

# Local Open Innovation: How to Go from Ideas to Solutions

Oscar Smulders

*“We are apt to think that our ideas are the creation of our own wisdom”  
but the truth is that they are the result of the experience through  
outside contact.*

Konosuke Matsushita (1894–1989)  
Industrialist and Author; Founder of Panasonic  
Known in Japan as "the god of management"

Local open innovation can be used to create a powerful dynamic within a local multi-stakeholder environment. This article shares the experiences of setting up a collaborative innovation process in a regional initiative in the Netherlands. In the first phase of the process, a couple of interactive idea generating sessions have been organized. These so called Quest for Solutions sessions have not only generated a rich set of useful solutions, but they also created a positive vibe within the local community. Factors that have contributed to the success of the idea generation sessions are working around real-life problems involving people who are directly affected by the problem. The structure of the sessions with alternating phases of divergence, exploration, and convergence allowed for broad understanding of the problems, exploration of potential solutions, and working towards result-oriented value statements. Key challenges in translating the ideas into solutions have been determining the value case and dealing with intellectual property. Special attention is given to the notion of innovative contract design as a means of dealing with intellectual property in an environment of local open innovation.

## Introduction

This article focuses on a local open innovation initiative in the Netherlands. A new industrial site is being built to provide the maintenance function for the regional process-industry plants. Besides the physical development of the industry park, the main objective of the Maintenance Valuepark Terneuzen is the creation of a regional innovative ecosystem. Innovation in this ecosystem is both open and locally focused. Innovation is open in the sense that more than 25 partners collaborate and share knowledge, ideas, and insights. Third parties can also be involved in specific innovative projects, and results are exploited on a worldwide scale. Outside expertise of knowledge institutes, research agencies, and universities is actively solicited. Innovation is local in the sense that it is linked to the establish-

ment of the industrial site and the regionally based operational activities of the project partners. Furthermore, the initiative focuses on the regional development and the active participation of the locally established partners.

This article shares insight into the development of the innovation process used in the industry park, specifically focusing on the idea-generation phase and the subsequent challenges of translating ideas into successful projects. Key issues have been determining the value case and dealing with intellectual property. Therefore, special attention is given to the notion of innovative contract design as a means of dealing with intellectual property when setting up collaborative or open innovation processes in multi-stakeholder environments.

## Local Open Innovation: How to Go from Ideas to Solutions

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### Maintenance Valuepark Terneuzen

The Maintenance Valuepark Terneuzen (MVP; [maintenancevaluepark.com](http://maintenancevaluepark.com)) is an important industrial development project consisting of a cluster of more than 25 companies offering maintenance solutions for process industries, located in the Southwest of the Netherlands. The MVP's mission is to strengthen, renew, and improve the maintenance function in the process industry, which is very important to the region. By developing new organizational structures, innovative methodologies, and new services, the MVP works to improve the competitiveness of regional industry. Furthermore, the MVP aims to be the regional, national, and international hotspot for maintenance knowledge in the process industry.

The MVP project includes a real estate development initiative that focuses on the realization of the facilities needed to perform the maintenance services (e.g., offices, workshops, shared facilities, and infrastructure). The physical site will be newly built and is currently under development. The MVP is expected to be ready for business in 2014. However, the innovation process is not dependent on 'bricks and mortar'. Forming the heart of the MVP is the Knowledge and Innovation Centre (KiC; [tinyurl.com/b49cxnc](http://tinyurl.com/b49cxnc)), which focuses on creating new innovative maintenance services, developing, linking, and sharing knowledge and setting up education and training facilities. When the Knowledge and Innovation Centre was set up at the start of 2011, its main tasks were to set up an innovation process; establish the maintenance innovation agenda; and involve and engage the MVP partners. A particular challenge was securing and maintaining the commitment of partners before the establishment of the physical site; this was accomplished by demonstrating that, through collaboration, the MVP can create value for its partners from the very beginning.

Besides designing an open-innovation process and setting up related tools and methodologies, the Knowledge and Innovation Centre involved the MVP partners and created an innovation community that also comprises experts of technical universities and research institutes. At first, a thematic innovation agenda was developed, based on interviews with maintenance leaders within the local process industries. In total, the community defined eight themes, which varied from technical themes such as "corrosion under insulation" to more organizational themes such as "the availability of well-trained employees". These themes were seen by

the maintenance leaders as the key areas where new ideas and solutions were necessary. The themes were extensively worked out and prepared with experts, and served as the input for two large brainstorming sessions in February and April 2011, which we baptized as the Quest for Solutions (Q4S) sessions. Our Q4S sessions were partly inspired by the Quebec Seeks Solutions event, which focused on finding innovative solutions to complex problems faced by companies in the region of Quebec, Canada. Christophe Deutsch (2012; [timreview.ca/article/664](http://timreview.ca/article/664)) provides details of the Quebec Seeks Solutions and its underlying approach to local open innovation in this issue of the *TIM Review*.

