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# Innovation Essentials: a Science-based Toolkit for Innovation Management Education

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**Abstract:** The objective of the “Innovation Essentials” project is to provide teachers and students with a structured menu of science-based « knowledge nuggets », i.e. short videos with links to selection of high-quality sources and brief self-assessment surveys. These “knowledge nuggets” can be accessed directly by learners or mobilized by a facilitator in the context of a specific teaching model (audience, objectives, methods, results; Fayolle and Gailly, 2008).

**Keywords:** Teaching models; innovation training.

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## 1 Introduction

One of the challenges of innovation-related education is to “provide, maintain, and update online, user-friendly, plain language summaries of the practice principles that the best available evidence supports, while sharing information regarding their effective use as well as their limitations” (Rousseau, 2007), and this in a world which is squeezed between the opportunities provided by new AI-based tools and the challenges of finding reliable, traceable and “science-based” insights.

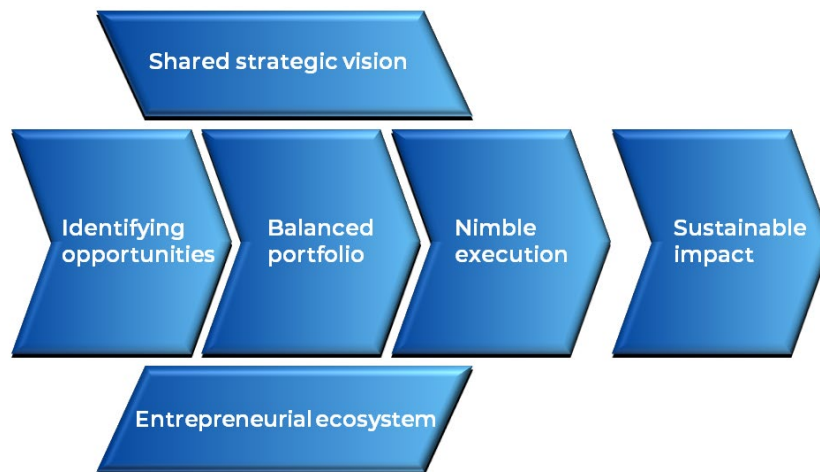
## 2. Objectives

In this context, the objective of the “Innovation Essentials” project is to provide teachers and students with a structured menu of science-based « knowledge nuggets », i.e. short videos with links to selection of high-quality sources and brief self-assessment surveys. These “knowledge nuggets” can be accessed directly by learners or mobilized by a facilitator in the context of a specific teaching model (audience, objectives, methods, results; Fayolle and Gailly, 2008).

## 3. Method and results

Those knowledge nuggets are structured around five core capabilities that organizations need to master to efficiently manage innovation (see Figure below). Its core is the entrepreneurial process involving the capabilities to “identify-select-implement” (Shane &

Venkataraman, 2000). Around this core process, organizations must also have the capabilities to develop and leverage on the one hand an entrepreneurial ecosystem, and on the other hand a coherent strategic vision.



**Figure 1** Core innovation management capabilities

Each of those five core capabilities is then addressed at different levels of analysis. For example, the entrepreneurial ecosystem capability is considered from the point of view of (i) the individual corporate entrepreneurs/innovators, (ii) the start-up or innovation project teams, (iii) the culture and structure of the parent organization, (iv) innovation networks and (v) the socio-economic ecosystems. The resulting structure includes 23 short videos (see details below in appendix), each connected to a set of 3200+ selected references and 450 keywords available online on the companion body of knowledge ([www.NavigatingInnovation.org](http://www.NavigatingInnovation.org)).

We also reconciled this structure with the framework proposed by the International Organization of Standardization regarding innovation, in particular the ISO 56000 and ISO 56002 norms. We controlled that all the issues highlighted by those norms are covered in our structure, and we built a “conversion table” matching each of those issues to specific themes in our list.

Finally, an initial self-assessment survey covering the five core capabilities as well as short questionnaires related to each core capability are provided.

## References

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## **Appendix: General structure**

### *Core capability 1: Build a shared strategic vision of innovation*

- Why it matters: dynamic innovation management capabilities
- Innovation as a business: more than creativity
- Innovation as a process: beyond ideation
- Innovation typology: beyond new products
- Innovation strategies: beyond new product development
- Drivers of innovation strategies: beyond hype

### *Core capability 2: Manage entrepreneurial ecosystems*

- Encourage people to innovate: corporate entrepreneurs
- Build and lead effective innovation teams: balancing acts
- Build and manage innovation-ready organizations: how some elephants can dance
- Develop innovative networks and collaborations: never walk alone
- Create innovation ecosystems: lands of opportunities

### *Core capability 3: Identify attractive innovation opportunities*

- Identify the sources of innovations: beyond R&D
- Foster organizational learning: beyond ideation
- Harvest and protect organizational knowledge assets
- Integrate external sources of knowledge

### *Core capability 4: Develop a balanced portfolio of business models*

- Business model design: asking the right questions
- Designing competitive business models: Why and what?
- Mobilizing the right resources: Who and how much?

- Valuating innovative business models: quantifying the unquantifiable
- Building a consistent and balanced innovation portfolio

*Core capability 5: Nimble execution - fail fast and win big*

- Nimble execution: learn cheaply and adapt quickly
- Lean development: speed and flexibility
- Smart money: funding innovation projects