



Editor's Corner

Welcome to the fourth issue of the MOSAIC newsletter.

Beside the newsletter PDF file distribution, the previous issue has attracted more than 1000 readers on our website. Unfortunately, the MOSAIC project is finishing by the end of October.....but, fortunately, the COMIST project is taking over the AMI@Work communities support regarding events, website and newsletters. Last June, the ICE'2005 conference has gathered together about 250 attendees in Munich. The MOSAIC full day workshop, dedicated to "Mobile Collaborative Working Environments", organised on the 2nd day of ICE, received the contribution of more than 30 participants. The first edition of the AMI@Work Communities Forum Day, which took place on the 3rd day of ICE, attracted about 160 participants. The last MOSAIC workshop took place during the eChallenges conference in Ljubljana on 20 October 2005. Inside this last issue you will find reports about all those events. As usual, you will find articles, papers and presentations, in the Library menu on the MOSAIC web site www.mosaic-network.org. Then, as promised earlier, you will find the results of the 2005 survey on "Future Mobile Workplaces". We have got about 130 respondents and about 650 visitors looking at the resulting figures. So, it seems there are more people looking at the resulting figures than sharing their opinion in voting. Polls are still open on the website and waiting for your vote.

On behalf of the MOSAIC project team, I would like to thank all of you who have actively contributed to the success of MOSAIC events and activities.

*Marc Pallot, EsoCE-NET
MOSAIC Newsletter Editor*

October 2005

Newsletter n°4

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Do not miss the up-coming event on Dec 5th 2005 in Rome dedicated to "Enhancing creativity and productivity of knowledge workers in Collaborative Environments"



Coordinator's Message

MOSAIC project is having his last event “Innovation in mobile and collaborative working environments” during the eChallenges e-2005 conference on Thursday 20th October in Ljubljana. Elsewhere in this Newsletter you will find a report about this workshop. After more than one and a half year working in MOSAIC, since we started March 2004, it is not only the time to look back on our results, but also to look forward to new activities and opportunities. The key results of MOSAIC will be presented in a booklet “The Future Workplace; Perspectives for Mobile and Collaborative Working”, which we plan to publish in December 2005 and which will be available for free. This will be announced on our website <http://www.mosaic-network.org>. The book addresses the current state of the art and current practice, future scenarios of mobile working, and challenges for research and innovation resulting in a roadmap for the future. The roadmap is based on case studies in three sectors: engineering, rural and regional working, and health and wellbeing. Societal challenges of innovative ways of mobile working are addressed as well.

As is elaborated in this newsletter, it is not only the many reports that have been written and that are available through our website, or the many – more than 20 – events that we have organized – not to mention all events that we contributed to - that constitute the value of this project. As a recent article in IST Results says, “The impact of the project will essentially be one of influence. It may impact the EU and the Commission in terms of policy and research priorities, and, potentially, research funding. What’s more the findings of the MOSAIC team will have a strong impact on European industry, as it considers MOSAIC’s vision”. At least this is what we look for. Additionally we hope that the AmI@Work family of communities that we helped launch in close collaboration with the European Commission New Working Environments unit will grow up and mature and play a role in the 7th Framework Programme. The COMIST specific support action, which is a spin-off from MOSAIC and addresses the issue of alignment of new member states and associated states to the IST programme, will take over MOSAIC’s role in supporting the AmI@Work communities. More information about the COMIST project is on the MOSAIC site in the About menu.

Hans Schaffers, Telematica Institute

MOSAIC Project Coordinator

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Steps towards the Future Networked Workplace - Overview of MOSAIC project results

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The key objective of the MOSAIC project has been to accelerate innovation in the mobile and collaborative workplace, aiming to realize more productive and creative work environments. Through a process of vision development, scenario building and roadmap construction, MOSAIC has established a large community of practitioners and researchers preparing future innovation in Europe. As the MOSAIC project has now been completed, it is time to look back to our results. They will be summarized in a short book, "The Future Workplace; Perspectives for Mobile and Collaborative Working" which is to be published by December 2005.

Preparing Europe

MOSAIC has explored business and societal innovation and has contributed to prepare Europe for deploying innovative mobile technology in a range of application domains, to support mobile workers in distributed and location-sensitive settings. It focused on mobile and collaborative working in three key domains which are strategically important to Europe, namely (1) Healthcare and wellbeing, (2) Life-cycle management sectors (building, construction, manufacturing) and (3) Rural and regional work environments. MOSAIC has worked closely with the New Working Environment Unit of DG Information Society and Media within the European Commission, to launch and establish communities in the area of Ambient Intelligent (AmI) technologies. The AMI@Work communities have been launched in June 2004 and now count about 850 registered members, and currently cover work-related areas such as collaboration, mobility, knowledge and markets, as well as sectors and themes such as health and wellbeing, engineering and rural and regional working whereas recently logistics and media have been added. MOSAIC has strongly encouraged the participation of small and medium-sized enterprises and small research teams across Europe including the New Member States.

