Innovation Champions Network: The Munich Cluster Description

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Chapter 1

Munich

1.1 Introduction

Munich (in german München) is the capital and the largest city of the state of Bavaria and the third largest city in Germany next to Berlin and Hamburg and is by far the largest city in southern Germany. It lies some 48 km. north of the edge of the Alps and another spectacle is the river Isar, which flows through the middle of the city.

Today, Munich boasts an excellent communications infrastructure and an array of outstanding business enterprises, active in all sectors of the ICT industry. Development here continues to thrive and is very well above average. According to a recent international ranking carried out by an independent survey institute, the Munich area holds pole position in the number of business sites, business growth and workforce productivity in the overall multimedia sector in German-speaking countries.

According to a study done by the Boston Consulting Group, the Munich region is one of the world’s five most interesting high-tech locations, alongside Silicon Valley, Boston, Tel Aviv and Austin/Texas, and it is the one and only region in Europe named in this top league.

Another study by McKinsey, revealed that, in 1997 Munich was already ranked number 14 in the world league of ICT locations, based on the size of workforce. Since that time, this head count has more than doubled.

Munich is one of Germany’s most affluent cities because it is seat of the German high-tech industry and home to multinational superstars such as Siemens, BMW and MAN. Munich, known all over the world for its beer festivals, is an epicenter of business, as well as revelry.

1.2 Demographics

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1.2.1 Munich Airport

Munich is served by the Franz Josef Strauß international airport, one of the major’s and newest airports of Germany.

Munich Airport is a major air transport hub. The 23.1 million passengers handled in 2002 lifted Munich to the number 8 position in the European top ten rankings. The new Terminal 2 – a joint project of Munich Airport and Deutsche Lufthansa AG – is giving a boost to this upward trend. It is used exclusively by Lufthansa and the partner airlines in the Star-Alliance, and nearly doubled Munich Airport’s passenger handling capacity.

Munich Airport’s PR concept is a perfect fit for the high-tech sector. It has a quota of 45% business passengers – very high by international standards.

Airport Bus

The Airport Bus to the city centre departs every 20 minutes for the main train station. The travel time is approx. 45 minutes.

S-Bahn

Additionally, two S-Bahn lines depart every 10 minutes to take you from the airport to the city centre.

The S1 takes the western route via Laim and the Main Train Station to the Eastern Station and is well suited for passengers whose destination is in the western part of Munich. The travel time to the Main Train Station is approx. 40 minutes.

The S8 takes the eastern route via the Eastern Station and the Main Station to Laim and Pasing, and is therefore best suited for those who wish to reach the eastern part of Munich.

1.2.2 Arriving by Car

Those who still prefer going by car, can easily reach Munich by motorway from all directions.

The A9 coming from the north leads directly into the city centre. If you’re coming from the East, the A92 leads you into Munich. The southeast is connected to the capital by the A8 from Salzburg, the southwest via the A96. Coming from the west, you can either take A8 from Stuttgart or the A95 from Lindau.

Apart from the A95 and the A96 all these motorways are connected by the motorway bypass A99, an almost complete circle around the city.
1.3 Spectrum of the cluster and related industries/Pillar companies

Today, Munich is one of the most important information and communication sites in Europe:

- Germany’s share of the world market in the information and communication sector is 6%, thus being the number 1 in Europe.

- With more than 350,000 employees in almost 20,000 media and IT companies Munich is by and large the most important information and communication site in Germany.
  
  (Sources: GoToBavaria and The Chamber of Commerce and Industry for Munich and Upper Bavaria, April 2000)

Bavaria hosts:

- 29% of all employees of the German computer manufacturing industry,

- 36% of all employees of the German manufacturers of electronic components,

- 28% of all employees of the German television and communication technology.

- About 31% of all software companies established in Germany are located in Bavaria. Due to the high growth rate many global players decide to open their German or European Headquarters in Bavaria, most of them in Munich. Examples of this are 3Com, Adobe, Apple, BT, Cisco Systems, General Electric, HP/Compaq, IBM, Infineon, Intel, Microsoft, Motorola, Netscape, NTT DoCoMo, Oracle, Siemens, Sun Microsystems, Symantec, Yahoo!, etc.

- 40% of all software houses in Germany as well as more than 20% of all Internet Service Providers are settled in Bavaria.

  (Source: Invest-in-Bavaria)

ICT-Business

**Top Position:**

Munich, the capital of Bavaria, has been the most important region for information and communication technologies for years in Germany (Survey by McKinsey, 1997). ICT enterprises of worldwide reputation have located either their German or their European headquarters in Munich.

