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Agile innovation: Creating value in uncertain environments

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Companies or other organizations combine incremental innovation activities with increasingly successful or even disruptive innovation projects to create value in uncertain environments (Margaria *et al.*, 2010; Morris *et al.*, 2014). This is reflected today in the integration of the concept of “agile innovation”. (Aaen, 2008; Margaria *et al.*, 2010; Pirola-Merlo, 2010; Wilson *et al.*, 2011; Morris *et al.*, 2014; Mergel, 2016).

Agility can be defined as the ability of an organization to effectively immerse itself in its ecosystem, understood as all the entities that interact in a technological, economic, societal and cultural environment. The structures concerned therefore systematically involve all stakeholders in the development of new products and/or services, in order to accelerate the understanding of the various needs and thereby develop an innovation and added value creation that specifically meets them. To reach this level of maturity in terms of innovation, organizations must adapt their strategies, business models, projects, and even redefine their role within their “ecosystem” (Morris *et al.*, 2014). Whatever the context of emergence and development, these situations generate a high degree of uncertainty both in the implementation of innovative projects and in their prospects of success.

The establishment of flexible and adaptive, i. e. agile, organisations is one of the responses to better integrate all stakeholders and their needs. The term “agile” is now commonly used to describe organizations that are able to adapt and function well in rapidly changing environments (Overby *et al.*, 2006). “Flexibility” or “lean” are other terms (Sharifi *et al.*, 1999; Edin Grimheden, 2013) to describe similar approaches. In fact, since the early 2000s, agile methods have popularized the concept of agility, in particular through the dissemination of the ‘Agile Manifesto’ designed for software development and advocating three fundamental principles (Agile Alliance, 2001; Highsmith *et al.*, 2001). By adapting the principles of the Agile Manifesto, it is possible to go beyond strict technological developments and disseminate the following three agile innovation practices within organizations: (1) Foster interactions between individuals supported by agile processes and tools. Indeed, from an agile perspective, the team is much more important than the tools (structuring or control) or the operating procedures. It is preferable to have a united team that communicates rather than a team of experts working in isolation. (2) Encourage collaboration with customers in the form of flexible contracting. The client must be involved throughout the development. It makes no sense to negotiate and freeze a contract at the beginning of the project. While the client's demands can evolve with the understanding of his needs and the framework of possibilities. In this context, the very notion of customer can undoubtedly be rethought. Customers are actors in the project and must be considered as a stakeholder to be satisfied. Including them in the process is one of the pillars of a “robust agility”. (3) Focus on adapting to change, or even embodying change, rather than monitoring a plan. In a changing context, where the “ecosystem” can inhibit leads or offer new opportunities in short time, the initial planning and structure of the product or service must be

flexible to allow adapting the customer demand (Or the market demand). It is necessary to be pro-active together.

The aim of agility is therefore to enable organizations to create value by making its operation more flexible by developing a culture of change and collaboration. Agility thus transforms organizations on three levels: (1) the implementation of innovative projects that benefit from agile methods since the latter make it possible to reduce fears and uncertainties by integrating them directly into design and development processes and considering them as opportunities for progress; (2) the establishment of a creative environment and accelerator of innovation that will make it possible to transform a starting idea into an innovative product, to refine it, to shape it according to the evolving requirements of customers or markets; (3) the more effective management and evaluation of the innovation process itself that can transform the organizational model, or even the supply chain in which the organization adopting agility is integrated.

Through four articles illustrating the diversity of areas of expertise in which agility can be studied, this special issue of *Innovations* provides a subtle and complementary insight into the principles presented above.

Christian Dianoux and his colleagues, describes how the flexibility, adaptability and low cost of nudges strengthen the ability of the organizations that use them to improve their agility.

Stéphane Gorla explores the relationship between creativity and economic monitoring. He suggests using an OODA loop (Observation, Orientation, Decision, Action) to estimate its agility.

Using a multiple-case-study analysis of co-design in the field of energy, Laurent Dupont and his co-authors identify the agile levers in Living Lab favouring the trust between stakeholders. Finally, on the basis of the illustrated case of the Swatch watch, Brunelle Marche and her colleagues, focusing on innovative supply chain, highlight that the both concepts of agile supply chain and agility of supply chain support innovation.

Agile innovation is colored and thus approached differently according to the scale and contexts considered. Nevertheless, the articles presented here all describe a way of linking actors, organisations or territories. It is about identifying or creating new paths. This is undoubtedly one of the main properties of agile innovation: getting closer to the other. Similarly, the questions proposed here create a dialogue between concepts and paradigms to strengthen knowledge and understanding of agile innovation. For researchers and practitioners, these reflections are modestly an invitation to explore other horizons with kindness and flexibility...

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