

# Clusters and Cluster Policy in Europe

Lisbon 2010: Challenges for European  
Regional Innovation Strategies  
Pamplona 20-21 November 2008

**Professor Örjan Sölvell**



**1.EU and Cluster Policy**

**2.Science – Innovation – Clusters**

**3.The European Cluster Observatory**



### WHAT THE EUROPEAN UNION DOES BY SUBJECT

- Agriculture
- Audiovisual and Media
- Budget
- Competition
- Consumers
- Culture
- Customs
- Development
- Economic and Monetary Affairs
- Education, Training, Youth
- Employment and Social Affairs
- Energy
- Enlargement
- Enterprise
- Environment
- External Relations
- External Trade
- Fight against fraud
- Fisheries and Maritime Affairs
- Food Safety
- Foreign and Security Policy
- Humanitarian aid
- Human rights
- Information Society
- Institutional affairs
- Internal Market
- Justice, freedom and security
- Public Health
- Regional Policy
- Research and Innovation
- Taxation
- Transport



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# The Lisbon Strategy

“The most dynamic and **competitive** knowledge-based economy in the world capable of sustainable economic **growth** with more and better jobs and greater **social cohesion**, and respect for the **environment** by 2010”

# EU and Clusters – Three Policy Areas

## Competitiveness

**Enterprise &  
Industry**

Clusters



## Competitiveness

**Regions**

Clusters



## Competitiveness

**Research**

Clusters

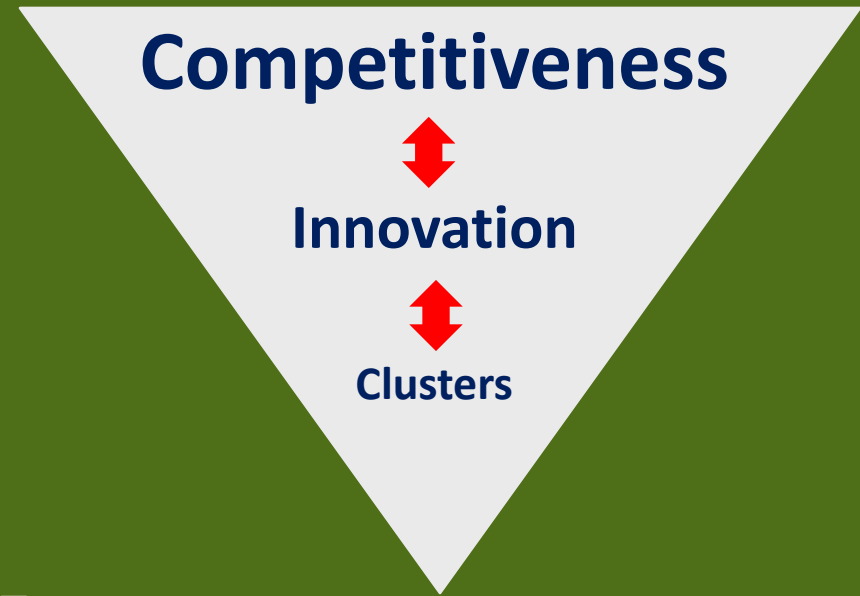


# EU and Lisbon Strategy



## Critical Parts of the Lisbon Strategy:

- Research (ERA, 3% of GDP 2010, FP 7, European Research Council)
- Intellectual Property (EU Patent)
- Competition (Internal market)
- Public-private cooperation (European Technology Platforms)
- **Innovation** (EIT, Lead market, CIP)
- **Supporting SMEs**



# EU and Clusters 2003-



Competitiveness

Innovation

Clusters

First meeting by DG Enterprise in Luxembourg in **2003** – Focus on clusters

Several studies around the time of accession of EU-10 countries: Phase I = **map** clusters of Eastern Europe, 2004/2005



# Innovation Strategy 2006

## Innovation + Clusters = True

COMMUNICATION FROM THE COMMISSION TO  
THE COUNCIL, THE  
EUROPEAN PARLIAMENT, THE EUROPEAN  
ECONOMIC AND SOCIAL  
COMMITTEE AND THE COMMITTEE OF THE  
REGIONS



The Aho Report

**Putting knowledge into practice: A broad-based  
innovation strategy for the EU**

### 2.4. Promoting cooperation between stakeholders

Being part of a cluster is an important competitive strength for business. Clusters help to close the gap between business, research and resources, thereby bringing knowledge faster to the market. Successful clusters promote intense competition along with co-operation. They enhance productivity, attract investment, promote research, strengthen the industrial base, and develop specific products or services and become a focus for developing skills. World-class clusters attract brilliant minds that sustain innovation – Silicon Valley is the best-known example.

# EU and Clusters 2008

## Central to Lisbon Strategy

Database part of Europe INNOVA/PRO INNO/Cluster Alliance: Phase II = **European Cluster Observatory, 2007**

Stockholm January 2008 (Chair: Slovenia/Sweden)

Sophia Antipolis November 2008 (Chair France)

Need for better informed policies – number of cluster programs and cluster initiatives growing rapidly - **European Cluster Memorandum 4x5 Principles, 2008**

New call in 2009-2012 under CIP: Phase III



# THE EUROPEAN CLUSTER MEMORANDUM

Promoting European Innovation  
through Clusters :  
**An Agenda for Policy Action**

Prepared by  
The High Level Advisory Group on Clusters,  
chaired by Senator Pierre Laffitte.

This work is coordinated  
by the Centre for Strategy and Competitiveness,  
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- Now we need an innovation and cluster strategy!
- We need better and deeper information through the Cluster Observatory!
- And we need a European high-level Advisory and Monitoring Group for Innovation and Clusters!