The follow-up project COMIST, which has begun February 2005 and runs until December 2006 (see "About" menu on the MOSAIC website) aims to stimulate and facilitate in particular the new member state organizations to become part of the evolving eWork innovation networks supported by the IST (Information Society Technologies) priority.

MOSAIC Activities and Aims

MOSAIC has carried out a series of parallel activities such as to build an expert community network, identify good practices and critical success factors in current mobile working, identify future R&D and develop domain-specific roadmaps to support the successful deployment of mobile working within the chosen three application domains. We also have developed a generic roadmap and research agenda for mobile working, promoted Europe wide collaboration for deploying mobile work environments, and we have run many working groups and dissemination activities. Through these multi-disciplinary activities, MOSAIC has aimed to influence policies and strategies of major stakeholders in business, government and research, at national and international levels, for research and innovation in the area of 21st century mobile and collaborative work environments. MOSAIC has produced a number of publicly available reports.



MOSAIC Reports, a selection

D1.1 Mobile working state of the art, vision, scenarios and challenges

Contributors: Seamus Hickey, Elke Hinrichs, Manuel Matthes, David Martland, Veli-Pekka Niitamo, Marc Pallot, Wolfgang Prinz, Hans Schaffers, Robert Slagter, Stephan Vollmer. Edited by Hans Schaffers

D1.2 Mobile workplaces roadmap

Contributors: Maria Cristina Brugnoli, Terrence Fernando, Seamus Hickey, Irene Lorusso, Veli-Pekka Niitamo, Marc Pallot, Wolfgang Prinz, Petri Pulli, Hans Schaffers, Mikko Riissanen, Robert Slagter, Anna Tarchalska, Adam Turowiec, Stephan Vollmer. Edited by Robert Slagter and Hans Schaffers

D1.3 Research agenda and joint projects

Contributors: Maria Cristina Brugnoli, Terrence Fernando, Seamus Hickey, Konrad Klöckner, Veli-Pekka Niitamo, Wolfgang Prinz, Hans Schaffers, Stephan Vollmer. Edited by Wolfgang Prinz and Konrad Klöckner

D2.1 Best practice case studies and success factors of mobile work

Contributors: Erik Andriessen, Torsten Brodt, Liz Carver, Veli-Pekka Nitao, Marc Pallot, Spiros Alexakis, Adam Turowiec, Olli Martikainen, Robert Verburg . Edited by Torsten Brodt

D2.2 Mobile workplaces in health and wellbeing: scenarios and deployment challenges

Contributors: Val Jones, Niilo Saranummi, Peter Toterdill. Editors: Val Jones and Niilo Saranummi

D2.3 Mobile workplaces in engineering sectors: scenarios and deployment challenges

Contributors: Yves Baudier, Sarah Bowden, Liz Carver, John Counsell, Terrence Fernando, Pekka Huovila, Sami Kazi, Kjetil Kristensen, Marc Pallot, Marie Puybaraud, Jens Skjaerbaek, Giuseppe Varalda. Editors: Pekka Huovila and Terrence Fernando

D2.4 Mobile workplaces in rural and regional areas: scenarios and deployment challenges

Contributors: Karel Charvat, Jose Franco, Javier Garcia Perez, Begoña Gonzalez Ruiz, Peter Gruhala, Elissaveta Gourova, Witold Holubowicz, Patrycja Mlynarek, Wendy Moreno, Ignacio Muro Benayas, Kazimierz Szopa, Anna Tarchalska, Adam Turowiec, Piotr Wiench. Edited by Begoña Gonzalez Ruiz and Adam Turowiec.

