Moderators background note

Presenting the key concepts and issues: Boosting Sustainable Innovation – Innovation by bridging white spaces

WHY - Changing drivers for innovation and cluster development

1. Innovation is no longer the result of research in R&D divisions in big companies. Instead the message from innovation research and practice is about emergence of a new model of distributed innovation of which open innovation is one. This new innovation model reflects the increased impact of network organisation and collaboration. User involvement, strong intellectual property protection and business model innovation are key elements in open innovation. It also reflects that innovations tend to embody or draw on a wider and wider range of constituent technologies and knowledge bases. So technological diversity is becoming more important. This diversity can be source of innovation as well as a constraint. It also the network element already pointed at namely that this diversity is difficult for individual companies to maintain, so this is one rationale for collaboration. The upside of diversity is that it also increases complexity and enables cross boundary innovation if well managed.
2. Another feature is that products and processes created through innovation are placed into a context of use that is becoming increasingly systemic. Another way of saying this is that there are interdependencies between technologies, assets and products that affect innovative behaviour. The systemic aspect is especially valid for innovation to address Grand Challenges. These create a societal driver for issues driven innovation in relation to globally very important challenges that require a multitude of local experiments and innovation in order to come up with sustainable innovations. Examples are Climate change, Ageing, Sustainable cities, Clean Energy. They work as innovation drivers both as potential markets and as constraints pushing innovation.
3. Platforms are often the organisational model for distributed innovation . A general definition of Industry platforms are technological building blocks (that can be technologies, products, or services) that act as a foundation on top which an array of firms, organized in a set of interdependent firms (sometimes called an industry "ecosystem") develop a set of inter-related products, technologies and services (Gawer 2009). The rationale for platform competition is to be able to reach a sufficient level of application developers and users as fast as possible. Platforms can be open or closed. Platforms have to be governed or orchestrated which is the term mostly used. Platform orchestration involve the establishment of rules of the game including how value will be shared between the orchestrator and the application providers or complementors, providing an infrastructure for collaboration which typically include definition of modules and interfaces.
4. From a cluster perspective these aspects of innovation are challenging not least because the "organising principle" for a platform or a business ecosystem seems to be dissimilarity rather than similarity which is the basis for many clusters. The reason for this is that cooperation in clusters often has a cost-sharing element that becomes easier to achieve the more alike the

cost structure is. The cluster concept and practice is also rooted in industry affiliation and its respective value chain logic.

5. The points above are a backdrop to a BSR STARDUST project that seeks to translate these changes of business and innovation models into policy concepts and methods for innovation that is based on cross cluster collaboration. The systemic aspect of innovation is also referred to in the objective for BSR Star-Dust program when stating the aims to be to develop concepts and methods to support *system innovation* as well innovation that is conducted within the boundaries of existing regimes and whose impact is more to optimize existing system(s). The terms are from a Dutch school of researchers that address transition to sustainable development.
6. The workshop will take up some of the key issues that have been identified so far in the work that will be finalised early next year. The objective of the project is to develop concepts and methods.

WHAT – Open innovation arenas and White Spaces Innovation

7. Innovative potential by identifying uncontested market space in between present clusters is one "option" in this emerging innovation model especially in the context of system innovation. It builds on cross-fertilisation and (re)combination of knowledge assets. The term used for this is White Spaces Innovation.
8. The starting point for White Spaces Innovation is an issue that is considered to have innovation potential for a group of stakeholders and where collaboration can help legitimize a specific issue, some talk about this as innovation of meaning, improve funding opportunities and enhance their collective capabilities. The basic requirements for White Spaces Innovation are three. From an market perspective it needs foresight or entrepreneurial visioning. From a knowledge or technology perspective it requires asset complementarity that can allow recombination and co-specialisation. From a governance perspective it requires orchestration to establish "interaction fields" and turn them into dynamic arenas for joint action. Dynamic arenas are open to many stakeholders and perspectives but they also need the shared issue to engage relevant stakeholders and to give direction to the design process.
9. The context is defined by issues to be addressed rather than by cluster, industry and/or technological affiliation. Issues like climate change have global relevance and therefore large potential markets but they have to be made actionable based on interaction between companies, researchers and other relevant actors in a local/regional setting. As this is a case complex problem solving there is not only one solution to a problem. There can be many depending on the cognitive frames of participants, the assets they have etc.
10. Visualising this as a platform or as a matrix are ways to give form to and illustrate market and technology relationships. The use of the platform concept can also be extended to cover the projects that evolve from the interactions taking place.

HOW and WHO – Orchestration of two types

11. Orchestration plays out differently depending on how close to action an issue has evolved. Public agencies like RDAs can play a role in early phases but when an issue is perceived as actionable in a business and value creating sense a company or maybe a cluster manager takes over the role as orchestrator. The transition between these two types of orchestration

and how they interact are still a bit open. The community of interest that is formed around an issue may well have a longterm relevance for some topics even though in others the business orchestration takes over.

12. Orchestration of the early phases requires credibility among a broad set of potential stakeholders to be an effective convenor. The core skill of this orchestrator is to be a very good manager of interfaces between people, businesses, cultures and knowledge areas. The term for this is different among researchers. Some talk about boundary spanners, others about brokers. The capacity to play this role is to a large extent based on individual competence but that can be supported and strengthened by command of methods and processes that also have effects at the organisational level. Experience based research show that there is an interaction between the individual boundary spanner, the ability to use boundary objects to facilitate collective sensemaking and co-ordination and to what extent an organisation acts as an boundary organisation.

Topics for discussion at the workshop

The workshop will be a forum for exchange of experience. As a starting point we present these preliminary ideas about platforms and their orchestration

- Two types of platforms
  - Mobilising and generative platforms – examples and success factors?
  - Business platforms – how do these relate to clusters?
- (Regional) Development Agencies can play an important role as orchestrators of mobilising and generative platforms (or open innovation arenas).
  - Open – what does that mean?
  - Identifying issues and mobilising communities of interest – how to do that?
  - The issue as a boundary object for stakeholders – what good examples of cross cluster and cross cultural collaboration relating to Grand Challenges or similar kind of issue driven innovation?
  - Policy modules – how does this idea fit into existing modes for multi level governance, joint programming etc?