



Monitoring of Selected Economic Key Data on the Culture and Creative Industries 2013

Summary

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Centre for European Economic Research (ZEW) Fraunhofer Institute for Systems and Innovation Research ISI

Prof. Dr. Irene Bertschek (ZEW, Project Manager), Dr. Jörg Ohnemus (ZEW), Daniel Erdsiek (ZEW), Dr. Jan Hogrefe (ZEW), Dr. Simone Kimpeler (Fraunhofer ISI), Dr. Christian Rammer (ZEW), Nina Schreiber (ZEW), Erduana Shala (Fraunhofer ISI) und Simona Christine Wagner (ZEW)

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#### Central procurement service:

Tel.: +49 30 182722721 Fax: +49 30 18102722721

## Table of Contents

1.	Introduction	2
	1.1 Commission	2
	1.2 Definition	2
2.	Overview of the Overall Economic Importance of the Culture and Creative Industries	4
	2.1 Key Data on the Culture and Creative Industries in Germany	
	2.2 Contribution of the Culture and Creative Industries towards Value Added	
	2.3 Employment in the Culture and Creative Industries	7
3.	An Activity-based Analysis of Jobs in Germany's Culture and Creative Industries	8
4.	Cooperation in the Culture and Creative Industries	10
5.	Summary	12
6.	Annex	18
	6.1 Detailed Tables	18
	6.2 Bibliography	30

#### 1. Introduction

#### 1.1 Commission

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 regular audits of the culture and creative industries in Germany. The 2013 monitoring report builds upon the audits carried out over the past few years. It evaluates the importance of the culture and creative industries for the overall economy and looks at the development of its economic indicators between 2009 and 2013. The analyses contained in the report are based on data from the Federal Statistical Office (Destatis) and the Federal Employment Agency. The audits focus on the following key aspects:<sup>2</sup>

- What is the economic importance of the culture and creative industries for the overall economy, and how do they compare to other traditional sectors in Germany?
- What are the key features of the individual submarkets in these 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?
- What factors influence the growth of young culture and creative enterprises?
- How important is cooperation for companies in the culture and creative industries and their submarkets? What do the companies aim to achieve by cooperating with others? What makes cooperation successful? What hinders it?

This year's monitoring report also contains a number of specific elements:

- An activity-based analysis of jobs in the culture and creative industries.
- An analysis of the factors that influence growth in culture and creative start-ups.<sup>3</sup>
- A closer examination of the significance of cooperation.
   To this end, a representative nationwide survey of companies and self-employed persons working in the culture and creative industries was carried out, along with a number of case studies in selected submarkets.

#### 1.2 Definition

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

All market-based companies which are subject to VAT or which simply desire to profit 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."

- Bundesministerium für Wirtschaft und Energie (2014), Monitoring of Selected Economic Key Data on the Culture and Creative Industries 2012, unabridged version, Berlin; Bundesministerium für Wirtschaft und Technologie (2009a), Endbericht Kultur- und Kreativwirtschaft: Ermittlung der gemeinsamen charakteristischen Definitionselemente der heterogenen Teilbereiche der "Kulturwirtschaft" zur Bestimmung ihrer Perspektiven aus volkswirtschaftlicher Sicht, Cologne, Bremen, Berlin (available in German only).
- 2 Some of these are only covered in the unabridged version of the monitoring report.
- 3 Only in the unabridged version.
- 4 Wirtschaftsministerkonferenz (2009), Leitfaden zur Erstellung einer statistischen Datengrundlage für die Kulturwirtschaft und eine länderübergreifende Auswertung kulturwirtschaftlicher Daten (available in German only).

Music industry () 2. Other Book market 11. 3. Art market Software and games industry **10.** 4. Advertising market Film industry 9. 5. Broadcasting industry Press market 6. Performing arts market Design industry 7. Architecture market

Figure 1.1: The submarkets of the culture and creative industries

Source: Federal Ministry of Economics and Technology, 2009b.

# 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 the official statistics from the Federal Statistical Office of Germany and the Federal Employment Agency. The various data sources and calculation methods are explained in more detail in the annex to the unabridged version of the report.

#### Around 249,000 companies generated a turnover of EUR 145 billion

In 2013, the culture and creative industries comprised an estimated approximately 249,000 companies with a collective turnover of EUR 145 billion (see Table 2.1). These companies accounted for 7.56% of all enterprises and 2.36% of total turnover. In 2013 this branch of the economy employed around 791,000 people, representing 2.67% of all employees liable to social insurance contributions. In addition, approximately 249,000 self-employed persons worked in these industries. In other words, around 1,039,000 persons earned their main income in the culture and creative industries in 2013. Taking into additional account the 352,000 marginal employees and 201,000 marginally self-employed persons (self-employed persons and freelancers with an annual turnover of under EUR 17,500), then the entire number of persons employed in this sector in 2013 was around 1.59 million. The culture and creative industries contributed EUR 65.3 billion and therefore 2.32% to total gross value added.

## Strong increase in jobs liable to social insurance contributions – Slight rise in turnover year on year

The key indicators of the culture and creative industries again developed positively in 2013 in relation to the previous year. The number of companies rose 1.18% over the prior year, turnover increased 1.36% and gross value added went up 2.55%. In other words, the positive trend that has been observable since the "crisis year" 2009 largely continued.

The total number of employed persons underwent a very slight decline of 0.40% to 1.59 million. By contrast, the number of employees liable to social insurance contributions increased by 3.27% in relation to the previous year, while the number of marginally employed persons decreased in 2013 by 5.71% year on year. The simultaneous decline in the number of marginally employed persons and increase in jobs liable to social insurance contributions indicates that more people in this sector switched to regular employment.

## EUR 140,000 in average annual turnover per employed person

Structurally, the culture and creative industries are dominated by a large number of small and micro enterprises. In 2013 the average company employed four people, three of whom were liable to social insurance contributions. Accordingly, average turnover per company in 2013 remained comparatively low at EUR 584,000. Consequently, each employed person generated an average of EUR 140,000 in turnover in the culture and creative industries and contributed close to EUR 63,000 in gross value added. On average, each of the 791,000 employees liable to social insurance contributions generated a turnover of EUR 184,000. The percentage of self-employed persons in the culture and creative industries remained stable at 24%.

Table 2.1: Key indicators of the culture and creative industries in Germany from 2009 to 2013\*

Category	2009	2010	2011	2012	2013*	Change 2012/2013
Number of businesses ('000)¹						
Culture and creative industries (CCIs)	238.5	239.5	244.3	245.8	248.7	1.18%
Contribution of CCIs	7.61%	7.5%	7.60%	7.56%	7.56%	
Turnover (in EUR bn)						
Culture and creative industries (CCIs)	134.3	137.3	141.0	143.3	145.3	1.36%
Contribution of CCIs	2.74%	2.62%	2.48%	2.49%	2.36%	
Employment						
No. of employed persons ('000) <sup>2</sup>						
Culture and creative industries (CCIs)	952.9	952.4	976.6	1,011.5	1,038.6	2.67%
Contribution of CCIs	3.10%	3.06%	3.07%	3.11%	3.16%	
Employees liable to social insurance contributions ('0	00)³					
Culture and creative industries (CCIs)	714.5	712.8	732.3	765.7	790.7	3.27%
Contribution of CCIs	2.59%	2.55%	2.56%	2.62%	2.67%	
Self-employed persons ('000)⁴						
Culture and creative industries (CCIs)	238.5	239.5	244.3	245.8	248.7	1.18%
Contribution of CCIs	7.61%	7.57%	7.60%	7.56%	7.56%	
Marginally employed persons ('000) <sup>s</sup>						
Culture and creative industries (CCIs)	573.9	592.9	593.2	586.9	553.4	-5.71%
Contribution of CCIs	6.80%	6.94%	6.80%	6.78%	6.39%	
Marginally self-employed persons ('000) <sup>6</sup>						
Culture and creative industries (CCIs)	197.1	214.0	224.8	221.9	200.9	-9.44%
Contribution of CCIs	18.26%	19.57%	18.90%	20.84%	21.17%	
Marginal employees ('000) <sup>7</sup>						
Culture and creative industries (CCIs)	376.8	378.9	368.4	365.0	352.4	-3.45%
Contribution of CCIs	5.12%	5.09%	4.89%	4.81%	4.57%	
Total no. of employed persons ('000) <sup>8</sup>						
Culture and creative industries (CCIs)	1,526.8	1,545.3	1,569.9	1,598.4	1,592.0	-0.40%
Contribution of CCIs	3.90%	3.89%	3.87%	3.88%	3.83%	
Gross value added (in EUR bn) <sup>9</sup>						
Culture and creative industries (CCIs)	58.1	59.7	61.3	63.6	65.3	2.55%
Contribution of CCIs to GDP	2.36%	2.32%	2.27%	2.31%	2.32%	
GDP	2,456.7	2,576.2	2,699.1	2,749.9	2,809.5	2.17%

<sup>\*</sup> Data for 2013 based partly on own estimations and preliminary official figures. Estimates based on developments in previous years, economic statistics for the service sector for 2013, and employment statistics for 2013.

 $Source: Destatis\ 2014; Federal\ Employment\ Agency\ 2014; ZEW's\ own\ computations.$ 

<sup>1</sup> Taxable business owners with at least EUR 17,500 in annual turnover.

<sup>2</sup> Employed persons include taxable business owners with at least EUR 17,500 in annual turnover and employees liable to social insurance contributions.

<sup>3</sup> Employees liable to social insurance contributions (full- and part-time) but excluding marginal employees.

