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CASE STUDY: NEW COMPANIES AND E-BUSINESS INNOVATION IN MUNICH

Abstract

ICT companies play a prominent role in Munich, and start-ups are one source of the rise of Munich's ICT industry. Among these start-ups there are numerous university spin-offs, and many founders came from foreign countries. Innovations by start-ups tend to be incremental and may be modified by other companies, making it difficult to trace back which company introduced a certain innovation. Innovative e-business ideas also diffuse when large companies employ former free-lancers or when new companies are involved in innovation networks with large companies, which is frequently the case in Munich. The Munich region offers a sophisticated environment of organisations supporting new companies and promoting e-business innovation, including various types of venture capital sources.

Case study fact sheet

■ Case description:	<i>Start-ups in Munich, with a focus on ICT-related companies</i>
■ Location:	<i>Munich, Germany</i>
■ Main business activities:	<i>Software and hardware production, advertising, media and market research</i>
■ Number of companies in 2003:	<i>22,500</i>
■ Number of employees (2003):	<i>395,000</i>
■ Turnover (2003):	<i>70 billion Euro</i>
■ Main customer area:	<i>Munich, national and world-wide</i>
■ Main subjects studied:	<i>Regional characteristics of start-up support and e-business innovation</i>

Background and objectives

In recent years, Munich has been quite a fruitful breeding ground for new companies. The preferred industries for start-ups in Munich are internet, ICT consulting, multimedia,

advertising, and environmental technologies. Almost 20% of all German internet start-ups are based in Munich. According to the City of Munich, an “ongoing wave of start-ups” is one source of the rise of the ICT industry in Munich. Two thirds of Munich’s ICT companies were founded after 1989, 19% in the last three years. Among these start-ups there are numerous university spin-offs and firms with founders from foreign countries. With about 120,000 employees in the ICT business at the end of 2003, Munich is considered, together with London, as the most important ICT region in Europe. Including the advertising, media and market research businesses that are strongly related to ICT and e-business, the sector comprised 22,500 companies with a total workforce of 395,000 people at the end of 2003. However, the story of the Munich ICT cluster is also one of large companies. In 1954 the Siemens company launched the production of computers in Munich. Today, some of the world’s largest ICT firms and most of the European headquarters of the global players are located in Munich, e.g. Microsoft, Compaq, Hewlett-Packard, NEC, Silicon Graphics, Seagate and Oracle. Munich is also home of a considerable biotechnology cluster, with 12,000 employees working in the life sciences sector in numerous major corporations or innovative start-ups.

The purpose of this case study is to describe how the Munich region fosters new companies and e-business, what characteristics e-business innovation has, and what lessons can be learned for ICT and e-business promotion in other regions.

e-Business activities

Framework conditions for new companies and e-business innovation

The Munich region offers a fertile environment for new companies and for e-business innovation. A study comparing business foundation in various German regions found that a strong entrepreneurial culture is key to the lively start-up activity in Munich, including a relatively high assessment of the individual capability to start a business and of business opportunities among the founders.¹ Munich also has a wide variety of organisations promoting new companies, including the following:

- **Research and education:** Munich hosts four universities, six other institutions of higher education, and numerous independent research institutes. The national headquarters of the Fraunhofer Society that conducts application-oriented research and of the Max Planck institutes conducting basic research are also located in Munich. Various research institutes deal with ICT, for example the business informatics institute (<http://www.winfobase.de>) and the Software Engineering for Business Applications institute (<http://www.matthes.in.tum.de>) at the Technical University. The Odeon institute (<http://www.odeon.uni-muenchen.de/>) at the University of Munich conducts research and education in entrepreneurship. The region also has a dedicated programme for creating start-ups from universities, named “GründerRegio M” (Founder Region M, <http://www.gruenderregio-m.de/>).
- **Business incubators:** Munich has several business incubators, among them the Munich Technology Centre (<http://www.mtz.de>) and GATE

¹ See Tamàs (2006).

(<http://www.gategarching.com>) in the town of Garching in the Northern Munich region.

