FIREBALL
Future Internet Research and Experimentation
By Adopting Living Labs towards Smart Cities

FIREBALL brings together different players to exploit the linkage between Smart Cities, Living Labs and Future Internet for Connected Smart Cities Innovation. The overall objective of the FIREBALL project is to coordinate and align methodologies and approaches in the domains of Future Internet research and experimentation testbeds and user driven open innovation towards successful innovation in “smart city” environments.

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 centered 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 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.

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, 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.

Activities and achievements

To date, 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 were ensured through the organisation of workshops and Conferences 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.

The following results (see the project's website) were delivered for others to use:

- Smart City vision, landscape
- Cases of “Smarter Cities” (video clips)
- Smart City “innovation ecosystems” (white paper)
- Smart Cities roadmap and action plans, a Cook Book
- Community building, creation of a Connected Smart Cities network
- www.fireball4smartcities.eu & web 2.0 tools

**Project partners**

Cities, Living Labs:

- Manchetser 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),
- Media Network Cluster (FR)

**FIREBALL message**

To get a city smart you need three elements:

1) Cities / communities,
2) Living labs,
3) Web platform, applications / future Internet technologies.

The role of each component is different:

- Cities set challenges (competitiveness, inclusion, sustainability) and form communities addressing them;
- Living labs and open innovation ecosystems work as generators of solutions. It is a fundamental trend of smart cities that solutions have to be defined and implemented with the involvement of citizens, consumers and users;
- Smart environments and Internet technologies work as facilitators of communication, networking, information processing and real-time response.