# EU (DG Entr) and Clusters 2009-



## Cluster policy group

- Around 20 people  
Policy, industry, experts
- Secretariat



## European Cluster Alliance

- INNO-Net
- Think tank
- Policy learning
- Continue to promote the Memorandum

## European Cluster Observatory

- New data and analysis
- Platform for SMEs

## Cluster Academy

- Training of cluster managers
- Certification

## Cluster Networks

- Energy
- ECO-innovation
- Biotech

# Cluster Construction – Top Down

## The EU Role

### Policy for Clusters

1. Single Market
2. Trade
3. Competition
4. Science
5. Innovation

### Cluster Policy

1. Inspire cluster initiatives
2. Fact-based policy/evaluation
3. Cluster networking
4. Cluster manager training
5. Policy learning

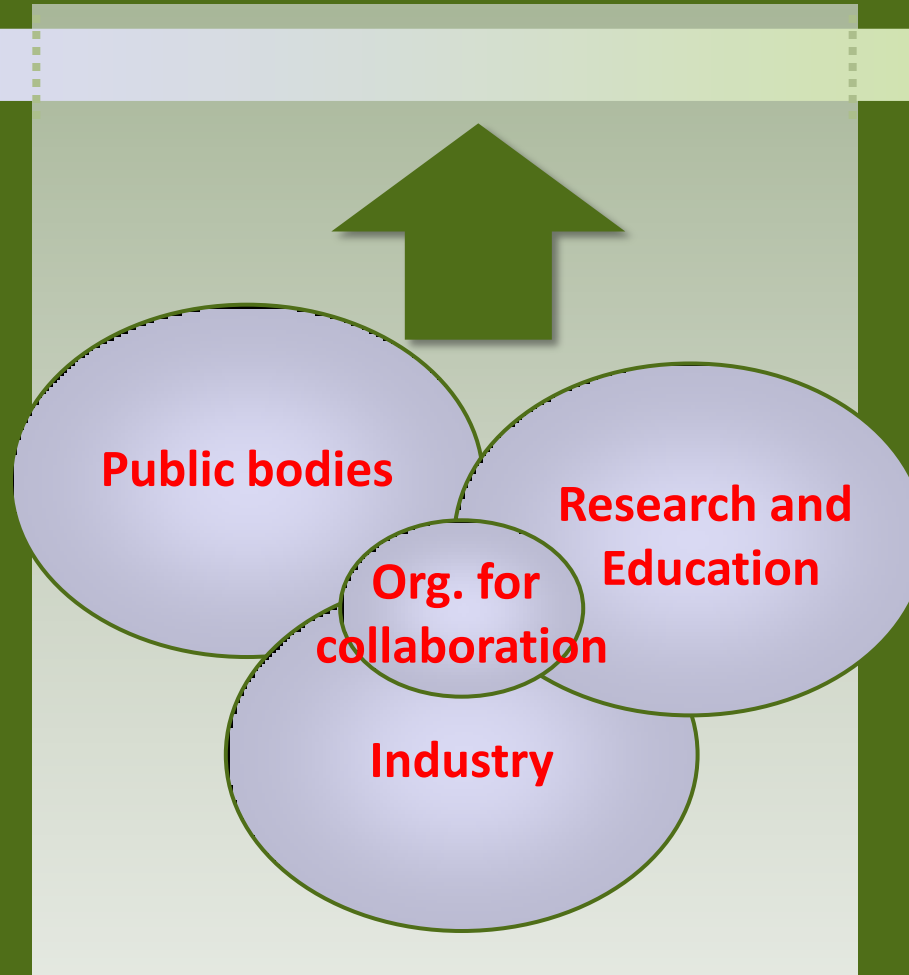
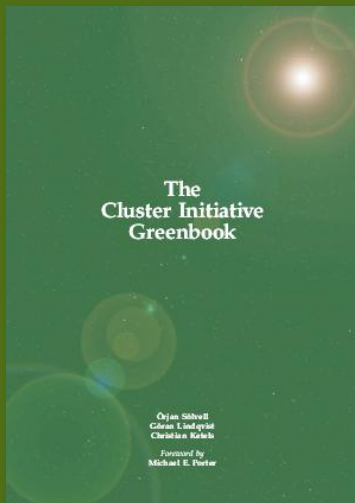


# Cluster Construction – Bottom-up

Organic Clusters

Planned Clusters

Cluster initiatives



# Cluster Initiatives

## Public-Private-Academic Organized Efforts:

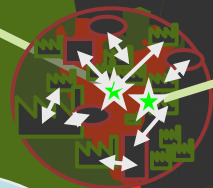
1. Human Resources
2. Cluster expansion
3. Commercial cooperation
4. Business development
5. Innovation & technology
6. Business environment

