

# Clusters as Drivers for Regional Growth: Issues for Danish Economic Policy

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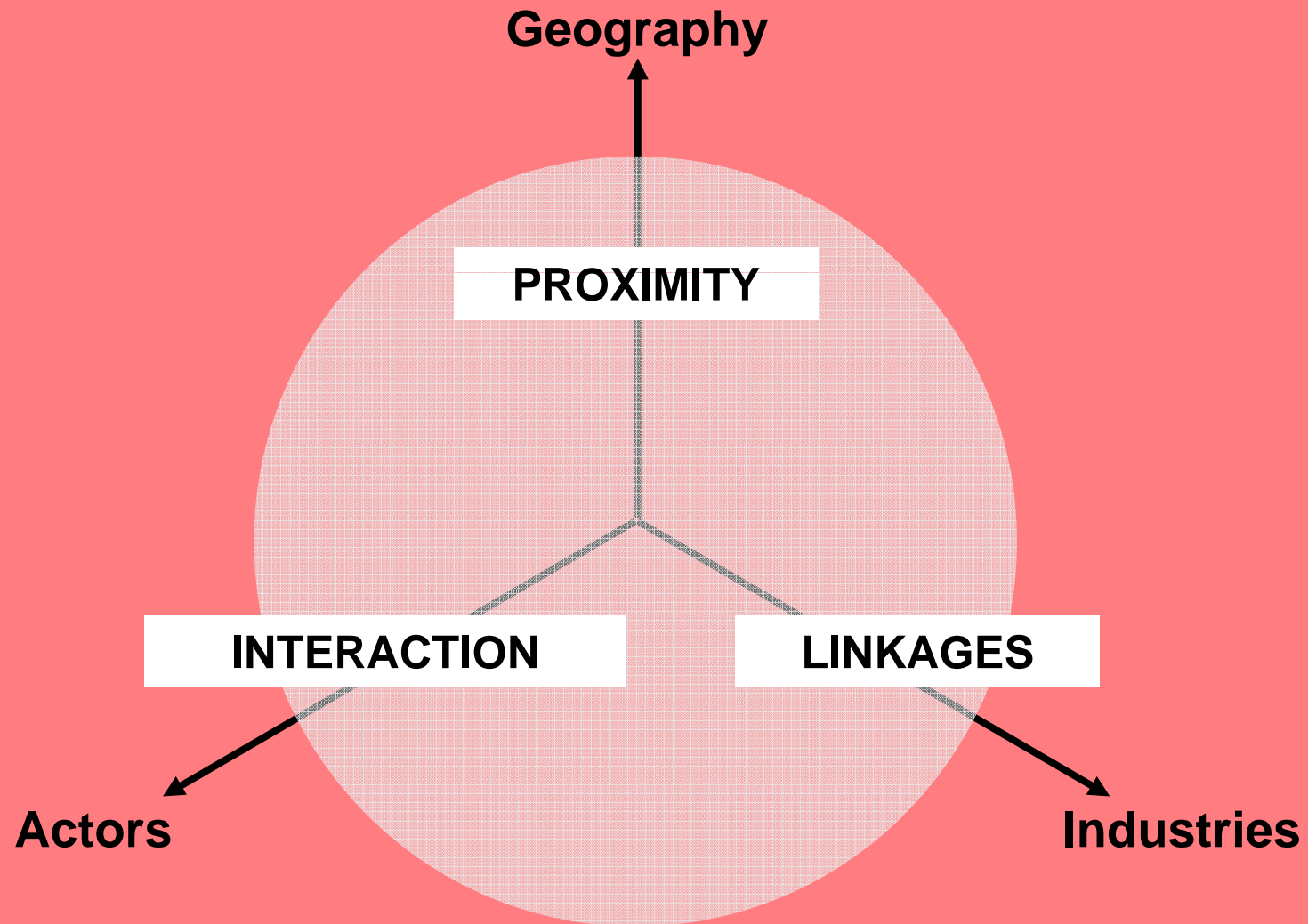
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This presentation draws on ideas from Professor Porter's articles and books, in particular, The Competitive Advantage of Nations (The Free Press, 1990), "The Microeconomic Foundations of Economic Development," (with C Ketels, M Delgado) in The Global Competitiveness Report 2007, (World Economic Forum, 2007), "Clusters and the New Competitive Agenda for Companies and Governments" in On Competition (Harvard Business School Press, 1998), and the Cluster Initiative Greenbook (Ivory Tower, 2004) by C Ketels, O Sölvell, and G Lindqvist. No part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form or by any means - electronic, mechanical, photocopying, recording, or otherwise - without the permission of the author.

