

The creative knowledge sector in the Munich region: workers, firms, turnover

A preparatory analysis for surveying the creative and knowledge economy

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The creative knowledge sector in the Munich region: workers, firms, turnover

A preparatory analysis for surveying the creative and knowledge economy

ACRE report [4.7]

Anne von Streit



Accommodating Creative Knowledge – Competitiveness of European Metropolitan Regions within the Enlarged Union

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AMIDSt, University of Amsterdam

ACRE

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1. INTRODUCTION

The aim of this report is to analyse the creative knowledge sector of Munich's urban economy in order to receive detailed knowledge about the structure (employment, firms, turnover, number of freelancers) in order to select suitable interview candidates for the coming surveys of creative knowledge workers (Germans as well as migrants), graduates and managers. Special attention will be paid to the following sub-sectors as the interview candidates for the coming surveys and interviews are supposed to be employed in these sectors or - in case of the graduates – should have been trained to work in these sectors. The following sub-sectors were selected by the ACRE project team:

- Advertising
- Video, film, music and photography
- Radio and TV
- Computer games, software, electronic publishing
- Finances
- Law and other business services
- R&D and higher education

This report starts with a general discussion of the creative knowledge sector of Munich with a special focus on the above sub-sectors. This includes a discussion of the development of the number of creative knowledge workers, firms and turnover as well as the location pattern of the sectors in the Munich region. In the next parts the other target groups will be discussed. These are the graduates from Munich's universities and polytechnics, the foreign population of Munich as well as managers in the creative knowledge sectors.

The second part of this report deals with the design and conduct of the coming surveys. It will be concerned with the question how the surveys can be conducted and which databases and professional associations are available in order to approach suitable interview candidates.

2. THE CREATIVE KNOWLEDGE SECTOR OF THE REGION OF MUNICH: AN OVERVIEW

2.1. Employment in the creative knowledge sector

The following statistical analysis concerning the number of employees of Munich's creative knowledge sector is based on data provided by the German Federal Employment Office. The data has some particularities/weaknesses: most importantly, the data does only cover employees subject to social insurance contribution which means that freelancers as well as civil servants are not included. Consequently, the number of people working in sectors like for example advertising with a high proportion of freelancers or universities with a high proportion of civil servants is systematically underestimated.

The creative knowledge sectors consist of following five sub-sectors as they have been defined by the ACRE project team:

1. The **creative industries** that are made up by advertising, architecture, the art and antiques market, crafts, design, designer fashion, film and video, interactive leisure software, music, the performing arts, publishing, software and computer services, television and radio (adapted from DCMS, 1998).

The knowledge industries are made up

2. **Information & communication technology (ICT)** (adapted from OECD definition)
3. **Finance**
4. **Law and other business services**
5. **R&D and higher education**¹

In 2004, the proportion of employees subject to social insurance contributions working in the creative knowledge sector as defined above accounted for about 21.5 percent of all employees in Germany. In Bavaria the proportion rises to 22.6 percent, and in the region of Munich (planning region 14; see annex 2 for a map of the planning region) over 33 percent of all employees work in this field. This figure is only topped by the city of Munich, where over 37 percent of all employees work in the creative knowledge sectors.

Around 9 percent of all employees in Germany work in the creative industries, whilst in the region and city of Munich 13 percent of all employees work in the creative industries (see table 2.1, page 3).

¹ See annex 1 for a list of the selected NACE codes for each sector; it was decided to use the NACE codes and not the ISCO codes in this report as the Länder (states) are the lowest spatial level on which the ISCO codes are available in Germany and the NACE codes are also available for the Landkreise (counties).

2.2. Creative Workers

135,748 people work in the creative industries in the region of Munich in 2004 (see annex 2 for a map of the region of Munich), more than 63 percent of them within the city boundaries (see table 2.1).

Table 2.1: Employees in the creative knowledge sector subject to social insurance contributions, in absolute figures and in relation to all employees, in 2004

	Germany		Bavaria		Region of Munich (Planungsregion 14)		Munich city	
	Employees (abs.)	%	Employees (abs.)	%	Employees (abs.)	%	Employees (abs.)	%
All sectors	26,523,982	100	4,288,495	100	1,069,510	100	663,961	100
Creative knowledge sector (altogether)	571,446	21.54	969,641	22.61	358,446	33.51	248,628	37.45
1. Creative Industries	2,336,429	8.81	389,783	9.09	135,748	12.69	85,977	12.95
Advertising	103,040	0.39	14,864	0.35	7,243	0.68	5,107	0.77
Architecture	322,319	1.22	48,872	1.14	19,028	1.78	11,611	1.75
Arts / antiques trade	854,930	3.22	144,845	3.38	31,796	2.97	20,871	3.14
Designer fashion	172,894	0.65	40,691	0.95	3,333	0.31	1,424	0.21
Video, film, music and photography	299,953	1.13	40,630	0.95	19,089	1.78	11,880	1.79
Music and visual and performing arts	115,614	0.44	13,895	0.32	5,170	0.48	4,653	0.70
Publishing	152,477	0.57	32,415	0.76	15,048	1.41	10,829	1.63
Computer games, software, electronic publishing	255,240	0.96	43,534	1.02	26,360	2.46	14,843	2.24
Radio and TV	59,962	0.23	10,037	0.23	8,681	0.81	4,759	0.72
2. Information Communication Technology	670,633	2.53	139,777	3.26	47,375	4.43	31,352	4.72
3. Finances	1,035,399	3.90	188,251	4.39	76,064	7.11	59,866	9.02
4. Law and other business services	1,294,242	4.88	204,311	4.76	72,551	6.78	56,529	8.51
5. R&D and higher education	377,762	1.42	47,519	1.11	26,708	2.50	14,904	2.24

Source: BAA 2006, own calculations

If employment alone is used to determine the importance of the sub-sectors, arts/ antiques is the most important creative sub-sector. However, this high number should be interpreted with caution as this category contains many branches which can neither be regarded as creative nor as knowledge intensive: a lot of them are simple sales activities. A similar statement can be made for the sector of architecture: only a part of this sector is made up by architects, most of it is made up by employees working in the field of engineering. Engineering can surely be regarded as knowledge intensive but not necessarily as creative.

The second biggest category within the creative industries is computer games, software and electronic publishing: 26,360 people work in this field in the region of Munich,

more than half of them in the city of Munich. This means that software is less concentrated in the city of Munich than other creative branches like for example advertising where more than 70 percent of all employees are working within the city boundaries. Over 19,000 people are employed in the field of video, film and photography in the region of Munich. When the more than 8,000 employees of the radio and TV sector are added to this number, around 27,700 employees subject to social security contribution work in the audiovisual media branch in the region of Munich. As freelancers are very common in these branches, it is estimated that at least one third of this number has to be added in order to determine how many people work in this field. The same applies for advertising. It is also estimated that the workforce is at least made up by one third to a half of freelancers (LH München, 2004).

