

Advancing and applying **Living Lab methodologies**

An update on Living Labs for user-driven
open innovation in the ICT domain

JULY 2010

••• **Directorate-General
for the Information
Society and Media**

Unit F4 — New Infrastructure Paradigms
and Experimental Facilities

European Commission
Information Society and Media



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Information about the activities of the European Commission on user-driven open innovation activities and Living Labs

http://ec.europa.eu/information_society/activities/livinglabs

Thematic portal on the information society

http://ec.europa.eu/information_society

European Future Internet activities

http://ec.europa.eu/information_society/activities/foi
<http://cordis.europa.eu/fp7/ict/fire>

European Union window to research and technological development and information about the ICT programme (CORDIS)

<http://cordis.europa.eu/fp7/ict>

ICT policy support programme (ICT-PSP) of the competitiveness and innovation programme (CIP)

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



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Foreword

Even in the 17th century, Sir Francis Bacon argued that knowledge could be gained by testing ideas through experiments. It was the birth of modern science. Since then, technology has developed in dimensions that not even Sir Francis could have predicted. Nevertheless, there is still a need for faster market take-up and locally adjusted products and services.

User-driven open innovation is one way to deal with market fragmentation and obstacles. New methodologies, such as Living Labs, have made the innovation process more efficient by bridging the gap between R & D and market entrance, supporting better and faster take-up of R & D results. Open innovation is considered a mainstream process of innovating today, which contributes to enabling small and medium-sized enterprises (SMEs) to create Lead Markets by overcoming existing barriers on various local and regional markets.

Under the ICT policy support programme of the Competitiveness and Innovation Programme (CIP) and the ICT programme of the Seventh Framework Programme (FP7), the European Commission supports several projects with strong elements of user-centric open innovation and Living Lab methodologies. The European Network of Living Labs (ENoLL) initiated under the Sixth Framework Programme (FP6) is a key enabler for exploiting synergies among open innovation related activities.

In several current Communications by the European Commission, the high potential of user-driven innovation is highlighted: In the “Public private partnership on the Future Internet”¹ under the ICT Programme as well as in the theme on “open innovation for future internet enabled services in smart cities” under the CIP Programme, Living

Labs have an instrumental and mediation role to play in connecting technology push and application pull. Being an integral part of city innovation ecosystems, which are considered important catalysts for experimenting and validating new Internet technologies, services and platforms, Living Labs are ideally positioned to fulfil this role.

Beyond that, industry-led initiatives for ICT innovation are also becoming crucial in the context of the recently published ‘Digital Agenda for Europe’².

This brochure is an update of the recent publication *Living Labs for user-driven open innovation* and includes a selection of ongoing dynamic activities and projects in the field of open innovation by advancing and applying Living Lab methodologies.

Mário Campolargo

Mário Campolargo



1 A public-private partnership on the Future Internet. Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions. Brussels, 28 October 2009.

2 Digital Agenda for Europe. Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions. Brussels, 19 May 2010.

1

Advancing and Applying Living Lab Methodologies

1.1. Open innovation and Living Lab methodologies

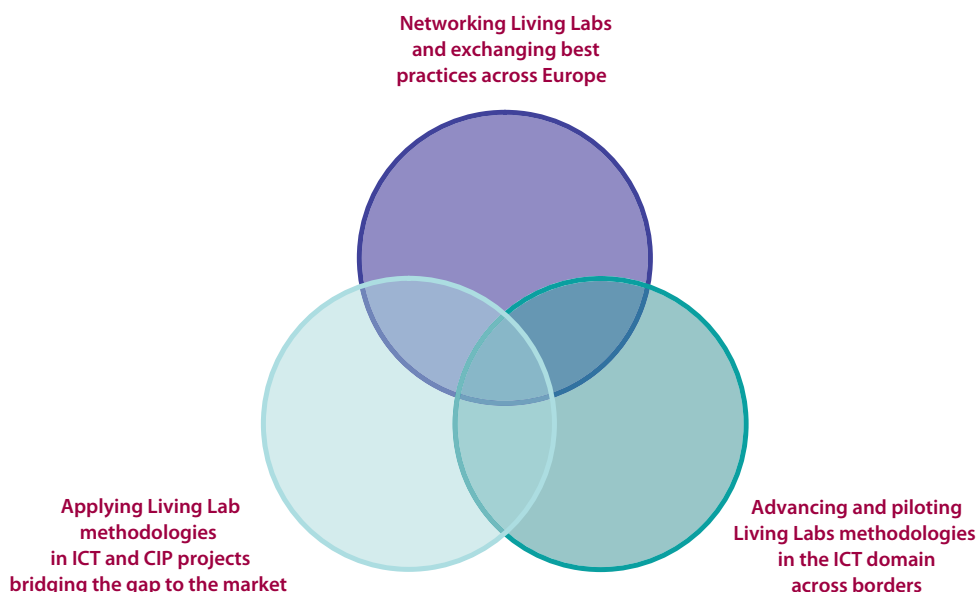
User-driven open innovation methodologies have made the innovation process more efficient by bridging the gap between R & D and market entrance, supporting better and faster take-up of R & D results. These methodologies are rapidly becoming the new mainstream method of innovating.

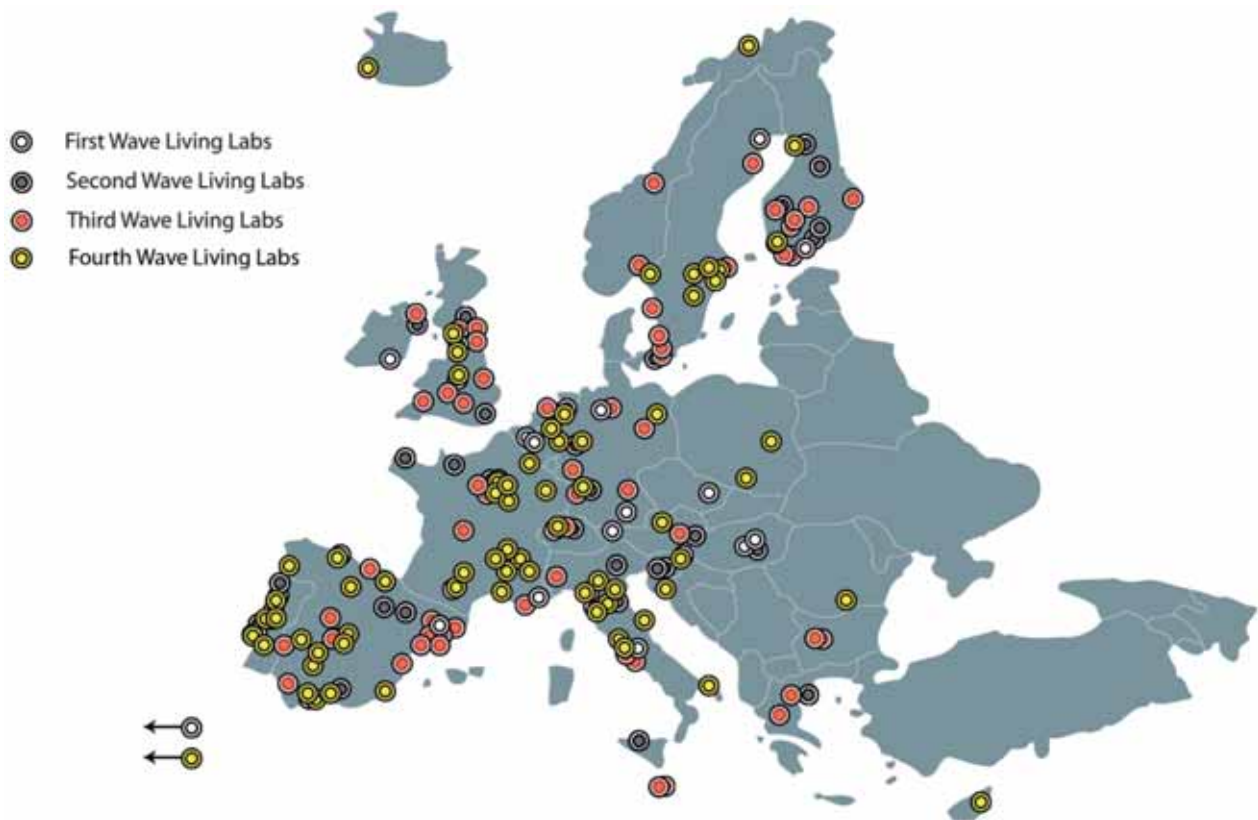
Living Labs are examples of useful open innovation environments in real-life settings. User-driven innovation

is fully integrated in the co-creative process of new services, products and societal infrastructures.

Due to the fast and successful evolution of the Living Lab movement, this leaflet has been produced as an addendum to the brochure *Living Labs for user-driven open innovation — An overview of the Living Labs — Methodology, activities and achievements, January 2009*.

The Information Society and Media Directorate-General of the European Commission (Information Society and Media DG) is promoting user-driven open innovation methodologies in its research, development and innovation programmes along three dimensions.





1.2. Networking Living Labs

The European Network of Living Labs (ENoLL), founded in 2006, with 212 members (in 2010), facilitates the cooperation and exploitation of synergies between the members by offering networking possibilities, deriving and sharing benchmarking experience, sharing best practices, providing services and tools, and accessing different kinds of user communities, both in terms of different domains and geographical locations allowing for bottom-up creation of a single market for services. During the spring of 2010 under the Spanish Presidency, a fourth wave of members will join the European network. The ENoLL international non-profit association was created in January 2010, with its seat in Brussels. As a legal entity, this association ensures a range of professionally managed services for its members.

ENoLL builds the basis for the other two dimensions of open innovation related activities in the Information Society and Media DG. New RTD and innovation projects find suitable open innovation partners through the network and at the same time have access to a broad pool of experiences and best practices relevant to them. For advancing and piloting Living Lab methodologies in the ICT domain across borders, small groups of Living Labs that are part of ENoLL with similar or complementary profiles join forces to pilot new concepts.

The foundation of ENoLL and its expansion has been and is continuously supported through the IST/ICT programme and other programmes. Under the objective 'Future Internet research and experimentation', one support action stimulates networking of Living Labs and the Future Internet research communities towards bringing the final end-user in the loop in large-scale trials¹.

