Smart Cities Workshop

Brussels 16th -17th November 2009

EUROCITIES,

in collaboration with

the European Commission's Directorate-General Information Society & Media

November 2009

Contents

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1.   Introduction

The Smart Cities Workshop, held in Brussels on 16th-17th November 2009, was organised by EUROCITIES in collaboration with the Directorate-General Information Society and Media, European Commission[1]. The Workshop explored the challenges around how open innovation can support the uptake of future Internet-enabled services in smart cities.

The meeting brought together around 35 participants, including representatives from city and municipal authorities, the ICT industry and the research community. Participants had broad experience in city administration, Living Labs, Smart City applications, and web and internet technologies. Meeting over two half-days at EUROCITIES' premises in Brussels, they heard invited presentations from Commission representatives and city practitioners, and engaged in wide-ranging discussion, brainstorming and groupwork on the way forward.

Although the meeting did not attempt an all-embracing definition, in broad terms a "Smart City" is understood to mean a city that makes a conscious effort to innovatively employ information and communication technologies (ICT) to support a more inclusive, diverse and sustainable urban environment. More specifically, in terms of future policies, the Workshop considered the future use of ICT in cities from three complementary perspectives:

1) **The maturing of Future Internet technologies and services:** The internet with its services and social networks has become a critical part of our daily life, and internet-based services are now at the centre of our society and economy. At the same time, new and possibly disruptive internet technologies are emerging – location-based technologies, internet of things, new trust and security platforms, multimodal user interfaces, 3D content, simulation technologies, to name just a few. This so-called Future Internet is expected to be the basis for a new wave of internet-based services.

2) **Cities as platforms for new internet-based services:** This next generation of internet-based services has the potential to transform our lives, society and business in the 'smart' city and in general. As microcosms at the heart of social and economic life, cities offer important platforms for the development, testing and benchmarking of these new internet-enabled services. In order to speed take-up and ensure everybody is able to benefit from this transformation, it is essential that these new internet-based services are based on common open platforms.

3) **Open and user-driven innovation as drivers for new service adoption**: Many cities in Europe and across the world already invest significantly in common platforms for internet-based services cutting across application domains. The current situation is highly fragmented, however, with many first-class developments existing as islands within their own city environments or limited networks. Neither the individual application areas nor individual cities have the resources or the potential to address this alone; it is essential that cities connect to share best practices and explore together in becoming pathfinders for this new wave of technologies and services. Open innovation

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[1] Specifically within DG-INFSO, Unit F4, New Infrastructure Paradigms and Experimental Facilities

has the potential to become the key driver for this transformation. User-driven open innovation methodologies or ecosystems, such as Living Labs, have enormous potential in bridging the innovation gap between technology development and the rapid active use of new internet-based services.

The development of common open platforms is an important element here. Openness facilitates interoperability, integration and user-friendliness, and has become a key focus in the development of future internet-enabled services. This aspect is largely missing from smart city applications at present, where the situation is highly fragmented.

2.   European Support for Smart Cities

2.1   Background

The European Union has a long history of support for activities that could broadly be termed 'Smart Cities'[2]. In the mid-1990s, the Telematics for Urban and Rural Areas programme, part of FP4, invested around €80m in research activities to develop ICT solutions for cities and other local administrations, as well as a further €55m in a series of larger-scale projects under the Integrated Applications for Digital Sites programme. These produced many successful projects which helped advance new digital solutions for cities.

City administrations, too, have been keen supporters of the digital agenda[3]. Telecities, a forum promoting the use of ICT within cities, was set up in 1993 and has since been instrumental in leading or facilitating several major EU-funded projects including European Digital Cities (94-96, FP4), InfoCities (96-98, TEN-Telecom), IntelCity roadmap (2002-03, FP5), and Intelligent Cities (2004-06, FP6). More recently, EUROCITIES has set up the Knowledge Society Forum to focus on research, knowledge and innovation issues within city contexts. Its priorities are next generation access, transformational government ('eGov 2.0'), eInclusion, and ICT for energy efficiency (ICT4EE) as part of EUROCITIES' Green Digital Charter. Many city-based Living Labs have been among the first Living Labs and are members of the European Network of Living Labs (ENoLL).