  (Source: GoToBavaria)
• **Center of Competence for Hardware R&D:**
  With global players like Siemens, Motorola, General Electric, Infineon, Fujitsu, Bosch, Intel, WaferNet, National Semiconductors, Texas Instruments, ST Microelectronics, etc. having their headquarters in Munich they have turned Munich into a center of competence in hardware research and development. Many SMEs, specialized in hardware are also located in the surroundings of Munich.

• **Center of Competence for In-Car-IT:** The Munich area is home for the German auto industry. World-known companies like BMW and Audi have their headquarters in Munich and surroundings. Also truck companies like Meiller-Kipper and MAN are settled in Munich. These facts have triggered the creation of many SMEs specialized in car multimedia, car IT, auto navigators, etc. Moreover, the BMW company has created a spin-off called “BMW Car IT GmbH” devoted to research & development of software and hardware targeting in-car IT technology.

• **Center of Competence for UMTS(3G)/wireless services:**
  In joint efforts between science and the wireless industry, the so called center of competence for 3G in Munich develops new technologies, supported by the Bavarian State Government.

  Established companies like Siemens ICM, T-Mobile, O₂ and Vodafone have decided to build a competence center “UMTS/Mobile services Bayern”. Participants from research & development as well as the industry can exchange themselves here, co-ordinate their offer and inspire themselves mutually. The UMTS Competence Center sees further tasks in creating public attention for the topic of mobile services and to make the various application possibilities for UMTS users clear.

  Four wireless carriers run R&D centers in Bavaria (O₂, T-Mobile, Vodafone, and NTT DoCoMo) and starting projects with universities in order to create killer applications to turn UMTS into a Bavarian success story. Applications such as mobile maintenance, location dependent and context sensitive services or streaming media shall be realized on mobile phones and personal digital assistants. The Bavarian 3G experts integrate other physical layers like Blue Tooth, Wireless LAN or DVB-T.

  People at the Technical University of Munich are active in the research for operating systems for mobile terminals and their cross-linking. They have also responsibility for the technical coordination of UMTS/Mobile projects. They support the selection of the projects and accompanies these afterwards by the individual phases up to the conclusion. Beyond that it helps the participants with the structure from contacts to the industry and the
media as well as with the participation in fairs and congresses. In addition it holds lectures on the conditions of the research group and its projects.

• **Center of Competence for Software R&D:**

From software for entertainment to embedded system, from mobile applications to operating systems, Munich is an international center for software research and development. Well-known companies like Amadeus, Softlab, Suse, WebToGo, OpenShop, etc. are settled in Munich for research and development in new technologies.

Located in Munich, Giesecke & Devrient is one of the largest printers of paper currency in the world. G&D has kept pace in paper currency, buying its own paper mill, in Bavaria, and developing paper with numerous security characteristics for European banknotes and for many other countries. But G&D’s real leap into the 21st century came through its pioneering role in smart cards, with microchips that store telephone units, money, or even identity characteristics. G&D pioneered the cards in the 1980s and now delivers turnkey programs and plants to countries around the world for ID cards, health insurance, credit and debit and many other uses.

Kordoba Bankensoftware is ranked as a leading software company within the banking industry. Located in Munich, since more than 20 years it has offered with Kordoba a complete banking system which serves the purposes of the most different strategic orientations in the financial industry.

• **Center of Competence for Geo-information:**

MercatorPark is the first information, communication and production hub to combine the areas of mobile communication (GSM, UMTS), navigation (GPS, Galileo), geo-information, telematics and aerospace application technologies.

The chosen location for this exciting project is Munich and the campus itself: MercatorPark, in Oberpfaffenhofen, situated close to the German Aerospace Center (DLR). Essential developments are taking place there regarding the European Satellite Navigation System Galileo, which alone has a 3.5 Billion Euro investment in satellite system infrastructures.

With MercatorPark’s direct access to the Galileo project and the German market - the biggest in Europe - coupled with the combination of information resources, events, industry collaboration and job procurement - both technical and scientific makes MercatorPark the perfect basis for business development in Europe.

• **Center of Competence for Supercomputing:**

1.3. *Spectrum*  
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LRZ Munich is the center for supercomputing in the state of Bavaria. The first system, installed in 1988, was a vector machine, a Cray X-MP and renewed by Cray Y-MPs later. Bavaria has developed an HPC (High Performance Computing) concept so that that all the technical oriented universities like Bayreuth, Erlangen-Nuremberg, Regensburg and Würzburg have a smaller machine that is compatible to the central computer, a Cray EL. These decentralized systems raised the knowhow of HPC usage in the state of Bavaria. For two years about 70% of the LRZ HPC-capacity is used by regional users and only 30% by the Munich universities. Because of the big success and usage of the VPP700-34 in Munich, LRZ decided to add the other 18 processors already in the beginning of this year. Now they run production and the functionality test.

