"Global Review of Innovation Intelligence and Policy Studies"
A PRO INNO Europe project

Innovation Policy Workshop # 4

12-13 October 2009, Copenhagen

"Labs for a more innovative Europe"

Report

Hugo Thenint (LL&A) ***November 2009***

Contents

1. Introduction

Background

The European Commission is currently developing a new Innovation Plan for Europe, which is expected to be proposed for spring 2010. As part of this work, the Commission is looking into new ways of fostering innovation in Europe.

The ways in which public and private players are trying to foster innovation are constantly being adapted as a response to developments in our understanding of innovation and of its drivers. An approach that has increasingly gained ground in recent years is the concept of the "innovation lab". The innovation lab is not a well defined phenomenon. There is great variation from one lab to another, and what is sometimes called a lab somewhere may be labelled differently elsewhere. Some traits do however seem to be common to many innovation labs, notably:

- The active involvement of users at all stages of development (co-creation);
- Multiple partners from private and public sectors;
- Bringing together different disciplines and approaches from design, science, technology and business;
- A dedicated space (real or virtual) for experimentation and developing new ideas.

Multi-disciplinary collaboration and user involvement are increasingly important to successfully concretise creative ideas and to bring innovation to the market and to society at large. Experimentation, visualisation and co-creation increase the likelihood of succeeding with the market introduction of a new product or service, or with the implementation of an innovation project. The importance of innovation labs has been highlighted by a Business Panel set up by DG Enterprise and Industry to propose new ideas for future EU innovation policy.[1]

Scope

Against this background, the European Commission is currently looking into the question of whether such labs, their creation and development, should be fostered at European level and - if so - how. The purpose of the workshop is to give concrete answers to these questions, broken down along the following lines:

- What is an innovation lab? Are there common characteristics that set aside innovation labs from other actors in the innovation landscape, such as science parks, incubators and technology transfer organisations? What kind of labs should be supported?

- What should be Europe's vision in terms of innovation labs?

[1] http://blogs.ec.europa.eu/innovationunlimited/

- What could be the scope and rationale for a European initiative in support of innovation labs, beyond what has been done already?[2]

- What form would European support take, e.g. financial, networking, standard setting and labelling, or the creation/support to "flagship labs" of societal interest? What would be the impact of such support?

The workshop took place in the MindLab facilities, a Danish cross-ministerial innovation unit which involves citizens and businesses in developing new solutions for the public sector. The focus was on discussion and interactivity, with few formal presentations.

Participants' profile

The workshop gathered a small number of participants (22 persons, see annexe for details). The largest group of participants was composed of representatives from innovation labs. A majority of the labs represented were not purely private sector, but rather public sectors labs, NGOs and public-private partnerships, or else representing broader societal interests. The European Network of Living Labs was represented. A number of independent experts (e.g. innovation, design) were also present, notably representatives from the European INNO-Grips project.

The European Commission was represented by members of staff from the Directorate-General for Enterprise and Industry, and the Directorate-General for Information Society.

[2] For example the Living Labs initiative, the Open Futures project financed under the 6th research framework programme and support through EU structural funds.

2. A new approach to innovation

Innovation labs are heterogeneous phenomena. There is, for example, no single legal identity or organisational model that characterises such labs. The common denominator and originality is the way in which innovative thinking is fostered and nourished. The lab concept can be described as a new approach for innovating.

Participants were asked to clarify the diversity of labs initiatives (and their similarities) according to their mission/strategies, methods and tools, organisation/space, and funding/resources:

Mission / strategies ➔ Innovating in innovation processes

Innovation labs have also been described as public spaces where people can share their ideas an experiment, which enables to identify the needs and the solutions. In this respect, most innovation labs are delimited in geographical and / or thematic terms.

The concepts of citizen-centred and user-driven innovation have been particularly emphasised as key ingredients. Labs are engaged with the people directly involved or concerned by the issues addressed by the lab.

The ultimate objective of innovation labs would be to foster changes in behaviours, to materialize challenging and provocative ideas.

