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OPEN INNOVATION MARKET PLACES

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Cooperating with knowledge creators: Models of collaboration with universities and R&D

Authors:

Josep M. Piqué, Spain

CEO – Office of Economic Growth – Barcelona Activa

Luis Sanz, Spain

Director General - IASP

Alicia Shelley

Coordination Officer, IASP

Damien Plan

Joint Research Centre - European Commission

Giovanni La Placa

Joint Research Centre - European Commission

Joan Bellavista

CEO - Catalan Network of Science and Technology Parks (XPCAT)

Carmen Adán

Manager -Catalan Network of Science and Technology Parks (XPCAT)



IASP

International Association of Science Parks
and Areas of Innovation



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OPEN INNOVATION MARKET PLACES

A TOOL KIT FOR ORGANISING OPEN INNOVATION MARKET PLACES (OIMP) EVENTS

Josep M. Piqué

CEO - Office of Economic Growth - Barcelona Activa

President - European Division - International Association of Science Parks and AI's (IASP)

Luis Sanz

Director General - International Association of Science Parks and Areas of Innovation (IASP)

Alicia Shelley

Coordination Officer - International Association of Science Parks and AI's (IASP)

Damien Plan

Joint Research Centre - European Commission

Giovanni La Placa

Joint Research Centre - European Commission

Joan Bellavista

CEO - Catalan Network of Science and Technology Parks (XPCAT)

Carmen Adán

Manager - Catalan Network of Science and Technology Parks (XPCAT)

ABSTRACT

Science and Technology Parks (STPs) are important intermediaries in the innovation chain. By providing connectivity between science and business, science parks ultimately support the take-up and the diffusion of science-driven innovation into the economy.

In this frame, the Joint Research Centre of the European Commission (JRC) and the International Association of Science Parks and Areas of Innovation (IASP) have agreed to develop the present Guide as a 'Toolkit for organising Open Innovation Market Places (OIMP) Events'

IASP is keen to explore the vast opportunities that Open Innovation may offer to science and technology parks and other areas of innovation, and most of all, to the companies located in them, having had some experience on the mechanisms and nuances of open innovation circuits and operations via the IASP POINT service.

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1. WHY AN OPEN INNOVATION MARKET PLACE?

- Businesses rarely innovate in isolation. They draw information and knowledge from external parties: through customers and suppliers, of course, but also through the collaboration with other businesses or academia.
- Both private businesses and public institutions are aware that innovation can happen on a daily basis outside their own organisations. However, they may not always be in a position to get access to these external sources of innovation.
- There is frequently a gap between demand and supply of innovation, which needs to be addressed.
- A similar situation occurs with research institutes, technology centres, entrepreneurs and small and medium sized enterprises (SMEs), who are developing new ideas that do not always find the way to reach the market.
- There are often barriers for these companies or researchers to bring "ideas to market". This knowledge-transfer gap between research and market requires several contributions (such as technology feasibility, pilots and validation of scalability) to be bridged.
- In this context, Open Innovation can play a key-role in the take-up of science-driven innovations by European businesses.
- In the framework of their collaboration, IASP (International Association of Science Parks and Areas of Innovation) in cooperation with the Joint Research Centre (JRC) of the European Commission is proposing the "**Open Innovation Market Place**" (OIMP) as a tool to stimulate the innovation process. This guide is a practical tool to facilitate the organisation of OI based events and encounters, mainly at a European level.
- The **Open Innovation Market Place** is a process that can help private businesses and public institutions to open their doors to the supply of external innovation, to get access to and to evaluate proposals coming from Research Institutes, Technology Centres and entrepreneurs.

“Open innovation is the use of purposive inflows and outflows of knowledge to accelerate internal innovation, and expand the markets for external use of innovation, respectively. [This paradigm] assumes that firms can and should use external ideas as well as internal ideas, and internal and external paths to market, as they look to advance their technology.”

