

Good Governance Infrastructures

The case of Värmland (Sweden): Institutionalised S3 collaboration for a leading forest-based bioeconomy

Like many other peripheral and non-metropolitan regions in Europe, the region of Värmland in Sweden is facing challenges related to rural-urban migration, ageing population, gender imbalance, and relatively low participation in higher education. The industrial development of Värmland has been traditionally dependent on the region's natural resources, particularly its vast forests. **Through a clustering approach and smart specialisation, Värmland has effectively moved from orthodox pulp and paper operations into adopting a bioeconomy approach**, with the aim of becoming a global leader of the forest-based bioeconomy and an example of best practice. The leading regional cluster and the Värmland Academy for Smart Specialisation have been instrumental in governing an effective mobilisation of critical mass from several sectors and improved regional expertise on forest-based bioeconomy.

The decline of the paper and pulp industries, followed by severe structural challenges in Värmland during the 1990s, motivated the regional capital of Karlstad Municipality and other regional actors, both public and private, to join forces and establish **“The Paper Province” cluster organisation**. The cluster serves as one of the key drivers for the regional economy and innovation and has therefore been strongly linked with the regional smart specialisation processes.

The Paper Province is a business cluster of forest-industry companies, connecting all parts of the forest value chain with the regional university, public organisations and civil society in a search for new bio-based solutions, thereby creating an institutionalised, yet business-driven platform for gathering stakeholders. Among its members are various world leaders in packaging material and packaging solutions, specialty paper, cardboard, paper and pulp and tissue machines, coating machines, and barriers. The Paper Province initiative has been established and financed in a triple-helix arrangement. Besides private companies, various other partners from the public sector, research, and civil society have supported the initiative, including the Swedish Innovation Agency VINNOVA which finances 50% of Paper Province's activities while the remaining 50% is co-financed by all the other public and private partners.

Many of Värmland's leading businesses benefit from intersectoral and -disciplinary innovation: **creating a competitive edge based on the regional forest** resources requires not only wood but elements spanning from advanced manufacturing and digitalisation through service creation and design to research and innovation that contributes to more local value creation of local resources through higher refinery levels.

This aspect is well reflected in **Värmland's smart specialisation strategy** which focuses on finding strong areas with the capacity to evolve into internationally competitive industries in the region. The strategy identifies six of such areas:

- Value-creating services
- Forest-based bioeconomy
- Digitalisation of welfare services
- Advanced manufacturing and complex systems
- Digitalised experience of nature, culture and place
- Systems solutions with solar energy

An important, **permanent regional infrastructure for smart specialisation** in Värmland is **the Academy for Smart Specialisation**, which was established in the cooperation between Region Värmland and the main regional higher education institution, Karlstad University. The academy **illustrates a long-term and systemic view of innovation in non-metropolitan areas**. Together these institutions seek to create and improve the regional competitiveness and resilience, and therefore smart specialisation has become an important conceptual tool for them. Värmland's six areas of smart specialisation are consolidated as the foundation of the Academy for Smart Specialisation. The Academy serves as a meeting-place for researchers, companies, financiers and entrepreneurs and prepares Karlstad University students for employment to drive the industrial development in the six prioritised smart specialisation areas in Värmland.

Read more:

Värmland in Smart Stories: <http://s3platform.jrc.ec.europa.eu/-/value-creating-services-supporting-smart-specialisation?inheritRedirect=true>

Värmland Academy of Smart Specialisation: <https://www.kau.se/en/external-relations/external-relations-university/good-examples/academy-smart-specialisation>

Värmland's Research and Innovation Strategy for Smart Specialisation 2015–2020: <http://www.regionvarmland.se/wp-content/uploads/2016/02/VRIS3.pdf>