<sup>4</sup> Corresponds to number of taxable business owners with at least EUR 17,500 in annual turnover.

<sup>5</sup> Marginally employed persons include marginally self-employed persons and marginal employees.

Marginally self-employed persons include freelancers and self-employed persons with less than EUR 17,500 in annual turnover based on the microcensus.

<sup>7</sup> Marginal employees (i.e., employees on low pay and temporarily employed persons) based on the employment statistics of the Federal Employment Agency (cut-off date: June 30).

<sup>8</sup> Includes all self-employed and dependently employed persons, including marginal employees and marginally self-employed persons.
Figures may deviate from those in the previous years' monitoring reports owing to changes in the definition of the various groups.

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.

Table 2.1: Key indicators of the culture and creative industries in Germany from 2009 to 2013\*

Category	2009	2010	2011	2012	2013*	Change 2012/2013
Additional key indicators of the culture and creative industries						
Turnover per company (in EUR '000)	563.3	573.3	577.1	583.1	584.1	0.17%
Turnover per employee liable to social insurance contributions (in EUR '000)	188.0	192.7	192.5	187.2	183.7	-1.85%
Turnover per employed person (in EUR '000)	141.0	144.2	144.3	141.7	139.9	-1.28%
No. of employees liable to social insurance contributions per company	3.00	2.98	3.00	3.12	3.18	2.06%
No. of employed persons per company	4.00	3.98	4.00	4.12	4.18	1.48%
Gross value added per employed person (in EUR '000)	61.0	62.7	62.8	62.9	62.8	-0.12%
Share of self-employed persons vs. all employed persons	25.03%	25.15%	25.01%	24.30%	23.86%	

<sup>\*</sup> Data for 2013 based partly on own estimations and preliminary official figures. Estimates based on developments in previous years, economic statistics for the service sector for 2013, and employment statistics for 2013.

Source: Destatis 2014; Federal Employment Agency 2014; ZEW's own computations.

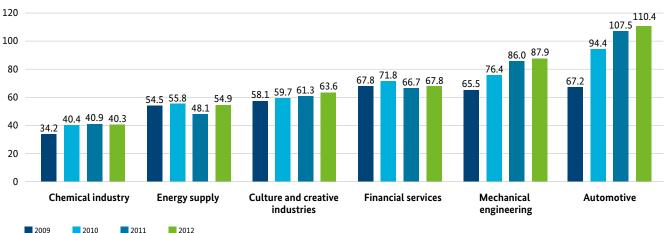
### 2.2 Contribution of the Culture and Creative Industries towards Value Added

#### Low growth in gross value added

While gross value added in the culture and creative industries underwent only minimal growth between 2009 and 2012, other sectors of industry, particularly those with strong exports such as mechanical engineering and auto-

motive, have benefited to a much greater extent from the economic upturn. Since 2009, gross value added in these industries rose, respectively, by 34% from EUR 65.5 billion to EUR 87.9 billion (mechanical engineering) and by 64% from EUR 67.2 billion to EUR 110.4 billion (automotive) (see Figure 2.1). The chemical and energy supply industries performed less well than the culture and creative industries. However, in 2012 energy utilities succeeded in compensating for the decline in gross value added they had sustained between 2010 and 2011.

Figure 2.1: Contribution of the culture and creative industries to gross value added compared to other economic sectors 2009-2012 (in EUR bn)



Aid to interpretation: Gross value added in the culture and creative industries in 2012 was EUR 63.6 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 2014; ZEW's own computations.

## 2.3 Employment in the Culture and Creative Industries

#### Slight decline in number of employed persons

The number of jobs in the culture and creative industries remained stable in 2013. The number of employed persons rose moderately but steadily between 2009 and 2012, with a minimal year-on-year decrease of 0.4% in 2013 owing to a decline in the number of marginally employed persons. By contrast, the number of freelancers and self-employed persons as well as employees liable to social insurance contributions increased slightly. The other industries in the comparison saw similar developments, with the number of employees varying only slightly during the period under review.

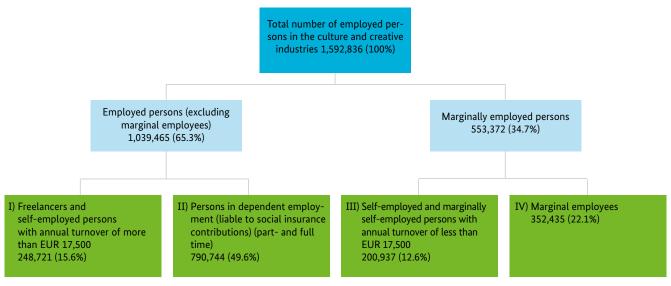
In 2013, a total 1.04 million people worked in the culture and creative industries, either as freelancers or self-employed persons or in dependent employment. However, those in dependent employment (or employees liable to social insurance contributions) accounted for 76.1% of the total, a decidedly smaller proportion than in other industries,

where the average is 90%. In other words, the culture and creative industries are home to a relatively large number of freelancers and self-employed persons. In addition, at around 553,000, the number of marginally employed persons in these industries is comparatively high, taking the total number of persons employed in the culture and creative industries in 2013 to around 1.59 million.

Almost exactly as many people worked in the culture and creative industries as in mechanical engineering, however the workforce in the culture and creative industries was far larger than that of the automotive, financial services or even the chemical and energy supply industries. Almost all persons working in the other industries in the comparison are in jobs liable to social insurance contributions or are dependently employed. By contrast, in the culture and creative industries there are a large number of freelancers and self-employed persons with an annual turnover of at least EUR 17,500.

Between 2009 and 2013, the number of dependent employees increased significantly, the number of freelancers and self-employed persons increased slightly, and the number of marginal employees declined.

Figure 2.2: Structure of employment in the culture and creative industries in 2013\*



\*Some figures estimated.

Source: Destatis 2014; Federal Employment Agency 2014; ZEW's own computations.

# 3. An Activity-based Analysis of Jobs in Germany's Culture and Creative Industries

Cultural and creative activities and occupations exist in many parts of the economy, some of which are, according to the definitions used in this report, counted towards the culture and creative industries. However, often people are engaged in cultural and creative activities although the company they work for is not affiliated with what is usually defined as a culture or creative industry. For instance, there are many marketing and advertising jobs in large companies in the manufacturing industry, and some financial services companies may also employ software developers. Conversely, not all employees working in a field that is commonly seen as part of the culture or creative industry necessarily have a cultural or creative occupation – for instance, purely administrative personnel working for a major PR company. In this section, we examine this idea by analysing the various types of cultural and creative activities that exist across Germany. Following the UK government's approach,<sup>5</sup> certain job profiles are classed here as cultural or creative occupations (see annex to the unabridged version). This makes it possible to evaluate employment-related data within these occupational groups, with reference to both the overall economy and the individual submarkets of the culture and creative industries. To this end, detailed employment data from the Federal Employment Agency is used.<sup>6</sup> In contrast to the classic method of defining economic activities, this kind of data is capable of providing a more complete picture of cultural and creative jobs in Germany.

For an overview see Table 3.1, which details the number of cultural and creative jobs (including both employment liable to social insurance contributions as well as marginal employment) in Germany as at June 2013. Almost two million people in Germany have a cultural or creative occupa-

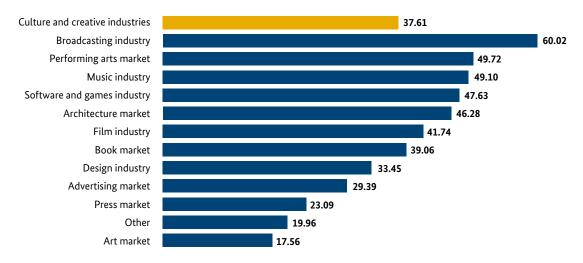
Table 3.1: Persons in cultural and creative occupations in 2013 – Employees liable to social insurance contributions and marginal employees

and marginat emptoyees			
	Total number of employees	Number of persons in cultural and creative occupations	Share of persons in cultural and creative occupations
Music industry	46,575	22,871	49.10%
Book market	80,297	31,361	39.06%
Art market	9,923	1,742	17.56%
Film industry	64,621	26,974	41.74%
Broadcasting industry	25,031	15,023	60.02%
Performing arts market	36,679	18,239	49.72%
Design industry	141,544	47,342	33.45%
Architecture market	89,047	41,212	46.28%
Press market	246,889	57,007	23.09%
Advertising market	212,372	62,418	29.39%
Software and games industry	312,443	148,805	47.63%
Other	9,370	1,870	19.96%
Culture and creative industries	1,143,378	429,970	37.61%
Overall economy	37,331,784	1,989,812	5.33%
Overall economy excluding culture and creative industries	36,188,406	1,559,842	4.31%

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

- 5 Department for Culture, Media and Sport (2014), Creative Industries Economic Estimates January 2014, Statistical Release, London.
- The analysis is based on a separate evaluation of data obtained from the following source: Beschäftigungsstatistik, Sozialversicherungspflichtig und geringfügig Beschäftigte nach ausgewählten Tätigkeiten der KldB 2010 sowie zusammengefassten Wirtschaftszweigen der WZ 2008 in Deutschland zum Stichtag 30.06.2013, Nuremberg, data last updated: October 2014 (only available in German).

