Evonik Open Innovation Conference 2013

Off the beaten path

Evonik Industries held its first in-house Open Innovation Conference in early May. Experts spent an entire day discussing the challenges of innovation management, which is currently transitioning to a new phase.

Dr. Georg Oenbrink, Senior Vice President Innovation Networks & Communications at Evonik

THE NAME FREDERIC Tudor was probably a lot better known 200 years ago than it is today. In the first half of the 19th century, the Boston businessman built a worldwide trading empire that shipped natural ice from the northern parts of America to Africa, India and Japan. The "Ice King" thus became a model for the American ice industry.

But innovation—as we call it today—in other industries quickly caused the downfall of the natural-ice empire in the second half of the 19th century: in 1859, Frenchman Ferdinand Carré produced the first artificial ice by freezing water through rapid vaporization of condensed ammonia. Over ten years later, Carl von Linde built the first refrigerator that worked with dimethyl ether. Tudor, who died in 1864, did not live to see this. His natural-ice empire declined rapidly. In 1880, the first refrigerator went into operation in Calcutta (India), Tudor's one-time natural-ice stronghold.

Over 100 years later, a number of successful companies are once more facing the question of how markets and business models develop and how they can avoid Tudor's fate over the intermediate and long term. This much is certain: innovation management will play a crucial role. And because the outlook in innovation management has significantly changed again in the last few years, Evonik decided it was time to hold an event to address these new trends: the first Evonik Open Innovation Conference (EOIC) was held on May 8, 2013, with about 160 participants.

"Evonik views itself as a creative, innovation-driven company," said Dr. Georg Oenbrink, Senior Vice President Innovation Networks & Communications at Evonik and initiator of the event, at the beginning of the conference. In the future, internal exchange among experts or long-term partners will no longer be enough to create new innovations, Oenbrink continued. To be successful in new fields of business, a company has to understand the entire value-added chain. This is why they take advantage of external knowledge.

In his presentation, Frank Mattes described the current situation as "the beginning of the third generation of innovation management." According to the founder and Managing Director of the innovation-3 network, which specializes in open/collaborative innovation, this third generation is marked by a variety of elements: the increasing importance of internal and external innovation networks, the ever-increasing use of Web 2.0 tools for activities relating to innovation such as collaboration and dialog between experts, and Open Innovation, in which ideas and competencies from outside the company are systematically used for its own innovation management.

"In the first generation, innovation functions were restrained. Companies tried to get over these barriers with individual projects," said Mattes. "In the second generation, the process paradigm came to the forefront." Now, in the third generation of innovation management, it is about "understanding innovation as a network-oriented and collaborative activity on a global scale—from products and services to new business models."

In the eyes of Maximilian Kreuzer, who works in the Innovation & Technology business area at Lanxess, open innovation has two main things going for it: when people have problems, they tend to ask the same people over and over for advice, and many people often cannot tell you precisely what their problem or solution is. "This is why it's important to bring people together to discuss their ideas," Kreuzer continued. "If your approach to open innovation focuses on people, you automatically do many things the right way." In his presentation, Kreuzer described how Lanxess identified the internal success factors for open innovation. This is important, because "there is no shortage of ideas, but there is a shortage of resources for selectively pursuing them."

Prof. Bernd Griesbach, Professor of Production Processes, CAD/CAM and Machine Tools at the University of Applied Sciences Ingolstadt, also addressed the importance of the human factor in innovation management. "It's all about a company's culture," said Griesbach, who headed innovation management for production at automaker Audi prior to his professorship at Ingolstadt. "This is why innovation management always has to be accompanied by competence management." Competence management is more than instruction and training: "It's a management discipline, in which expertise is described, developed, and applied." This is the only way to generate a connection between the strategic alignment of a company and the individual prospects of an employee.

As Prof. Diane Robers demonstrated in her presentation, which was based on new empirical studies, companies that pursue collaborative approaches to innovation management gain direct competitive advantages. Robers, Professor of Service Innovation & Entrepreneurship at the European Business School in Oestrich-Winkel, used the development of mobile IT and the Internet to demonstrate the need for cooperation and cross-sector approaches to innovation to meet the upcoming challenges.