Concerning the geographical allocation, only 60 percent of the audio-visual workforce are employed in the city of Munich and 40 percent in the region. But it must be stated that the majority of these 40 percent are concentrated in the county of Munich (*Landkreis München*) as a lot of radio and TV enterprises are to be found in the media clusters of Ismaning and Unterföhring (see also chapter 6 for the location of firms).

2.3. Knowledge Workers

The biggest category within the knowledge sector is that of finance with 7 percent in the region and 9 percent of the whole workforce in the city of Munich. The sector is highly concentrated in the city of Munich: 80 percent of all people working in the field of finance do so within the city boundaries. Within the sector of finance around 40,000 people are employed at banks and credit institutions and almost 30,000 at insurances in the region of Munich (see annex 3 for a detailed break down of NACE-Codes). In the second biggest sector, namely in law and other business services, 72,551 people are employed, which account for 6.8 percent of the whole workforce in the region. Within this sector almost 47,000 people are employed in the heterogeneous field of legal accounting, book-keeping and auditing activities, tax consultancy, market research and public opinion polling, business and management consultancy. As professional workers like layers, notaries etc. are not represented in the data, that the number may well be higher.

About 4.4 percent of all employees in the Munich region work in ICT and around two and a half percent, namely 26,708, in R&D. As mentioned before the number of people working at the universities as civil servants is not included in this data.

2.4. Development of workers in the creative knowledge sectors 2000 - 2004

The decrease in employees subject to social insurance contributions in the creative knowledge sectors in Germany, Bavaria, the region and the city of Munich (see table 2.2) is concordant with the general decrease in employees subject to social insurance contributions in all sectors in the various spatial areas. However, in the region and city of Munich the decrease in employees in the creative knowledge industries and especially in the creative industries has been bigger than in all sectors. Two factors may be responsible for this trend. Firstly, jobs have actually been reduced. This seems to be plausible, in relation to the heavy losses in the sub-sectors of the creative industries such as designer/fashion and publishing, as these sub-sectors still have many manufacturing jobs which are increasingly outsourced to cheaper

locations (Schier, 2003; Biehler et al., 1994). Secondly, jobs subject to social insurance contributions have been converted into freelance jobs due to cost-cutting after the crisis in 2000. This seems to be plausible and in accordance with other studies (see section 2.5.1) in relation to jobs in advertising and in the film industry. Considerable job gains have been made in the sub-sectors of radio and TV - especially in the city of Munich - despite of the “Kirch crisis” (*Kirch-Krise*) in 2002 (see table 2.2). According to reports the media industry in Munich has recovered after the crisis. The sub-sector of software has remained stable despite of the crisis.

Table 2.2: Changes in the number of employees in the creative knowledge sector subject to social insurance contributions 2000-2004, in percent

	Germany	Bavaria	Region of Munich (Planungsregion 14)	Munich city
All Sectors	-4.68	-1.75	-0.14	-1.8
Creative knowledge sector (altogether)	-3.32	-2.68	-1.05	-2.06
1. Creative Industries	-7.73	-9.29	-5.86	-6.95
Advertising	-13.53	-12.27	-15.99	-19.61
Architecture	-8.86	-2.22	1.36	-3.20
Arts / antiques trade	-13.25	-11.52	-9.63	-10.88
Designer fashion	-27.81	-27.21	-30.59	-33.46
Video, film, music and photography	23.07	2.91	-5.19	-7.53
Music and visual and performing arts	-1.70	4.07	-3.54	-0.73
Publishing	-12.69	-14.88	-9.14	-9.10
Computer games, software, electronic publishing	7.01	3.53	0.77	-0.85
Radio and TV	0.07	-1.56	0.98	16.76
2. Information Communication Technology	-9.12	-8.03	-6.57	-7.49
3. Finances	-4.61	-1.31	-1.33	-3.68
4. Law and other business services	7.76	12.31	10.97	8.95
5. R&D and higher education	6.74	13.26	7.30	10.17

Source: BAA 2006, own calculations

Concerning the development of the knowledge industries it becomes apparent that ICT has lost employment. In general it can be said that ICT manufacturing has experienced greater losses than ICT services. Especially manufacturing in ICT is dominated by big international firms in the Munich region. There is a high cost pressure in the sector with strong tendencies to relocate the production abroad. Only the sector of manufacture of instruments has experienced a growth in employment as well as the sector of database activities in ICT services.

Finances have experienced the biggest gains. Especially employment in banks has risen by almost 30 percent (see annex 3 for a detailed break down of the development of the different NACE-codes). Also law and other business services has made considerable gains (around 10 percent). In the field of R&D and higher education it has been only higher education (universities etc.) which has experienced an increase in employment from 2000 to 2004.

2.5. Development of firms and turnover in the creative knowledge sectors

Due to the weaknesses of the data on employment, in the following part the development of firms and turnover will be analysed. Furthermore, the available data covers a longer time period. The data is based on the statistics on turnover taxes which have to be paid by all enterprises and statutory corporations like universities etc.

In 2004, the creative knowledge sector comprised almost 60,000 enterprises in the region of Munich. Almost 60 percent of these enterprises were located in the city of Munich (see table 2.3). The same figure applies for the enterprises of the cultural industries. They are also more concentrated in the city of Munich than in the adjacent administrative districts (*Landkreise*) (see annex 2 for a map of the region of Munich). With regard to the sub-sectors of the creative knowledge sector, about 2/3 of the enterprises belong to the cultural industries and about one quarter to law and other business services.

Table 2.3: Companies in the creative knowledge sector 2004 (absolute figures and in percent)

	Region of Munich		Munich city	
	Companies (absolute)	in %	Companies (absolute)	in %
Creative knowledge sector (altogether)	59,597	100 %	35,340	100%
1. Creative Industries	40,032	67.17	23,693	67.04
Advertising	2,739	4.60	1,757	4.97
Architecture	8,049	13.51	4,613	13.05
Arts / antiques trade	8,203	13.76	4,051	11.46
Designer fashion	648	1.09	370	1.05
Video, film, music and photography	9,945	16.69	6,064	17.16
Music and visual and performing arts	4,209	7.06	2,877	8.14
Publishing	2,938	4.93	2,070	5.86
Computer games, software, electronic publishing	3,179	5.33	1,815	5.14
Radio and TV	122	0.20	76	0.22
2. Information Communication Technology	3,313	5.56	1,530	4.33
3. Finances	931	1.56	436	1.23
4. Law and other business services	14,509	24.35	9,251	26.18
5. R&D and higher education	812	1.36	430	1.22

Source: BAA 2006, own calculations

Concerning the firm size of the different sub-sectors, the firms of the cultural industries have on average between two to five employees. The media and ICT crisis in 2001 has led to a growth of enterprises run by one person only. Radio and TV with an average firm size of more than 60 employees is an exemption in this respect. The sector of finances is also made up by big firms with an average of 137 employees (banks and insurance companies). Software with an average firm size of eight employees is made up in the region of Munich by a mixture of small and big firms.

Despite the crisis in 2001, the number of enterprises in the creative knowledge sector has developed very positively in the region of Munich (+23.4 percent) as well as in the city of Munich (+20.6 percent) in the years 1996 to 2004 (see table 2.4).