Figure 3.1: Proportion of persons in cultural and creative jobs in the culture and creative industries and their submarkets (in %)



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

Figure 3.2: The cultural and creative economy



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

tion. The vast majority of them (1.8 million) are employees liable to social insurance contributions.<sup>7</sup> To compare, employees liable to social insurance contributions and marginal employees account for around 1.1 million, according to the definition of the culture and creative industries and their submarkets (see Table 3.1). This represents a share of 5.3% of all persons in gainful employment. In the culture and creative industries themselves, around 430,000 persons have cultural or creative occupations. They account for 37.6% of all persons employed in these industries. Almost 1.6 million additional persons are in cultural or creative jobs in other sectors of industry (see Figure 3.2). Once the data is broken down by occupation, it emerges that the number of jobs in the culture and creative industries is considerably higher once the analysis focuses on type of activity; in other words, taking into account also those cultural and creative jobs that exist outside the culture or creative industries.

A detailed breakdown by submarket reveals that, just as in the culture and creative industries overall, not all employees in the submarkets of the culture and creative industries actually have cultural or creative jobs (see Figure 3.1). In addition, the share of employees with non-cultural or noncreative jobs varies enormously across submarkets. For instance, in broadcasting, more than 60% of employees in jobs liable to social insurance contributions or marginal employees have cultural or creative jobs, yet the figure drops to 33.5% in design and even to 17.6% in the art market. Generally speaking, the proportion of jobs liable to social insurance contributions in the various submarkets is somewhat greater than that accounted for by marginal employees (see annex to the unabridged version). This suggests that marginal employment tends to be more common in administrative or auxiliary jobs across the culture and creative industries' submarkets. In some submarkets, the proportion of cultural and creative jobs is clearly below the 50% mark. In the art, advertising and press markets and in design, fewer than 10% of marginal employees work in cultural or creative occupations.

<sup>7</sup> For a detailed breakdown according to jobs liable to social insurance contributions and marginal employment, please refer to the annex of the unabridged version.

# 4. Cooperation in the Culture and Creative Industries

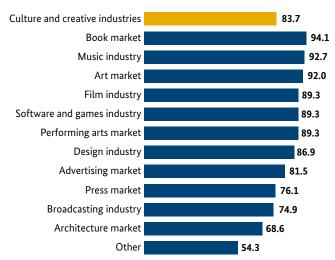
One of the priority themes of this year's monitoring report is cooperation, networking and partnerships in Germany's culture and creative industries. To this end, a representative nationwide survey of businesses and self-employed persons working in the culture and creative industries was carried out, selected results of which are discussed on the following pages. For additional, more detailed information on this issue, please refer to the unabridged version of the report.

## Majority of cultural and creative businesses engage in cooperation

On average, 84% of cultural and creative businesses cooperate with partners (see Figure 4.1), such as other businesses, industry-specific associations or public-sector organisations. Within the culture and creative industries, the book market is the submarket with the largest number of companies that work with partners (94%). At around 92%, the number of companies that engage in cooperation in the music and art submarkets is also significantly higher than elsewhere. The share of businesses that cooperate with partners drops to far below the average, with 75% in the press market and broadcasting industry and 69% in architecture.

Figure 4.1: Businesses in the culture and creative industries that engage in cooperation

(proportions in %)

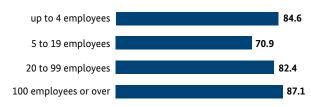


Aid to interpretation: 83.7% of businesses in the culture and creative industries engage in cooperation. In the book market, 94.1% of businesses work with a partner. Source: ZEW company surveys, H1/2014.

Micro-companies, self-employed business owners but also large companies with 100 employees or more are disproportionally often engaged in partnerships (see Figure 4.2). By contrast, businesses with between five and 19 employees are least likely to cooperate with a partner.

Figure 4.2: Businesses in the culture and creative industries that engage in cooperation, shown by size

(proportions in %)



Aid to interpretation: 70.9% of companies with between five and 19 employees cooperate with a partner.

Source: ZEW company surveys, H1/2014.

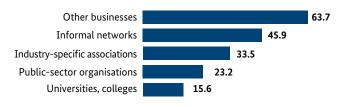
## The majority of cooperation partners are other companies

64% of companies in the culture and creative industries cooperate with other companies (see Figure 4.3). Almost 46% of businesses in the culture and creative industries are members of informal networks, attending, for instance, regular social gatherings on a certain theme, in order to maintain a relationship with their partners. One in three businesses in the culture and creative industries work with industry-specific associations as partners. 23% of businesses work with public-sector organisations. The least likely form of cooperation is that with a university or college (16%).

## Partnerships are considered vital for current and future success

48% of companies in the culture and creative industries consider cooperation with partners to be a major factor in ensuring ongoing business success. On average, 25% of companies feel that cooperation is necessary for this, while 23% consider it vital. Companies operating in the performing arts market and the music industry attach particularly high priority to partnerships. Around 63% of businesses in these submarkets consider partnerships a necessary precondition for success. In the advertising, press and architecture markets and in broadcasting, however, not nearly as many companies feel this way.

Figure 4.3: Types of partnership in the culture and creative industries (proportions in %)



Aid to interpretation: 63.7% of companies in the culture and creative industries cooperate with other companies.

Source: ZEW company surveys, H1/2014.

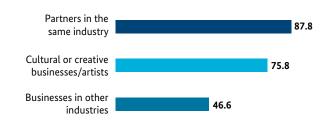
45% of companies in the culture and creative industries believe that that the significance of partnerships as a success factor will rise towards the end of 2016. As many as 15% expect that their significance will rise considerably. More than half the businesses in the software and games, design, film and music industries believe that partnerships will play an increasingly important role.

# Thanks to partnerships, the culture and creative industries are closely intertwined with other sectors of industry

Businesses in the culture and creative industries most frequently engage in partnerships with other businesses in the same industries (see Figure 4.4): 88% of companies that cooperate with another business do so with partners in their own industry. However, most of them maintain partnerships not only with others in their own industry, but also with artists in other submarkets or cultural or creative businesses even outside the culture and creative industries. Of the companies that cooperate with partners, 76% confirmed that they work with partners from the culture and creative industries. Almost half of existing partnerships are with partners in other sectors of industry, suggesting that partnerships often serve to establish links across industries.

Figure 4.4: Industries of origin of partners in the culture and creative industries

(proportion of cooperating businesses in %)



Aid to interpretation: 87.8% of companies with partnerships in the culture and creative industries work with partners from their own industry.
75.8% of businesses engage in partnerships with cultural or creative businesses or artists. Source: ZEW company surveys, H1/2014.

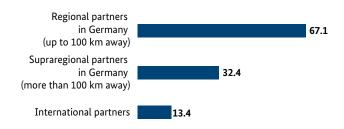
## Businesses in the culture and creative industries work most frequently with regional partners

Although geographic proximity is less important to the success of a partnership than other factors, cultural and creative companies most frequently cooperate with regional partners (see Figure 4.5). 67% of businesses that engage in cooperation work with partners whose offices are less than 100 km away.

Around 32% of companies in the culture and creative industries work with supraregional partners whose offices are further away than 100 km. A far smaller number work with international partners. International cooperation is particularly frequent among companies in the book, music, film and software and games submarkets. Here, between 22 and 28.9% of companies cooperate with partners outside of Germany. The larger the company, the greater the importance of supraregional or international partners.

Figure 4.5: Geographic location of partners in the culture and creative industries

(proportion of cooperating businesses in %)



Aid to interpretation: Of the businesses in the culture and creative industries that work with partners, 67.1% work with regional partners in Germany whose offices are less than 100 km away.

Source: ZEW company surveys, H1/2014.

## 5. Summary

In 2013 turnover in the culture and creative industries rose 1.4% year on year, indicating slower growth than in previous years. Since the crisis year of 2009, average turnover growth in the culture and creative industries has been 2.6% per annum.

## Turnover in the culture and creative industries grew significantly less than in the general economy

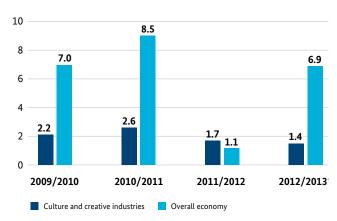
With a turnover growth rate of 1.4% year on year, the culture and creative industries performed far less well than the overall economy (see Figure 5.1), where turnover in 2013 rose 6.9% over the previous year. It should be noted that some industries, especially the export-oriented manufacturing industry, recorded a much more significant drop in demand and gross value added in 2009 than the culture and creative industries, and that these sectors were still struggling to make up those deficits as late as 2011. However, the gaps have since been closed.

## Variation across submarkets remains pronounced

There was considerable variation in turnover growth in the individual submarkets (see Figure 5.2). Generally, turnover developed positively, mainly attributable to the software and games submarket, where turnover rose 9.0% every year between 2009 and 2013. Further disproportionately strong contributors were the performing arts market (with 7.5% annual turnover growth), music (5.5%), architecture (4.9%) and art (4.0%). Turnover in the design and film submarkets grew 2.5 and 2.1% per annum, respectively, which was about the same as the average for the entire culture and creative industries. By contrast, turnover growth was below average in the broadcasting, press, advertising and book markets, where annual growth rates ranged between 1.2 and minus 2.2%.

Press (EUR 32 billion in turnover) and advertising (EUR 25 billion), two high-turnover submarkets, registered zero and negative annual growth rates, respectively, between 2009 and 2013. Accordingly, this impacted heavily on the overall performance of the culture and creative industries. These two submarkets evidently have not managed the turnaround just yet. At EUR 31 billion in turnover, software and games was

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 1.7% between 2011 and 2012.

\*Data for 2013 is based on estimates.

