



Gastbeitrag:  
The Matrix Model of Regional Innovation Policy  
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The idea of the regional innovation system as a self-organising, geographically-focused but open system by which knowledge is explored, examined and exploited by firms, in particular, is far from being achieved in most regions. However, a few, among which is region Skåne, have ambitions, based on some accomplishments to achieve just that desirable state of affairs.

Economists refer to such self-organisation as autopoiesis. Markets are often thought to display key features of autopoiesis, as writers like Hayek proposed; that is they show certain spontaneous interactions and evolutionary growth that are willed by no identifiable source of authority. Today, however, it is understood that self-governance of that kind scarcely exists in markets, except perhaps near the peak of the boom. Generally, markets rely on regulation and rules of the game to function properly, if at all. They are beset by pervasive problems, notably asymmetric information, that can paralyse market activity. So the ideal of a well-functioning regional innovation system is to achieve a good fit between public regulation and business enterprise and innovation. Innovation is widely seen as the dominant factor in increasing factor productivity, which in turn determines rates of economic growth. Judicious regional innovation support services assist firms to anticipate shocks and proactively help firms gain synergies from innova-

tive knowledge-sharing that does not infringe market rules in being largely pre-competitive in nature. This function involves engaging firms in regional consensus-building about policy, the envisioning of promising lines of collective economic opportunity, and the catalysing of regional assets of value to firms and the wider community.

Many policy bodies see clusters and clustering policy as the way forward here. Of course, clusters exist and where they do it is only sensible to nurture them. They may also exist in regional economies with other forms of industry organisation. Large firms with or without local supply chains may be present and large public sector actors are also present very often. In recent years cluster policy makers have found it hard to build new ones. It is always a hard task, but in recession much more difficult due to shortages of financial resources, especially seed funds, business angels and venture capital. But now is not the time to abandon clusters or cluster policy but take advantage of synergies between them. Some of the leading European policy agencies do precisely this. One of the earliest was Upper Austria, now emulated by Lower Austria. Perhaps one of the simplest and most effective approaches is found in Bavaria.

Fundamentally an appropriate model is one that is not only reactive to external shocks, as many are, but one that shows capabilities in the proactive dimension. One of these is focused upon the platform-building activities of Bayern Innovativ a governance agency for regional development. Here the agency identified key industries that were beneficiaries of cluster policy paid for by Bavaria's resource windfall when it sold its share in the regional energy supplier. These were cross-tabulated against key technologies to find the inter-disciplinary and inter-industry innovation potentials of 'related variety' in the regional economy. Many innovations have ensued from the over 1,000 per year 'conversations' facilitated between neighbouring sectors concerning technological applications and resulting innovations. As part of the new platform thinking involved recognition of the importance of enhancing sustainable development as part of a new green vision concerning renewable energy and clean technologies.

How does Bayern Innovativ's proactive regional innovation policy work? Matrix management is conducted of potential innovation opportunities at intersections between industries, some having been beneficiaries of earlier cluster programmes. Cross-pollination or cross-fertilization of ideas and applications from one cluster are shared



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with the others. These are points where conversations among distinct and by no means obviously neighbouring business sectors are facilitated. Accordingly, where these facilitate personal discussion between experts and customers, sustainable cooperation networks are developed. More than 1,000 new co-operations are initiated annually - examples include:

- **Laser technology** adapted to beam nanoscale droplets onto microarrays for rapid bioanalysis
- **Mechatronic** systems for car engine management that have been transferred to bus steering systems
- **Portable fuel cells** that have been applied in automotive electronics
- **Plastic injection moulding** processes from button manufacturing which have been implemented in automotive plastic components
- **A logistics and transport** company that has secured a contract with one of the world's largest Internet suppliers
- **A technical textile producer** won a contract in medical engineering

Hence, Bayern Innovativ initiates business-driven project co-operations across disciplines and branches, taking into account the latest results from the scientific community. Over the past decade the agency has forged new pathways and created a portfolio of cooperation platforms and networks that have generated an extended, sustainable network structure. Both the platforms and the networks are in demand at regional, national and international levels.

This leads conveniently into the penultimate discussion of transversal innovation opportunities, which refers to the prospective for further horizontal interaction among existing and imagined Marche clusters in Italy. The desirability of further transversal knowledge transfer for innovation and facilitation of policy, especially given the current global economic crisis, was identified by the trades unions, and co-operative movement representatives amongst others. This is a clear field in which the regional administration in general and SVIM (the regional development agency) in particular took a leadership role armed with the vision of Marche not as a series of disconnected industrial districts or clusters but as a platform of integrated and innovative industry. To take on this function would imply three key things. First, the region, especially SVIM became catalytic to regional innovation as

the sole agent with the necessary legitimacy to invoke meaningful conversations about transversal innovation prospects at both general and detailed levels. The Technology Centres, which are dedicated to the four main regional clusters of Agro-food, Domestic Appliances (and Domotics, i.e. Domestic Robotics); Furniture; and Footwear & Leather were a key resource in the further examination of transverse innovation prospects with individual groups of firms or value chains. Second, SVIM developed a methodology suited to the character of Marche industry and economy culture so that unnecessary interest advancement through knowledge appropriation occurred. Important here was introducing 'rules of the game' to help often highly individualistic family business owners allay fears of confidentiality of intellectual property being infringed. Third the region and its agents were able to secure the support of the financial actors for this new Nautical Cluster venture. As noted, everything is seen as working vertically in Marche. This presumably includes the banks, without which regional renewal would be stillborn. As an earnest of this intention, Marche region assisted three of the four clusters – Domotics; Furniture and Leather to come together, reach agreement on their willingness to collaborate, and implement the Nautical Cluster focused on luxury yacht manufacturing at Ancona.