1.3. Applying Living Lab methodologies

Many recently started research, development and innovation projects under the ICT, CIP and other programmes include Living Labs as partners and apply Living Lab methodologies in order to bridge the gap to the market. Below are some representative examples of what role Living Labs are playing in such projects.

PreCo ²



PreCo is funded under Objective 9.3 'General accompanying measures' of the ICT 2009/10 work programme and aims at supporting public authorities in undertaking **pre-commercial procurement** actions, which stimulate innovation by engaging market suppliers and end-users. The role of Living Labs in the project is to bridge the gap between technology innovation and the market. Living Labs can provide a demand-driven approach by engaging all key actors across the process,



² Information Society and Media DG unit responsible: F4 — New Infrastructure Paradigms and Experimental Facilities (<http://ec.europa.eu/livinglabs/>).

with a user-centric focus. Cities or regions serve as test markets for implementing new and innovative products and technologies. Both suppliers and end-users are invited to take part in the pre-commercial procurement process. The project will cooperate with ENoLL when consolidating best practices.

Dehems ³



The Dehems project is funded under Objective 6.3 'ICT for the environmental management and energy efficiency' of the ICT 2007/08 work programme and aims at developing and testing an **energy management system** for domestic use, which monitors the way energy is consumed. The role of Living Labs in the project is to enable a series of iterative piloting and testing of energy equipment in the homes of the users. The readings are fed into a web page that will display the household usage and give advice on energy reductions. The open innovation process allows households to set targets and run comparisons against others in the network and further improve the equipment itself.



³ Information Society and Media DG unit responsible: H4 — ICT for Sustainable Growth (<http://cordis.europa.eu/fp7/ict/sustainable-growth/>).

‘Save energy’⁴



The ‘Save energy’ project, funded under Objective 2.1 ‘ICT for energy efficiency in public buildings and spaces including lighting’ of the CIP ICT-PSP 2008 work programme, aims at transforming the energy consumption behaviour of users in public buildings (civil servants, citizens, policymakers) by applying existing ICT-based solutions that will provide real-time information about consumption to the user. The role of Living Labs in the project is to engage the users in the co-creation of new processes and behaviour, by means of a systemic approach with all stakeholders sharing experiences and expectations.



Target⁵



The Target project funded under Objective 4.3 ‘Digital libraries and technology enhanced learning’ of the ICT 2007/08 work programme aims at analysing and developing a new genre of technology enhanced learning that provides both individuals and enterprises with a new responsive learning environment in the domains of project management. The role of Living Labs in the project is to manage user-centric processes and innovation orchestration, involving multiple stakeholders in Living Lab environments.



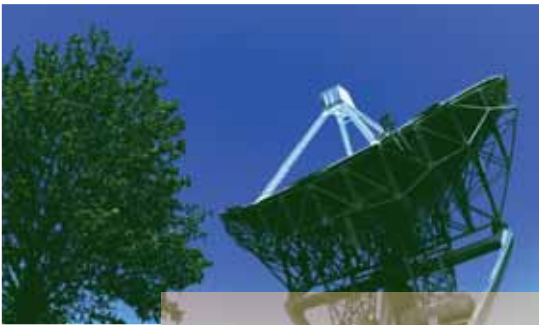
⁴ Information Society and Media DG unit responsible: H4 — ICT for Sustainable Growth (<http://cordis.europa.eu/fp7/ict/sustainable-growth/>).

⁵ Information Society and Media DG unit responsible: E3 — Cultural Heritage and Technology Enhanced Learning (http://cordis.europa.eu/fp7/ict/telearn-digicult/home_en.html).

GAINS ⁶



The 'Galileo advanced innovation services' (GAINS) project, funded under the 'Cooperation' specific programme (transport), support to Galileo and the European Geostationary Navigation Overlay Service (EGNOS), under Objective 4.3.3 'Research and innovation in GNSS' of the Seventh Framework Programme, aims at implementing effective Galileo downstream application innovation services and coordinating them by implementing an 'innovation highway' as a seamless process on a European scale. The role of Living Labs in the project is to use open innovation environments provided by ENoLL that will help the project develop a new set of satellite-based user-friendly services.



⁶ Responsible: European GNSS Supervisory Authority (<http://gsa.europa.eu/>).

1.4. Advancing and piloting Living Lab methodologies

Since 2008, the Information Society and Media DG has promoted and piloted user-driven open innovation methodologies in the ICT policy support programme of the competitiveness and innovation programme (CIP) and the ICT work programmes.

CO-LLABS ⁷



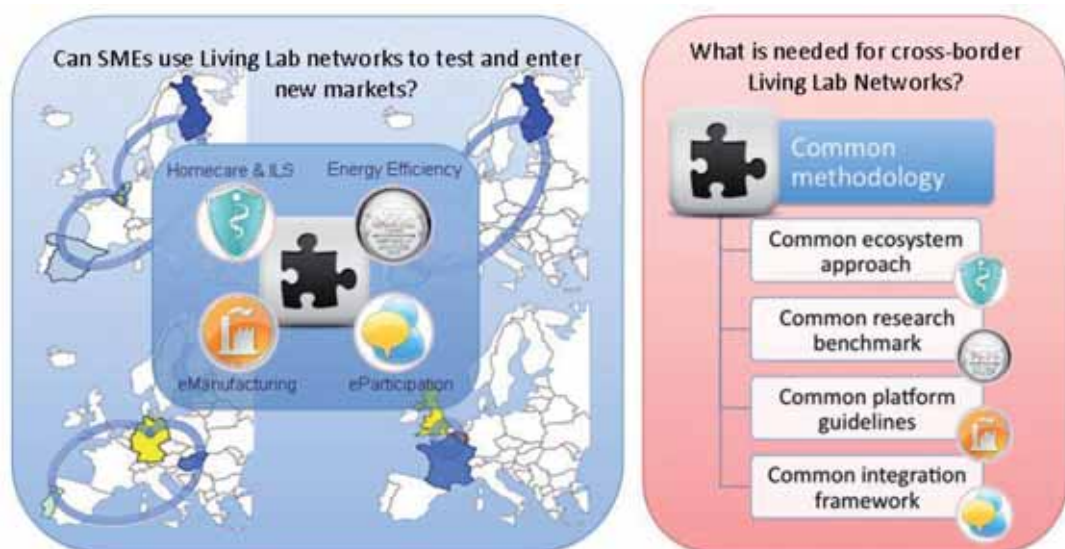
The CO-LLABS thematic network is funded under Objective 4.1 'Experience sharing on ICT initiatives for SMEs' of the CIP ICT-PSP 2007 work programme and promotes the wide adoption of ICT-based Living Lab services and practices, allowing SMEs to improve their innovation capabilities and processes, and furthermore to become part of open innovation environments. The network brings together a selection of Europe's most advanced Living Labs with regional SME innovation-oriented organisations to exchange practices and derive plans for specific pilots in areas such as e-health, energy, media, e-business and e-inclusion.

Apollon ⁸



The Apollon pilot project is funded under Objective 8.1 'Sharing of best practice across European Living Labs including SMEs as key user- and provider-participants' of the CIP ICT-PSP 2009 work programme and aims at demonstrating the added value of cross-border Living Lab networks by setting up four European pilots in the areas of homecare and independent living, energy efficiency, e-manufacturing and e-participation. Each experiment focuses on a specific cross-border harmonisation and networking aspect:

- **the homecare solution** is piloted in a local Living Lab and transferred to others in order to determine what kind of ecosystem, value network and common approach needs to be established to carry out cross-border pilots;
- **the energy efficiency experiment** is developing a common benchmark framework that will be used in all Living Labs in the experiment to assess the scalability of the Living Lab network;
- **in the e-manufacturing pilot**, each domain-specific Living Lab is using a common technical platform, to ascertain to what extent the use of the platform



⁷ Information Society and Media DG unit responsible: F4 — New Infrastructure Paradigms and Experimental Facilities (<http://ec.europa.eu/livinglabs/>).

⁸ Information Society and Media DG unit responsible: F4 — New Infrastructure Paradigms and Experimental Facilities (<http://ec.europa.eu/livinglabs/>).

facilitates the creation of services between Living Labs, and investigates if it stimulates new forms of collaboration between different partners;

- **the e-participation pilot** transfers and integrates several locally tested applications into the different Living Labs active in the network, and test how integrated

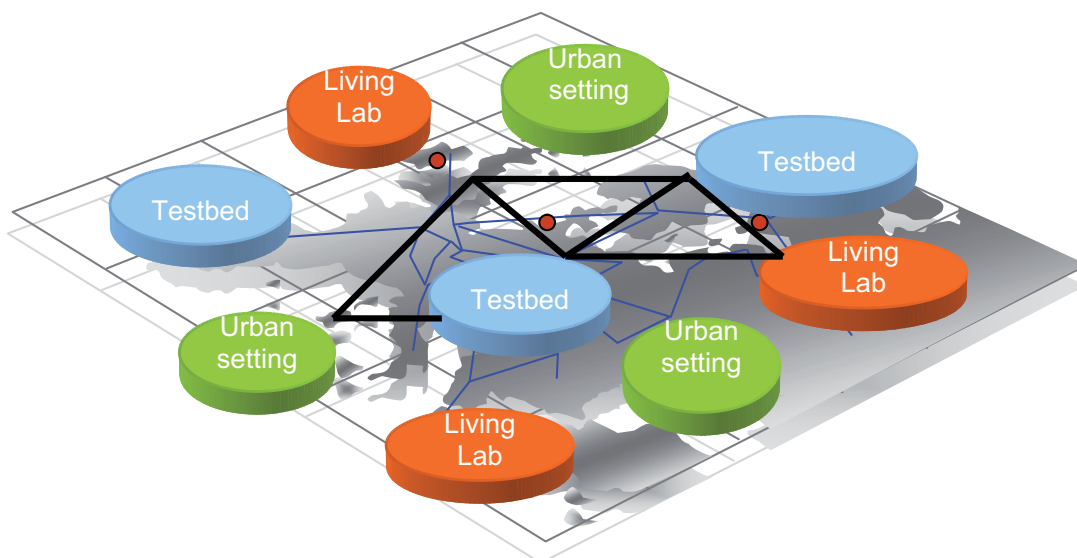
e-media technologies can encourage e-participation. The project will improve Living Lab harmonisation and collaboration across borders, demonstrating Living Labs as enablers for SMEs to create lead markets by overcoming existing (legislative, financial, social and cultural) barriers on the fragmented markets in Europe.