Henry Chesbrough, [Open Innovation: Researching a New Paradigm \(2008\)](#)

- The concept has been developed by IASP, the International Association of Science Parks and Areas of Innovation, which represents nearly 400 Science Parks from 70 countries.

- The European Commission has also acknowledged the importance of Open Innovation in its "ERA Communication" of July 2012, which states (Priority 5)¹: "More generally, to increase the economic impact of research, we need to foster Open Innovation, links between research, business and education (the knowledge triangle) as via EIT and in particular knowledge transfer between public research institutions and the private sector while respecting intellectual property rights".
- IASP and JRC have agreed to develop the present "Guide" as a toolkit for organising Open Innovation Market Place events.
- This guide aims at specifying good practices for the organisation of such events, as well as some standards and procedural guidelines to ensure the quality and uniformity in the organisation of Open Innovation Market Place (OIMP) events.
- The primary target audience for the present guide will be IASP members who are potentially interested in the organisation of Open Innovation Market Place (OIMP) events and who should benefit from the recommended good practices detailed in the Guide.

2. WHAT IS THE OPEN INNOVATION MARKET PLACE?

- The concept behind the Open Innovation Market Place is to bridge the gap between demand and supply of innovation by connecting the innovation demand ("**Challenges**") directly with the innovation supply ("**Solutions**").
- Within a common framework and using specific tools, the Open Innovation Market Place tries to connect innovation demand and supply ("**Challenges**" and "**Solutions**") more efficiently.
- The **Open Innovation Market Place** is a structured process that allows businesses (for instance large companies) or public institutions in Europe to open calls for their **Challenges** and to receive proposals of **Solutions** to their **Challenges** from **Solvers** (for instance SMEs or research centres).
- The focus and added value of the Open Innovation Market Place is a **process** to ensure that **Challenges** are **connected** with the best **Solutions**.
- The starting point of the whole process is the definition and the understanding of the needs from the demand side.
- The demand for innovative solutions can then be matched by **Solvers** capable of providing innovative **Solution**.
- The Open Innovation Market Place is not a simple buying process. It is a process of discovery and learning which increases the knowledge of organisations in order to find and filter several proposals (**Solutions**) for the same **Challenge**.

¹ European Commission: "[A Reinforced European Research Area Partnership for Excellence and Growth](#)" COM(2012) 392 final.

- The Open Innovation Market Place is the starting point of the innovation transfer process. **Challengers** and **Solvers** will be connected and will then have the opportunity to tailor innovative **Solutions** to the individual needs of the **Challenger**.
- The process and steps provided by the Open Innovation Market Place events should facilitate the absorption of the innovative solutions developed by **Solvers** and the diffusion of technology into the economy, contributing ultimately to growth and jobs creation.

THE CASE OF SMART CITY EXPO (PILOT)

The Smart City Expo World Congress is the global meeting point for cities, policy makers, public administration officials, experts, professionals, investors and companies interested in tackling the challenges of a new world scenario to redefine cities and foster urban growth together with sustainable development.

In connection with the Smart City Expo World Congress the *Smart City Open Innovation Marketplace (Smart City OIMP)* took place, where major corporations and specialized investors met the best innovative Smart City's solutions, entrepreneurs and new ideas in the main topics of the congress. The Smart City OIMP was managed by XPCAT, member of the International Association of Science Parks and Areas of Innovation (IASP).

3. OIMP: THE PARTICIPANTS

The organisation of the **Open Innovation Market Place** implies the involvement of different actors.

