

Clusters and the New Growth Agenda: Implications for Iceland

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Iceland (and the Rest) after the Crisis

Acute crisis response



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graph TD; A[Acute crisis response] --> B[Exit from emergency measures]; B --> C[The quest for growth];
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Exit from emergency measures

The quest for growth

Perspectives on Economic Growth Strategies

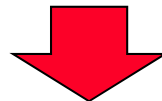
	Pro-competition policies	Sector-specific policies	Country-specific policies
Framework Conditions	Yes	No	No



- **Necessary but often not sufficient, at least in the short- to medium-term**

Perspectives on Economic Growth Strategies

	Pro-competition policies	Sector-specific policies	Country-specific policies
Framework Conditions	Yes	No	No
Industrial Policy	No	Yes	No



- **Impact often short-lived and almost always negative in the long-term**

Perspectives on Economic Growth Strategies

	Pro-competition policies	Sector-specific policies	Country-specific policies
Framework Conditions	Yes	No	No
Competitiveness Policy	Yes	Yes	Yes
Industrial Policy	No	Yes	No

Dimensions of Competitiveness

Microeconomic Competitiveness

**Sophistication
of Company
Operations and
Strategy**

**State of Cluster
Development**

**Quality of the
National
Business
Environment**

Macroeconomic Competitiveness

**Social
Infrastructure
and Political
Institutions**

**Quality of
Macroeconomic
Policy**

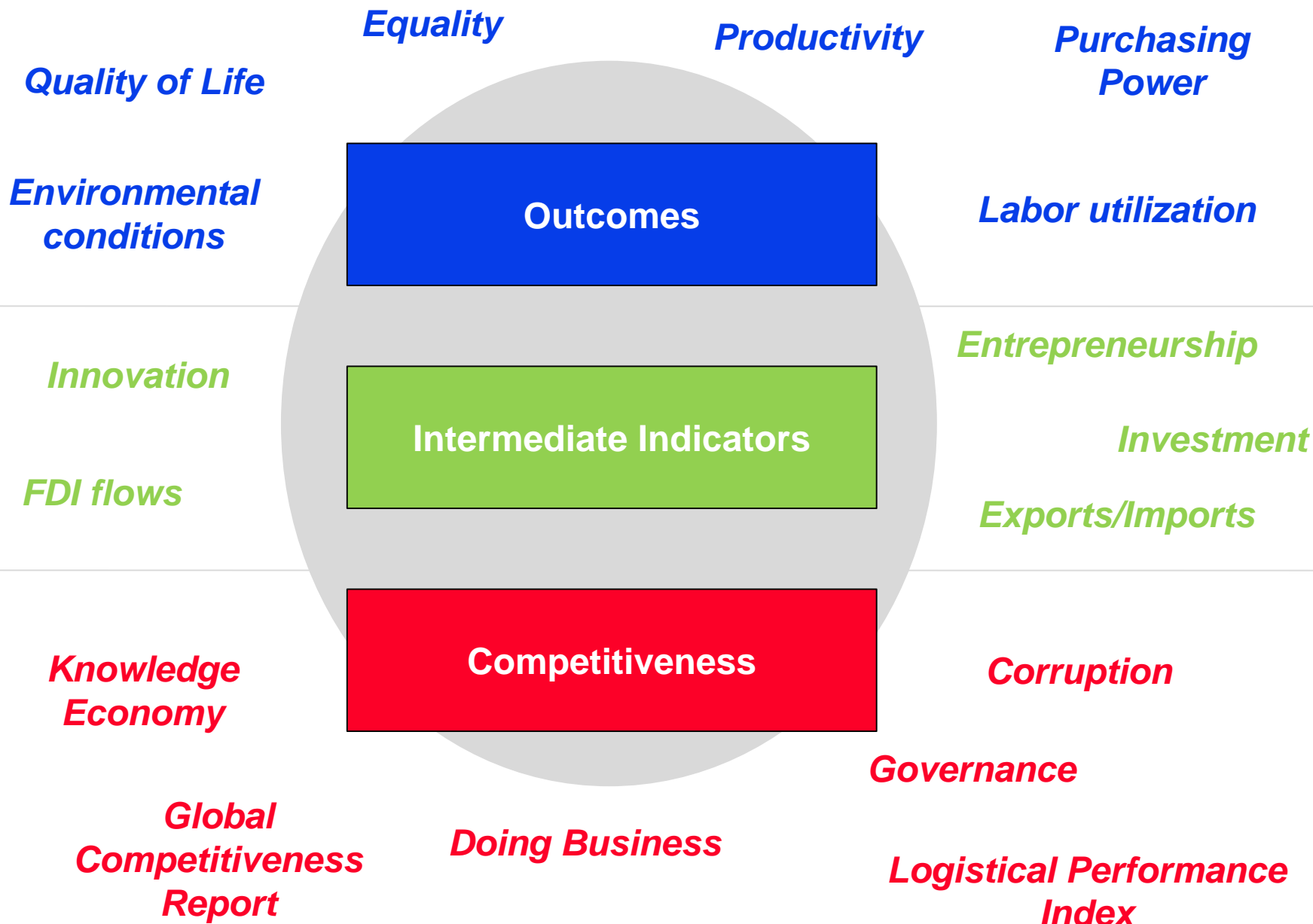
Endowments

**Natural
Resources**

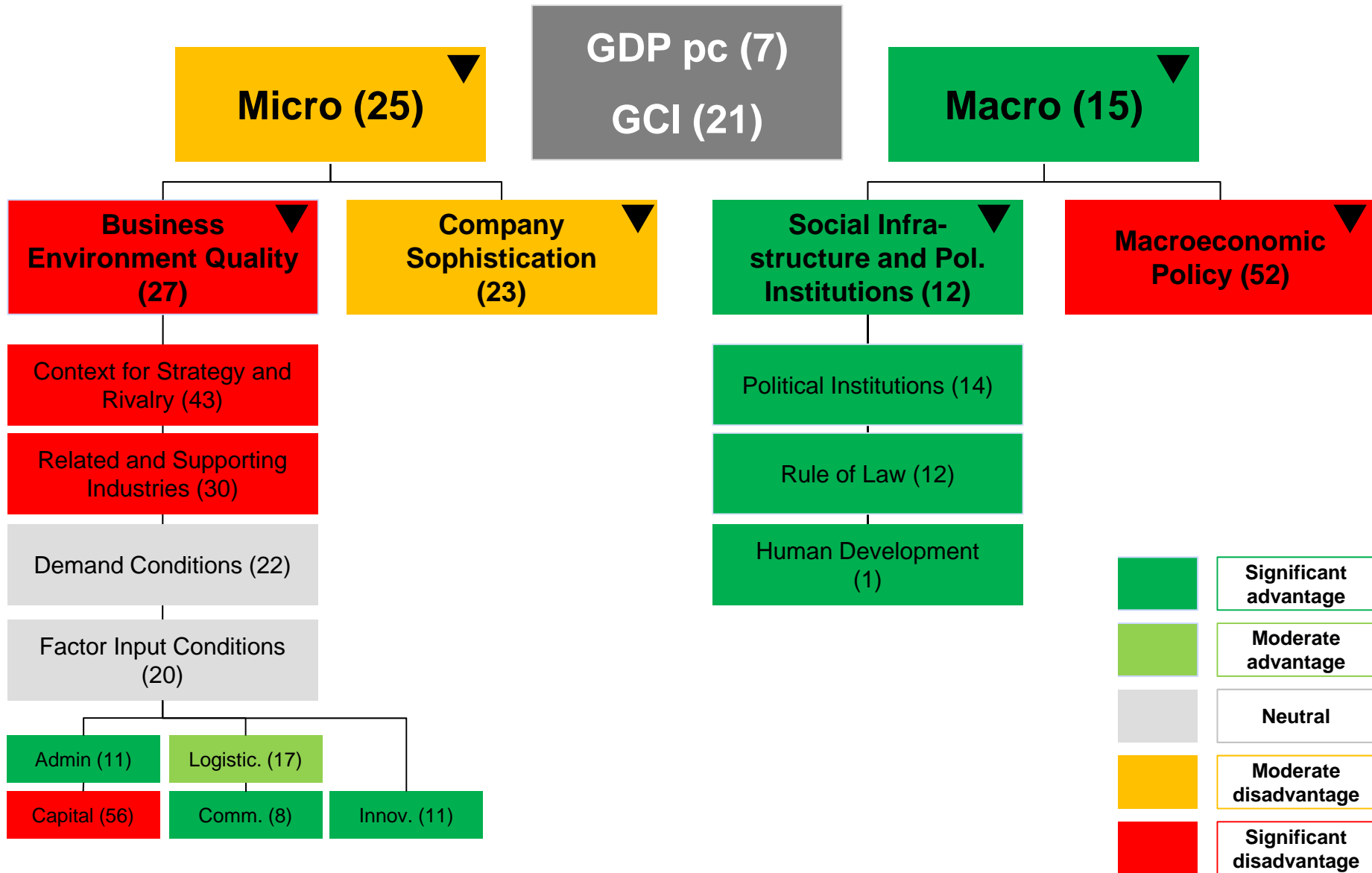
**Geographic
Location**

Size

Where to Start: The Crucial Role of Analysis



Iceland's Competitiveness Profile



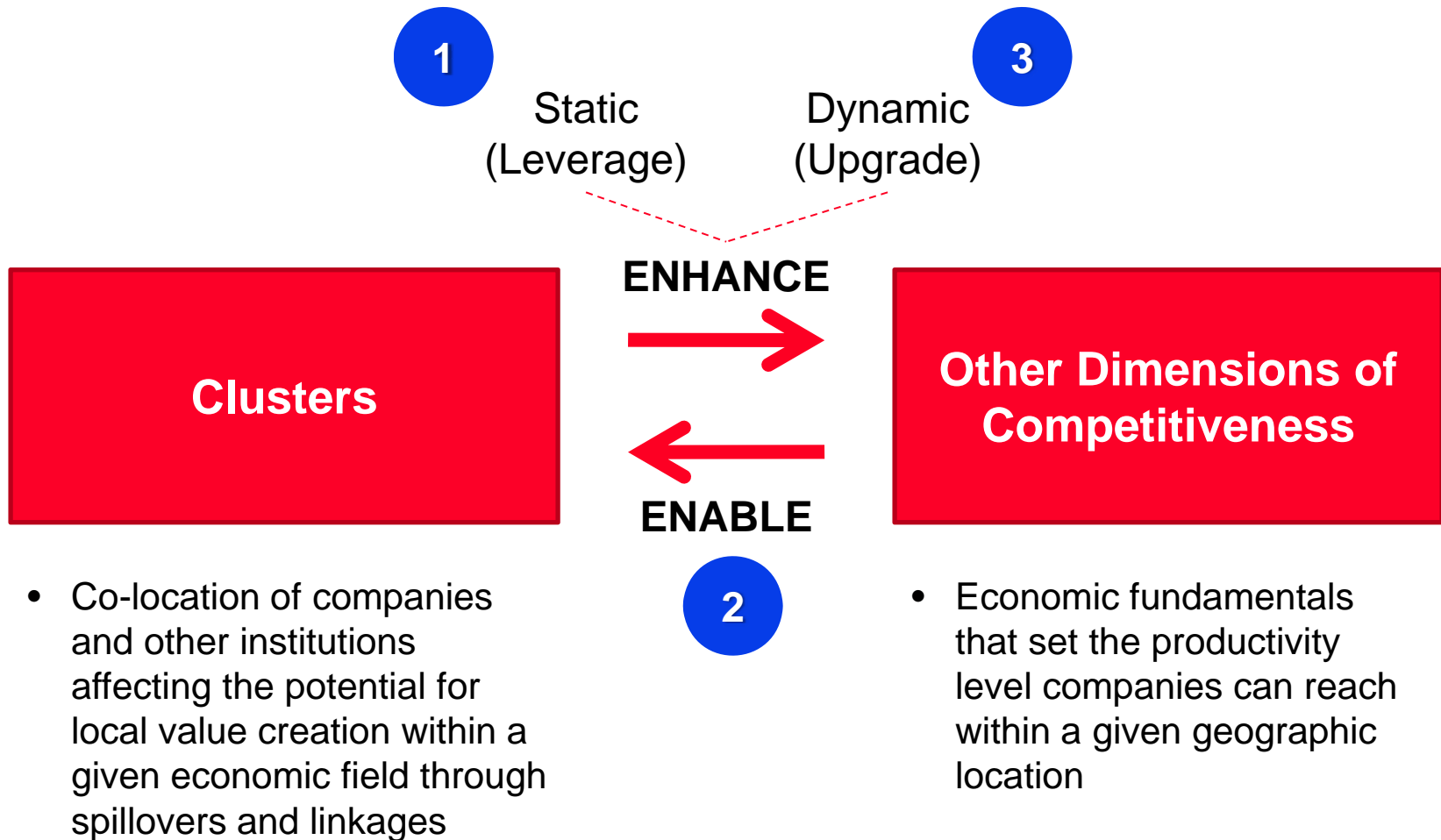
Regaining Growth: Action Priorities for Iceland (February 2009)

- 1. Discussion about the causes and implications of the crisis**
- 2. Ensure the long-term sustainability of macroeconomic policies**
- 3. Focus on upgrading competitiveness**
- 4. Mobilize the potential of clusters**
- 5. Design an economic strategy**

Regaining Growth: Action Priorities for Iceland (February 2009)

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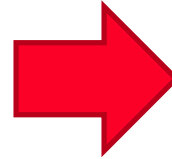
Clusters and Competitiveness



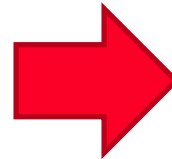
Clusters Enhancing Competitiveness: Leveraging Existing Assets

Local Externalities

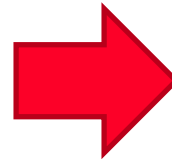
- Common labor markets
- Specialized suppliers
- Specialized infrastructure
- Knowledge Spillovers
- Competitive pressure