D4.1 Innovation and systems change: the example of mobile collaborative work

Author: Hans Schaffers

D4.2 Societal change aspects of mobile work environments: developing strategies

Edited by Richard Ennals and Chris Reade



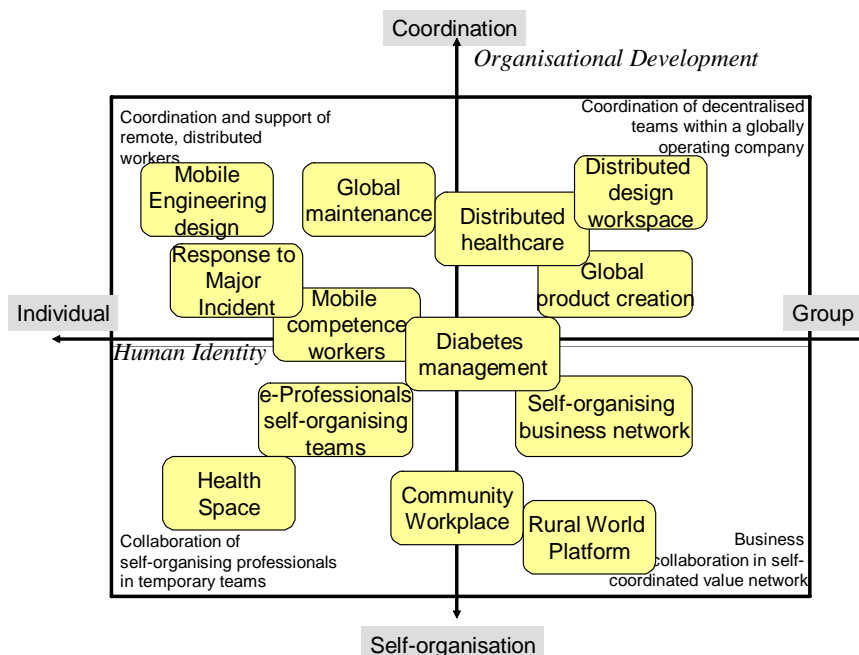
Networked Workplaces

Due to the steadily progress of technologies and processes for information sharing, communication and collaboration, and due to the forces of competition and globalization, our work environment has changed considerably over the past 20 years. And it will continue to do so in the future. Driving force for MOSAIC is the emergence of “networked workplaces” and the challenge for supporting efficient, intuitive, user-oriented and ‘human-centric’ work environments where technology is aligned to organizations and human behaviour, enabling people to work together irrespective of constraints in location and time. Undoubtedly, ICT supporting mobility, context- and location-awareness, networking and ambient interfaces will play an important role in implementing this challenge.

Workplace innovation is not a matter of technology alone. Among the key issues are: workplace organization, cross-organizational cooperation, management and leadership, organizational structure and change, and incentive schemes. Although there haven’t been that many empirical studies in measuring the impact of workplace innovation, there is evidence that innovations in the workplace may further contribute to creating value, increasing productivity and improving the quality of work. However, the ICT impacts on the worker environment are not well understood, and this fact is hindering innovation. Therefore organizational and geographical aspects of workplace innovation, and coping with human and social issues in mobility, sustainability and quality of work should go hand in hand with ICT innovation. MOSAIC therefore has pursued a holistic and multi-disciplinary view on innovation, bringing together different disciplines and communities, in particular those in the areas of mobile and wireless technologies and applications, workplace innovation, and spatial infrastructures for working and living. We believe that in order to exploit the potential of the area and set out a realistic research and innovation strategy and create an industry support base, boundaries between traditional disciplines and communities should be overcome. MOSAIC has aimed to create a “breeding ground” for such multi-disciplinary collaboration and innovation in the area of mobile work environments.

Breeding ground

MOSAIC has realized this approach through a process of vision development, scenario building, roadmap construction, and preparing an agenda for innovation and change. The basis is an analysis of



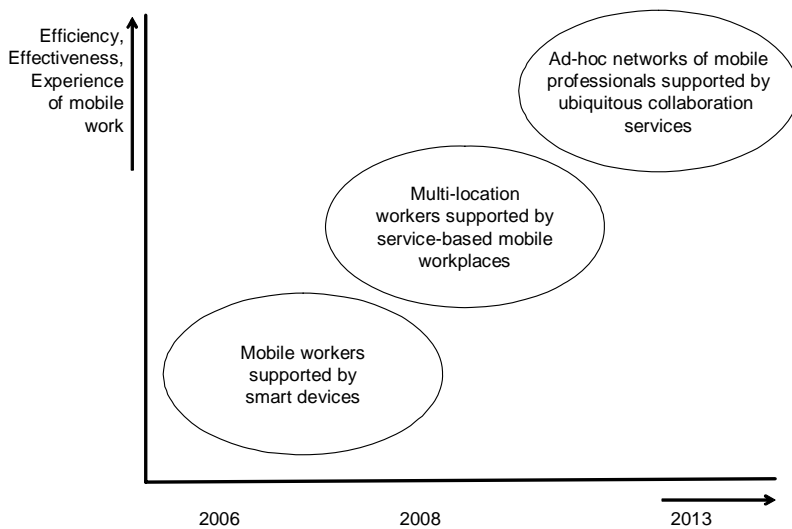
current working practice, which has resulted in a database of more than 20 cases of mobile working. The vision development process is supported by electronic polls inviting for opinions and priorities, thus providing an interactive setting and contributing to validation. The MOSAIC vision of networked workplaces has also been supported by developing a set of scenarios for the future mobile and collaborative workplace and for future ways of working. These scenarios are visualized below.



The scenarios are meant to provide a context for identifying and discussing major underlying trends and uncertainties in shaping the new work environment. Through analyzing the critical requirements in these scenarios – covering technical, organizational and social aspects – the elements for a general strategic roadmap for research and innovation in collaborative and mobile workplaces have been identified in the form of milestones to be accomplished.

The MOSAIC general strategic roadmap presents three stages or ‘landing places’ for innovations. In the first period, from 2005 - 2006, smart devices will support mobile workers, whereas from 2007-

2008 innovations will concentrate on multi-location work supported by service-based mobile workplaces. Finally, 2009-2013 will be characterized by the ability to support ad-hoc collaborative and mobile teams of professionals by context-aware and service-based workspaces. Based on the strategic roadmap visualized by these envisaged landing places for innovation, the agenda for future research and innovation includes key themes for integrated projects.



