



Ref.: iRegions – Workshop on Living Labs during the Trendkongress, Karlsruhe 20th November 2009 – Minutes

Date: Friday, October 20th 2009

Attachments: Presentation Dr. Bernhard Kölmel
Presentation Per-Olof Sjöberg
Presentation Prof. Bernhard Katzy
Presentation Dr. Carsten Holtmann

1 Context for the workshop – the iRegions project

An increasing use of the Internet worldwide and its penetration to virtually all spheres of life leads to a new form of society and of economy: the Net Society and Net Economy. New needs and challenges have emerged for research, business and industry: To be effective and to produce applicable results, research has to be tested, at least as a proof-of concept, in large scale environments. The increasing complexity of the innovation process requires a closer interaction between research and business. Businesses need to constantly adapt their products, skills and business models; they need therefore different partners and experts from diverse fields, able to work in interdisciplinary fields. New mobile technologies can overcome the digital divide and increase cultural, social and political participation and understanding. However, security and privacy issues need to be carefully handled due to potential deployment for surveillance and control purposes.

The iRegions proposal addresses those challenges by providing a strategy aiming at maximising the benefits of research infrastructures for regional economic development within the following ICT-based clusters:

- CyberForum (Germany),
- Kista Science City (Sweden),
- and Tartu ICT cluster represented by Baltic Innovation Agency (Estonia).

The concept relies on following cornerstones:

- Living Labs will enable the iRegions to become pilot regions for the creation of new services, technologies and business models of the Net economy. A tight networking will allow strengthening the innovative capacity and efficiency of all involved parties
- Leading edge projects will lead to the development of pioneering innovations and the creation of new markets.
- Ecosystems for growth will favour strong interaction between research, business and local authorities for the benefit of companies' growth and economic development.

2 The Trendkongress Conference

The Trendkongress net economy is a conference on the future of the internet. It is jointly organized by FZI, CyberForum, KMK (fairs and congress organizer) und the society of friends of the FZI. The aim of the Trendkongress is to gather leading researchers, innovative IT providers and CIOs to discuss the latest trends in information and communication technology, the resulting chances and risks for society as well as the fast and successful adoption of these technologies in the economy.

Therefore the Trendkongress represented an ideal venue for the iRegions partners to hold a workshop on Living Labs and their role as motor to cluster development. The aim of the workshop was to inform about Living Labs in the context of user-centric innovation and as a tool in the development of clusters. The range of speakers covered business, research and academia alike in order to share different perspectives on the topic of Living labs and practical experiences in different Living Labs.

Ralf Eichhorn from the Economic Development Agency of the City of Karlsruhe moderated the workshop, presenting the following agenda:





Time	Content
14:15	Living Labs as motor for cluster development Welcome and introduction <ul style="list-style-type: none">Ralf Eichhorn, Economic Development, City of Karlsruhe
14:20	Presentations <ol style="list-style-type: none">SMEs and their innovation management, relevance of Living Labs EC policy on Living Labs in short <i>Dr. Bernhard Kölmel, CAS Software AG</i>Stockholm Living Lab initiative <i>Per-Olof Sjöberg, Swedish Institute of Computer Sciences</i>Regions of Knowledge and the Demand Side of Innovation <i>Prof. Bernhard Katzy, CeTIM Center for Technology and Innovation Management</i>
15:30	<ol style="list-style-type: none">Ambient Assisted Living – Living Lab FZI Dr. Carsten Holtmann, FZI Research Center for Information Technology
15:30	“Round table” Discussion – Q&A from the audience
15:45	<ul style="list-style-type: none">Moderation Ralf Eichhorn
15:45	End of Workshop

3 Short presentation of speakers

- Dr. Bernhard Kölmel, CAS Software AG (www.cas.de)**

Dr. Bernhard Kölmel is Director Innovation & Strategy Management at CAS Software AG. CAS is the leading expert for customer relationship management (CRM) in the SME sector. Furthermore, the complete supplier for customer and information management also develops tailor-made sales support systems for customers like Daimler and Airbus. For its innovative product suite, the company has received many prizes, among those the “European IT Prize and “Innovator of the year” within the TOP100 innovation competition.

Before he joined CAS, Bernhard was head of technology transfer at FZI, Forschungszentrum Informatik and gained international experience in Silicon Valley and entrepreneurial knowledge in own companies. Bernhard received his PhD with honours from the University of Karlsruhe. Bernhard coordinated some 25 large international R&D-projects and contributes actively in the research area of emerging information systems and innovative IT approaches.

Bernhard Kölmel is a member of European excellence networks in the area of smart organisations and mobile services as well as several programme committees of international conferences. He also provides external expertise to the European Commission in the selection and appraisal of European research projects.

- Per-Olof Sjöberg, Swedish Institute of Computer Sciences (www.sics.se)**

Per-Olof Sjöberg is responsible for Stockholm Living Lab at the Swedish Institute of Computer Sciences (SICS).