Living Labs are examples of open innovation environments in real-life settings, in which user-driven innovation is fully integrated within the co-creation process of new services, products and societal infrastructures. ENoLL was founded in 2006 to encourage cooperation and exploit synergies between European projects and networks following the Living Labs methodology, and now has around 130 members[4]. Having operated up to now as an informal grouping, steps are underway to establish ENoLL as a non-profit association in Belgium. The association will itself adopt an open structure, with a core of fee-paying members and partners supplemented by more informal networks of policy-makers and individual users/enthusiasts. A series of new ENoLL services is planned and a fourth call for members is currently being made[5].

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[2] Presentation of Gerald Santucci, DG-INFSO
[3] Presentation of Dave Carter, Manchester Digital Development Agency
[4] Presentation of Roberto Santoro, European Network of Living Labs
[5] Call open until 21st December 2009, see www.openlivinglabs.eu

In recent years, DG Information Society and Media has supported the promotion and piloting of user-driven open innovation methodologies under the ICT Policy Support Programme, part of the Competitiveness and Innovation Programme (CIP). Two of the resulting projects are directly relevant to the focus on Smart Cities:

- **Thematic Network CO-LLABS** (funded under ICT-PSP Work Programme 2008) promotes the Europe-wide adoption of ICT-based Living Labs services and practices allowing SMEs to improve their innovation capabilities and processes and to become part of open innovation environments. Some of Europe's most advanced Living Labs work together with regional SME innovation-oriented organisations to exchange practices and to plan a series of pilots in domains such as e-health, energy, media, e-business and e-inclusion.

- **Pilot B Project APOLLON** (funded under ICT-PSP Work Programme 2009) plans to explore further the European dimension of Living Labs through four complementary cross-border Living Lab experiments (in homecare, energy efficiency, manufacturing, and e-participation). It will offer opportunities for innovators (i.e. SMEs) to innovate and scale up internationally much faster.

Other projects using Living Labs which could provide useful learning experiences for Smart Cities include DEHEMS (focusing on digital energy management in homes) and SAVE ENERGY (focusing on use of ICT to improve energy efficiency). Further projects relating to user-driven open innovation activities and direct involvement of large user communities in experimentally-driven Future Internet research are expected under ICT Call 5, which is still under evaluation. Finally, since the new services raise important trust and security issues, current research under the ICT Work Programme into open and trustworthy platforms for web services and applications is also relevant[6]. Living Labs also serve projects funded under the innovation policy activities of the European Commission's Directorate-General Enterprise and Industry, as well as projects related to Directorate-General Regional Policy and Directorate-General Research.

2.2   Pilots for Open Innovation in Smart Cities

In the recent Commission Communication "*A Strategy for ICT R&D and Innovation in Europe: Raising the Game*", as part of actions to facilitate the emergence of markets for innovation, it is foreseen that "the CIP will also support SMEs piloting highly innovative technologies, and the development of open platforms for user-driven innovation". Relevant actions are also highlighted by the recent Communication on a Public Private Partnership (PPP) for the Future Internet, which proposes an EU-wide internet innovation strategy linking governments and industry across Europe; cities and regions are seen as key application areas for new smart systems and infrastructures. Finally, the Internet of Things Action Plan identifies the huge potential for RFID, sensor networks and other technologies in building the next generation of internet-enabled services. Thus, Smart Cities are ecosystems important for both the Future Internet PPP and the CIP.

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[6] Presentation of Dirk van Rooy, DG INFSO

Under this policy vision, DG INFSO is considering broadening its support for piloting efforts under the next ICT-PSP Work Programme (2010). Specifically, it is proposed to launch a set of 'Pilot B' projects[7] on "Open innovation for future Internet-enabled services in Smart Cities".

The pilots under consideration would aim at proving the concept of a cross-border network of connected smart cities, adding significant value through user-driven open innovation to boost the deployment of open smart city platforms for internet-based services addressing larger groups of application domains. Each pilot would combine the following synergistic elements:

1) **User-driven open innovation** methodologies or ecosystems, such as Living Labs, aiming at bridging the innovation gap between technology/platform development and the rapid active use of new internet-based services via common open platforms.

2) A **cross-border network of smart cities** that supports the sharing of experiences and best practices in the implementation of open platforms for new internet-based services in a set of key areas for cities. Potential themes include: smart living environments, spaces and homes; the green digital agenda; Citizen 2.0 (citizens as co-producers as well as consumers of content and services); and generic smart city platforms open to all.

3) Internet-based services in each of these common themes will be based on an appropriate combination of multiple **advanced internet-related technologies**. Examples include: mobile and location-based technologies; the Internet of Things, RFID and sensor networks; trust, security and privacy management technologies; multimodal user interfaces and 3D internet; and modelling and simulation technologies.