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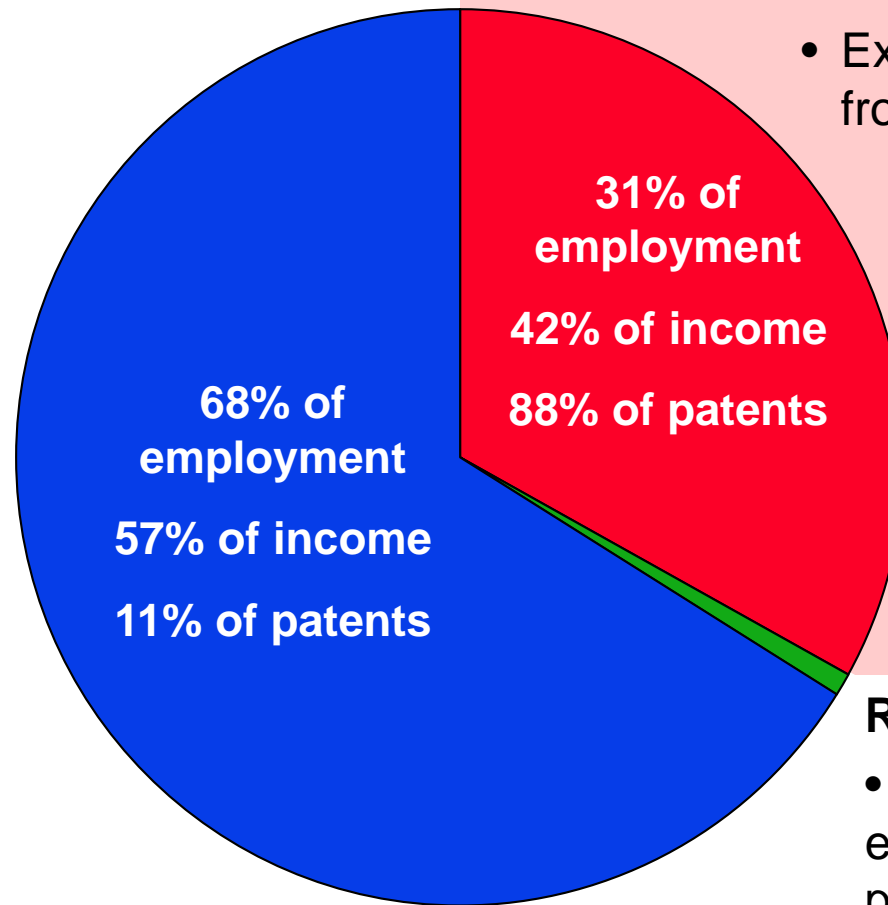
# Key Dimensions of Clusters



# The Role of Clusters in Regional Economies

## Local

- Location defined by market
- Not exposed to cross-regional competition



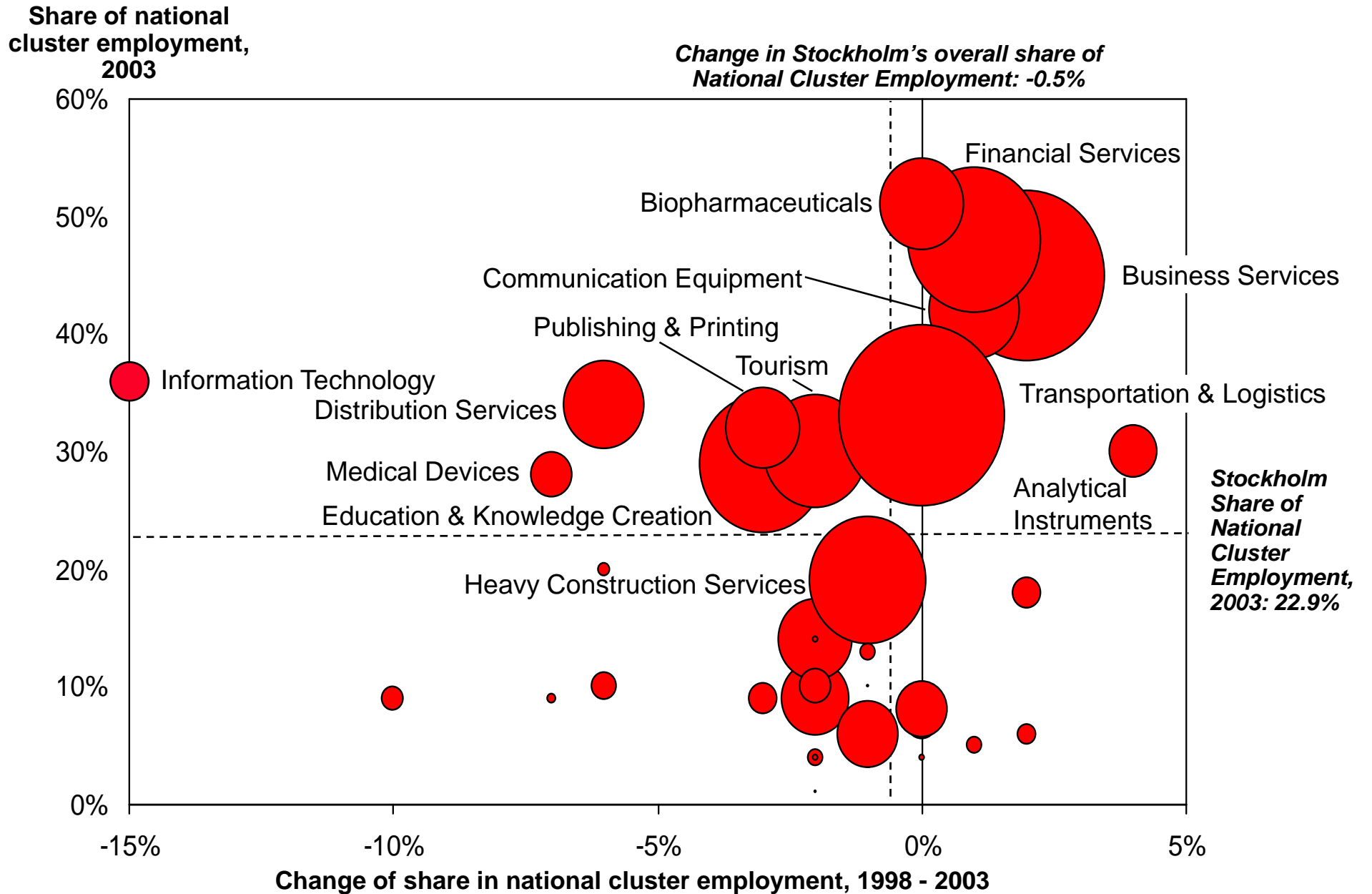
## Cluster

- Free to choose location
- Exposed to competition from other regions

## Resource-based

- 1% of income, employment, and patents

# Stockholm Cluster Portfolio



Note: Bubble size is proportional to employment levels  
 Source: Statistics Sweden (2005), author's calculations