Strategic research themes

- Business models for a networked and mobile society
- Design and tailoring methods for mobile workplaces to address individual demand and needs for end-user tailoring
- Trust and security management in a mobile world
- Sharing multi-dimensional work contexts and telepresence
- Models for coordinating business work processes for mobile users
- Tools and services enabling end-user configuration of community based workplaces in a mobile world
- Standardizing ubiquitous access to mobile workplaces and ambient intelligence environments: reference models for mobile workplaces and ambient environments
- Field tests for integrating the next generation mobile devices into real business
- Social impact of distributed work relations
- Adapting home and business environment



MOSAIC Network

The MOSAIC Network that has been created during the project is linking with all the AMI@Work communities, projects and other initiatives for joint activities. MOSAIC Working Groups have been created to offer membership to individuals either users, researchers, providers, consultants, policy makers and decision makers interested in contributing to shape the vision of the future mobile workplace, and to commonly develop scenarios and roadmaps for application domains in mobile working. The New Work Environments unit of the European Commission organizes a series of events with participation from both the MOSAIC groups and the AMI@Work communities. Through registration on or MOSAIC website anyone can participate in and contribute to any of these groups or events.

MOSAIC (FP6-2003-IST-2), focusing on mobile work environments, has run from March 2004 – October 2005. Key results are downloadable from our website <http://www.mosaic-network.org/> where also registration for AMI@Work communities is enabled. Information about the follow-up COMIST project is available at the same website.

Roadmap for stimulating innovation of m-working environments within European regions

Adam Turowiec, ITTI

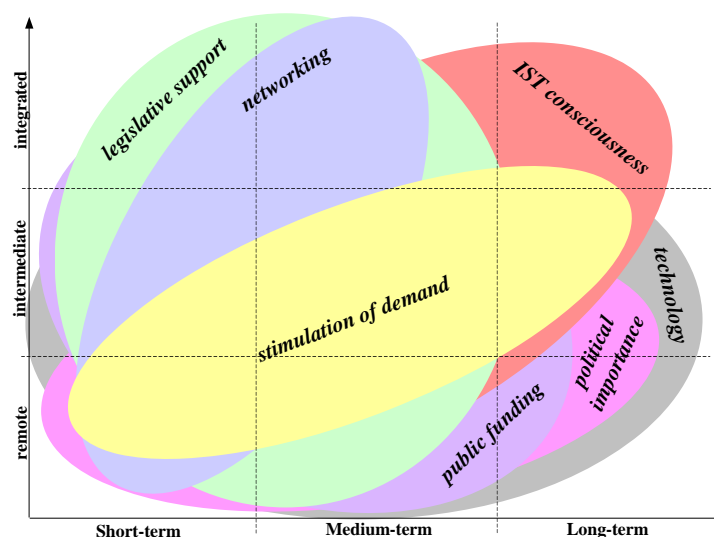
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Among the results of the MOSAIC project, there is a roadmap for development of mobile workplaces and creating innovation in *rural* and *regional* m-working environments. It builds on specific requirements, visions and scenarios for these environments, as well as on the analysis of real case studies and on contributions from numerous experts (especially from New Member States). The report provides focused recommendations for future supporting actions dedicated to rural and regional m-working that will: raise general IST consciousness, stimulate IT demand and networking among key domain players, provide public funding and legislative support, increase its political importance, etc. The recommendations are additionally mapped onto a two-dimensional matrix of timescale / rural area type¹, as presented in the below figure. The mapping allows observing which categories of recommendations are important for which rural area types and for which implementation periods.

For example, stimulation of demand for IST (in general) is essential for remote and intermediate areas – unrespectable of the timescale, while raising IST consciousness should be the key priority for all area types at any time. On the other hand, legislative support – in all areas – seems to be especially important in a short- and medium-term perspective.



¹ following the classification proposed by the FP5 RuralWins project (IST-2001-39107)



Based on the undertaken analysis of recommendation sets and of the scenarios, a number of key recommendations that form the T.2.4 roadmap framework have been provided.

They encompass:

- fostering of initiatives that support ICT education in rural areas and among rural workers, and that increase awareness of good practices (in order to build consciousness of the needs and challenges);
- setting up pilots for further promotion of ICT (so as to stimulate demand);
- promotion of networking through setting up initiatives for collaboration among key players of the rural market and for creation of rural business support and social infrastructure;
- actions aiming at increasing the co-operation among European Commission's DGs (to facilitate distribution of public funding and to increase efficacy of its use);
- inclusion of rural problems into national / regional strategies, to enable appropriate legislative support;
- ensuring appropriate representation in key policy making bodies in regions/countries and in EU (and thus increasing political importance of rural working environments);
- implementation of rural collaborative workplaces through technological research and aligning solutions to domain's specific needs.

The above recommendations and the preceding analysis are presented in more detail in MOSAIC reports D2.4a and D2.4b. It is worth mentioning that the work has been taken over by MOSAIC's successor project – COMIST which extends MOSAIC's activities towards a larger number of New Member States.

All reports and the roadmap for rural mobile working environments are downloadable from <http://www.mosaic-network.org>.



