Mats Williams

STOCKHOLM SCHOOL OF ECONOMICS

CENTER FOR STRATEGY AND COMPETITIVENESS

IVORY TOWER

25 YEARS OF ACADEMIC ADVICE

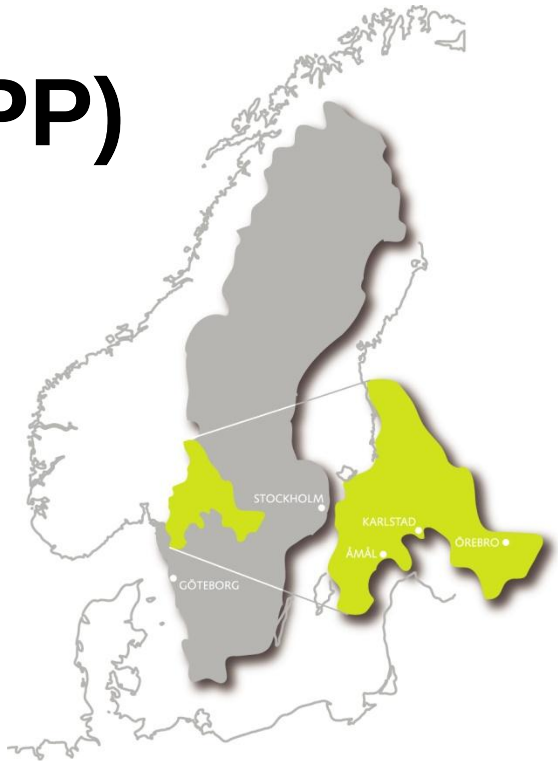
W

Smart Specialisation

To encouraging national and regional authorities to design "**smart specialisation strategies**". Each region should identify it´s best assets and R&I potential in order to concentrate its efforts and resources on a limited number of priorities where it can really develop excellence and compete in the global economy. The platform brings together expertise from universities, research centres, regional authorities and businesses.

= Cluster strategy and Cluster organisation work!

The Paper Province (TPP)
From white spot to a World Class Cluster



Mats Williams

Top EU Clusters in High Innovation Regions

En investering för framtiden

EUROPEISKA UNIONEN
Europeiska regionala utvecklingsfonden

The Paper Province
THE CLUSTER OF PULP & PAPER TECHNOLOGY

Threats

The Pulp and Paper industry 1999

- Old fashion industry
- The old economy
- Outsourcing, down sizing
- Un attractive
- Globalisation as a major threat
- Not “sexy” at all
- -”A sun set industry”

Opportunities

A cluster in pulp and paper since 150 years…

- 230 companies, The University of Karlstad and Region Värmland
- Global giants and local suppliers
- Representing the whole value-chain
  – R&D, consultants, equipment & process suppliers, machinery manufacturers, pulp and paper mills
- Represented in >100 countries worldwide
- (Great importance for regional and national economy)
- 7 of the big companies wanted a change

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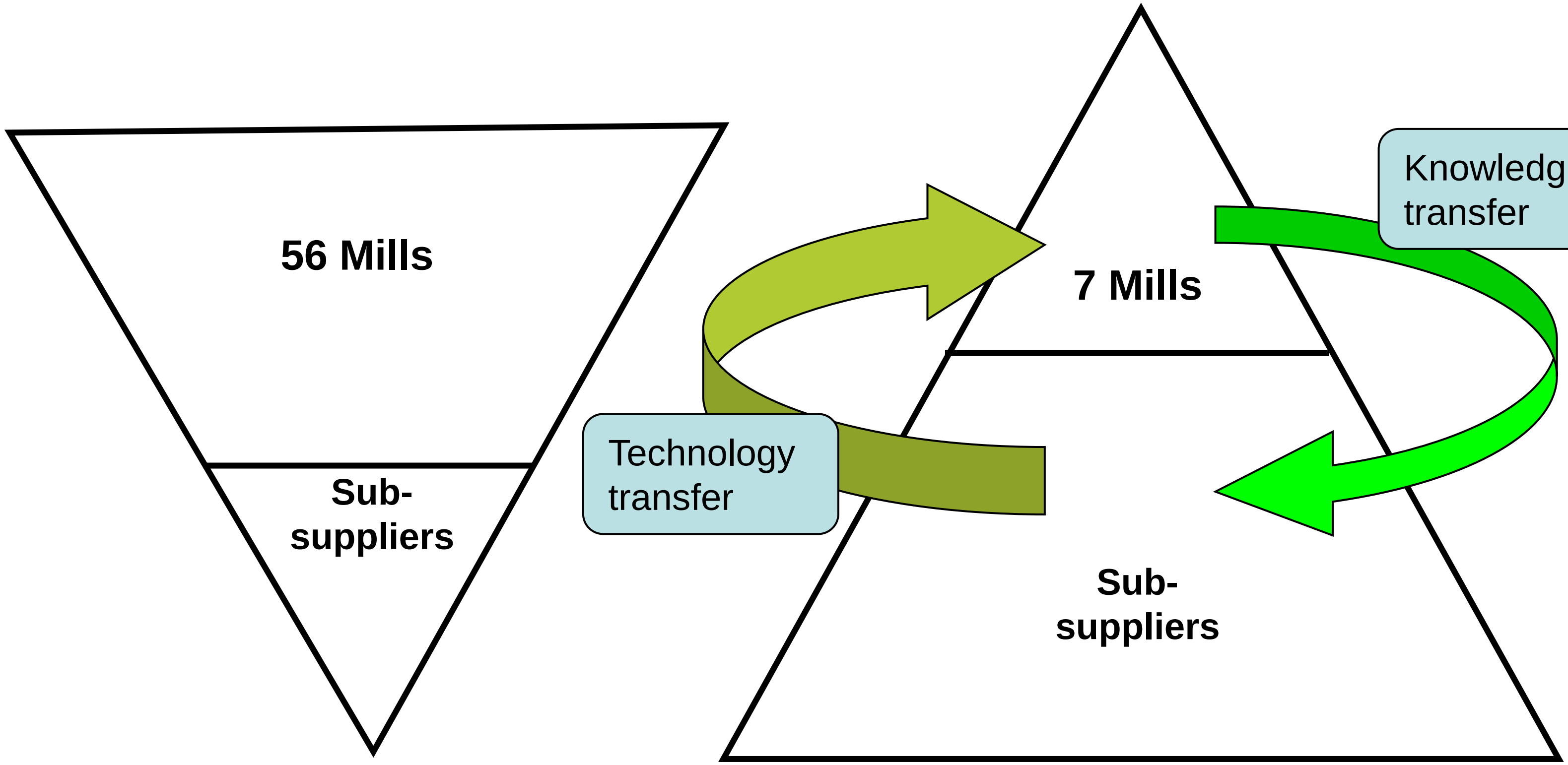
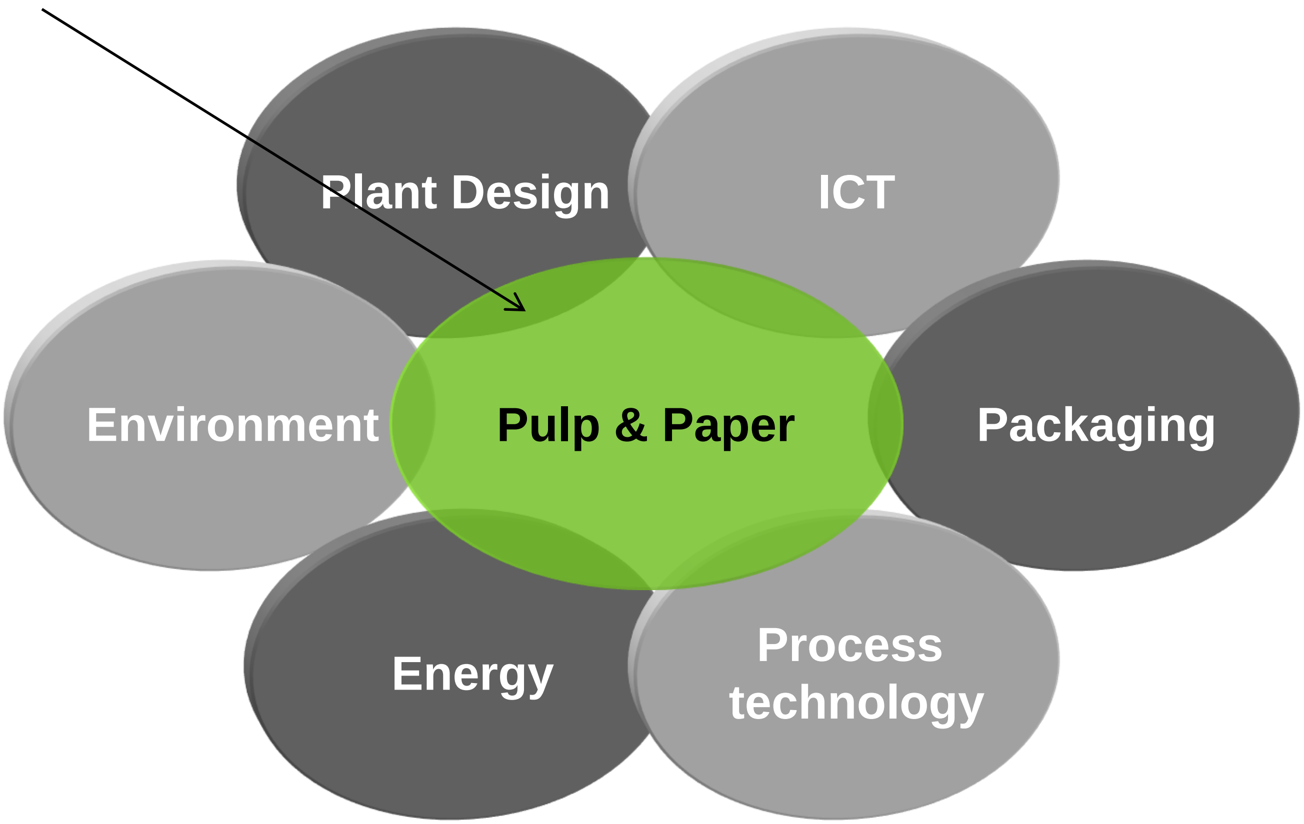
A urgent need for a change!