Such changes could mean:
1) Better goods and services to citizens or customers,
2) Higher impact on sustainable development,
3) Savings, increases in productivity or profitability,
4) Transparency, legitimacy, democracy.

Methods and tools

Experimentation is a key element of innovation labs activities. Labs generally follow a systematic process that includes:

1. Observation (horizon scanning ideas/research/practices) - *Inspiration*
2. Concept creating - *Ideation*
3. Prototyping and Testing (field trial) - *Implementation*
4. Up-scaling
5. Diffusion

Observation and fieldwork are related to the human-centric mission of innovation labs; as starting point and the methods they are also a good source for *inspiration*. *Ideation* is the core of the labs' function; usually collaborators come to find new type of concepts and/or models or even new problems for old practices, processes, product or services. Implementing happens usually as fast-prototyping, testing, experimenting and piloting. The direct involvement of users facilitates the use of methods based on reflexivity (putting people in front of what they are doing and the impact on their social structure).

Pluridisciplinary teams are also a key aspect of the innovation labs approach. Engineers, architects, designers, sociologists, businessmen and policy-makers are expected to collaborate and co-create within these places.

Several new methods are applied. One emerging strategic approach is *'design thinking'* proposed by Tim Brown. Design thinking is an approach to innovation that is powerful, effective, and broadly accessible, that can be integrated into all aspects of business and society, and that individuals and teams can use to generate breakthrough ideas that are implemented and that therefore have an impact. –Tim Brown: *Change by Design* (2009)

Organisation / Space

- Where to experiment?

The first question is whether innovation labs are virtual or physical spaces. As the approach consists in doing fieldwork and bringing experts from various backgrounds to work together, an exclusive virtual space is unsatisfactory. Experimentation is very much based on the learning-by-making approach. This however, does not mean that every innovation lab creates its own dedicated space for experimentation and testing. It is argued that every organisation, community, network should have its own experimental environment.

- When?

While some innovation labs are acknowledged as formal and perennial organisations, a number of initiatives take the form of projects / exercises with a specific target and a limited lifespan. The optimal life-time for an innovation lab is approximately 5 years. But it can also be argued that innovation labs must have the capacity for self-renewal and continuously find and adapt to the most cutting edge and appropriate innovation approaches, world-wide. If they are able to do that, they are sustainable.

- In which form?

The labs should give priority to enabling and empowerment. Therefore, most of them are multistakeholder and open. A high degree of involvement and trust can only be guaranteed by full transparency. In order to make openness, creativity and experimentation compatible with a rigorous systemic approach, the lab should opt for a loose (participative) but tight (directive) organisational model.

Funding / resources

The nature of innovation labs initiatives calls for co-funding / a shared resources mode of financing. Resources should be used to push the best ideas and transform them into actions as well as to alleviate risk taking. However public funds are generally not shaped for such objectives.

Also, innovation is a long and multifaceted process and the funding system should follow two principles:

- Visible long term resource opportunities for sustainable innovation,
- Rolling / multi funding according to the programme steps (prototyping, experimentation, etc.).
- Long-term support for the developing of the working methods and strategies, communication and branding

Other issues are related to the impact of financing on the neutrality / objectivity (who pays for what?) and evaluation (to be accountable to whom?) / the qualitative output (impact on the society).

3. A vision for the future of innovation labs

To formulate a vision for the role of innovation labs in the innovation systems and their potential future contribution to societal changes, participants were asked to formulate their opinion according to three components, namely the European innovation landscape in 2020, the role of labs in this landscape and what kind of impact the labs have had on society in 2020.

European innovation landscape in 2020:

- Europe is the leader for a sustainable and human-centred society (balanced between welfare and individual responsibility);
- Value shifts have led to the development of new indicators (environmental, happiness, sustaining government /public services, etc.);
- Innovation is central and inclusive. Innovation systems put emphasis on Community empowerment;
- Unemployment problems have disappeared but resulted in problem of skills shortages and loss of know-how;
- Europe is open, cooperation widespread although there is more mobility of knowledge than goods;
- "Think global, act local", small scale innovations are supported and networked for better up-scaling and diffusion.

