

East west cluster conference  
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# **Cluster Case Studies in Slovenia**

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State Undersecretary

- Starting points
- Methodology of Cluster identification
- Cluster policy and program

# **Slovenia has stable macroeconomic environment**

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**But is lagging behind on  
factors which determine stable  
economic growth**

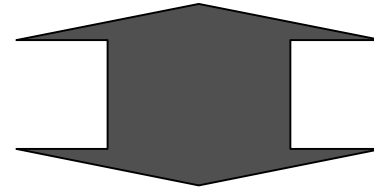
## **Productivity lag, mainly due to:**

- Insufficient knowledge (managerial, technical, organizational)
- Inadequate technology
- Low investment capacity
- Insufficient involvement of supporting institutions

2002 – 2006

## **Proactive industrial policy has been articulated to promote competitiveness**

Developing environment which stimulate entrepreneurship and innovation



### **Strengthening key factors of enterprise success**

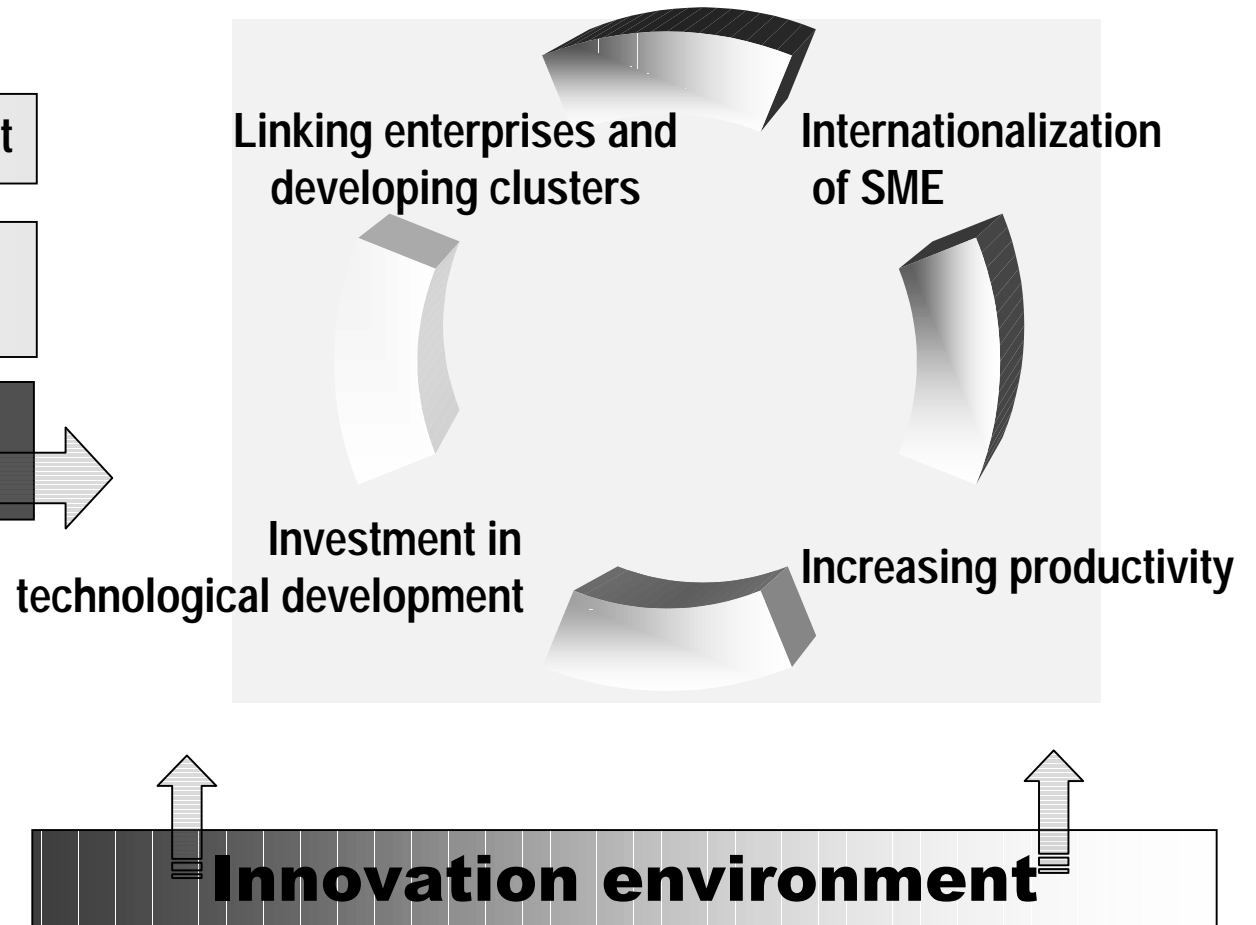
- Technology and innovation
- Flexibility and organizations
- Enterprenership