- **Center of Competence for Software Quality:**

  Based in Erlangen, ASQF is Germany’s largest independent, non-profit Software Quality organization. The association emerged from a project supported by the European Union (more precisely, the EU initiative European Software Process Improvement Training Initiative).

  ASQF is the founder of the ISTQB, the International Software Testing Qualifications Board. The Board was founded in November 2002 and still is the only international scheme to further education in this field. Software testing professionals from all over Europe and beyond have come together in order to develop and define standardized contents for further education. They compile an international core curriculum and decide on accreditation standards valid for all national boards.

  ASQF hosts the International Assessor Training Scheme Board. The Scheme certifies competent assessors trained and qualified in the principles and practices of assessing processes using ISO/IEC 15504, the international standard for Process Assessment.

  The International Assessor Certification Scheme (INTACS) complements ASQF’s portfolio of Certification Schemes that includes the ASQF-Certified-Tester, ASQF-Certified-Project Manager, etc., and recognizes and reinforces ASQF’s status as an international certification body operating schemes for the certification of personnel. All certifications issued by ASQF fulfil the high requirements of the ISO 17024 standard.

  On behalf of the SPICE User Group, ASQF has been appointed as the organizer of the 5th international SPICE Conference for Process Assessment and Improvement. ASQF is also the organizer of the 3rd World Congress for Software Quality which will take place at Munich, 26 - 30 September 2005.
• **Center of Competence for Bioinformatics:**

Bioinformatics is the science of informatics as applied to biological research. Informatics is the management and analysis of data using advanced computing techniques. Bioinformatics is particularly important as an adjunct to genomics research, because of the large amount of complex data this research generates. Bioinformatics is currently defined as the study of information content and information flow in biological systems and processes. It has evolved to serve as the bridge between observations (data) in diverse biologically-related disciplines and the derivations of understanding (information) about how the systems or processes function, and subsequently the application (knowledge). A more pragmatic definition in the case of diseases is the understanding of dysfunction (diagnostics) and the subsequent applications of the knowledge for therapeutics and prognosis. Focused on:

- Development of software and analysis tools for high-throughput macro- and microarray data generated in gene expression hybridization experiments such as oligonucleotide fingerprinting, gene expression profiling and differential expression studies. The focus is on:

- Automated analysis of genomic and EST sequences, high-throughput classification systems based on GeneOntologies, construction of groups of orthologous genes and their use in evolutionary studies, database development

Examples of Companies located in Bayern: GPC Biotech AG, Munich Information Center for Protein Sequences MIPS, Genomatix Software GmbH, Technische Universität München, Ludwig Maximalians Universität München, BIOMAX Informatics AG, etc.

• **Center of Competence for E-Government:**

Administrative tasks with local authorities, tax matters and other subjects of public life are going to be shifted to the electronic world. Not only in the Administration-to-Consumer relationship but also in the Administration-to-Business relationship the daily routine shall be serviced online as well. An E-Government Initiative has been started by the Bavarian Government during the BayernOnline International - Convention in July, 2002.

• **Center of Competence for E-Learning:**

Traditional publishing houses set up multimedia departments in order to shift their refined art of teaching to the fields of new media. E-Learning has become an instrument of education and training over the distance, which serves our society of knowledge and information with the means of ICT. Enterprises like the Allianz Insurance, BMW, Langenscheidt and the broadcast corporation Bayerischer Rundfunk have developed extensive E-Learning
projects. Universities and software developers make combined multimedia productions with graphics, videos and diagrams.

**Center of Competence for E-Business:**

The possibilities to trade online change the economic system worldwide. Every second Euro being invested in Germany for E-Business is spent in Bavaria. The leading role of Bavaria in the B2B (business-to-business) sector allows newcomers to quickly set up rewarding platforms for E-Business.

*(Source: GoToBavaria)*

From the national government supported, the ZEGO (Center for e-commerce in Upper Bavaria) is devoted to help-for-free SMEs in subject like e-Business, e-learning and e-Commerce as well as in new XML-based technologies, Knowledge management systems among others. This was a three-years project. Yet another two centers for E-business have been opened: KEGOM (Center for e-commerce in Upper and Middle Franken) and MECK (Mainfränkisches Electronic Commerce Kompetenzzentrum).

