2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014* |
|---|----------------|----------------|----------------|----------------|----------------|----------------|
| 7. Design industry | | | | | | |
| 32.12 Manufacture of jewellery and related articles | 14,848 | 13,847 | 11,725 | 11,591 | 11,396 | 11,314 |
| 71.11.2 Consulting architectural activities in interior design | 4,146 | 4,743 | 5,399 | 5,858 | 6,376 | 6,915 |
| 73.11 Advertising agencies (50% share) | 67,095 | 64,754 | 65,542 | 65,960 | 65,575 | 66,000 |
| 74.10.1 Industrial, product and fashion designers | 3,332 | 4,247 | 4,871 | 5,641 | 6,549 | 7,408 |
| 74.10.2 Graphics and communications designers | 8,362 | 10,338 | 12,254 | 14,242 | 15,853 | 17,868 |
| 74.10.3 Interior decorators | 10,579 | 10,481 | 10,669 | 10,153 | 9,828 | 9,621 |
| 74.20.1 Photographers | 17,064 | 17,444 | 17,955 | 18,295 | 18,675 | 18,832 |
| Submarket total | 125,426 | 125,854 | 128,415 | 131,740 | 134,252 | 137,959 |
| 8. Architektur market | | | | | | |
| 71.11.1 Consulting architectural activities in building construction | 74,640 | 75,298 | 77,324 | 79,464 | 81,299 | 83,453 |
| 71.11.2 Consulting architectural activities in interior design | 4,146 | 4,743 | 5,399 | 5,858 | 6,376 | 6,915 |
| 71.11.3 Consulting architectural activities in town, city and regional planning | 11,352 | 11,600 | 12,031 | 11,799 | 11,721 | 11,774 |
| 71.11.4 Consulting architectural activities in landscape architecture | 7,034 | 7,314 | 7,393 | 7,617 | 7,821 | 8,039 |
| 90.03.4 Own-account restorers | 2,892 | 2,934 | 2,932 | 2,999 | 2,936 | 3,037 |
| Submarket total | 100,064 | 101,889 | 105,079 | 107,737 | 110,153 | 113,218 |
| 9. Press market | | | | | | |
| 47.62 Retail sale of newspapers and stationery | 29,117 | 29,025 | 28,803 | 28,619 | 27,777 | 27,317 |
| 58.12 Publishing of directories and mailing lists | 5,070 | 5,049 | 4,353 | 4,283 | 4,074 | 3,827 |
| 58.13 Publishing of newspapers | 51,654 | 49,514 | 47,736 | 47,623 | 47,014 | 45,929 |
| 58.14 Publishing of journals and periodicals | 43,449 | 41,340 | 40,657 | 38,775 | 38,109 | 36,203 |
| 58.19 Other publishing activities (excluding software) | 11,518 | 11,264 | 11,545 | 11,197 | 11,061 | 10,623 |
| 63.91 News agency activities | 9,026 | 8,829 | 9,345 | 9,654 | 9,385 | 9,697 |
| 90.03.5 Own-account journalists and press photographers | 18,449 | 18,273 | 18,644 | 18,712 | 18,662 | 18,717 |
| Submarket total | 168,283 | 163,294 | 161,083 | 158,863 | 156,082 | 152,313 |
| 10. Advertising market | | | | | | |
| 73.11 Advertising agencies (50% share) | 134,189 | 129,508 | 131,084 | 131,920 | 131,150 | 132,001 |
| 73.12 Media representation | 6,746 | 7,455 | 7,786 | 8,468 | 9,372 | 10,810 |
| Submarket total | 140,935 | 136,963 | 138,870 | 140,388 | 140,522 | 142,811 |
| 11. Software and games industry | | | | | | |
| 58.21 Publishing of computer games | 1,190 | 1,517 | 1,826 | 1,961 | 1,580 | 1,684 |
| 58.29 Other software publishing | 12,489 | 15,406 | 17,920 | 20,662 | 21,998 | 23,222 |
| 62.01.1 Web-page design and programming | 25,558 | 29,470 | 34,531 | 38,320 | 40,187 | 41,872 |
| 62.01.9 Other software development | 202,223 | 201,736 | 208,986 | 231,472 | 248,438 | 260,493 |
| 63.12 Web portals | 2,293 | 3,547 | 5,142 | 6,942 | 8,819 | 10,866 |
| Submarket total | 243,753 | 251,676 | 268,405 | 299,357 | 321,022 | 338,136 |

Table 6.8: Number of people employed in the culture and creative industries according to submarkets and categories of economic activity from 2009 to 2014

| Submarket/ WZ-2008 | Category of economic activity | 2009 | 2010 | 2011 | 2012 | 2013 | 2014* |
|--|---|----------------|----------------|----------------|------------------|------------------|------------------|
| 12. Other | | | | | | | |
| 32.11 | Striking of coins | 465 | 468 | 482 | 511 | 518 | 497 |
| 32.13 | Manufacture of imitation jewellery | 832 | 857 | 903 | 891 | 876 | 745 |
| 74.20.2 | Photographic laboratories | 5,608 | 5,045 | 4,863 | 4,943 | 11,232 | 11,176 |
| 74.30.2 | Interpretation activities | 6,419 | 6,645 | 6,930 | 7,127 | 992 | 939 |
| 91.01 | Libraries and archives | 1,028 | 991 | 991 | 928 | 895 | 924 |
| 91.03 | Operation of historical sites and buildings and similar visitor attractions | 220 | 210 | 223 | 226 | 223 | 214 |
| 91.04 | Botanical and zoological gardens and nature reserves | 772 | 774 | 792 | 808 | 795 | 807 |
| Submarket total | | 15,345 | 14,991 | 15,184 | 15,434 | 15,532 | 15,302 |
| Total, including double counts | | 1,068,553 | 1,066,748 | 1,093,644 | 1,130,646 | 1,158,326 | 1,180,172 |
| Duplicate categories of economic activity | | 115,621 | 114,378 | 117,012 | 119,101 | 121,229 | 122,832 |
| Culture and creative industries (excluding double counts) | | 952,932 | 952,370 | 976,633 | 1,011,544 | 1,037,096 | 1,057,340 |
| <i>Contribution of CCI to overall economy</i> | | <i>3.10%</i> | <i>3.06%</i> | <i>3.07%</i> | <i>3.11%</i> | <i>3.16%</i> | <i>3.16%</i> |

Note: * Data for 2014 estimated (number of self-employed), based on previous year's developments and economic statistics

Source: Turnover tax statistics, Destatis, 2015b; employment statistics, Federal Employment Agency 2015; ZEW's own computations

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