Productivity



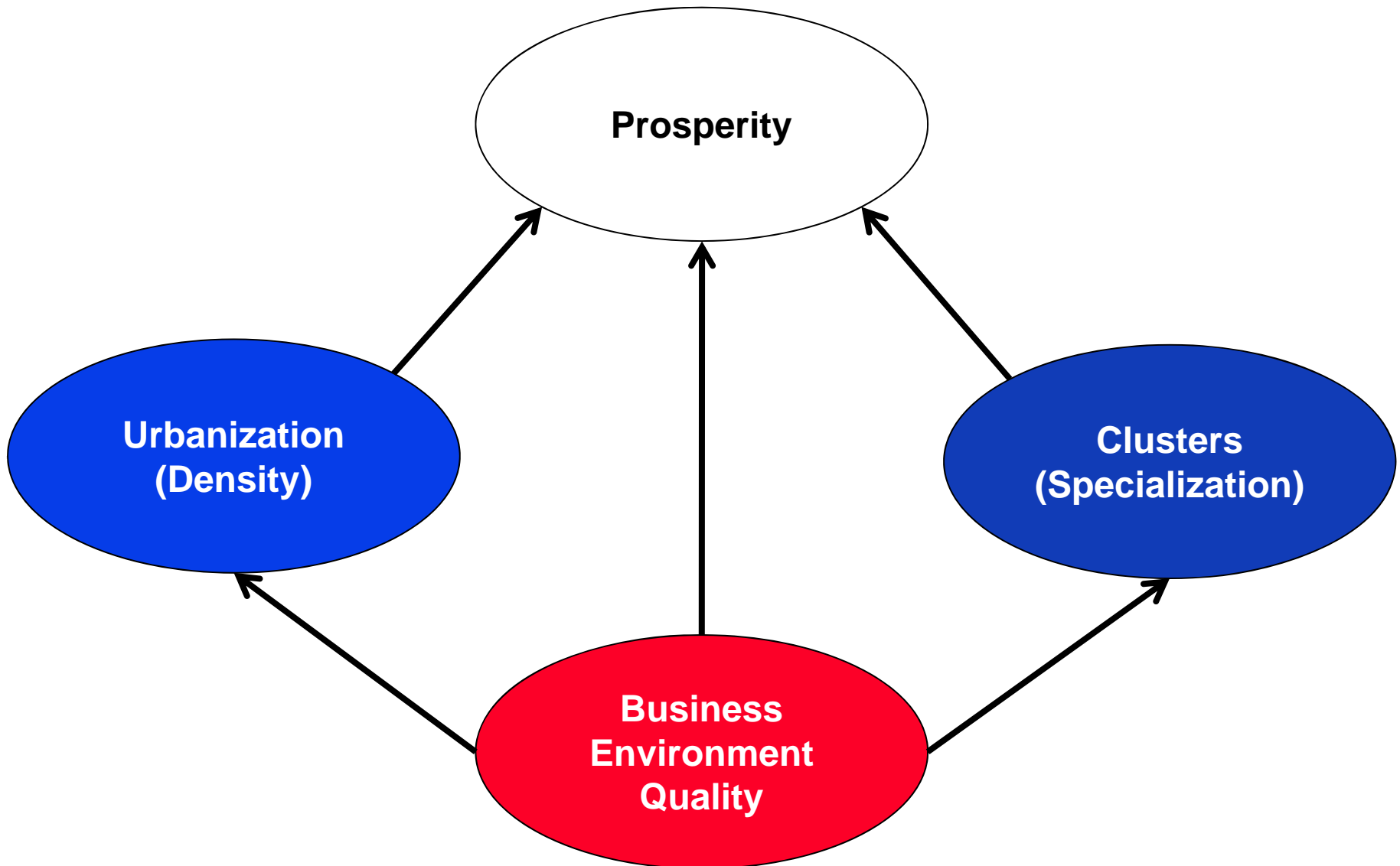
**New
Business
Formation**



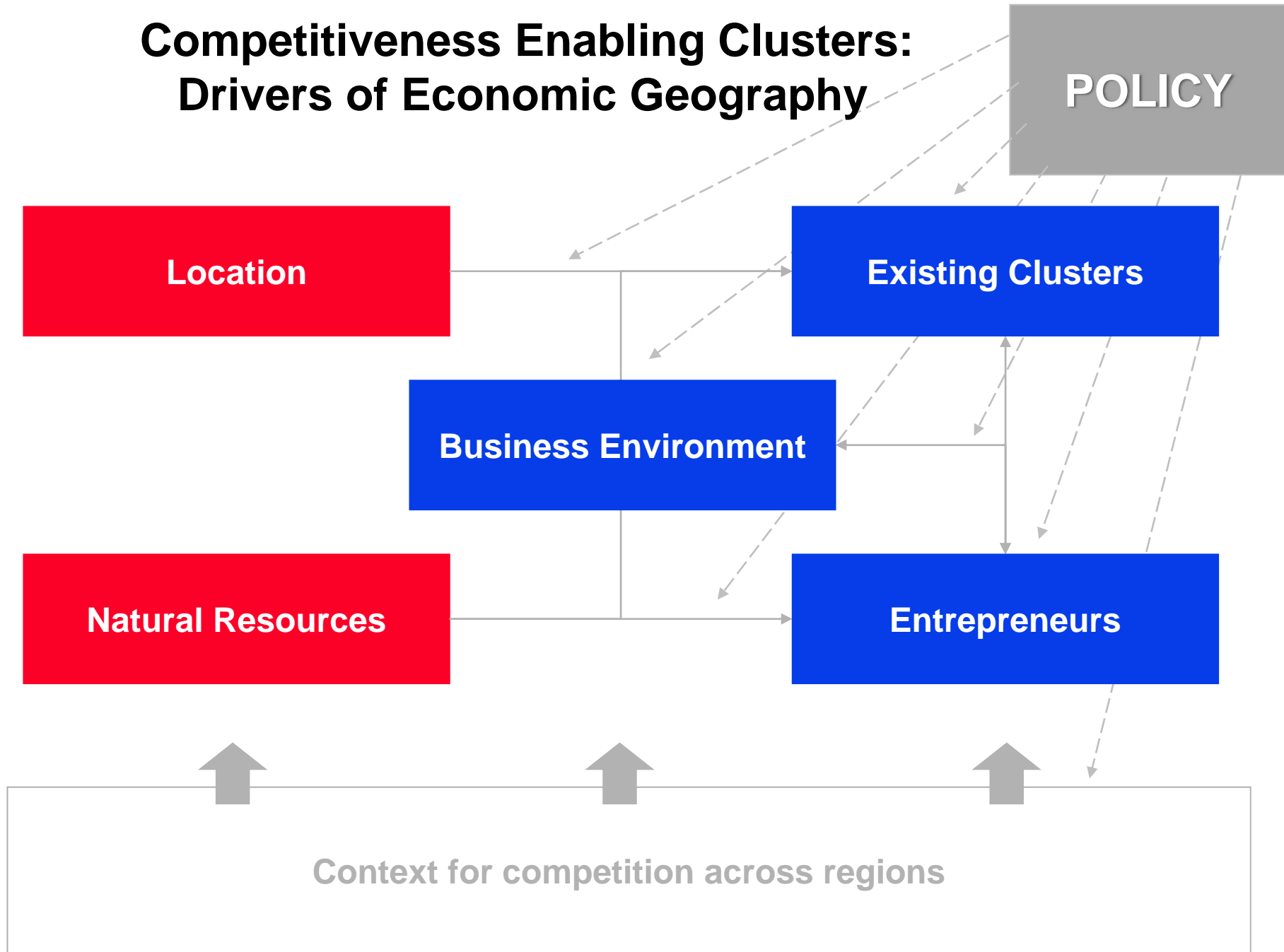
Innovation

Drivers of Prosperity

Revisiting the Role of Location



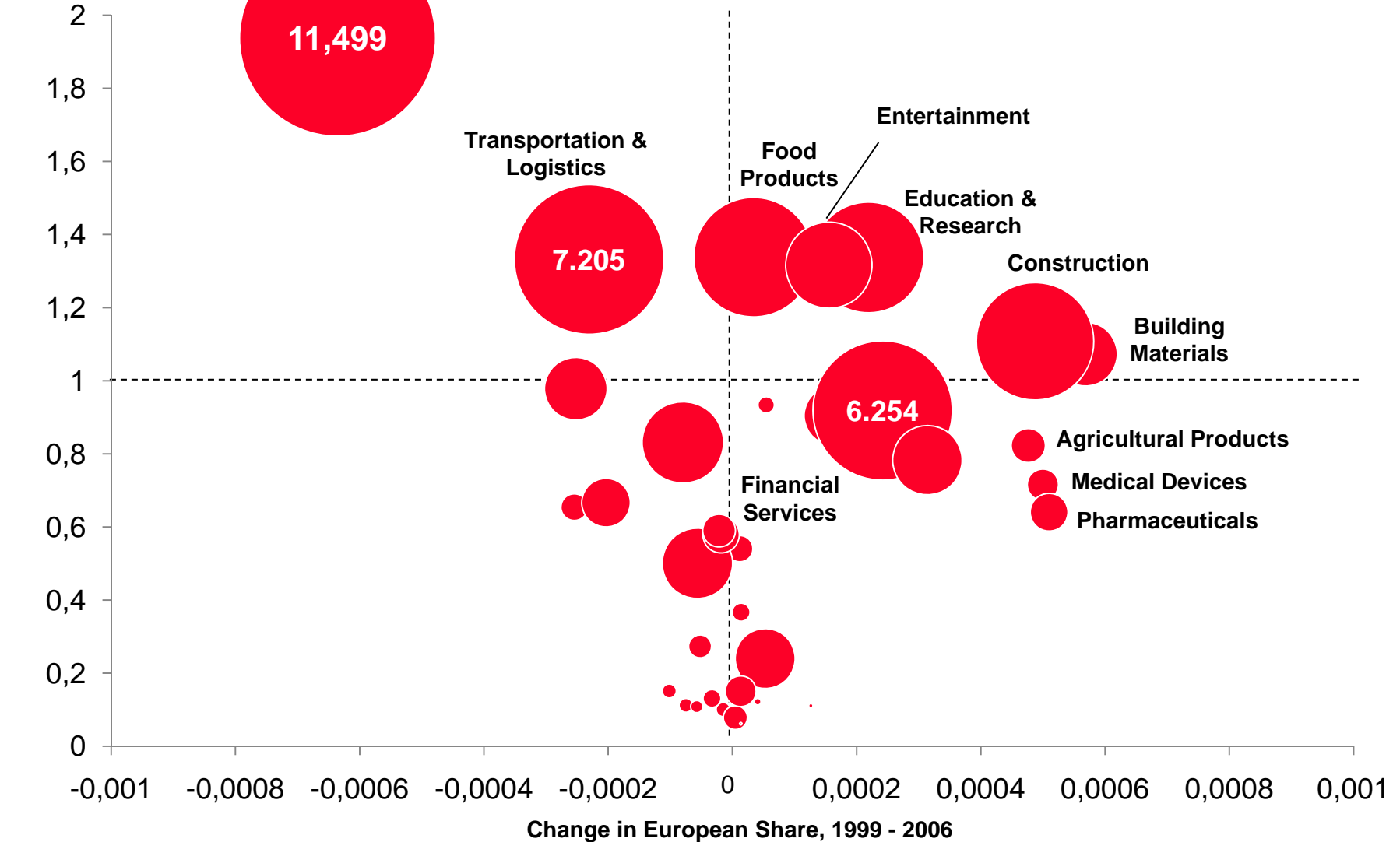
Competitiveness Enabling Clusters: Drivers of Economic Geography



Cluster Employment Portfolio

Iceland, 1999-2006

Location Quotient



The Context for Cluster Mobilization in Iceland

- The small **size** of the Icelandic economy drives and shapes the evolution of clusters
 - increases the need to specialize on specific fields
 - requires clusters will need to focus on a specific niche and find their role in global value chains
- The current cluster portfolio is a reflection of **competitiveness** *and* **overheating**
 - Competitiveness upgrading needs to go beyond current clusters
 - Opportunities are in existing clusters, successful companies without clusters, and current business environment qualities
- The strength of **social institutions** increases the potential for successful cluster efforts
 - Favorable environment for collaboration within and across clusters
 - Potential to shield cluster efforts from being hijacked by individual interest groups

An Example: The Icelandic Geothermal Cluster

- Based on available **natural resources**
- Has led to the development of a **unique mix of companies, research institutions, and educational programs** in this field
- **Global interest** in renewable, low cost energy-sources



- How can the **competitiveness** of this cluster be increased?
 - Higher productivity through new ways of creating value

Opportunities for the Icelandic Geothermal Cluster

Selling....