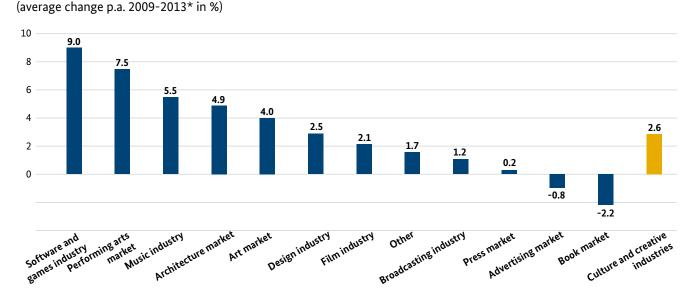
Source: Turnover tax statistics, Destatis 2014; ZEW's own computations.

the second strongest submarket, while design, at EUR 19 billion in turnover, came in fourth. These two submarkets remained major contributors to turnover growth in the culture and creative industries in the period under review.

## Number of culture and creative businesses increased moderately

In 2013, the number of businesses in the culture and creative industries and in the overall economy each grew 1.2% year on year, so remained stable. By contrast, the number of businesses in the culture and creative industries had grown more strongly in 2011, as had the number of businesses in the overall economy in 2012 (see Figure 5.3).

Figure 5.2: Turnover in the individual submarkets of the culture and creative industries



Aid to interpretation: Turnover in the software and games industry grew 9.0% each year between 2009 and 2013. \*Data for 2013 is based on estimates.

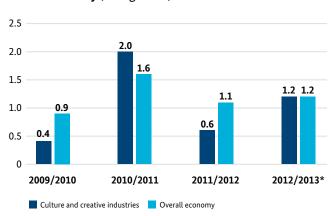
Source: Turnover tax statistics, Destatis 2014; ZEW's own computations

Between 2009 and 2013, the number of companies in the cultural and creative industries grew by an average of 1.4% per annum (see Figure 5.4). There was a disproportionately strong increase in the number of businesses in the software and games industry (7.6%). The number of businesses also grew in the design industry (4.9%), in performing arts (4.3%) and in the book market (1.7%). Music, film, press, art and especially advertising (minus 4.6%) all saw below-average growth.

## Decline in marginal employment – Increase in jobs liable to social insurance contributions

After a period of growth since 2009, the number of persons employed in the culture and creative industries declined 0.4% in 2013 (see Figure 5.5). By contrast, in the overall economy it rose by 0.9%. However, it should be noted that the decline in the culture and creative industries is due to a 3.4% decline in marginal employees, whereas the number of jobs liable to social insurance contributions rose 3.3% year on year (see Figures 5.6 and 5.7). In other words, there was a shift away from marginal to regular employment.

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

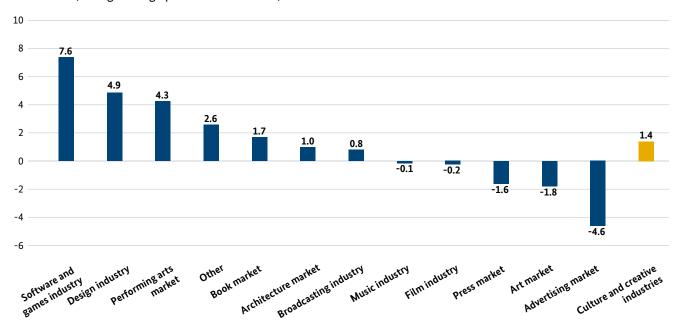


Aid to interpretation: Between 2011 and 2012 the number of companies in the overall economy rose by 1.1%.

\*Data for 2013 is based on estimates.

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

Figure 5.4: Development in the number of businesses in the submarkets of the culture and creative industries submarkets (average change p.a. 2009-2013\* in %)



Aid to interpretation: The number of businesses in the book market grew by an average of 1.7% each year between 2009 and 2013.

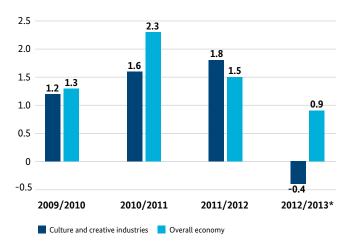
\*Data for 2013 is based on estimates.

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

Between 2009 and 2013, the number of self-employed persons and employees liable to social insurance contributions rose by an average of 2.9% per annum (see Figure 5.8). The submarkets with relatively strong turnover growth also had particularly pronounced employment growth rates. For instance, employment in the software and games industry rose 9.6% per annum, hence making an above-average contribution to employment growth across all culture and creative industries.

Employment in the design industry, the fourth largest submarket, increased by 2.6%. Performing arts (4.7% p.a.) and architecture (3.5% p.a.) came in second and third, respectively. Another submarket with positive, albeit slower, employment growth was broadcasting, with the number of employed persons there rising by 2.2% per annum between 2009 and 2013.

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

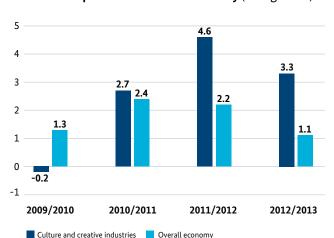


Aid to interpretation: The number of employed persons in the overall economy rose by 1.5% between 2011 and 2012.

Source: Turnover tax statistics, Destatis 2014; Employment statistics, Federal Employment Agency 2014; ZEW's own computations.

<sup>\*</sup>Data for 2013 is based partially on estimates.

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 %)

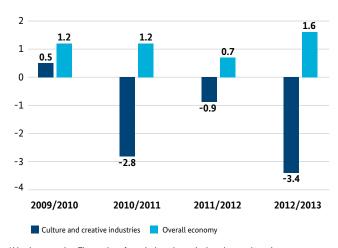


Aid to interpretation: The number of employees liable to social insurance contributions in the culture and creative industries rose by 4.6% between 2011 and 2012.

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

The books and advertising submarkets had both negative turnover growth and negative growth in the number of employed persons. The strongest decrease in the number of employed persons was in the press market, the largest submarket in the culture and creative industries, which registered average annual growth in employment of minus 2.4%. In the advertising market, employment decreased by

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

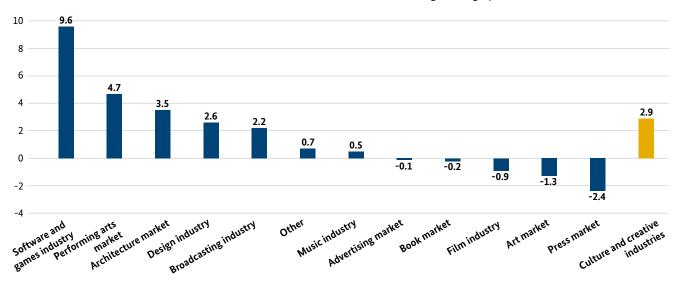


Aid to interpretation: The number of marginal employees in the culture and creative industries declined by 0.9% between 2011 and 2012.

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

an average of 0.2% a year and stagnated at minus 0.1% in the book market. In 2013, the culture and creative industries as a whole reported 3.3% growth in the number of persons in dependent employment (or employees liable to social insurance contributions), a stronger increase than in the overall economy (1.1%). By contrast, the marginally employed workforce in the culture and creative industries shrank to a greater extent than that in the overall economy.

Figure 5.8: Development of employment (self-employed persons and employees liable to social insurance contributions) in the submarkets of the culture and creative industries (average change p.a. 2009-2013\* in %)



#### Decrease in marginal employment

In 2013, marginal employment in the culture and creative industries decreased 3.4% year on year but grew 1.6% in the overall economy. The ratio of marginal employees to dependently employed persons is significantly higher in the culture and creative industries than in the overall economy. For every marginal employee in the culture and creative industries, 2.2 persons were in dependent employment, whereas in the overall economy the ratio was 1 to 3.8. The decrease in marginal employment accompanied by an increase in dependent employment is hence a positive development.

Even though turnover growth in the culture and creative industries fell short of that in the overall economy between 2009 and 2013, with the exception of 2012, growth in the number of businesses in the culture and creative industries was able to keep pace. Concerning the number of jobs liable to social insurance contributions, more recently it performed better than the overall economy. That said, the increase was more than cancelled out by a decline in marginal work, so general employment decreased slightly on balance. The major heterogeneity of the culture and creative industries was reflected in all of its economic indicators. The submarkets for software and games, design and performing arts reported particularly strong indicators, while others, e.g., press, advertising and art, performed below average.

#### One-person start-ups dominate

Just under 78% of cultural or creative start-ups begin life as a one-person company; in other words, during their first year in business they have no other employees than their founder. Across all submarkets, workforce size increases as the companies grow older. After seven years in business, the average number of employees per company in the culture and creative industries has risen to 2.6. Average employee numbers rise particularly strongly, namely by over 65%, in the first seven years in business in the performing arts, press and software and games submarkets.

## Partnerships are considered vital for current and future success

47.8% of businesses in the culture and creative industries consider cooperation with partners to be a major factor in ensuring ongoing business success. On average, 25% of businesses feel that cooperation is necessary for this, while 23% consider it vital. This opinion is shared particularly by businesses with up to four employees or a workforce of over 100.

# Thanks to partnerships, the culture and creative industries are closely intertwined with other sectors of industry

Businesses in the culture and creative industries companies frequently cooperate with businesses from other sectors of industry. 46.6% of cooperating businesses engage in partnerships with companies in industries that are not part of the culture and creative industries. However, partnerships within the culture and creative industries, either with partners from one's own submarket (87.8%) or a different submarket (75.8%), dominate. The majority of partners are in the same region, located less than 100 km away, or supraregional; very few are domiciled outside of Germany.

