

## DONIESIENIA – REPORTS

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### AN INSIGHT INTO FORESTRY-WOOD CLUSTERS

*The main benefit of forming clusters in the European forestry-wood sector is the synergy effect – companies, research institutions, local authorities can gain more through cooperation than by acting in the market alone. Clusters play an important role in driving European competitiveness, innovation and job creation and thus are strongly supported by EU policies. In times of a global economic slow-down such means of increasing the sector's competitiveness should be examined most carefully.*

**Keywords:** clusters, European forestry-wood sector, benefits

The term “cluster” has been introduced into business administration and management literature by Michael E. Porter and refers to “industries related by links of various kinds” [Porter 1990] as well as to “critical masses – in one place – of unusual competitive success in particular fields” [Porter 1998a] and more specifically to “geographic concentrations of interconnected companies, specialised suppliers, service providers, firms in related industries, and associated organizations (such as universities, standard agencies, trade associations) [...] in particular fields that compete but also cooperate” [Porter 1998b].

Thus clusters are a form of cooperative competition referred to as cooptition<sup>1</sup>, which can lead to many benefits, also for the forestry-wood sector:

- increase of companies' productivity,
- drive of innovation,
- creation of more advanced products,
- introduction of new products,

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<sup>1</sup> For more on cooptition see: [Brandenburger, Nalebuff 1998; Bengtsson, Kock 2000; Cygler 2007].

- introduction of new technological solutions,
- specialisation of production,
- formation of new businesses.

A key benefit stems from the fact that cluster members profit from the synergy effect, achieving more than if they acted in the market alone. Due to common actions companies are allowed to reduce costs. These actions commonly include:

- financial services,
- outsourcing,
- technology research,
- infrastructure,
- transport,
- fair expositions,
- training of employees,
- search for new areas of sale,
- creation of a sales network,
- creation of export products,
- purchase of consultancy services,
- promotion activities,
- cooperation with R&Ds,
- negotiation of wood prices, etc.

The possibility of a mutual performance of these kinds of activities shows that clusters can also be regarded as a new form of organising company structures. Furthermore, the concept of clusters is linked to the nowadays popular idea of creating virtual organisations – another form of cooperation where information technology plays a leading role.

Porter notices that for a cluster to be successful, efficient communication and flow of information among cluster members has to be provided. Moreover, interestingly, companies which cooperate within a cluster should not stop to compete<sup>2</sup>.

According to the OECD report on national cluster studies, countries identified as having a strong forest cluster are the USA, Sweden, Finland, and Austria [Viitamo 2001]. Thus a recent project<sup>3</sup> undertaken at the European Forest Institute (EFI), Joensuu, Finland, was based on a case study of three well known

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<sup>2</sup> “Peer pressure, pride, and the desire to look good in the community spur executives to outdo one another” [Porter 1998a: 83].

<sup>3</sup> The project was undertaken by Joanna Pikul-Binieć of the Wood Technology Institute, Poznan, Poland, under the supervision of Ilpo Tikkanen, Head of EFI’s “Policy and Governance” Research Program and Acting Head of the “Markets and Socio-economics” Research Program. The research was sponsored by the European Forest Institute within the EFI Membership Scholarship Scheme.

European cluster initiatives: the Finnish Forest Cluster, The Swedish Forest Industry Cluster, and the Austrian Möbel und Holzbau Cluster. The aim of the study was to confront the occurrence of potential (theoretical) cluster benefits with their existence in practice, as perceived by companies participating in these initiatives.

The study showed that the two famous Scandinavian clusters are more a concept than organised groups, and member companies are often not aware of their membership. In case of the Swedish Forest Industry Cluster, which had been presented by Porter as an exemplary cluster initiative, it was not possible to gather a list of all actual cluster members. The Austrian Furniture and Woodworking Cluster was the only initiative with its own well developed website. As for the Finnish Forest Cluster, it turned out that concrete information could only be gathered on Forestcluster Ltd<sup>4</sup> – a company established to network research and innovation in the Finnish Forest Cluster, whereas access to data on the entire Cluster is limited.

Data obtained from questionnaires filled in by companies which are aware of their membership in the three analysed clusters allow for some general conclusions<sup>5</sup>:

- member companies perceive more benefits of cluster participation than costs connected therewith,
- key activities performed together by cluster members include:
  - promotion,
  - technology search,
  - fair expositions,
  - cooperation with R&Ds,
  - search for new areas of sale,
- most often recognised benefits of cluster membership include:
  - creation of more advanced products,
  - introduction of new technological solutions,
- benefits from the field of economy and management mainly concern the increase of:
  - innovation,
  - know-how,
  - customer relations management,
- the most often declared barrier of cluster development was lack of trust between members of the cluster,

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<sup>4</sup> Forestcluster Ltd is made up of major companies in the Finnish Forest Cluster, together with the Technical Research Centre of Finland, the Finnish Forest Research Institute and four Finnish universities.

<sup>5</sup> Answers declared by more than 50% of respondents.

- members of the Austrian cluster generally are more satisfied with the communication and flow of information among cluster members than in the case of the Scandinavian clusters' members,
- cooperation and competition can take place at the same time as long as cooperation activities focus on fields of the so-called safe zone (promotion of wood, market growth etc.),
- most of surveyed companies did not recognise any costs of cluster membership.

Clusters are a tool allowing for the occurrence of many potential benefits, thus these initiatives are strongly promoted by EU policies aiming at driving European competitiveness. In 2006, the EU adopted a broad-based innovation strategy and identified strengthening clusters in Europe as one of the nine strategic priorities for successfully promoting innovation<sup>6</sup>. The Community Strategic Guidelines on Cohesion, adopted for the period 2007–2013, explicitly encourage EU member states and regions to promote strong clusters as part of their economic reform strategies. Also, the Regions of Knowledge initiative implemented under FP7 as part of the European Research Area policy aims at stimulating the development of regional “research driven clusters”. It is noteworthy that participants of the lately launched COST Action E51 have acknowledged the topic as being significant for integrating innovation and development policies for the forest sector.

At this moment there is still a cognitive gap with respect to Polish research in the field of forestry-wood clusters. However, taking into consideration potential positive results of cluster formation, such research should be well promoted.

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<sup>6</sup> Towards world-class clusters in the European Union: Implementing the broad-based innovation strategy, Communication from the Commission to the Council, the European Parliament, the European Economic and Social Committee and the Committee of the Regions, COM(2008) 652 {SEC(2008) 2637}, Brussels, 17.10.2008, p. 1.

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## Z BADAŃ NAD KLASTRAMI LEŚNO-DRZEWNYMI

### Streszczenie

Podstawową korzyścią wynikającą z tworzenia klastrów w europejskim sektorze leśno-drzewnym jest efekt synergii – przedsiębiorstwa, instytucje badawcze, władze lokalne mogą zyskać więcej przez wspólne przedsięwzięcia niż działając na rynku samodzielnie. Klastry w sposób istotny stymulują europejską konkurencyjność i innowacyjność, a także kreują nowe miejsca pracy, dlatego promowanie tych inicjatyw uznano za jeden z dziewięciu strategicznych priorytetów dla wspierania innowacyjności w Unii Europejskiej. W sytuacji ogólnoświatowego spowolnienia rozwoju gospodarczego, istnieje potrzeba dogłębnej analizy narzędzi podnoszenia konkurencyjności europejskiego sektora leśno-drzewnego.

**Słowa kluczowe:** klastry, europejski sektor leśno-drzewny, korzyści