Management

- Management of foreign geothermal activities
- Investments in foreign geothermal resources

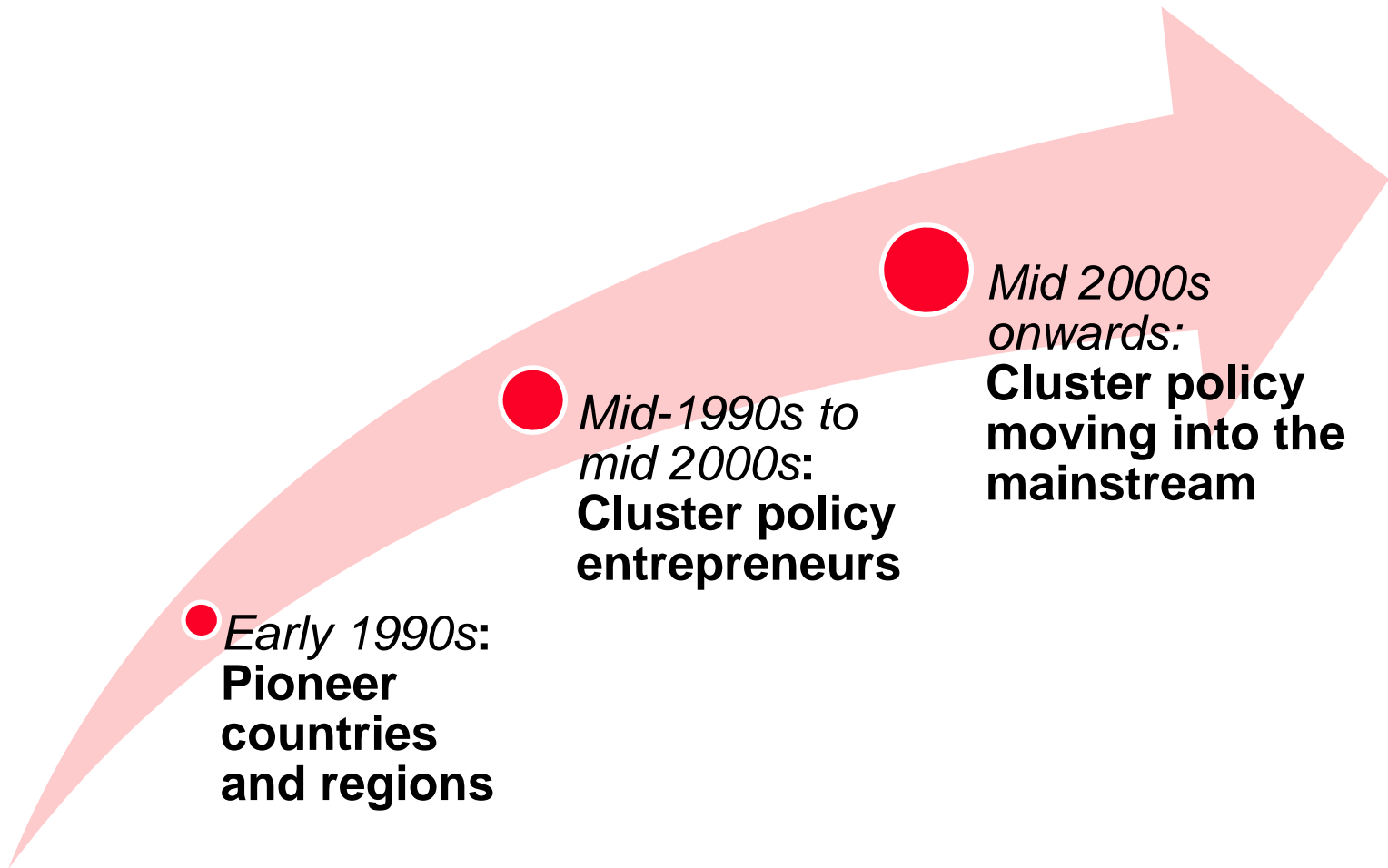
Knowledge

- Patents
- Services
- Machinery

Assets

- Attract additional energy-intensive industries to Iceland

The Changing Face of Cluster Policy

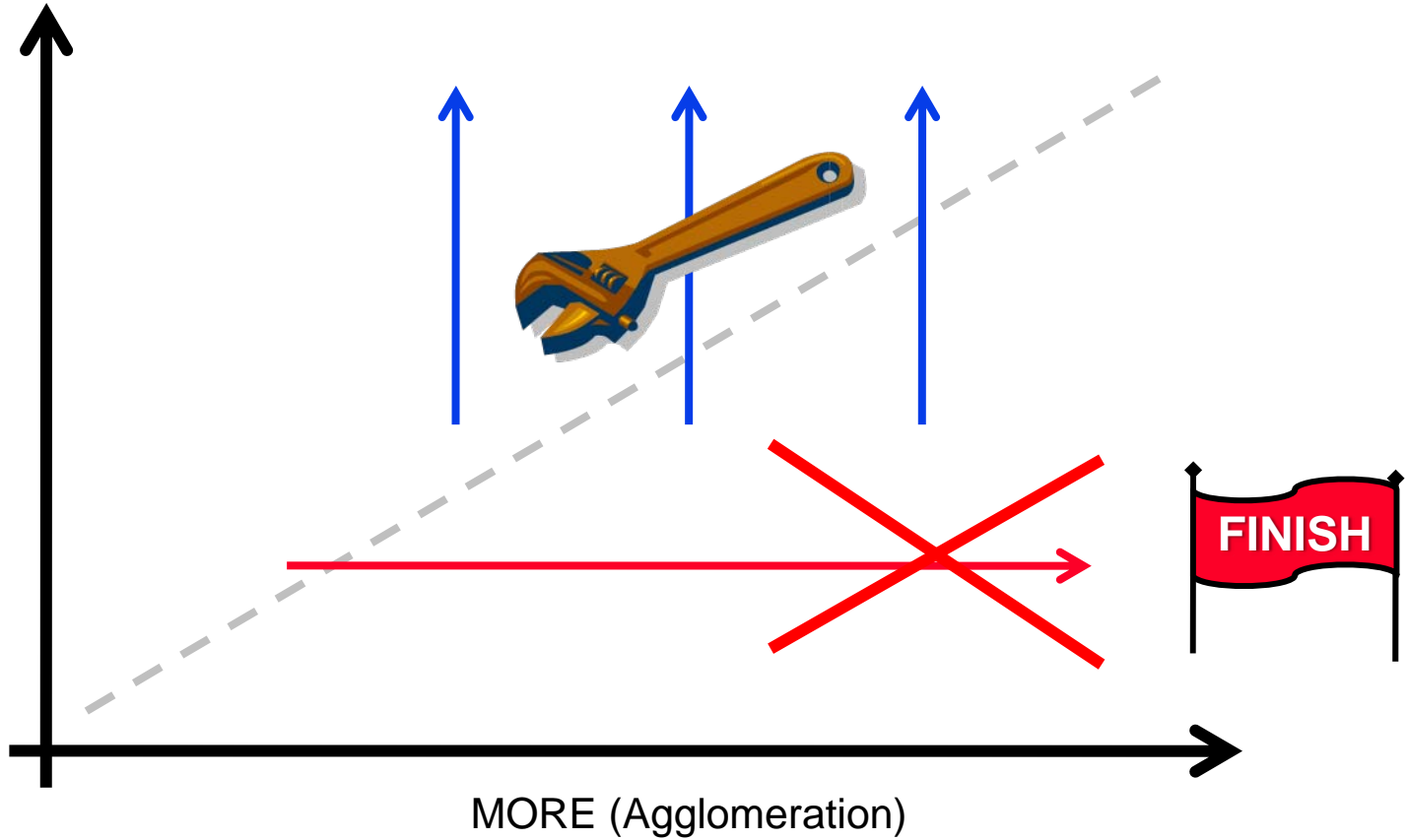


Concerns about distortions

Concerns about effectiveness

Clusters Enhancing Competitiveness: Upgrading Capabilities

BETTER (Competitiveness)



Agglomeration Approach

- Economic geography roughly in line with fundamentals

- Moving a cluster to a new location has a positive impact on productivity

Weak case for cluster policies

“California dreaming” meets “Big Push”

- *If you do it,*

Competitiveness Approach

- Agglomeration largely driven by business environment conditions and 'automatic' cluster effects