Fireball



The Fireball coordination action is funded under Objective 1.6 'Future Internet experimental facilities and experimentally-driven research' of the ICT 2009/10 work programme. The project aims at coordinating and aligning methodologies and approaches in the domains of 'Future Internet research and experimentation (FIRE)'

test-beds and user-driven open innovation towards successful innovation in 'smart city' environments. Fireball will further establish effective forms of cooperation across the 'Future Internet' innovation value chain, creating synergies and cooperation practices among different research and innovation communities related to the 'Future Internet'. The goal is to establish common processes and methodologies and share the assets of the different stakeholders. The beneficiaries of the Fireball results will be cities, the FIRE and Living Lab communities, as well as policymakers at regional, national and European levels that develop strategies to explore the 'Future Internet' and user-driven innovation for the benefit of social and economic development.



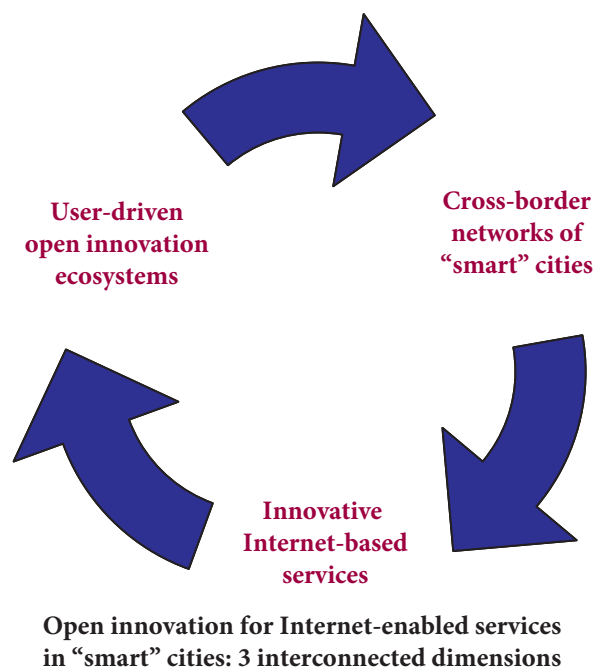
1.5. Future Living Lab related pilots under the CIP

In the Information Society and Media DG communication 'A strategy for ICT R & D and innovation in Europe: Raising the Game'⁹, under the actions which support the facilitation of emerging markets for innovation, it is recommended that 'the CIP will also support SMEs piloting highly innovative technologies, and the development of open platforms for user-driven innovation.' Under the next work programmes of the ICT policy support programme of the CIP, the European Commission plans to support several pilot projects, which use the methodology of open innovation to support the take-up of Internet-enabled services in 'smart cities'. Here Living Lab methodologies are to be applied and demonstrated across borders to reach a concrete ICT policy objective.

In more detail, the following three interconnected dimensions have to be addressed in a coherent way, integrating all relevant stakeholder communities.

1. **Open platforms for Internet-based services.** Through the evolution of its services and social networks, the Internet has become a significant part of our daily life. **Internet-based services** are at the centre of our society and economy. They are changing the way we do business, how we interact with our government and actively participate in our democracies, how we care for our well-being in terms of health and ageing,

how we organise our life in terms of transport and living, how we protect our environment and how we best use our scarce energy resources. Today, the development status of Internet-based services can be best characterised as a market of island solutions in many application areas leading to a user-unfriendly situation, in which the user has to familiarise him or herself with each service used. This leads to a barrier in even broader take-up of Internet-based services, which is difficult to overcome. Therefore, interoperability, integration, standardised user interfaces and, more generally, **common open platforms** for Internet-based services have become major priorities in the development of Internet-based services. Another important content aggregation technology is the **data mash-up** which combines similar types of media and information from multiple sources into a single representation¹⁰. Both the common open platforms and data mash-up are imperative for the development of new Internet-based services. Currently, **new and, in some ways, revolutionary Internet technologies are maturing**: location-based technologies, Internet-of-things technologies, new trust and security platforms, multimodal user interfaces, and simulation technologies, just to name a few. They are gradually entering the market by being used in innovative applications. In the next years a **new wave of Internet-based services** is expected, which has the potential of transforming our life, society and business. In order to speed up the take-up of these new services and to allow everybody to be included in this transformation, a significant effort has to be undertaken towards common open platforms for Internet-based services.



⁹ **A strategy for ICT R&D and innovation in Europe:** Raising the Game. Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions. Brussels, 3 March, 2009.

¹⁰ <http://wikipedia.org>

2. **Networked smart cities as a fertile playground for exploration.** In the above trend towards common open platforms, cities have gained an important role. Many cities in Europe and across the world significantly invest in common platforms for Internet-based services cutting across groups of application domains of importance for them to become **smart cities**. Again the situation can be best described as fragmented. Though cities are networked in city networks, due to different local situations and regulations, most developments are local to the individual cities. As neither the individual application areas nor individual cities have the resources and the potential to address this issue alone, it is necessary that applications and **cities connect**, share best practices, join forces and exploit synergies to become the pathfinders for this new wave of technologies and services.

3. **Open innovation as 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. As part of the city ecosystem, Living Labs engage the users early in the human-centric and participatory ideation and innovation process. This allows old and new technology and service providers to better discover new and emerging behaviours and patterns of use. By being networked across Europe, Living Labs can bridge language barriers and expose the cross-border similarities and differences, a crucial element if platform and service development is to

succeed. With broad technological expertise, they assess in a business–citizens–government–academia partnership, at an early stage, the socioeconomic implications of new technological solutions by validating innovative services, business models, processes and value networks.

1.6. Living Labs and The Future Internet Public Private Partnership

The Internet has become a global critical infrastructure and a remarkable catalyser for innovation and growth. Policy debates addressing the Internet of the Future are framed by two main considerations:

- i) How to leverage the Internet as a tool to radically enhance flexibility and sustainability of public or private business processes, as two “mega-trends” governing modern economies and societies;
- ii) How to address the limitations of forty years old architecture: the Internet was not designed to support the current and future blossoming of services and usages. After three revolutions, the limitations of its original design (e.g. performance, scalability, security, trust, mobility and broadband support) are becoming evident in the face of exponential usage trends.



The Communication “A Future Internet Public Private Partnership (FI PPP)”¹¹ puts forward consistent steps, under a single, structured and sustained initiative, in order to provide European Internet stakeholders with the opportunity to both investigate different technological options and to put them at work to make economies, business processes, infrastructures and societies “smarter” and more sustainable.

The goal of the FI PPP is twofold:

- a) to strengthen and further expand the competitive position of the European ICT industry, with special regard to sectors as telecommunication, operators, mobile devices, software and service, content and media;
- b) to contribute to the irreversible policy trend towards a more sustainable society, by demonstrating that key business processes can be made smarter through tighter integration with Internet capabilities. In order to help closing the traditional gap between R&D and innovation, the FI PPP combines a medium-term “market pull” approach driven by the needs of policy applications, with a “technology push” approach matching the research agenda of major European technology suppliers. The resulting ecosystem will systematically bring together the demand and the supply sides, and will allow involving users early into the research lifecycle, thus contributing to shorten time to market of products and services.

The “user- driven” innovation based approach puts Living Labs and similar organisations at the core of the initiative.

Though Living Labs are expected to have their main operational role in the third phase on large scale trials and validation, it is important that they are involved in the specification of use cases as well as experimentation infrastructures from the outset.

This way the FI PPP aims at paving the way towards a new Internet that will:

- address the technical shortcomings of today’s infrastructure, while promoting innovation and competition;
- allow Europe to effectively respond to the emerging societal challenges be it in terms of transport services, green energy and sustainable development or health services;
- provide economic actors, and in particular innovative SME’s, with opportunities to devise and launch new business ventures in the above application sectors, particularly in view of the “convergence” of technologies and economic models; this creates new market opportunities, still to date largely untested because of their very innovative and risky nature.

The PPP will pursue a holistic approach encompassing R&D on network and communication infrastructures, software, service and content/media technologies and their deployment on real application contexts.

The FI PPP is implemented under Work Programme 2011/12 and 2013, starting from summer 2010.

¹¹ **A public-private partnership on the Future Internet.**

Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions. Brussels, 28 October 2009.

2

Project fact sheets



Advanced pilots of Living Labs operating in networks

Apollon

Scope and objectives

One of the main strengths of the Living Lab approach is its ability to merge research and innovation processes with the local, real-life context. Over the past years, an increasing number of Living Labs have started operations throughout Europe, and are forming a vibrant and still growing community. It is clear that networking and federation at a European scale is needed in order to fully leverage the strength of these locally embedded labs. Current initiatives focus, for example, on the exchange of general principles and best practices for individual Living Labs.

The Apollon project will take the next step in networking and harmonising Living Lab approaches throughout Europe. It will evaluate the positive impact of domain-specific cross-border Living Lab networks. This approach enables SMEs to test and experiment their products and services outside of their home market and gain access to a true European market space, while being supported by large industrial companies, academic centres and other Living Lab stakeholders.

Apollon selected four domains in which ICT product and service innovation may benefit most from cross-border Living Lab networking: homecare, energy efficiency, e-manufacturing and e-participation through social media.

The main objectives of the Apollon project are to: (1) conduct cross-border Living Lab pilots, aimed in particular at SMEs; (2) harmonise methodologies and tools for cross-border Living Lab projects; and (3) create sustainable cross-border domain-specific Living Lab networks.

