# Net Innovation Initiative

## a. Innovation Actions

Multi-vendor **Open Service Platforms** will allow increased competition and avoid vendor lock-in. They should have royalty-free open specifications, open source reference implementations, and be offered by multiple vendors. The Seventh Framework Programme for Research and Technology Development (FP7) has developed the FIWARE platform which has demonstrated its potential of becoming a service platform of choice, as well as other research results with a lot of potential for usage by SMEs and startups. For such potential to be realised, the following three innovation activities are needed. In addition, a fourth activity develops applications and services on top of any Future Internet research results.

Among lead sectors, smart cities have emerged as a viable vector for FIWARE **adoption**. The activities will focus on the take-up of FIWARE in cities and the evolution of the FIWARE platform with new context-aware services addressing the needs of cities.

The **ecosystem creation** consists of building and supporting an open community of FIWARE innovators and users. A professional online and open engagement strategy may include hackathons and challenges, building community programmes for startups and SMEs and link to related national and regional programmes. Activities will incentivise entrepreneurs and users to explore FIWARE, by building on previous community achievements and contributing to an evolving ecosystem.

FIWARE **sustainability and evolution** will be supported by the further evolution of the service platform by an open community. Activities include supporting the execution of a roadmap with a full set of supported enablers, with a reference implementation in open source, maintained and made available to third parties for use, with high quality and clear terms and conditions. Furthermore, a public sandbox environment for experimentation of all supported enablers by any third party interested is made available. Activities contribute to building an open source community to manage the integrity and evolution of the FIWARE technology, and to ensure a real multi-vendor approach.

Future Internet research results will be transferred into innovation via acceleration activities. They will support SMEs and startups taking research results of completed or ongoing projects in the domain of Future Internet and develop applications and services on top of these research results in order to achieve concrete business and market take-up. The action will involve financial support to third parties in

line with the conditions set out in Part K of the General Annexes. The consortium will define the process of selecting SMEs and startups for which financial support will be granted (typically in the order of EUR 25 000-75 000[[In line with Article 23 (7) of the Rules for Participation the amounts referred to in Article 137 of the Financial Regulation may be exceeded, and if this is the case proposals should explain why this is necessary to achieve the objectives of the action.]]). At least 60% of the EU funding should be allocated to financial support for these third parties. However, the selected SME and startups ideally bring additional resources, i.e. additional private and/or public funds. Any IPR generated by the SMEs and startups shall rest with them[[It is recommended to also use established networks reaching out to SMEs like the Enterprise Europe Network and the NCP network for calls publications and awareness raising towards SME's.]].

The Commission considers that proposals requesting a contribution from the EU of between EUR 2 and 6 million would allow this specific challenge to be addressed appropriately. Nonetheless, this does not preclude submission and selection of proposals requesting other amounts. Minimum one action per innovation activity will be selected.

**b. Research and Innovation Actions**

**Distributed architectures** for decentralized data governance aims at demonstrating a distributed open hardware and software platform (for communications, cloud computing or Internet of Things) capable of supporting decentralised data and identity management and bottom-up participatory innovation.

The goal is to provide SMEs, social enterprises, industries, researchers, communities and individuals with a new development platform, which is intrinsically protective of the digital sovereignty of European citizens. The key characteristic of such a platform is to be fully distributed (e.g. using decentralised algorithms based on blockchains), in order to be more resilient, intrinsically resistant to malware and hacking, preventing any possible centralisation of data storage or data management, and able to provide federated identity management.

Proposals are expected to design, develop and demonstrate an architecture for such a platform, with the involvement of relevant technological actors (P2P and open source developers, open hardware manufacturers, experts in security, encryption, anonymity, blockchains and linked data) as well as of civil society organisations (citizens' organisations, digital rights advocacies, artists, social scientists) and interested developers of the overlying social applications and systems (creative industries, SMEs, social entrepreneurs, software developers).

A strong focus is expected on the creation of robust open standards for such distributed and decentralised architectures, in coordination with industry and academia.

The Commission considers that proposals requesting a contribution from the EU of between EUR 2 and 5 million would allow this specific challenge to be addressed appropriately. Nonetheless, this does not preclude submission and selection of proposals requesting other amounts.

**c. Coordination and Support Actions.**

Support for collaboration and networking in the domain of Future Internet including the organisation of the Net Futures conference.

The Commission considers that proposals requesting a contribution from the EU of EUR 0.2 million would allow this specific challenge to be addressed appropriately. Nonetheless, this does not preclude submission and selection of proposals requesting other amounts.

Today the net is a place unlocking rapid innovation. This potential is too often left un-exploited, i.e. Europe does not do enough to turn RTD & I outcomes into business success. In particular open platforms offer opportunities for the development of new services and applications. FIWARE, for example, is an open platform that demonstrates the capacity to become a preferred service platform, but its potential is currently underused.

Current centralised platforms for big and social data management consolidate the dominance of existing incumbent actors, stifling innovation and allowing less and less control over the data by citizens. Distributed architectures and decentralised platforms have a huge potential to enable the creation of viable alternatives to current dominant models.

More generally, key players and ecosystems, startups and SMEs often do not have sufficiently innovative technology in their hands to innovate on the net. Outcomes of Future Internet RTD & I need to be transferred faster into real life.

Proposals should address one or more of the following impact criteria, providing metrics to measure success when appropriate:

**a. Innovation Actions: Open Service Platform**

- The outcomes of the Future Internet PPP are handed over to an open, multi-stakeholder community to ensure the evolution of FIWARE and its take-up among industry, small business and notably establishing FIWARE as the open service platform of choice for cities. This will allow them to develop and integrate smart cities applications more easily and faster, but also to achieve economies of scale through easy sharing of applications between cities;
- Increased take-up of Future Internet technologies by SMEs and web entrepreneurs;

- Significant increase of the effectiveness of business processes and applications of high economic and/or societal value.

### b. Research and Innovation Actions: Distributed architectures

- To demonstrate how a distributed architecture can enable new data services and disruptive (e.g. commons-based) economic models, and become a viable decentralised alternative to the current dominant data management platforms which are gathering big data at global scale in a centralised manner;
- To demonstrate that citizens' generated data can be made available as part of a common distributed and decentralised architecture, open to all, so to allow new entrants to aggregate data on demand, bringing unanticipated features and innovative services;
- To develop an architecture and open standards allowing European citizens to retain full control over their digital identities, and to move their personal profiles between different platforms, for distributed or centralised (data portability);
- To create a level playing field for the development of new collaborative applications and services based on emerging participatory innovation models that are intrinsically respectful of privacy and ethics.

### c. Coordination and Support Actions

- Increased multi-disciplinary collaboration among Future Internet communities.

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