## Cooperation helps companies to become better known and open up new target markets

Of the businesses that engage in cooperation, 85% have become better known, while 76% have opened up new target markets. While 69% of businesses developed new products or services by themselves, 80% of companies succeeded in helping their partners to expand their portfolios. Around three quarters of companies were able to increase their flexibility. Far fewer businesses, however, managed to cut costs or improve their financial situation.

## Time and effort involved in finding suitable partners is biggest challenge

More than half of businesses feel that the time and effort involved in building new partnerships is an obstacle to cooperation. Almost 40% of companies in the culture and create industries find it difficult to find suitable partners, particularly if they are micro-companies with fewer than four employees.

#### **Conclusions**

After an improvement in economic indicators in the years after the crisis, all economic indicators slowed somewhat in 2013. The culture and creative industries are anticipated to continue developing on an even keel, with some slight improvements. However, the apparent stability of the culture and creative industries overall masks the fact that its submarkets are highly heterogeneous, ranging from the very dynamic software and games industry to the strong consolidation tendencies in the press and book markets. This strong heterogeneity, coupled with the fragmented nature of the culture and creative industries, calls for economic policy measures that are carefully tailored to suit the characteristics of the various submarkets.

#### Recommendations for action

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

- Improved access to funding for start-ups, for instance by extending support schemes to artists, especially during the growth phase.
- Assistance for small businesses and self-employed persons in finding suitable cooperation partners; suggestion of proven cooperation models
- Easier access to international markets to counteract the decline in exports and expand the businesses' predominantly regional focus to include international perspectives.

## 6. Annex

#### **6.1 Detailed Tables**

Table 6.1: Culture and creative industries by submarket: Number of businesses, 2009 to 2013

Submarket	2009	2010	2011	2012	2013*
1. Music industry	13,862	13,723	13,894	13,796	13,812
2. Book market	16,232	16,481	16,702	16,828	17,063
3. Art market	13,763	13,464	13,422	13,203	13,032
4. Film industry	18,312	17,956	18,199	18,282	18,226
5. Broadcasting industry	17,853	17,751	18,128	18,154	18,292
6. Performing arts market	14,993	15,402	15,982	16,497	16,992
7. Design industry	48,332	50,111	52,439	53,676	55,729
8. Architecture market	39,956	40,159	40,702	40,762	41,135
9. Press market	34,317	33,564	33,498	33,131	32,722
10. Advertising market	37,082	35,330	34,577	33,448	32,196
11. Software and games industry	27,018	28,527	30,413	31,915	33,613
12. Other	7,353	7,506	7,736	7,751	7,943
Total, including double counts	289,073	289,974	295,692	297,442	300,752
Duplicate categories of economic activity	50,594	50,440	51,402	51,627	52,031
Culture and creative industries (excluding double counts)	238,479	239,534	244,290	245,816	248,721
Overall economy	3,135,542	3,165,286	3,215,095	3,250,319	3,290,096
Contribution of culture and creative industries	7.61%	7.57%	7.60%	7.56%	7.56%

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

Table 6.2: Culture and creative industries by submarket: Turnover (in EUR m), 2009 to 2013

Submarket	2009	2010	2011	2012	2013*
1. Music industry	6,307	6,270	6,639	7,099	7,416
2. Book market	14,848	14,182	14,255	14,032	13,908
3. Art market	2,146	2,332	2,341	2,316	2,413
4. Film industry	8,734	8,925	9,283	9,228	9,285
5. Broadcasting industry	7,445	7,671	7,905	8,327	7,724
6. Performing arts market	3,316	3,478	3,742	3,909	4,122
7. Design industry	17,595	18,243	18,353	18,535	18,931
8. Architecture market	7,967	8,031	8,708	8,813	9,201
9. Press market	31,341	31,398	31,711	31,931	31,545
10. Advertising market	25,508	25,714	24,929	24,965	24,890
11. Software and games industry	24,296	26,496	28,442	29,642	31,466
12. Other	1,578	1,588	1,652	1,587	1,659
Total, including double counts	151,080	154,327	157,960	160,385	162,561
Duplicate categories of economic activity	16,751	16,993	16,990	17,047	17,277
Culture and creative industries (excluding double counts)	134,329	137,333	140,970	143,338	145,285
Overall economy	4,897,938	5,240,997	5,687,179	5,752,249	6,146,870
Contribution of culture and creative industries	2.74%	2.62%	2.48%	2.49%	2.36%

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

Table 6.3: Culture and creative industries by submarket: Employed persons, 2009 to 2013

Submarket	2009	2010	2011	2012	2013*
1. Music industry	46,813	46,690	46,627	46,532	47,495
2. Book market	78,831	76,850	79,498	78,808	78,410
3. Art market	19,422	19,160	18,943	18,910	18,668
4. Film industry	58,496	57,280	57,740	57,627	56,868
5. Broadcasting industry	38,890	38,881	39,690	39,867	41,483
6. Performing arts market	32,295	33,220	34,112	35,383	37,013
7. Design industry	125,426	125,854	128,415	131,740	135,528
8. Architecture market	100,064	101,889	105,079	107,737	111,083
9. Press market	168,283	163,294	161,083	158,863	156,247
10. Advertising market	140,935	136,963	138,870	140,388	140,611
11. Software and games industry	243,753	251,676	268,405	299,357	321,270
12. Other	15,345	14,991	15,184	15,434	15,662
Total, including double counts	1,068,553	1,066,748	1,093,644	1,130,646	1,160,337
Duplicate categories of economic activity	115,621	114,378	117,012	119,101	121,735
Culture and creative industries (excluding double counts)	952,932	952,370	976,633	1,011,544	1,038,601
Overall economy	30,738,823	31,131,887	31,858,678	32,530,353	32,905,776
Contribution of culture and creative industries	3.10%	3.06%	3.07%	3.11%	3.16%

Note: \*Estimates concerning number of self-employed persons (correspond to number of businesses).

Source: Turnover tax statistics, Destatis 2014; Employment statistics, Federal Employment Agency 2014; ZEW's own computations.

Table 6.4: Culture and creative industries by submarket: Persons in dependent employment, 2009 to 2013

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

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

Table 6.5: Culture and creative industries by submarket: Marginal employees, 2009 to 2013

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

 $Note: {\tt *Estimates}. \ \ Source: Employment statistics, Federal Employment Agency 2014; ZEW's own computations.$ 

Table 6.6: Number of companies in the culture and creative industries according to submarkets and categories of economic activity ("WZ") from 2009 to 2013

Submarket WZ-2008	Category of economic activity	2009	2010	2011	2012	2013*
1. Music inc	lustry					
90.03.1	Own-account composers, etc.	2,656	2,643	2,683	2,695	2,709
90.01.2	Ballet companies, orchestras, bands and choirs	1,828	1,661	1,666	1,560	1,479
59.20.1	Sound-recording studios, etc.	479	539	583	610	662
59.20.2	Publishing of sound recordings	395	390	383	366	360
59.20.3	Publishing of printed music	1,200	1,149	1,134	1,095	1,062
90.04.1	Organisation of theatre performances and concerts	1,414	1,400	1,378	1,337	1,319
90.04.2	Operation of opera houses, theatre and concert halls, etc.	228	228	228	217	217
90.02	Support activities to performing arts	2,024	2,109	2,249	2,395	2,508
47.59.3	Retail sale of musical instruments, etc	2,235	2,142	2,087	1,998	1,924
47.63	Retail sale of music and video recordings, etc.	238	282	306	319	353
32.20	Manufacture of musical instruments	1,165	1,180	1,197	1,204	1,220
	Submarket total	13,862	13,723	13,894	13,796	13,812

Table 6.6: Number of companies in the culture and creative industries according to submarkets and categories of economic activity ("WZ") from 2009 to 2013

Submarket WZ-2008	Category of economic activity	2009	2010	2011	2012	2013*
2. Book ma	ırket					
90.03.2	Own-account writers	6,616	6,941	7,146	7,348	7,613
74.30.1	Translation activities	1,584	1,625	1,718	1,811	1,878
58.11	Book publishing	2,193	2,220	2,243	2,209	2,234
47.61.	Retail sale of books	4,290	4,195	4,137	4,038	3,962
47.79.2	Retail sale of second-hand books	479	459	448	429	414
18.14	Binding and related services	1,070	1,041	1,010	993	963
	Submarket total	16,232	16,481	16,702	16,828	17,063
3. Art mark	cet					
90.03.3	Own-account visual artists	8,883	8,814	8,932	8,892	8,917
47.78.3	Retail sale of art, etc.	1,797	1,712	1,685	1,632	1,576
91.02	Museums activities	890	823	764	672	609
47.79.1	Retail sale of antiques, etc.	2,193	2,115	2,041	2,007	1,931
	Submarket total	13,763	13,464	13,422	13,203	13,032
4. Film indu	ustry					
90.01.4	Own-account stage, motion picture, radio and TV artists, etc.	8,455	8,710	9,180	9,591	9,954
59.11	Motion picture, video and TV programme production	5,785	5,253	5,118	4,988	4,655
59.12	Motion picture, video and TV programme post-production	696	767	851	861	939
59.13	Motion picture, video and TV programme distribution	929	865	792	711	643
59.14	Motion picture projection	888	878	865	843	832
47.63	Retail sale of music and video recordings, etc.	238	282	306	319	353
77.22	Renting of video tapes and disks	1,321	1,201	1,087	969	852
	Submarket total	18,312	17,956	18,199	18,282	18,226
5. Broadcas	sting industry					
90.03.5	Own-account journalists and press photographers	17,500	17,401	17,782	17,810	17,951
60.10	Radio broadcasting	266	262	255	255	250
60.20	Television programming and broadcasting	87	88	91	89	91
	Submarket total	17,853	17,751	18,128	18,154	18,292
6. Performi	ing arts market					
90.01.4	Own-account stage, motion picture, radio and TV artists, etc.	8,455	8,710	9,180	9,591	9,954
90.01.3	Own-account performers and circus groups	564	573	546	550	541
90.01.1	Theatre ensembles	126	124	128	131	132
90.04.1	Organisation of theatre performances and concerts	1,414	1,400	1,378	1,337	1,319
90.04.2	Operation of opera houses, theatre and concert halls, etc.	228	228	228	217	217
90.04.3	Operation of variety theatres and cabarets	196	178	168	165	151
90.02	Support activities to performing arts	2,024	2,109	2,249	2,395	2,508
85.52	Cultural education	1,986	2,080	2,105	2,111	2,171
	Submarket total	14,993	15,402	15,982	16,497	16,992