# Cluster policy as part of proactive industrial policy

1. Knowledge for development

2. Promoting entrepreneurship

3. Improving enterprises' competitive capacity



# Why clusters?

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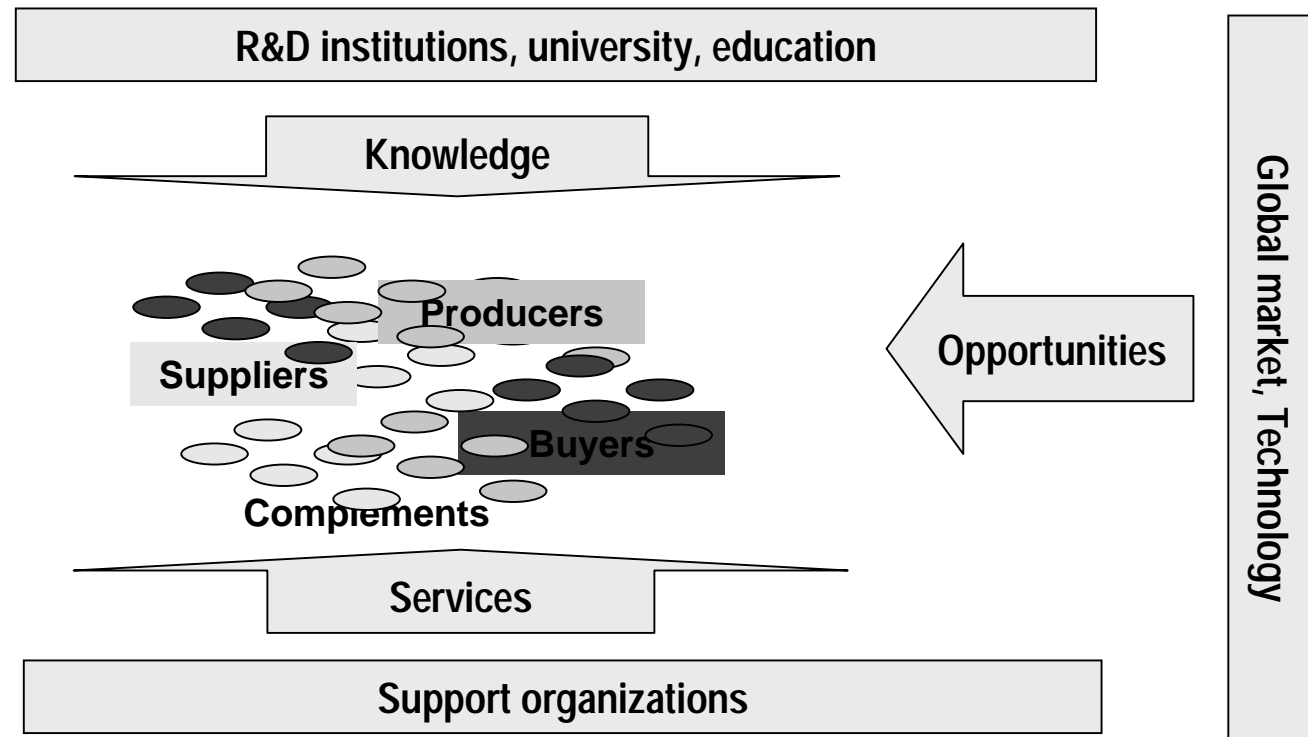
**Learning-knowledge–innovation**

**= function (competencies of enterprises, competencies of environment)**

Increasing competitiveness of enterprises depends on competitiveness of their local environment

# Linking: one of the key elements of regional/national competitiveness

Clusters are group of suppliers, customers, support organizations and R&D institutes, which are important for international competitiveness



**Low degree of vertical integration**

# **Process is more important than definition**

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## **OBJECTIVES**

### **Clustering as a tool for boosting innovation and strengthening enterprises' competitiveness**

- Improving productivity (efficient access to suppliers, skills, knowledge, technology)
- Improving innovative abilities of enterprises (opportunities)
- Creation of new enterprises that additionally increase innovation and efficiency (environment support start ups and spin offs)
- SMES combination of "small" advantages for "big" opportunities