### Intelligent Vehicle Safety Systems – IVSS:

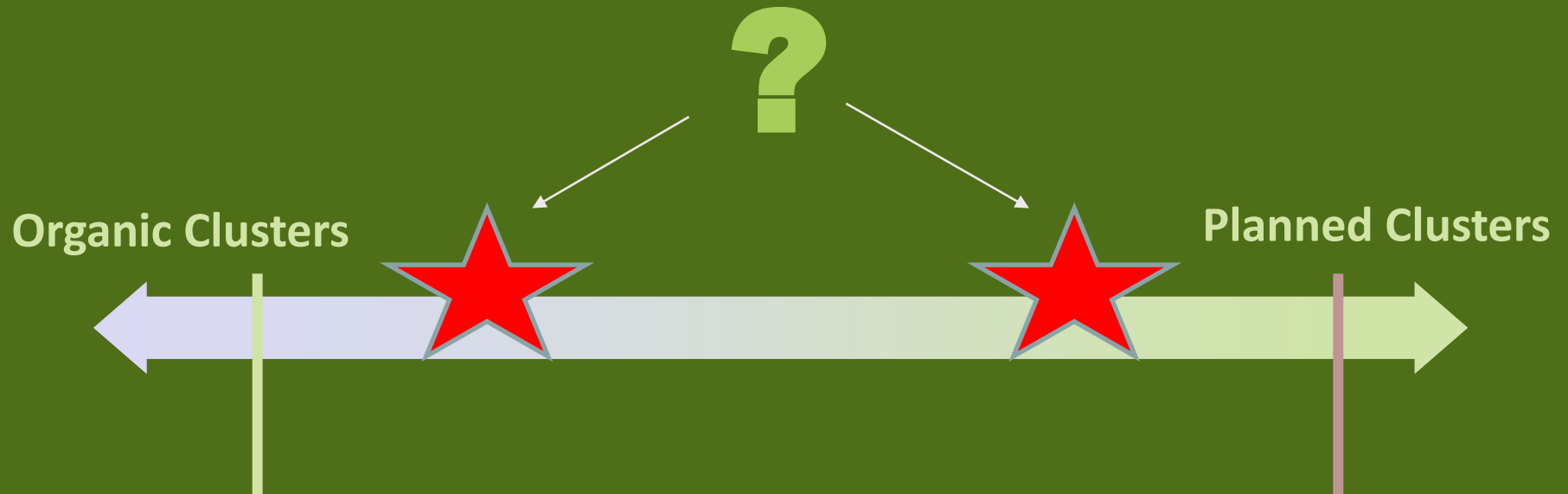
Saab  
Volvo  
Volvo Cars  
Scania  
Vägverket  
Scandinavian Automotive  
Suppliers  
Invest in Sweden Agency  
Vinnova

### Automotive Crash Research – SAFER:

Chalmers University  
Vinnova  
Automotive firms



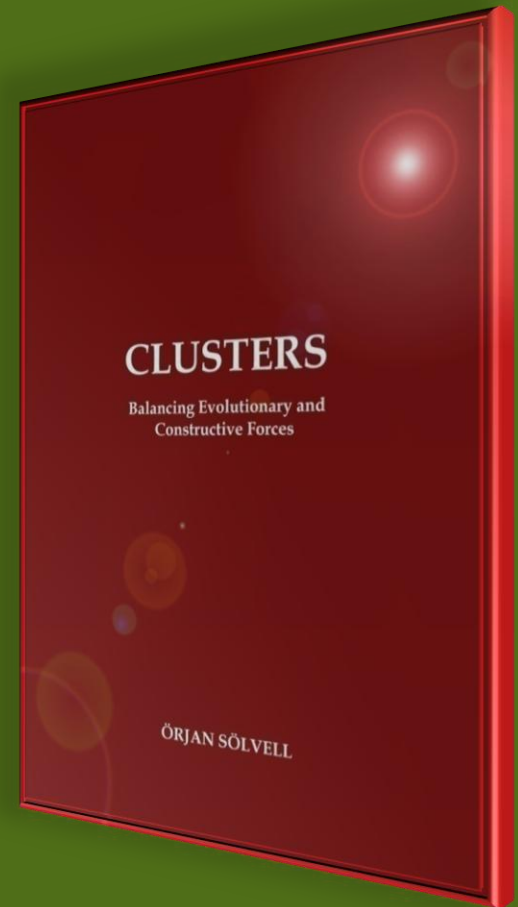
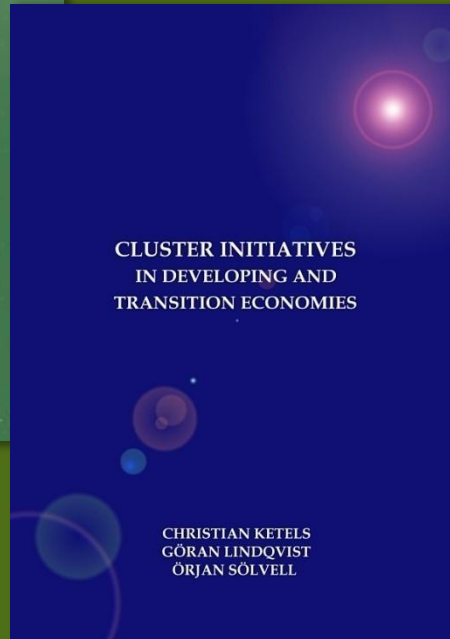
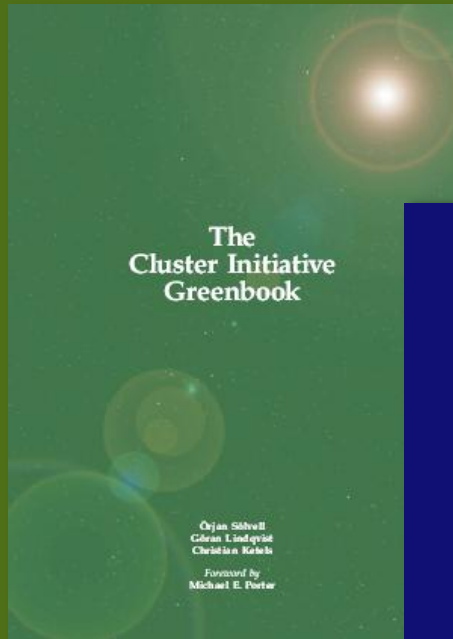