MOSAIC Workshop on “Innovation in Mobile Collaborative Workplaces”, Rome 17-18 February 2005

Marc Pallot, EsoCE-NET

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The MOSAIC team has organised a two days workshop, in Rome from 17 to 18 February 2005, dedicated to **“Innovation in Mobile Collaborative Workplaces”**.

This workshop has brought together a number of important projects under the 6th Framework Programme related to mobile & collaborative workplaces. It was supported by the Wireless World Research Forum (WWRF Working Group 1); by three Integrated Projects: MyCarEvent, WearIT@Work and MobiLife; by the COMIST Specific Support Action; the EU-Domain project; by the Mobility@Work, Knowledge@Work and Collaboration@Work Communities and by the Special Interest Group on Living-Lab; and by the SALTSA Expert Group on Mobile Virtual Work.



The main objective was to bring together practitioners, researchers, solution developers and policy makers to explore the potential for innovation and change in current work practices, to discuss new models for mobile and collaborative work, and to establish interfaces between the various research and innovation activities that are currently going on. Issues that have been discussed were current practices and future scenarios for new ways of working, important societal and organizational challenges in creating

systems change, new concepts for advanced workplaces including roadmaps for their implementation, innovative testing and validation environments including “living laboratories”.

This workshop has attracted about 80 participants and been held in a highly collaborative atmosphere with lot of interactions among participants.



MOSAIC Workshop Rome 30 presentations are available on the MOSAIC website:

<http://www.mosaic-network.org/library/presentations.html>

2005-02-17 to 18 MOSAIC Workshops on **“Innovation in Mobile Collaborative Workplaces”** Rome, Italy



MOSAIC Workshop on “Health and Wellbeing: Future Mobile and Collaborative Workplaces”, Enschede, April 15th 2005

Val Jones, University of Twente/CTIT, for Telematics Institute.
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The purpose of the workshop was to gather a group of experts representing the different stakeholder groups in health and wellbeing to work on validation of scenarios and finalisation of a roadmap for research and development. The 25 participants at the workshop included: IT specialists; health care managers and practitioners; a government policy maker, a social scientist and an economist. Nine Health and Wellbeing scenarios were presented and were subjected to scrutiny by the gathered experts. The participants were divided into multidisciplinary groups for breakout sessions in which individual scenarios were discussed.

The discussion was driven by a questionnaire. Each group reached a consensus and filled in the questionnaire as a group. Development of adequate business models, security and privacy of personal data and QoS emerged as critical issues. The feedback from the workshop was incorporated into the final versions of the scenarios in the MOSAIC deliverable D2.2.1 and into the companion deliverable D2.2.2 on road mapping.

The workshop was organised by MOSAIC Task T2.2 (Val Jones, Niilo Saranummi) with support from Hans Schaffers and Ferial Moalart of Telematics Institute.

MOSAIC Health and Wellbeing Workshop presentations are available on the MOSAIC website: <http://www.mosaic-network.org/library/presentations.html>

2005-04-15 MOSAIC Workshop on “Health and Wellbeing: Future Mobile and Collaborative Workplaces” Enschede, The Netherlands.



MOSAIC Workshop on “Living Labs” Kingston 13-14 May 2005

Chris Reade, Kingston University

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Living Labs was a concept originated by Jarmo Suominen (from Finland and MIT) amongst others and it is now being used to cover a range of situated research methodologies involving new technologies and people (end users). Jarmo was a guest speaker at this two-day workshop with the full title "Living Labs and Societal Change Aspects of New Working Environments". It was organised by members of the MOSAIC consortium from Kingston University and was linked to work package 4 for MOSAIC (Societal Change Aspects of New Working Environments).

The first day was held at Dorich House and involved presentations and discussions exploring the concepts, research methods and the rich variety of Living Lab research. Presentations included "Living Experience: User experiences in Living Labs" (Jarmo Suominen); "Research and Validation Challenges in Living Lab Research" (Veli-Pekka Niitamo); "Societal Change Aspects of Mobile Work Environments" (Richard Ennals); "On-line Communities of Practice: Reflections From Inside Two Communities" (Anne Marie McEwan); "Socio-Technical issues of Mobile Working: Past, Present and Future" (Dave Martland and Andreas Panayiotidis); "CEWC @ HCC Living Lab" (Les Stratton); "Living Labs and Real-Life" (Duska Rosenberg); "SocioXensor: Measuring user eXperience and user behaviour in Social conteXt" (Henri ter Hofte); "Future Work for Living Labs" (Chris Reade).



The second day of the workshop was held at Kingston Business School and involved an extended discussion facilitated by Richard Ennals. The focus was on taking forward the practice of living labs: learning from differences, and building new cases.

Links to abstracts, presentations, an extended report by Prof Richard Ennals and further pictures can all be found at:
<http://www.kingston.ac.uk/~ku07009/livinglabs.html>



MOSAIC Workshop on “Ambient or Mobile Collaborative Working Environments”, Munich 21 June 2005

Marc Pallot, EsoCE-NET

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A full day MOSAIC workshop has been organised in Munich on 21 June 2005 during the second day of the ICE'2005 conference. This workshop was supported by several AMI@Work communities and was dedicated to **“Ambient or Mobile Collaborative Working Environments”**.