**Type of project**

CIP — ICT-PSP, 2009.
Pilot Type B

Project coordinator

Interdisciplinary Institute for
Broadband Technology (IBBT)

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Project website

<http://www.apollon-pilot.eu>

**Information Society
and Media DG unit responsible**

F4 — New Infrastructure Paradigms
and Experimental Facilities

**Community contribution to the
project**

EUR 4 million

Project start date

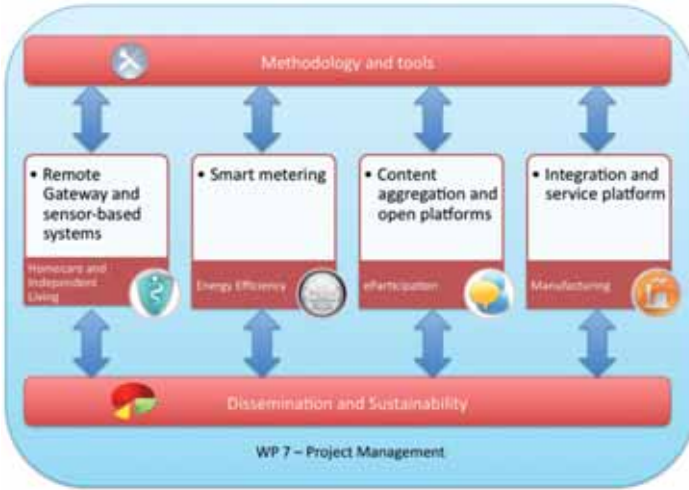
1 November 2009

Duration

30 months

Technical approach

Apollon is leveraging current experiences and ongoing investments to supplement cross-border pilots with best-of-class methods for setting up, developing and operating sustainable networks of Living Labs.



The project consists of four cross-border Living Lab experiments, i.e. in the domains of homecare and independent living, energy efficiency, e-manufacturing and e-participation. These will focus on validating the added value of a cross-border Living Lab network, both in terms of SMEs gaining access to new markets, and in terms of achieving collaboration breakthroughs in the development of pan-European domain-specific solutions.

Each experiment focuses on a specific cross-border harmonisation and networking aspect.

1. **A common ecosystem model**
(homecare and independent living experiment)
In the first experiment a homecare solution, which is being piloted in a local Living Lab, will be transferred to one other Living Lab belonging to the network. The focus of this experiment is to determine what kind of ecosystem, value network and common approach needs to be in place to conduct cross-border pilots and to what extent these prerequisites help to do this faster, easier and more efficiently.
2. **A common benchmark framework**
(energy efficiency experiment)
This experiment will develop a common benchmark framework that will be deployed in all Living Labs taking part in the energy efficiency experiment. The main focus here is to assess the scalability of the Living Lab network, its services, and the comparability of research data within cross-border projects.
3. **A common technology platform**
(e-manufacturing experiment)

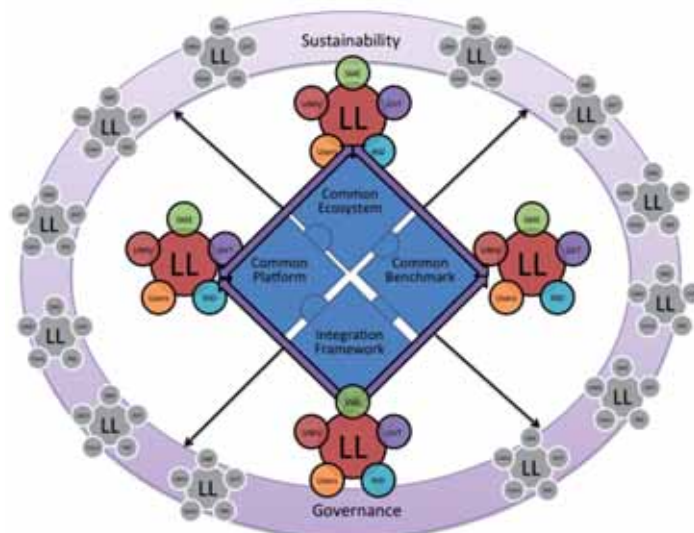
In this experiment a common technology platform will be introduced and used by each of the domain-specific Living Labs. The objective of this experiment is not only to see to what extent the use of such a common platform facilitates the creation of services between Living Labs but also to investigate whether this stimulates new forms of collaboration between different partners.

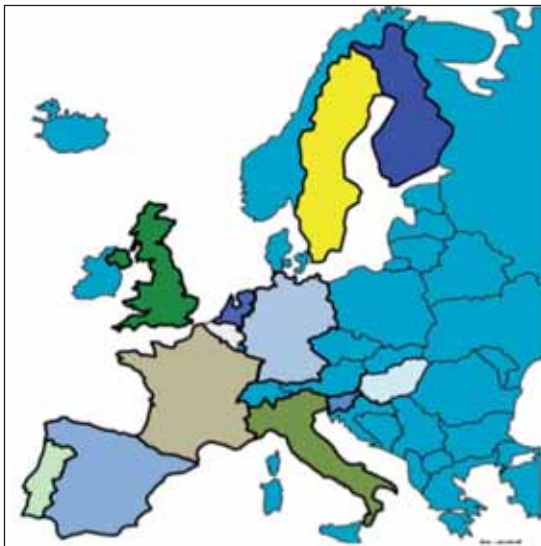
4. **An integration framework**
(e-participation experiment)
This experiment transfers and integrates several locally tested applications into each of the different Living Labs that are active in the network. By piloting the integration of applications developed by SMEs in all the Living Labs we can test how integrated e-media technologies can encourage e-participation and what the advantages, best practices and limitations of cross-border activities within the network are.

Target outcomes and benefits

The Apollon domain-specific experiments aim at a number of results that transcend the domain focus and are useful to any cross-border Living Lab network. Apollon will draft and validate **a methodology for setting up and piloting cross-border thematic Living Lab networks**. Along with these guidelines on how to create these sustainable networks, Apollon will recommend **a toolset to support these processes and procedures**.

Also, Apollon aims at **creating sustainable, cross-border thematic networks** that further explore the added value of connecting different Living Labs into a cross-border network, grouped by a thematic approach. In order to verify the benefits of this approach, Apollon will provide **an impact assessment** of this added value in terms of results, as well as operational efficiencies.





One of the major challenges in this project is to enable SMEs to gain access to new markets, using the Living Lab environment as a user-driven community, which provides invaluable feedback in the product development of new, innovative services. Since Apollon is actually piloting concrete services in thematic networks along the way, the project also aims to provide **the success stories of these SMEs**, as well as show how SMEs can best be involved in cross-border Living Lab projects.

Finally, Apollon will actively disseminate **recommendations and action plans for viable, sustainable and scalable rollouts to further domains and sectors**. These recommendations, based on a dialogue with the thematically structured Living Lab communities, will address the various requirements, governance structure and possible business models for a cross-border Living Lab network.

The Apollon Consortium consists of 28 core partners in 10 European Member States. It involves Living Labs, SMEs, large ICT companies as well as research partners. Through a close cooperation with the European Network of Living Labs, wide dissemination and involvement of the Living Lab community is ensured.

At this stage, Apollon has already established a large community of interest, not only within the consortium itself, but also by involving a large number of supporting partners.

At the kick-off of the project, 58 organisations from 22 Member States in Europe have expressed their interest in supporting the project.

A current list of the supporting partners for Apollon can be found online (<http://www.apollon-pilot.eu>).

Participant organisation	Country
Living Labs	
IBBT (coordinator)	BE
Amsterdam Innovation Motor	NL
ESOCE Net	IT
Fiapal	PT
Forum Virium	FI
Hungarian Vehicle Engineering Cluster	HU
iAvante	ES
ISSY Media	FR
Lisboa E Nova	PT
Manchester City Council	UK
Academic partners	
Helsinki School of Economics	FI
Luleå University of Technology	SE
Novay	NL
University of Maribor	SI
Université de Paris VIII	FR
Industrial partners	
NOKIA	FI
SAP AG	DE
Liander NV	NL
Logica NLBV	NL
SMEs	
3D2+	FR
Alfamicro	PT
Home Automation Europe	NL
Innoviting	NL
Intelligent Sensing Anywhere	PT
Luleå Energi	SE
Navidis	FR
Process Vision	FI
People's Voice Media	UK
Televic	BE
Ydreams	PT

Enhancing innovation in pre-commercial public purchasing processes

PreCo

Scope and objectives

The public sector in Europe is facing immense pressures for change. The local authorities play a key role in implementing public procurement policy and the legal framework. A city or a region may therefore become an important test market in implementing new and innovative products and technologies. In this context, there is an urgent call for action.

The overall objective of PreCo is to support public authorities in undertaking pre-commercial procurement (PCP) actions which stimulate innovation by engaging the suppliers in the market as well as the end-users (Living Labs). For this purpose, PreCo brings together a thematic network for the development and adaptation of European-wide models, frameworks and policy recommendations in the domains of e-health and e-energy.

Benefits and results

The ultimate aim of the PreCo network is to create a new type of knowledge-intensive innovation platform in Europe. In this platform, the public and private sectors use advanced ICT to develop conditions for an advanced, all inclusive service economy and innovation ecosystem, which can then create global benchmark lead markets for an experimental innovation engagement model. This would also result in job creation, increased citizen participation and SME involvement in European level innovation research and practice.

**Type of project**

FP7-ICT, 2009.

Coordination action (CA)

Project coordinator

Culminatum Innovation Oy Ltd
Finland

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Project website

www.preco.share2solve.org

**Information Society
and Media DG unit responsible**

F4 — New Infrastructure Paradigms
and Experimental Facilities

**Community contribution
to the project**

EUR 400 000

Project start date

1 November 2009

Duration

24 months

Project activities



Network activities are organised in work packages and horizontal activities, including project management, monitoring and assessment activities, expert groups, operational support and dissemination, information and communication activities.

The objectives of the first phase are to: identify current PCP practices in member countries and beyond; provide for a state-of-the-art analysis of international experiences in PCP, specifically in the USA, Japan and China; identify and analyse best practices; and set up the network taking into account other relevant networks and activities dealing with PCP matters. An important aspect in this action line is the identification and activation of all interfacing interest groups and policies.