Table 6.6: Number of companies in the culture and creative industries according to submarkets and categories of economic activity ("WZ") from 2009 to 2013

74.10.3       Interior decorators       8,017       7,679       7,773         71.11.2       Consulting architectural activities in interior design       2,675       3,185       3,577         73.11       Advertising agencies (50% share)       18,060       17,125       16,702       3         32.12       Manufacture of jewellery and related articles       3,777       3,706       3,661         74.20.1       Photographers       8,691       8,983       9,415         Submarket total       48,332       50,111       52,439       3         8. Architecture market         71.11.1       Consulting architectural activities in building construction       28,140       27,587       27,554       27         71.11.2       Consulting architectural activities in interior design       2,675       3,185       3,577         71.11.3       Consulting architectural activities in town, city and regional planning       4,664       4,828       4,990         71.11.4       Consulting architectural activities in landscape architecture       3,072       3,088       3,108         90.03.4       Own-account restorers       1,405       1,471       1,473         Submarket total       39,956       40,159       40,702	2,975 3,465 10,054 11,664
74.10.2       Graphics and communications designers       5,506       7,269       8,725       7         74.10.3       Interior decorators       8,017       7,679       7,773         71.11.2       Consulting architectural activities in interior design       2,675       3,185       3,577         73.11       Advertising agencies (50% share)       18,060       17,125       16,702       3         32.12       Manufacture of jewellery and related articles       3,777       3,706       3,661         74.20.1       Photographers       8,691       8,983       9,415         Submarket total       48,332       50,111       52,439       5         8. Architecture market         71.11.1       Consulting architectural activities in building construction       28,140       27,587       27,554       27         71.11.2       Consulting architectural activities in interior design       2,675       3,185       3,577         71.11.3       Consulting architectural activities in town, city and regional planning       4,664       4,828       4,990         71.11.4       Consulting architectural activities in landscape architecture       3,072       3,088       3,108         90.03.4       Own-account restorers       1,405       1,471       1,473	10,054 11,664
74.10.3       Interior decorators       8,017       7,679       7,773         71.11.2       Consulting architectural activities in interior design       2,675       3,185       3,577         73.11       Advertising agencies (50% share)       18,060       17,125       16,702       3         32.12       Manufacture of jewellery and related articles       3,777       3,706       3,661         74.20.1       Photographers       8,691       8,983       9,415         Submarket total       48,332       50,111       52,439       3         8. Architecture market         71.11.1       Consulting architectural activities in building construction       28,140       27,587       27,554       27         71.11.2       Consulting architectural activities in interior design       2,675       3,185       3,577         71.11.3       Consulting architectural activities in town, city and regional planning       4,664       4,828       4,990         71.11.4       Consulting architectural activities in landscape architecture       3,072       3,088       3,108         90.03.4       Own-account restorers       1,405       1,471       1,473         Submarket total       39,956       40,159       40,702       40,702	
71.11.2       Consulting architectural activities in interior design       2,675       3,185       3,577         73.11       Advertising agencies (50% share)       18,060       17,125       16,702       3         32.12       Manufacture of jewellery and related articles       3,777       3,706       3,661         74.20.1       Photographers       8,691       8,983       9,415         Submarket total       48,332       50,111       52,439       5         8. Architecture market         71.11.1       Consulting architectural activities in building construction       28,140       27,587       27,554       2         71.11.2       Consulting architectural activities in interior design       2,675       3,185       3,577         71.11.3       Consulting architectural activities in town, city and regional planning       4,664       4,828       4,990         71.11.4       Consulting architectural activities in landscape architecture       3,072       3,088       3,108         90.03.4       Own-account restorers       1,405       1,471       1,473         Submarket total       39,956       40,159       40,702       40,702	
73.11       Advertising agencies (50% share)       18,060       17,125       16,702       3         32.12       Manufacture of jewellery and related articles       3,777       3,706       3,661         74.20.1       Photographers       8,691       8,983       9,415         Submarket total       48,332       50,111       52,439       5         8. Architecture market         71.11.1       Consulting architectural activities in building construction       28,140       27,587       27,554       27         71.11.2       Consulting architectural activities in interior design       2,675       3,185       3,577         71.11.3       Consulting architectural activities in town, city and regional planning       4,664       4,828       4,990         71.11.4       Consulting architectural activities in landscape architecture       3,072       3,088       3,108         90.03.4       Own-account restorers       1,405       1,471       1,473         Submarket total       39,956       40,159       40,702       40	7,303 7,181
32.12 Manufacture of jewellery and related articles  74.20.1 Photographers  8,691 8,983 9,415  Submarket total  48,332 50,111 52,439 9  8. Architecture market  71.11.1 Consulting architectural activities in building construction  28,140 27,587 27,554 27.11.1 Consulting architectural activities in interior design  71.11.2 Consulting architectural activities in interior design  71.11.3 Consulting architectural activities in town, city and regional planning  71.11.4 Consulting architectural activities in landscape architecture  3,072 3,088 3,108 90.03.4 Own-account restorers  1,405 1,471 1,473 Submarket total	3,862 4,313
74.20.1 Photographers 8,691 8,983 9,415 Submarket total 48,332 50,111 52,439 8  8. Architecture market  71.11.1 Consulting architectural activities in building construction 28,140 27,587 27,554 7  71.11.2 Consulting architectural activities in interior design 2,675 3,185 3,577  71.11.3 Consulting architectural activities in town, city and regional planning 4,664 4,828 4,990  71.11.4 Consulting architectural activities in landscape architecture 3,072 3,088 3,108  90.03.4 Own-account restorers 1,405 1,471 1,473  Submarket total 39,956 40,159 40,702 4	16,096 15,417
Submarket total 48,332 50,111 52,439 9  8. Architecture market  71.11.1 Consulting architectural activities in building construction 28,140 27,587 27,554 27  71.11.2 Consulting architectural activities in interior design 2,675 3,185 3,577  71.11.3 Consulting architectural activities in town, city and regional planning 4,664 4,828 4,990  71.11.4 Consulting architectural activities in landscape architecture 3,072 3,088 3,108  90.03.4 Own-account restorers 1,405 1,471 1,473  Submarket total 39,956 40,159 40,702 4	3,603 3,545
8. Architecture market  71.11.1 Consulting architectural activities in building construction 28,140 27,587 27,554 27.11.2 Consulting architectural activities in interior design 2,675 3,185 3,577  71.11.3 Consulting architectural activities in town, city and regional planning 4,664 4,828 4,990  71.11.4 Consulting architectural activities in landscape architecture 3,072 3,088 3,108  90.03.4 Own-account restorers 1,405 1,471 1,473  Submarket total 39,956 40,159 40,702 4	9,783 10,145
71.11.1 Consulting architectural activities in building construction 28,140 27,587 27,554 27.11.1 Consulting architectural activities in interior design 2,675 3,185 3,577 21.11.3 Consulting architectural activities in town, city and regional planning 4,664 4,828 4,990 27.11.4 Consulting architectural activities in landscape architecture 3,072 3,088 3,108 20.03.4 Own-account restorers 1,405 1,471 1,473 20.03.4 Submarket total 39,956 40,159 40,702 40.03.4 20.0	53,676 55,729
71.11.2 Consulting architectural activities in interior design 2,675 3,185 3,577  71.11.3 Consulting architectural activities in town, city and regional planning 4,664 4,828 4,990  71.11.4 Consulting architectural activities in landscape architecture 3,072 3,088 3,108  90.03.4 Own-account restorers 1,405 1,471 1,473  Submarket total 39,956 40,159 40,702	
71.11.3 Consulting architectural activities in town, city and regional planning 4,664 4,828 4,990 71.11.4 Consulting architectural activities in landscape architecture 3,072 3,088 3,108 90.03.4 Own-account restorers 1,405 1,471 1,473 Submarket total 39,956 40,159 40,702 4	27,137 26,844
71.11.4 Consulting architectural activities in landscape architecture 3,072 3,088 3,108 90.03.4 Own-account restorers 1,405 1,471 1,473 Submarket total 39,956 40,159 40,702	3,862 4,313
90.03.4 Own-account restorers 1,405 1,471 1,473  Submarket total 39,956 40,159 40,702 4	5,088 5,251
Submarket total 39,956 40,159 40,702 4	3,156 3,174
	1,519 1,553
O. Description	40,762 41,135
9. Press market	
90.03.5 Own-account journalists and press photographers 17,500 17,401 17,782	17,810 17,951
63.91 News agency activities 995 989 988	978 975
58.12 Publishing of directories and mailing lists 211 200 217	211 214
58.13         Publishing of newspapers         831         829         826	845 843
58.14 Publishing of journals and periodicals 1,848 1,782 1,741	1,722 1,669
58.19 Other publishing activities (excluding software) 3,396 3,144 3,053	3,002 2,831
47.62 Retail sale of newspapers and stationery 9,536 9,219 8,891	8,563 8,241
Submarket total 34,317 33,564 33,498 3	33,131 32,722
10. Advertising market	
73.11 Advertising agencies 36,120 34,250 33,404	32,191 30,833
73.12 Media representation 962 1,080 1,173	1,257 1,363
Submarket total 37,082 35,330 34,577 3	33,448 32,196
11. Software and games industry	
58.21 Publishing of computer games 392 354 336	326 298
63.12 Web portals 190 271 341	415 491
62.01.1 Web-page design and programming 7,457 8,256 9,037	9,603 10,393
62.01.9 Other software development 18,625 19,172 20,165	21,042 21,812
58.29         Other software publishing         354         474         534	529 619
Submarket total 27,018 28,527 30,413	323 013