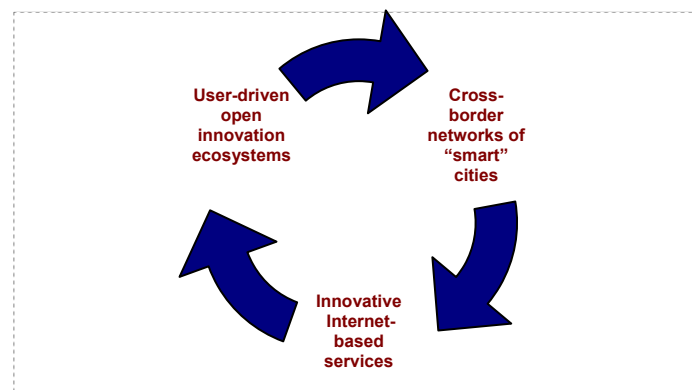The approach is shown schematically in Figure 1.

Figure 1: Elements of Smart Cities Pilots

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[7] Type 'B' Pilots under ICT-PSP are projects aimed at stimulating the uptake of innovative ICT based services and products. Projects may receive Community funding of up to 50% and typically run for 24-36 months. See the ICT-PSP Work Programme for full details:

http://ec.europa.eu/ict_psp.

3.   Synthesis of Presentations and Discussion

3.1   Twenty-first Century Cities

Worldwide, cities play an ever-more important role in social and economic development. Already today, 50% of the global population lives in cities and by 2050 the urban population will almost double from 3.3 billion to 6.4 billion. The top 100 urban agglomerations account for 25% of global GDP. Rapid urbanisation creates huge stresses in developing countries, giving rise to mega-cities (those with more 10m people) across the developing world. Developed countries too have underinvested in cities and are feeling the strain in terms of congestion, pollution and land use. Although they occupy only 2% of the world's land area, they account for 75% of greenhouse gas emissions, putting cities at the forefront of efforts to cut carbon emissions and increase use of renewable resources.

But this high density of challenges, users and opportunities also makes cities the ideal platform for new digital applications and services – and to drive these through living labs. ICT – and in particular new internet-enabled technologies and services – will be essential for cities in meeting the challenges of sustainable economic, social and environmental development in a de-carbonised world. ICT can also help meet the growing demand for better quality of life within urban settings.

What do we mean by Smart City? As with all such labels, it is open to interpretation and the meeting did not attempt an all-embracing definition. At a holistic level, cities are 'systems of systems', comprising very many component systems and actors that can be approached at different levels of granularity. They are also 'messy' in that we have to start from what we have, rather than building anew. One definition considered to be useful was that developed by European Smart Cities, an EU project led by the Vienna University of Technology. This identifies six dimensions of 'smartness', namely:

- Smart economy (competitiveness)
- Smart people (social and human capital)
- Smart governance (participation)
- Smart mobility (transport and ICT)
- Smart environments (natural resources)
- Smart living (quality of life)

A Smart City is a city performing well in a forward-looking way in these six dimensions, built on the 'smart' combination of endowments and activities of self-decisive, independent and aware citizens[8]. Making cities smarter means improving them in these dimensions. New internet-enabled services and applications are key in this process, increasing the efficiency, accuracy and effectiveness of operation of the city's complex ecosystem.

Participants cited a number of examples of European cities that were making important progress in this respect using open/user-driven approaches. These included:

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[8] *Smart cities – Ranking of European medium-sized cities*, Final Report, October 2007, www.smart-cities.eu

- **City of Helsinki**, which has put user-driven innovation environments and public procurement at the heart of its new competitiveness strategy[9] [10]. For instance, the Forum Virium Helsinki cluster brings together corporations, R&D institutions and the City of Helsinki to create future digital services. It is a platform for open, market-driven innovation, located in the metropolitan area, and acts as a matchmaker between partners. Other Living Labs examples include the Healthy Helsinki platform (focusing on e-health projects), and Smart Urban Spaces (focusing on new service infrastructure and delivery platforms).

- **HotCity**, a city-wide wifi network with over 500 access points across the centre of Luxembourg[11]. The system uses mesh technology, meaning that not every device requires fibred connectivity. The dynamic topology supports rapid deployment and response to failures, while allowing access to be dictated by the location of the use rather than the fibre. It supports a variety of location-based services, such as bike rental and kerbside information kiosks. The system is now being 'mutualised' - opened up to partners such as hotels, cafes and businesses who are able to offer it as a service to their customers.