3.1. THE CHALLENGERS (INNOVATION DEMAND SIDE)

- The first step is to understand and precisely define the needs of the innovation demand side.
- **Challengers**, who can be private businesses or public institutions (for instance a city), are asked to define the **Challenges** for which they need a solution. This needs to be done in a way that can be easily transmitted to the potential **Solvers**, as well as ensuring that no confidential information is shared.
- When contacting potential **Challengers**, the OIMP organisers should try to identify the **Chief Innovation Officer** (or a similar function) of the company in question, as they will be the most indicated to define the **Challenges**.
- Tentatively, a minimum 5 and a maximum of 10 **Challengers** can be targeted for each Open Innovation Market Place event. (It may be possible to have a lower number of **Challengers**, as long as each of them is capable of launching multiple **Challenges**.)
- It is up to the **Challengers** to decide how and on what terms they wish to define their needs/demands. The role of the OIMP organiser is to make sure that this description is relevant and appealing to potential **Solvers**.

An example of a Challenge: the case of CISCO

CISCO is a worldwide leader company in networking and in transforming the way people connect, communicate and collaborate. CISCO has participated in several of these types of open innovation events receiving **Solutions** to their **Challenges**.

Some examples of the **Challenges** that CISCO presented are:

- request for **Solutions** which can help both the public and private sector benefit from the BIG potential of the “Big Data, Data Centre/Virtualisation” or “Collaboration, Video and Social Media”.
- request for **Solutions** based on the Internet of Things (IoT).

3.2. THE SOLVERS (INNOVATION SUPPLY SIDE)

- Different types of organisations can play the role of **Solvers**: individual entrepreneurs and/or SMEs, Research Institutes, Technology Centres or Universities.
- A **Solver** could be an STP resident or be directly linked to a Science Park, via research and technology centres, Universities etc.
- In the case of OIMP events organised in the framework of the IASP/JRC Science Parks Initiative, IASP members will be especially encouraged to propose **Solutions** and to play the role of **Solvers** in the process.
- All the **Solutions** should be proposed according to a common framework ("Template"), regardless of the type of **Solution** offered, in order to facilitate assessment by the **Reviewers**.

THE CASE OF CONNECTHINGS (entrepreneur)

Connecthings provides contactless mobile services through the implementation of tags (NFC/QR codes) on street furniture and public spaces, bridging physical and virtual worlds.

Citizens of various major European cities can already experience their digital service today (Madrid, Paris, Nice, Marseille, etc.)

Connecthings participated at the OIMP in Barcelona 2013 as a way to get in contact with major corporations proposing solutions for Internet-of-Things related **Challenges**.

3.3 THE REVIEWERS

The Reviewers:

- One of the roles played by the STP organising an OIMP is to guarantee the high level of quality of the proposals sent by **Solvers**, and decide upon which **Solutions** will be presented at the event.
- It is not possible to carry out a complete due diligence and a full technology-based analysis of the proposals presented by the various solvers.
- Nevertheless, the STP organising the OIMP should make sure to gather enough information on each potential **Solver**, and it is also strongly recommended that they establish personal contacts with the **Solvers**.
- In order to facilitate the process, the OIMP organisers will supply the template to be used for the solution proposals, compiling them before the evaluation phase.

- It is highly advisable that the **OIMP organiser** creates a reviewers panel, consisting of experts in the various technologies applicable to each **Challenge**. This will help ensure the quality and reliability of the proposals.

3.4 THE WEB PLATFORM

- The **Open Innovation Market Place** will use a digital platform to collect demands and solutions from a broad range of **Challengers** and **Solvers**, who may come from very different geographical areas ("global" calls).
- **Challengers** will be asked to carefully describe their needs (**Challenges**) and the type of innovative solutions they are expecting through the web-based platform.
- **Solvers** will describe online, following a structured pattern, how their proposed **Solutions** respond to the defined **Challenges**. The provision of extra/complementary information from the **Solvers** will also be allowed.
- **Reviewers** will screen the proposed **Solutions** and match them with the **Challenges** through the web-based platform. (Any solutions sent via other means must be uploaded to the web-based platform by the OIMP organisers.)