THE PAPER PROVINCE
www.paperprovince.com

Reconstruction of a mature cluster



Identified growth areas



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From 7 to 92 Global Giants and local suppliers

Region Värmland
Forshaga kommun
goodtech
POLICOM
GRUMS
PPL Project Performance Limited
SKF
SÖRMAN
www.karlstad.se
DOTANK Releasing Innovations
PAPERCOM IN SWEDEN AB
CORENSO SVENSKA AB
CREANDO TRAINING
REXCELL
Tetra Pak
SOMAS
capee group
mondi packaging
VOITH
NORDICPAPER
skanark ab
STORAENSO
VA-INGENJÖRERNA
BILLERUD
know it
Närhet. Kunskap. Engagemang.
AkzoNobel
Tomorrow's Answers Today
BÖHLER UDDEHOLM precision strip
HYNELL PATENTTJÄNST AB
Etteplan
the packaging greenhouse
ANDRITZ
HAMMARÖ SVETSTEKNIK AB
Kolboforsen Konsult
FORCE TECHNOLOGY
HEDBERGS MEKANISKA AB
metso minerals
WIPAB WERMLANDS INDUSTRIPLÅT AB
SATRON instruments
SIEMENS
QELL
DHL
VSV
brobygrafiska.se
Filterteknik Sverige
semcon
BTG RAISING YOUR PRODUCTIVITY
KARLSTADS UNIVERSITET
EMERSON Process Management
LAMB
SOGETI
Munksjö ASPA BRUK
IFMETALL Klarälven
PROMT
DOTANK
WTC Teknik AB
c/tec
COWI
goodtech
KPA
Rottneros
The PQ Corporation
REAC OPCON Group
GL&V
REJLERS
Rexroth Bosch Group
metso
MAINT PARTNER
LAFARGE ÖREBRO KARTONGBRUK AB
Profomo Ingenjörs AB
Q - Maskin
NAVO
PÖYRY
INTERTECHNA AB
PROJECT ENGINEERING KARLSTAD
SWECO
En investering för framtiden
COLDWATER
Paper Province
UMV Pulp & Paper
Svanberg BONA OFFICIA
EUROPEISKA UNIONEN Europeiska regionala utvecklingsfonden
JO CELL
THE CLUSTER OF PULP & PAPER TECHNOLOGY

European World Class Cluster

TPA AB

TPA Ek för

New University KaU

KTC Polytech

1999 | 2003 | 2004 | 2007 | 2011

TPP project starts

TPP Ek För

TPG AB

TPP Framtidsfabr

TPP/KaU Innovation office

KNUFF training project

92 member companies

28 member companies

7 member companies

Region Värmland spons. 10 Professors at Karlstads University

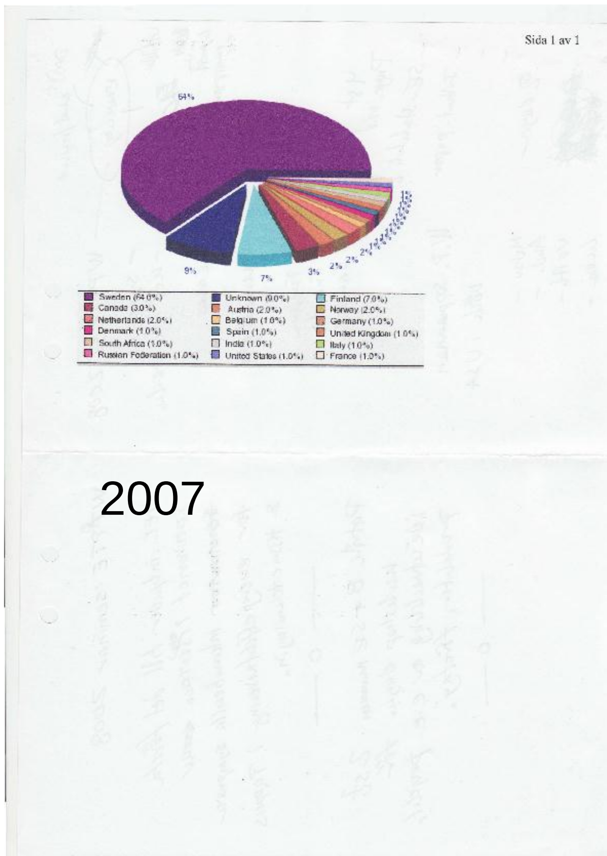
Cooperation with KaU

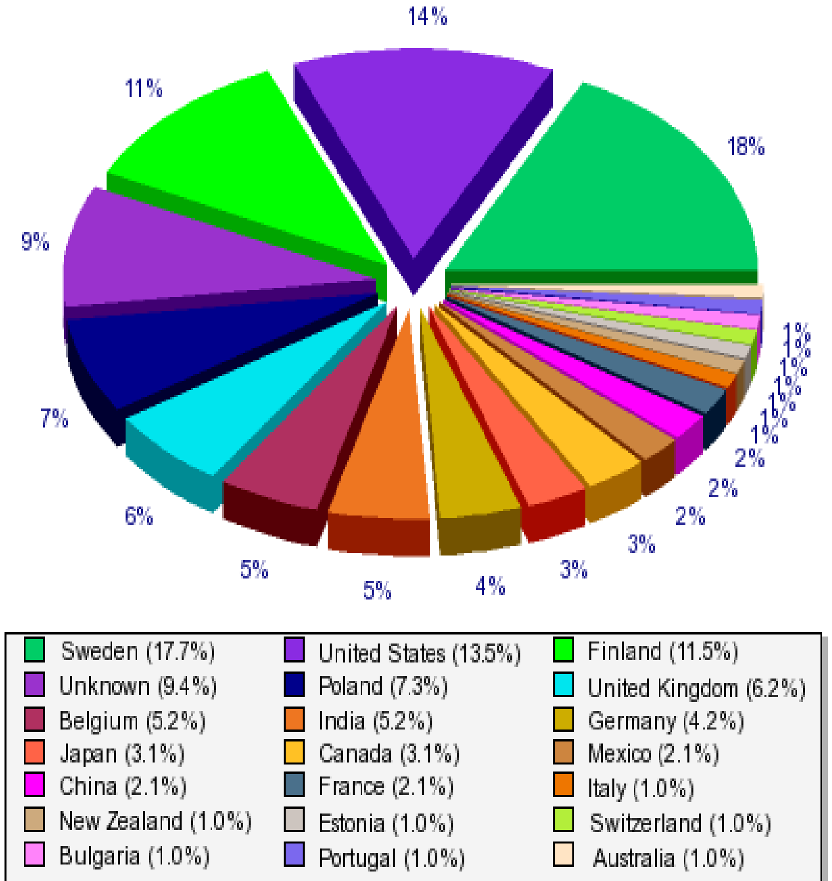
Contact Person at KAU	Department at KAU	Nature of Cooperation	Brief Description of Cooperation
Magnus Lestelius	Faculty of technical and natural science	Pro	
Bengt Månsson	Department of Energy, Environmental and Building Technology	Pro	
Ulf Germgård	Professor, Faculty of technical and natural science	Meetin	
Håkan Spjut/Patrik Bångerius/Lee Miles	Grant & Innovation Office	frequen	
Caroline Åhs	Coordinator of collaboration	frequen	
Hanne Randle	Researcher at department of working life science	Pro	
Carl Zotterman	Member of scientific board, Paper Surface Centre	Meting	
Kerstin Norén	Rector office	Frequen	