Solid case for cluster policies

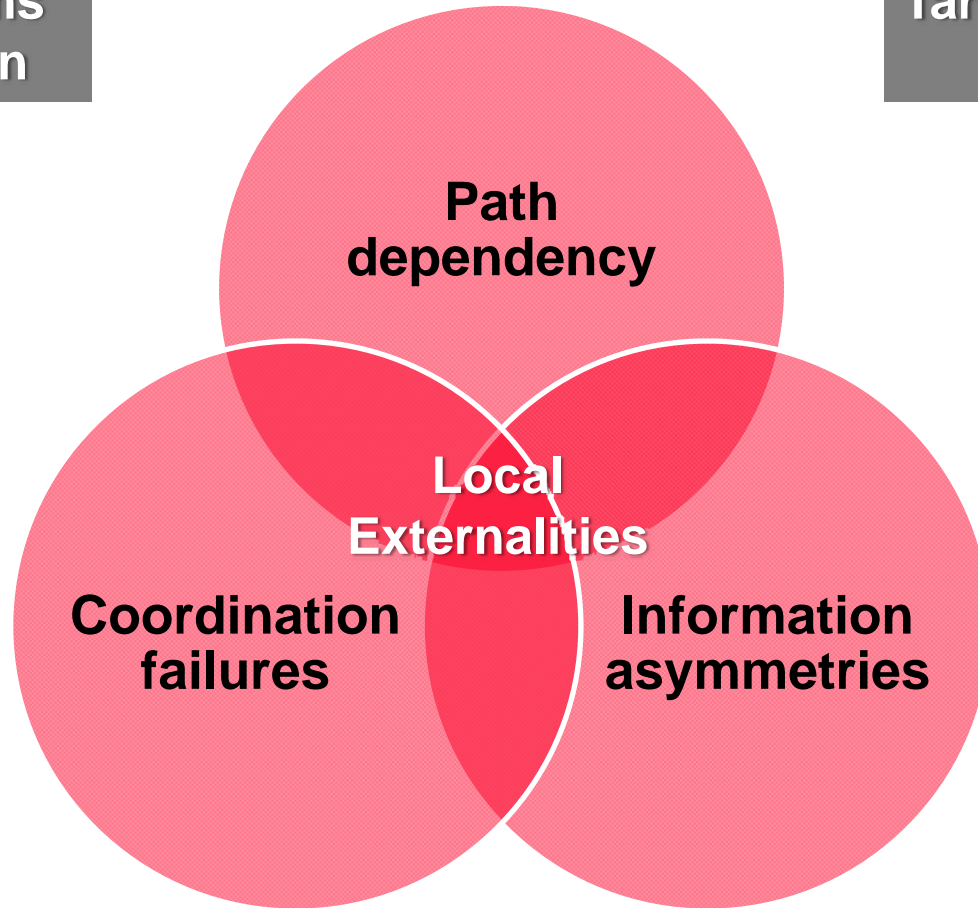
“Smart government” meets “coopetition”

- Exploitation
- Exploration
- *If you do it, be patient and develop existing agglomerations and qualities*