**Center of Competence for aeronautics and aerospace:**

Bavaria is one of the leading aeronautical and aerospace locations in Europe. Bavaria is one of the few locations worldwide offering equal amounts of expertise in all three fields of aviation, aerospace and satellite navigation. This is true both of the industry side and the research side, which plays a particularly important role in these sectors. What is more, Bavaria also has highly specialized and very successful service providers at its disposal in fields ranging from flight testing through test operation to the financial sector, e.g. aircraft financing.

In 2002, roughly 25,000 people were employed in the aeronautical and aerospace industry, which is more than two thirds of the whole German workforce. During the same time span, about €4.3 billion were generated in Bavaria, amounting to more than a quarter of the total turnover of the German aeronautical and aerospace industry.

Since 1990, Bavaria has provided more than €180 million for aeronautical and aerospace research. Most of these funds went towards integrative research projects and intensified cooperation among the aeronautical and aerospace companies in Bavaria.

Well known international companies in the aviation industry such as, EADS, Eurocopter, MTU Aero Engines, as well as medium-sized enterprises like IABG, Liebherr Aerospace and Diehl are based in Bavaria.

Bavaria is the leading-edge location for military aircraft. Final assembly of the Eurofighter is in Manching, and major components
like the central fuselage are manufactured in Augsburg. The military helicopters NH 90 and Tiger are also produced in Bavaria, as is the civil model EC 135. The MIG 29 is maintained and serviced in Manching as part of a German-Russian corporate cooperation project.

Bavaria is also a strong Airbus location. Vital components for the Airbus family and other aircraft are produced in Bavaria, such as landing gear, turbines, supply, disposal and cabin systems. Major components for the European ARIANE launcher come from Bavaria: e.g. the fuel booster or the thrust chambers of all the Ariane 5 - liquid-propellant drives (Aestus and Vulcain). Other strengths lie in the fields of ceramic materials, altitude control and solar panels. EADS-Astrium has recently invested heavily in the construction of an Ariane and a Solar Center.

**Media as business factor:**

The findings of the study “Munich, Media Location” issued by State Capital of Munich/Chamber of commerce (Landeshauptstadt München/IIHK) are that the media sector has undergone market growth in all compared factors. In 2002 it generated sales of € 24.5 billion, 28% more compared to 1999. There were 11,741 permanent new jobs, representing growth of 13% compared to 1999. The ranks of free-lancers have more than doubled since 1999, from 37,106 to 85,383. Accordingly, there are now 14,014 media businesses active in the Munich region.

**Broadcast centers of nationwide radio and television programs:**

The television scene in Munich is currently subject to profound challenges. But the developments in 2003 in the television market shows that first steps to consolidate the sector have been established. The entrance of the Saban Capital Group has ended the questions about the sale of shares held by KirchMedia. More than one third of the German television programs is being played out in Munich. With the public Bavarian Broadcast Corporation (BR) and the private stations ProSieben, Sat.1, Kabel 1, Neun Live, RTL2, Premiere, Home Shopping Europe, TV.München and Universal Studios Networks Deutschland, all based around Munich, the media location is home to many of successful television stations.

**High density of radio stations**

In Bavaria about 63 local private radio stations build the strongest radio network in Germany. With “Antenne Bayern” Munich is home to Germany’s most successful private radio station. All together there are 13 private radio station located in Munich, for example well-known stations like “Radio Arabella”, “Radio Chari-vari”, “Radio Energy” and “Radio Gong”. Moreover, Europe’s largest
radio syndication provider, BLR/Radiodienst is based in Munich and provides radio news live via satellite to about 100 radio stations in German speaking countries. The public radio broadcaster Bayerischer Rundfunk offers five programs for listeners of different interest groups.

- **Internationally relevant location for the print business:**
  Second to New York, Munich has the largest book printing industry worldwide giving home to 234 publishing houses. Every year nearly 15,000 titles are published in Munich. The importance of the print sector is reflected by the numbers of employees: the sectors offers about 41,000 jobs in 3,392 companies in Munich (2002). Nevertheless this sector had to struggle with decreasing revenues during the last years, which was not only difficult for small printing companies but also for the five local newspapers in Munich. Offering public internet-pages is an important strategy to answer these market challenges so that the Süddeutsche Zeitung today is Germany’s biggest online-newspaper. Beyond that, 90 newspaper owners publish 270 newspaper all over Bavaria.