The Role of innovation Labs in this landscape ➔ Seeding / Intermediaries / Catalysts

- They provide platforms for experimentation and enable risk-taking: epidemic model of co-creation (chain reaction);
- They ensure a continuous improvement of methods and learning; knowledge creation and management (thought leadership and collaboration);
- They bring ideas to the real world (test in live environment), which notably improves reactiveness and time to market / society;
- They represent the loyal opposition to mainstream thinking by challenging common beliefs and carrying debating values;
- They facilitate the raising of a variety of resources, accessible to SMEs and third sector.

For what kind of impact on society?

- Innovation labs have contributed to a shift in values;
- Labs have enabled Europe to attract foreign experts and develop new talents as they provide a stimulating place to work in and differ from academic or business environments;
- They have enabled collaboration between big firms and SMEs with a more equal balance of power and facilitated the inclusion of civil society into innovation processes;

- They have contributed to achieving new societal goals at less cost (in financial and environmental terms);
- They have caused and facilitated acceptance of institutional and technological change, with an impact on policy-making and public sector itself (new practices, regulation, funds);
- They are the 'engine' for societal and human-centric innovation in Europe.

Proposal for a common vision: Innovation Labs 2020

In 2020, Europe is the global innovation leader in effectively addressing complex social, environmental and economic challenges through sustainable, human-centred and democratized innovation. Innovation labs contribute to this desired social change, transform new ideas into concrete values and economic opportunities creating better and more sustainable outcomes, while developing and sharing new tools, methods and approaches to innovation.

A diverse community of innovation labs plays the role of catalyst and accelerator of innovation, providing hubs for co-creation, experimentation and learning. Innovation labs are open, inter-disciplinary and multi-stakeholder:

- They are accessible for citizens, open to the world and cooperate internationally;

- They create and support the combination of social, scientific and artistic disciplines and provide a favourable environment for risk-taking;

- They enable innovation through interaction with all parts of society, including private, third sector and academia.

Government is an active promoter of this new approach notably by providing structural and financial conditions for the development of innovation lab initiatives. They also use innovation labs to improve their own policy-making, interacting with all parts of society.

4. Developing support actions

Introduction to the European policy context and existing European initiatives

The example of the development of China's innovation system and its new focus on creative industries and especially on design is an interesting pattern as it underlines the importance of speed and scale in policy-making and implementing. Creative industry is the strategic decision in China and design is seen as an engine for innovation in the Chinese economy. The transformation from *'Made in China to Created in China'* is strongly under way.

- A renewed ambition for the European Union

In terms of institutional context, the European Union is in a decisive phase: a new Parliament, a new Commission and the adoption of the Lisbon treaty. In addition, the renewed Strategy for growth and jobs is currently being prepared. Within this context, the Commission will propose a new innovation policy.

The strategic objectives for the coming years will be presented next spring and should be ambitious and human centred. The new innovation policy will – among other topics - pay attention to:

- Energy & environment
- Social innovation & people empowerment
- The role of the public sector

In this context, labs could play a role as facilitator of innovation.

- The European Network of Living Labs

This initiative was launched in 2006 by the Finnish presidency. The initial goal of the Living labs was to support citizen empowerment through the use of ICT. Progressively the ICT dimension has been reduced and the labs are targeting now societal and local issues. Labs are focused on specific sectors such as energy, health, city services. Hence, the 2010 programme will probably focus on smart cities.

Another interesting result is that some Living Labs have been "cannibalised" by consultancy firms. This is an aspect to consider while thinking of potential support actions. Some consultant companies call themselves innovation labs; they propose multidisciplinary and adopt a user-driven approach but are not multistakeholder.

- European Cluster Policy

Clusters are acknowledged as efficient tools to bring together innovation actors mainly with a sector focus to contribute to regional development, and the creation of jobs and growth. The European Commission supports these organisations through several actions such cluster collaboration, cluster mapping and the development of an excellence label (notably through

PRO INNO Europe and Europe INNOVA). Some clusters deploy innovation labs as tools in innovation support (for example MINATEC IDEAs Laboratory[3] in Grenoble).