# **Process of Slovenian Cluster Development**

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**1999**

**I. Identification of potential clusters**

**2001**

**II. Cluster policy and program design**

**2002**

**III. Implementation**

**2006**

# Slovenian methodology for cluster identification

November  
1999

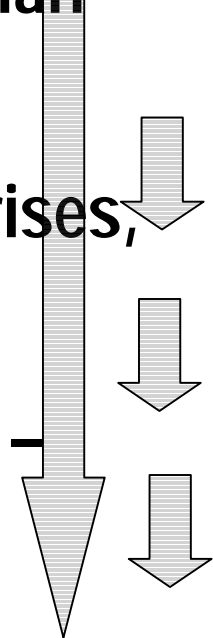
- Mapping - geographical concentration of enterprises by industries and 12 Slovenian regions

- Identification of linkages among enterprises, institutions and organizations

- Identification of the innovation systems – potential clusters

March  
2000

- Synthesis and conclusions



# Mapping of enterprises by geographical concentration

**Objective:** To identify key industries by region

**Results:** Map of geographic concentration of enterprises by industries and 12 statistical regions

- 12 Slovenian regions
- 55.437 Slovenian enterprises
- 46 industries (SIC classification)
- Location quotient (enterprises, employment) by regions and industries
  - Data used:
    - region's employment (number of enterprises) by industries
    - region's total employment (number of enterprises)
    - total employment (number of enterprises) by industries
    - total national employment (number of enterprises)

# Identification of linkages

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## **Objective:**

- To develop better picture of enterprises relationships among industries and among industries and support, R&D environment

## **Results:**

- Production services systems - linkages among industries, R&D institutions, support organizations
- Geographic distribution of production services systems among 12 statistical regions
- Key enterprises, needs and concerns

# Identification of linkages



- **Survey/questionnaire:**
  - The survey include 1700 enterprises, institutions and organizations
- **Face to face interview:**
  - More than 40 interviews with key managers
  - Mora than 20 interviews with experts from Slovenian Chambers of Commerce, Regional Chamber of commerce, Developing centers, Ministries, R&D institutes and consulting companies

## **Analysis of various aspects among enterprises, institutions and organizations**

- Horizontal, vertical linkages
- Producer-services provider
- Complementary activities
- Competitors

# Identification of the innovation systems



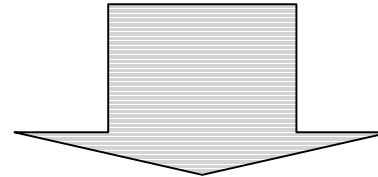
**Objective:** Understanding innovation potential of production services system in order to check their development potential (existing / potential clusters).

- Analysis of production system (graph analysis)
- Analysis data from questionnaire (export, R&D resources, wages, technology)
- Analysis of patents by industries
- Analysis of the technology projects supported by Ministry of Science and Technology
- Analysis of qualification structure of employees and R&D resources
- Data used:
  - Questioner, Slovenian Intellectual Property Office, Statistical Office, data base of Ministry of Science and Technology, synopsis of studies, benchmarking data

# Synthesis

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21 production/services systems were identified



**Several innovation systems were identified**

- Optical electronic system
- Industry of automotive suppliers
- Home appliances industry
- Information system / telecommunication
- Transportation – logistic
- Publishing
- Construction

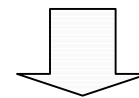
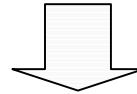
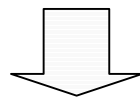
# **“No real clusters in Slovenia!”**