"Radical and transformative innovations develop in an interdisciplinary atmosphere, often at the boundaries between ▸▸▸

Frank Mattes, Managing Director of innovation-3

If your approach to open innovation focuses on people, you automatically do many things the right way

Maximilian Kreuzer from the Innovation & Technology business area at Lanxess

Prof. Bernd Griesbach, University of Applied Sciences Ingolstadt

Companies that work closely together along the value-added chain are more successful than those that rely solely on their own knowledge

Prof. Diane Robers, European Business School in Oestrich-Winkel

Thomas Müller-Schwemer, Managing Director MBG Innovation Consulting

▸▸▸ industries, markets, technologies, and fields of application," said Robers. This is why there are already a great many innovation networks in business and R&D. "Studies that we have conducted with project partners prove that companies that work closely together along the value-added chain are more successful than those that rely solely on their own knowledge." In the beginning, this kind of cooperation is not always easy, because the participants come from different industries and, therefore, speak "different languages." "This is why it's helpful to have a third party acting as 'translator,'" said Robers.

An example of this kind of third party is MBG Innovation Consulting, which does roughly two-thirds of its consulting projects within the chemical industry. Thomas Müller-Schwemer, Partner and Managing Director, showed EOIC participants how strategic management of the value-added chain "can help realize not only additional sales revenues, but also additional profit margins." He summarized his experience from previous projects in four points: first, you should take on the leadership role in the value-added chain, otherwise you will quickly be exposed to pricing pressure. Second, you should try to partner with a large company, but not the largest, "because frequently, the market leader has no interest in changing the status quo." Third, you should demand corresponding commitments from all partners—for example, in the form of investment, sales, or development goals. And fourth, "Cooperation over a variety of value-adding stages is the only thing that allows an opportunity to implement innovative business models," said Müller-Schwemer.

Control your own IP

A big challenge with open innovation is control of your own IP: who is allowed to profit from developments after the collaboration, and how? It is often impossible to know this in the beginning. On the other hand, a successful partnership aimed at new business models requires openness among the partners if innovation is to play a role at all. Three speakers at the EOIC presented their approaches for handling this problem.

The first speaker was Dr. Martin Raditsch, Managing Director of InnovationLab GmbH (iL), which positions itself as the joint application-oriented research and transfer platform of science and business in the Rhine/Neckar metropolitan region. It is supported by the Universities of Heidelberg and Mannheim, the Karlsruhe Institute of Technology, as well as BASF, Heidelberger Druckmaschinen, Merck, and SAP. The 30 partners work under one roof, along the entire value-added chain of organic electronics. The very heart of their activities is cooperative research, the transfer of inventions into marketable products, and the education of junior employees.

"Our experience shows that a leading-edge cluster works one hundred times faster than a conventional collaboration," said Raditsch. The underlying agreements are complex—for example, a contract might specify that Partner X gets a Y percent share of the sales if the product is successful—"but the message for the actual iL researchers is simple: Talk openly with each other!"

Dr. Martin Raditsch, Managing Director InnovationLab GmbH

The Belgian Research Institute IMEC can now boast a nearly 30-year history of success with open innovation. Four hundred of the more than 2,000 employees are sent to IMEC on a temporary basis by industrial partners to work jointly on common R&D programs. IMEC works predominantly for the semiconductor industry, conducting R&D that can be transferred to industrial conditions through a system of cocreation with the industrial residents at IMEC's site.

To get industry partners to conduct joint research with and at IMEC—also bringing together different players of the value chain into a common R&D program—IMEC's research programs start two generations ahead of market introduction—so early enough in the life cycle of a technology platform, when IP can still be shared in a pre-competitive space (as functional building blocks). IMEC concludes bilateral agreements with its partners—and, thanks to this approach, reaches its objectives quickly due to the flexible nature of the model allowing partners to join at different moments in time, as Johan Van Helleputte, Senior Vice President Strategic Development at IMEC, stresses: "Other R&D consortia in the industry require on average six months longer to negotiate and conclude their entire consortium contracts." IMEC has now transferred its own program-based business model to the life science arena. "But here, in addition to IMEC, we need another partner (hence dual core approach) to make a joint value proposition to the different nodes of the value chain, combining biomedical/clinical and nano-electronics expertise," explained Van Helleputte.