### The Quest for Solutions Sessions

The Q4S sessions brought together large groups of more than 90 interested experts; the first session involved 45 different companies, and the second session involved 60 different companies and organizations. The unique aspect of the Q4S sessions is that they take place within the context of a local community, where participating companies very often have commercial relationships (i.e., client-supplier relationships, subcontracting relationships, or direct-competitor relationships). What is more, the local maintenance industry does not have a record of openness, collaboration, or knowledge sharing. The parties are either locally established small or medium-sized enterprises, or they are part of multinational concerns. New services or other innovative ideas typically come from the entrepreneurial mindset of the local companies or are delivered by the internationally established R&D centres of the mother companies.

In an era where open innovation is mainly thought of as a fully web-enabled approach where crowds and clouds are used to generate new ideas, it is refreshing to see that physical meetings still have an important role to play. Bringing people physically together and invite them to participate in a structured process may even offer very good, creative outcomes. The Q4S events were successful in creating a very positive dynamic, generating new ideas for old problems, and making new combinations, and they were key in setting the collaborative innovation process in motion. Bringing together a group of people and let them free in a well-prepared, structured process is a powerful means of generating new ideas and offering solutions that had not been imagined beforehand. The operational nature of most of the innovation themes put forward by the maintenance leaders was perceived as an extra challenge. Although

## Local Open Innovation: How to Go from Ideas to Solutions

Oscar Smulders

knowledge and expertise of the R&D departments is within reach, the context of the MVP is such that most of the relevant themes are relatively operational in nature and are often directly linked to the operational processes of the plants and the maintenance services.

Box 1 provides an overview of the steps followed in preparation for the Q4S sessions. The sessions were thoroughly prepared and the themes were translated into seven challenging problem definitions in the first Q4S session, with another 10 problem definitions in the second Q4S session. For every problem statement, a problem owner was appointed. The problem owner was always someone who had direct interest in the resolution of the problem and played the role of ambassador during the sessions. In the preparation, the problems were analyzed using extensive mindmaps that identified all the relevant information (e.g., technical aspects, barriers, relevant processes, cost drivers, methods). The detailed mindmaps were then handed over to graphic artists, who translated them into much more abstract graphic impressions, which were printed out on large sheets of paper and served as the starting point of the brainstorming session. The detailed preparation and the presence of the ambassadors assured that all the necessary information was available during the brainstorming sessions, and at the same time, the abstract graphical mindmaps gave the groups that gathered around the different themes a lot of freedom to let their creativity flow.

The first Q4S sessions resulted in a range of ideas for potential solutions to the problems stated at the beginning of the session. In between the two sessions, all necessary background information was collected and translated onto poster boards, screen presentations, and information booklets. When needed, people with specific expertise were directly invited to participate in the second session. The second Q4S session then took off where the first one ended with the potential ideas for solutions. During the second session, these ideas were elaborated upon and further analyzed using a broad range of tools, resulting in so-called value statements, which are high-level project charters with short descriptions of the ultimate ambition and goals, the expected value that will be generated, the scope and boundaries, and necessary competences and investments. Given the success of the graphics during the first session, the same artists were asked to translate each value statement in a more detailed graphical impression that was presented back to the participants in a closing plenary session.

**Box 1.** Steps followed in the Q4S sessions: open idea generation within a local community

1. Identify main innovation themes and translate them into clearly formulated problems.
2. Identify a problem owner for each problem.
3. Prepare first brainstorming session:
  - Conduct in-depth interviews with problem owners, leading to detailed mindmaps of each problem/issue.
  - Translate the mindmaps into a visual impression using graphic designers.
4. First Q4S session: generating potential solutions
5. Preparation of second Q4S session: three extra problems added
6. Second Q4S session: translating ideas into "value statements" and project charters

### Success Factors

The following aspects proved to be important success factors in the local open innovation sessions:

- 1. Real-life problems:** Both the Quebec Seeks Solutions and Q4S events have been set up around real-life problems, often structural problems that companies have been struggling with for some time but prove to be hard to solve. The events create the opportunity to get fresh ideas and invite different competencies and experts to have a look at the problem.
- 2. Role of the problem owner:** The individuals who have the most to gain by finding a solution to a problem provide the drive to make progress. The enthusiasm of the problem owner is one of the keys to bringing the group dynamics into action, thus generating creative and innovative solutions.
- 3. Asking the right questions at the right time:** Instead of directly narrowing down within the boundaries of the initial problem statement, the process leads participants first through a phase of *divergence*, which is

## Local Open Innovation: How to Go from Ideas to Solutions

Oscar Smulders

very important. We had structured the Q4S sessions in such a way that the first session would stimulate divergence, starting with the abstract mindmaps and quick brainstorm sessions, where participants were invited to rotate between the different theme-tables. In this open and creative phase, a broader understanding of the problem is pursued. In a next step, ideas for potential solutions are *explored*. Tellingly, it proved that often the best ideas do not come from the expected direction. At the end of the first Q4S session, a first phase of *convergence* took the form of identifying ideas for potential solutions, where the most promising ideas were selected and worked out further. The second Q4S session also started with a series of quick brainstorming sessions, but had a much more convergent character. The efforts to come up with a relatively detailed value statement for each issue generated a certain confidence amongst the participants that not only had they participated in a dynamic and fun event, but that the results would also be of serious use to the regional community.

**4. The use of images:** The team of graphical artists was also present during the brainstorming sessions and assisted the groups in translating ideas, solutions, and concepts into clear images. Sometimes, a lot of words were very quickly summarized by one clear image; as the proverb states: "a picture is worth a thousand words". The impact of the use of images in creative processes was an eye-opener for us; the graphic artists positively contributed during the preparation of the sessions (i.e., by creating the mindmaps) and during the session in facilitating the "quest for solutions".

### From Idea to Solution

The two interactive Q4S sessions were seen as very successful by the participants. The logical next step is to translate the solutions and ideas into innovative business projects. This has proven to be a challenging task. It demands a shift of mindset from "doing business as usual" within the relatively safe boundaries of the company towards a much more open mindset where collaborating and exchanging knowledge and expertise is key to achieving innovative results. Translating ideas into successful projects is also a challenge that needs time and patience to be fulfilled. In the past year and a half since the Q4S sessions were held, more than 25 different innovation projects have been started. These projects vary from designing decision-making models so that the best methodology is chosen for a specific job, to breakthrough innovations and designing totally new maintenance services and ways of working.

However, because the participating companies are sometimes competitors, or have commercial customer-supplier relationships, collaboration does not happen overnight. Trust obviously plays a central role. One of the main efforts of the team at the Knowledge and Innovation Centre has been focused stimulating and facilitating collaboration between companies. Because the partners within the MVP range from large multinational concerns to small, family-owned companies, the degree of maturity and access to knowledge and specific expertise among participants diverge enormously.

In addition to the more traditional toolset of project management needed to manage the project portfolio, the Knowledge and Innovation Centre also has an important function in bridging the knowledge gap and linking the MVP partners to universities, knowledge and research institutes, or specific experts. In particular, most small and medium-sized companies have difficulty building these bridges and links on their own.

One of the MVP initiatives is the creation of a body of knowledge. To make all relevant maintenance knowledge easily available to MVP partners, a "maintenance wiki" is being built to make all the innovative projects, best cases, and new insights available to the MVP community. Although this creates a certain transparency and openness, it also touches upon one of the bigger barriers that have been encountered in the process: the issue of protecting the strategic knowledge and intellectual property of the participating companies. Some recent insights concern the question of how to deal with intellectual property in multi-stakeholder environments and how to make sure that all partners – from the smallest companies to the largest multinationals – get their fair share of the overall "cake". As one sees in other initiatives where modern business environments and open innovation models are set up, free exchange of information, collaboration, and co-creation are in many cases hampered by issues relating to intellectual property rights.

Especially in the early stages of innovation projects, companies are afraid to be too open because they worry they will give away their insights for free. As stated before, small and medium-sized enterprises are especially reticent to share their ideas with multinational companies due to the imbalance of power. This reluctance is counterproductive to successful open innovation. The openness that was very present during the Q4S sessions diminished notably once ideas became more concrete and more ambitious projects were

## Local Open Innovation: How to Go from Ideas to Solutions

Oscar Smulders

started. This was not so much the case in the safer or more general project phases (i.e., projects on broadly shared interests or inventory studies of applied methodologies). The closer the projects touched on the operational activities of project partners, or when commercial or competitive aspects play a role, the more intellectual property would be mentioned as an explanation for a certain reluctance to actively participate.