- **iBrussels** is a Living Lab for context-aware services. Urbizone is a wifi mesh network (now being extended with RFID) covering 1 square kilometre of central Brussels and connecting around 10,000 users[12]. It is complemented by AirGraffiti, an open application environment that enables businesses and citizens to develop new context-aware services. The system links easy and attractive community interaction to the local urban context.

- **iCarYou** is a car-sharing service that used international cities as a strategic innovation platform[13]. Users coordinate their transport needs via mobile phone, so saving time, money and emissions. The concept was pioneered in Apeldoorn, the Netherlands, before being piloted in Hamburg, Germany on its way to a global roll out.

In the smart city, the focus is not on internet access (which is taken to be a commodity) but on the new applications and business models required to deliver sophisticated services to users.

3.2 Key Issues

The workshop discussions raised a wide range of issues relating to the needs and challenges of Smart Cities in general, the potential of the proposed Pilot projects in addressing these, and potential ways forward. Key issues in each of these areas are summarised below:

Smart Cities - Needs and Challenges

A first set of issues was concerned with generic challenges surrounding Smart Cities and how they could be addressed:

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[9] Presentation of Eero Holstila, Director of Economic Development, City of Helsinki
[10] *Prosperous Metropolis, Competitiveness Strategy for Helsinki Metropolitan Area* (*2009*)
[11] Presentation of Thomas Scherer, Telindus Luxembourg
[12] Presentation of Pieter Ballon, IBBT
[13] Presentation of Sascha Haselmeyer, Living Labs Global

- **Overcoming fragmentation:** Current efforts are highly fragmented. Although innovative ICT solutions are being widely applied in European cities (such as the examples listed above), there is effectively a sea of service and market islands. Much more needs to be done to overcome the 'commercialisation gap' that prevents solutions becoming scalable and so enables the development of markets across Europe and beyond, in particular by SMEs. Networking between cities, showcasing of solutions, and joint development of common open platforms are all means to help overcome this fragmentation.

- **Context is local:** In the current internet, dominated by Web 2.0 applications and services, content is king. Looking ahead, however, the fixed internet paradigm will be replaced by a mobile paradigm based on ubiquitous infrastructure. By making the internet ubiquitous we make it more local, creating opportunities to interact in our local context, with local communities, and with local content. Thus, context – defined by identity, location and community – will replace content as the dominant success factor. The city, with its high densities of both people and services, is the natural habitat for this ubiquitous web, and local smart cities can be Living Labs for Future Internet applications. These will not just be services *for* citizens (developed by city administrations and businesses) but also services developed *by* citizens themselves.

- **A user-driven approach is key:** User-driven open innovation methodologies have proven that they can significantly improve the efficiency of the innovation process by bridging between R&D and market entry, so supporting better and faster take-up of R&D results. They are rapidly becoming the new mainstream method of innovating. It is essential that Future Internet developments for Smart Cities reflect this user-driven approach. Living Labs are particularly important in this respect, bringing together all relevant players within the value network. In these user-driven open innovation ecosystems, development is no longer sequential but iterative and inter-weaved. In the city context, 'users' means not only individual citizens and SMEs but also city managers and employees. Once the different players start working together, non-linear innovation processes emerge covering technology, process and business model innovation. Finding the right settings for these collaborations – ones that empower users alongside other stakeholders – is highly challenging, however.

- **Sustainability depends on changing behaviour:** Technology changes quickly, people and organisations less so. For Smart City initiatives to be sustainable beyond the lifetime of a particular initiative or project, they have to deliver real change. This requires a combination of bottom-up – working on the ground to ensure programmes actually transform individuals' behaviour – and top-down – taking into account the needs and concerns of incumbents. Thus, we need innovation in business models for service delivery. This requires a value chain approach, looking at factors such as incentives and motivations and when and how benefits are delivered, as well as how technology is applied. Experience suggests that the most successful programmes are those that invest by objective rather than by technology[14].

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[14] See, for example, the Living Labs Global showcase: www.livinglabs-global.com/showcase

Considerations for Pilot Projects

A second set of issues related more directly to the pilot projects, their objectives, scope and focus:

- **Multi-level partnerships are needed:** Smart Cities is not just an issue for city authorities. On the contrary, a very wide range of organisations need to be involved and getting all relevant actors together will be a very demanding task. Stakeholders include telcos, power companies, transport operators, SMEs, health services, universities and research centres, voluntary and third sector organisations, etc, all of whom speak different languages. Some of these incumbents have much to gain from new internet-enabled developments, others could lose and can be expected to be suspicious of disruptive technologies. Furthermore, many city authorities are themselves risk averse. Thus, the pilots should aim towards multi-level partnerships that bridge these different communities and build common agendas.