- **Leading location for the movie production:**
  A huge number of television and film production companies are based in Munich, which cover all steps of the production process. With a total yearly revenue of nearly €2,700 billion and nearly 9,000 employees in the sector, Munich tops Köln, Berlin and Hamburg according to a survey by the German Economical Institute (DIW) published in 2002. Furthermore Bavaria Film GmbH located in the south of Munich is one of the biggest and long-existing media companies in Europe. Its film production studios and facilities in Geiselgaststeig founded in 1919 form an center of an international network of company daughters and cooperation partners. Nearly €35 million are being provided every year by the State of Bavaria and by other public and private investors in various film funding projects, which are issued primarily by the organization “FilmFernsehFonds Bayern”.

- **Top in multimedia:**
  Multimedia is the fastest growing sector of the media industry in Munich. More than 5,000 enterprises in Munich provide services for multimedia like content creation or multimedia oriented products. A large part of them are small businesses and startups within the last five years. Following the study “Munich, Media Location” issued by State Capital of Munich/Chamber of commerce (Landeshauptstadt München/IHK) these companies have nearly 50,000 employees and create a revenue of €18.2 Billion. With the
convergence of media, information and communication technologies, multimedia takes the role of an interimiator between all of them.

- **Development of a media cluster:**

In Munich a unique infrastructure exists for the growth of media enterprises. The short-distance from production to post production and then on to the broadcast firms enables quick and cost effective transactions. Supported by the State government, the region around Munich (like Ismaning and Unterföhring) turns out to be a real media cluster, which continuously attracts further media companies to relocate there. The center for start-ups of new media in Unterföhring (GZM), a private public partnership, supports entrepreneurs in the media and communication sector.

### 1.4 Scientific and technical potential

Top brains from all over the world along with the most talented upper crust of the German IT sector live in Munich. Professional perspectives and high quality of life attract experts from all over the world to Munich. In addition, 60,000 students in Bavaria are enrolled in the subjects of mathematics, informatics, natural sciences and engineering.

Munich is an important center of higher education. About 80,000 students are enrolled in the city’s four universities. Famous research societies such as the Max Planck Society and the Fraunhofer Society have their main offices in Munich.

Above all, the highlights include the resolute establishment and development of existing informatics courses at Bavarian universities and training courses in the IT professions, the promotion of IT company start-ups and company allocation, along with the support of IT research projects. A recommendation was also implemented to introduce informatics as a compulsory subject at Bavaria’s secondary and high schools.

At present there are 14 study courses for business informatics, 9 for informatics, 2 each for bio-informatics, mechatronics and multimedia, plus, for example, a Bachelor’s/Master’s degree in computational engineering at Bavaria’s universities and professional schools. Since 1995 the university infrastructure for education and research in informatics has thus been decisively improved. At the same time the number of traineeships for the IT professions in Bavaria increased more than sevenfold between 1997 and 2000 alone, from 767 to 5,795. An IT Academy was founded in Augsburg especially for the purpose of training database administrators, eBusiness developers and other IT specialists.

Besides these, Bavaria counts with:
• 11 universities,
• 19 applied science universities,
• 11 Max-Planck-Institutes as well as
• 7 institutes of the Fraunhofer-Society.

Not to forget the large-scale research institutions German Aeronautics and Aerospace Center (DLR) and the National Research Center for Environment and Health (GSF). Training programs of various well-known media schools in Munich such as the Academy for Television and Film (HFF), both universities, the German Journalistic School (DJS), the Academy of Bavarian Press (ABP) and the Academy of Bavarian PR and Advertisement (BAW) and many more) are being coordinated by MedienCampus Bayern e.V.

1.5 Business Development

The association of Global Partners Bayern e.V. aims to foster economic and business contacts between Bavaria and the international community, and to assist companies in developing and harnessing contacts across the different economic branches. They initiate and accompany promising and future oriented projects of our members. As a communication and information portal the Global Partners provide interactive support in the fields of international business.

The Global Partners Bayern e.V. address companies that are already active or intend to become active in international business. The focus lies on the markets in Asia, Central and Eastern Europe, South America and Africa. The size of the company does not play any role. Members of our association are small- and medium-sized companies as well as affiliated companies and associations.

Advantages as a Global Partner are:

• You participate actively in consortia for international projects.
• You profit from the direct contact to the world bank, by means of our contact persons in Washington.
• You gain from our strong network of contacts in politics, economy and international development banks.
• You receive information, tailor-made for your success.
• You have easy access to detailed tender specifications of www.dgmarket.com, absolutely free of charge.