# Emergence of Clusters

**POLICY**

**Location**

**Existing Clusters**

**Business Environment**

**Natural Resources**

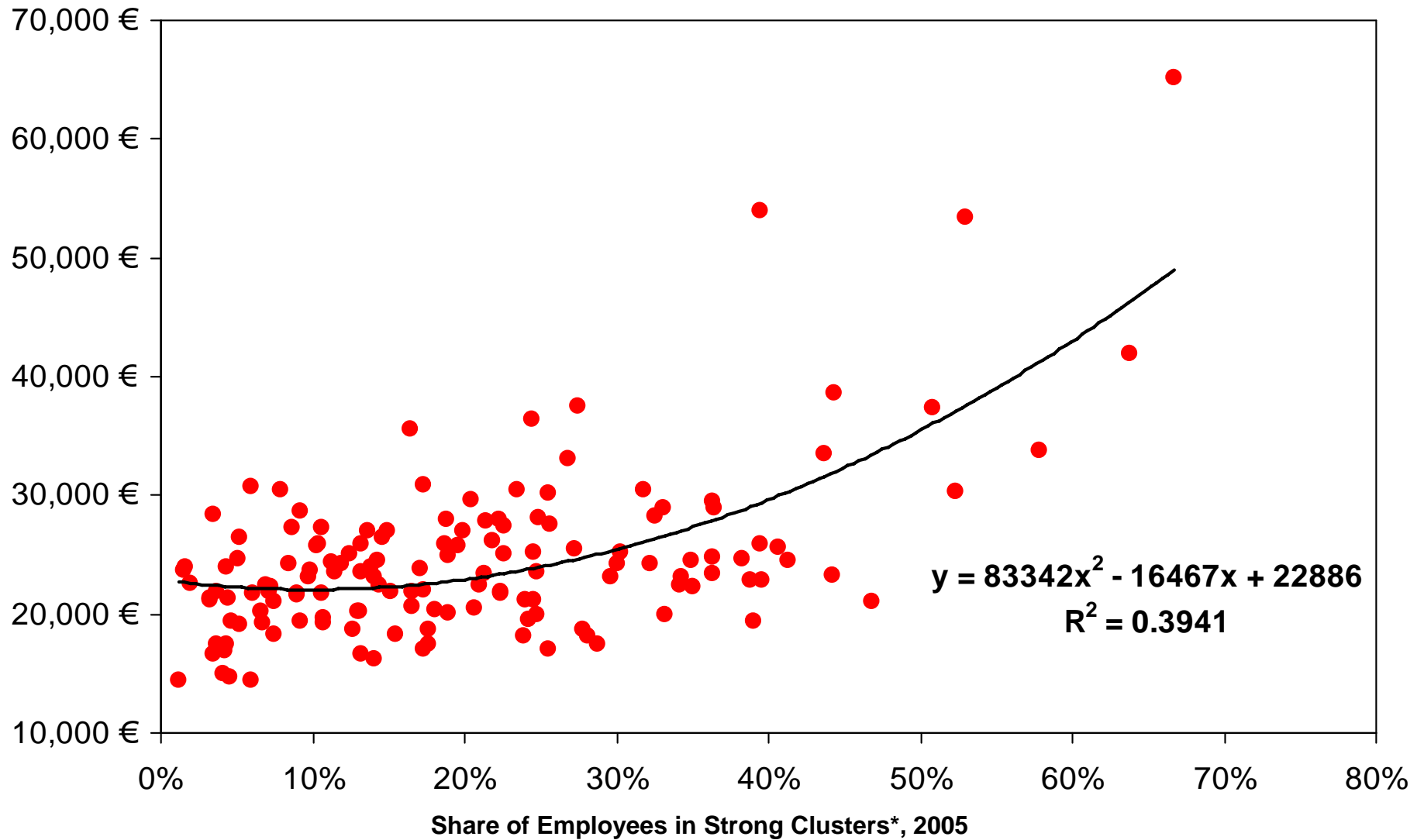
**Entrepreneurs**

**Context for competition across regions**

# Clusterportfolio Strength and Regional Prosperity

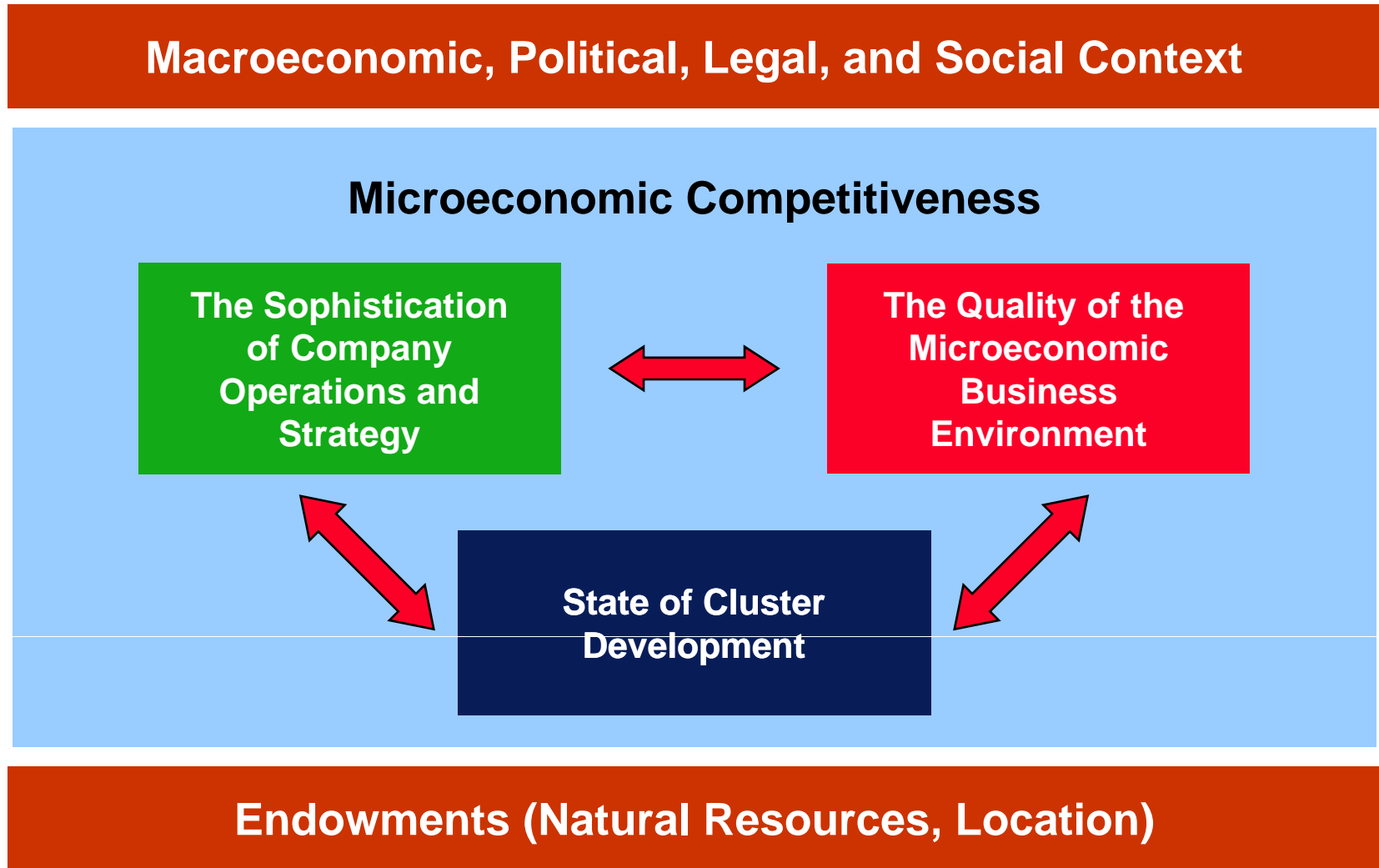
## EU-15 Countries

GDP per Capita (PPP adjusted), 2004



Note: Strong clusters defined by LQ>2; NUTS Regions excluding Portugal and Greece.  
Source: European Cluster Observatory. ISC/CSC cluster codes 1.0, dataset 20070510

# Clusters' Role in Competitiveness



- Clusters are part of an **overall framework of competitiveness**, not a silver bullet that is critical everywhere and every time

# How Clusters Impact Economic Performance

## Local externalities

- Access to specialized labor
- Access to specialized suppliers
- Opportunities for local outsourcing
- Knowledge spillovers
- Intense competitive pressure
- Fast market feedback



- Higher productivity



- Higher innovation



- More new business formation

# Pitfalls and Criticism: Cluster Specialization

## The Argument:

- Specialization leads to homogeneity that is **negative for innovation**

## The Response:

- Clusters enable the combination of **different, but related ideas**
- Groups of **related clusters** provide an even better environment for innovation

## The Argument:

- Specialization increases the **exposure to sector-specific shocks**

## The Response:

- Specialization is necessary to achieve high levels of **productivity**
- Clusters are able to **redirect capabilities** to new markets

# Globalization, Competition Between Regions, and Clusters

## Global context

- Fewer barriers for trade and investment
- More countries attractive as markets and production sites