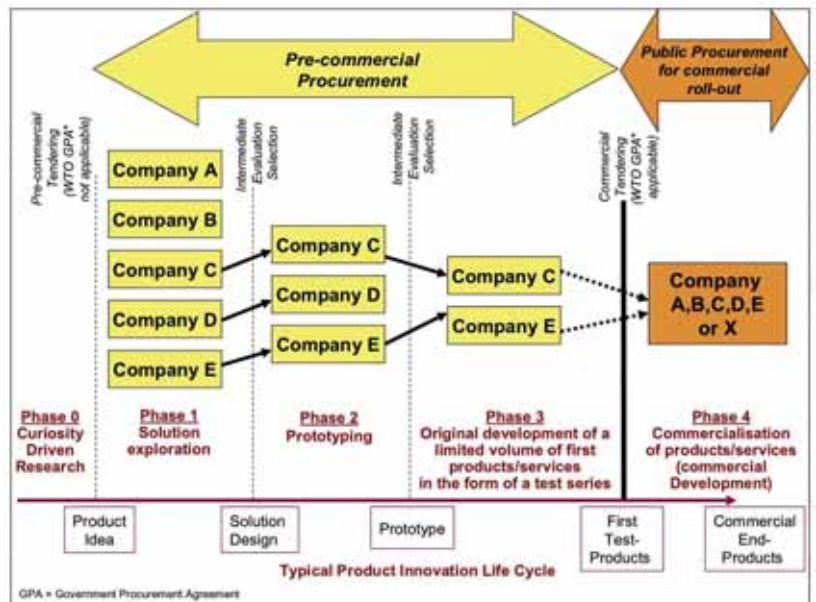
The second phase will focus on pre-commercial procurement in e-health. As this area is at a very early stage of development, a dedicated working group will be established to identify the best practices in the field, to study and analyse the obstacles for the public authorities to engage in PCP activities in e-health, and to explore the R & D trends in the industry and the public requirements for future technologies in the long run. A very important task is to establish dialogue with supply-side actors to exchange information on public sector needs and private sector opportunities. This will further increase awareness of technology roadmaps and thus facilitate demand stimulation.

European-wide dissemination of results will be provided to all stakeholders in order to influence national procurement strategies and policy change, market impact and advancement of knowledge and implementation at national and regional levels. Policy recommendations will be provided to the European Commission.

Participant organisation	Country
Culminatum Innovation (coordinator)	FI
Alfamicro-Sistemas de Computadores Lda	PT
Agentura pro evropske projekty & management	CZ
Fundacion Comunidad Valenciana-Region Europea	ES
University of Southern Denmark	DK
Vysocina Kraj	CZ
Aalto University	FI
Copenhagen Living Lab	DK
Amsterdam Innovation Motor	NL
Eurosportello Veneto	IT

The third phase will focus on pre-commercial procurement in e-energy. In this task we aim to raise awareness, which is crucial for the role of public procurers in stimulating and fostering clean energy innovation, and to define and communicate model procurement strategies. Establishment of sustainable dialogue with the supply side is one of the key tasks. Other stakeholders include national energy agencies and international organisations, such as ICLEI ('Local governments for sustainability').

In the second and third phases, we will consolidate identified best practices and models into policy recommendations in selected domains. Consensus workshops and other dissemination activities will be organised to bring together policymakers, leading experts from the e-health and e-energy sectors, universities and businesses and other relevant stakeholders, such as the European community of Living Labs.



In the final phase of this action, an analysis of the gaps in the current and best practices and the means to bridge them will be made, as well as a roadmap for future research on PCP issues, including legal issues (competition law, intellectual property rights (IPRs)).

Future Internet towards Smart Cities by adopting Living Labs

Fireball

Scope and objectives

The main objective of the FIREBALL Coordinating Action is to coordinate and align activities in the domains of Future Internet research and testing, and of user driven open innovation into a sustainable network of European cities paving the way for Smart Cities by utilising facilities and people. This is done by bringing three communities and assets together, the FIRE community, the User Driven Open Innovation (Living Labs) community, and users in city environments, thus creating a sustainable city centred network of open user driven innovation.

Objectives: To achieve a European-wide coordination of methodologies and approaches and activities in the domains of Future Internet research and experimentation (FIRE) and User Driven Open Innovation to benefit innovation towards Smart Cities. The coordination is driven by a network of Smart Cities and includes the key constituencies involved in Future Internet innovation (Future Internet Research and Experimentation, User Driven Open Innovation) to benefit open, sustained and user-driven Future Internet innovation in cities and urban areas, to align and accelerate innovation activities and to exchange know-how, experiences and information, and innovation plans and activities. To leverage European-wide available assets (scientific excellence, technologies, methodologies, tools, experimental facilities, living labs, user communities) of the constituencies involved, to enable Smart Cities across Europe to explore and exploit the opportunities of the Future Internet in future showcases. This results into a common framework of Internet innovation assets, innovation methods and processes, and mechanisms to provide access to the identified complementary assets, thus providing the basis for Future Internet innovation to support the development towards Smart Cities. To ensure a coordinated development and sharing of best practices and showcases of Future Internet innovation across pilot cities, and covering different thematic

**Type of project**

FP7-ICT 2009.

Coordination action (CA)

Project coordinator

Centre for Distance-spanning
Technology

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Project website

www.fireball4smartcities.eu

**Information Society and Media DG
unit responsible**

F4 — New Infrastructure Paradigms
and Experimental Facilities

**Community contribution
to the project**

EUR 1 500 000

Project start date

1 May 2010

Duration

24 months

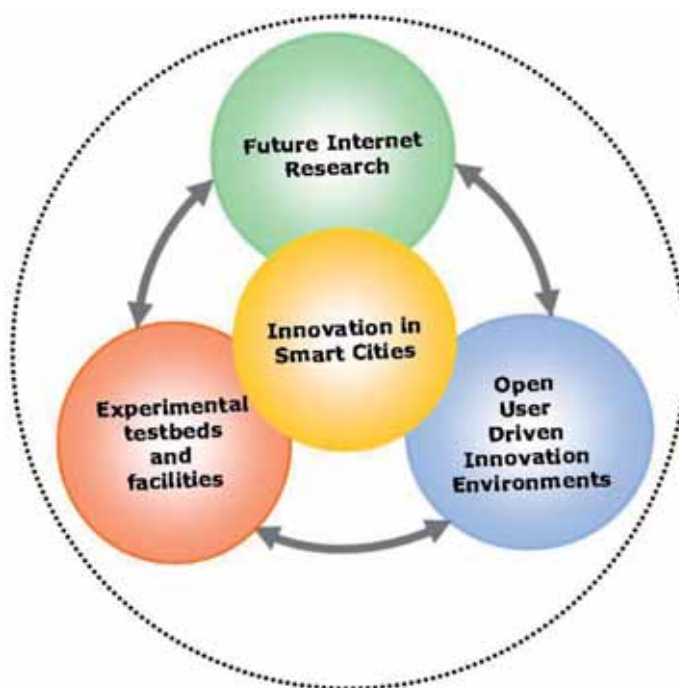
domains for Smart Cities innovation. Within FIREBALL, Smart Cities are considered as the drivers of Future Internet innovation. A core network of cities is engaged in practical collaboration to explore the opportunities of the Future Internet and user driven open innovation environments, underpinning a roadmap and action plan for Cities towards Future Internet Innovation.

Participant organisation	Country
Cities, Living Labs	
Manchester City Council	UK
City of Helsinki	FI
Barcelona City Council	ES
Lisbon Municipal Energy and Environment Agency	PT
Urban and Regional Innovation Research Unit	GR
Academic partners	
Luleå Tekniska Universitet	SE
Alto University	FI
ESADE Business School	ES
French National Institute for Research in Computer Science and Automatic Control	FR
Interdisciplinary Institute for Broadband Technology	BE
University of Oulu	FI
Industrial partners	
European Society of Concurrent Enterprising Network	IT
Amsterdam Innovation Motor	NL
Alfamicro	PT
Intelligent Sensing Anywhere	PT
Digital Media Innovations Finland	FI
Media and Network Cluster	FR

Benefits

FIREBALL provides the opportunity to combine FIRE and Living Labs research communities and assets, and in doing so, open up a new and novel approach to coordination of experience research and open user driven innovation activities in collaboration with Future Internet research experimenting in real large city environments involving citizens.

Beneficiaries will be the FIRE and Living Labs communities, especially projects from the CIP and FI PPP call in autumn 2010, and cities and the public authorities responsible for strategic planning, infrastructure, service delivery, etc, as well as national agencies and actor responsible for developing new R&D programmes, and industrial companies involved in discovering new market opportunities by observing user needs. Policy makers developing strategies to explore the Future internet and user driven innovation for the benefit of social and economic development will fit this group. The FIREBALL concept will make it significantly easier for both individuals and organisations in the private and public sectors to initiate, test and evaluate new innovative smart services.



Actions and Implementation

Up today, Future Internet, Living Labs and cities have always been considered as separate domains of activity bringing them together opens up the opportunity to reach the following result of actions:

- Creation of a European-wide community of Future Internet Innovation constituencies (FIRE, Living Labs, Smart Cities)
- Creation of a common vision and shared agenda by the Future Internet innovation Constituencies mentioned.
- Development of showcases to represent innovative uses and future needs of Future Internet in Smart Cities
- Definition of processes and arrangements to enable the three constituencies to access, share and use common assets
- Ensure coordinated development and sharing of best practices of Future Internet innovation in pilot cities and sectors
- Creation of a Smart City network for Future Internet innovation, based on a core group of advanced cities
- Development of a roadmap and action plan for exploring Future Internet innovation
- Identification of Future Internet pilot areas, and sharing of practices across Cities

These actions will be ensured through the organisation of a workshop/Conference on Future Internet and User Driven Open Innovation Identification of common concepts, methodologies, tools and processes to enable the constituencies to work together for Future Internet innovation

Challenges of collaborative working environment

Dehems

Scope and objectives

The digital environment home energy management project (Dehems) is an EU-funded research project looking at how technology can improve domestic energy efficiency.

The project is supported by the ICT for Sustainable Growth Unit with funds from the seventh framework programme (FP7) for research and technological development.

Within the project there are 13 project partners including EU local authorities, SMEs and universities across Belgium, Bulgaria, Romania and the United Kingdom.

The aim is to develop and test an energy management system for domestic use by improving the current monitoring approaches to extend the state of the art in intelligent meters beyond 'input' models focused on monitoring the levels of energy to a 'performance' model that looks at the way energy is used.