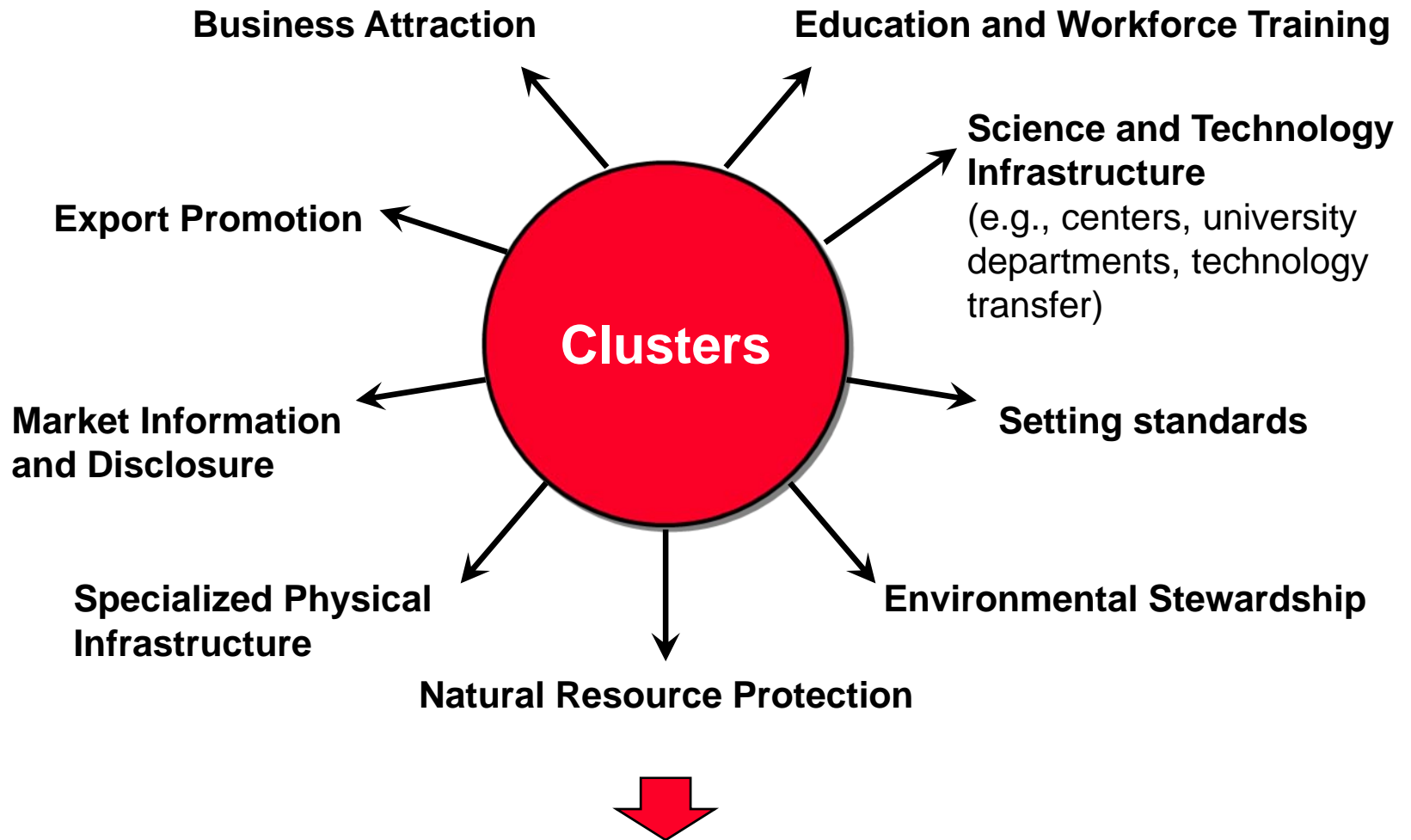
The Case for Cluster Policy

**Create Platforms
for Joint Action**

**Target Public Policy
at Clusters**



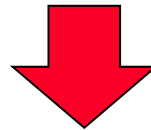
Target Public Policy at Clusters



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

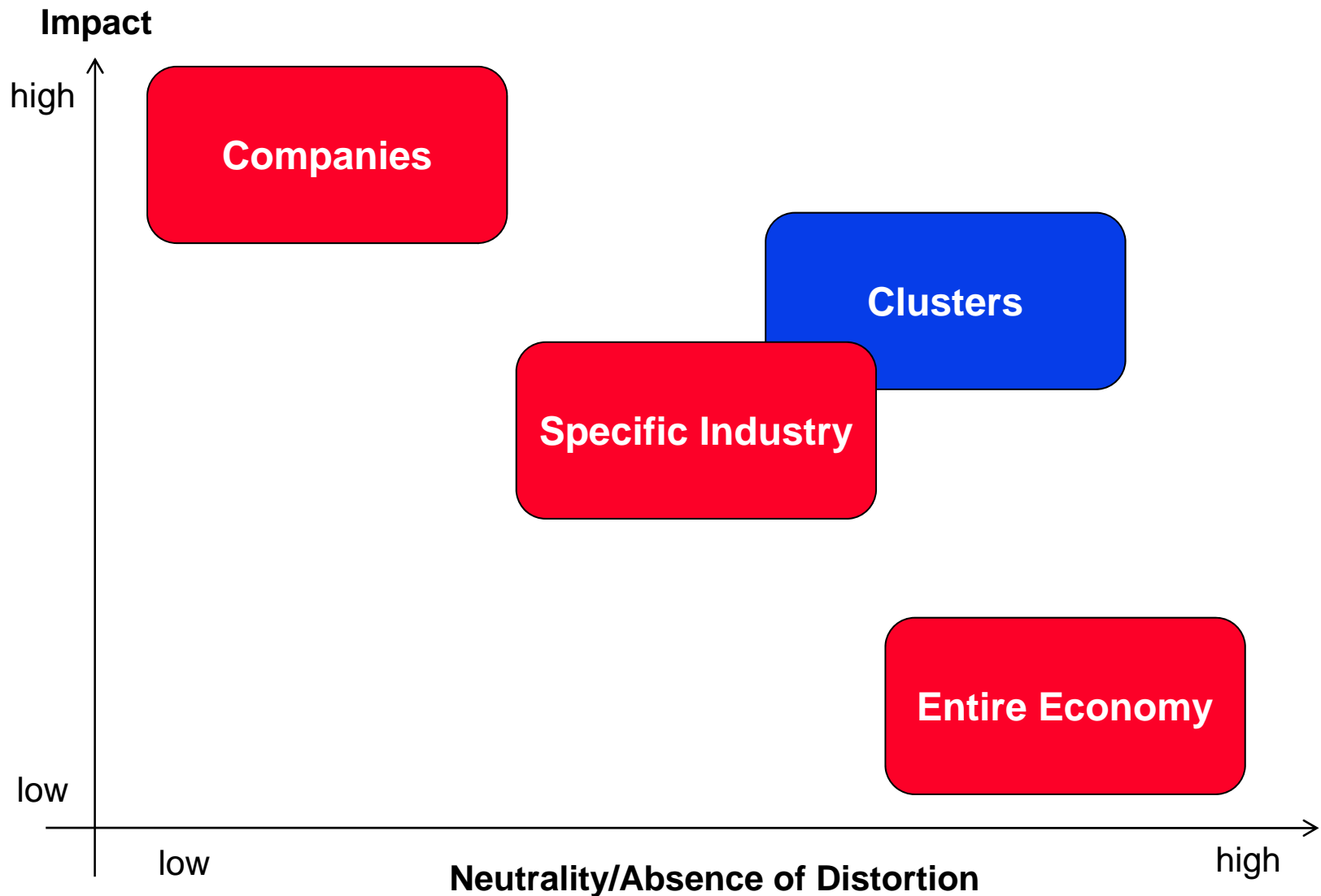
Cluster-Oriented Innovation Policy: The German “Spitzencluster”-Competition

- Changes in **modern innovation processes** require changes in innovation policy
 - Open systems of innovation



- German government launched a **competition** to encourage new innovative collaboration efforts
 - Open to all fields
 - Selection by an independent expert group
 - Selection based on an assessment of economic opportunity, innovation opportunity, and potential for cluster effects
 - Selected clusters get 50%-co-financing (€40m over 5 years) and visibility
- Winners from wide range of regions and fields

Impact and Neutrality of Government Policies



What are Cluster Initiatives?

Cluster initiatives are **collaborative activities** by a **group** of companies, public sector entities, and other related institutions with the objective to improve the competitiveness of a group of **interlinked economic activities in a specific geographic region**

- **Upgrading of company operations and strategies across a group of companies**

- **Upgrading of cluster-specific business environment conditions**

- **Strengthening of networks to enhance spill-overs and other economic benefits of clusters**

