

## **Innovation barriers and failures. Outcomes, learning and coping strategies**

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Academic literature is devoting an increasing attention not only to the determinants and impact of successful innovation, but also to the factors that hamper innovation or that lead to unsuccessful innovation outcomes. A strand of literature in the economics of innovation has investigated what influences the presence and the intensity of obstacles to innovation and the impacts of barriers on innovation outcomes (e.g. Iammarino et al., 2009; D'Este et al., 2012, 2014; Blanchard et al., 2013). Clearly, when barriers encountered along the innovation path are insurmountable they lead to failures, which can range from minor to major events, like delays and abandonment of innovation activities. Failures can be heterogeneous in their nature, as suggested by management scholars: they may be related to preventable mistakes, inherently connected to the complex nature of innovation (especially if radical), but they may also provide the firm with valuable information to improve innovation activities (e.g. Leonard-Barton, 1995; Cannon and Edmonson, 2005).

The research develops on the idea that a precise analysis of innovation barriers and failures requires more detailed information than firm-level data. Within the same firm, different R&D projects are characterized by different levels of resource commitment, different barriers and risk of failures. This is why the research aims at using the R&D project, rather than the firm, as the main unit of analysis.

The aim of the project is to provide a robust empirical evidence that can inform policy and practitioners on strategies, actions (and timing) that can alleviate or remove barriers and minimize the risk and intensity of failures. The project intends to address relevant and still neglected aspects that are of major relevance. These may be addressed by the following research questions:

- What types of innovation obstacles (e.g. related to cost, knowledge, market and regulations) are more likely to lead to a failure in innovation? Does this relation varies when considering failures at the conception or downstream phases of the innovation projects?
- Do previously experienced barriers and failures generate learning mechanisms that reduce the risk of unsuccessful outcomes of related (technologically / temporally) projects?
- What types of coping strategies (e.g. exploitation vs exploration) can mitigate the propensity and intensity of failures? Does firms resort to external assets (e.g. through

interactions with external partners) to deal with internal obstacles and potentially failing projects?

## Requirements

The ideal candidate will have a background in the following areas: Economics or Management of Innovation and strong quantitative and/or qualitative skills. Some research experience, especially in terms of data management and collection, is a desirable criterion of award.

If you wish to discuss the project, please contact Dr Alberto Marzucchi ([a.marzucchi@sussex.ac.uk](mailto:a.marzucchi@sussex.ac.uk)) or Prof Maria Savona ([m.savona@sussex.ac.uk](mailto:m.savona@sussex.ac.uk))

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