Innovation labs and clusters may share features and complement each other. This would however require a further conceptualisation of the innovation lab approach. In the context of clusters, innovation labs might:

- Be a distinct working method of the cluster organisations to work with cluster members and clients;
- Innovation labs could become institutions complementing in the regions the work of cluster organisations with a more citizen centred approach and aiming at 'societal innovation';
- Top end, excellent innovation labs addressing cross cutting issues (the 'grand challenges') could act as innovation spaces upon which cluster organisations from Europe draw for specific activities.

➢ European Institute of Innovation and Technology (EIT)

The MIT in the USA is the source of inspiration for the European Institute of Innovation and Technology. The EIT's activities will start in 2010, with three Knowledge and Innovation Communities, KICs (20 proposals received, 3 selected) that will launch pilot projects on climate change, renewable energy and ICT. The objective is to bring together research, higher education and business for the purpose of innovation. Here also, the lab approach could be appropriate especially in bringing public, social and design competencies into play.

➢ Design as a driver of user-centred innovation

The Commission Staff Working Document[4] on design analyses the contribution of design to innovation and competitiveness. The results are compelling: companies that invest in design tend to be more innovative, more profitable and grow faster than those that do not. At the macro-economic level, there is a strong positive correlation between the use of design and national competitiveness. Design as a driver and enabler of innovation complements more traditional innovation activities such as research.

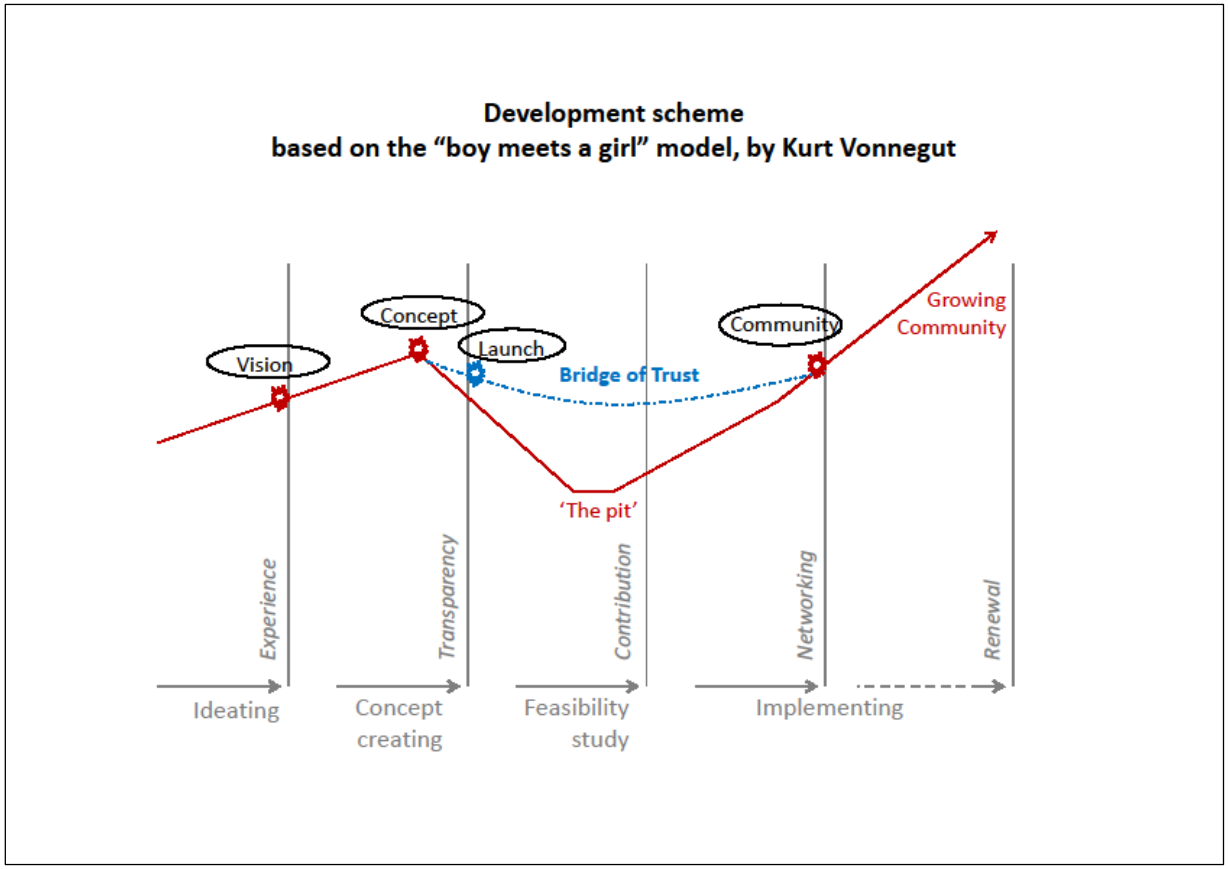
The document concludes that design has the potential to become an integral part of European innovation policy, a building block of a policy model that encourages innovation driven by societal and user needs, and build on existing European strengths such as our heritage, creativity and diversity to make Europe more innovative. Potential links to innovation labs are:

- Especially the emerging concept of *"design thinking"* is a powerful approach and method used by the labs; it can create the common nominator to characterise the idea of labs;
- Design can foster the link between creative industries and societal innovation.

[3] http://www.ideas-laboratory.com/

[4] http://ec.europa.eu/enterprise/policies/innovation/files/design_swd_sec501_en.pdf

- A participant proposal:



Innovation Labs as a Movement: The Development Scheme

The Bridge of Trust would involved:

- Branding of Labs
- Networking Labs
- Shared activities and common programmes
- Communication of Labs
- Common and/or shared strategy
- Flagship Lab(s)?
- European policy of labs?

➔ Mobilisation

Action 1: Transcalls (7 votes)

Concept
Transformation calls at European Level.

Timeframe / stepping stones
2010 Pilots / 2014 mainstreaming successful

Components & challenges

Visibility: to give a clear message and accessibility to the potential dedicated funds (technical and administrative barrier)

Need to find partners in the third sector / private
Need to find global national / regional partners

EU support and related European Commission initiatives
Specific programme and fund? CIP?

Other comments:
- How to avoid overlaps with other initiatives?
- How to avoid the bubble effect ?

Action 2: Demand for widespread experimentation (5 votes)

Concept
Support demand for innovation lab experimentation, by enhancing the visibility and image of such initiatives, de-risking experimentation and co-financing.

Timeframe / stepping stones
Pilots from 2010/2011

Components & challenges
- Fiscal incentives
- Vouchers
- Smart budgets
- Dedicated workplace / social relationships
- Soft incentives (reputation, leadership, etc.)

Transparency and strong signals:
- Career ladders + targets
- Strong support for early-stages of innovation labs
- Monitoring / evaluation

Targeted organisations:

- Public agencies and innovation agencies need to carry the flag
- Professional associations
- Some pro-active agents to analyse where innovation labs are needed

EU support and related European Commission initiatives
To provide funds for experimentation (structural funds?)
The European Commission should set an example

Other comments
Risks of wrong signals & game playing / dilution of the concept
Need to relate this to the improvement lab (action 7)

Action 3: Labs festival (4 votes)

Concept
Meeting between doers and users / labs on stage / hands-on work / market place for labs

Timeframe / stepping stones
2/3 years, the first event is the key

Components & challenges
The events should be localised and focus on the hosting territory in order to motivate doers and users.
Contest approach: A challenge is proposed (for example a thematic issue of a great importance for the European Commission) and several regions / labs are chosen (call for proposal?) to experience concurrent projects that would be presented and nominated during the festival.

Two types of events:

- Major festival
- Smaller local events

Every lab should be in charge of a part of the organisation.