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*

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

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

Cluster Policy and Government Failure

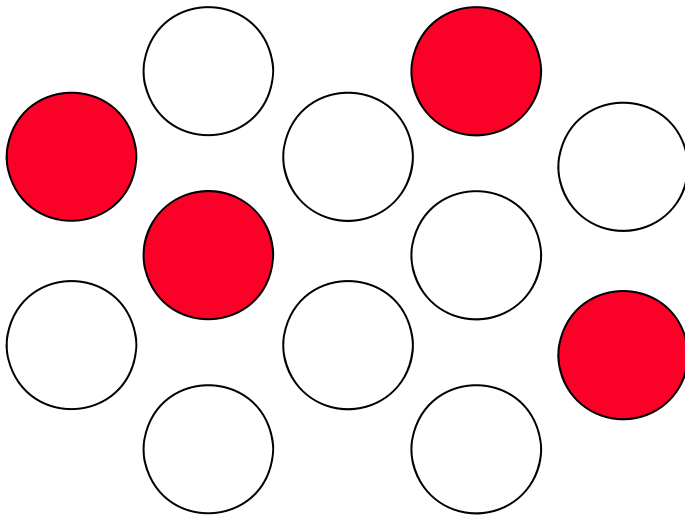
- Cluster policy has **industry-specific effects** and the potential to motivate **rent-seeking behavior**
 - The design of cluster policies can limit these negative effects
 - The actual alternatives are often more distortive, not less

Robust cluster policies

- Further importance of **open competition** on the markets in which the cluster operates
- **Institutions** working with clusters need to be efficient and transparent, possibly through involvement of companies or foreign agencies
- Direct funding needs to be **limited** at moderate levels
- Funding schemes need to create **incentives for entry** of new entrepreneurs or investors
- There needs to be increasing (potentially in-kind) **co-funding** from non-government participants in the cluster

Cluster Policy: Breaking the Glass Ceiling

*From a few successful
cluster islands...*



*...to a more
competitive economy*

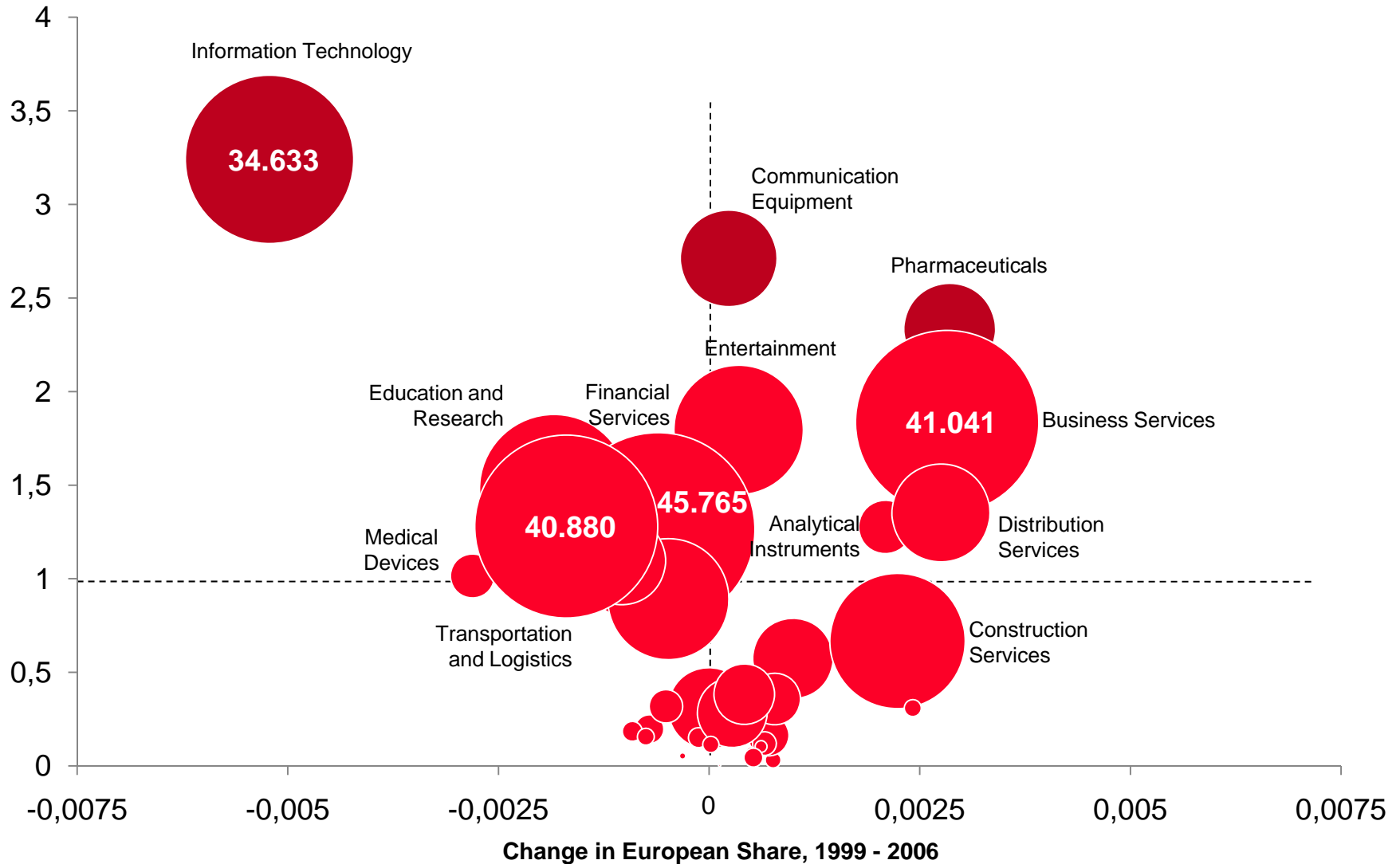
- Systematic use of clusters as a **delivery channel** for microeconomic policies
- Active management of regional **cluster portfolios** that engage many clusters and harness cross-cluster linkages
- Design of **feed-back mechanisms** from cluster efforts to general business environment upgrading