- **Comparable networks and cultures:** Smart City programmes have to be routed in political reality. Mayors and their officials have many competing demands on their time; they are not looking, and not able to be involved in huge networks. Rather they are seeking relatively small networks of a manageable size, comprising cities and individuals with similar cultures and values. With this shared world view, they will be able to develop - relatively quickly and efficiently - common policy perspectives. Furthermore, these networks need not necessarily be cross-border: such is the need for learning and sharing that significant gains can be achieved by national and local level networks as well. For instance, national level networks as satellites of leading international Smart Cities could be an effective model.

- **Real world awareness as a key enabler for smartness:** Real world awareness is considered a key enabler for 'smart' services and applications. To achieve this we need to be able to efficiently capture real world knowledge in real time and then efficiently re-use and share that knowledge across different service domains. Key technologies here will be:
  i) The Internet of Things – networked sensors, actuators, and ID technologies providing a real world information fabric for cities;
  ii) Real world knowledge - making sense of the real world information using knowledge engineering approaches; and
  iii) Networked knowledge and knowledge sharing – interlinking knowledge from different domains to gain new insights and maximise synergies.

Smart Cities will require city-wide access to sensor and actuator information collected in real time via the internet. Relevant aspects are being addressed under several current projects launched as part of the EU's Future Internet research. Examples include SENSEI, which is looking at how to integrate the Internet of Things into the digital Future Internet and create a marketplace based on real world information and actuation; and mCiudad, which is exploring new approaches to mobile service platforms in city eco-systems.

Further investment in infrastructures will also be required. Ubiquitous internet access – both wired and wireless – at the speeds necessary to support these new services and applications is far from universal. Moreover, prices in Europe are still significantly higher than those in other regions, especially Asia.

- **Open data and interfaces as a key driver for new services:** The situational and location-based data generated by new smart city environments will add to the already considerable range of data available to city public authorities. This data relates not only to individual citizens and businesses, but also to other entities and locations (bus movements, traffic flows, pollution levels, etc). Citizens and businesses need to be able to access this data in order to build locally-based, context-rich services. This requires:
  i)   data is available on an open basis;
  ii) efforts are made to harmonise data within particular domains to avoid creating further 'city service islands'; and
  iii) focus on integration and open interfaces (APIs) so that other users and other cities can adopt and/or improve on the service.

Such aspects also raise important issues around privacy and security. Citizens are already concerned about what some see as the increasingly pervasive nature of technology and there is scepticism (and sometimes resistance) on issues such as data mining, antennas, RFID chips, and surveillance. Thus, open data is a societal as well as a technological challenge.

Implementation

The third set of issues related to how the proposed pilots could be used to **build Smart Cities as Living Labs** – how they should be structured and interlinked, including the capturing and dissemination of knowledge.

Although Living Labs are widely acknowledged as a model for user-driven open innovation, how to apply this at the level of the Smart City is still an open issue. Questions include:

1. What type of forums should be used to bring together the very wide range of stakeholders involved, from designers and engineers, to citizens and other end-users?

2. How can we involve SMEs, who are a particularly difficult group to reach but have the most to gain in developing global markets for smart city services?

3. How can we ensure such Living Labs become embedded within their communities?

There is a tension here in that the pilots need to be driven by the cities themselves, but also to deliver meaningful results from a technology perspective and provide a demonstrable stimulus to innovation. Some participants thought that a completely open approach should be followed, whereby priorities and interests would emerge; others argued in favour of more structured approaches, where there is at least a degree of orchestration.

One model the pilots might inform or work towards is the Green Digital Charter being launched by EUROCITIES at its annual conference in Stockholm. This is intended as a practical way for major European cities to demonstrate leadership and create a new focus in using ICT to achieve innovative ways of increasing energy efficiency. The Charter includes proposals for action relating to emissions from ICT itself, but more significantly on the restructuring role that ICT can play in enabling greater energy efficiency and, as a result, more low-carbon activities. It also entails a series of pledges that signatory cities will sign up to.

3.3   Scenarios for Smart Cities

Finally, participants identified a series of scenarios that could be the basis for the proposed pilot projects. This was only a preliminary list, however, and warrants further elaboration. The scenarios included:

- **The City as an Open Innovation Platform:** This scenario would experiment with ways in which data could be gathered through a cooperative portal and made available to anyone to build software and services (through service mash-ups). Key issues include how to build a community around the cooperative platform, including technology developers, service aggregators and beta testers.