EU support and related European Commission initiatives
This could be done under several existing programmes such as INTERREG
Join other initiatives such as Innovation Festival, European *researchers' night, European capital of culture, etc.*

Other comments

- Start from an analysis of innovation systems
- Need to push new ideas and scale up existing innovations
- Virtual festival?

➔ Lead by examples

Action 4: Micro Innovation Labs network (8 votes)

Concept
Encouraging systematic use of innovation lab approaches, scaling down the concept of innovation lab and building on local qualities and resources in order to diffuse more efficiently

Timeframe / stepping stones
Connecting existing initiatives and pilot projects: 2011
Full operation: 2015

Components & challenges
Support the experimentation of innovation lab methods within schools, universities, hospitals, care centres maybe also within small clusters / local production systems

Risk of lack of expertise: project-based learning. Need to rely on existing micro projects. Solicit external expertise (Action 2: vouchers?). Involving the pupils and students would also enable to train future innovation managers beyond institutional and formal learning.

EU support and related European Commission initiatives
INTERREG?
CIP (The European Network of Living Labs)

Other comments
- Need to find the adequate light delivery mechanism; cross-fertilisation of practices,
- Innovation unit and NHS (UK) carry out this type of exercise and la 27ième region (Fr),
- Provide insights from the "shopfloor" to help addressing key challenges being faced by EU (e.g. EIT)

Action 5: Translab, the European transformation laboratory (4 votes)

Concept
The Troy Horse: sneaking & shifting
To improve EU innovation policy-making and implementation processes.

Timeframe / stepping stones
Iterative and continuous process

Components & challenges
The lab should work with at least three DGs (Enterprise, Research, Education?) and sometimes involve direct implementers / benefiters from the targeted policies.

The lab would help design new policies and optimise the existing ones (efficiency, duplication, etc.)

EU support and related European Commission initiatives

Co-funding, access to European expertise and network
PRO-INNO initiative, FP8 consultation / elaboration process, etc.

Other comments
- Use existing processes and teams; don't create a stand-alone, dedicated policy-inno lab.
- Maybe use contest / awards, call for tender to solicit existing labs in EU (action3)?

➔ Capacity building

Action 6: Skills for Labs (6 votes)

Concept
Continuous process to build labs' capacity

Timeframe / stepping stones
N/A

Components & challenges
Summer school / summer camps
Workshops
Scholarships & secondments
Staff exchange programmes

Groups of skills:
- Design
- Research
- Facilitation
- Communication
- Brokerage
- ICT tools
- Networking
- Collaboration
- Project management

EU support and related European Commission initiatives
Network of labs (Community of practices, micro labs network)
Leonardo style programmes

Other comments
Risks of hyper specialisation and lack of shared language

Action 7: The Improvement Lab/evaluation (6 votes)

Concept
Real time feedback system and learning tool

Timeframe / stepping stones
Ex-ante evaluation – Interim / monitoring – ex post – impact assessment

Components & challenges
Self evaluation processes
Community surveys
Hotline / peer2 peer
Story book

Indicators:
- Productivity
- Quality of services
- Behavioural change
- Socio-eco impact
- Democracy

EU support and related European Commission initiatives
N/A

Other comments
- Risk and failure should not be stigmatised but shared and analysed!
- Assessment should be done at the level of a "population of labs" (territory or field) instead of at single lab level

Action 8: Community of practices (3 votes)

Concept
Develop and share methods with peers

Timeframe / stepping stones
2010 until...

Components & challenges
Toolkit evaluated by experts and users
Target gaps in knowledge
Open platform and global network
1 - stop - shop
Create incentives for the use of the tools

EU support and related European Commission initiatives
EIT, DGs

Other comments
- NESTA has commissioned an Encyclopaedia of innovation methods
- Beware of standardisation!

5. Conclusions

Innovation labs is much more an approach to innovation than a new blueprint for innovation agencies / organisations. Labs are a flexible way to put a team together with the intention to solve a problem. In this respect, innovation labs can be defined as thematic-centred, pluridisciplinary, open and multi-stakeholder. An important aspect of the innovation lab approach is the capacity for self-renewal and a continuous search for the most appropriate resources (human and financial) and methods to deal with the targeted issue.