THE CASE OF YOUNOODLE

YouNoodle was founded by an international group of business angels in 2010. A team with 10 different nationalities runs YouNoodle, and the headquarters is based in SOMA, San Francisco. YouNoodle created a customized end-to-end platform for the management and evaluation of innovation challenges and start-up competitions worldwide. This platform has been used in order to organize all the OIMP celebrated to date. The YouNoodle tool allows OIMP organizers to host challenges and manage the evaluation process in an easy and user-manner.

3.5 MANAGING AN OIMP

- IASP members who are going to organise OIMP events appoint a person to manage the organisation and implementation of such event. A dedicated manager ("**OIMP Manager**") will be identified as responsible for the thorough organisation and implementation of the **Open Innovation Market Place**.

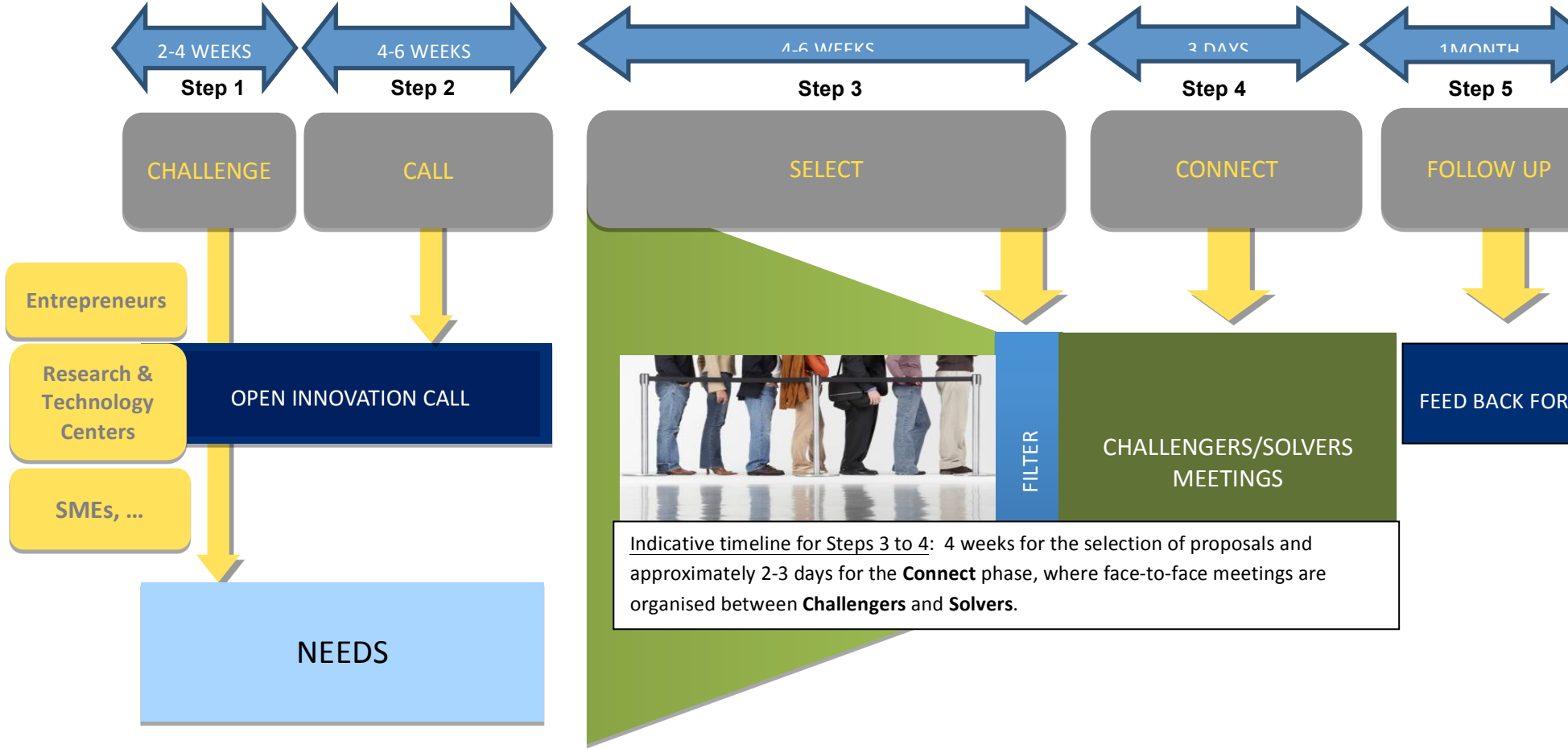
- The **OIMP Manager** will try to stimulate businesses and public institutions to launch their **Challenges**, and help them identifying the type of **Solutions** they need.
- The **OIMP Manager** will also encourage **Solvers** to place their proposed solutions on the web portal.
- Thanks to its membership of nearly 400 Science Parks from 70 countries, IASP, the International Association of Science Parks and Areas of Innovation, can offer valuable expertise to provide **Solutions** to a broad variety of **Challenges**.
- The organisers of the **OIMP** will also be responsible for the selection of the **Reviewers** in charge of the assessment and selection of the innovative solutions proposed by the **Solvers**. They will ensure that external reviewers are asked for where necessary.