Table 2.4: Changes in the number of companies in the creative knowledge sector 1996 to 2004 (absolute figures and in percent)

	Region of Munich		Munich city	
	Absolute	Relative (in %)	Absolute	Relative (in %)
Creative knowledge sector (altogether)	11,301	23.40	6,046	20.64
1. Creative Industries	5,796	16.93	3,004	14.52
Advertising	373	15.77	233	15.29
Architecture	1,019	14.50	533	13.06
Arts / antiques trade	-1,184	-12.61	-993	-19.69
Designer fashion	-188	-22.49	-133	-26.44
Video, film, music and photography	1,924	23.99	1,007	19.91
Music and visual and performing arts	902	27.28	580	25.25
Publishing	538	22.42	385	22.85
Computer games, software, electronic publishing	2,359	287.68	1,364	302.44
Radio and TV	53	76.81	28	58.33
2. Information Communication Technology	363	12.31	122	8.66
3. Finances	1	0.11	-22	-4.80
4. Law and other business services	4,958	51.91	2,869	44.95
5. R&D and higher education	183	29.09	73	20.45

Source: BAA 2006, own calculations

The number of the enterprises in the creative industries has developed less positively (+16.9 percent in the region; +14.5 percent in the city), mainly due to the negative development in the sub-sectors of arts/antiques trade as well as designer fashion. However, the sub-sectors of computer games, software, electronic publishing as well as radio and TV show the most positive trend over the years 1996 to 2004.

In order to estimate how successful the firms have performed the turnover will be taken into consideration.

The total turnover of creative knowledge sector amounted to 9.5 billion Euros in the region of Munich 2004. More than 60 percent of this turnover was generated in the city of Munich (5.9 billion Euros) (see table 2.5). In the Munich region, the creative industries accounted for 34 percent of the total turnover for the creative knowledge sector. The audiovisual media sector alone accounted for almost 15 percent². The ICT sub-sector had a share of 18 percent, and law and business services accounted for almost 44 percent in the Munich region in 2004.

Table 2.5: Turnover of the creative knowledge sector in 2004 (absolute and in percent)

	Region of Munich		Munich city	
	Turnover (in 100€)	%	Turnover (in 100€)	%
Creative knowledge sector (altogether)	95,385,607	100	59,226,088	100
1. Creative Industries	32,605,516	34.18	17,519,940	29.58
Advertising	1,563,489	1.64	1,058,884	1.79
Architecture	2,547,489	2.67	1,557,766	2.63
Arts / antiques trade	6,493,448	6.81	3,728,618	6.30
Designer fashion	946,079	0.99	914,230	1.54

² However, it must be stated that the larger part of this turnover is generated by miscellaneous business activities (NACE-Code 748) which contain many activities which are neither creative nor knowledge intensive.

Video, film, music and photography	10,139,779	10.63	5,632,405	9.51
Music and visual and performing arts	631,837	0.66	344,782	0.58
Publishing	3,076,721	3.23	2,273,973	3.84
Computer games, software, electronic publishing	3,363,121	3.53	1,813,286	3.06
Radio and TV	3,843,553	4.03	195,996	0.33
2. Information Communication Technology	17,181,674	18.01	14,422,281	24.35
3. Finances	3,121,045	3.27	3,067,104	5.18
4. Law and other business services	41,882,920	43.91	23,813,546	40.21
5. R&D and higher education	594,452	0.62	403,217	0.68

Source: BAA 2006, own calculations

The positive development of the creative knowledge sector is also reflected in the rise in turnover (68 percent in the region; 40 percent in the city) in the years 1996 to 2004 (see table 2.6).

Table 2.6: Changes in the turnover in the creative knowledge sector, 1996 - 2004 (in percent)

	Changes 1996- 2004 (in %)	
	Region of Munich	Munich city
Creative knowledge sector (altogether)	67.97	40.07
1. Creative Industries	19.98	2.64
Advertising	-40.30	-20.39
Architecture	0.78	-8.26
Arts / antiques trade	-12.88	-26.48
Designer fashion	-3.51	19.69
Video, film, music and photography	30.80	21.68
Music and visual and performing arts	60.92	36.19
Publishing	-0.04	-6.20
Computer games, software, electronic publishing	188.58	112.31
Radio and TV	218.44	330.65
2. Information Communication Technology	200.35	251.04
3. Finances	73.46	83.06
4. Law and other business services	92.38	24.56
5. R&D and higher education	84.29	29.01

Source: BAA 2006, own calculations

The turnover of the creative knowledge sector developed more positively in the region of Munich than in the city of Munich, with increases of almost 68 percent and 40 percent respectively in the years 1996 to 2004. In respect of the sub-sectors, the turnover of the creative industries developed less positively (20 percent in the region; 2.4 percent in the city) than the other sub-sectors such as ICT, Finance and Law and other business services. Only radio and TV as well as software and computer games showed very positive figures.

Due to the media and ICT crises in 2001 the development for the years 2000 to 2004 has in general been less positive. The enterprises in the region were able to increase their turnover by 8.7 percent, whereas the turnover of the enterprises located in the city of Munich decreased by 5 percent (see table 5.8). In the creative industries only the sub-sector of software and radio and TV showed a positive development. In the knowledge industries the sub-sector of Finance showed the most positive development in this period, whereas R&D and Law showed moderate growth rates.

Table 5.8: Changes in the turnover in the creative knowledge sector, 2000 - 2004 (in percent)

	Changes 2000- 2004 (in %)	
	Region of Munich	Munich city
Creative knowledge sector (together)	8.78	-5.07
1. Creative Industries	-12.34	-6.07
Advertising	-32.53	-35.91
Architecture	0.91	-4.81
Arts / antiques trade	-26.57	-10.11
Designer fashion	-14.95	4.57
Video, film, music and photography	-14.27	8.98
Music and visual and performing arts	-3.97	-18.60
Publishing	-16.37	-20.36
Computer games, software, electronic publishing	9.36	4.04
Radio and TV	21.69	29.53
2. Information Communication Technology	-1.26	4.09
3. Finances	220.83	321.66
4. Law and other business services	31.98	-17.28
5. R&D and higher education	54.71	10.24