Retrospect	Department at KAU	Nature of Cooperation	Brief Description of Cooperation
The Packaging Arena	Rector office, Member of scientific and education board a faculties and department	Project	2003-2005 A start up of the project TPA.
The B2 process	Rector office, Mem of scientific and education board a faculties and department		
Spetskompetensen	Administration		
Fiberteket/Teknikklubben Lusten	Rector office		
Strategic group for cooperation	Rector office		
Education and scientific board	Member of scienti and education boar faculties and department		
Röda tråden/Teknikerjakten	Rector office and various faculties		
HotSpot	Student collaborat		
Skogsindustriellt centrum and Industrirådet	Rector office and t faculty of Nature a Science		

Contact Person at KAU	Department at KAU	Nature of Cooperation	Brief Description of Cooperation
Magnus Lestelius	Faculty of technical and natural science	Project	2011 The start of GOP2 – Growth Office of Paper Province, an innovation office that open up the university to become a service provider for innovation projects in cooperation with P&P related companies. The main goal is to shorter the lead-time from idea to market and at the same time provide the possibility to commercialize research findings from the university.
Bengt Månsson	Department of Energy, Environmental and Building Technology	Project	VARMEEKOM - Varme Energi Kompetanse Oppbyggning i Inre Scandinavia (Development of University Energy Courses). The three-year project's total budget is nearly 15 million, making it one of the largest development projects in area of education at Karlstad University. TPP is partner in the project.
Ulf Germgård	Professor, Faculty of technical and natural science	Meeting forum	SFoET (Skogsindustriell förädling och energiteknik): A forum of science where the Academy meet the industry and discuss specific research findings etc.
Håkan Spjut/Patrik Bångerius/Lee Miles	Grant & Innovation Office	frequent contact	Activities and advising support in collaboration between public service, academic and industry
Caroline Åhs	Coordinator of collaboration	frequent contact	Activities against students, SME business and partner companies
Hanne Randle	Researcher at department of working life science	Project	Ongoing research-evaluator of the project KOM-INN!
Carl Zotterman	Member of scientific board, Paper Surface Centre	Meting forum	Paper Surface Centre is a research centre for future sustainable functional surfaces of paper and paperboard.
Kerstin Norén	Rector office	Frequent contact	Lobbying and other regional development issues.

Internationell marknadsföring





TPP and Regional Development

Soft facts

- Cooperation education
- Growth of companies
- Symbol for successful business development
- From production driven to market driven mindset
- **FROM DUSK TO DAWN**

Hard facts 2007 - 2011

27 new companies in the region (purchase ore new companies). The worlds 4 leading Paper machinery producers are represented in the region since 2007.

Needs for 250 new employees 2011-

Close to 50% of the member companies are now owned by international companies!

One of Europe's 100 World Class Clusters (Cluster Observatory 2010)

European World Class Cluster

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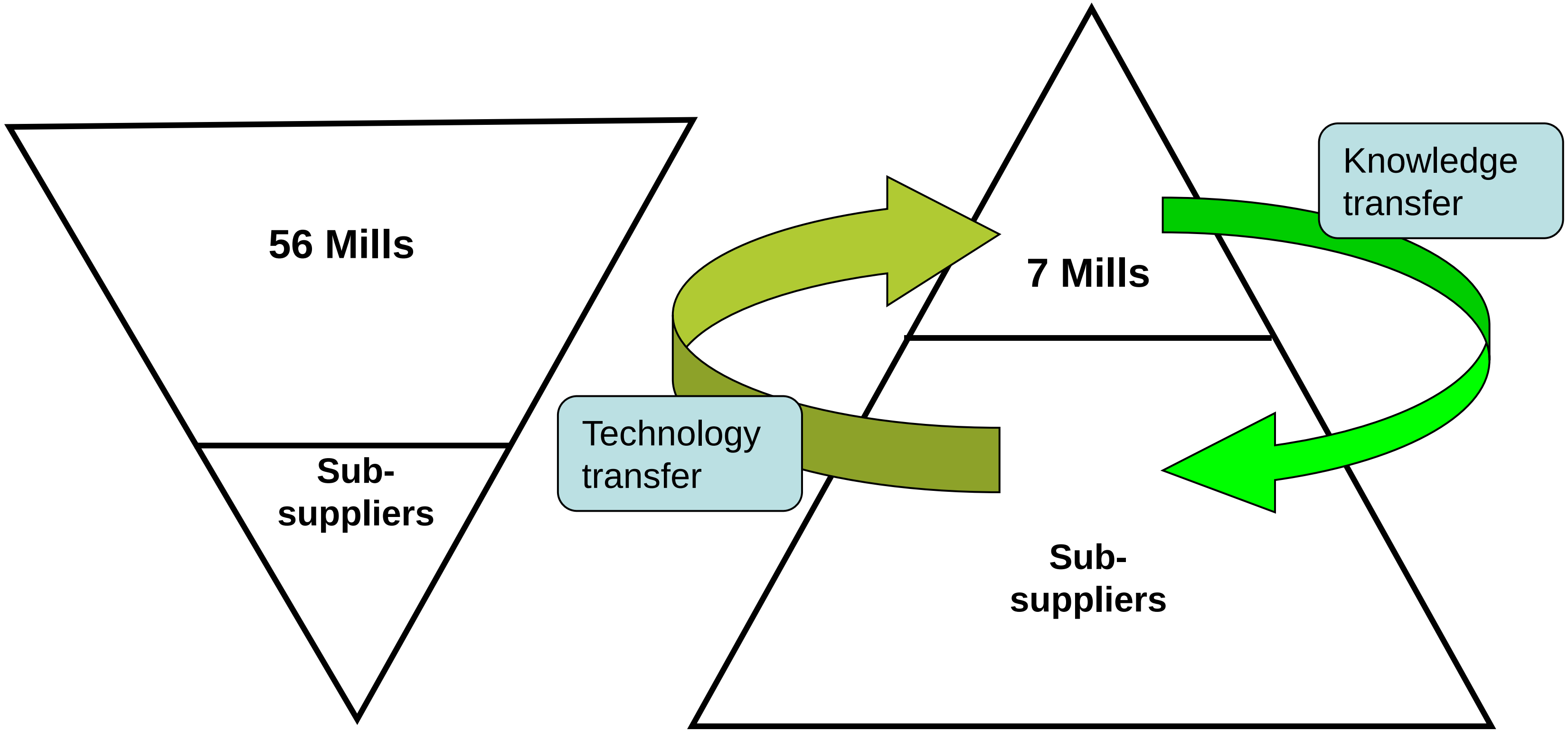
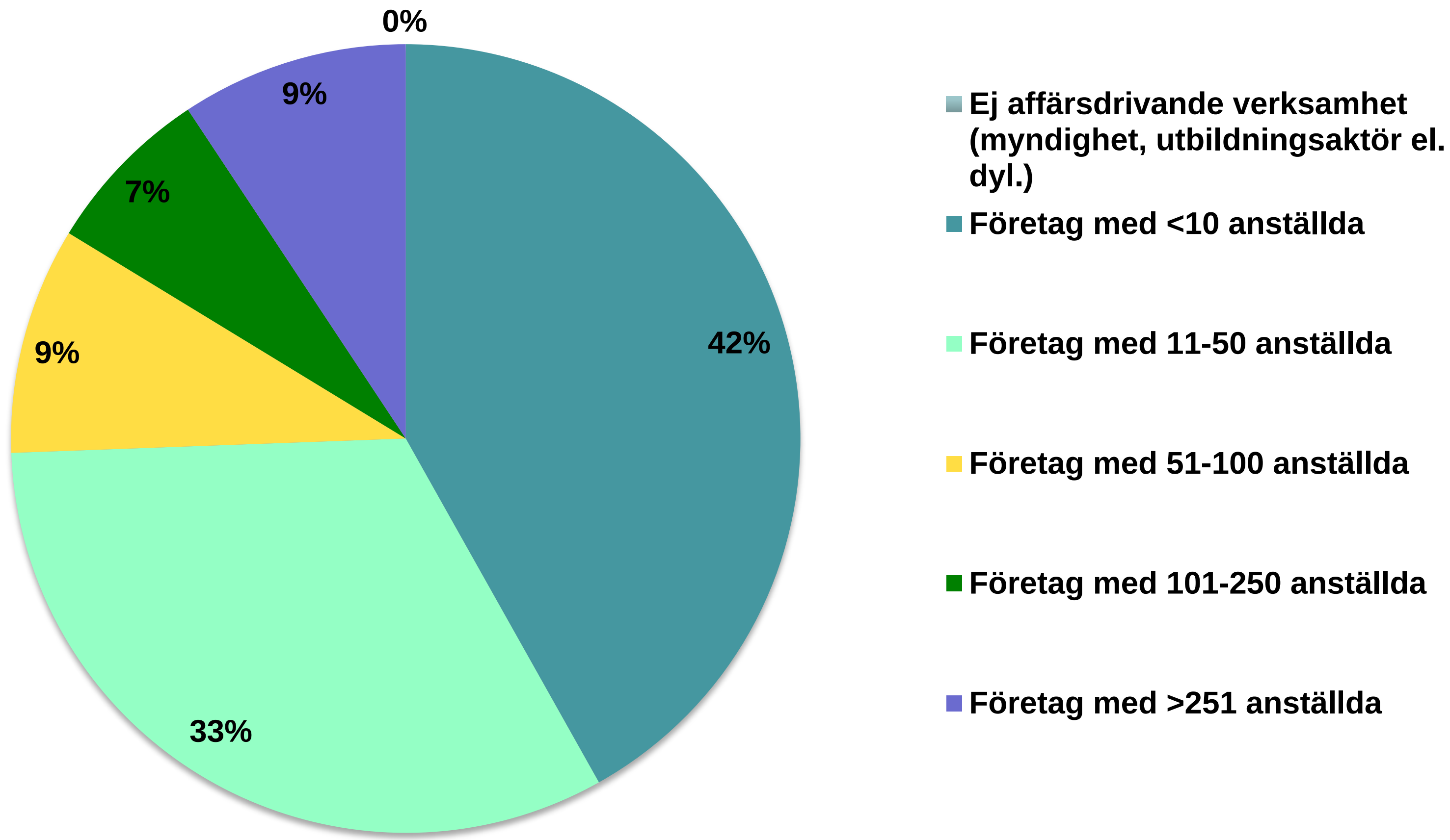
Does the strategy work?