Countries will only be able to harness the full potential of cluster efforts, if they match a **bottom-up operational approach** with a **clear top-down concept** for the use of clusters in economic policy

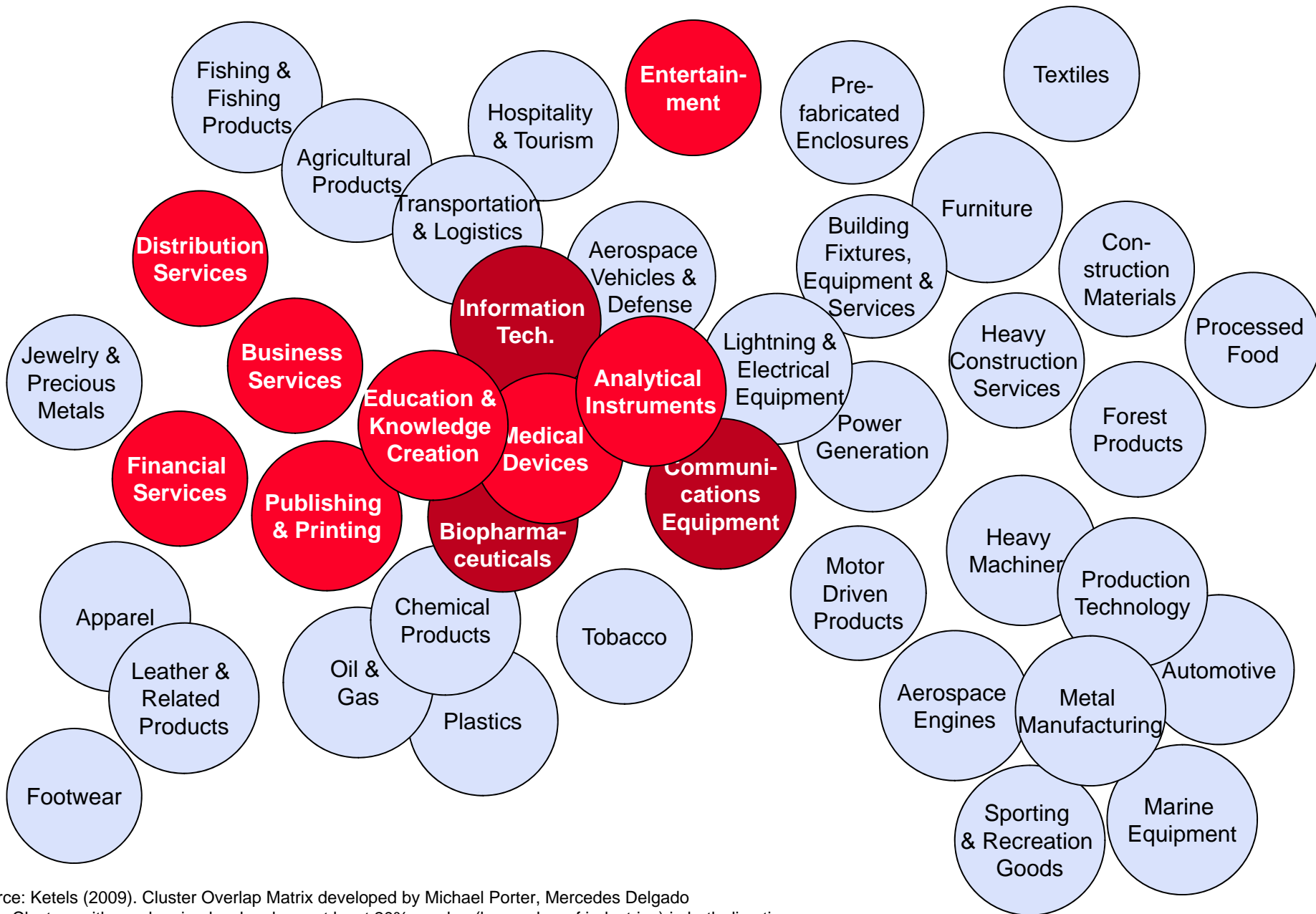
Regional Cluster Employment Portfolio

Stockholm, 1999-2006

Location Quotient



Cluster Overlap Matrix: Stockholm



Source: Ketels (2009). Cluster Overlap Matrix developed by Michael Porter, Mercedes Delgado
 Note: Clusters with overlapping borders have at least 20% overlap (by number of industries) in both directions.
 Red shading indicates clusters with LQ > 1, dark red with LQ > 2

Towards a Diversification Growth Path

The Role of Clusters

**Grow activities related to
current niche positions**

**Grow activities
in related clusters**

**Grow activities in new industries
within existing clusters**

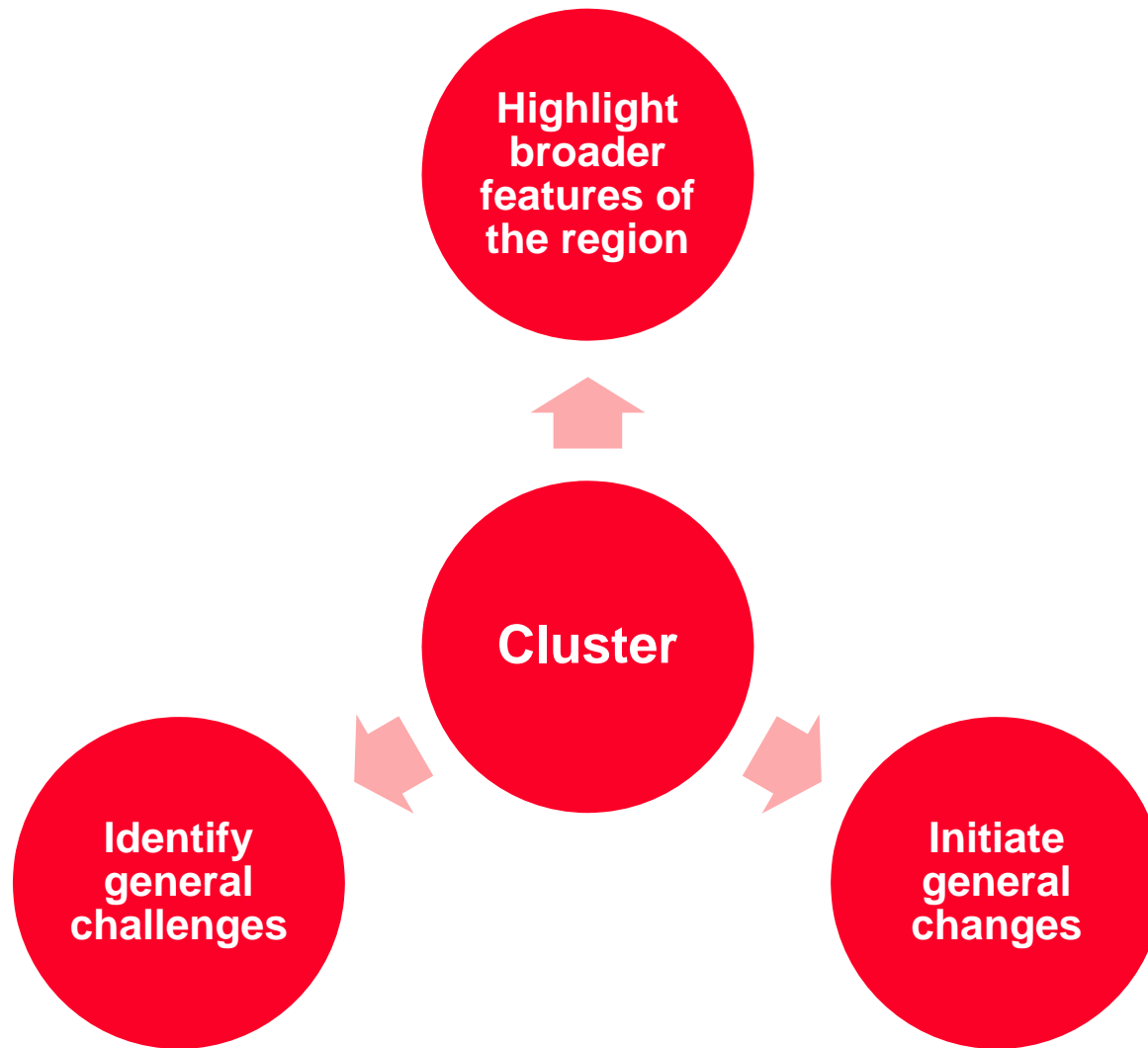
**Upgrade the quality of
activities in existing clusters**