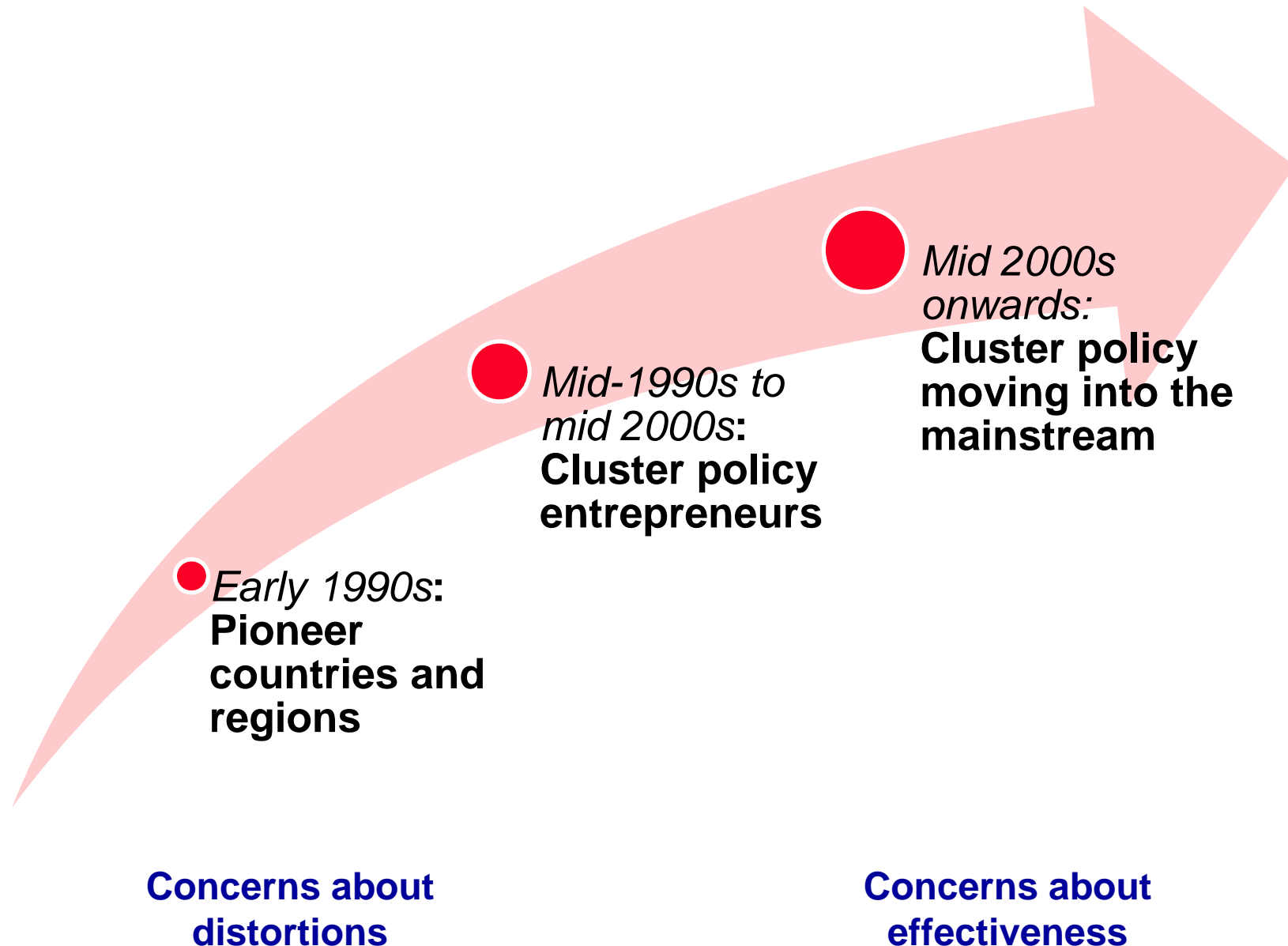
## Regions

- More intense competition
- More specialization
- More linkages

## Clusters

- Changing cluster landscape
- More specialization
- More linkages

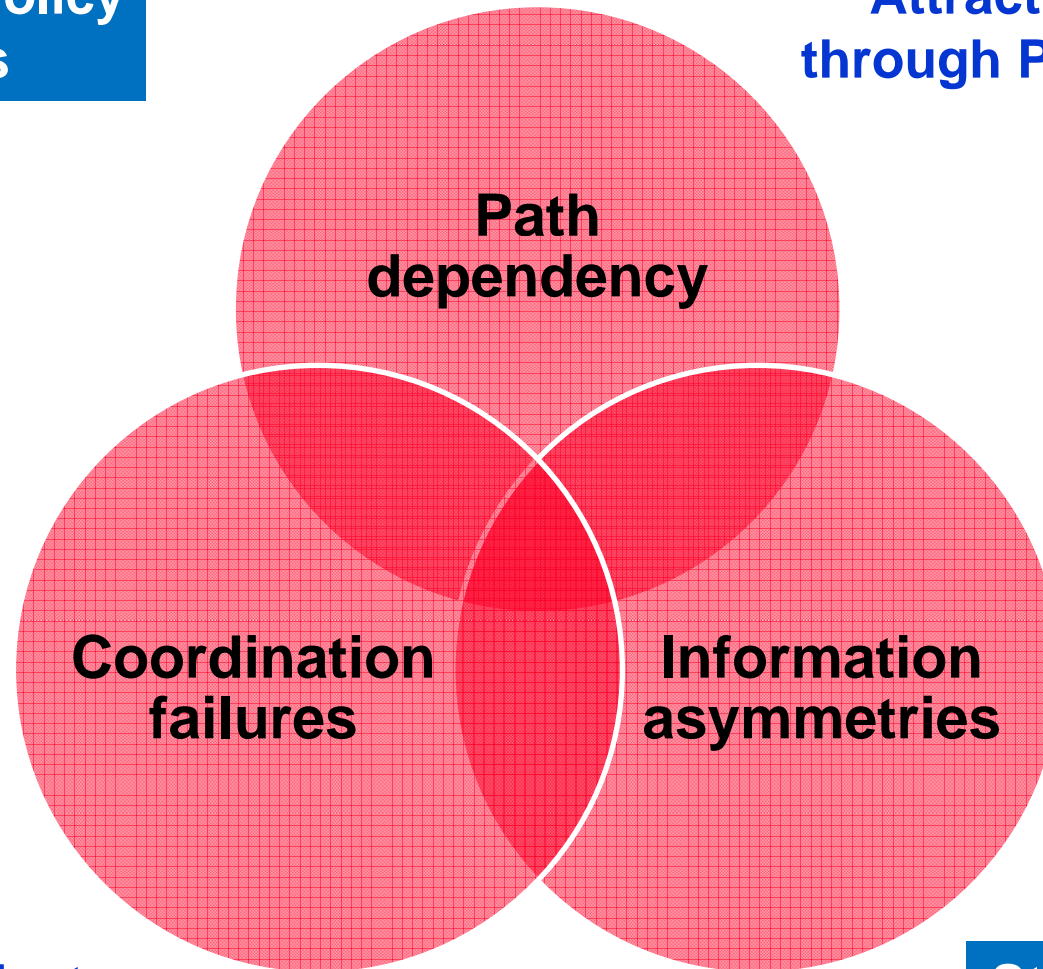
# The Changing Face of Cluster Policy



# The Case for Cluster Policy

**Target Public Policy  
at Clusters**

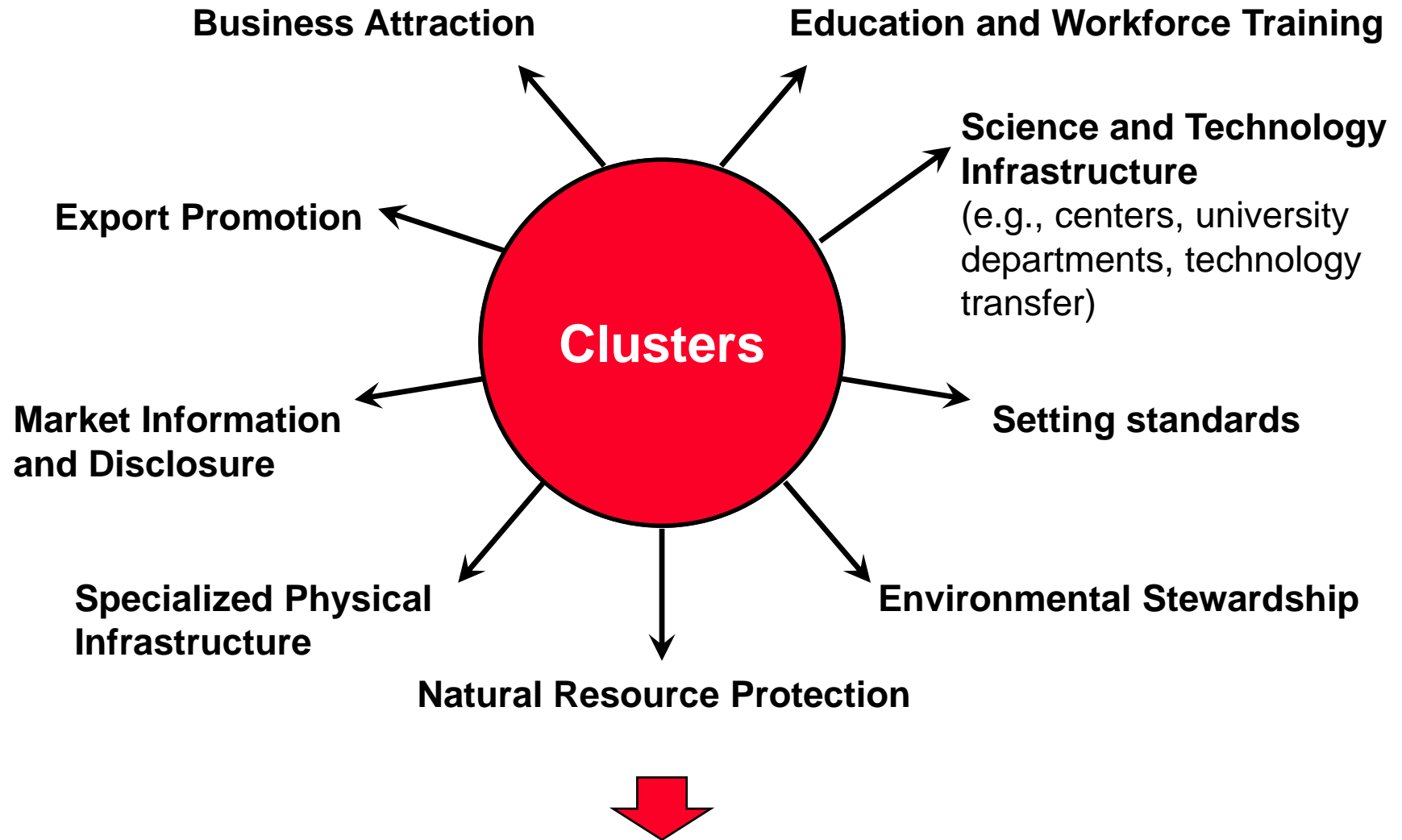
**Attract Critical Mass  
through Public Incentives**



**Subsidize Private  
Sector Collaboration**

**Strengthen Cluster  
Initiatives**

# Target Public Policy at Clusters



- Clusters provide a framework for **organizing the implementation** of public policy and public investments towards economic development

# Drivers of Cluster Initiative Success

## Setting

- Strong business environment
- Trust in government
- Strong regional government
- Cluster strength

## Objectives

- Broad range of objectives
- Objectives selected based on cluster's specific needs
- *No significant effect of special objectives*

## Process

- CI Facilitator with cluster insight
- CI has office and significant budget
- CI has clear strategy and measurable goals
- *No negative effect of government financing*
- *Negative effect of limiting participation*

# Pitfalls and Criticism: Cluster Policies

## The Argument:

- The **collateral damages** of cluster policies outweigh their benefits

## The Response:

- The danger is real but is a **question of implementation**, not of principle

## The Argument:

- Cluster policies are not **strong enough** to create a meaningful impact

## The Response:

- The danger is real but is a **question of implementation**, not of principle

# Clusters, Cluster Policy, and Competition

- Clusters are successful, if they combine **fierce internal competition** in markets with cooperation in pre-market areas
- Cluster policies that create monopolistic structures **erode the competitiveness** of clusters they pertain to serve



## Ensuring pro-competitive effects of cluster policies:

- Clusters need to be **exposed to full competition** from other regions and countries
- Cluster policies need to be tested as to **their impact on competition**
  - Enable entry of foreign firms and new businesses
  - Support activities that lead to more advanced competition
- Cluster initiatives need to be **open for new entrants** at all times

