

Conceptuation method for innovation acceleration
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The conceptuation method combines entrepreneurship with innovation and vice-versa. The conceptuation method is focused on new product and new business development, by structuring the early phase of innovation, the so-called fuzzy front end resulting in a strong business case. In the early phase of innovation ideas are born and converted into specific prototypes, business or project plans. Usually processes in this phase of innovation are chaotic by nature and decisions are made on ad hoc basis.

Innovation is something new with added value put into practice. The innovation funnel is a frequently used metaphor to describe the innovation process. Ideas are collected in a funnel, selected and subsequently developed into new products and services to be introduced on the market. The innovation funnel has three characteristic phases: concept development, product development and market development. The early phase of innovation or the fuzzy front end determines for almost 80% the success of the results, while only 20% of the resources are allocated to this phase. Most public and commercial organizations pay relatively little attention to this early phase of innovation, because of its unstructured and often chaotic process. Market success can be increased and costs and resources can be reduced by paying more attention to the fuzzy front end of innovation. The conceptuation method structures the chaotic fuzzy front end of innovation and hence reduces the time it takes to introduce a new product or service on the market.

The conceptuation method combines methods of design thinking, developed by Koen et al (2002)¹ with the effectuation theory developed by Sarasvathy (2001)². The conceptuation method structures the fuzzy front end of innovation and accelerates innovation processes. The method accelerates the innovation process of new business and service development by sensing, idea creation and concept development. It structures, accelerates and increases the effectiveness of processes in the early phase of innovation, in order to achieve successful innovations in the market. The method was developed and applied previously in several domains, such as robotics, food product development, energy production, rural tourism and new services for adult learning and education. The conceptuation method was applied as an innovation method within the INTERREG IVc project DANTE (2007-2013) (<http://danteproject.eu/>).

Koen et al (2002) combined a number of techniques in a coherent toolbox in order to structure the fuzzy front end. The conceptuation toolbox is enhanced with TRIZ methodology for solving "wicked" problems". TRIZ is a problem solving toolbox developed by Genrich Altshuller³. TRIZ, "the theory of

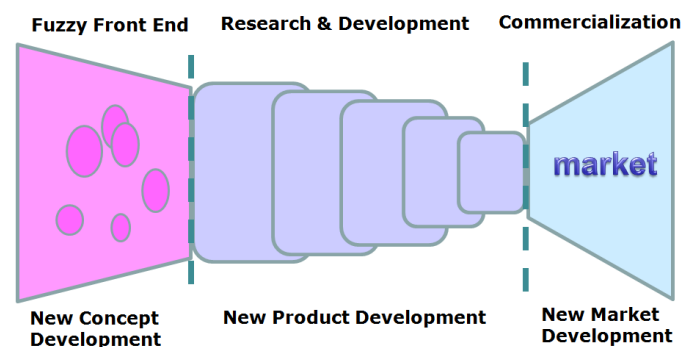
¹ Koen, P.A., G. Ajamian, S. Boyce, A. Clamen, E. Fisher, S. Fountoulakis, A. Johnson, P. Puri, R. Seibert. "Fuzzy Front End: Effective Methods, Tools and Techniques," in P. Belliveau, A. Griffen and S. Sorermeyer, eds. PDMA Toolbook for New Product Development. New York: John Wiley and Sons, 2-35, 2002

² Sarasvathy, S.D. 2001 Causation and Effectuation: Toward a Theoretical Shift from Economic Inevitability to Entrepreneurial Contingency, *ACAD MANAGE REV* April 1, 2001 vol. 26 no. 2 243-263.

³ Altshuller, Genrich, and Henry Altov. *And suddenly the inventor appeared: TRIZ, the theory of inventive problem solving*. Technical Innovation Center, Inc., 1996.