Reconstruction of a mature cluster



Type of cluster companies TPP 2012



More than ¾ are Small – Medium Size Companies

What´s up?
2012

The reason for smart specialisation in the Värmland region

Conclusions…

2010 Cluster structure in Värmland and part of total	Proportion
Number of companies (limited liability company)	2%
number of employees	23%
turnover	27%
Growth in sales (2006-2010)	45%
Growth in value added (2006-2010)	56%

Clusters: Compare, Stål & Verkstad, The Paper Province.
(Only Ltd. liability companies)

... few means a lot to the growth

Region Värmland

A 5 year agreement of cluster development 2013-2018
3 cluster initiatives

- ***The Paper Province, based on the pulp and paper Industry***
- ***Compare, ICT sector***
- ***Stål & Verkstad, the regional steel and engineering industry***

4 priorities 2012

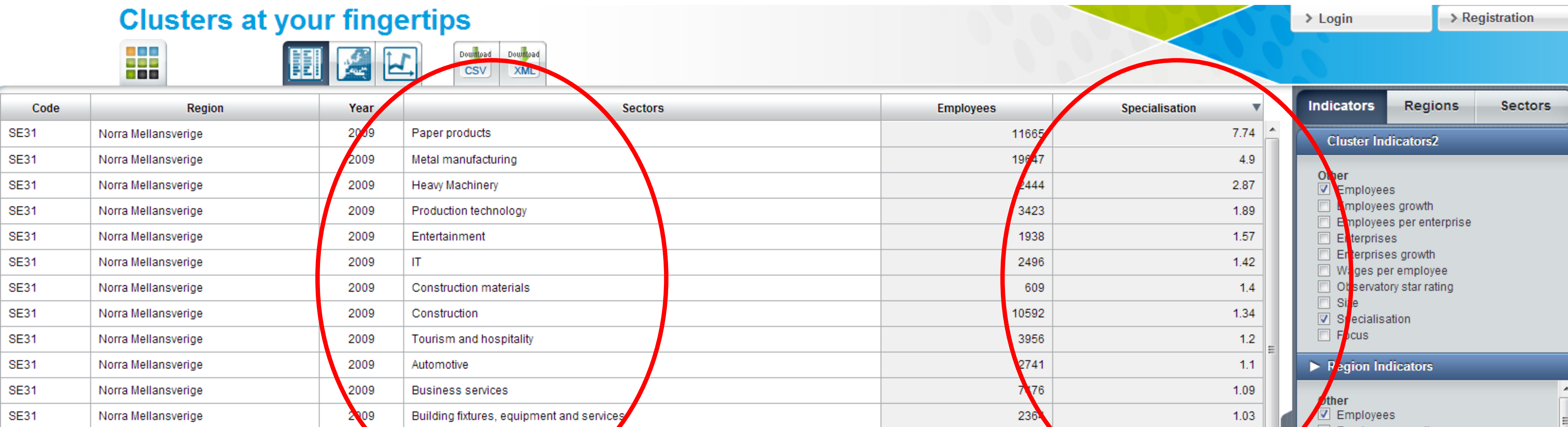
- Investment promotion
- Internationalisation Norway and…
- Local clusters work
- Clusters strategic development

and 5 strategies 2012

1. Leadership
2. Business Development
3. Entrepreneurship and Innovation
4. Competence
5. Research

Smart Specialization

Example NUTS II – North Central Sweden data



Code	Region	Year	Sectors	Employees	Specialisation
SE31	Norra Mellansverige	2009	Paper products	11665	7.74
SE31	Norra Mellansverige	2009	Metal manufacturing	19647	4.9
SE31	Norra Mellansverige	2009	Heavy Machinery	2444	2.87
SE31	Norra Mellansverige	2009	Production technology	3423	1.89
SE31	Norra Mellansverige	2009	Entertainment	1938	1.57
SE31	Norra Mellansverige	2009	IT	2496	1.42
SE31	Norra Mellansverige	2009	Construction materials	609	1.4
SE31	Norra Mellansverige	2009	Construction	10592	1.34
SE31	Norra Mellansverige	2009	Tourism and hospitality	3956	1.2
SE31	Norra Mellansverige	2009	Automotive	2741	1.1
SE31	Norra Mellansverige	2009	Business services	7476	1.09
SE31	Norra Mellansverige	2009	Building fixtures, equipment and services	2364	1.03

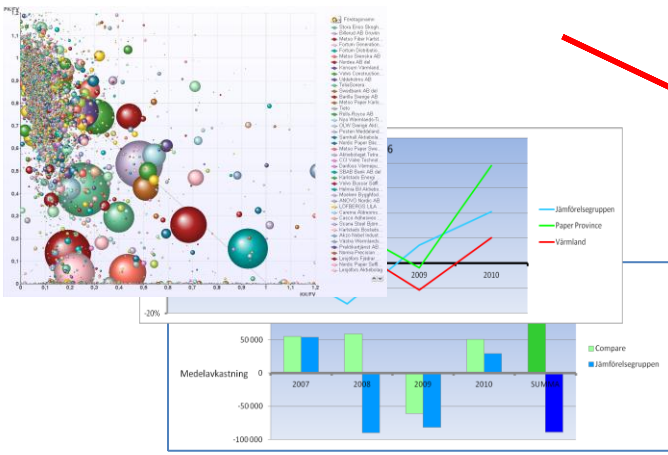
The Cluster Observatory offers data on over 600 industries in over 400 regions (EU +) where a region has a specialisation advantage (2011 data and historical data)

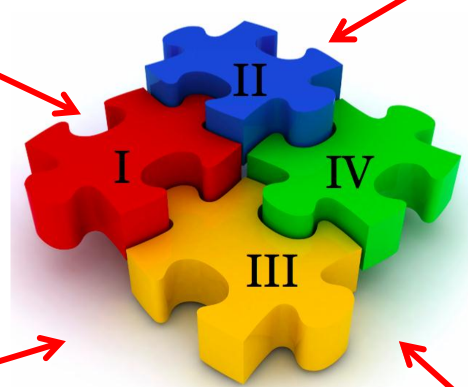
The Evaluation Model - Four Complementary Components

1. Company Financial Performance
- (Collection/Cluster definition/Control groups)
- A Value added
- B Wages
- C Profitability

2. Statistical Analysis

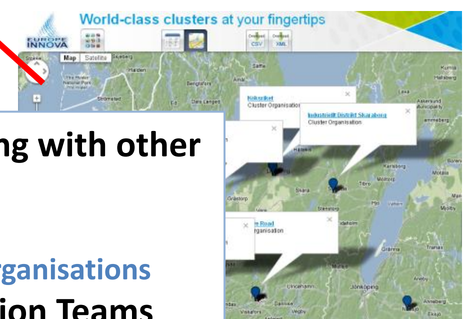
Surveys
1. Surveys of member firms/organisations in cluster
2. Surveys of cluster organisations
3. Surveys of social media (text analysis)





1. Interviews
- (process tracing/confirmation stats)
- A Member firms/organisations
- B Cluster Leader
- C Cluster Organisation Board