Intellectual Property: "Talk to each other!"

Johan Van Helleputte, Senior Vice President Strategic Development at Belgian Research Institute IMEC

Innovation development needs rules

T-Systems, the business-customer subsidiary of Deutsche Telekom, is also currently setting up an innovation platform on which projects will be carried out end-to-end together with partners. The project, called ICT Open Innovation Ecosystem, is guided by the principles of Open Innovation and Cross Industry and aims to speed up new, ICT-inspired business model transformations. "To do this, we and our partners will develop a set of rules for innovation, a financial framework, as well as an IP framework that should ensure things get off to an easy start," reported Torsten Günzel, Ecosystem Program Manager.

This "innovation laboratory" concentrates on information and communication technologies and will map the innovation process end to end, but focuses on prototypes and joint implementation. In addition to Deutsche Telekom, potential partners also include other groups such as Allianz, VW, or DHL. "With this approach, we're also making the innovative power of Deutsche Telekom available to other partners in a structured way," explained Günzel.

Torsten Günzel, Program Manager of the ICT Open Innovation Ecosystem at T-Systems

Finally, three speakers used case studies to discuss how their companies have successfully opened up new fields of business. Dr. Simone Arizzi, Director Technology & Innovation EMEA at DuPont, described how his company got into the photovoltaics business a decade ago. "Because our knowledge of the needs of this market was sketchy at best, it was important that our ▸▸▸

Dr. Simone Arizzi, Director Technology & Innovation EMEA at DuPont

Speed and better technology are key to market entry into new fields of business

Dr. Klaus Kurz, Global Open Innovation Technology Manager at Ticona

Manfred Rink, head of New Business at Bayer MaterialScience

▸▸▸ first task was to understand the entire value-added chain," said Arizzi. "Then we were able to answer the questions of where our strengths lie and where the market opportunities are." For DuPont, the answer involved partnerships with companies and universities. "Speed and differentiated technology are key to successful entry in such markets," said Arizzi.

The right product at the right time—when it comes to vitalizing market success, this truism is not easy. For plastics manufacturer Ticona, a subsidiary of the chemical company Celanese, it is a familiar problem, since about two-thirds of its business is customer-specific. Dr. Klaus Kurz, Global Open Innovation Technology Manager at Ticona, focused his presentation, among other things, on how his company created new approaches to innovation through customer workshops, and the structured way he and his partners followed up on them. "Between 2009 and 2012, we were able to increase our patent applications tenfold and the innovation pipeline fourfold," said Kurz. The parent group now plans to transfer Ticona's success to other business units.

Manfred Rink, head of New Business at Bayer MaterialScience, discussed another approach to learning to improve our understanding of the entire value-added chain of a market, using the construction industry as an example. "As a supplier of raw materials—a supplier of polycarbonate, for example—we are at the very beginning of an extremely complex value-added chain," said Rink. "Consequently, many of the important players, such as investors, developers, architects, and general contractors are hard for us to reach, even though they have a big impact on what material is used in a construction project."

Three years ago, therefore, Bayer MaterialScience started the EcoCommercial Building (ECB) network. The network offers local expertise for all climate zones and types of building in "program centers" worldwide, in such areas as process optimization, energy concepts, knowledge transfer, sustainability, and the associated communication measures. There are also flagship projects on various continents. More than 70 companies have now joined the network. "It's hard to estimate the direct benefits of the ECB," admits Rink, "but it's given its members insight into regional markets that they never had before—especially in Asia."

Based on the variety of topics and approaches presented at the Open Innovation Conference, conference chair Georg Oenbrink concluded at the end of the event that "there is no one solution for all the challenges of innovation management." In reality, each case requires careful analysis to find the best approach. Oenbrink thinks it has become clear, however, that open innovation always requires a cultural change. And: "Without risk management, innovation isn't possible. This is why managers have to learn to accept calculable risks." ◂◂◂