MOSAIC vision, scenarios and roadmap for mobile and collaborative workplaces have been presented and discussed among participants in the objective of validating and improving the actual results. Further to this, a strategy for research and innovation has been presented and discussed, including the deployment of mobile workplace technologies and applications in sectors like manufacturing, building and construction, health & wellbeing, and for rural and regional areas.

We received the contribution of about 30 participants and this workshop been held in a highly collaborative atmosphere with lot of contributions among participants.



MOSAIC Workshop Munich presentations are available on the MOSAIC website:

<http://www.mosaic-network.org/library/presentations.html>



MOSAIC Workshop on “eWork - Innovation in Mobile Collaborative Working Environments”, Ljubljana 20 October 2005

Marc Pallot, EsoCE-NET

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This half day workshop, presenting the final results of the project, was the last event of the MOSAIC project. MOSAIC project has explored innovation in mobile and collaborative working in several business and societal key domains, and, in close collaboration with the European Commission, launched and supported the AMI@Work Communities. This final workshop has addressed the emerging challenges in mobile and collaborative working based on a scenario-based vision and strategic roadmap for innovation. Specific research challenges in mobile collaborative workplaces have been formulated and deployment strategies for innovation in mobile collaborative workplaces in sector domains explored. Participants have also discussed the role of technological, sectoral, human, organizational and societal factors enabling innovation in mobile and collaborative workplaces of the future. Within the MOSAIC project, the focus was on supporting mobile and distributed workers and teams irrespective of time and place, and on strategies to initiate and accelerate innovation in future mobile and collaborative work environments and learn from past experiences.

The workshop consisted of two parts. Every part had three presentations, providing stimulating viewpoints and statements for discussion dealing with challenges for innovation and research, including those relevant for the next framework programme. The workshop brought together about 40 participants mainly from the research community. The prime goal of this final workshop was to bring together researchers, practitioners and policy makers in order to identify the ways and success factors of successful innovation and deployment of new work environments, in particular focusing on “mobility” in a broad sense (mobile workplace and mobile workers). Target discussion was on testing visions concerning the organisational, technological, human and societal challenges at hand, the realism of scenarios, and the implementation roadmaps envisaged. This will result in new views as regards the challenges and objectives of future research programs (i.e. FP7).

Programme of the two sessions were the following:

Managing Mobile Work – Insights from European Practice

Torsten Brodt, University of St. Gallen, Switzerland

This presentation presented the current practice for mobile ways of working, addressing important societal and organizational challenges in creating systems change. For the purpose of the research, mobile work is defined as work processes to be carried out independently from a fixed location, supported by ICT. Within the research under discussion, more than 20 cases studies of mobile work across various countries and industries in Europe have been conducted and analysed.



Research Challenges and Deployment Strategies for Mobile Collaborative Work

Wolfgang Prinz, Fraunhofer FIT, Germany

Relevant research challenges and possible solution strategies for the development of mobile collaborative working environments have been identified. Special attention has been paid to the development and design of community-based workplaces that facilitate spontaneous as well as continuous cooperation beyond organisational boundaries. Local workplaces are often designed due to the organisational or group requirements and guidelines. However, mobile workplaces are more specific to the individual or the cooperating community. Therefore methods are needed that address the balance between the self-organisation of mobile and local work as well as the integration into the organisational procedures. This will lead to the development of community based workplaces vs. organisational departments, requiring flexible access to shared workspaces, from strictly private to publicly accessible.



Mobile and Collaborative Workplaces: An Agenda for Innovation

Hans Schaffers, Telematica Instituut, The Netherlands

MOSAIC has developed a roadmap and research strategy for mobile workplaces innovation and systemic change. It explored several 'generic' mobile workplace scenarios, forming the basis for discussion with industrial, policy and research stakeholders to discuss their desirability and feasibility and the conditions under which they could become reality. Scenarios cover typical situations, such as: global product creation in a networked company; e-professionals in self organising communities; and community-based collaborative workplaces. Scenarios enabled us to analyse the underlying forces for change and innovation, and to develop a roadmap of innovative mobile work solutions and underlying technologies.



Vision Survey and Mobile Workplace Effectiveness

Marc Pallot, EsoCE-NET, France

MOSAIC research activity along 2004-2005, in term of visioning, is showing a new emerging mobile workplace approach characterised as the “People and Network-centric Workplace” approach. This approach is intended to bridge the gap between performance, purpose, balance and networking within an inclusive, innovative and interconnected workplace. It means that you don’t need to go to your office to be at your workplace but rather the workplace is following you wherever you are. In fact, the network becomes the ‘global’ workplace and provides the ability to interact with communities’ peers wherever they are and whenever there is a need. For this purpose, the Mobile Workplace Effectiveness map has been drafted. It is constituted of two complementary levels looking both outwards at organisational behaviour and inwards at individual support needs. This map is intended to both measures the whole work community and prescribes ways to improve the Mobile Workplace.