Equipment is being tested by volunteers using a working version of the equipment in their own home. This concept is referred to as the Living Lab. Across the five project labs in Birmingham, Bristol, Ivanovo, Manchester and Plovdiv, there will eventually be 300+ participants.

Manchester has already installed equipment in 15 homes in east Manchester and, in the next phase, this will be extended to 60 homes across the north, east and south of the city. The custom-built equipment uses wireless connectivity and can receive details of the whole home energy usage and individual electric appliances. The system will be extended to other measurements, including gas.



Type of project

FP 7-ICT, 2007.

Project coordinator

Manchester Digital Development Agency — Manchester City Council

Contact person

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Project website

<http://www.dehems.eu>

Information Society and Media DG unit responsible

H4 — ICT for Sustainable Growth

Community contribution to the project

EUR 2.9 million

Project start date

1 June 2008

Duration

30 months

The readings are fed back to a data collector which sends it to a central database via the Internet. This information is then displayed on a 'dashboard' or web page.

The dashboard shows detailed information on household usage, offers energy reduction advice as well as incentives to reduce consumption. It allows households to set targets and run comparisons against others in the network.

Moving beyond the project lifetime it is hoped to develop a system which can be taken to market and for the municipalities involved to identify funding to roll out a project to include many more homes in the city.

Project work packages

1. Project management (led by Dave Carter of MDDA)
2. User requirements and system architecture (led by Prof. Grahame Cooper of Salford University)
3. Semantic services (led by Dr Kou-Ming Chou of Coventry University)
4. Control systems development (led by Radu Balan of the University of Cluj)
5. Energy measurement (led by Josh Cooper of Hildebrand Ltd)
6. System integration (led by Josh Cooper of Hildebrand Ltd)
7. Living Labs behaviour change research (led by Richard Sowden of Bristol City Council)
8. Evaluation and dissemination (led by Richard Bush of Clicks and Links)

A better world through energy efficiency

Save energy

Scope and objectives

'Save energy' aims to transform the energy consumption behaviour of public building users — focusing on civil servants, citizens and policymakers — by applying existing ICT-based solutions, specifically an energy management system and a serious game, that will provide real-time information about consumption in a user-friendly way, thereby empowering citizens to take decisions that lead to energy savings.

The project is supported by the ICT for Sustainable Growth Unit, with funds from the ICT-PSP part of the competitiveness and innovation programme.

The project brings together 15 partners, including public authorities, public agencies, universities, research institutes, SMEs and corporations, to implement five energy efficiency pilots, located in Helsinki (public schools), Lisbon (city technical services), Leiden (city administrative services), Luleå (cultural services) and Manchester (Town Hall). The public authorities, the owners of the pilots, are committed to implementing the energy efficiency results in other buildings and to proactively being involved in a European-wide communication strategy.

The building energy management system makes available consumption measurements about heating, air conditioning, ventilation, lighting and other equipment, to be processed and compared with simulations and best practice indicators. This information is provided in real time, directly to the consumers and to the serious game. Each pilot is equipped with a technical platform comprising sensors, smart meters and actuators plugged to the electrical equipment. The data are gathered locally and integrated in a remote platform that aggregates, analyses and makes this information available on the Web, on fixed displays and on mobile devices such as mobile phones and PDAs.

**Type of project**

CIP ICT-PSP, 2008

Pilot B

Project coordinator

Alfamicro — Sistemas de Computadores, Lda

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Project website

<http://ict4saveenergy.eu>

Information Society

and Media DG unit responsible

H4 — ICT for Sustainable Growth

Community contribution

to the project

EUR 2 230 000

Project start date

1 March 2009

Duration

30 months



The serious game, which is based on massive collaboration over Web 2.0 social networks, will reinforce and accelerate the consumer behaviour transformation.

The pilots' implementation follows the Living Lab methodology at local level and at the cross-border interaction level. 'Save energy' users are totally engaged in the co-creation of new processes and behaviours, for example in a school where young students, teachers, staff and parents are fully involved and emotionally engaged with the project. This systemic approach involves all the relevant stakeholders from the very beginning of the idea and concept, creating the motivation to share, discuss and own experiences and expectations.

The 'Save energy' dissemination strategies aggregate Web 2.0 tools, services and communities to foster collaboration and knowledge sharing among all stakeholders. The information and the interaction occur in both the public and the private spheres. The tools include several applications for messaging and collaboration among the inner core of the stakeholders, with emphasis on the consortium partners. The 'Save energy' Web 2.0 services syndicate data to and from the building management systems and operate as a broker of information for the real-time information systems and the serious game.

The 'Save energy' Web 2.0 communities provide a social networking platform to build online communities of practice where users can share or participate in the locations, interests and activities of other users using Living Lab methodologies. These communities are closely linked with 'best of the breed' Web 2.0 tools to share blogging and micro-blogging posts, podcasts, documents, videos, bookmarks, presentations and photos. The 'Save energy' portal aggregates information from all the other components through widgets, RSS feeds, links, add-ons and the embedding of applications or multimedia resources.

Benefits and results

The knowledge and experience gained with the understanding of new socio-technical aspects related to energy-saving behaviour transformation using user-driven open innovation environments (Living Labs) will lead to new ICT-based services, new business models and recommendations for energy efficiency public policies.

Transformative, adaptive, responsive
and engaging environment

Target

Scope and objectives

Human capital is a key strategic resource for leading organisations in the global knowledge economy, more so in Living Labs. There is the need to first develop the necessary human capital, which subsequently needs to respond dynamically to the ever changing global market pressures and the evolution of individual personal goals. In addition, there is a need to leverage the transfer of tacit knowledge within communities and organisations. The ideal personalised competence development is tailored to reduce the lead-time for a learner to achieve their target productivity: the 'time-to-competence' (TTC). The Target project provides a way for organisations to shorten TTC, faster and at lower cost than the usual approach: a bespoke (hand-crafted) face-to-face or blended course, which tends to be resource-intensive (expensive to create and deliver). The project explores and integrates five relevant research fields:

- **threshold concepts**, resembling knowledge gateways that transform a person's understanding of a knowledge domain;
- **knowledge ecology**, resembling a 'living organism' sustained by communities of knowledge workers;
- **cognitive load theory**, according to which a learner's attention and working memory is limited and therefore learning processes must be designed to allow effective internalisation without overload;
- **learning communities**, where members of a community develop their competences by leveraging the experience of their peers;
- **experience management**, to allow learners to accumulate lessons learned through real and theoretical situations through the use of serious gaming.



Type of project

FP7-ICT, 2008.

Integrated project (IP)

Project coordinator

SINTEF

Contact person

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Project website

<http://www.reachyourtarget.org>

Information Society and Media DG unit responsible

E3 — Cultural Heritage and

Technology Enhanced Learning

Community contribution to the project

EUR 5 799 996

Project start date

1 January 2009

Duration

36 months

The main aim of the Target project is to research, analyse and develop a new genre of 'technology enhanced learning' (TEL) that provides individuals and enterprises with a new responsive learning environment, supporting rapid competence development, namely knowledge workers within the domains of Living Labs (innovation) and project management.

Benefits and results

Target is exploring ways for individuals and enterprises to identify skills that are in demand or will be in demand, and to acquire those skills with less effort, more memorably and faster than today's mainstream training methods (shorter 'time-to-competence').

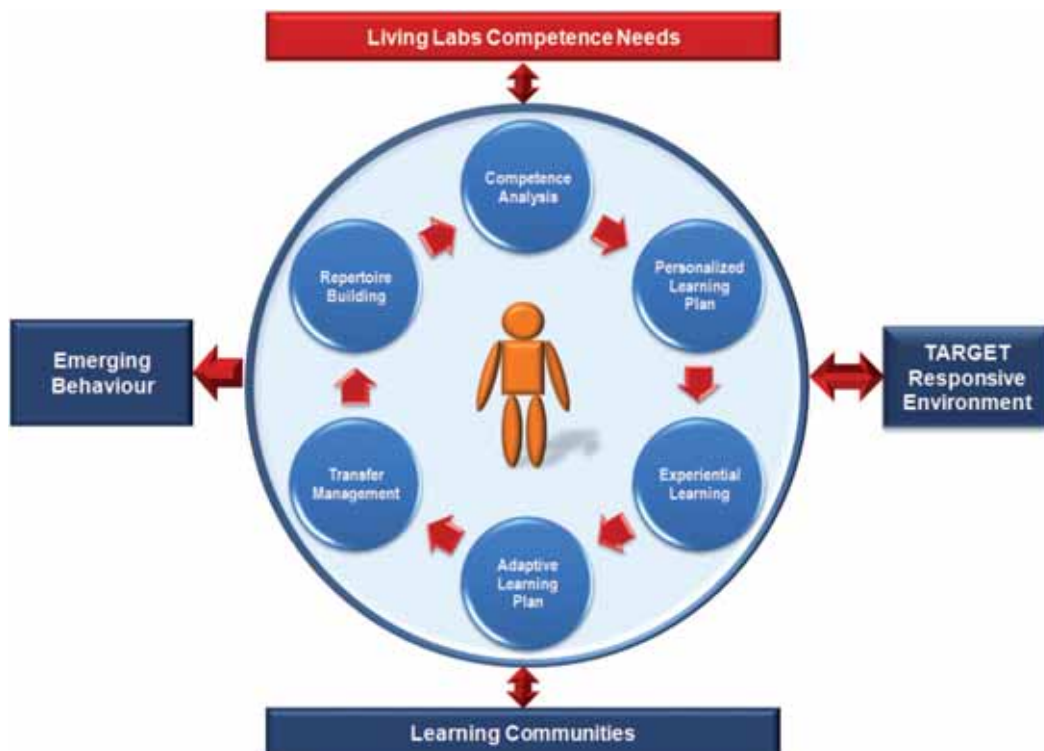
Project technologies

The Target platform provides tools and services to support the definition and implementation of a personalised cognitive learning plan taking into account both the personal and organisational requirements. The devised cognitive learning plan consists of a series of complex situations captured in the form of interactive stories that the user engages with by means of an emotionally engaging, serious game.

