

## Alternative data sources to deal with innovation dynamics



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In this workshop we discuss how to design research when we need to explore new sources of information and data to analyse innovation dynamics. Particularly we focus on explaining and understanding how informal investors (i.e. business angels) engage with entrepreneurs (new ventures and start-uppers), and how this is affecting the likelihood of investing in innovative ideas and business models.

Understanding how to facilitate and support innovative ventures is a key topic in the innovation management and economics literature (Mason and Harrison, 2002; Maxwell et al., 2011). The rise of business incubators, crowd-funding initiatives and programmes to support start-ups are only few examples of what is going on in this domain (Galindo and Méndez-Picazo, 2013). From a more conceptual stand point, all these processes and dynamics share the issue that the innovation mechanism is mainly influenced by less tangible and more informal elements, for example related to the quality of the relationship between the funder(s) and the venturing party, including elements of reputation, trust and complementary competences or capabilities (Maxwell et al., 2011). This is leading to increasingly use relational and implicit contracting to set up the organization of the innovation and funding mechanism, at least in the early stage of the process (Mason and Harrison, 2002). In this specific case we focus on the analysis of the factors affecting the relationship between business angel(s) and innovative entrepreneurs in a very crucial stage of the engagement process, which is called “screening phase” (Paul et al., 2007). In this phase both parties are seeking to set up an agreement based on an informal/relational contract. In this phase entrepreneurs are pitching in order to be selected by business angels. This process is usually focused on showing entrepreneurs’ ability to present, the quality of the business idea and its innovativeness (Paul et al., 2007). If successful, the screening phase ends up with an informal agreement about intention to invest by the angels, the capital to be invested and the shares to be

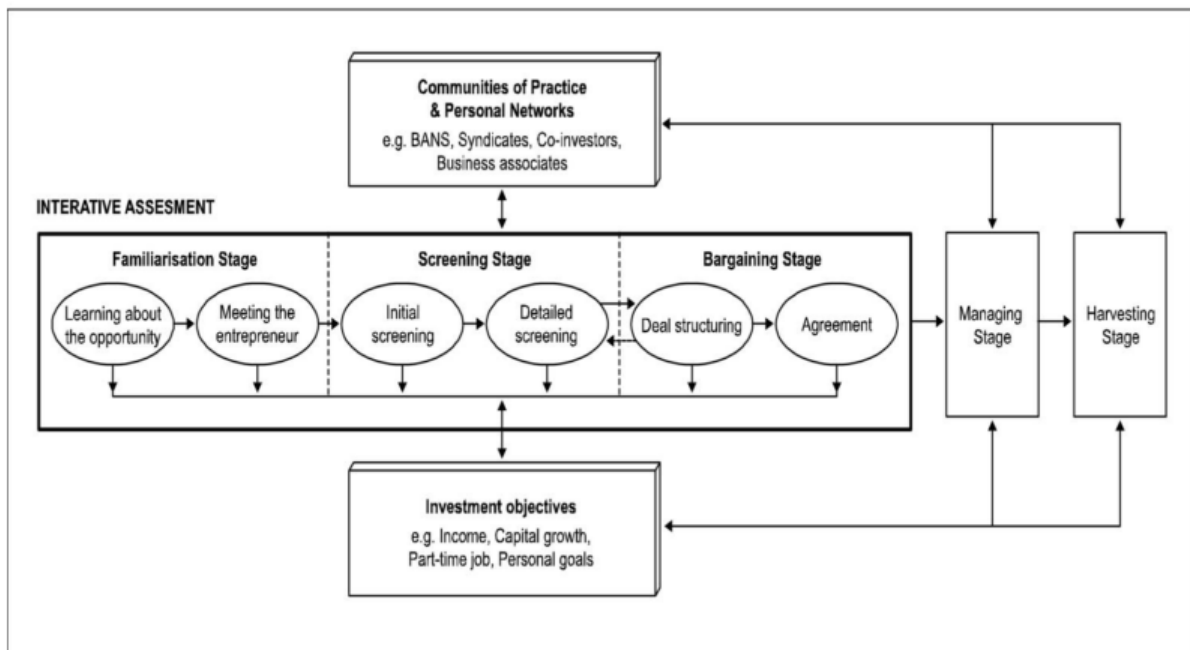
transferred from the entrepreneurs and the business angels (see also figure 1). Later on the agreement is formalized via a formal contract/partnership. Although it is recognised that the screening phase is crucial in the overall investment and innovation dynamics, little is known empirically about the factors affecting this relational contracting process.

From a research design and more methodological point of view this is a challenging issue. One strategy used by scholars to investigate this process is to observe and analyse a number of cases of engagement between angels and entrepreneurs. However, this has limited the empirical literature to explore more qualitative than quantitative approaches. The alternative strategy is to use (ex-post) interviews with either business angels and/or entrepreneurs in order to systematically reconstruct the elements affecting the failure or success of their pitches. This is leading to two main issues: (i) on one hand only successful ventures can be easily reached, thus creating a selection problem, since less successful or non-investment outcomes are not easy to investigate; (ii) on the other hand ex-post interviews are subject to a number of biases, including social desirability issues. Often angels have the tendency to not report personal biases, for example gender or ethnic preferences, or under/over evaluate aspects subject to social judgement. In these conditions a third strategy is to go for a more “experimental designed” approach, thus setting up and perform experiments with stakeholders (either in the field or in the lab) to mimic/replicate the mechanism to be studied, minimizing/controlling for key biases. However in this specific case designing and implementing experiments is risky, since they are very expensive if the researcher wants to ensure incentive-compatibility. In other words stakes are so high such that each interaction (or round) in each experiment would need an expensive budget to be arranged.

In order to try to avoid these methodological issues we propose to use information and empirical evidence from TV series (De Roos and Sarafidis, 2010). Particularly we explore how data from the BBC series *Dragons Den* can be used to tackle the issues at hand. Use of information and data from TV series are not new, nor exempt from limitations and biases (Levitt, 2004; Hartley et al., 2013). During the workshop we aim at engaging in a discussion with participants about these points, also based on preliminary results obtained by a team of international researchers working on this topic since 2013. Besides Stefano Pascucci, this team is composed by Christos Kolympiris (University of Bath, UK), Luigi Cembalo and Alessia Lombardi (University of Naples – Federico II, Italy), and Valentina Materia (Wageningen University, NL).

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### **Figure 1 – Different phases of business angels**



Source: Paul et al., 2007

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