Mobile Collaborative Workplaces for Engineering Sectors

Terrence Fernando, University of Salford, United Kingdom

This presentation explored how mobile technologies and applications can be deployed to create innovative mobile work environments to empower workers in life-cycle-based sectors to support product life-cycle phases. In particular, manufacturing, building and construction and healthcare sectors are addressed.

The Role of Living Labs as Validation Environment for Mobile Work Environments

Veli-Pekka Niitamo, Nokia / CKIR, Finland

It seems appropriate for policy makers and industrial actors to focus more on the systematic creation of “conditions for learning through innovation” and there is now a growing interest in doing so. Large-scale experimental testbeds and validation environments – sometimes called “living labs”, emphasizing their character as a real-life socio-technical laboratory - can provide such learning environments, for the benefit of developers and users testing technologies, applications, work environments and business models and focusing on all aspects of the user environments. Current European examples of these kinds of validation environments, such as Octopus, SparkNet and Arabianranta in Finland, Testbed Botnia and LivingLabs Västervik in Sweden, Freeband in the Netherlands, and Bremen Mobile City in Germany, are promising. Testbeds and validation environments in mobile work thus could be catalysers of good practice. The presentation suggests an approach on how to link different national proving grounds in national innovation programmes and to create critical mass and exchange of good practice throughout Europe.

Physual Designing Network – Addressing Inter-layer Collaboration in Dispersed Teams

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New product development using concurrent enterprising methods involves planned and on-demand interaction where different types of internal and external contributors participate. This article describes *physual.net*, or the *physual designing network*. Physual is a new term that combines the three words physical, virtual and visual. The concept physual designing integrates physical arenas and virtual tools for collaboration with visual working methods through the use of large, interactive displays.

Physual.net represents an approach that addresses the collaborative needs of extended teams, where occasional contributors play a significant role. This collaborative infrastructure is designed to support dispersed combination teams consisting of a collocated core team and a mix of distributed regular members and occasional contributors. In particular, physual.net has been developed to support on-demand interaction in such teams, with higher flexibility in terms of staffing and supported processes as a result. Physual.net acknowledges that there in many situations exists an asymmetry of resources in dispersed combination teams. This is shown in figure 1, displaying three layers or categories of stakeholders; collocated team members, distributed team members and occasional contributors. Inter-layer collaboration causes many problems as stakeholders involved in this type of collaboration experience greater asymmetry than when involved in intra-layer collaboration. The physual designing network is aimed at supporting inter-layer collaboration by lowering the collaborative entry barriers for occasional contributors, in order to facilitate knowledge contributions from subject matter experts, customers, suppliers and others.

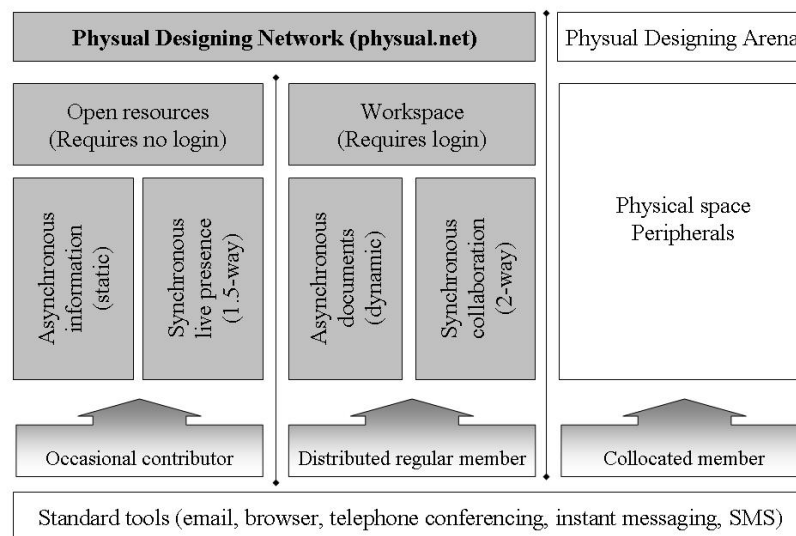


Figure 1: Layers (categories) of stakeholders



Physual.net consists of physical artefacts and virtual resources. Combined, the different components of physual.net define a continuous spectrum of accessibility across different groups of stakeholders. This spectrum is displayed in figure 1. Figure 2 indicates how a typical collaborative session may appear for various stakeholders. The desktop user interface is shown as it appears on a typical distributed member's desktop, with the live presence system and typical applications such as Outlook, PowerPoint and Word.