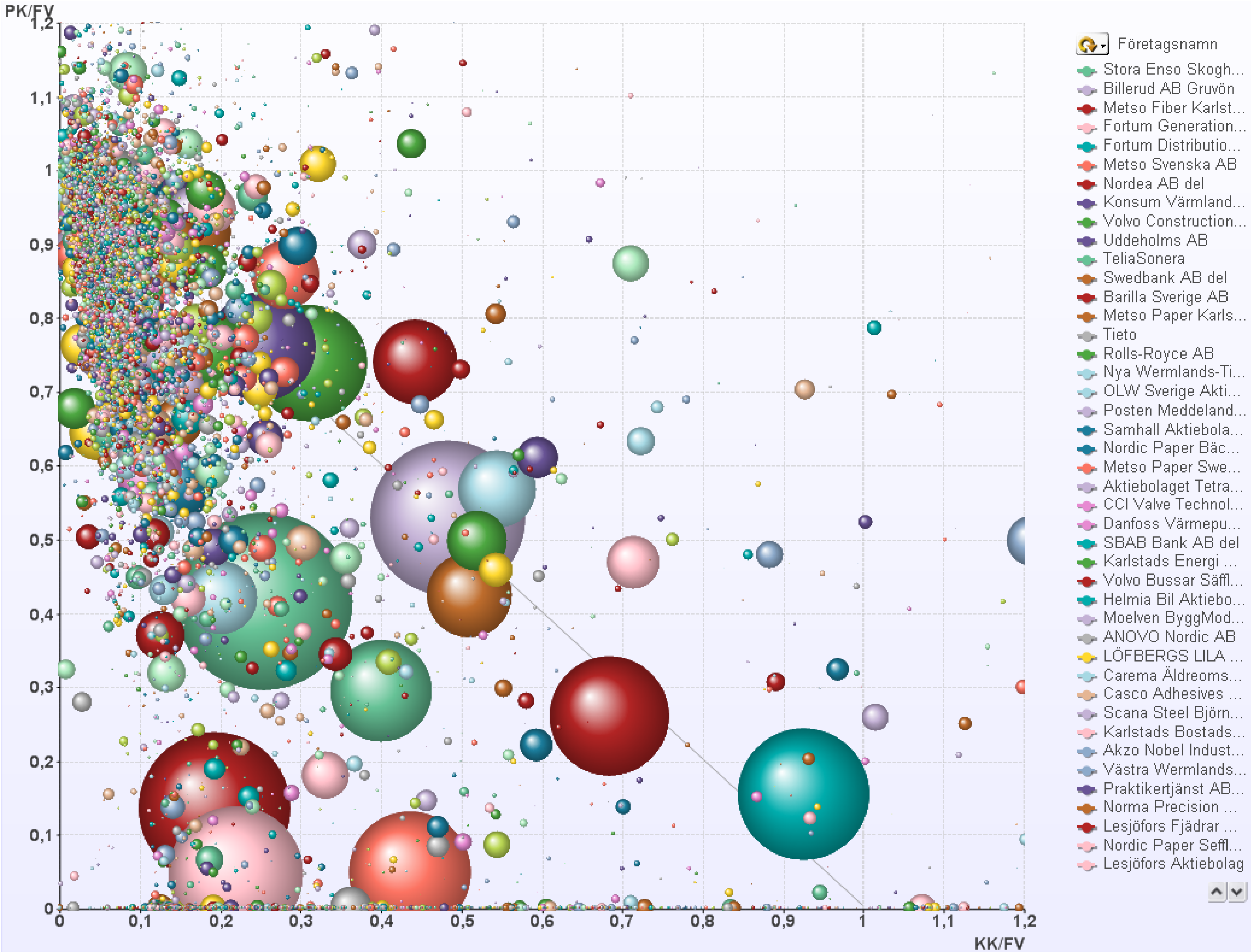
2. Participatory observation



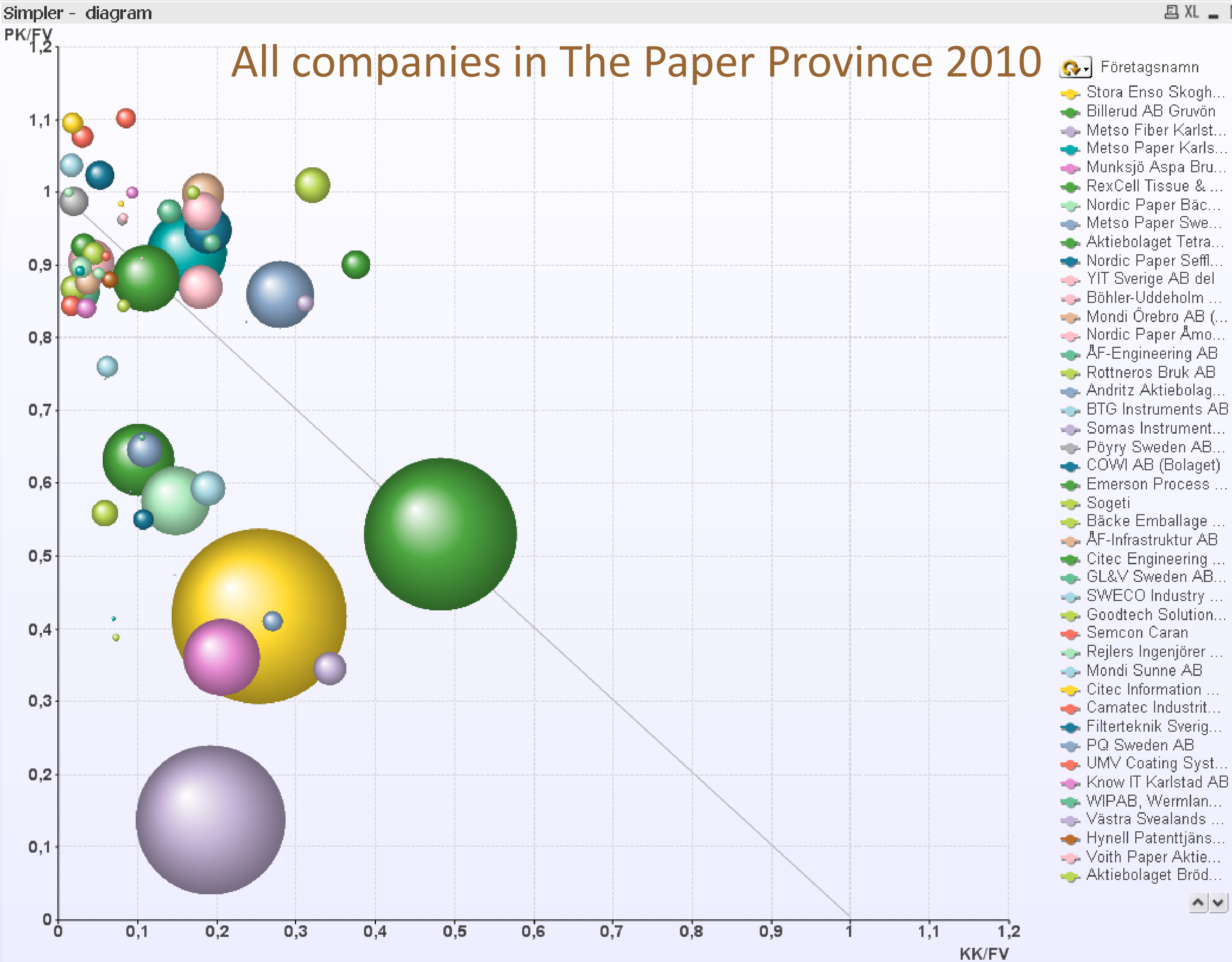
1. Benchmarking with other
- A Regions
- B Clusters
- C Cluster organisations

2. Peer Evaluation Teams

All companies in the Värmland region 2010



All companies in The Paper Province 2010



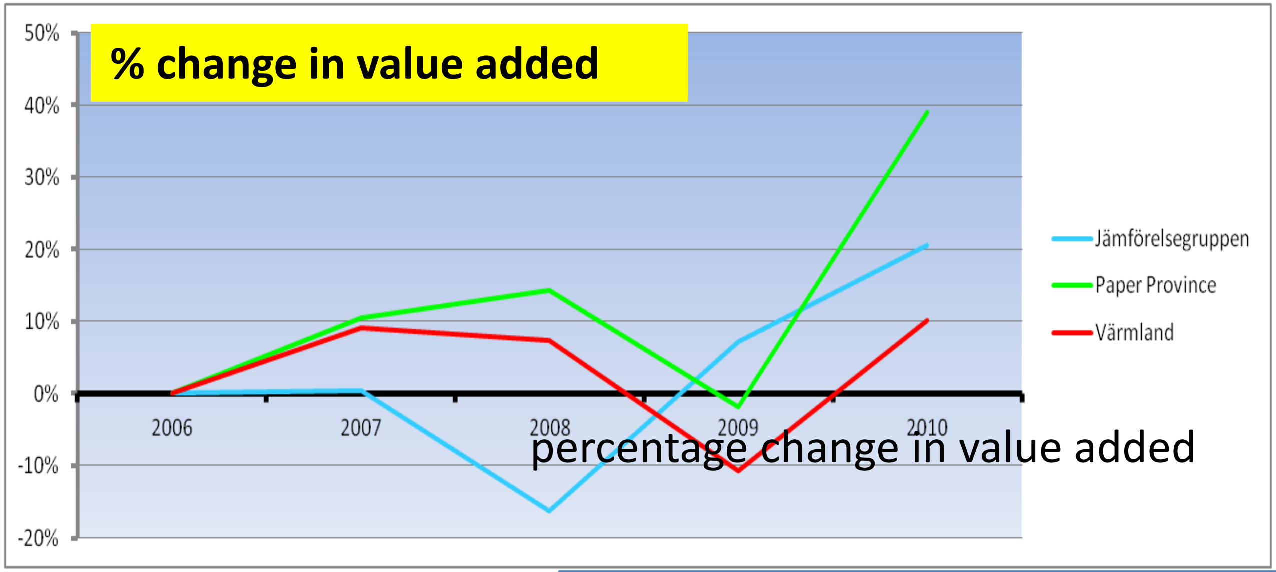
Kluster performance in the SLIM region
Measurement over 5 years based on 3 indicators