Contact:

1.5. Business Development

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1.6 Investors

Bavaria’s investments in the science and research sector reach an extremely high level compared with the rest of Germany: In 1996 they amounted to € 2.7 billion, so that Bavaria ranks before Baden-Württemberg (€ 2.4 billion) and behind Nordrhein-Westphalia (€ 3.2 billion), which has a much higher population. And it left the other states even further behind. For the past years Bavaria’s infrastructure expenditures increased to above average. With an increase of the funds available of 34% between 1991 and 1996, Bavaria outperforms all the other states. Today Bavaria has a leading position in Europe in the field of venture capital. Munich is the European center for venture capital. More than 40 national and international venture capital investors are represented either with headquarters or branch offices in Munich.

With an investment ratio of 14.9% of the state budget Bavaria is strongest in Germany in terms of investments. Bavaria invests 2.7% of its gross national product in research and technology, which is above the average of Germany.

Invest-in-Bavaria (http://www.invest-in-bavaria.de/) is a program dedicated to promote general investment in Bavaria. Located in Munich gives information about many places where to find funding for high-tech projects.

- **Invest-in-Bavaria**
  Prinzregentenstr. 28
  80538 Munich - Germany
  Tel: +49 (0) 89 2162 2642
  Fax: +49 (0) 89 2162 2803
  Email: info@invest-in-bavaria.de
  Homepage: http://www.invest-in-bavaria.de/

Other places where to apply for financing are:

- **LfA Förderbank Bayern**
  Königinstr. 17
  80539 Munich - Germany
  Tel: +49 (0) 89 21 24 0
  Fax: +49 (0) 89 21 24 24 40
  Homepage: http://www.lfa.de/
1.7 Support Services

- **Incubators:**
  
  In more than 30 incubators in Munich and surroundings the foundation of new companies is being continuously supported. Within the last five years more than 11,000 start-ups have been
funded by the Bavarian State Government. Explicit governmental programs are running in order to support incubators.

- **The Bavarian Centers for Founders and Technology:**

  They are a political-economic tool for supporting innovative business foundations and self-sufficiency in the respective regions.

  There are three categories of Bavarian Centers for Founders and Technology:

  - Local centers for founders distinguish themselves by a mix in lines of trade reaching from classical service sector businesses to foundations in trade to start-ups in high-tech businesses.
  
  - Technology orientated centers for founders improve starting conditions for young high-tech companies and for the establishment of technologically ambitious new business enterprises in connection with research institutions.
  
  - Subject-specific technology centers support young enterprises within certain technological areas like environment, biotechnology, logistics, energy, medicine, pharmaceutics etc.

- **Patents:**

  In 2000, about 24.9% of all patent applications in Germany were filed in Bavaria - more than in any other state. Bavaria has twice as many patent applications per 100,000 inhabitants (110) compared with the German national average of 65. At about 80% of these applications come from Munich.

  In Munich have headquarters both the German Patent office and the European Patent Office. From more than of the 8000 lawyers of Munich and surroundings more than 500 lawyers are specialized in patent rights.

### 1.8 Governmental Support

Thanks to a deliberately targeted location policy, the Munich metropolitan area has the highest number of IT domiciles in Germany and is steadily augmenting this position, for example, with new IT service providers. Recently it has also been possible to successfully locate IT-focused research centers from private industry.

The Bavarian State Government promotes special target groups in the information and communication sector with a great number of initiatives. Here are some examples:
BayernOnline

Already in 1994 the Bavarian State Government launched the action program “BayernOnline” with a budget of about € 77 million. The objective was to ensure a rapid dissemination of information and communication technology through future-oriented key-projects.

The BayernOnline initiative (www.bayernonline.de) provided the prerequisites for public-oriented ICT applications, for innovative, highly competent business enterprises and for efficient administrative authorities throughout Bavaria. It continues to expand these features to meet the growing demand and to keep the public aware and ready to cope with the rapidly changing requirements of new ICTs.

Software-Offensive-Bayern

Set up in 1998 in a common effort of industry, science and politics, Software-Offensive-Bayern (www.software-offensive-bayern.de) is one module of the Bavarian State Government’s high-tech initiative. By investing proceeds from the privatization of public shareholdings (amounting to approximately € 1 billion) into research and development, training and other areas, the “High-Tech Initiative” aims to make Munich and Bavaria an even more attractive location for the high-tech industry. The Software Initiative will receive a substantial share of these investments.