# The Role of Government in Cluster Initiatives

## *Should not*

- Pick members
- Define action priorities

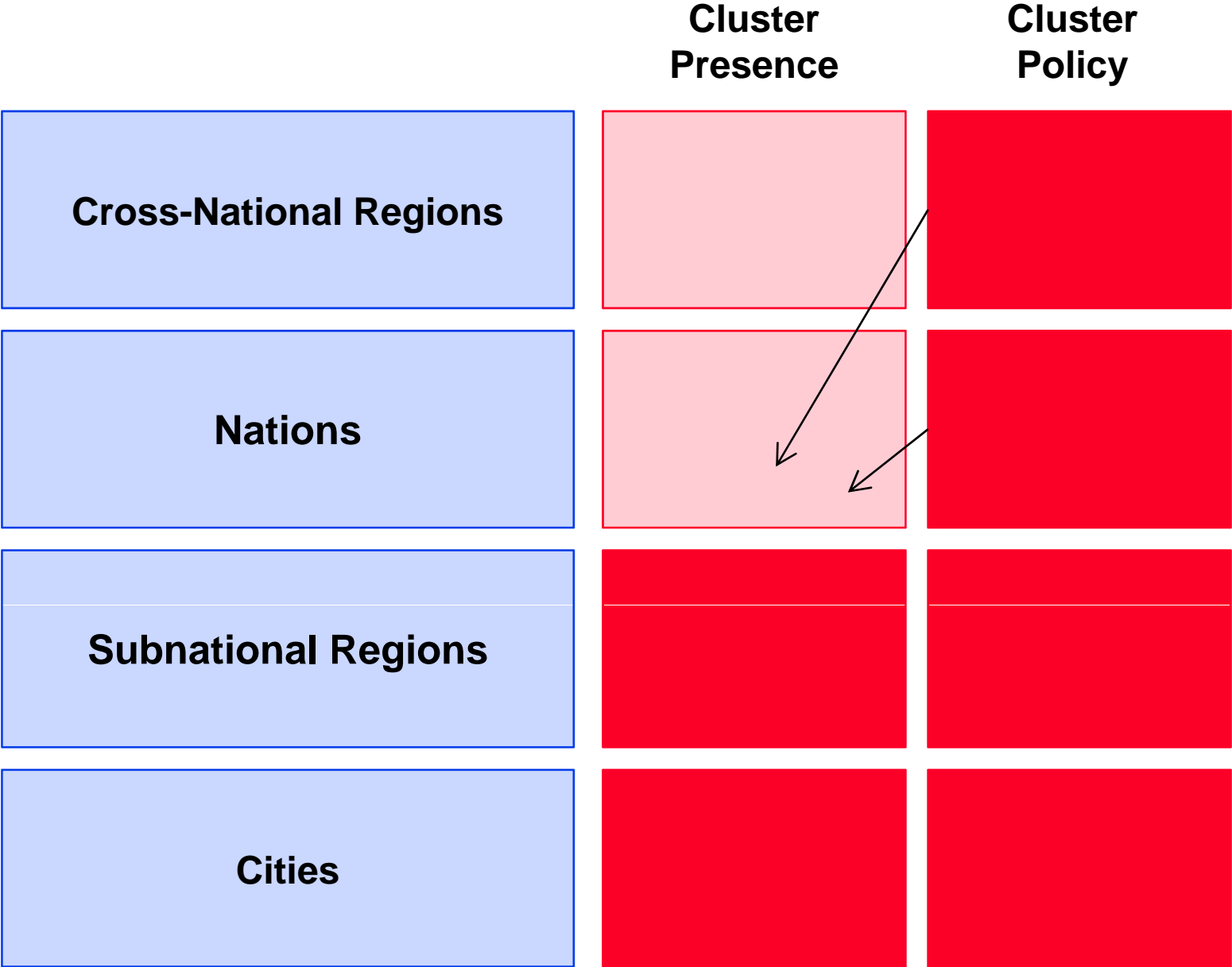
## *May...*

- Finance
- Initiate

## *Should...*

- Participate
- Be ready to implement recommendations
- Support data availability

# Clusters and Different Levels of Government



# Cluster Selection: From the Pivotal to the Pragmatic

- The selection of clusters is a **practical necessity**, not a matter of principal
  - Limitations in terms of resources and leadership capacity
- The selection process should be **open and competitive**
  - No or limited predetermination of industrial sectors or activities
  - Funding for top performers, not for meeting set standards
- The selection process should be a **recurring** activity, not a one-off decision
  - Successful cluster initiatives get a “life of their own”
  - Government can start new waves of cluster initiatives
- Clusters should be selected based on **criteria** that reflect their roles in economic development
  - Identify cross-cutting challenges: Size, heterogeneity
  - Enable collaboration for change: Willingness to act
  - Unlock economic potential: Critical mass, business environment conditions

# From Benchmarking to Fact-Driven Policy Design

**Cluster policy**

**Cluster data**

**Cluster maps**

**Cluster organisations**

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		
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	
Köpec-Hagyarnacsap (Budapest), HU	14 197	1.73%	2.62	1.17%	**	High	Weak	
Centre (Orléans), FR	13 960	1.70%	4.36	1.95%	**	Medium		
Karlsruhe, DE	13 207	1.61%	3.11	1.39%	**	High	Strong	
Mazowiekie (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	
Région Wallonne (Liège), BE	9 454	1.15%	2.31	1.03%	**	Medium		
Rheinlatten-Pfalz (Mainz), DE	9 083	1.10%	3.45	1.54%	**	High	Strong	
Lombardia (Milan), IT	34 808	4.23%	1.91	0.89%	*	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	