THE CASE OF XPCAT AS OIMP MANAGER

XPCAT is a Regional Network of Science Parks with currently 20 members. Since 2012, the Network has organized four editions of the OIMP in parallel with other large events. The role of XPCAT in the OIMP, among other functions, has been to select the reviewers, actively seek solutions that respond to the challenges, establish the basic criteria by which solutions will be evaluated, coordinate judges, manage the ranking of selected solutions, prepare agendas for the events and generally coordinate all actors involved in the OIMP.

4. HOW DOES IT WORK?

The following diagram shows a model of the timeline for the different steps involved in organising an OIMP.



4.1. STEP 1 - CHALLENGE

- Can reflect a direct need of the businesses/institutions or a need of their customers, and it could refer to a specific problem or a field of application.
- Can be related to any area of the organisation (marketing, production, etc...) or to a new area to be developed.
- Can be "core" or "non-core", i.e. related to the core business of the organisation or not.
- Can invite the **Solvers** to use the technology already existing within the challenging organisation or to apply brand-new uses or **Solutions**.
- Will be the starting point for stimulating the **Solvers** to find new added-value and propose innovative solutions to the **Challenger**.

EXAMPLES OF PREVIOUS CHALLENGES

IASP, via the open innovation service (POINT), has received and distributed a number of need briefs which illustrate the types of Challenges that could be presented at the OIMPs:

- ✓ Force/torque-feedback mechanisms for a consumer product at ultra low cost for a predefined threshold indication.
- ✓ New polyol (poly-hydroxy) materials with unique chemical architectures using proprietary unsaturated materials obtained from renewable sources.
- ✓ A new approach to understand which connections consumers are making between existing segments and identification of potential new/emerging segments; a model that can be used to monitor connections that consumers are making between current segments and potential new adjacencies in a real-time manner.
- ✓ Printing technologies for Polyvinyl Alcohol (PVA) film.
- ✓ Innovative approaches to manage lengthy survey instruments via mobile data collection.
- ✓ Awareness tracking using unstructured data
- ✓ An abrasive material that can be used to mechanically grind, buff or polish delicate surfaces
- ✓ Mechanical surface enhancement treatments for application on metallic surfaces.
- ✓ Prevention of adherence of crystals or other solid particles to the surface of metals
- ✓ Detecting pathogens in complex food matrices
- ✓ Technologies or solutions that contribute to intensify chemical processes, especially processes involving heat transfer and mass transfer

4.2. STEP 2 - CALL

- The **Solutions** should become a source of global competitive advantage; this target can be reached only if they are the best and most innovative on the market.
- The **OIMP Manager** will launch a **Call** for potential Solvers within its network. A global **Call** can also be launched internationally to all the Science Parks and Areas of Innovation (IASP network). In either case, the **Call** will involve a broad range of Research Centres, Technology Centres, entrepreneurs and SMEs worldwide, which will be invited to provide their best **Solutions**.
- The **Call** will be open online through the web platform within a fixed timeframe (for instance 6 weeks).
- The **OIMP Manager** should involve both managers and residents of IASP Science Parks in order to achieve a high-level participation in terms of both quantity and quality. In the case of a global call IASP will act on behalf of the **OIMP manager** and promote the call towards the whole Science Parks network.
- The whole **Call** will be operated and managed online through the web platform, which will show all the key information on the **Call**.