These stories are the core of what is considered a knowledge asset, which may be carefully crafted with specific learning objectives, dynamically generated by the Target platform, or may result from the capture of a running Target session. Around the core of a knowledge asset, story, additional data and metadata are generated by the Target communities, thereby contributing to the maturing of a knowledge asset. Within the Target platform, the learner's activities are continuously monitored, correlating with their cognitive learning plan, competence profile and performance outcome.

In Target, the learner is presented with real (job-relevant) opportunities to learn, in the form of stories that capture the essence of key points. Learners interact with narratives supported by simulations, as in a computer game, but with a serious purpose and focused on learning. Interacting with each story gives experiences that are honed into applicable knowledge, quickly. We call this 'the fast-track way to competence'. Our current focus: skills to do with innovation and with managing projects and whose presence or absence would have a significant effect on the success of an individual or enterprise. These include 'hard skills' (specific, teachable abilities such as mastery of project scheduling) and 'soft skills' (skills with a people element, such as innovation orchestration involving the convergence of multi-stakeholders with complementary or conflicting interests such as the ecosystem of Living Labs).

Target will combine multiple sources of insights into how the competences required for a specific job are evolving, and which skills are in demand or will be in demand, for example in areas of growing importance such as 'working across cultures' and 'collaborating at a distance'. This will yield useful information: know what, what if, how, how much, when, where, who, why and why not. Learners in Target can use that information to remain aware of — and up to speed with — the evolving state of the art in a wide range of areas.



Community Based Living Labs to Enhance SMEs Innovation in Europe

CO-LLABS

Scope

The over-all objective of the CO-LLABS Thematic Network is to achieve a European-wide adoption of ICT-based Living Lab services and practices to allow SMEs to improve their innovation capabilities and processes and become part of “open innovation” environments. Thus, CO-LLABS addresses Work Programme Objective 4.1b “to improve the capacity of businesses and in particular SMEs to benefit from ICT-based innovations in their products and services”.

To that end the CO-LLABS Thematic Network brings together a selection of Europe’s most advanced Living Labs on the one hand and regional SME-innovation oriented organisations on the other to exchange practices of Living Lab support services, and identify and develop specific pilots in domains such as **e-health, energy, media, e-business** and **e-inclusion**. The work is grounded in thorough understanding of current Living Labs practices and experiences and strengthened by creating better insight in successful business models of future SME-oriented Living Labs. The CO-LLABS Thematic Network supports interaction with policy makers at regional, national and European level to establish consensus on the Living Labs approach as a cornerstone of European innovation policies, in particular at the regional and cross-regional level.

The underlying motivation is that Living Labs provide services to SMEs that would otherwise not be available to them. Focus is on how SMEs and their business partners can be involved in Living Labs in the best way in order to collaborate in open innovation and on sharing experience among Living Labs initiatives and beyond as regards SME involvement in co-creation of Living Labs practices.



Type of project

CIP-ICT PSP, 2007.
Thematic network

Project coordinator
ESoCE-Net

Contact person

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Project website

<http://www.ami-communities.eu/wiki/CO-LLABS>

Information Society and Media DG unit responsible

F4 — New Infrastructure Paradigms
and Experimental Facilities

Community contribution to the project

483 000 Euro

Project start date

1 Apr 2008

Duration

28 months

Technical and innovation approach

The CO-LLABS Thematic Network acts as knowledge network and equally as innovation development network. Its over-all approach is to form a core of advanced **European Living Labs, Research Organisations and Innovation Agencies** that have gained already experience in SME-oriented innovation, are ready to take next steps to implement the Living Labs approach and also ready to transfer their experiences on the use of Living Labs services for new pilots development. To this core, a large set of other Living Labs (in earlier stages of development) are added through our collaboration with the **European Network of Living Labs (ENoLL)** and with European innovation initiatives at regional level to support SMEs in ICT-based innovation.

The concept of *user experience* is central, and Living Labs are considered as the key instrument to implement open innovation business models tailored to SME needs and creating user experience. In doing so, the Thematic Network will actively pursue the networking character and network effects of Living Labs Communities by sharing experiences and develop-ing common approaches and practices.



Identifying and assessing best practices is in fact one of the major objectives of the CO-LLABS project. A specific activity line has been dedicated to Best practices focusing on how Living Labs and Experience Research services are supporting the innovation for SMEs. Other foreseen activities and outcomes in the CO-LLABS Thematic Network include:

- Pilots development of SME-oriented Living Lab initiatives in key domains to stimulate the collaboration among Living Labs, innovation agencies and business stakeholders
- Network mobilisation, exploitation and dissemination to create an active community stimulating SMEs for open innovation and exchange experience in how to use the Living Labs concept for SME innovation

- Policy initiative development to stimulate Living Labs, Innovation Agencies and Research Organisations to work with SMEs on open innovation
- Elaboration of a joint action plan to establish self-sustainable pilots and ensure viability of the CO-LLABS network after its formal project duration.

Success stories

Best practices about methodologies, technologies, processes and governance structures have been the main subjects of investigation in the definition of what is currently being used by Living Labs. Results are being compared and will be made available in a systematic way using a web database and the Community infrastructure (the BSCW portal). Results allows for the identification of partnering services for SMEs of different Living Labs (e.g. to transfer service to new technological platforms) focus-ing on the particularities of the Living Labs: social and technological setting, financial background, political back-up and other key aspects.

Pilots launch focuses on the specification of SME-oriented Living Lab initiatives in priority domains of innovation, such as e-business, mobility, manufacturing, energy and e-wellbeing, including advanced conceptions of e-health and e-inclusion. CO-LLABS has paved the way to the launch of large-scale Living Lab pilots project, such as APOLLON and addressing cross-border collaborative pilots and SAVE ENERGY, focusing on behavioural transformation for energy efficiency. These projects integrate the relevant stakeholders into the pilots, and prepare the launch of the large-scale pilots as independent, sustainable entities.

Policy strategies are the way to determine how Living Labs, Innovation Agencies and Research organisations can have an optimum interaction with SMEs. This makes possible to link policy strategies and initiatives in Europe on different levels — European, national, regional and local — with Living Lab development and small business, starting from a multi-stakeholder open innovation perspective. CO-LLABS as coorganized with the PACA region a workshop on REGIONAL LIVING LAB POLICY FOR THE BENEFIT OF SMES in JANUARY 2010, BRUSSELS.

Policy recommendations have been discussed with DG-INFO, DG Enterprise and DG Regio.

These stories come from CO-LLABS activity lines already performed in the first 2 years of the project. CO-LLABS has supported the ENoLL 3rd Wave and 4th Wave to reach 212 Living Labs members, (assisting the whole selection process, the awarding at Lyon ICT 2008 in and at Valencia FIA in April 2010).

Another major achievement has been the establishment of an ENoLL legal entity as a non profit European Association under Belgian Law in January 2010. CO-LLABS has laid foundations for it and promote awareness and consensus on the proposal.

does not work directly with individual SMEs, but Agencies and Living Labs do so. CO-LLABS does not itself establish Living Labs, it investigates how local and regional partners can work together in order to improve the regional innovation system and support SMEs. In doing so, SMEs will benefit from the CO-LLABS project in multiple ways, in particular:

Target users and benefits

Expected impacts of the CO-LLABS project can be identified at the synergic levels of individual Living Labs and of networks of Living Labs with the following expected impacts:

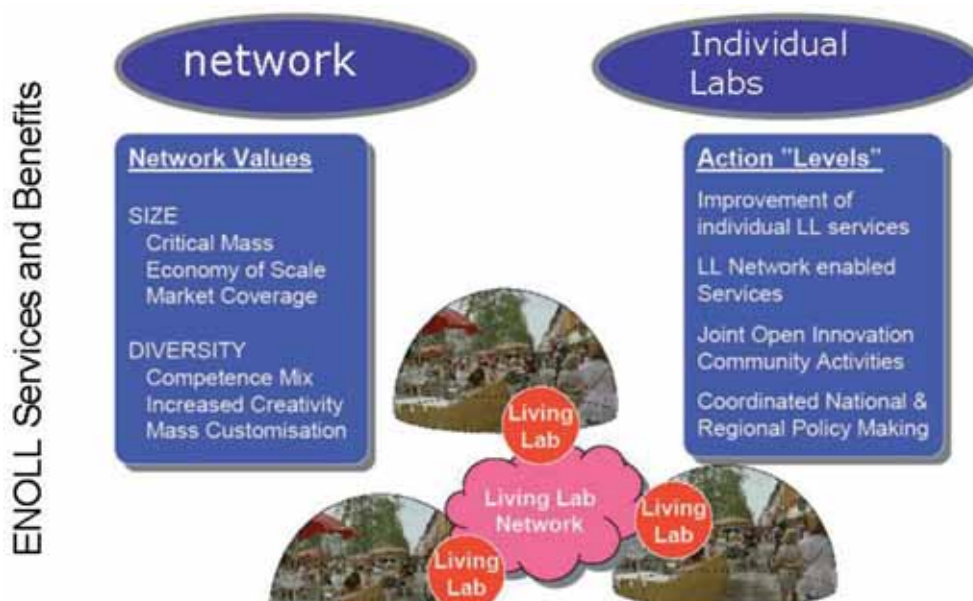
- Enabling public authorities and major stakeholders in the EU to implement Living Labs systems learning from Best practices, thereby providing an innovation platform to European Industry, and generating economy of scale for Living Lab services
- Improved competitiveness of European businesses and particular SMEs by providing them the tools to access Living Labs innovation services at a regional/European scale
- Further development of the capabilities of Living Labs to create markets for innovative ICT solutions and services for supporting processes of Open Innovation
- Identification of large scale pilots demonstrating the Living Lab approach and the benefits of synergy and scalability offered by ENoLL for SME innovation.

- Pilots validate open innovation activities and SMEs participate to the development of pilots. Pilots demonstrate strategies on how SMEs can participate in Living Labs
- Policy initiatives will be developed to stimulate Living Labs, Innovation Agencies and Research Organizations to work together with SMEs on open innovation
- Business models will be explored governing collaboration between Living Labs, SMEs and research organizations. This will benefit the provision of services to SMEs by Living Labs in an indirect way.