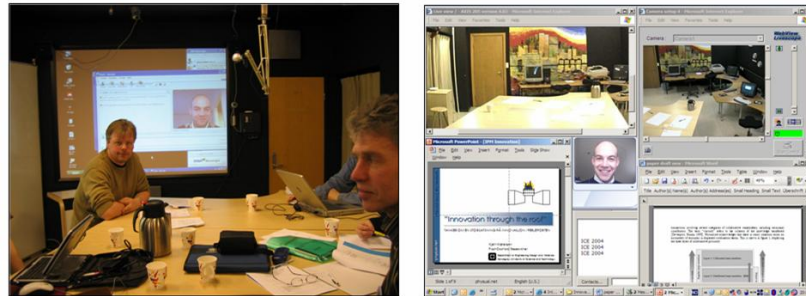


Figure 2: Collocated arena & team (left), distributed member (right)

User feedback indicates that the physual designing network has a low entry barrier for inter-layer collaboration. Regular, distributed team members have in many cases chosen to rely only on the functionality offered through the physual designing network. This was a surprise, as the authors expected that the physual designing network would be used as a stand-alone system primarily by occasional contributors. Physual.net therefore has applications outside the original scope of the project, which was to provide a collaborative solution with low entry barriers for occasional contributors.

This article is an excerpt of a paper published in the ICE2004 proceedings. More information can be found in the full paper which is also directly available on the MOSAIC web site:

<http://www.mosaic-network.org/library/articles.html>



MOSAIC Vision Survey and Workplace Effectiveness Map

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This article is presenting the MOSAIC visioning activities along 2004 with both the on-line vision survey about the future mobile collaborative workplace and the design of a workplace effectiveness map which have been presented during the eChallenges 2005 conference in Ljubljana. The approach of using complementary polls on a website provides a lot of flexibility to respondents as they can start with voting for one poll and stop. Then, they can come back and continue with another poll or vote for several polls during the same visit to the website. Furthermore, there is a fascinating possibility to look at the actual resulting figures which constitutes another motivation to vote and therefore contribute to the shaping of the vision in contributing to the emergence of the overall community opinion. Last but not least, each polls group could be associated with another one like

the rating of importance for each element that would provide valuable indications in combining also the resulting figures of the assertion polls with the rated importance ones.

Actual resulting polls' figures are showing that only very few elements did not get a majority of the vote saying it will probably happen. Only five of the overall thirty one elements did not get the majority of votes on "Probably". No element gets the majority of votes on "Unlikely". Only one element, in the legal perspective, got the majority on "Uncertain" and four elements were balanced between "Probably" and "Uncertain".

This polling approach could also be used to assess barriers to mobile workplaces as well as enablers and drivers.

However, it should be noticed that the most interesting added-value of conducting on-line survey through community website polls is the quite immediate time slot to oversee what the community overall opinion is regarding a dedicated aspect. In this case, 'immediate' means days or weeks instead of months or often years. This is really something fully appreciated especially when researchers conducting a survey are trying to figure out eventual impacts on future research challenges.



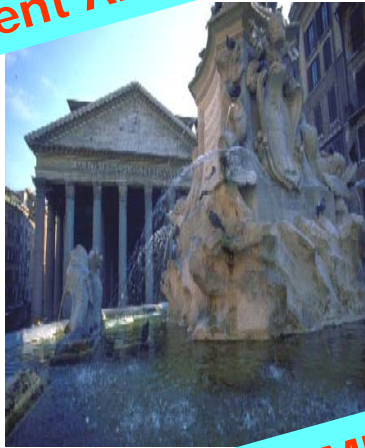
Full article, including the survey resulting figures, is available on the MOSAIC web site: <http://www.mosaic-network.org/library/articles.html>

Polls are waiting for your vote on the MOSAIC web site: <http://www.mosaic-network.org>



Event Announcement

5 December 2005



ROME

EsoCE-Net Industry Forum

“Enhancing Creativity and Productivity of Knowledge workers in the collaborative business ecosystem”

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Announcement

In the current global economic scenario, the human capital is deemed to be an essential competitive advantage of all involved business entities, being those individuals, enterprises and networks. Within the emerging knowledge economy, industrial competitiveness is based more and more on the creativity and productivity of knowledge workers, which are expected to fully exploit their individual human potential whilst operating with and within business organizational arrangements aimed at primarily maximizing corporate efficiency and productivity.

Within enterprises, Value Chains, SMEs' Clusters, as well as Professional Communities of individual professionals, the knowledge workers' creativity and productivity issue has already been addressed in different ways, all considering the human mutual interaction and collaboration as one of the key enabling mechanisms to enhance creativity and innovation.

Despite of the good results achieved so far, best in class corporations currently perceive that they are approaching a limit of the possible improvements actually achievable in the exploitation of knowledge workers' human capital within current organizational structures.

In this respect, the future realisation of the collaborative business ecosystem, intended as the ICT enabled networked environment in which business entities including Enterprises, Professional Virtual communities and Collaborative networked Organisations will interact and evolve towards sustainable and business-effective forms, will add new challenges, as well as new opportunities, for the further exploitation of the human capabilities.

Industry Forum announcement and programme available on:

<http://www.mosaic-network.org/news/events/051205-IndustrialForum.html>



This newsletter is open to your contribution either in the form of article, event announcement, short paper or report concerning your own research work and AMI@Work community meeting report or other documents that community groups would like to disseminate through the MOSAIC Newsletter.



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