The case of PARAM 24-7XS

The company Param 24-7XS was founded by the entrepreneur André Vanyi-Robin. The company is specialised in the provision of software services and hardware for mobile phone enabled facility access. The target markets for the applications of the solutions are highly diversified, from parking to real estate, from security to services, from home care to vacation homes, from short term rental to permanent fixtures, from lockers to garages and many more. The management is dedicated to make this innovation the standard for the cloudbased secure access of the future. Param 24-7XS is an example of a **solution** project that was selected at the last edition of the Smart OIMP.

4.3. STEP 3 - SELECTION

- The **Reviewers** will analyse the **Solutions** proposed by the **Solvers** based on the various criteria provided by the **Challengers** and their own expertise.
- The **Reviewers** will evaluate the quality of the **Solutions** and ensure that each **Solver** is presenting a valid and appropriate solution.
- The scores and rankings of each proposal sent by the **Solvers** will be available to the **Reviewers**. Following the selection of the most applicable proposed solutions for the **Challenge**, a list of the selected companies will be available.
- The best **Solutions** will be then ready to be delivered to the **Challengers** for a final evaluation/viewing of the solutions, prior to the meetings day with the **Solvers** ("**Connect**").
- Subject to available resources and necessity, a **Reviewer** could be assigned to each **Challenger**, helping them to select the best proposals in view of the **Connect** day

4.4. STEP 4 – CONNECT

- **Connect** defines the place and time when the **Challengers** meet face-to-face with the selected **Solvers**.
- Every **Challenger** will have approximately 10-15 minutes to meet with the selected **Solvers**.
- A maximum number of 10-15 **Solvers** will be selected for each **Challenger** (leading to a maximum half-a-day for each **Challenger** to meet all their **Solvers**).
- The **Connect** meeting can be organised as a standalone event or preferably within an already established fair/expo. In the latter case, the **Open Innovation Market Place** event can be linked to the fair/expo topic, providing an added value to the event's participants.
- During the **Connect** meetings, a **Reviewer** will act as facilitator for the discussions between the **Challenger** and each **Solver** (ensuring time-keeping and a **Solution**-focused discussion).
- The **OIMP Manager** will supervise the smooth implementation of the meetings for the whole duration of the **Connect** event.

4.5. STEP 5 - FOLLOW UP

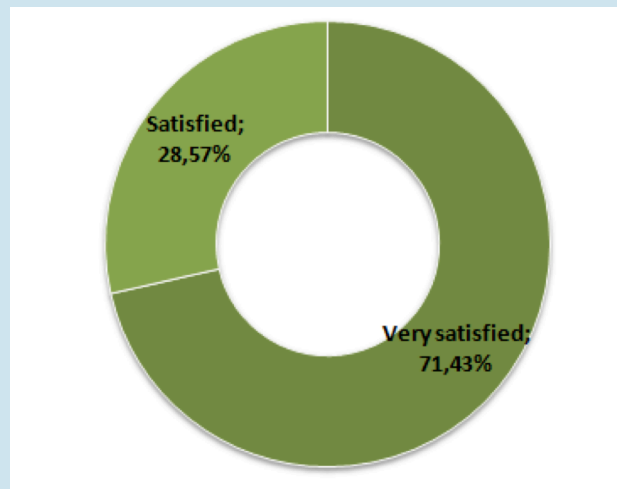
- The **Connect** event will be followed by debriefing meetings to collect direct feedback from the participants and gather their initial impressions and comments.
- Approximately one month after the **Connect** meetings a survey template ("Feedback Form") will be circulated through the web platform to collect comments and evaluations from **Challengers** and **Solvers**.
- These feedbacks will be useful to improve the organisation of future Open Innovation Market Place events and measure their impact.