- **The City as a Digital Marketplace:** Cities are key commercial marketplaces, yet many of the SMEs within cities still experience great difficulties in trading across borders. This scenario would promote digital trade between cities, as well as city-based digital markets within specific locations. It would also promote uniform access to city services and cross-border sharing of best practices on local digital marketplaces.

- **The Messy-Smart City:** In the Smart City digital data and sensor data will come from many locations in messy ways with no prior coordination. This raises important questions about how to collect and store the data and aggregate it into solutions. Technologies such as data mining and data visualisation could be used, possibly applied within a specific thematic domain (e.g. tourism).

- **Smart Mayors:** Smart City concepts will only achieve traction if they are understood and supported at the highest levels of city administrations and are seen to contribute to everyday needs and challenges. Thus, there is scope for the pilots to experiment with high-level engagement and dialogue. One approach could be to develop a dashboard for city managers and decision-makers that draws together all relevant data. Data visualisation would be used to produce a variety of indicators, which managers could feed through into workflows and scenario planning.

- **The Green City:** As noted above, ICT offers important opportunities to address the environmental agenda in relation to cities, and green issues are likely to be a major component of Smart City concepts. Aspects such as user involvement, open access to data and information, and new platforms and service models could all be key in achieving real and lasting changes in behaviour.

The ICT-PSP Work Programme 2010 foresees five Smart Cities pilots. These should meet the requirements for Type B projects, although there is scope for some flexibility in how these are implemented. In addition, selected pilots should, of course, address the three synergistic elements described above (open innovation, cross-border city networks, innovative ICT-based services).

4. Next Steps

The meeting explored open innovation for future internet-enabled services in Smart Cities from a number of perspectives. It brought together, for the first time, representatives from digital city initiatives and Living Labs, with experts on Future Internet technologies from industry and the research community.

User-driven open innovation and cross-border aspects were well addressed, although the technology dimension was explored in less detail. Additional attention should be given to the types of services and platforms required to deliver Smart Cities, and then the Future Internet technologies required to meet those needs.

Further dialogue between these various communities should be explored, including at the Future Internet Assembly meeting in Stockholm. The European Commission also plans to hold an Information Day relating to the forthcoming ICT-PSP Call in early 2010.

Further information and inspiration may be obtained at the Commission webpages ec.europa.eu/livinglabs and ec.europa.eu/information_society/activities/ict_psp and from the following sources (NB: these are not official Commission websites):

- European Network of Living Labs (ENoLL): www.openlivinglabs.eu and www.ami-communities.eu
- Green Digital Charter: www.eurocities.eu
- Innovation for Life Quality - Slovenia Living Lab: http://SloveniaLivingLab.org
- Living Labs Global: www.livinglabs-global.com/showcase & www.livinglabs-global.com/blog
- SAVE ENERGY project: www.ict4saveenergy.eu
- DEHEMS project: www.dehems.eu

Annex 1: List of Registered Participants

Smart Cities Workshop, 16-17 November 2009

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Annex 2: Workshop Agenda

Smart Cities Workshop, 16-17 November 2009

EUROCITIES, Square de Meeûs 1, B-1000
Brussels, 1st floor

Agenda and timetable

Monday, 16 November:

12:00 Welcome lunch, hosted by EUROCITIES

13:30-14.10 Opening, chaired by Silke Moschitz, EUROCITIES

13.30 Silke Moschitz – EUROCITIES
13.40 European Commission – Mário Campolargo, EC

13.50 Presentation of the Discussion Paper – Max Lemke, EC

14.10-15.15 Reflection from different perspectives, chaired by Per Blixt, EC:

14.10 Smart cities and their role – Dave Carter, Manchester Digital Development Agency
14.20 The role of living labs – Olavi Luotonen, EC
14.30 Smart networks, objects, buildings, and people - empowering the Internet for smarter cities
        – Gerard Santucci, EC
14.45 The need for open platforms for web services – Dirk Van Rooy, EC
14.55 City application perspective – Eero Holstila, City of Helsinki