This kind of approach together with design thinking could create a totally unique and powerful way of approaching innovation. By supporting the creation of an "Innovation lab community" and connecting it further to the existing structures of innovation organisations, like the European networks of living labs and clusters, the labs can play an important role in enhancing effectively in particular the complex, human-centric and socially applicable innovations. The networks of living labs, clusters and innovation labs could create the 21st century ecosystem of innovation in Europe, creating the balance between technological, sustainable and human-centric solutions for the future challenges and promoting the emergence of new values.

Understanding that innovation is for all – it is not innovating for people but innovating with people – is challenging the old formula of innovation as a closed process by only few. Instead, innovation is seen today as a movement to improve the quality of life and face the big global challenges of the future: climate, urbanization, aging, security and the future of youth. The reality is that we will need openness and transparency, speed and synchronization, new types of partnerships and global networks to solve the complex problems in the world. Charles Leadbeater said: *"Innovation is driven by creative collaboration as much as by competition, it is something you do with people rather than to them."* That is what the innovation labs are all about.

It can be argued that the primary role of politicians should be about making labs citizen-centric rather than customer-centric. The core value of social innovation generally is the "enablement" (or "empowerment") of communities and individuals, which means they are able to act on their own, as independent actors and at the same time are active part of the global direction. The point is that this value is not always compatible with many of the industrial and the business values. This will be particularly sensitive with technologies in the near future -like nanotechnology, biotechnology, information technology and cognitive science. That is why the role of labs could be decisive in preserving and innovating in the concept of "common goods".

The European Union could play a substantial role in promoting this approach and mobilising existing and future stakeholders. One of the ways is to lead by example and to solicit existing innovation labs to answer to the European institutions' major concerns (through calls for proposal, contests / awards, etc.).

Another important aspect to be considered is the development of appropriate skills for managing innovation labs. Knowledge creation and management are very specific areas of expertise that are difficult to obtain through a formal course of studies. A strong community of practice, including per-to-peer learning and an improvement lab would foster the consolidation

and diffusion of this expertise. Beyond the specific needs of innovation labs, there is a lack of service design know-how that needs to be considered by European public authorities.

Lastly, it is important to highlight the issue of scaling and diffusion of innovation labs outputs. A major risk with such initiatives is that they remain "scientific experiment", disconnected to the rest of the concerned organisations (or related socio-economic systems). The path from lab to broader practice implies that the benefits and operationability should be continuously demonstrated, promoted and rewarded.

Annex: List of participants

- **Charlotte Arwidi** (European Commission – DG Enterprise and Industry, Innovation Policy Development)
- **Christian Bason** (MindLab, Dk)
- **Pierre Bitard** (Association Nationale Recherche et Technologie)
- **Laura Dowson** (NESTA – The Lab)
- **Peter Dröll** (European Commission – DG Enterprise and Industry, Innovation Policy Development)
- **Franz Dullinger** (Stop & Go)
- **Marcos García** (Medialab Prado)
- **Maurizio Giambalvo** (NEXT – Nuove Energie X il territorio)
- **Rosina Gómez-Baeza Tinturé** (Laboral – Centro de Arte y Creación)
- **Valerie Hannon** (The innovation unit)
- **Per-Anders Hillgren** (Malmö New Media Living Lab/ Malmö)
- **Jeremy Howells** (University of Manchester - Centre for Research on Innovation and Competition)
- **François Jégou** (Strategic Design Scenarios)
- **Freeman Lau** (Kan and Lau Design Consultants)
- **Olavi Luotonen** (European Commission – DG INFSO)
- **Marketta Luutonen** (Taito Group)
- **Veli-Pekka Niitamo** (Helsinki School of Economics)
- **Sven Schade** (European Commission – DG ENTR Unit 2 – Support for innovation)
- **Anne Stenros** (KONE Corporation)
- **Bruce Tether** (Design London - Imperial College London)
- **Hugo Thénint** (Louis Lengrand & Associés)
- **Stéphane Vincent** (La 27ème Région)