**Wall Street**

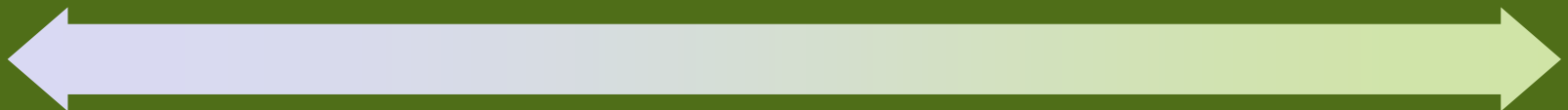


**Moskva City - Москва-Сити**



## Clusters

# Balancing Evolutionary and Constructive Forces

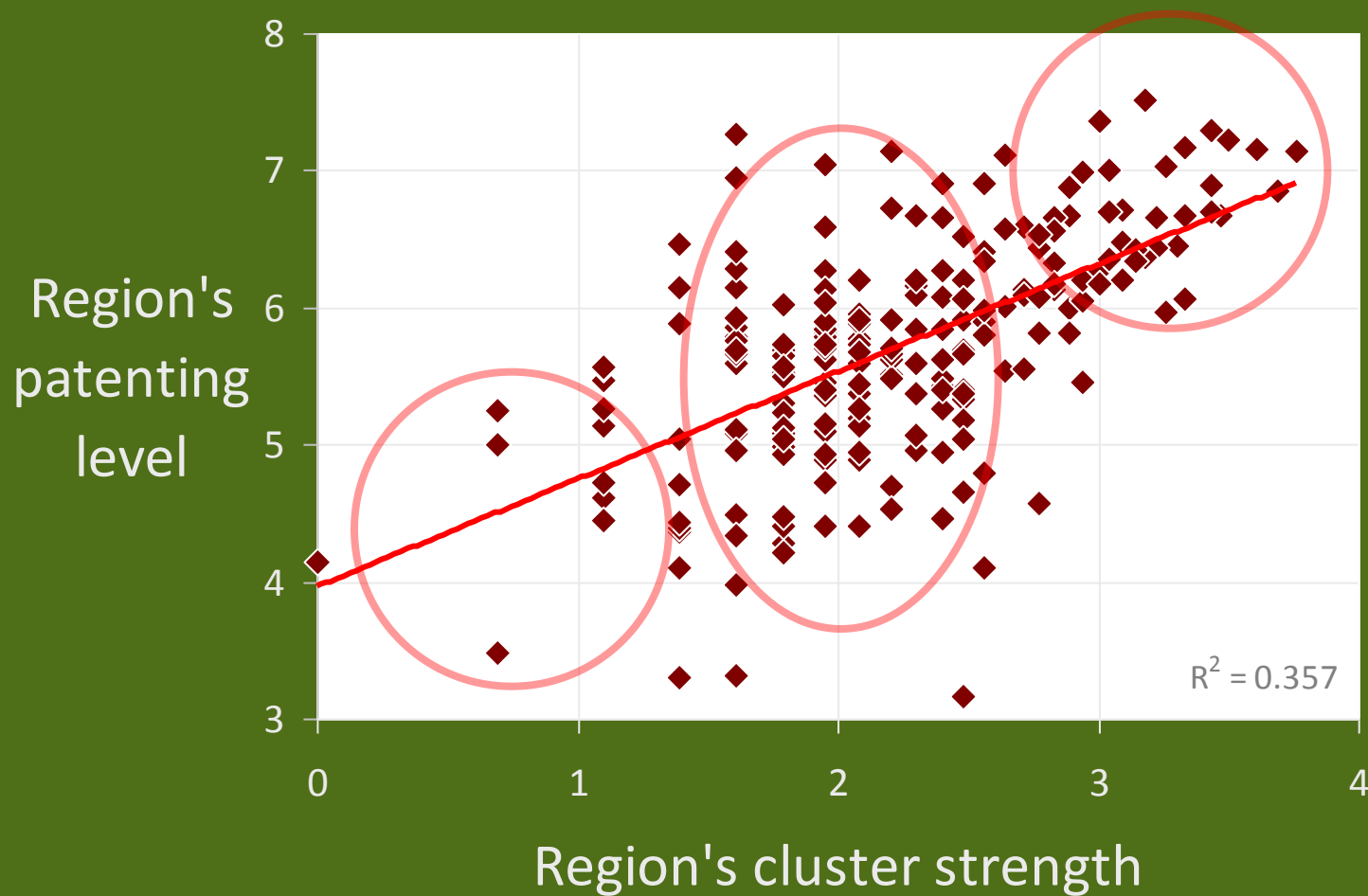


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# Clusters = Innovation



Each region's number of cluster stars (log) vs its number of patents (log), adjusting for country-level differences other than cluster strength.  
Source: The European Cluster Observatory

# Clusters



## Finance:

- Banks
- Venture Capital
- Business angels



## Industry:

- Buyers
- Suppliers
- Related industries
- SMEs
- Services



## Public bodies:

- Regional authorities
- Agencies



## Media



## University:

- Colleges
- Tech transfer offices
- Laboratories



## Organisations for Collaboration:

- Formal and informal networks
- Trade associations
- Cluster organisations



# CERN and Geneva



R&D

# SLAC and Silicon Valley



R&D

+

Innovation &  
Clusters

# JINR and Dubna



Science  
R&D



Innovation  
and Clusters

?