Region(s)	Cluster organisation	Website
Österreich (Vienna)	Automotive Cluster Vienna Region	www.acvr.at
Österreich (Upper Austria)	Automobil-Cluster	www.automobil-cluster.at
Wallonne	Cluster Auto-Mobilité de Wallone	www.clusterautomobile.be
Halle	MAHREG Automotive	www.mahreg.de
Köln	Car	www.car-sachen.de
Saarland	automotive.saarland	www.automotive.saarland.de
Denmark	AutoCluster	www.autocluster.com
Denmark	Paik Vasco	www.paikasee.com
Galicia	Cluster de Empresas de Automoción de Galicia	www.ceaga.com
Hedmark og Oppland	Arena Lattestad	www.total-gruppen.no
Slovenia	Business Interest Association ACS, Automotive Cluster of Slovenia	www.acs-giz.si
Syddavnet	Networking Companies	www.networkingcompanies.se
Syddavnet, Småland	Aluminiumkret	www.aluminiumkret.com

[www.clusterobservatory.eu](http://www.clusterobservatory.eu)  
A service from CSC and DG Enterprise



# Regional Cluster Portfolios

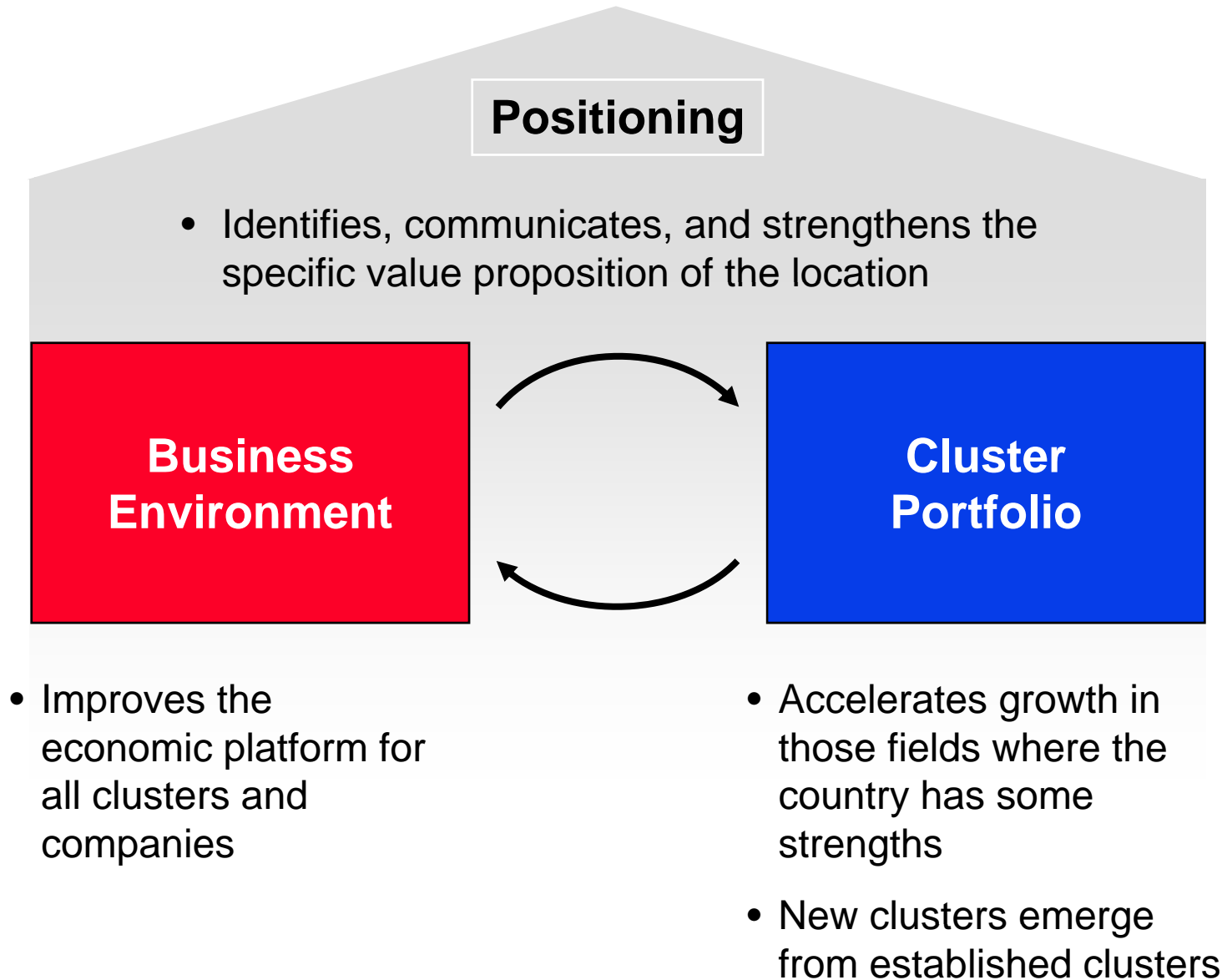
Instrument

- **Existing clusters**
  - Already meeting the market test with significant economic activity
- **Emerging clusters**
  - Becoming visible around individual companies and at borders of existing clusters
- **New clusters**
  - Start-ups and chance events create the seeds of emerging clusters

*Cluster initiatives*

*Cross-cutting competitiveness efforts*

# Clusters and Economic Strategy



# Issues for Denmark

- Clusters are **crucial** given the profile of companies that dominate the Danish economy
  - Sustained global presence requires investments that are hard for small companies to shoulder
- Clusters can benefit from close **regional collaboration in the Baltic Sea Region**
  - Creating regional networks of clusters like Scanbalt to overcome the limitations of small home markets
  - Pursuing further market integration at the general and cluster level to remove limitations of small home markets
- Cluster initiatives at the level of **subnational regions** in Denmark are positive
- Cluster policy at the **national level** can provide additional benefits
  - Targeting national policies at regional clusters
  - Creating cluster initiatives in clusters of national importance or dominantly affected by national policies