15:05 Coffee break

15:30 First reflections on the discussion paper as stimulation, individual or representing communities
(10 minutes each), chaired by Per Blixt, EC:
Ger Baron – Amsterdamse Innovatie Motor, City of Amsterdam
Joan Batlle i Monserrat – City of Barcelona
Pieter Ballon – iLab.o, IBBT; APOLLON pilot project
Roberto Santoro – ESoCE Net; European Network of Living Labs
Daniel Kaplan – The Next Generation Internet Foundation; Silicon Sentier
Thomas Scherer – Network & Security Solutions, Telindus Luxembourg
Sascha Haselmayer – General Director, Living Labs Global
Alex Gluhak – University of Surrey

17:00-19:00 Parallel group discussions (2 hrs), including brief (max. 3 min) position statements by
those not yet presented:

*   Cities and living labs, moderated by Dave Carter, Manchester Digital Development Agency
*   Technologies and applications, moderated by Alex Gluhak, University of Surrey

19:30-22:00 Dinner (at the participants' own expense, Café des épices)

Tuesday, 17 November

08:30 Morning coffee

09:00 Monday parallel groups feedback at the workshop plenary and opening of the Knowledge Café pilot idea generation

09:30 Knowledge Café, pilot idea generation discussion with 2-3 participants per community (2,5 hrs) (rotation of participants)

12:00 Feedback and discussion at the workshop plenary

12:30-13:00 Conclusions

**Receiving contributions from the participants before the workshop:**

For all 10-minutes presentations which will use slides, those slides (max. 10 slides) are requested to be sent beforehand to: soraya.zanardo@eurocities.eu by Thursday, 12/11/2009. They are foreseen to be made public via the EC website: http://ec.europa.eu/livinglabs .

While all workshop participants cannot make an actual presentation at the workshop - to allow time for the workshop groupwork – every participant who desires to contribute a relevant (self-explanatory) max. 10-slides presentation (or alternatively a relevant article) for publication in the workshop context, is welcome to do so by sending it to: soraya.zanardo@eurocities.eu by Thursday, 12/11/2009.

It should be noted that the Workshop Report, by rapporteur Mike Sharpe, is foreseen to be made rapidly public at http://ec.europa.eu/livinglabs by the end of the workshop week. This underlines the need to have contributions arriving beforehand to make an optimal impact.

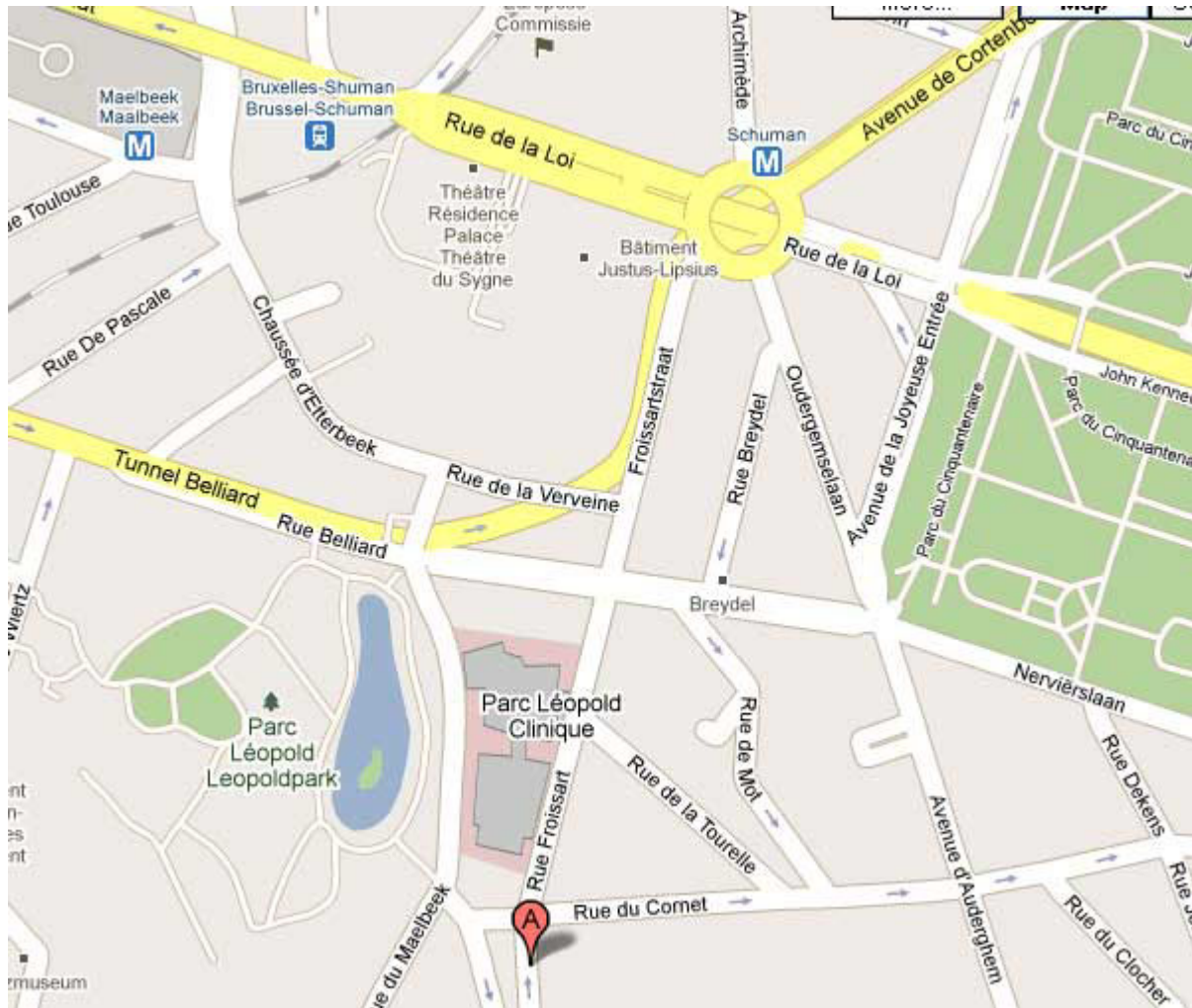**Workshop venue, 16 & 17 November 2009**