The SICS is a research organisation focusing on applied computer science:

- Communication networks and system architectures: Software, platforms and methods
- Industrial Applications
- Consumer oriented services and products





Stockholm Living Lab is an organization where users play an important role for development of digital services for mobile and fixed network applications. Users participate from all aspects in the development cycles, from an early idea phase to a late test phase.

The organization offers web sites for services to be shown, methods for user involvement, access to user groups, meeting places both physical as on the web. The organization runs several projects in the area. Its focus is both on SME companies and research organizations and it supports them in effective commercialization.

- **Prof. Bernhard Katzy, CeTIM Center for Technology and Innovation Management (www.cetim.org)**

Dr. Bernhard R. Katzy is professor of Technology and Innovation Management at the University Bw Munich. His research interest is management of fast growing high-tech firms.

Dr. Katzy holds a Doctorate in Engineering Management from RWTH Aachen, Germany, and a Ph.D. (Habilitation) in General Management from the University St. Gallen, Switzerland. From 1990 to 1994 he was researcher at the laboratory for Production Engineering and Machine Tools (WZL) of RWTH Aachen, Germany, then joined the Institute of Technology and Management of University of St. Gallen, Switzerland as lecturer. After visiting for two years Rotterdam School of Management of Erasmus University Rotterdam, The Netherlands he is nominated full professor of Technology and Innovation Management at the University Bw Munich in 1999. He is the founder and director of CeTIM, Center for Technology and Innovation Management, the universities' entrepreneurship centre. Since 2003 Dr. Katzy is elected professor at Leiden University, the Netherlands.

His research interest is in understanding the industrial structures of the knowledge economy, with a special focus on the management of high growth of technology-based new ventures.

- **Dr. Carsten Holtmann, FZI (<http://aal.fzi.de/>)**

Dr. Holtmann studied Business Administration and Information Systems in Giessen, Germany (Diploma), until 1999. He was with Brokat Information Technologies in their financial systems department and coordinated a joint research project with the University of Giessen and Karlsruhe, respectively. He obtained his PhD for his work on applying engineering approaches for the design of electronic markets and services (Market/ Service Engineering) after three years at Karlsruhe University in 2004.

After one year as an Assistant Professor with the Institute for Information Management and Systems he became Head of the Research Division Information Process Engineering (IPE) at FZI Research Center for Information Technologies Karlsruhe. At FZI he coordinates four groups of researches closely working together in the fields of technical infrastructures (i.e. SOA), innovative technologies (i.e. semantic technologies) and business engineering (i.e. BPM and Incentive/ Service Engineering).

Dr. Holtmann was involved in and/ or responsible for the application and management of a number of national and international research projects. He is author and/ or editor of three books as well as of a number of scientific research papers that have been published in national and international journals and conference proceedings. Since 2005 he is associate lecturer at the University Karlsruhe and gives a course on Innovative Business Models and Service Engineering.

FZI is a non-profit contract research organisation that concentrates its efforts on novel information technologies for providers of investment and consumer products, of production or business products and of information services, and supports the development of innovative applications, primarily in engineering, on the basis of recent but already proven techniques. Today, FZI's close to 100 scientists within 12 research groups, contribute to an annual turnover of some 8 million Euro.

4 Content of presentations / Questions to the speakers representing “Good Practices”

4.1 Presentation Dr. Bernhard Kölmel

Dr. Kölmel provided an introduction into the EC's policy with respect to Living Labs. In particular, he pointed out the European Network of Living Labs (www.openlivinglabs.eu) and the current call for membership applications for the 4th Wave of the network. In the second part of his presentation Dr. Kölmel addressed the





topic of the challenges of innovation management within a research-based regional SME and how Living Labs might contribute to it.

Being the first speaker at the workshop Dr. Kölmel presented two models of innovation: Top down from science to practice and bottom up with innovation stemming from other sources, mostly from customers. As Dr. Kölmel emphasizes, disappointingly little innovation is being generated from science. A much larger percentage of innovations are user-driven and created in a practical context. This phenomenon can be observed while the high-tech sector experiences increasing interdependence of products and services as well as increasing ability to innovate by more actors. Therefore user-centric innovation is increasingly important to firms. The CAS approach as described by Dr. Kölmel attaches great importance to both top-down and bottom-up innovation strategies, embedded in an ecosystem of different actors. Dr. Kölmel emphasized that ecosystems of companies and individuals can be successful by using a joint platform to co-create and deliver value to customers, partners, themselves and the overall community. At the same token, Dr. Kölmel warns against the potential drawbacks of ecosystems resulting from “hegemony, centralized control, redundancy, and protected diversity”. Therefore no single actor in the ecosystem should solely dominate the direction of development. With regard to SMEs, such ecosystems enable smaller companies to jointly building Living Labs that would be too costly for a single company. For example, the Living Lab on Ambient Assisted Living roughly consumes 200.000 Euro hardware costs and much more in terms of staff and other costs.