Table 6.6: Number of companies in the culture and creative industries according to submarkets and categories of economic activity ("WZ") from 2009 to 2013

Submarket WZ-2008	Category of economic activity	2009	2010	2011	2012	2013*
12. Other						
91.01	Libraries and archives	111	100	101	81	76
91.03	Operation of historical sites and buildings and similar visitor attractions	104	95	95	92	88
91.04	Botanical and zoological gardens and nature reserves	262	265	260	247	246
74.30.2	Interpretation activities	6,006	6,237	6,456	6,547	6,772
74.20.2	Photographic laboratories	518	466	466	428	402
32.11	Striking of coins	49	54	54	53	56
32.13	Manufacture of imitation jewellery	303	289	304	303	304
	Submarket total	7,353	7,506	7,736	7,751	7,943
Total, includ	ling double counts	289,073	289,974	295,692	297,442	300,752
Duplicate ca	ategories of economic activity	50,594	50,440	51,402	51,627	52,031
Culture and	creative industries (excluding double counts)	238,479	239,534	244,290	245,816	248,721
Contribution	of culture and creative industries	7.61%	7.57%	7.60%	7.56%	7.56%

Note: \*Data for 2013 estimated, based on previous year's developments and economic statistics.

Source: Turnover tax statistics, Destatis 2014; 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

Submarket WZ-2008	Category of economic activity	2009	2010	2011	2012	2013*
1. Music inc	dustry					
90.03.1	Own-account composers, etc.	261	261	274	283	290
90.01.2	Ballet companies, orchestras, bands and choirs	225	210	239	233	240
59.20.1	Sound-recording studios, etc.	93	109	125	134	138
59.20.2	Publishing of sound recordings	1,215	989	1,016	983	1,012
59.20.3	Publishing of printed music	587	549	571	918	944
90.04.1	Organisation of theatre performances and concerts	1,437	1,509	1,644	1,639	1,743
90.04.2	Operation of opera houses, theatre and concert halls, etc.	361	389	403	453	474
90.02	Support activities to performing arts	379	402	440	461	491
47.59.3	Retail sale of musical instruments, etc	1,105	1,175	1,207	1,245	1,296
47.63	Retail sale of music and video recordings, etc.	113	126	140	158	172
32.20	Manufacture of musical instruments	532	551	579	592	615
	Submarket total	6,307	6,270	6,639	7,099	7,416

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

Submarket WZ-2008	Category of economic activity	2009	2010	2011	2012	2013*
2. Book mai	rket					
90.03.2	Own-account writers	522	552	568	570	593
74.30.1	Translation activities	271	274	295	287	307
58.11	Book publishing	9,590	8,848	8,945	8,754	8,597
47.61.	Retail sale of books	3,667	3,600	3,506	3,551	3,470
47.79.2	Retail sale of second-hand books	66	72	70	65	67
18.14	Binding and related services	732	836	871	805	875
	Submarket total	14,848	14,182	14,255	14,032	13,908
3. Art mark	et					
90.03.3	Own-account visual artists	730	750	753	765	776
47.78.3	Retail sale of art, etc.	594	660	742	707	781
91.02	Museums activities	412	518	414	428	429
47.79.1	Retail sale of antiques, etc.	409	404	432	416	428
	Submarket total	2,146	2,332	2,341	2,316	2,413
4. Film indu	ıstry					
90.01.4	Own-account stage, motion picture, radio and TV artists, etc.	720	752	806	870	913
59.11	Motion picture, video and TV programme production	4,447	4,489	4,458	4,444	4,457
59.12	Motion picture, video and TV programme post-production	124	153	164	181	181
59.13	Motion picture, video and TV programme distribution	1,667	1,815	1,993	1,752	1,757
59.14	Motion picture projection	1,315	1,276	1,419	1,527	1,532
47.63	Retail sale of music and video recordings, etc.	113	126	140	158	172
77.22	Renting of video tapes and disks	348	315	302	296	273
	Submarket total	8,734	8,925	9,283	9,228	9,285
5. Broadcas	ting industry					
90.03.5	Own-account journalists and press photographers	1,208	1,219	1,258	1,223	1,248
60.10	Radio broadcasting	1,004	965	962	969	930
60.20	Television programming and broadcasting	5,233	5,487	5,686	6,135	5,546
	Submarket total	7,445	7,671	7,905	8,327	7,724
6. Performi	ng arts market					
90.01.4	Own-account stage, motion picture, radio and TV artists, etc.	720	752	806	870	913
90.01.3	Own-account performers and circus groups	51	55	60	57	61
90.01.1	Theatre ensembles	53	54	55	81	82
90.04.1	Organisation of theatre performances and concerts	1,437	1,509	1,644	1,639	1,743
90.04.2	Operation of opera houses, theatre and concert halls, etc.	361	389	403	453	474
90.04.3	Operation of variety theatres and cabarets	81	78	82	84	85
90.02	Support activities to performing arts	379	402	440	461	491
85.52	Cultural education	235	239	252	265	274
	Submarket total	3,316	3,478	3,742	3,909	4,122
	Submarket total	3,310	3,476	3,742	3,909	4,12

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

Submarket WZ-2008	Category of economic activity	2009	2010	2011	2012	2013*
7. Design in	dustry					
74.10.1	Industrial, product and fashion designers	237	327	419	475	509
74.10.2	Graphics and communications designers	495	627	749	856	918
74.10.3	Interior decorators	1,012	981	1,040	972	1,042
71.11.2	Consulting architectural activities in interior design	401	485	594	634	662
73.11	Advertising agencies (50% share)	12,132	12,112	11,704	11,609	11,574
32.12	Manufacture of jewellery and related articles	2,216	2,531	2,686	2,780	3,016
74.20.1	Photographers	1,102	1,179	1,160	1,209	1,211
	Submarket total	17,595	18,243	18,353	18,535	18,931
8. Architect	ture market					
71.11.1	Consulting architectural activities in building construction	5,821	5,765	6,126	6,117	6,380
71.11.2	Consulting architectural activities in interior design	401	485	594	634	662
71.11.3	Consulting architectural activities in town, city and regional planning	1,022	1,066	1,239	1,288	1,343
71.11.4	Consulting architectural activities in landscape architecture	571	543	565	586	611
90.03.4	Own-account restorers	151	171	183	188	205
	Submarket total	7,967	8,031	8,708	8,813	9,201
9. Press ma	rket					
90.03.5	Own-account journalists and press photographers	1,208	1,219	1,258	1,223	1,248
63.91	News agency activities	516	513	522	497	580
58.12	Publishing of directories and mailing lists	1,369	1,415	1,762	1,875	1,841
58.13	Publishing of newspapers	10,930	11,183	11,501	11,781	11,569
58.14	Publishing of journals and periodicals	9,918	9,933	9,829	9,934	9,755
58.19	Other publishing activities (excluding software)	3,996	3,785	3,458	3,197	3,140
47.62	Retail sale of newspapers and stationery	3,403	3,351	3,381	3,422	3,411
	Submarket total	31,341	31,398	31,711	31,931	31,545
10. Advertis	sing market					
73.11	Advertising agencies	24,264	24,223	23,407	23,217	23,148
73.12	Media representation	1,244	1,491	1,522	1,748	1,743
	Submarket total	25,508	25,714	24,929	24,965	24,890
11. Softwar	e and games industry					
58.21	Publishing of computer games	4,135	3,040	2,327	1,743	1,705
63.12	Web portals	324	477	559	661	680
62.01.1	Web-page design and programming	2,530	2,732	3,055	3,179	3,399
62.01.9	Other software development	17,034	19,818	21,997	23,663	25,295
58.29	Other software publishing	272	429	504	396	387
	Submarket total	24,296	26,496	28,442	29,642	31,466

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

Submarket WZ-2008	Category of economic activity	2009	2010	2011	2012	2013*
12. Other						
91.01	Libraries and archives	63	66	48	43	35
91.03	Operation of historical sites and buildings and similar visitor attractions	39	32	36	35	33
91.04	Botanical and zoological gardens and nature reserves	244	267	283	288	307
74.30.2	Interpretation activities	428	462	495	509	544
74.20.2	Photographic laboratories	567	518	503	449	450
32.11	Striking of coins	128	118	159	147	163
32.13	Manufacture of imitation jewellery	110	125	128	117	126
	Submarket total	1,578	1,588	1,652	1,587	1,659
Total, includ	ling double counts	151,080	154,327	157,960	160,385	162,561
Duplicate ca	ategories of economic activity	16,751	16,993	16,990	17,047	17,277
Culture and	creative industries (excluding double counts)	134,329	137,333	140,970	143,338	145,285
Contribution	of culture and creative industries	2.74%	2.62%	2.48%	2.49%	2.36%

Note: \*Data for 2013 estimated, based on previous year's developments and economic statistics.