Source: BAA 2006, own calculations

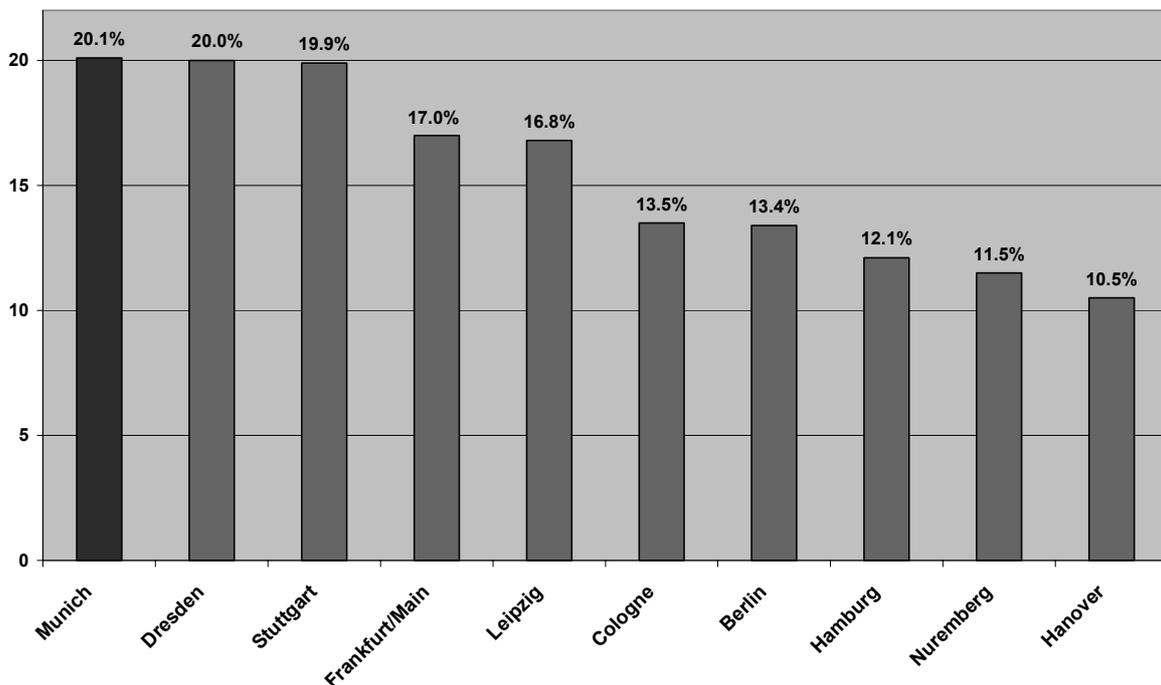
3. QUALIFICATION LEVEL AND GRADUATES IN THE MUNICH REGION

3.1. Level of education in the Munich region

According to an OECD-study the level of education in Germany is higher than the average of OECD countries. More than half of the population have an upper secondary or post secondary education (ISCED 3 A/B, 4 A). A quarter of the population has a tertiary education like a university or polytechnic degree or vocational or technical schools and academies (ISCED 4 A and 5 A / B) (Statistische Ämter des Bundes und der Länder, 2006). As the ISCED-classification is only available on the national scale, other data has to be used for an analysis of the education level of the working force in the region of Munich.

The educational level of the population in the city of Munich is high in comparison with other German cities. More than 20 percent of the working population have a university or polytechnic degree in 2005 (see figure 3.1). In the year 2000 the percentage had only been 17.7 percent (INSM, 2006).

Figure 3.1: Working population (subject to social insurance contributions) with university or polytechnic degree in German cities in 2005 in percent



Source: INSM, 2006

In the region of Munich around 17 percent of the working population have a university or polytechnic degree and more than half of the population has received vocational training (see table 3.1).

Table 3.1: Level of education of the working population in the region of Munich in 2006

Level of education	Absolute number	In percent
Secondary I	123.763	11,5
Secondary I with vocational training	484.098	45,1
Secondary II	29.511	2,7
Tertiary occupational qualification	59.491	5,5
Polytechnic	59.400	5,5
University	128.165	12
Not known	188.424	17,5
Cannot be classified	583	0,05

Source: BAA 2006

3.2. Graduates in the Munich Region

Munich has eleven universities, colleges and universities of applied science with about 90,000 students (see table 3.2). This makes Munich the second-largest university centre in Germany, after Berlin.

Table 3.2: Universities in the Munich region

University	Number of Students
Ludwig – Maximilian – University	46,203
Technical University Munich	19,887
Bundeswehr University	2,903
Munich Institute of Higher Education for Politics	936
Munich School of Philosophy	447
Academy of Fine Arts	689
University of Music and Performing Arts	757
Munich Academy for Television and Film	386
Munich University of Applied Sciences	13,037
Stiftungsfachhochschule München	1,688
Munich Business School	152
Total	87,085

Source: Bavarian State Office for Statistics and Data Processing, 2006

10,829 students graduated from Munich's universities and polytechnics in the study year of 2004/2005. More than 10,000 students successfully left Munich's universities: around 48 percent of them were women and 14 percent foreigners. In comparison to the German average the number of female graduates is rather low (54 percent of the graduates in Germany are women), the number of foreign graduates is rather high (9 percent of the graduates in Germany are foreigners). Another 2,287 students graduated from Munich's polytechnics: 45 percent of them were women and only 9 percent foreigners (see table 3.3).

Table 3.3: Graduates of Munich's polytechnics in the term 2004/05

	Germans		Foreign persons		Together
	total	female	total	female	
Munich university of applied sciences	1740	677	203	88	1943
Munich Business School	15	6	2	0	17
Stiftungsfachhochschule Munich	314	237	13	11	327
Together	2069	920	218	99	2287

Source: Bavarian State Office for Statistics and Data Processing, 2006

Almost 17 percent of the university students who have finished their studies in the study year of 2004/05 obtained their degree in the field of law, economics and social sciences (see table 3.4) and almost 17 percent in the field of mathematics and natural sciences. Engineering comes in the third place with almost 16 percent (among the 1059 engineers are 180 graduates in architecture). 6 percent have left the university with a degree in journalism, arts or music. Engineering and mathematics is clearly dominated by men, but also more than 60 percent of all graduates in law, economics and the social sciences are men. Women are overrepresented in the humanities, medical sciences as well as in the field of journalism, arts and music.

Table 3.4: Graduates of Munich's Universities in the term 2004/05

Field of study	Germans		Foreign persons		Together	
	total	female	total	female	absolute	percent
Linguistics and cultural science	1030	711	175	215	1245	14,6
Law, economics, social science	1 424	546	110	173	1597	18,7
Mathematics and natural science	1 276	529	43	148	1424	16,7
Medical science	1 039	636	49	71	1110	13,0
Agricultural science, science of forestry and nutritional science	421	224	33	61	482	5,6
Engineering	1059	186	59	282	1341	15,7
Journalism, arts and music (without teaching professions)	408	298	58	101	509	6,0
Teaching professions	803	503	3	4	807	9,4
Sports	27	0	0	0	27	0,3
Together	7487	3633	1055	530	8542	100,0