Cluster Portfolio Policy

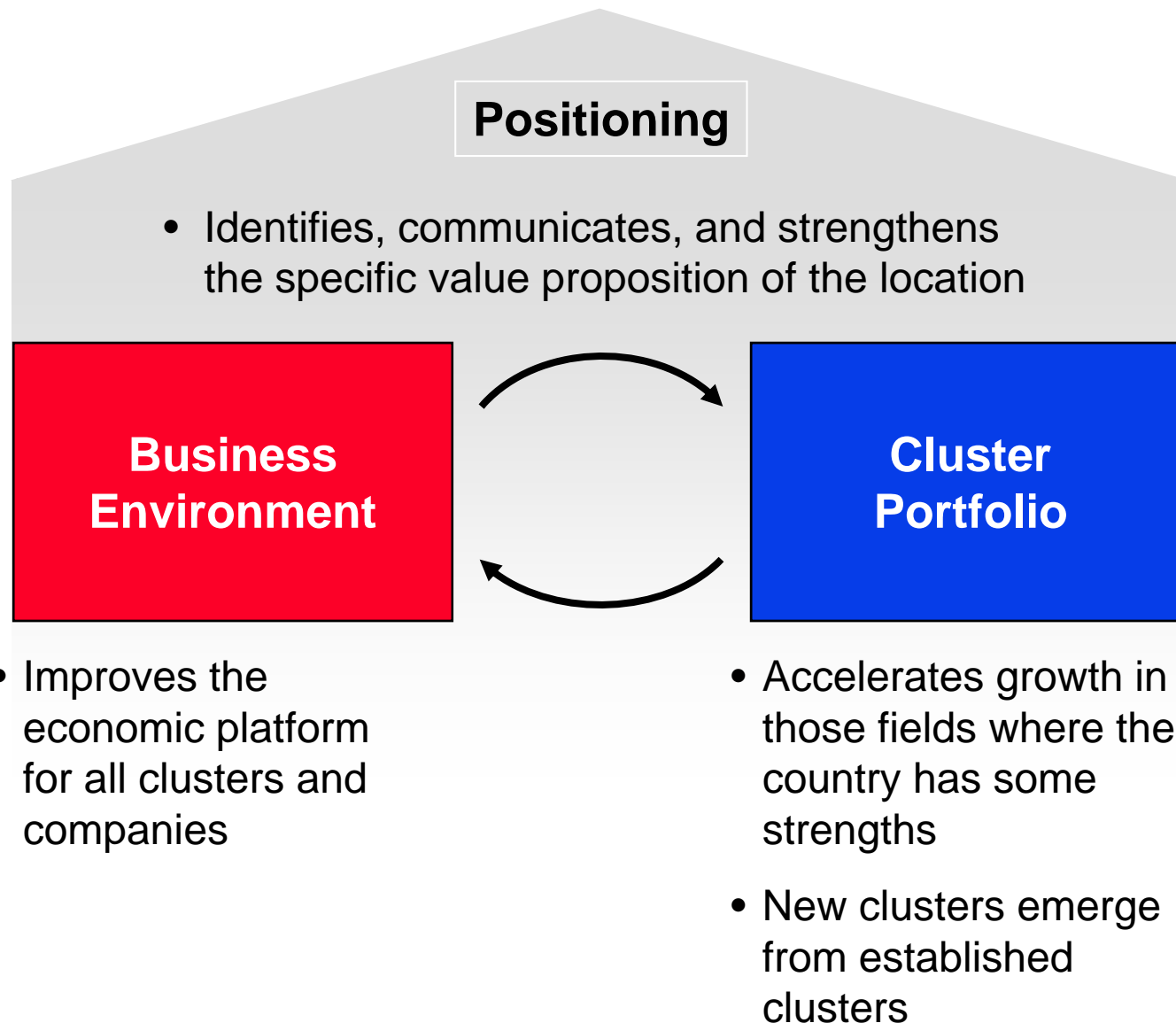
- **Existing clusters**
 - Already meeting the market test with significant economic activity
- **Emerging clusters**
 - Becoming visible around individual companies and at borders of existing clusters
- **New clusters**
 - Start-ups and chance events create the seeds of emerging clusters



From Impact on Clusters to Impact on the Economy: Feed-back Mechanisms



Clusters and Economic Strategy



National Economic Strategy



Positioning

Defining a unique overall position

- What roles in the world and regional economy?
- What is the unique value as a business location?
- For what range or types of business activities?

Priority Policies

Developing unique strengths

- What elements of the business environment are critical to the national value proposition?

Best Practices

Maintaining parity on necessary qualities

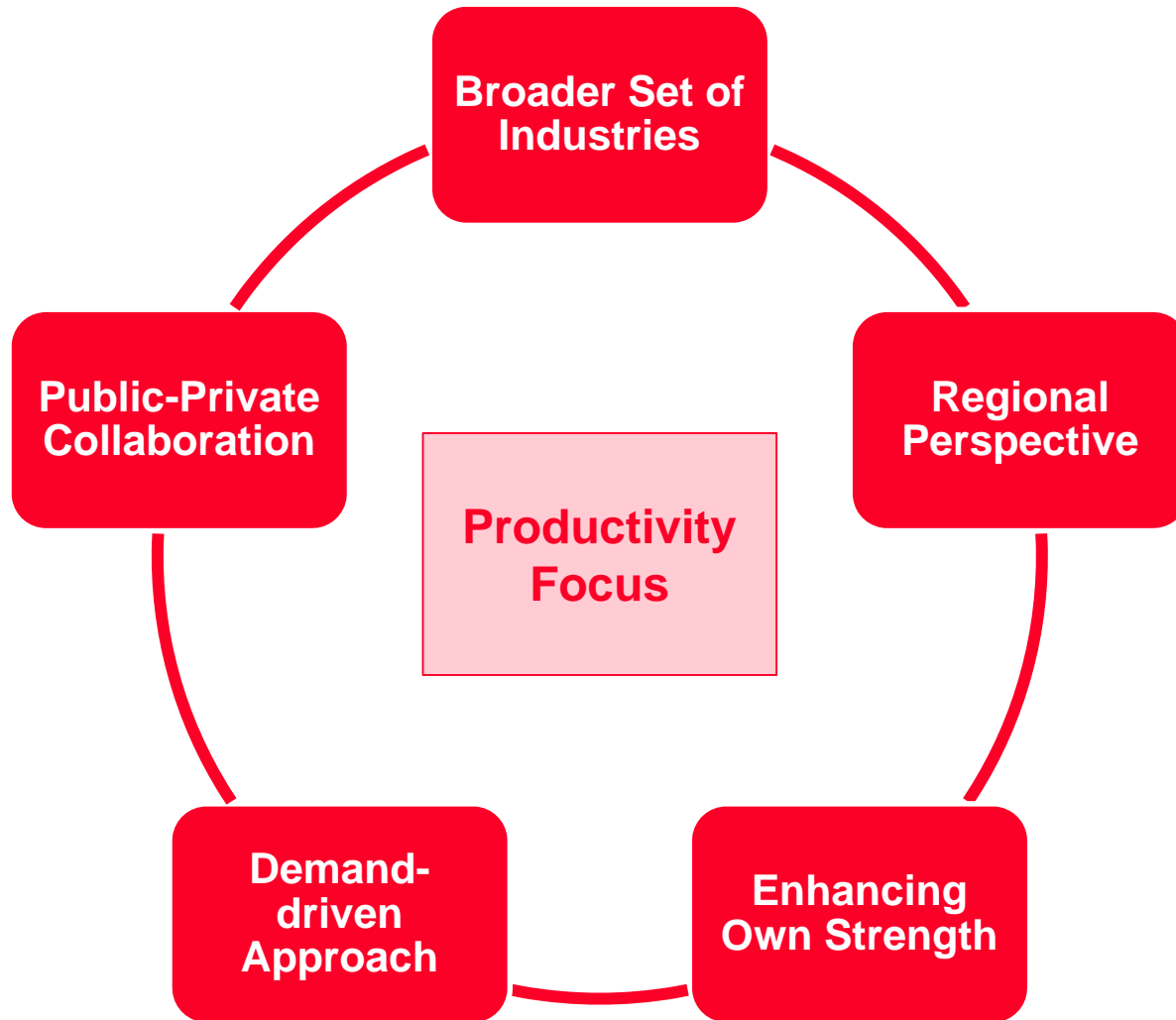
- What macro/political/legal/social improvements are necessary to maintain parity with peer countries?

Others

Putting low emphasis on the rest

- What aspects of the business environment are currently of limited relevance?

What is Different about Cluster-Based Policy?



Implications for Iceland

- While the aftermath of the crisis is not over, there is no alternative but to look for new growth opportunities:

1. **Strategic review of existing clusters and niche positions**
2. **Critical assessment of existing competitiveness profile**
3. **Fact-based dialogue about a new economic strategy for Iceland**



**Clusters as
Growth Drivers**

**Clusters as
Tools**

**Clusters as
Symbols**