⁴ Altshuller, Genrich. *40 principles: TRIZ keys to innovation*. Vol. 1. Technical Innovation Center, Inc., 2002.

inventive problem solving", is the discovery of "standard problems" and "standard problem solving solutions" which results eventually in a set of 40 basic problem solving rules, Decision rules are based on effectuation principles. They represent how entrepreneurs will act when the future is unknown and the situation uncertain. The main principles are based on affordable risk and the mutual trust of actors, who act on the basis of what is available and see opportunities in unexpected events. Sarasvathy combines entrepreneurship and design thinking to create new ideas, opportunities and concepts. Design thinking is defined here as a mental process and as activities focussed on the development of new ideas, products and services. These principles are leading in the development of new tools for the fuzzy front end. Specifically, this concerns researching, developing and validating the toolbox by Koen et al and applying it to start-up and current entrepreneurs, with the objective to speed up innovation in these companies and structures.



Innovation funnel with three innovation phases

The conceptualization method consists of three major steps: opportunity, idea and concept. Within these steps we apply divergent and convergent thinking patterns as in the creative problem-solving method developed by Osborn and Parnes⁵.

The conceptualization method is a multi-disciplinary approach, enabling several disciplines and different stakeholders to work together, creating new ideas. Conceptualization workshops are facilitated by a creative facilitator and a creative challenger.

The conceptualization method leads to the following activities:

- 1) Opportunity identification and analysis
- 2) Idea creation and selection
- 3) Concept creation and description (scoping)

Each activity has its own specific tools. The tools of opportunity identification are based upon systematic analysis and sensing. Creative techniques form the tools of idea creation and selection. Finally, the tools of concept creation and selection are the standard financial and marketing techniques, combined with quick scans. Concept selection tools are derived from portfolio management.

⁵ Parnes, Sidney Jay. *Visionizing: Innovating your opportunities*. Creative Education Foundation Press, 2004.

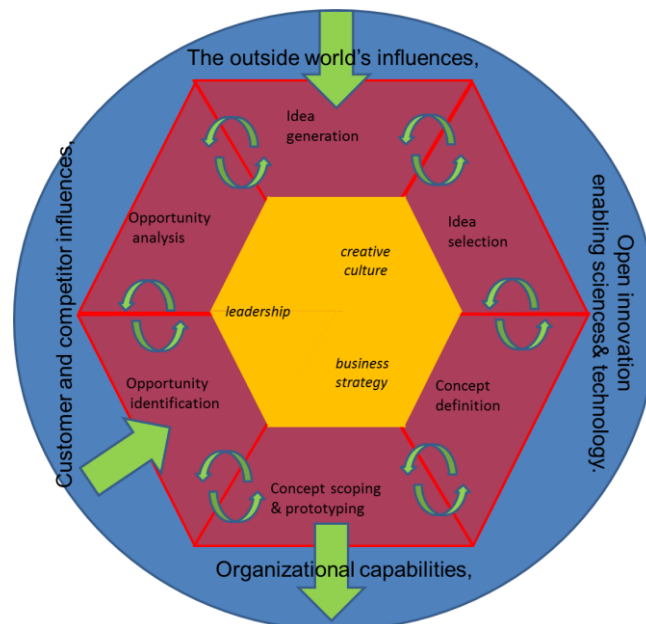
Conceptuation starts with a lead or a question (from the market) and ends with a portfolio of different detailed concepts for further business development or new product development by entrepreneurs.

The analysis phase consists of identifying and analysing possible opportunities by analysing current products (voice of product), current customers (voice of customer), emerging technologies (voice of technology) or possible future developments (voice of future). The results of the analysis phase form the inspiration and starting points for the idea phase.

The idea phase consists of generating and selecting promising new ideas for business and product development. The idea phase consists of a diverging phase, when as many ideas as possible are created and a converging phase, when ideas are selected, combined and enriched. The selection process takes place against the background of the vision and strategy of the organization.

The selected ideas form the raw materials for the concept phase. During the concept phase ideas are transformed into pre-concepts and specific plans for new business and products. Techniques of enrichment and association are used to combine the results of the analysis phase with the selected ideas into fertile pre-concepts. Pre-concepts are developed during the concept phase into actual project plans and/or business cases and combined in a portfolio of promising new products or services.

The final results of the conceptuation method are identified and quantified business or product concepts upon which it is possible to justify strategic business or project decisions and map business or product concepts to needs of supporting and financing actors.



Phases of conceptuation method for the Fuzzy Front End embedded in its environment (after Koen, 2002)