Source: Bavarian State Office for Statistics and Data Processing, 2006

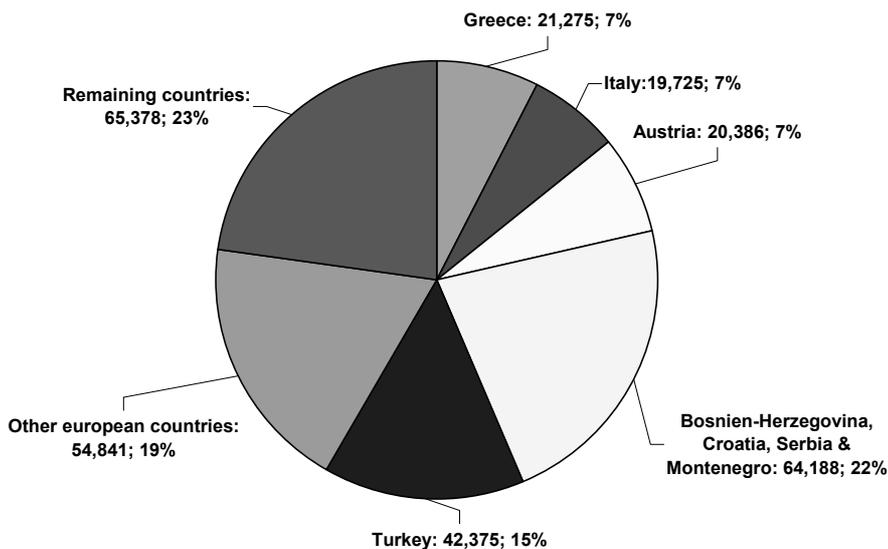
The numbers of the graduates from the numerous academies and schools of drama, multimedia, journalism as well as radio and film are not included in the above data.

4. FOREIGN EMPLOYEES AND ENTREPRENEURS IN THE MUNICH REGION

In the course of the last four decades the share of foreigners has trebled in Munich. 300,129 foreign people live in the city of Munich in 2005 which accounts for about 24 percent of the population. Especially people from the former Yugoslavia, Turkey, Austria, Italy and Greece are living in the city of Munich (see figure 4.1) and more than one third of the foreigners living in Munich come from an EU-country. The whole European population among the foreigners amounts to about 80 percent of the whole population.

The proportion of foreigners in the region of Munich has fluctuated in the last five years between 16.4 percent and 17.4 percent.

Figure 4.1: Ethnic structure of foreigners in Munich in 2005



Source: Bayerisches Landesamt für Statistik und Datenverarbeitung, 2006b

4.1. Labour market participation

119,000 foreigners were employed subject to social insurance contribution in the city of Munich in the year 2005. In the last available study on the labour market participation of foreigners in Munich, it was estimated that another 12,000 are self-employed or entrepreneurs and that about 500 are employed as civil servants (LH München, 2002) so that the total number of the foreign workforce amounts to about 131,500.

In the year 2000 more than half of the foreign working population has been employed in services, especially in less skilled fields like in the hotel and restaurant industry, in cleaning as well as in health services. However, although the majority of foreigners are working in less qualified jobs, they are also increasingly represented in sectors in which higher qualifications are demanded. For example especially in the finance sector the number of foreign professionals has increased: 5 to 6 percent of all employees in banks and insurances subject to social insurance contribution in banks and insurances were foreigners in 2000. In the same year, 9 percent were working in the sector of research, education, arts and journalism.

4.2. Qualification level and foreign graduates

In comparison to the German population the foreign population in the city of Munich is still less qualified: 67 percent of all foreign employees subject to social insurance contribution have completed secondary school, but only less than half of them (34 percent) have received vocational training. In the German workforce more than almost 70 percent have completed secondary school and almost 60 percent have received vocational training. The same applies for tertiary education: 7 percent of the foreign workforce has a university or polytechnic degree in comparison to 20 percent of the German workforce in 2000 (LH München, 2000).

Compared with the German average more foreigners have graduated from Munich's universities in 2005: 14 percent of all university graduates in Munich were foreigners whereas the German average was only 9 percent. The foreign graduates from polytechnics in Munich were only 9 percent of all graduates in 2005.

5. MANAGERS

Unfortunately, there is almost no information available on the number, the geographical distribution and the demographic structure of managers in the region of Munich.

According to the Federal statistical office there were 4,9 million executive positions in Germany in 2004. Only a third of them were filled by women. Of the 819,000 positions with comprehensive executive tasks only 21 percent were filled by women (Statistisches Bundesamt, 2006). It can be assumed that this gender bias is reproduced on the regional scale, although the ratio depends also on the sector.

6. DESIGN AND CONDUCT OF THE SURVEY

6.1. Selected Target Groups

The following part of this report is concerned with the question how the survey of 200 questionnaires in work package 5 can be organized and how the target groups which have been defined by the ACRE project team can be selected and approached.

The 250 questionnaires are aimed at the following partly overlapping population categories:

- university / polytech graduates; 50 respondents;
- art / media school graduates: 50 respondents;
- employees in 'creative industries': 50 respondents;
- employees in knowledge-intensive companies: 50 respondents;
- international migrants: 50 respondents; (work package 7)

The interview candidates for the coming surveys and interviews are supposed to be employed in the following sectors or educated to work in these sectors in case of the graduates.

Creative Industries:

- Advertising (722)
- Video, film, music and photography (921) and radio and TV (922): audiovisual media
- Computer games, software, electronic publishing (722)

Knowledge intensive industries

- Finances (65)
- Law and other business services (741)
- R&D and higher education (73;803)

6.2. Employees in the creative industries

The size of the sample for the employees in the creative industries is also determined by the number of respondents. As at least 50 analysable questionnaires are demanded, it is planned to send out at least 200 questionnaires to employees in the creative industries.

Our first step will be to contact the firms by mail or telephone and ask them if they are willing to distribute the survey among their employees. Therefore, we have in a first step to select firms we want to contact. It is expected that several personalized attempts to contact and encourage potential respondents to participate have to be made.

In order to secure a random selection of firms, the register of companies of the Chamber of Industry and Commerce of Munich and Upper Bavaria will be used. At the same time it has to be ensured that firms of different sizes as well as locations (inner city, outskirts, suburbia) are represented in the sample.

Characteristics of the sector of advertising in the region of Munich

Number of employees 2005: 7,243

Share of freelancers: very high

Firm size: mostly small firms

Particularities: sector does not belong to the “successful” sectors in terms of employment growth; Munich is not considered to be a centre for the advertising industry in Germany;

In order to focus on the creative parts of the sector of advertising only, the following NACE-codes have been selected: 744010 consultations, 744012 advertising art, 744013 screen advertising, 744014 Multimedia (CD, Video, Film, Disc), 744015 Design of web pages.

Table 6.1 Location pattern and number of companies (only firms in the commercial register)

Location of firms	City of Munich	County of Munich (Landkreis München)	Region of Munich (Plannungsregion 14)	Remaining counties (übrige Landkreise)
Number of firms	318	91	523	114

Characteristics of the sector of the audiovisual media in the region of Munich

Number of employees 2005: 27,709

Share of freelancers: high

Firm size: the radio and TV sector is characterised by big firms, the video and film sector by small firms.

Particularities: Munich is considered to be a centre for the audiovisual media industry in Germany; many firms can be found in the inner city and in the media clusters which have developed in the county of Munich.

Table 6.2: Location pattern and number of companies (only firms in the commercial register)

Location of firms	City of Munich	County of Munich (Landkreis München)	Region of Munich (Plannungsregion 14)	Remaining counties (übrige Landkreise)
Number of firms	720	335	1164	109

The audiovisual media is very much concentrated in the city and county of Munich. 56 percent of all firms with TV and radio activities are located in the city of Munich (almost 90 percent in the city and the county of Munich). Over 90 percent of the firms with video and film activities are located in Munich und the county of Munich.