**Joint Institute for Nuclear Research (JINR):**

18 members (Armenia, Azerbaijan, Belarus, Bulgaria, China, Cuba, Czech Republic, Georgia, Kazakhstan, Moldova, Mongolia, North Korea, Poland, Romania, Russia, Slovakia, Ukraine, Uzbekistan, Vietnam)

**Founded 1956**

**8 laboratories and university centers**

**5,500 staff + 1,200 researchers (>1,000 PhDs)**

**Free Economic Zone:**

Registered 2,000 start-ups in 2 years – no international success so far  
New state corporation for nano-technology (5.5 billion USD)



# Europe needs to shift focus from R&D and Science to Innovation and Clusters





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# European Cluster Observatory

## www.clusterobservatory.eu

**Cluster policy**

Cluster Policy Report  
UNITED KINGDOM

**Cluster data**

European Cluster Observatory - Microsoft Internet Explorer

Cluster Mapping Database

Region: Europe, all Cluster category: Biopharma Filter: 1-3 stars

table map graph

Biopharmaceuticals regional clusters in Europe  
1, 2 and 3 star regional clusters

Cluster	Employees	Size	Spec.	Focus	Stars	Innovation	Exports	Notes
Nordwestschweiz (Basel), CH	21 741	2.64%	8.87	3.97%	***	N/A		
Île de France (Paris), FR	47 493	5.78%	2.27	1.01%	**	High	Strong	
Lazio (Rome), IT	21 990	2.67%	2.40	1.07%	**	High	Strong	
Istanbul, TR	20 563	2.50%	2.66	1.19%	**	N/A	Weak	
Darmstadt (Frankfurt am Main), DE	16 459	2.00%	2.64	1.18%	**	High	Strong	
Kecap-Mayarország (Budapest), HU	14 197	1.73%	2.62	1.17%	**	High	Weak	
Centre (Orléans), FR	13 960	1.70%	4.36	1.95%	**	Medium	Strong	
Varlohu, DE	13 207	1.61%	3.11	1.39%	**	High	Strong	
Mazowieckie (Warszawa), PL	11 522	1.40%	2.27	1.01%	**	Medium	Weak	
Berlin, DE	10 350	1.26%	2.27	1.02%	**	High	Strong	
Stockholm, SE	10 325	1.26%	2.39	1.07%	**	High	Strong	
Tübingen, DE	9 650	1.17%	3.68	1.65%	**	High	Strong	
Freiburg, DE	9 591	1.17%	3.09	1.38%	**	High	Strong	
Region Wallonne (Lège), BE	9 454	1.15%	2.31	1.03%	**	Medium		
Rheinhausen-Platz (Mainz), DE	9 051	1.02%	3.45	1.54%	**	High	Strong	
Lombardia (Milan), IT	34 808	4.23%	1.91	0.85%	*	Medium	Strong	
Cataluña (Barcelona), ES	25 485	3.10%	1.78	0.80%	*	Medium	Strong	
Madrid, ES	19 397	2.36%	1.54	0.69%	*	High	Strong	

Innovation: Data is for region, regardless of cluster category. Based on 2006 European Regional Innovation Scoreboard.  
Exports: Data is national export data for the cluster category, regardless of region. Based on International Cluster

**Cluster maps**

European Cluster Observatory - Microsoft Internet Explorer

http://www.clusterobservatory.eu/upload/map\_star\_all\_auto\_all\_20070613\_fullsize.jpg

http://www.clusterobservatory.eu/upload/map\_star\_all\_auto\_all\_20070613\_fullsize.jpg

© European Cluster Observatory. In 2007, cluster codes 1.0, dataset: 230/08/13

**Cluster organisations**

European Cluster Observatory - Microsoft Internet Explorer

Cluster Mapping Database

Region(s)	Cluster organisation	Website
Burgenland, Wien, Niederösterreich, Oberösterreich	Automotive Cluster Vienna Region	www.acv.at
Wallonie	Cluster Auto-Mobilité de Wallonie	www.clusterautomobilite.be
Halle	MARIEG Automotive	www.mahreg.de
Köln	Car	www.car-sachen.de
Saarland	automotive.saarland	www.automotive.saarland.de
Denmark	AluCluster	www.alucluster.com
Pais Vasco	ACICAE	www.acicae.es
Galicja	Cluster de Empresas de Automoción de Galicia	www.ceaga.com
Hedmark og Oppland	Arena Lettmetall	www.total-gruppen.no
Slovenia	Business Interest Association ACS, Automotive Cluster of Slovenia	www.acs-giz.si
Syddsvenska	Networking Companies	www.networkingcompanies.se
Syddsvenska, Småland	Aluminiummet	www.aluminiummet.com