Cluster Observatory
SIMPLER Analysis
Comparison of 12 Clusters in a European Region 2006 - 2010 (unidentified names)

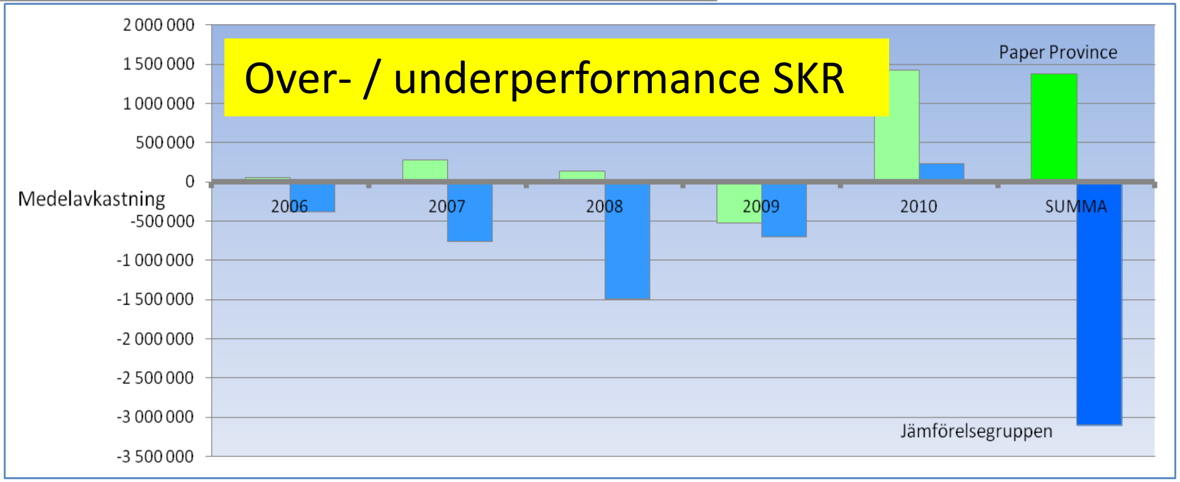
		Value Added Growth				Profitability % of Value Added				Wages per employee				
Total Rank	**Cluster**	Cluster	Peer	Diff	Rank	Cluster	Peer	Diff	Rank	Cluster	Peer	Diff	Rank	SUM
1	**A**	38%	21%	17%	3	5%	-13%	18%	2	17%	7%	10%	1	6
2	**B**	27%	-1%	28%	2	12%	7%	5%	6	16%	8%	8%	2	10
3	**C**	8%	-6%	14%	4	12%	-4%	16%	3	3%	-2%	5%	4	11
4	**D**	67%	21%	46%	1	12%	7%	5%	6	13%	11%	2%	6	13
5	**E**	-11%	-8%	-3%	12	10%	-16%	26%	1	12%	9%	3%	5	18
6	**F**	16%	4%	12%	6	-2%	1%	-3%	11	17%	9%	8%	2	19
7	**G**	40%	28%	12%	6	3%	-2%	5%	6	11%	10%	1%	8	20
8	**H**	31%	18%	13%	5	5%	5%	0%	10	13%	11%	2%	6	21
9	**I**	18%	11%	7%	9	0%	-15%	15%	4	11%	11%	0%	9	22
10	**J**	29%	20%	9%	8	7%	1%	6%	5	8%	15%	-7%	12	25
11	**K**	33%	26%	7%	9	9%	8%	1%	9	13%	13%	0%	9	27
12	**L**	45%	38%	7%	9	-4%	12%	-16%	12	10%	14%	-4%	11	32

10 out of 12 Clusters perform better than their peer groups in terms of financial results and wage development (productivity)