Characteristics of the sector of software in the region of Munich

Number of employees 2005: 26,360

Share of freelancers: low in comparison to other sectors in the creative industries

Firm size: mixture of small and big firms

Particularities: the Munich region is considered to be a centre for this sector in Germany; the proportion of international talents in this sector in Munich is regarded as low in comparison to other important IT and software locations in Europe;

Table 6.3: Location pattern and number of companies (only firms in the commercial register)

Location of firms	City of Munich	County of Munich (Landkreis München)	Region of Munich (Plannungsregion 14)	Remaining counties (übrige Landkreise)
Number of firms	1601	697	3040	742

More than half of the firms are concentrated in the city of Munich, more than 75 percent are located in the city and county of Munich.

Conclusion:

The selection of firms is supposed to reflect the strong concentration of the firms of the creative sector in the city and county of Munich. Furthermore, global players especially in the media and in software industry should be represented as well as small and medium firms. This applies also for the selection of managers for the in depth interviews.

6.3. Employees in the knowledge industries

As in the creative industries at least 50 analysable questionnaires are demanded from employees in the knowledge industries. Therefore, it is also planned to send out at least 200 questionnaires to employees in the knowledge industries. The approach will be the same as in the survey of the employees in the creative industries.

Characteristics of the sector of finance in the region of Munich

Number of employees 2005: 76,064

Share of freelancers: low

Firm size: predominantly big firms (banks and insurance companies)

Particularities: Munich is Germany's second most important centre in the banking sector after Frankfurt.

Table: 6.4 Location pattern and number of companies (only firms in the commercial register)

Location of firms	City of Munich	County of Munich (Landkreis München)	Region of Munich (Plannungsregion 14)	Remaining counties (übrige Landkreise)
Number of firms	171	77	315	67

Banks (651) are very much concentrated in the city of Munich, but also the whole sector is very concentrated in the city and county of Munich (almost 80 percent of the firms are located there).

Characteristics of the sector of law in the region of Munich

Number of employees 2005: 72,551

Share of freelancers: not known; a large part of the sector is made up by professionals

Firm size: predominantly small firms

Particularities: the sector is very heterogeneous; it is suggested to concentrate on the following activities: law, legal accounting, book keeping, consultancy, market research; 78 percent of the firms in this sector are situated in the city and county of Munich.

Tab. 6.5: Location pattern and number of companies (only firms in the commercial register of the following NACE-codes: 7411, 7412; 7413, 7414):

Location of firms	City of Munich	County of Munich (Landkreis München)	Region of Munich (Plannungsregion 14)	Remaining counties (übrige Landkreise)
Number of firms	3176	844	5153	1133

As this sector contains a lot of profession which are not listed in the register of companies at the Chamber of Industry and Commerce of Munich and Upper Bavaria, the chambers of the professions have to be contacted separately. This is the case for lawyers, notaries and patent agents. The interview candidates in these sectors can be selected by the respective chambers.

Addresses of the chambers:

Patentanwaltskammer (patent agents: 530 records for the city of Munich)

Tal 29

80331 München

Tel. 089 / 242278-0

Fax 089 / 242278-24

E-Mail dpak@patentanwalt.de

Rechtsanwaltskammer für den Oberlandesgerichtsbezirk München (lawyers: 10,076 records for the city of Munich)

Tal 33

80331 München

Telefon: 089/53 29 44-0

Telefax: 089/53 29 44-28

E-Mail: info@rak-muenchen.de

Landesnotarkammer Bayern (Notaries)

80333 München

Ottostraße 10/III, Telefon 089 551660, Telefax 089 55166234

http://www.notare.bayern.de/content/reg_bayern/home_by.htm

Characteristics of the sector of R&D and higher education in the region of Munich

Number of employees 2005: (civil servants are not included in this numbers)

Share of freelancers: not known;

Firm size: mixture of small firms and big institutions

Particularities: Sector is made up by state universities, privately owned companies and state research institutions like the 25 institutes of the Max-Planck-Gesellschaft (3,750 employees), the Leibniz-Gesellschaft and the Helmholtz-Gesellschaft in the region of Munich. Furthermore, there are many schools and academies which educate students in the field of the audiovisual media (see annex 4 for a compilation of schools and media academies). The universities and polytechnics are situated in the city and county of Munich.

Tab. 6.6: Location pattern and number of companies

Location of firms	City of Munich	County of Munich (Landkreis München)	Region of Munich (Planungsregion 14)	Remaining counties (übrige Landkreise)
Number of firms	187	88	376	101

Conclusion:

The location pattern of the firms should be represented in the sample. It is suggested to concentrate on the city and county of Munich. Furthermore, only research institutions should be selected which are involved in work linked to the selected creative knowledge sectors.

6.4. Graduates (knowledge economy)

The size of the sample for the graduates is also determined by the number of respondents. As at least 50 analysable questionnaires are demanded, it is planned to send out at least 200 questionnaires to graduates who are currently working in the selected sectors of the knowledge industries or who have been trained to work in the respective fields.

There are two possible ways to contact the interview candidates:

1. To get the addresses of the Alumni-associations of the different universities and polytechnics (<http://www.uni-muenchen.de/kooperationen/alumni/index.html>).
2. To contact employees who take part in trainee programmes of big firms: this seems to be a promising way to contact graduates in the fields of consultancy and finance.

6.5. Graduates (creative industries)

Again, at least 200 questionnaires should be sent out to graduates in the creative industries. Besides the universities and polytechnics there exist numerous schools and academies which educate students in the field of the audiovisual media. It is planned to contact the alumni-associations of these schools and academies too (see appendix 4 for the respective schools and academies). Many of them offer also training-on-the-job courses.

6.6. Managers

The in depth interviews with managers offer the opportunity to learn more about the branch they are working in and to search for links between knowledge institution and the selected creative knowledge sectors. Therefore it might be useful to look for associations or organisations which aim to link research institutions and companies. It might be useful to contact managers who are organised in such organisations.

Organisations in the field of the knowledge industries:

Finanzplatz München (<http://www.fpmi.de/de/index.html>)

The Munich Financial Centre Initiative brings together the most eminent companies, associations and institutions, as well as scientific and government entities. The goal: to expand and enhance the strong position of Bavaria – and particularly Munich – in the international competition among financial centres.

Software Campus Bayern (<http://www.software-offensive-bayern.de/C/000204.xml>)

Set up in 1998 in a common effort of industry, science and politics, Bavaria's Software Initiative is one module of the Bavarian State Government's "High-Tech Initiative".

Organisation in the field of the creative industries

MedienCampus Bayern e.V. (www.medien-campus-bayern.de)

MedienCampus Bayern e.V. gathers the existing resources in media education and training and gives recommendations, points out deficits and fosters new projects.

The focus of its activities is to co-ordinate and integrate the existing offers in media education and to give advice to its members and co-operates with the competent authorities of the Bavarian Government as well as with institutions, companies and associations in the media industry.