# Statistical Cluster Mapping

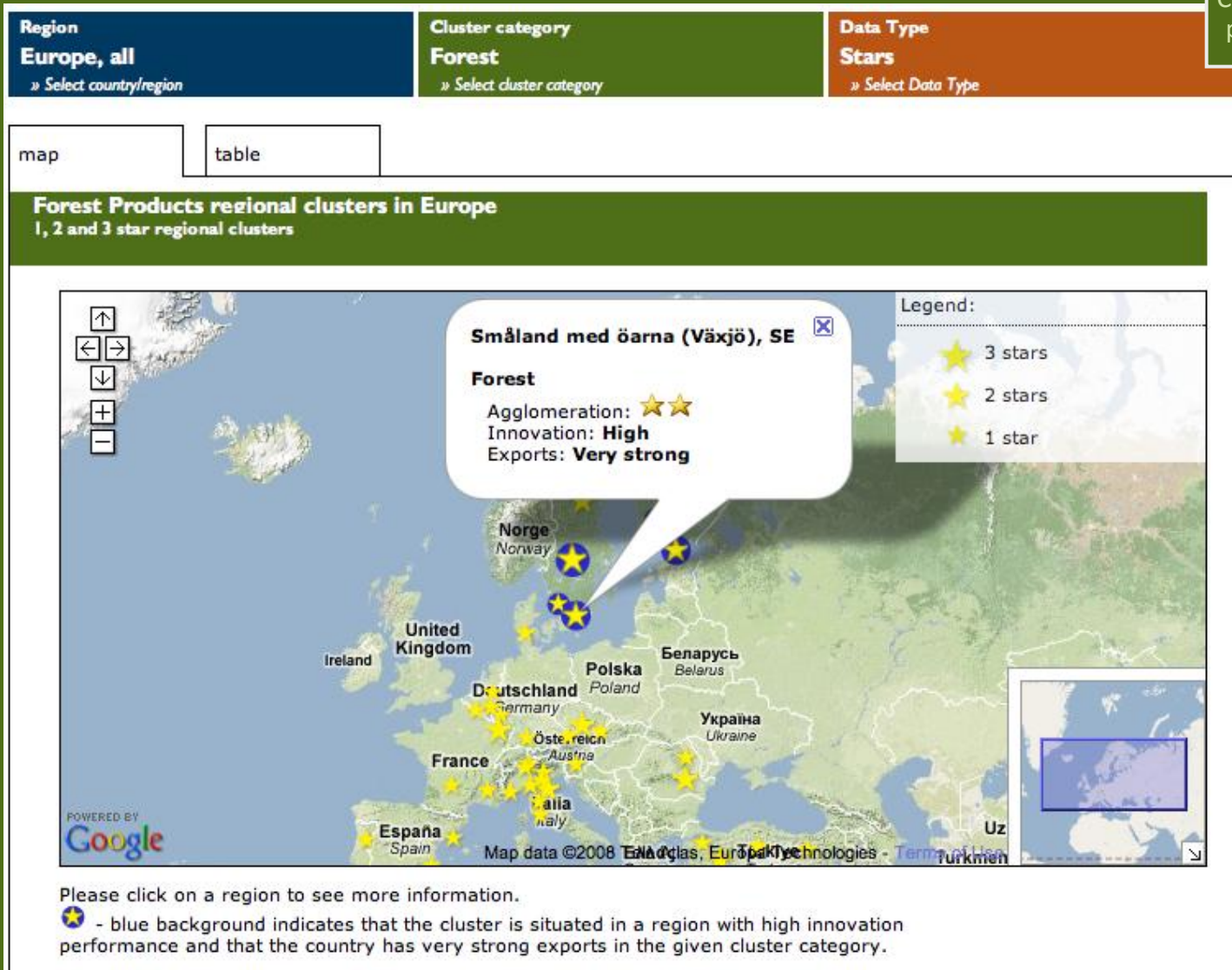
## Star Map

Cluster  
mapping

Cluster  
orgs

Cluster  
policy

Cluster  
library



# Star Clusters



**Out of ~ 10,000 potential clusters in Europe:**

**~ 1.300 One-star clusters**

**~ 500 Two-star clusters**

**~ 150 Three-star clusters**

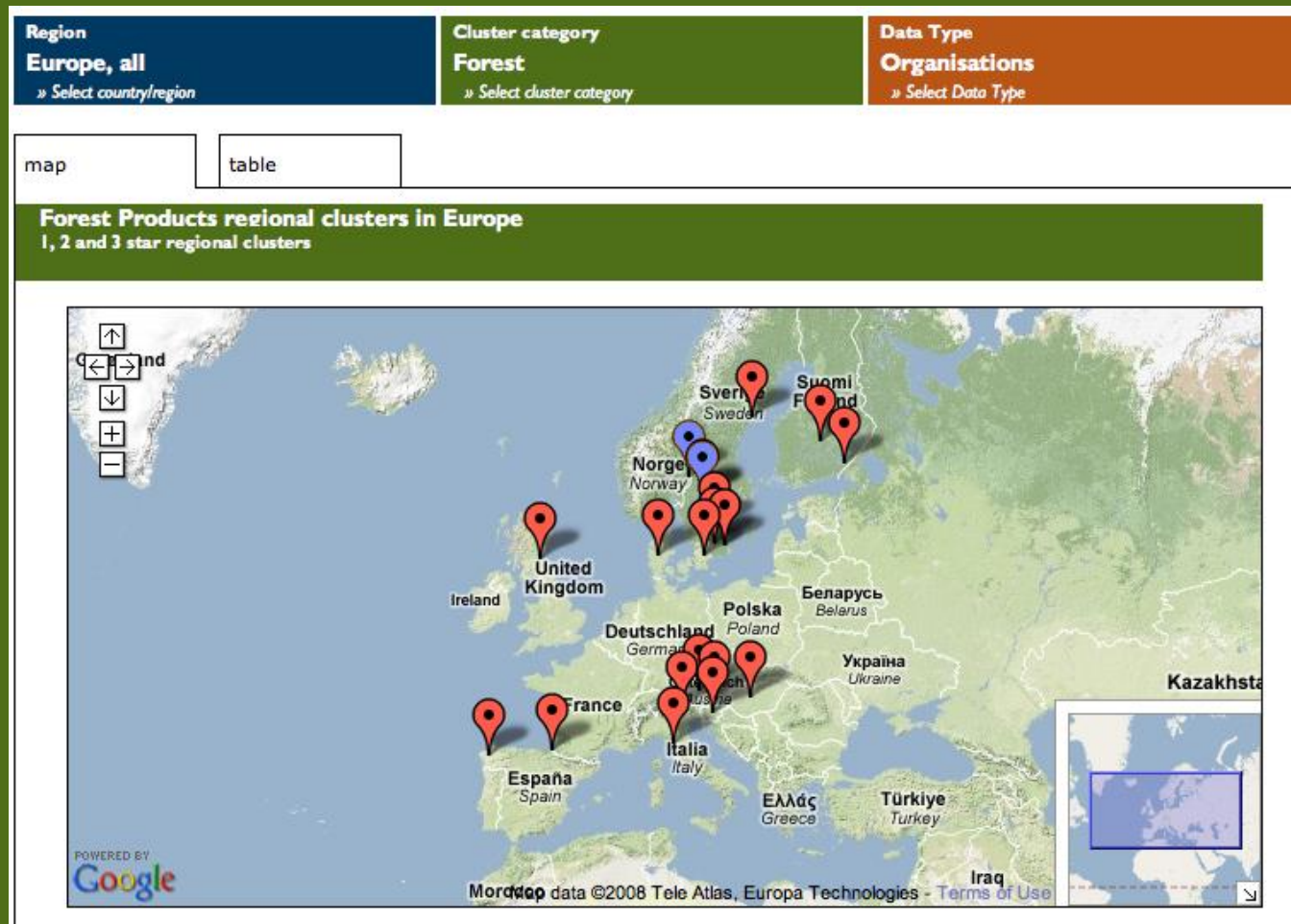
# Cluster Organisation Map

Cluster  
mapping

Cluster  
orgs

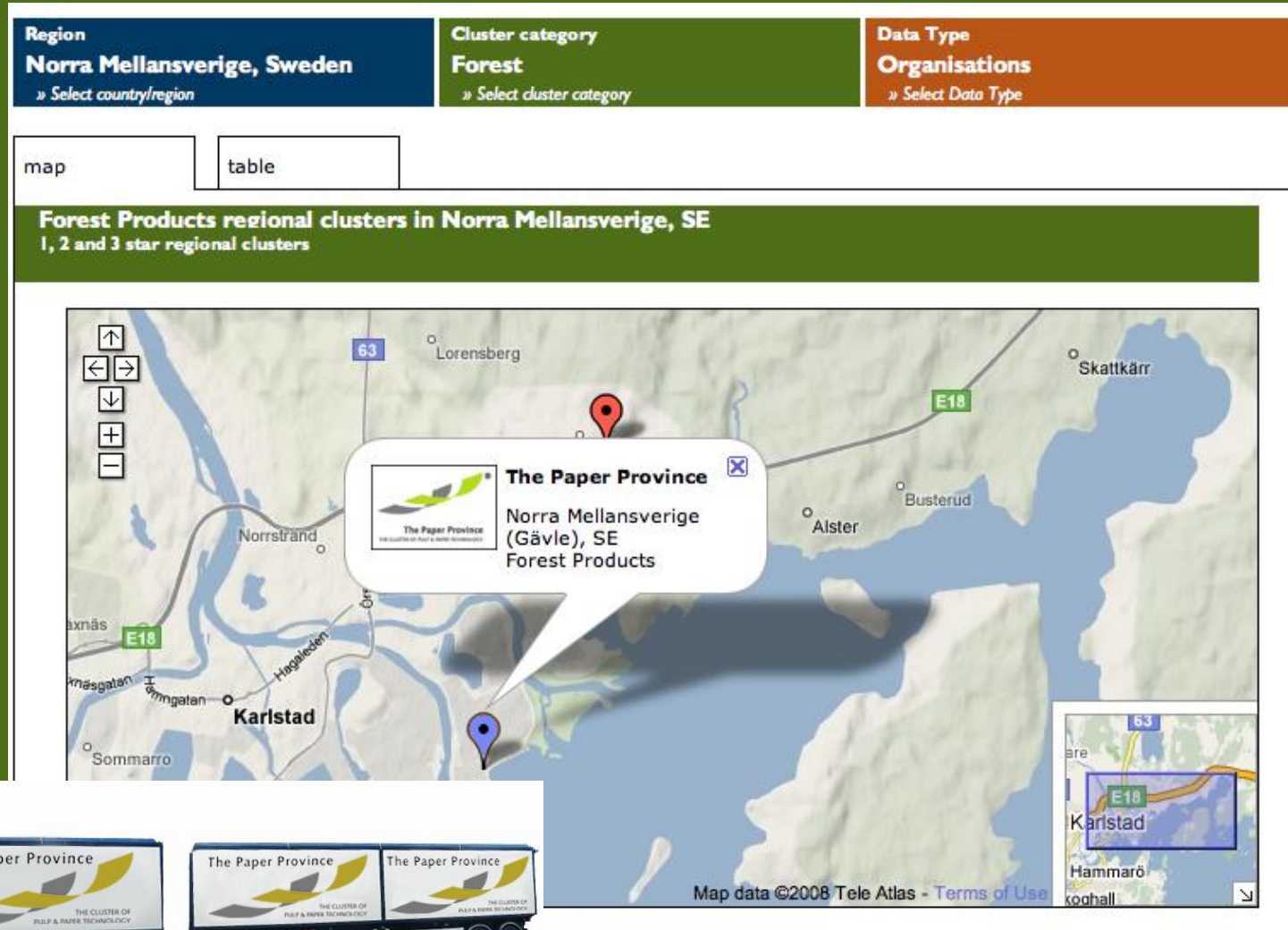
Cluster  
policy

Cluster  
library





# Karlstad – Pulp and Paper



# Cluster Organisation Table

Region
Europe, all
» Select country/region