## **CONCLUSIONS**

**Linking and networking is relatively weak**

**Infrastructure which could support cluster development is emerging**

**Existing co-operations and flows could represent a basis for at least nine potential clusters**

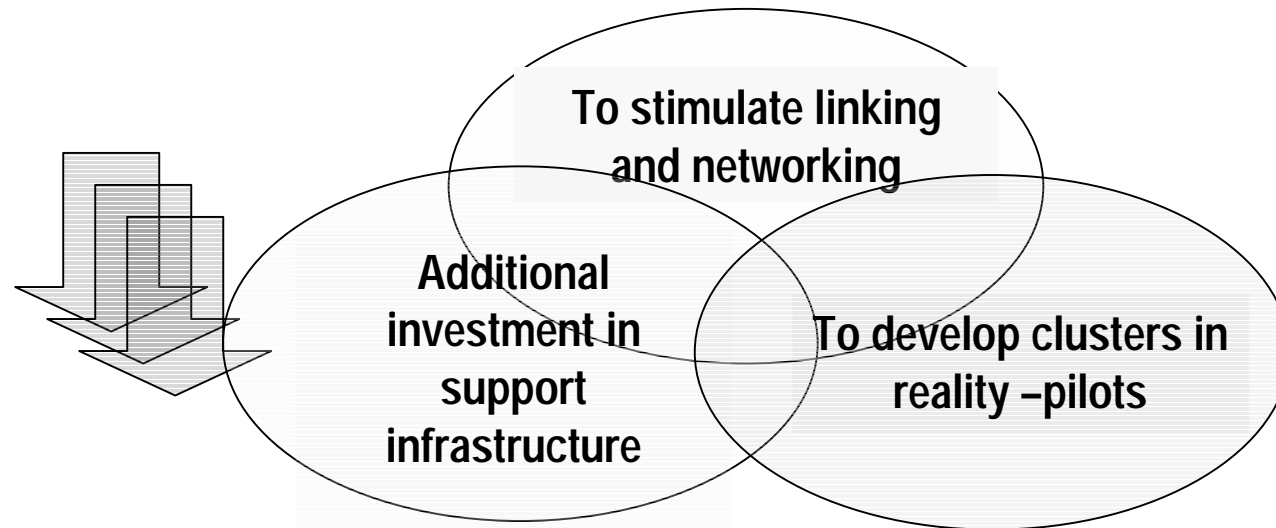


**How to initiate cluster development?**

# Cluster policy and program design



**Purpose**



**Results**

Common skills,  
knowledge for  
partnering

Capacity of  
promoters, clusters  
managers

Systematic approach to  
cluster development

**Accelerating clustering**

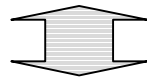


**Impacts**

Market - Cost efficiency - Learning/innovation

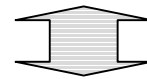
# To develop systematic approach for cluster development

Pilot projects: Joint actions of MoE, enterprises, R&D institutions, support organizations



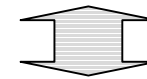
ACS

Automotive Cluster  
of Slovenia



TCS

Tooling Cluster of  
Slovenia



TLG

Transport Logistic  
Cluster

## Potential of Success

- Critical mass of knowledge, skills, resources
- Existing cooperation and networking
- Project organization, action plan

## **Clustering continuously ongoing communication**

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- Communication – all profile of employs in a system (management, R&D, technician....)
- Developing of partnership with knowledge agents (Universities, R&D institutions, educational organizations)
- Common projects in line with interests of individual actors
- Developing of active cooperation with support environment
- Developing of partnership with international networks /clusters

# Role of the Government

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## BOTTOM UP PROCESS

### **Supporting investments in key factors of success of cluster development**

- Letting business, educational and R&R sector to match themselves as they feel like more appropriate
- No Constrains, no strict Rules, no guided Strategies
- Initiative and responsibility for success of business and clustering remain the domain of managers, employees and individuals

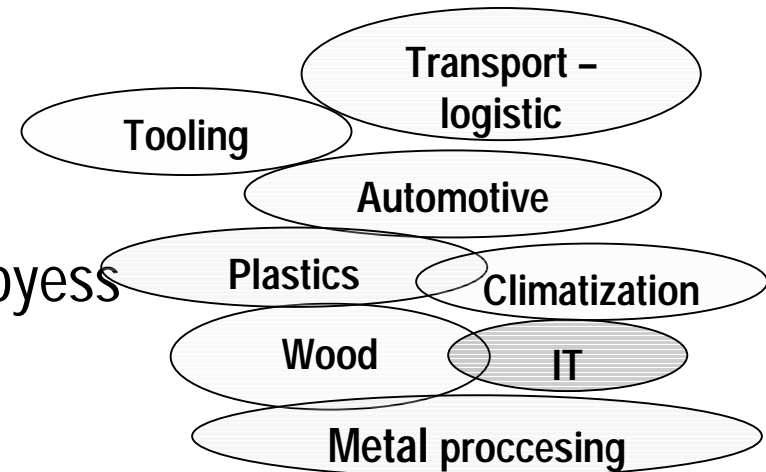
2001 – 2002

# Results till now

## Clusters:

3 pilot projects (launched 2001) and 8 new initiatives (launched 2002):

- 160 enterprises
- 43 institutions
- More then 41.000 employess



## Networking:

150 common projects

- 220 enterprises
- 32 R&D institutions

# To Conclude

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- Clusters touches education, training, industrial development, technology ...
- Cluster strategy is upgrading on yearly bases (experiences, situation etc.)
- Clustering is about linking, cooperation, and innovation
  - large and SMEs are active partners
- Slovenia is an open economy – every clusters soon reach an international scope and competitions

**Clustering is about “creating opportunities” and not “only following existing ones”**

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