6.7. Skilled migrants

As at least 50 analysable questionnaires are demanded from skilled migrants in the creative knowledge industries, it is also planned to send out at least 200 questionnaires. There are three possible ways of contacting foreign professionals:

1. To contact the International Offices of the universities and polytechnics and ask for addresses. We have already made good experiences with this way of contacting possible interview partners in another study.
2. To contact big firms like Microsoft etc.
3. To contact associations of the different foreign groups in Munich.

Annex 1: Classification of economic activities (NACE and SIC)

Table Annex 1: Creative knowledge sectors – NACE classification

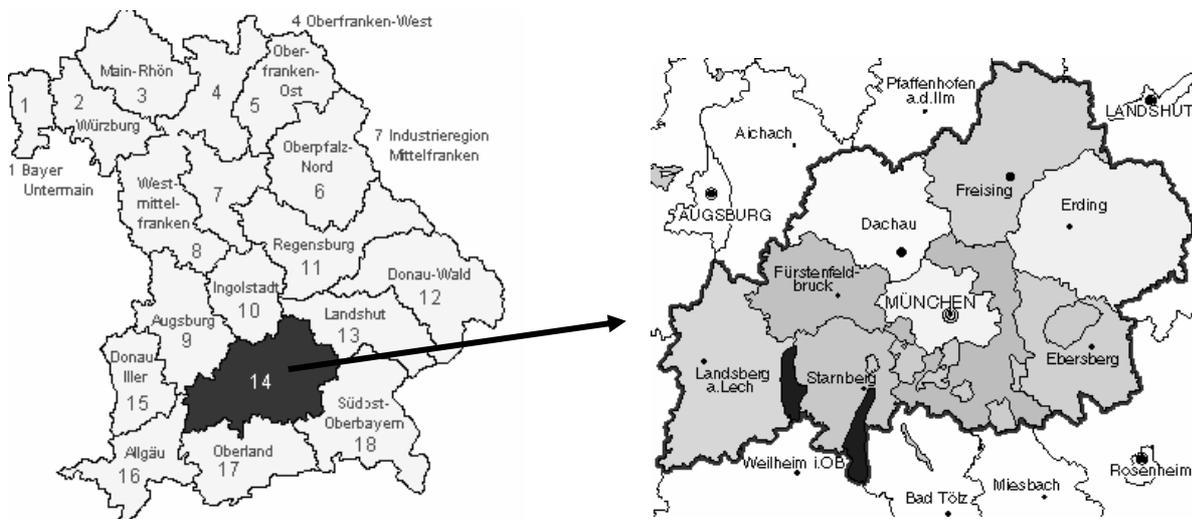
Sector	NACE codes
1. Creative industries	
Advertising	744 Advertising
Architecture	742 Architectural and engineering activities and related technical consultancy
Arts/antiques trade	<u>Portions of the following sectors:</u> 524 Other retail sale of new goods in specialized stores 525 Retail sales of second-hand goods in store
Crafts	No codes
Design	No codes
Designer fashion	<u>Portion of the following sectors:</u> 17 Manufacture of textiles 171 Preparation and spinning of textile fibres 172 Textile weaving 173 Finishing of textiles 174 Manufacture of made-up textile articles, except apparel 175 Manufacture of other textiles 176 Manufacture of knitted and crocheted fabrics 177 Manufacture of knitted and crocheted articles 18 Manufacture of wearing apparel; dressing and dyeing of fur 181 Manufacture of leather clothes 182 Manufacture of other wearing apparel and accessories 183 Dressing and dyeing of fur; manufacture of articles of fur 19 Tanning and dressing of leather; manufacture of luggage, handbags, saddlery, harness and footwear 191 Tanning and dressing of leather 192 Manufacture of luggage, handbags and the like, saddlery and harness 193 Manufacture of footwear
Video, film, music and photography	223 Reproduction of recorded media 921 Motion pictures and video activities 748 Miscellaneous business activities (*part of it)
Music and the visual and performing arts	<u>Portions of the following sectors:</u> 923 Other entertainment activities 927 Other recreational activities
Publishing	221 Publishing 924 News agency activities
Computer games, software, electronic publishing	722 Software consultancy and supply
Radio and TV	922 Radio and television activities
2. Information Communication Technology (adapted from OECD definition)	<u>ICT manufacturing:</u> 300 Manufacture of office machinery and computers 313 Manufacture of insulated wire and cable 321 Manufacture of electronic valves and tubes and other electronic components 322 Manufacture of television and radio transmitters and apparatus for line telephony and line telegraphy

	<p>323 Manufacture of television and radio receivers, sound or video recording or reproducing apparatus and associated goods 332 Manufacture of instruments and appliances for measuring, checking, testing, navigating and other purposes except industrial process control equipment 333 Manufacture of industrial process equipment</p> <p><u>ICT services</u> 642 Telecommunications 72 Computer related activities (minus 722 Software) 72.1: hardware consultancy; 72.3: data processing; 72.4: database activities; 72.5: maintenance and repair of office, accounting and computing machinery; 72.6: other computer related activities;</p>
3. Finances	<p><u>J. Financial intermediation</u> 65 Financial intermediation, except insurance and pension funding 66 Insurance and pension funding except compulsory social security 67 Activities auxiliary to financial intermediation</p>
4. Law and other business services	<p>741 Legal, accounting, book-keeping and auditing activities; tax consultancy, market research and public opinion polling, business and management consultancy. 743 Technical testing and analysis 745 Labour recruitment and provision of personnel 746 Investigation and security activities</p>
5. R&D and higher education	<p><u>73 Research and development</u> 731 Research and experimental development on natural sciences and engineering 732 Research and experimental development on social sciences and humanities 803 Higher education</p>

Annex 2: The region of Munich (Planning Region 14)

Figure Annex 2: The region of Munich (Planning Region 14)
Bavaria's 18 Planning Regions

The Regional Planning Association of the Munich Region (Planning Region 14)



Source: *Regionaler Planungsverband München, 2006*

Annex 3: Employees in the sub-sectors of the creative knowledge industries in 2004

Table Annex 3: Employees in the sub-sectors of the creative knowledge industries subject to social insurance contributions in absolute figures and in relation to all employees in the sector, in 2004

	NACE codes	2004 (abs.)	2004 in percent
Creative knowledge sector (altogether)		358446	100
Advertising (2.2 %)	74.4 Advertising	7,243	2.2
Architecture (5.31 %)	742 Architectural and engineering activities and related technical consultancy	19,028	5.31
Arts/antiques trade (8.87 %)	52.4 Other retail sale of new goods in specialized stores	31,365	8.75
	52.5 Retail sales of second-hand goods in store	431	0.12
Designer fashion (0.93 %)		685	0.19
	171 Preparation and spinning of textile fibre		
	172 Textile weaving		
	173 Finishing of textiles		
	174 Manufacture of made-up textile articles. except apparel		
	175 Manufacture of other textiles		
	176 Manufacture of knitted and crocheted fabrics		
	177 Manufacture of knitted and crocheted articles		
	181 Manufacture of leather clothes	2,318	0.65
	182 Manufacture of other wearing apparel and accessories		
	183 Dressing and dyeing of fur; manufacture of articles of fur		
	191 Tanning and dressing of leather	330	0.09
	192 Manufacture of luggage. handbags and the like. saddlery and harness		
193 Manufacture of footwear			