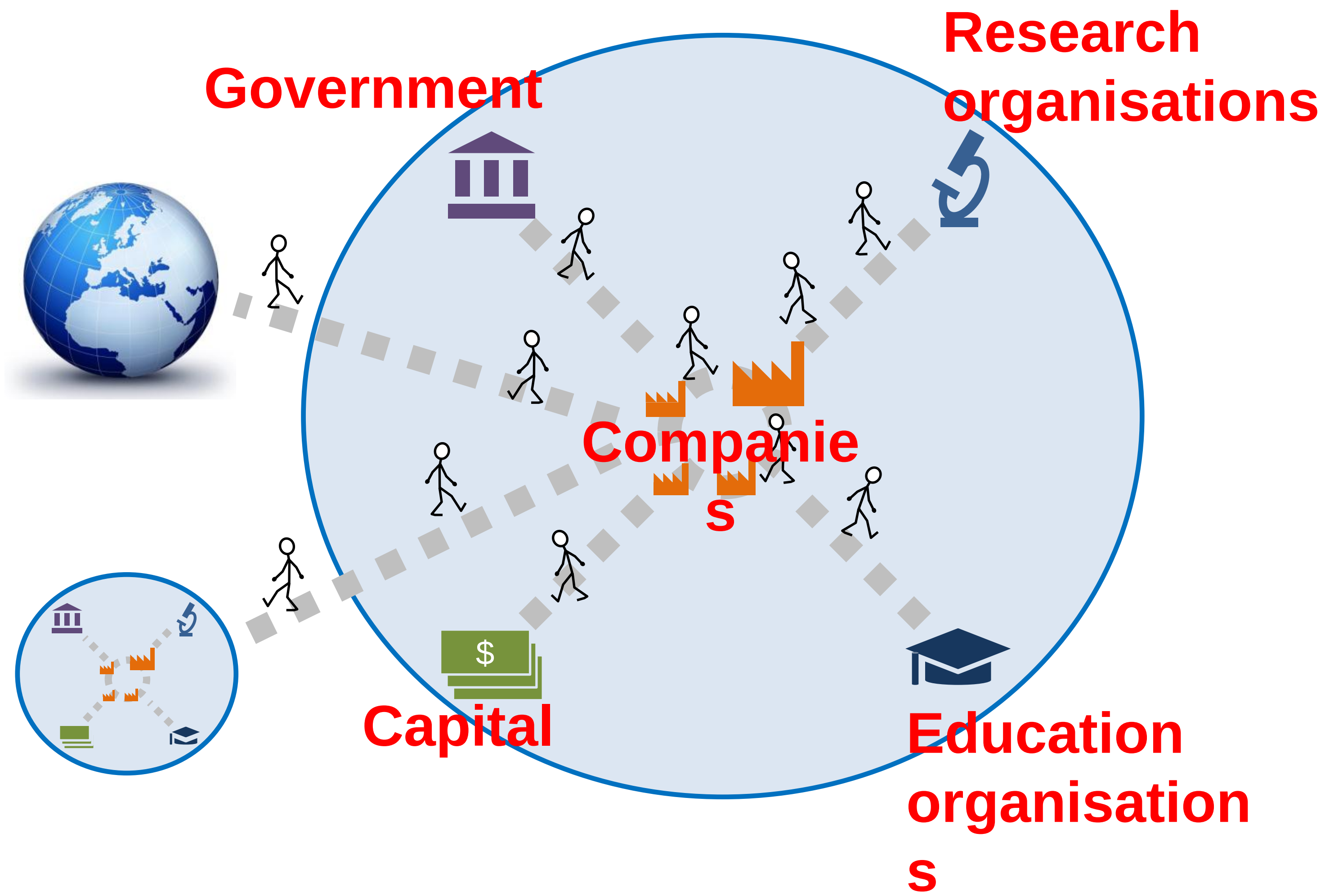
Cluster Alfa



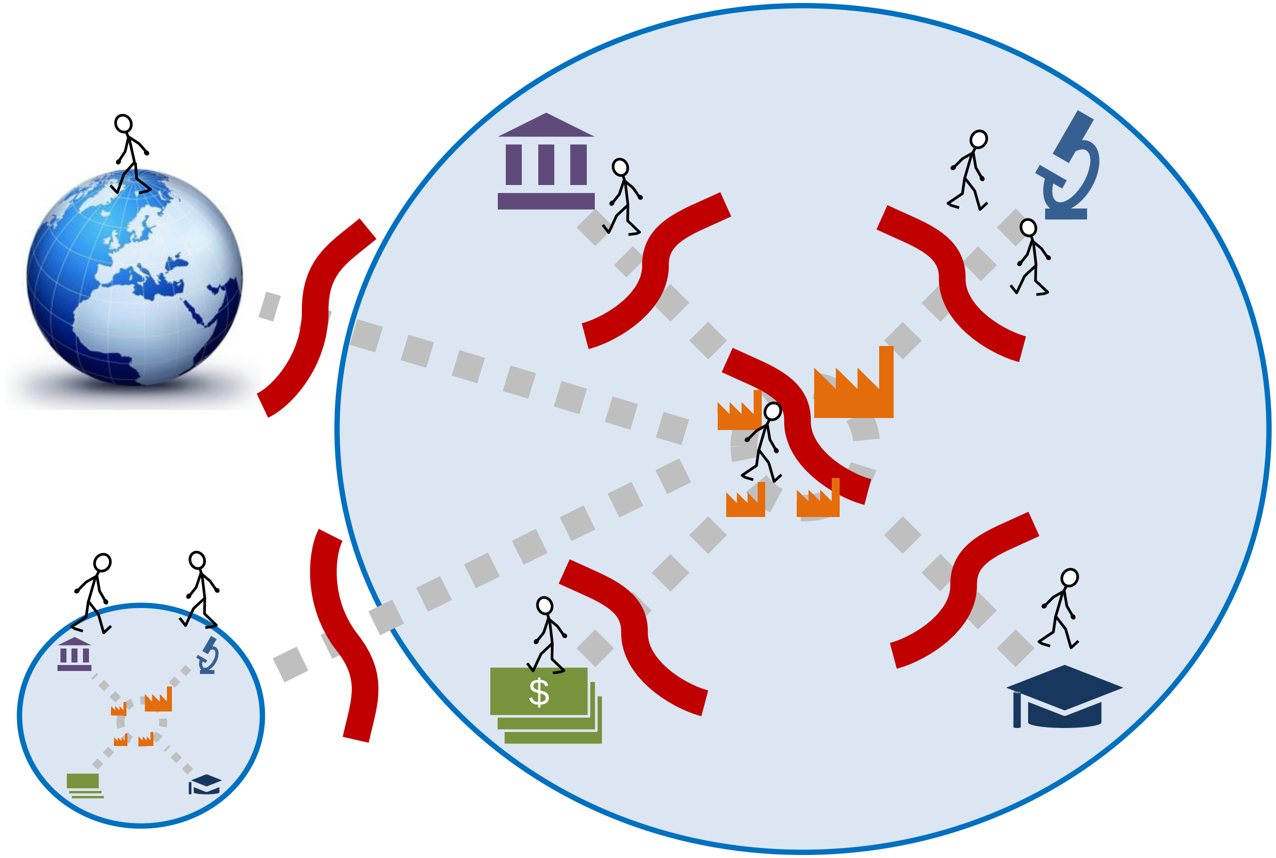
4 of 5 years of better performancet than peer region.



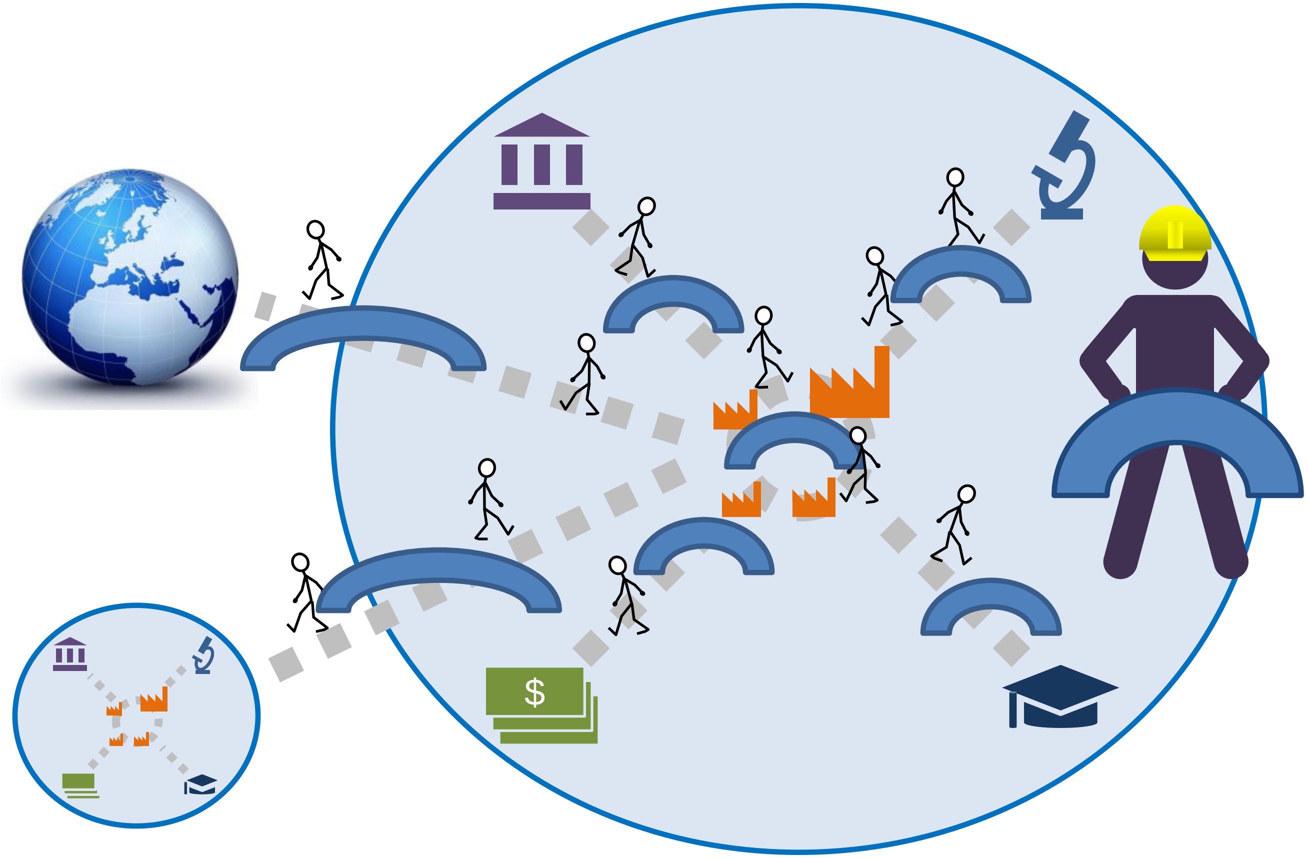
The dream of dynamic clusters



...and the reality. (The 7 gaps of innovation)



The dream of dynamic clusters
Bridging the gaps



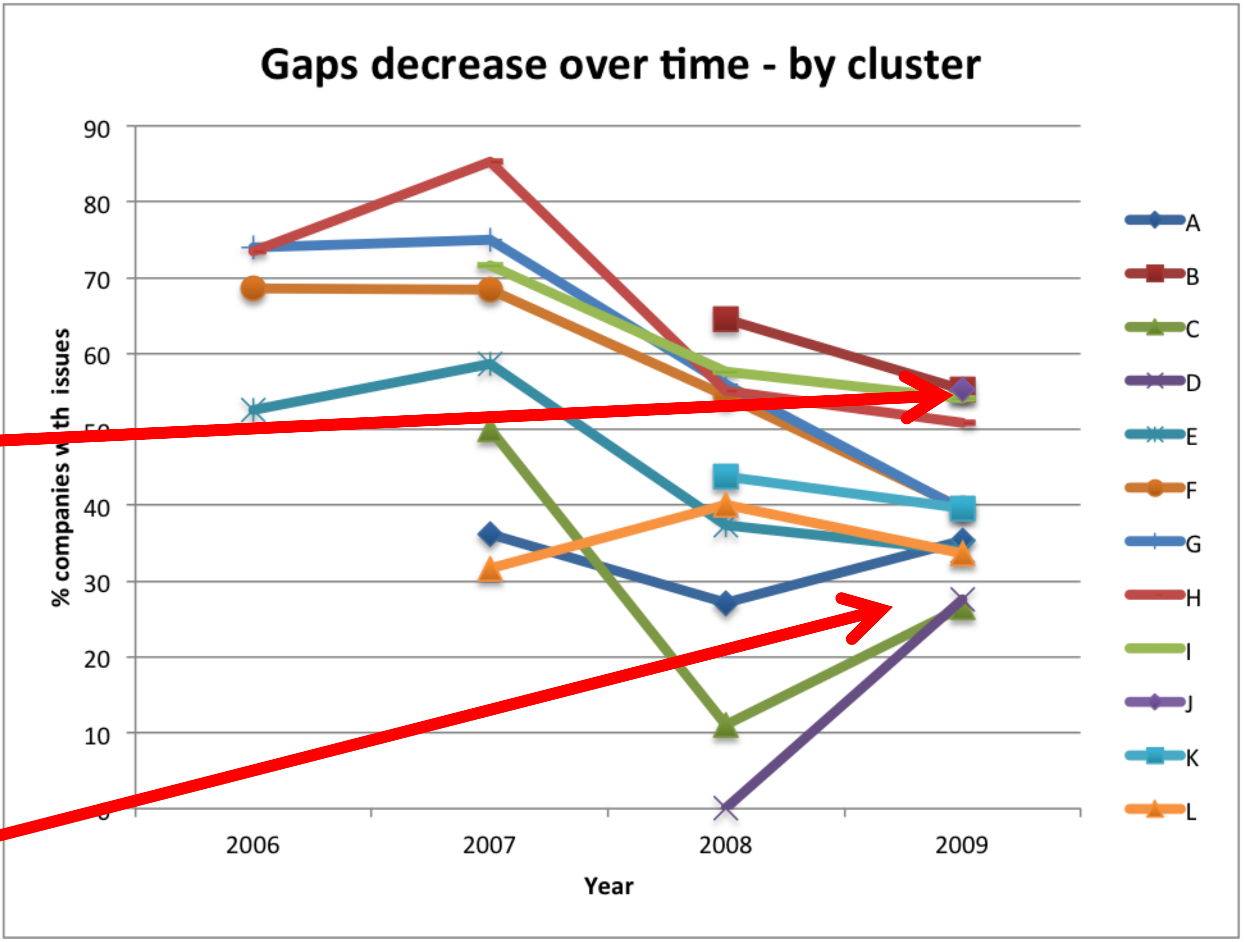
= Cluster organisations are for!