Cluster category
Forest
» Select cluster category

Data Type
Organisations
» Select Data Type

map

table

Forest Products regional clusters in Europe
1, 2 and 3 star regional clusters

Logo	Organisations	Region	Clusters	Website
	The Paper Province	Norra Mellansverige (Gävle), SE	Forest Products	www.paperprovince.com
	Tretorget AS	Hedmark og Oppland (Lillehammer), NO	Forest Products	www.tretorget.no
	Basque Paper Cluster	País Vasco (Bilbao), ES	Forest Products	www.clusterpapel.com/ingles
	Central-Transdanubia Wood and Furniture Industry Cluster	Közep-Dunantul (Székesfehérvár), HU	Forest Products	www.kdrfu.hu
	Cooperation and Innovation Award	Galicia (A Coruña), ES	Forest Products	www.clustermadera.com
	Distretto Cartario – Paper Cluster	Toscana (Florence), IT	Forest Products	www.distrettocartario.it
	Holzcluster Salzburg	Salzburg, AT	Forest Products	www.holzcluster.at
	Holzcluster Steiermark	Steiermark (Graz), AT	Forest Products	www.holzcluster-steiermark.at
		Småland med Öarna	Forest	

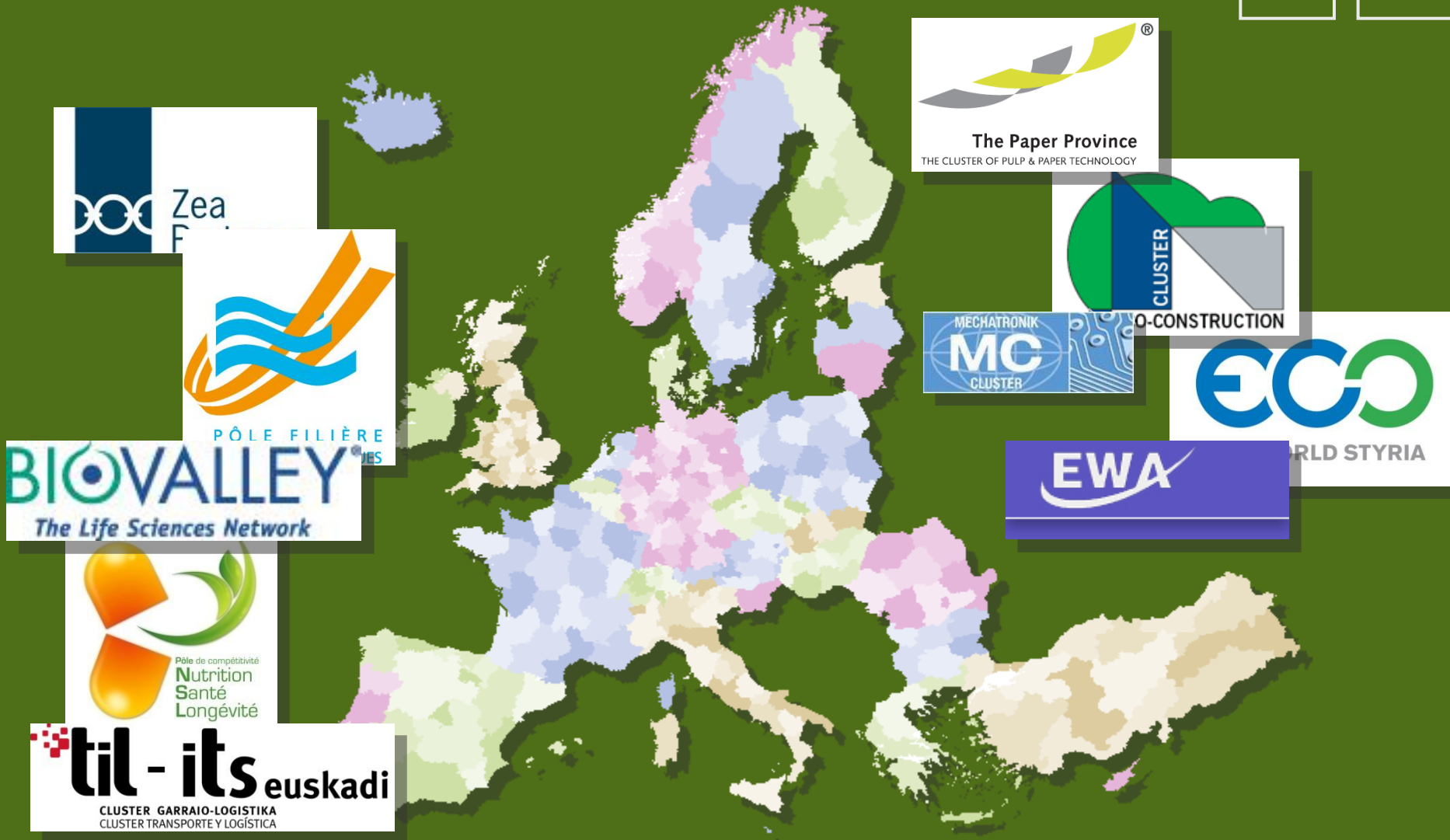
# Adding New Members....

Cluster  
mapping

Cluster  
orgs

Cluster  
policy

Cluster  
library





# Thank you!

[www<sup>✦</sup>clusterobservatory<sup>✦</sup>eu](http://www.clusterobservatory.eu)