- **Knowledge transfer:** Organisations such as the Corporation for Innovation and Knowledge Transfer (<http://www.bayern-innovativ.de>) and BayernPatent (<http://www.bayernpatent.de>) support the innovation process in the region.
- **Finance:** Munich has a lively venture capital scene including various funds, some specialised in different stages of company development, suppliers of corporate venture capital and private investors in the Munich Business Angel Network.
- **Public support:** Various initiatives of the state of Bavaria seek to support ICT and e-business companies, including the Software Offensive Bavaria (<http://www.software-offensive-bayern.de/>), and Invest in Bavaria (<http://www.invest-in-bavaris.de>), the state's business development agency whose tasks range from the provision of initial information to accompanying prospective investors on tours of potential sites. The City of Munich Department of Labour and Economic Development (<http://www.munich.de/business>) as well as the semi-public Chamber of Commerce and Industry for Munich and Upper Bavaria (<http://www.muenchen.ihk.de>) are also considerably involved in providing support to start-ups.
- **Private initiatives:** Various private initiatives promote entrepreneurship and innovation in Munich. The Munich Network (<http://www.munichnetwork.com>) is a personal network seeking very practical benefits by promoting ties between 400 members including technology developers, venture capitalists, and service providers. The members meet for example in special interest groups, "wake up" breakfast meetings, and entrepreneur interview events ("technopreurs live"). The Working Circle for IT and Media in Munich (<http://www.fiwM.de>) stages projects and events promoting the flow of information among its corporate and self-employed members.
- **Events:** Furthermore, Munich hosts various international trade fairs related to ICT and e-business such as Systems World (<http://www.systems-world.de>) and the Semicon Europa (<http://www.semi.org>).

A high income per capita, a large and well-educated workforce, an extended public transport system and numerous high-level leisure time opportunities create favourable conditions for developing new businesses in Munich. On the downside there are high costs of living, particularly for real estate, and frequent traffic jams in peak hours.

Impacts

Various sources were identified that highlight different aspects of the role of new companies for e-business innovation and diffusion in Munich. In the following, statements from two expert interviews and from secondary research are provided.

Importance of incremental innovation and diffusion

According to Joachim Graf, Chief Executive of the Förderkreis IT- und Medienwirtschaft München e.V. (FIWM – Promotion Circle ICT and Media Business Munich), e-business development in Munich is largely driven by SMEs. There are hundreds of innovative new

companies in Munich and thousands of “*small animals*”. Some of the new companies fail, others are successful and grow or are acquired by other companies. They try out many things and they rarely introduce standard solutions. Graf finds it difficult to name concrete examples of companies supplying e-business innovations that are particularly successful because “*this is not how this business works*”. Innovations by start-ups tend to be incremental, “*certain things penetrate the market gradually*” and may be modified by others. In the end, it is difficult to trace back which company introduced a certain innovation. Innovative e-business ideas also diffuse when large companies employ former freelancers, he says.

Importance of start-ups in innovation networks

In a study about “the competitiveness of firm networks”, economic scientist Christian Lechner included a case study of ICT companies in Munich. Among the nine companies he studied, eight were less than five years old. Among them there were technology using, technology creating and technology implementing firms. One large established company, a European headquarter of one of the largest US software companies, was also included. The key question of Lechner’s research was whether a strategic network of companies can gain and sustain competitive advantage and if so, how it can achieve this. His main finding was that the Munich ICT company network was indeed able to gain and sustain competitive advantage. He found that firms in the ICT industry extensively rely on partnerships with other companies to realise their strategic goals.

A wide range of networks is important, comprising social, marketing, knowledge, and innovation networks. The significance of start-ups in these networks can be illustrated by statements from the large company that was interviewed. A manager of this large firm said that “*without our partners we would be a normally growing large firm. With our partners, we are an exceptionally growing and flexible firm*”. Thus, the increasing development of innovative and customised solutions by partners also enhances product innovation and competitive position of the large firm.² This shows that innovation in new and small firms diffuses to large firms and is vitally important for a regional industry’s competitiveness.

Many new companies are not familiar with e-business

According to Bernhard Kux from the ICT Economy Department of the Munich Chamber of Commerce, e-business innovation activity does not depend on the companies’ age. His impression is that new companies tend to be more open-minded towards using e-business, but the question is whether they can afford it and make the right decision about it. Kux explained that new and small companies are often not familiar with e-business terminology - which is used by larger companies - and have difficulties to decide what e-business technology they should use. This applies at least to new companies that do not have e-business as their core business. Furthermore, both new and established companies face a growing need to comply with e-business requirements from public authorities. This applies, for example, to electronic transmission of social insurance data, data security and data storage. Especially for young companies this can be a challenging task if they do not have the necessary technology or skills.

² See Lechner (2001), p. 315-322.

Lessons learned

The Munich region offers various lessons about the role of new companies in e-business innovation and diffusion. There is no simple picture of an “innovation-everywhere” region but a more differentiated image.

- In Munich, e-business innovation by new, small ICT companies is normally incremental, not ground-breaking, and it is often modified and further developed by other companies.
- Through their ties with large ICT companies, innovative new companies promote innovation and growth in these large companies in Munich.
- Start-ups that do not have e-business as their core business are often not familiar with e-business terminology and challenged by e-business requirements.
- There is a very wide spectrum of public, private and public-private partnership organisations that can support new companies, including for example privately organised networks of innovators, entrepreneurship programmes at universities, business angel networks, and business incubators.

References

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