From promoting innovation systems to instigating innovation

We have been working on the promotion of innovation systems since the early days of Mesopartner. One of the first methods that we documented was RALIS (Rapid Appraisal of Local Innovation Systems). This process instrument consists of a toolkit to help local stakeholders to identify and strengthen innovation potentials within a region or sub-sector.

The RALIS approach is systemic and focuses on different levels in an economic system. It allows identification of competitive pressure at the level of firms, as well as general patterns of performance. It looks at the responsiveness of meso organisations, especially of two kinds of institution that directly and indirectly disseminate knowledge in the economic system. The one group of meso organisations has to do with a broad range of skills and education, and their responsiveness to the needs of firms. The other group is more focused on direct knowledge transfer through consultancy, technical

and applied research services and indirectly through basic research, standards and certification. There is also a focus on the broader framework conditions shaped by sociocultural factors, as well as macro policies and technological trends. These four factors together describe the technological capability of the system.

After more than fifteen years of supporting local and national actors in developing countries, we have come to realise that there are several common patterns in most of our innovation system promotion activities.

- In most cases, there is over-emphasis on the presence of certain kinds of technological infrastructure and institutions and under-emphasis on the dynamic relations between different stakeholders.
- There is too much focus on the transfer of codified knowledge and technology from public research organisations, and an under-emphasis on facilitation, problem solving in industry and the continuous identification of stakeholders who are trying to acquire additional knowledge capabilities.
- Many technological and scientific actors mainly deal with like-minded peers in an exclusive way, resulting in high entry barriers to those actors who do not have the required qualifications or technical language.
- Even in remote areas we could find publicly funded science and technology infrastructure and organisations that were not embedded in the local community or that had little positive spill-over effects into the region (other than paying salaries).
- There is a strong focus on linear innovation (often in the form of projects) that resulted in patents and licences, and under-investment in ongoing learning, learning by doing, technology demonstration and other forms of technology transfer between different

stakeholders. In fact, there is a strong focus on technology as hardware, while social learning, how to organise around a technological capability or how to foster a more knowledge-intensive organisation are often neglected.

- Lastly, although technology centres and public actors in the innovation systems are aware of the vague concept of an innovation system or ecosystem, they hardly promote internal innovation processes within their organisation. Thus they are not able to reflect on, and understand, how their own innovation, knowledge and technology management approach affect the behaviour of other actors. Accordingly, we often find a very un-strategic approach to managing technological infrastructure. This is made worse by private sector actors, especially larger firms, that lack a strategic approach to managing and developing the competence and sophistication of their local supplier and customer networks.

We identified these patterns as we were conducting research into how economies evolve, and especially how a complexity perspective could be applied to our development work. We realised that our approach was lacking a purposeful search and discovery process that focused on changing the dynamics between stakeholders. Our research also revealed that in the past we had been focusing too much on physical technologies and economic technologies (how businesses identified and responded to opportunities by bringing together teams of people, resources and plans). We had to introduce a stronger and more structured approach to induce the development of 'social technologies' (a term used by Beinhoecker as a design method for organising people in pursuit of certain goals) that could diffuse throughout the system.

We call this approach Instigating Innovation. We chose ‘instigating’ because it is a term with a more positive ring to it than ‘provoking’ or ‘inciting’, while still being more aggressive than expressions such as ‘supporting’, ‘enabling’ or ‘encouraging’. While in the past we emphasised the different logics (and academic disciplines) of innovation systems and the subject of innovation management in organisations, with our Instigating Innovation approach we purposefully combine these two different schools of thought.

For instance, one of the first priorities in Instigating Innovation is to make sure that the key public sector actors, including the relevant meso organisations, in the innovation system are attentive to how they themselves innovate. When they are better able to manage how they learn, unlock and leverage knowledge for innovation, and manage their portfolios in a more strategic way, then this already has an effect on the dynamics of their relations with the industries and other stakeholders around them. When these organisations are exemplary in managing their own technological and innovative capability, they reduce the costs for enterprises to learn how to do this for themselves. In addition, this approach reduces the pressure on technology centres always to have the latest equipment, as firms place a greater value on their capabilities in softer technology.

A second focus area is the relationships between public and private organisations, and between larger and smaller firms. A quick way to change the dynamics of the relationships is to focus on regional problems or bottlenecks, or sophisticated demands in the region that remain underserviced. Our colleagues in technological and educational institutions are often hesitant to play the role of facilitator, preferring a more expert or technical role. By focusing on challenges in the region that require a transdisciplinary approach, they get to play a unique and valued role without compromising their technological preference.

Lastly, in Instigating Innovation we try to make technological capability in the system more visible. This can be done through demonstration events, or by arranging interesting events inside factories or in technological facilities. The idea is to get technical people to talk to each other, to make it easier for tacit knowledge to be exchanged. Over the years we began to realise that focusing on entrepreneurs, senior executives and senior academics is not enough. We have to draw in technicians, junior academic staff, students, enthusiasts and citizen scientists. The intent is to get more people meeting, talking, exploring and playing with technological ideas.

By focusing on these and other elements, we believe that the way in which technology and innovation is approached, practiced and managed will change within and between meso organisations, individuals and technological domains.

Shawn Cunningham (sc@mesopartner.com)
Frank Wältring (fw@mesopartner.com)