European Clusters: State-of-Play

The work led to 4 main axes:

- Identification of research / business and authority entities
- Identification of collaborative projects
- Identification of collaborations with EU region/clusters
- Identification of existing best practices
Critical analysis of the clusters research agendas

- In each region (cluster…)
  - Upper Austria - **CLUSTERLAND**;
  - Piedmont in Italy - **PROPLAST**;
  - Rhônes-Alpes in France – **PLASTIPOLIS**;
  - “centre” of Portugal – **PoolNet**;
  - “Provincia” of **Valencia** in Spain
  - **Zlín** region in Czech Republic
Critical analysis of the clusters research agendas

In each region (cluster…)

- analyse the triangle Research entities – Business entities – Local/Regional authorities
- identify existing instruments to facilitate access to financial supports (public & private)

The work led to the Identification & characterization of 4 main axes:

- entities
- collaborative projects
- collaborations with EU region/clusters
- existing best practices
Critical analysis of the clusters research agendas

**Business entities**

No typical number of business members.

However, most of them have a clear potential for growth.

- **Clusters dimension and potential of growth**
  - Cluster Business Entities at Local/Regional scale
  - Cluster Business Entities Outside the region

<table>
<thead>
<tr>
<th>Country</th>
<th>Business Entities at Local/Regional scale</th>
<th>Outside the region</th>
<th>Potential New Members</th>
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<td>Spain</td>
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</tbody>
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Critical analysis of the clusters research agendas

Business entities

![Bar chart showing the distribution of business entities by number of workers in different countries. The chart indicates clusters dominated by small companies.](chart.png)
Critical analysis of the clusters research agendas

Business entities

More than 50% of companies with a turnover smaller than 10 M€
Critical analysis of the clusters research agendas

Business entities

- Plastic converters is the main competence
- Specific case of Portuguese cluster.

Diagram showing competences:
- Other related services
- OEMs
- Finishing / commercialization
- Material convertor
- Material producer / compounder / recycler
- Machinery manufacturer
- Mold maker / tooling
Critical analysis of the clusters research agendas

Business entities

Automotive sector is the most important market.
Critical analysis of the clusters research agendas

Research entities

Clusters dimension and potential of growth

- No typical number of research members.
- However, most of them have a clear potential for growth.
- Clusterland, in Austria, is the only one that apparently has reached its full size as regards research members.
Critical analysis of the clusters research agendas

- No correlation between the number of running projects and the number of R&D people.
- There are clusters where each project has only 2 researchers and clusters where the number of researchers per project is huge.
- Some clusters are focused in very small projects; others have researchers not involved or involved in enormous projects.
Critical analysis of the clusters research agendas

Research entities

- In France and Austria most of the R&D entities in the cluster do not have a platform profile.
- In an industrial context the existence of platform research entities promotes the quality of the training and advanced services and facilitates the dissemination of research results (technology transfer).
Critical analysis of the clusters research agendas

Local/Regional Authorities

- Clearly two groups of clusters:
  - Clusters dealing with a significant number of authorities, specially development agencies (structures aiming at the economical and technological development of the region through the setting up of programs)
  - Clusters dealing with a small number of authorities
Critical analysis of the clusters research agendas

Research & Development projects

- Average duration of a project: 2.5 years
- Except for the case of Spain, where a significant decrease in the number of projects seems to be happened, and France, where no projects were reported in the past, all the other clusters are keeping almost constant the number of research projects.
Critical analysis of the clusters research agendas

Research & Development projects

 Relation between European Projects and European Collaboration

- Spain

- European collaborations per year (2003-2007)
- Running European collaborations (2008)

✓ Spain again with a different behaviour from all the others, and with a drastic decreasing in collaboration performance
Critical analysis of the clusters research agendas

Research & Development projects

Relation between European Projects and European Collaboration (without Spain)

- Portugal: \( R^2 = 0.8013 \)
- Austria: \( R^2 = 0.0455 \)

- Large correlation in the past running projects
- Small correlation in the running projects
Critical analysis of the clusters research agendas

Research & Development projects

The increasing of the available budget per year can be verified, except for the Spanish cluster, in which a tough reduction occurred in 2008.
Critical analysis of the clusters research agendas

Research & Development projects

Except for Spain, in all the other clusters the average dimension of running projects increased very considerably.
Critical analysis of the clusters research agendas

**Research & Development projects**

There is a correlation between budget and collaborations. Clusters with larger projects have a more collaborative profile. However, projects budget increased in 2008 and for some clusters that did not have a reflect on more collaborations. Spain, with a small reduction on projects budget, had a huge cut on collaboration.
Critical analysis of the clusters research agendas

Best practices

Collaboration between research and business entities

- Realization of regular national and European events gathering industry and research entities to foster networking, promote discussion of technological state-of-the-art and industry trends
- Edification of pro-active forums focused on topics of industrial relevance.
- Industrial post graduation programs, involving Universities, training centres and industry. Deliver such programs close to the industry in a decentralized approach if necessary.
- Research entities acting as R&D facilitators within companies and providing a set of edge engineering services required by the industry
- Definition of long-term regional innovation strategies, involving the cooperation of the regional/national authorities, universities and representatives of the industrial companies.
- Training initiatives play an important role in joining research and business entities, especially if trainers have a close understanding of research and business issues.
- Pilot Research Projects well designed and closely managed can have a demonstrative effect and contribute to overcome the “virtual” barriers between research and business entities
Critical analysis of the clusters research agendas

**Best practices**

**Encourage collaborations with organisations outside the cluster**

- Realization of regular national and European events gathering together industry and research to promote networking both at research and business levels.
- The edification of European Industry Forums, like the European Tooling Forum, gathering policy makers, representatives of the EC, and National Governments, along with associations and companies’ decision makers, technological centres and universities towards the discussion of trends and opportunities and the reinforcement of an industrial policy for Europe.
- The edification of the European Tooling Platform, recognized as a MANUFUTURE sub-platform, as the focal point for the design of R&D strategies for the Tooling area, gathering industrial key players and stakeholders.

**Encourage sharing of infrastructures**

- Sharing of infrastructure, embodied in the access to different technologies, competences and capacities, fostering complementary, full use of resources and networking.
- An R&D resources database to facilitate the share of special and expensive equipments and competences, which are frequently difficult to justify.
- Sharing of infrastructures for specific and common needs.
Critical analysis of the clusters research agendas