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

Table 6.8: Number of employed persons in the culture and creative industries according to submarkets and categories of economic activity from 2009 to 2013

Submarket WZ-2008	Category of economic activity	2009	2010	2011	2012	2013*
1. Music inc	dustry					
90.03.1	Own-account composers, etc.	2,838	2,818	2,864	2,882	2,890
90.01.2	Ballet companies, orchestras, bands and choirs	7,333	6,811	6,312	5,792	5,758
59.20.1	Sound-recording studios, etc.	1,383	1,403	1,448	1,513	1,580
59.20.2	Publishing of sound recordings	2,679	2,549	2,666	2,585	1,875
59.20.3	Publishing of printed music	2,909	3,199	3,095	2,693	2,717
90.04.1	Organisation of theatre performances and concerts	6,344	6,364	6,385	6,591	8,413
90.04.2	Operation of opera houses, theatre and concert halls, etc.	3,446	3,491	3,553	3,596	3,574
90.02	Support activities to performing arts	5,521	5,828	6,145	6,621	6,757
47.59.3	Retail sale of musical instruments, etc	6,108	6,169	6,232	6,291	6,243
47.63	Retail sale of music and video recordings, etc.	1,632	1,662	1,627	1,590	1,348
32.20	Manufacture of musical instruments	6,620	6,396	6,300	6,378	6,341
	Submarket total	46,813	46,690	46,627	46,532	47,495

Table 6.8: Number of employed persons in the culture and creative industries according to submarkets and categories of economic activity from 2009 to 2013

Submarket WZ-2008	Category of economic activity	2009	2010	2011	2012	2013*
2. Book mai	rket					
90.03.2	Own-account writers	6,980	7,292	7,522	7,735	8,053
74.30.1	Translation activities	4,664	4,692	4,960	5,160	5,411
58.11	Book publishing	25,801	24,803	25,418	25,261	25,489
47.61.	Retail sale of books	28,514	27,923	29,938	29,151	28,589
47.79.2	Retail sale of second-hand books	809	775	765	752	753
18.14	Binding and related services	12,063	11,365	10,895	10,749	10,116
	Submarket total	78,831	76,850	79,498	78,808	78,410
3. Art mark	et					
90.03.3	Own-account visual artists	10,203	10,160	10,264	10,254	10,267
47.78.3	Retail sale of art, etc.	3,559	3,539	3,310	3,289	3,197
91.02	Museums activities	2,095	2,024	1,969	1,944	1,863
47.79.1	Retail sale of antiques, etc.	3,565	3,437	3,399	3,423	3,342
	Submarket total	19,422	19,160	18,943	18,910	18,668
4. Film indu	ıstry					
90.01.4	Own-account stage, motion picture, radio and TV artists, etc.	8,988	9,263	9,717	10,173	10,548
59.11	Motion picture, video and TV programme production	26,143	25,491	25,502	26,109	25,520
59.12	Motion picture, video and TV programme post-production	5,617	5,384	5,576	4,999	4,984
59.13	Motion picture, video and TV programme distribution	3,422	3,291	3,182	2,946	2,943
59.14	Motion picture projection	8,771	8,581	8,691	8,696	8,796
47.63	Retail sale of music and video recordings, etc.	1,632	1,662	1,627	1,590	1,348
77.22	Renting of video tapes and disks	3,923	3,608	3,445	3,114	2,731
	Submarket total	58,496	57,280	57,740	57,627	56,868
5. Broadcas	ting industry					
90.03.5	Own-account journalists and press photographers	18,449	18,273	18,644	18,712	18,810
60.10	Radio broadcasting	13,517	13,601	13,741	13,437	14,016
60.20	Television programming and broadcasting	6,924	7,007	7,305	7,718	8,658
	Submarket total	38,890	38,881	39,690	39,867	41,483
6. Performi	ng arts market					
90.01.4	Own-account stage, motion picture, radio and TV artists, etc.	8,988	9,263	9,717	10,173	10,548
90.01.3	Own-account performers and circus groups	1,292	1,286	1,262	1,106	1,151
90.01.1	Theatre ensembles	1,240	1,340	1,214	1,214	191
90.04.1	Organisation of theatre performances and concerts	6,344	6,364	6,385	6,591	8,413
90.04.2	Operation of opera houses, theatre and concert halls, etc.	3,446	3,491	3,553	3,596	3,574
90.04.3	Operation of variety theatres and cabarets	925	940	923	929	970
90.02	Support activities to performing arts	5,521	5,828	6,145	6,621	6,757
85.52	Cultural education	4,538	4,708	4,913	5,153	5,410
		,	,			-,

Table 6.8: Number of employed persons in the culture and creative industries according to submarkets and categories of economic activity from 2009 to 2013

Submarket WZ-2008	Category of economic activity	2009	2010	2011	2012	2013*
7. Design in	dustry					
74.10.1	Industrial, product and fashion designers	3,332	4,247	4,871	5,641	6,642
74.10.2	Graphics and communications designers	8,362	10,338	12,254	14,242	16,417
74.10.3	Interior decorators	10,579	10,481	10,669	10,153	10,111
71.11.2	Consulting architectural activities in interior design	4,146	4,743	5,399	5,858	6,702
73.11	Advertising agencies (50% share)	67,095	64,754	65,542	65,960	65,584
32.12	Manufacture of jewellery and related articles	14,848	13,847	11,725	11,591	11,464
74.20.1	Photographers	17,064	17,444	17,955	18,295	18,608
	Submarket total	125,426	125,854	128,415	131,740	135,528
8. Architect	ture market			,		
71.11.1	Consulting architectural activities in building construction	74,640	75,298	77,324	79,464	81,678
71.11.2	Consulting architectural activities in interior design	4,146	4,743	5,399	5,858	6,702
71.11.3	Consulting architectural activities in town, city and regional planning	11,352	11,600	12,031	11,799	11,922
71.11.4	Consulting architectural activities in landscape architecture	7,034	7,314	7,393	7,617	7,827
90.03.4	Own-account restorers	2,892	2,934	2,932	2,999	2,954
	Submarket total	100,064	101,889	105,079	107,737	111,083
9. Press ma	rket					
90.03.5	Own-account journalists and press photographers	18,449	18,273	18,644	18,712	18,810
63.91	News agency activities	9,026	8,829	9,345	9,654	9,470
58.12	Publishing of directories and mailing lists	5,070	5,049	4,353	4,283	4,076
58.13	Publishing of newspapers	51,654	49,514	47,736	47,623	47,008
58.14	Publishing of journals and periodicals	43,449	41,340	40,657	38,775	38,089
58.19	Other publishing activities (excluding software)	11,518	11,264	11,545	11,197	10,986
47.62	Retail sale of newspapers and stationery	29,117	29,025	28,803	28,619	27,810
	Submarket total	168,283	163,294	161,083	158,863	156,247
10. Advertis	sing market					
73.11	Advertising agencies	134,189	129,508	131,084	131,920	131,168
73.12	Media representation	6,746	7,455	7,786	8,468	9,443
	Submarket total	140,935	136,963	138,870	140,388	140,611
11. Softwar	e and games industry					
58.21	Publishing of computer games	1,190	1,517	1,826	1,961	1,583
63.12	Web portals	2,293	3,547	5,142	6,942	8,775
62.01.1	Web-page design and programming	25,558	29,470	34,531	38,320	40,507
62.01.9	Other software development	202,223	201,736	208,986	231,472	248,331
58.29	Other software publishing	12,489	15,406	17,920	20,662	22,074
	Submarket total	243,753	251,676	268,405	299,357	321,270
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Table 6.8: Number of employed persons in the culture and creative industries according to submarkets and categories of economic activity from 2009 to 2013

Submarket WZ-2008	Category of economic activity	2009	2010	2011	2012	2013*
12. Other						
91.01	Libraries and archives	1,028	991	991	928	891
91.03	Operation of historical sites and buildings and similar visitor attractions	220	210	223	226	224
91.04	Botanical and zoological gardens and nature reserves	772	774	792	808	801
74.30.2	Interpretation activities	6,419	6,645	6,930	7,127	7,351
74.20.2	Photographic laboratories	5,608	5,045	4,863	4,943	4,997
32.11	Striking of coins	465	468	482	511	524
32.13	Manufacture of imitation jewellery	832	857	903	891	875
	Submarket total	15,345	14,991	15,184	15,434	15,662
Total, includ	ding double counts	1,068,553	1,066,748	1,093,644	1,130,646	1,160,337
Duplicate ca	ategories of economic activity	115,621	114,378	117,012	119,101	121,735
Culture and	creative industries (excluding double counts)	952,932	952,370	976,633	1,011,544	1,038,601
Contribution	n of culture and creative industries	3.10%	3.06%	3.07%	3.11%	3.16%

Note: \*Data for 2013 estimated (number of self-employed persons), based on the previous year's developments and economic statistics. Source: Turnover tax statistics, Destatis 2014; Employment statistics, Federal Employment Agency 2014; ZEW's own computations.

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