The Software Campus

The promotion of IT start-ups and company allocations in Bavaria is producing especially pleasing results. The Munich-Moosach Software Campus was established on the basis of recommendations of the previous report on “Software Technology” in 1995 and the measures adopted as part of the Software Offensive Bavaria. It was here that business founders received support and it was here that the technology transfer from the universities to industry actually took place. Since it was founded in March 2000, the Software-Campus has looked after a total of 20 companies with an average 85% utilization of space and more than 150 workplaces. Despite the currently difficult economic environment the companies have been able to more than hold their own in the market. Whereas these founders were mainly spin-offs from industry, the successor campus in Garching near Munich has been continuing the tried and tested concept since the beginning of 2003 - now, however, with the focus on university spin-offs and an emphasis on basic technologies. (For more information visit www.software-campus.de)
1.9 Non Governmental Organisations (NGOs)

Non governmental organisations (NGO) are clubs, associations, alliances and institutions of education. As the civil component within the IT- and communication cluster they act as a counterpart or supplement governmental activities fulfilling higher-level tasks for their corresponding companies, firms and entrepreneurs. The members of such organisations are usually well skilled experts who often perform their NGO-Job voluntary alongside with their main profession. But there are also professional organisations. As a rule these experts have a very profound knowledge about the IT and communication cluster and its specific challenges. In particular they possess a sure sense of what local people want, need and can pay for. Networking and consulting are therefore among the most important jobs done by the non governmental organisations in Munich. As the following list of examples shows, they turn out to be important contacts for the actors within the information- and communication sector.

1.9.1 Munich Network

The Munich Network brings together the regional innovators and is generating substantial connections into the worldwide strongest high-tech areas. With specific programs like “Munich Business Plan Competition” or “Munich Business Angel Network” Munich Network supports foundation, expansion and sustainable success of technology based high growth businesses. The organisation of Munich Network is a privately financed non-profit club with more than 420 members from industry, venture capital firms, banks, consultants and research institutes.

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  Fax: +49 (0) 89 6302 5310
  Email: info@munichnetwork.com
  Homepage: http://www.munichnetwork.com/

1.9.2 Münchner Business Plan Wettbewerb

The MPWB (Munich Business Plan Competition) offers the possibility for startups to have their business plan evaluated confidentially by experienced entrepeneurs, coaches and venture capitalists. Business plans are evaluated in the form of a yearly competition. The MPBW is focused on continuous support and consulting from the first steps of business foundation. Creation of a business plan is central to this. Participating in the business plan competition teaches creation of successful business plans.

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1.9.3 Fiwm

The organisation “Förderkreis IT- und Medien-Wirtschaft München e.V. (FIWM)” forms a regional platform for the communication- and media-sector. Members benefit from information at regular intervals, professional networking, many working meeting and events with interesting speakers. Membership is eligible for bavarian an Munich companies of the internet business. Since its foundation in June 2000 the club has grown to 140 members.

1.9.4 GründerRegion M

GründerRegio M is an initiative of the region of Munich to support university related corporate start ups. Members of GründerRegio M are several knowledge oriented companies, universities and public organisations like the City of Munich. The goal of the organisation is to combine the activities of its members in order to realise synergies. Its success - the creation of a culture of entrepreneurship is based of the integration of singular activities with additional services. A network of competence and support which offers coaching, education and consulting sets the stage for entrepreneurship and company foundations.

1.9.5 Verband der Softwareindustrie Deutschland e.V. (VSI)

The VSI (Association of the German Software Industry) is a lobby of the software industry headquartered in Munich. Founded in 1987 it
represents more than 170 members from software development, distribution, dealership, and services. The services of the VSI cover a wide spectrum of different areas of the IT-industry. They are organized in projects and are continuously expanded. This includes creation of Communication forms and cooperation and networking with national and international bodies. Newsletter about relevant laws and services complete the offerings of the VSI.

- **VSI - Verband d. Softwareindustrie Deutschlands e.V.**
  StievestraSSe 7
  80638 Munich - Germany
  Tel: +49 (0) 89 291 602 93
  Fax: +49 (0) 89 291 602 96
  Homepage: [http://www.vsi.de/](http://www.vsi.de/)

### 1.9.6 Deutscher Multimediaverband (DMMV)

With over 1000 members, the DMMV has become since its foundation in 1985 the largest lobby of the German digital sector (covering internet, multimedia, and software businesses). It provides a know-how pool, lobbying, services and a communication platform. The DMMV participates in the legislative process and provides educational programs, evaluations and quality assurance. The DMMV forms and defends new business areas.

- **Deutscher Multimedia Verband (dmmv) e.V. Büro München**
  Baierbrunner Str. 25
  81379 Munich - Germany
  Tel: +49 (0) 89 29 16 02 93
  Fax: +49 (0) 89 29 16 02 96
  Homepage: [http://www.dmmv.de/](http://www.dmmv.de/)

### 1.10 International Networking

The city of Munich counts with a very rich international networking through governmental and non-governmental agencies. These agencies are listed above. Apart of these organizations the city has a partnership with many other cities of the world, like Bordeaux since 1964, Cincinnati since 1989, Edinburgh since 1954, Harare (formerly Salisbury) since 1996, Kiev since 1989, Sapporo since 1972 and Verona, since 1960.