Dr. Kölmel also gave insight to the role of open innovation as an important part of the CAS’s strategic innovation process. Dr. Kölmel perceives the ecosystem of actors in the Karlsruhe network in a very positive way, as it creates trust between companies. Also, the cooperation is not limited to SMEs. As experienced by CAS, collaboration is possible even with bigger competitor companies if the level of trust is high enough. Dr. Kölmel considers cluster organizations such as the Cyberforum an important means to create trustful collaborations.

4.2 Presentation Per-Olof Sjöberg

Mr. Per-Olof Sjöberg, representing the Stockholm Living Lab at the Swedish Institute of Computer Sciences (SICS), brought his experience with Living Labs in Sweden to the workshop. Sweden operates regionally based Living Labs all over the country, including Botnia Living Lab Luleå, Innovation Cultures Living Lab, Umeå, Airport Living Lab, Arlanda, Stockholm Living Lab, Malmö Living Lab for New Media, Øresund Living Lab, Halmstad Living Lab Safe at home. In particular, Mr. Sjöberg presented the services provided by the Stockholm Living Lab to support SMEs with a strong focus on digital services, elderly care and real estate. The Stockholm living lab helps SMEs to increase their visibility on net, to benefit from meeting places, access to users, to build up competence and to commercialize results. Concrete examples of products and services commercialised by SMEs include the Blue Tooth lock and a language learning tool for mobile phones. This kind of assistance to develop marketable products and services from innovations are particularly relevant for a country such as Sweden, where the level of innovation activity is high but entrepreneurship is somewhat less developed. The Stockholm Living Lab reaches out to SME and invites them to make use of the Living Lab in an early stage and to find and integrate users in all stages of the development cycles, not just in the test phase. The hypothesis is that results become more accurate and reach the market faster.

Mr. Sjöberg concludes with several recommendations on how to create Living Labs:

- Create a triple helix perspective
- Regional connection
- Focus on one or two areas, seek partners
- Connect users according to your focus
- Join one or both LL network
- Share knowledge and tools in the LL networks
- Finance: Base financing is required at start up, additional financing through project sponsoring.
- Do not count on SME financing, cooperate to apply for funding

4.3 Presentation Prof. Bernhard Katzy

In his presentation on “Regions of Knowledge and the Demand Side of Innovation”, Prof. Katzy focused on demand creation as an often neglected factor in the development of regional innovation clusters. Like the





other speakers Prof. Katzy addresses the “European Gap” resulting from insufficient valorisation of research results. In the last years this gap has even widened – in spite of the goals of the Lisbon Agenda to turn Europe into the most agile knowledge economy by 2010. According to Prof. Katzy European clusters suffer from weak market orientation. Often, the successful creation of cluster capabilities is hampered by intra-cluster conflicts and misunderstandings. Rather than simply focusing on technological ideas and product development, clusters should foster market and user orientation. Therefore, Prof. Katzy recommends clusters to integrate demand creation mechanisms supporting the development of entrepreneurial capabilities. Prof. Katzy illustrated demand creation based on the project *innofit*, focusing on one technology sector, GALILEO, because the success to create an own, independent European Satellite Navigation (SatNav) industry and market is highly relevant to Europe’s reputation in knowledge performance as such.

The innovation voucher is presented as one possible policy instrument to help bridging the gap between science and industry. SMEs are provided with credit note, with which SMEs can buy technological or other knowledge from knowledge providers. Also, competitions such as the European Satellite Navigation Competition (ESNC) and living labs facilitate the process of idea generation. Living lab also help shape demand by providing an ecosystem for user-centric innovation. Prof. Katzy is somewhat more critical about lead market instruments to shape demand.

4.4 Presentation Dr. Carsten Holtmann

Dr. Holtmann presented the experiences at FZI with the newly created Living Lab in the field of “Ambient Assisted Living”. As explained by Dr. Holtmann, the challenge in the area of ambient assisted living is to match the supply side of technology with the demand side. Users on the demand side tend to ask for broad solutions that are easy to use, customizable and adaptable over time. However, the technology providers on the other side offer mostly singular “end to end” products with their specific area with limited possibility of interacting with other products. Also the range of solution providers concentrates on established suppliers as the barriers of entry are too high for innovative start-ups to overcome. To overcome this mismatch, Dr. Holtmann underlines the need to find systemic approaches that integrates different products and solutions. Living Labs can be a common ground for different players/experts from different domains and disciplines to work together and help bridging the gap between technology providers, end-users and commercial deployment. Within such a Living all parties are intended to benefit from an open research environment and focus on IT being a service.

Dr. Holtmann illustrated this mode of collaboration with the Living Lab in “Ambient Assisted Living” which combines a physical layer and a software integration layer and additional knowledge and expertise, also from end users. The idea is to tightly integrate infrastructure, process and concept development in order to create service innovations and accelerating the prototyping process. This process is supported by integrating end-user needs and requirements as well as their feedback, motivation and incentives. As mentioned by the other speakers Dr. Holtmann reinforces the idea that no single actor in a living lab setting should dictate the direction.

The workshop was concluded by Ralf Eichhorn with a summary of the lessons drawn from the presentations, particularly focussing on the market relevance of technologies right from the start and the networking aspects in early phases of innovation and with a regional dimension.