Results

II

Measured the degree of networking across innovation gaps:

Firm- to- firm (SMEs cooperate with large firms)
Firm- to-research
Firm-to-education
Firm-to-capital
Firm-to-public organisations
Firm-to- other clusters
Firm-to-global markets



Large gaps still exist

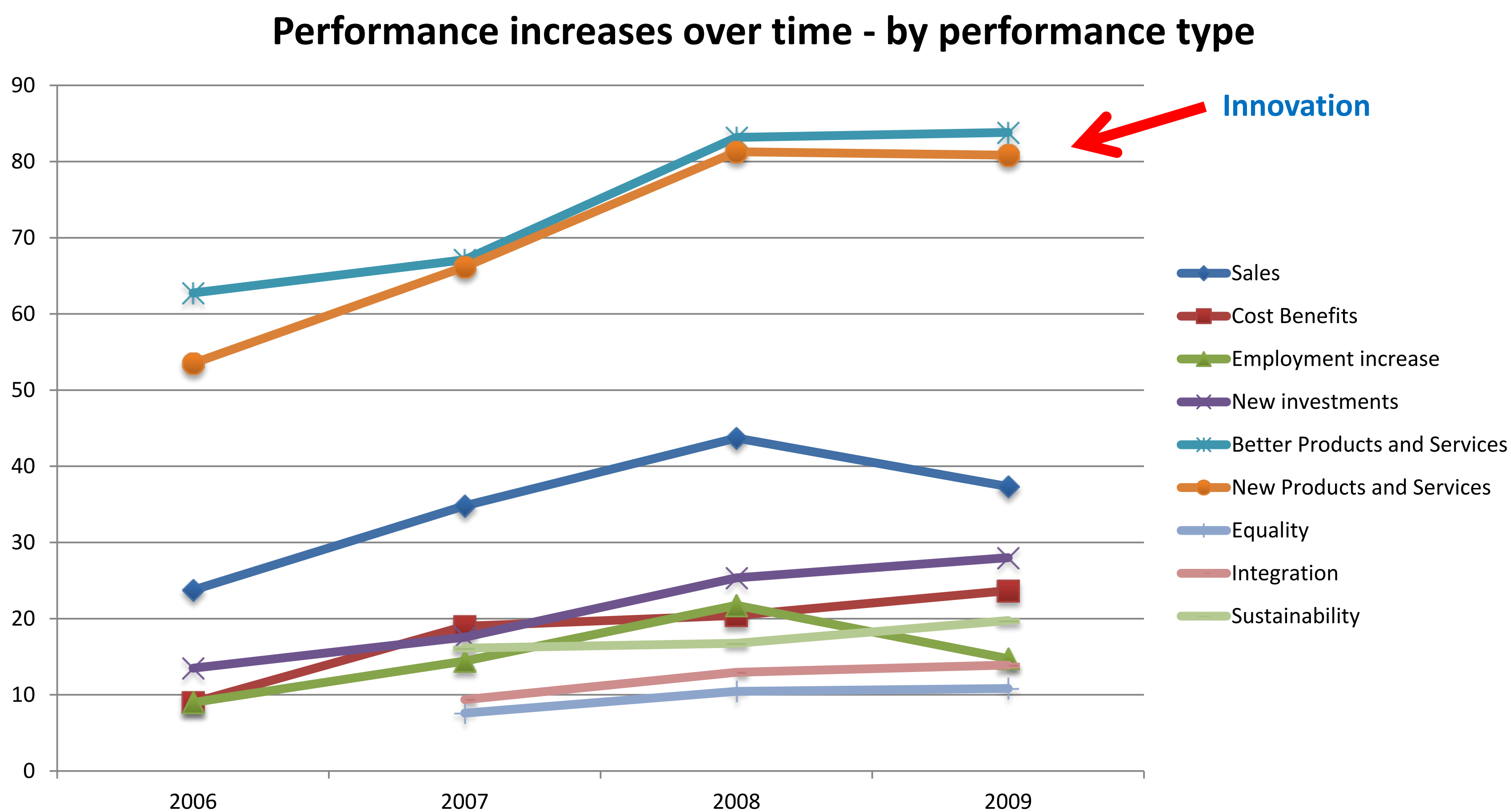
Come a long way

- **Some clusters are much better at networking across the innovation gaps = area where SLIM helps out with learning across clusters**
- **Some clusters exhibit a negative development after the 2008 crisis**

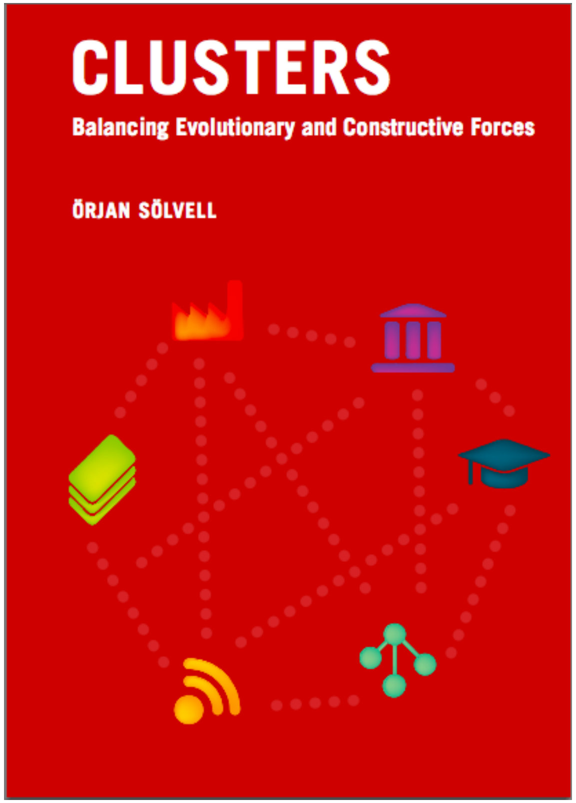
Results – Innovation Performance

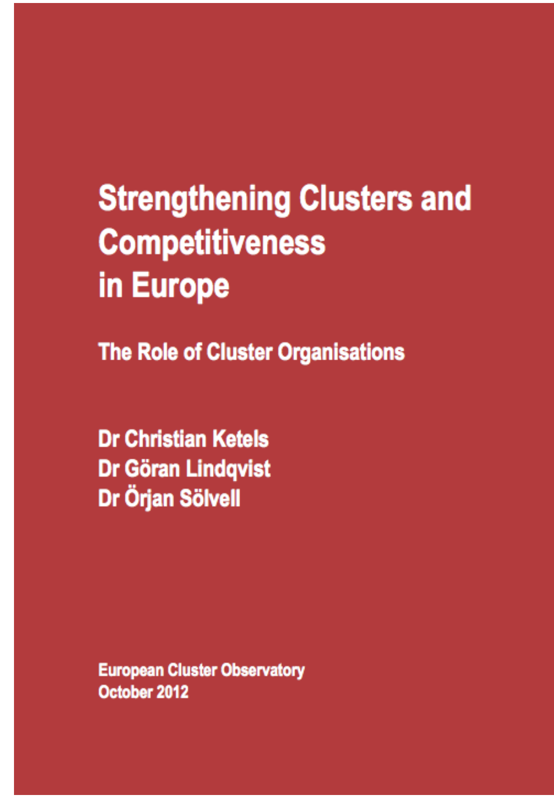
- **Cluster Firms have improved their innovation performance significantly by being members in clusters**

Moderate effects on sales performance and very limited effects on equality and sustainability



Thank You!





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