FAST, on behalf of the Ministry of Economic Affairs, Infrastructure, Transport and Technology, has signed Memorandum of understanding with many cities all around the world. Examples of these are:

- Brazil: Fundação Parque de Alta Tecnologia de Petrópolis (FUN-PAT),

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- Bulgaria: Bulgarian Association of Information Technology (BAIT),
- Bulgaria: Association of Bulgarian software development companies (BASSCOM),
- Bulgaria: Bulgarian Association of Information Technology (BAIT),
- Croatia: Croatian Chamber of Economy (HGK),
- Rumania: National Ass. of Software Industry and Services (ANIS),
- Rumania: Rom. Ass. of Electronic and Software Industry (ARIES),
- Slovakia: Ass. Of Electrical and Electronic Industries (ZEP),
- Czech Rep.: Ass. for Information Society (SPIS),
- Hungary: Hungarian Software Alliance Ltd. (HSA).

1.10.1 Department of Labor and Economic Development of the city of Munich

The department keeps the City Council and the various other administrative departments of the City of Munich informed about the latest EU developments that have a bearing on local government interests. It has been issuing a regular Europe Bulletin since the start of 2002. This publication contains information about current European legal developments and measures, EU subsidy programs and events that relate to Europe.

International project work

The department participates in particular in European subsidy/development programs and plays an active part in the international EUROCITIES network. Its aim is to launch and complete joint projects and encourage cities and their local authorities to share their knowledge and experience.

Networking

The department seeks to build and nurture a network of contacts:

- With institutions in Brussels that deal with draft legislation of relevance to local authorities and, hence, to the City of Munich,
- by taking part in the working groups of national and international city networks, stating the views of the City of Munich and thereby influencing EU decisions that affect local authority affairs.
Marketing and lobbying work

The department conducts this aspect of its work:

- By maintaining a presence in national and international municipal associations in order to successfully represent the interests of the City of Munich,

- by organizing trade events that deal with European issues.

Contact:

- **Department of Labor and Economic Development**
  European Officer for the City of Munich
  Christiane Thömmes
  Herzog-Wilhelm-Str. 15
  80331 Munich - Germany
  Tel: +49 (0)89 233 25009
  Fax: +49 (0)89 233 27651
  Email: christiane.thoemmes@muenchen.de

1.10.2 Invest-in-Bavaria

Invest-in-Bavaria is the division within the department of Foreign Direct Investment and International Trade of the Bavarian Ministry of Economic Affairs, Infrastructure, Transport and Technology. It is specifically dedicated to foreign direct investment policies and business location marketing. Invest-in-Bavaria reports directly to the Bavarian State Minister for Economic Affairs. It is a joint project between the Bavarian Ministry of Economic Affairs, Infrastructure, Transport and Technology and Bayern International.

Invest-in-Bavaria is represented all over the world. It has agencies at your disposal for general information concerning economic data, promotion of business contacts with Bavarian firms as well as the preparation of investment projects in Bavaria.

Invest-in-Bavaria has Liaison offices in the following places: Brazil, Bulgaria, Canada, China, India, Hungary, Japan, Korea, Mexico, Romania, Russia, Singapore, Taiwan, Ukraine, California, New York and Washington.

1.11 How to contact the cluster

Main contact:

- **Software Forum Bayern e.V.**
c/o F.A.S.T. Gesellschaft für angewandte Softwaretechnologie mbH
Arabellastr. 17
D-81925 Munich - Germany
Tel: +49 (0) 89 890 52 20 0
Fax: +49 (0) 89 890 52 22 2
Email: kontakt@software-offensive-bayern.de
Homepage: http://www.software-offensive-bayern.de/

Other contacts:

- **Invest-in-Bavaria**
  Dr. Markus Wittmann
  Prinzregentenstraße 28
  80538 Munich - Germany
  Email: info@invest-in-bavaria.com
  Tel: +49 (0) 89 2162 2642
  Fax: +49 (0) 89 2162 2803
  Homepage: http://www.invest-in-bavaria.com/

- **Munich Network - Netzwerk München e.V.**
  Rosenheimer Str. 145C
  81671 Munich - Germany
  Tel: +49 (0) 89 6302 530
  Fax: +49 (0) 89 6302 5310
  Email: info@munichnetwork.com
  Homepage: http://www.munichnetwork.com/