The significant Living Labs movement which has been growing in the last years since the launch of the European Network of Living Labs (ENoLL) by the Finnish Presidency, on November 20, 2006, provides a favourable context for achieving the expected impacts. Further to the 3rd Wave, ENoLL has grown up to 129 members and all of them represent new sources of co-creative innovation.

The momentum is significant and the CO-LLABS network results can sustain the expectations by identifying and preparing for large scale pilots demonstrating the Living Lab approach and the synergy and scalability offered by the European network. Pilot cases have a strong potential of involving large number of users and also some distinct potential for SMEs, as co-creators, providers of innovative solutions and as main beneficiaries of the innovation.

CO-LLABS addresses the needs of SMEs through the formation of regional clusters of Living Labs, SME-oriented Innovation Agencies and research organisations. The Innovation Agencies establish — and be responsible for — the relation with SMEs in their region. CO-LLABS



'Innovation highway' for Galileo

GAINS

Scope and Objectives

GAINS builds on two established state-of-the-art initiatives operating successfully at an international level but, so far, independent of each other:

The European Satellite Navigation Competition (ESNC) is a leading platform for creating business ideas and promoting GNSS applications at regional and European levels. Begun in 2004, it is an annual event that is aimed at the early development of downstream applications based on satellite navigation systems. The ESNC has become a highly visible and prestigious award and represents the 'innovation platform' in Europe for the implementation of satellite navigation. It currently has 23 participating partner regions, 150 experts from industry and research, and nearly 300 submitted application ideas from 30 countries in 2009 alone.

The European Network of Living Labs (ENoLL) offers open innovation methodologies and techniques in the product development life cycle. A Living Lab is an open innovation environment in which user-driven innovation is supported by the availability of established, consolidated services and ICT infrastructure for creating, prototyping and using new products and services in real-life environments. There are 212 operational Living Labs in different domains, spanning from eHealth to energy optimisation and efficiency, and from intelligent mobility to inclusion of the elderly and disadvantaged people.

The objective of the GAINS project is the implementation of an 'innovation highway' as a seamless process of coordinated Galileo downstream application innovation services in the three main phases: idea recognition, product and services development, and new venture creation.



Type of project

Collaborative Project under GSA
Research and Innovation in GNSS —
Global Navigation Satellite Systems

Project coordinator

Anwendungszentrum GmbH
Oberpfaffenhofen (AZO)

Contact person

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Project website

www.gainsproject.eu

Community contribution to the project

877 684 Euro

Project start date

1 January 2010

Duration

24 months



Participation in the GNSS Living Lab Prize is open to companies, entrepreneurs, research institutes, universities, and private individuals from all over the world. Ideas can be submitted online before 31 July 2010 at http://galileo-masters.eu/index.php?anzeige=special_prizes_gnss.html

To achieve these two internationally leading networks have joined forces.

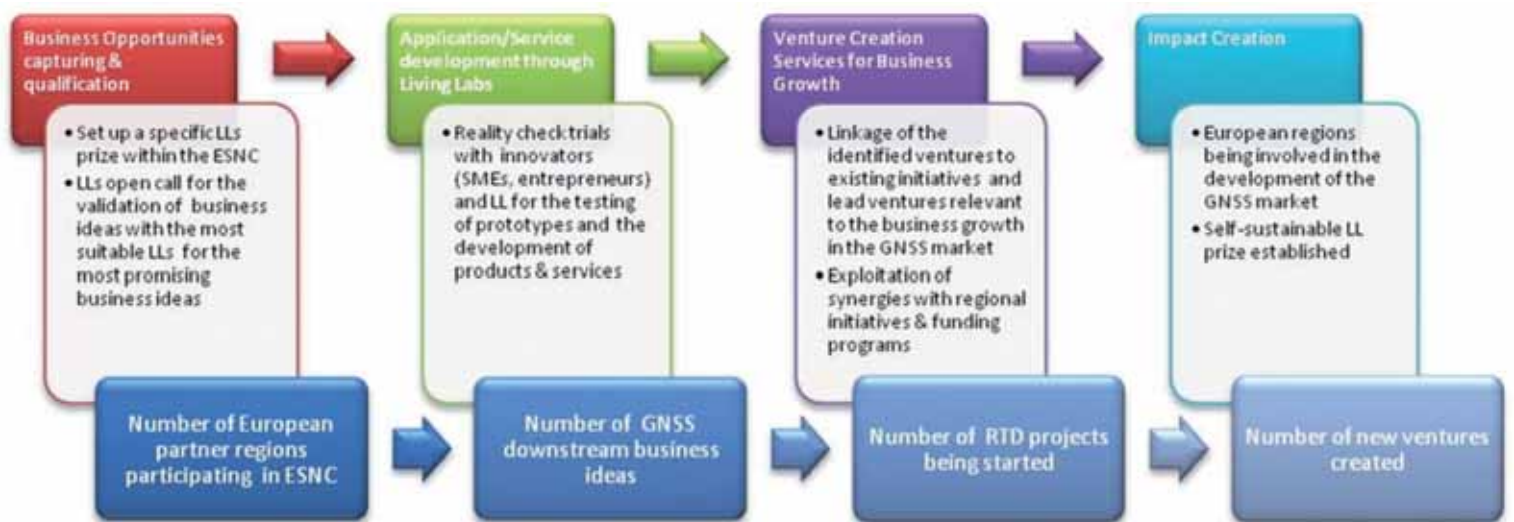
The heart of the project is a special Living Lab prize within the European Satellite Navigation Competition 2010 for user-driven suggestions for new businesses that respond to actual market needs. The thematic focus for this prize will be on health, energy and the media, and the three best submissions will get the opportunity to conduct a reality check trial in a suitable Living Lab as well as prize money of 10,000 Euro each. The integration of ESNC and ENoLL will provide a great step forward in closing the gap between idea generation and application development, by providing access to product development and facilitating the set-up of 'reality check' pilots in a real-life setting for the products and services under development.

Through participation in the GNSS Living Lab Prize, developers and entrepreneurs get access to a global network that connects technology hubs and companies that boast some of the most important players in the fields of incubation, prototype and product development, market development, and idea management for applications related to satellite navigation.

Technical approach

GAINS will identify user-driven business ideas through a specific GNSS Living Lab Prize, in line with ESNC, aiming at facilitating the emergence of User-Driven Open Innovation Demand from Living Labs for services and applications supported/enabled by satellite navigation technologies.

From these submissions three different business opportunities will be selected to carry out reality checks in a Living Labs environment. Different Living Labs will be matched with the specific needs of these projects according to their access to user communities, their potential for adoption, and their capability of attracting additional resources for undertaking the 'reality check' activities. The Living Lab real-life setting accelerates the concurrent development of the three qualified business ideas into applications and services, bringing in the requirements originated through user-driven market demand creation.



GAINS will help conduct the Living Lab trial and analyse the results from which implementation guidelines will be derived. GAINS will also support the creation of new ventures from these business cases by, for example, identifying synergies and potential combinations early on within the networks or maintaining databases on the current open calls in the various European and regional funding schemes, as well as the investment behaviour of private investment groups.

By including application specialists from the Living Labs, the expert network of the ESNC will be broadened and the advantages of GNSS will be promoted to user communities so far not touched by that technology. But above all, GAINS will support the development of the three winning business cases of the GNSS Living Lab Prize through their validation in real market-use scenarios thus leading to the creation new ventures and finally the creation of new jobs.

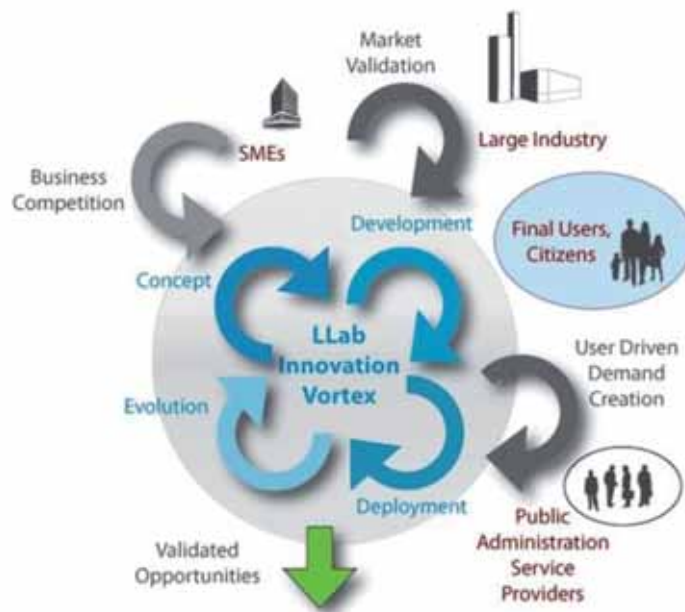
Target outcomes and benefits

GAINS will leverage synergies between Living Lab stakeholders in regions currently not participating in ESNC and thus increase the number of participating European partner regions. Through the implementation of the GNSS Living Lab Prize, the number of business ideas found through ESNC will be increased and a wider applications community from a more diverse industry background will be addressed, as the Living Labs have more extended networks in the various ICT industries, which are the 'downstream' industries for GNSS.

The GAINS approach will be secured by a self-sustainable Living Lab prize within ESNC, sponsored by industrial or institutional partners who will profit from the implemented innovation highway.

The GAINS Consortium consists of 4 international partners that have extensive common experience in innovation management, international industrial networking, incubation and venture creation.

In Particular AZO has been managing successfully the ESNC prize since its inception and ESoCE net, whose President Roberto Santoro is currently the Vice President of ENoLL, has played a leading role in establishing the legal entity ENoLL AISBL supporting the Living Lab Network, though the CIP thematic network project CO-LLABS.



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Information Society and Media DG: Unit H4 — ICT for Sustainable Growth

<http://cordis.europa.eu/fp7/ict/sustainable-growth/>

Information Society and Media DG: Unit E3 — Cultural Heritage and Technology Enhanced Learning

[http://cordis.europa.eu/fp7/ict/telearn-digicult/
home_en.html](http://cordis.europa.eu/fp7/ict/telearn-digicult/home_en.html)

European GNSS Supervisory Authority

<http://gsa.europa.eu/>

European Commission

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