Square de Meeus 1, 1st floor, 1000 Brussels
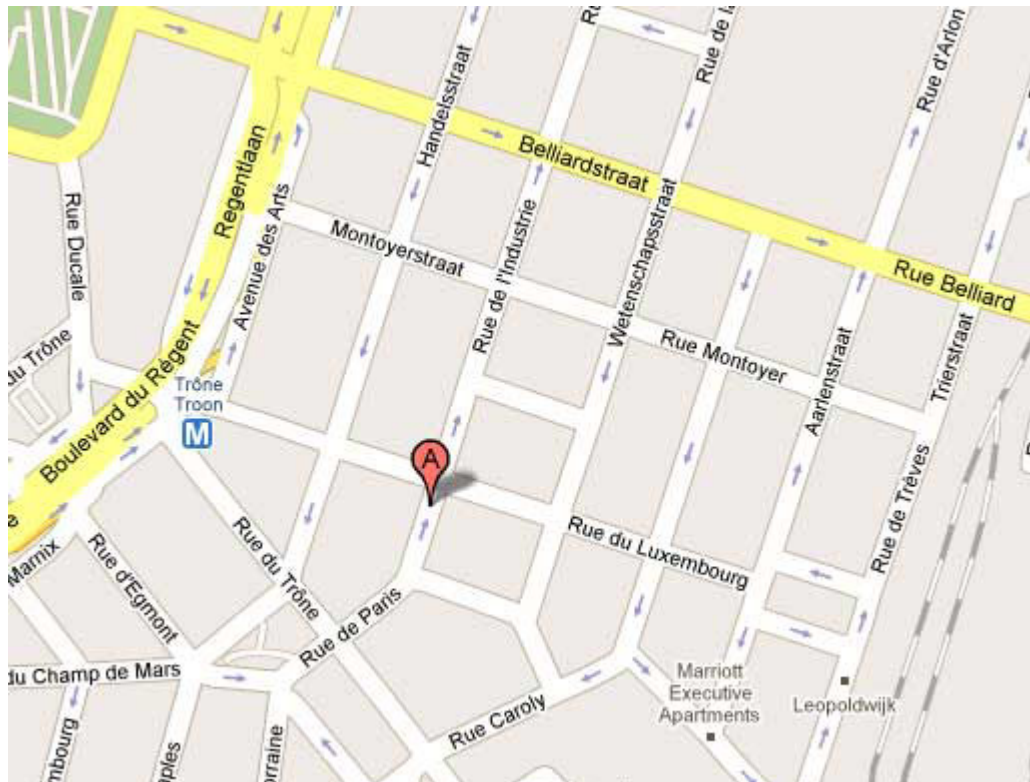
Informal dinner, 16 November 2009, 19:30h

An informal dinner has been arranged at Café des épices, Place Jourdan 21, 1040 Brussels.

Location of dinner venue:

The Dinner will be at participant's own expenses. It is requested that participants interested in attending the dinner notify soraya.zanardo@eurocities.eu by Thursday, 12/11/2009.