By nature, there is a contradiction between open innovation and intellectual property rights. Open innovation typically demands openness, trust, and collaboration. Intellectual property rights, on the contrary, are designed to exclude individuals or organizations from using specific knowledge or technology. Very often, this puts up an important barrier to collaboration and the sharing of relevant knowledge in innovative projects. More than once, this issue has been put to the fore as a reason why companies are hesitant to become actively involved in open-innovation initiatives. At the same time, practical experience hints to the necessity of bridging the gap between these contradicting outlooks.

Another important factor influencing the successful start of the innovative projects is the determination of the expected added value of the project. Although early on in the projects, attempts have been made to clarify the expected results, it has often proven difficult to give robust estimates of the added value of specific projects. This challenge is especially difficult for the more ambitious projects where new services are created or breakthrough innovations are being pursued.

With the ambition to find adequate answers to these challenges, the Knowledge and Innovation Centre has recently joined in a research initiative by the faculties of Economics and Law at Tilburg University ([tilburguniversity.edu](http://tilburguniversity.edu)). The research aims to develop an economical value-mapping tool that will enable adequate estimates of the value of open-innovation projects in every phase. The research is especially of interest because it will also investigate the various types of contract design, and because it focuses on the differences between transactional contract design (law-based or IPR-based) and relational contract design (norm-based or open-innovation based). The aim of the research initiative is to design a framework of contract rules for the various stages and occurrences of open-innovation environments. The framework should stimulate openness and knowledge sharing and protect intellectual property rights of individuals and organizations. It should also support a common understanding of rules to be ap-

plied during idea generation and conceptualization phases in open-innovation processes. Furthermore, the research will support a common understanding that sharing of knowledge could be a good alternative to rigorous intellectual-property rules and defining contracting mechanism to support open innovation in multi-stakeholder environments.

Some of the collaborative innovation projects that are currently being supported by the Knowledge and Innovation Centre serve as empirical pilots for the research project. Some first findings are that the specific and explicit attention to the value case is beneficial for accurate estimates of the value that will be created. The discussions around intellectual property and project risks have become more objective. This objectivity, in turn, enhances the confidence and commitment of the project partners. Also, we find that, for participants in open innovation, just knowing that tools exist and that the process will be guided and supported, has value in that it takes away some of the fear regarding the complexity and challenges of open innovation.

### Conclusions

Local open innovation can help generate new ideas and create a powerful dynamic within local communities. In our case, the Q4S sessions have been instrumental in the establishment of a local community of maintenance professionals. It has put the MVP "on the radar", long before the physical industry park has been established. The sessions also generated an important number of ideas for innovative solutions, a lot of which have since been converted into actual projects. Some important drivers for the success of the session are the use of real-life problems, working with problem owners who really have interest in the solution of their problems and the structure of the sessions, imposing a phase of divergence and underlining the importance of asking the right question, followed by a phase of convergence and efforts to make the outcomes more concrete. A specific mention is owed to the graphic artists who have not only been a "fun factor", but have allowed broad, complex issues to be captured by very insightful images.

Whereas the idea generation phase has been perceived as very successful, translating the innovative ideas into business results in our local innovation community has, at times, proved to be challenging. In particular, questions around intellectual property and the expected value of a project have been key barriers to getting companies actively involved in the open-innovation

## Local Open Innovation: How to Go from Ideas to Solutions

Oscar Smulders

process. The iterative value-mapping process and conscious efforts to work with the value statements have already been helpful. So, although we are still just at the beginning of the process, we can say that the specific attention to the iterative value-modeling process and its implication to contracting aspects promise to be of great interest to the companies participating in the innovative projects.

### About the Author

**Oscar Smulders** is consultant for Minase, a company that focuses on creating strategic partnerships between companies, improving collaboration within supply chains, and setting up collaborative clusters and innovative networks. Oscar received an MSc degree in Business Economics from Tilburg University and an MBA degree at Université du Québec à Montréal. Recently, he has been involved as Project Manager in the development of the Maintenance Valuepark (MVP), and recently he has taken up the role of Innovation Manager for the Knowledge and Innovation Centre of the MVP. Development and sharing of knowledge, network learning, and creation of trust are his focal points. Oscar believes in a participative approach, working together with all relevant stakeholders in an open and transparent setting, and sharing knowledge and opinions in order to reach the best outcomes.

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