Video, film, music and photography (5.33 %)	223 Reproduction of recorded media	248	0.07
	921 Motion pictures and video activities	6,427	1.79
	748 Miscellaneous business activities (*part of it)	12,414	3.46
Music and the visual and performing arts (1.44 %)	923 Other entertainment activities	4,047	1.13
	927 Other recreational activities	1,123	0.31
Publishing (4.20 %)	221 Publishing	14,569	4.06
	924 News agency activities	479	0.13
Computer games, software, electronic publishing (7.30 %)	722 Software consultancy and supply	26,159	7.30
Radio and TV (2.42 %)	922 Radio and television activities	8,681	2.42
2. Information Communication Technology (13.22 %)	300 Manufacture of office machinery and computers	2,428	0.68
	313 Manufacture of insulated wire and cable	1,122	0.31
	321 Manufacture of electronic valves and tubes and other electronic components	9,268	2.59
	322 Manufacture of television and radio transmitters and apparatus for line telephony and line telegraphy	3,697	1.03
	323 Manufacture of television and radio receivers, sound or video recording or reproducing apparatus and associated goods	402	0.11
	332 Manufacture of instruments and appliances for measuring, checking, testing, navigating and other purposes except industrial process control equipment	13,001	3.63
	333 Manufacture of industrial process equipment	24	0.01
	642 Telecommunications	3,091	0.86
	72.1: hardware consultancy;	461	0.13
	72.3: data processing;	9,171	2.56
	72.4: database activities;	231	0.06
	72.5: maintenance and repair of office, accounting and computing machinery;	2,953	0.82
	72.6: other computer related activities;	1,526	0.43

3. Finances (21.22 %)	65 Financial intermediation. except insurance and pension funding	40,693	11.35
	66 Insurance and pension funding except compulsory social security	29,648	8.27
	67 Activities auxiliary to financial intermediation	5,723	1.60
4. Law and other business services (20.24 %)	741 Legal. accounting. book-keeping and auditing activities; tax consultancy. market research and public opinion polling. business and management consultancy.	46,998	13.11
	743 Technical testing and analysis	3,691	1.03
	745 Labour recruitment and provision of personnel	13,975	3.90
	746 Investigation and security activities	7,887	2.20
5. R&D and higher education (7.45 %)	731 Research and experimental development on natural sciences and engineering	11,267	3.14
	732 Research and experimental development on social sciences and humanities	1,862	0.52
	803 Higher education	13,579	3.79

Source: BAA 2006, own calculations

Annex 4: Art and Media Schools and Academies

MedienCampus Bayern e.V.
Wagmüllerstr. 16
80538 München
Tel. +49 (0) 89.21 66 91-0
Fax +49 (0) 89.21 66 91-70
Internet: www.medien-campus-bayern.de
E-mail: buer@medien-campus-bayern.de

Akademie der Bayerischen Presse e.V.
Rosenheimer Str. 145 c
81671 München

BAF - Bayerische Akademie für Fernsehen e. V.
Betastrasse 5
85774 Unterföhring
Tel.: +49-89-42 74 32 -0
Fax: +49-89-42 74 32 -23

Bayerische Akademie für Werbung und Marketing (BAW)
Institut München
Orleansstr. 34
81667 München
Tel.: 089/480909-10
Fax: 089/480909-19
E-Mail: info@baw-online.de
Internet: www.baw-online.de

Deutsche Journalistenschule
Altenheimer Eck 3
80331 München
Tel.: 089/235574-0
Fax: 089/268733
E-Mail: post@djs-online.de
Internet: www.djs-online.de

Akademie des Deutschen Buchhandels (Academy of the German Book Trade)
+49.089.29 19 530
+49.089.29 19 53 69
Internet: www.buchakademie.de
E-mail: info@buchakademie.de
Salvatorplatz 1
80333 München

Bayerische Theaterakademie im Prinzregententheater (Bavarian Theatre Academy in
Prinzregententheater (Theatre in Munich))
+49.89.21 85 -28 21
Fax: +49.89.21 85 -28 13
Internet: www.staatstheater.bayern.de/akademie
E-mail: info@prinzregententheater.de
Prinzregentenplatz 12
81675 München

Bayerische Theaterakademie August Everding
Telefon: +49.89/21 85 - 02
Fax: +49.89/21 85 -28 13
Internet: www.theaterakademie.de
E-Mail: info@prinzregententheater.de
Prinzregentenplatz 12
81675 München

Blocherer Schule für Grafik-Design + Innenarchitektur (Blocherer School for Graphic Design +
Interior Design)
Phone: +49.89.48 84 24
Fax: +49.89.48 54 52
Internet: www.blochererschule.de
E-mail: info@blochererschule.de
Tassiloplatz 7

81541 München

Burda Journalistenschule (Burda School for Journalists)

Phone: +49.89.92 50 33 77

Fax: +49.89.92 50 39 90

Internet: www.burda.de

E-mail: kuglerhe@burda.com

Arabellastraße 23

81925 München

MacroMedia GmbH - Akademie für Neue Medien (MacroMedia GmbH - Academy for New Media)

Phone: +49.89.54 41 51 -0

Fax: +49.89.54 41 51 - 15

Internet: www.macromedia.de

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mediadesign akademie (mediadesign academy)

Phone: +49.89.450 60 50

Fax: +49.89.450 60 540

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8. REFERENCES

- Bayerisches Landesamt für Statistik und Datenverarbeitung (Eds.) (2006): *Prüfungen an Hochschulen in Bayern im Prüfungsjahr 2004/05. Zahl der bestandenen Prüfungen*. München.
- Biehler, H., Genosko, J., Sargl, M. & Sträter, D. (2003). *Standort München – Medienwirtschaft und Fahrzeugbau*. Schüren: Marburg.
- LH München (2002). *Der Beitrag der ausländischen Bevölkerung zur Wirtschaft Münchens und der Region*. München.
- LH München & IHK (2004). *Studie Informations- und Kommunikationsstandort München*. 2nd edition. Ortmann-Team: München.
- INSM (2006). *Großstadtvergleich - Deutsche Großstädte im Vergleich*. Studie der IW Consult GmbH im Auftrag der Initiative Neue Soziale Marktwirtschaft (INSM) und der Wirtschaftswoche. Köln: DIW.
- Schier, M. (2003). *Münchener Mode geht in die Welt*. In: Heinritz, G., Wiegandt, C.-C. & Wiktorin, D. (eds.). *Der München Atlas*, pp. 168-169. Italien: Emons.
- Statistische Ämter des Bundes und der Länder (Eds.) (2006): *Internationale Bildungsindikatoren im Ländervergleich*. Wiesbaden.