EVALUATION EXAMPLE

What is your overall satisfaction with general organization of the Smart City OIMP?

LEVEL OF SATISFACTION:

100% of entrepreneurs who responded to the survey were either satisfied or very satisfied with the Smart City OIMP.



OVERVIEW OF THE PROCESS OF ORGANISING AN OPEN INNOVAITON MARKETPLACE

Challenge	<p>IASP opens a call for Expressions of Interest among STPs for potential OIMP organisers</p> <p>There will be a limited number of events per year in Europe, ensuring a high geographical variety and that no overlapping with other IASP events occurs.</p> <p>IASP Governing Bodies will evaluate and select organisers of the OIMP events.</p> <p>The chosen organisers will sign an internal agreement with IASP.</p>
	<p>The OIMP organisers will find companies interested in participating as Challengers who wish to find a Solution for their technological needs.</p> <p>The organising STP is free to search for potential Challengers, although it should be natural that they may initially start by looking within their own environment and networks.</p> <p>Establish what the desired Challenges will be.</p>
Call	<p>A series of contacts with residents of the science and technology park to search for potential Solver.</p> <p>STPs are keen to be seen as relevant actors, so the invitation should be extended to others organisations in the region/area – universities, technology/research centres etc.</p> <p>If desired, IASP can also promote the Challenges via the POINT service of the IASP international network.</p>
Select	<p>The Reviewers and the OIMP organisers will filter and screen the proposals sent from potential Solvers.</p> <p>All proposals will be uploaded and evaluated via the web-based platform designed for this purpose.</p>
Connect	<p>The organiser will find a suitable venue for the face-to-face meetings that will take place between Challengers and Solvers</p> <p>It is advisable that the OIMP takes place in the frame of a sector related larger event/fair, thus benefiting from the infrastructure and logistics already in place, which is also an additional benefit for participants.</p>
	<p>During the OIMP event, Challengers and Solvers will be able to Connect in time slots of approximately 10-15 minutes.</p> <p>The OIMP manager will be available on site to ensure the smooth implementation of the meetings throughout the Connect event.</p>
Follow Up	<p>The OIMP manager will collect feedback from participants straight after the OIMP.</p> <p>A post-event survey ("Feedback Form") will also be circulated amongst Challengers and Solvers. Their feedbacks will then be used for the organisation of future events.</p>

KEY RESOURCES

FOR THE OPEN INNOVATION MARKET PLACE:

- SCIENCE PARKS: www.iasp.ws
- CLUSTERS: www.clusterobservatory.eu
- LIVING LABS: www.openlivinglabs.eu
- INCUBATORS: www.ebn.be
- UNIVERSITIES: www.eua.be

FOR THE EUROPEAN UNION:

- JRC: <http://ec.europa.eu/dgs/jrc/index.cfm>
- EIT: <http://eit.europa.eu/>
- KICS: <http://eit.europa.eu/kics/>
- RIS3: <http://s3platform.jrc.ec.europa.eu/s3pguide>
- KETS: http://ec.europa.eu/enterprise/sectors/ict/key_technologies/index_en.htm
- EIB: <http://www.eib.org/>
- DG ENTERPRISE AND INDUSTRY: http://ec.europa.eu/enterprise/index_en.htm
- DG RESEARCH AND INNOVATION: <http://ec.europa.eu/research/index.cfm>
- DG REGIO: http://ec.europa.eu/dgs/regional_policy/index_en.htm
- EU2020: http://ec.europa.eu/europe2020/index_en.htm