

# **Economic Development and Innovation in Lithuania: What Challenges Ahead?**

***Prof. Robertas Jucevicius***

Business Strategy Institute,  
Kaunas University of Technology

Tallinn, 25 08 2006

# Some facts

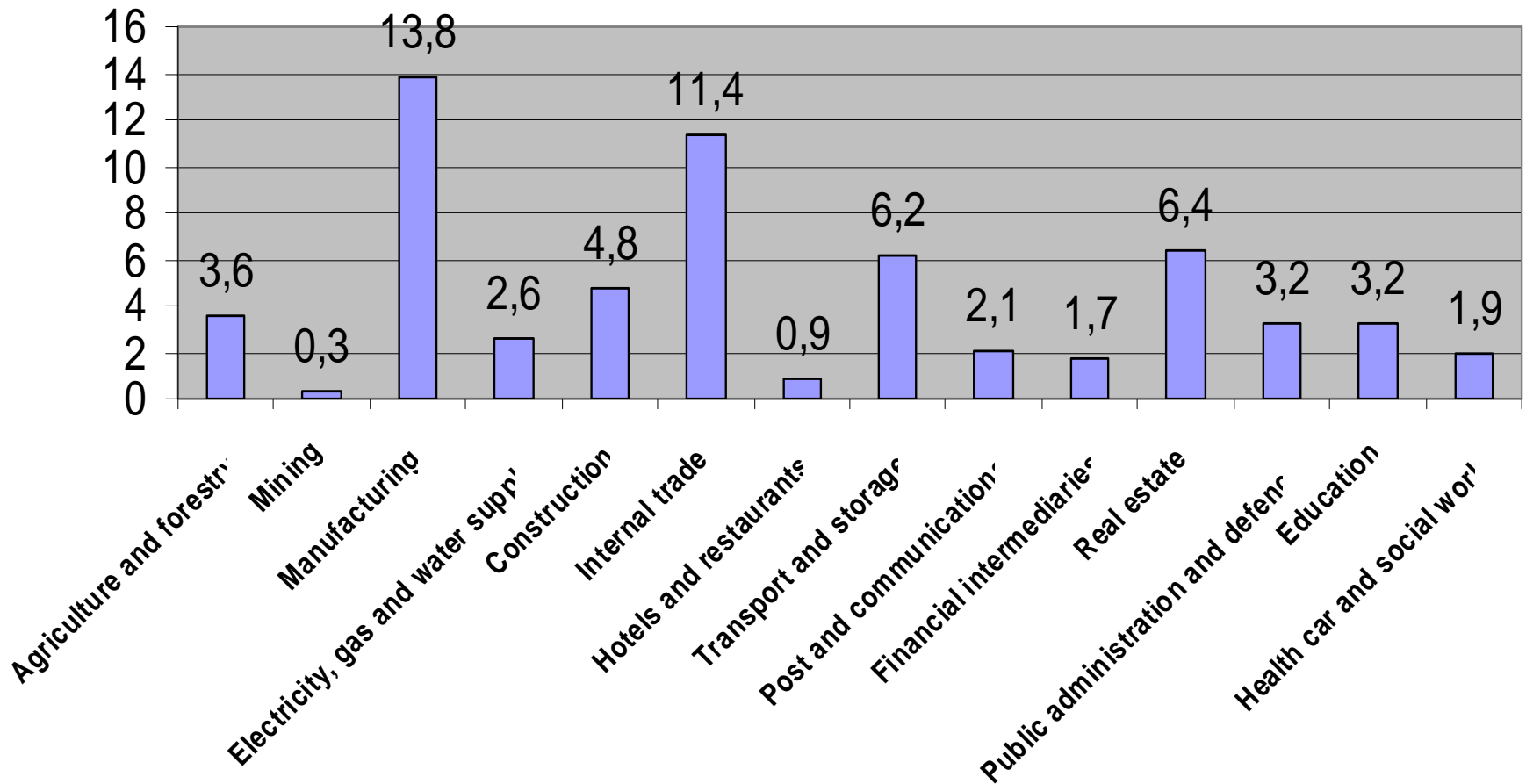
**Lithuanian economy is dominated by industries requiring medium and low level qualifications ( 50,6%)\* and only 3,5% requires high level qualifications.**

**Lithuanian economical structure is dominated by sales oriented businesses ( food, tobacco, leather, publishing, etc.), capital intensive (oil refinery, basic chemicals) and also by labour intensive industries. R&D oriented industry (pharmaceuticals, computers, electronics, automotive) comprises 5.9% only.**

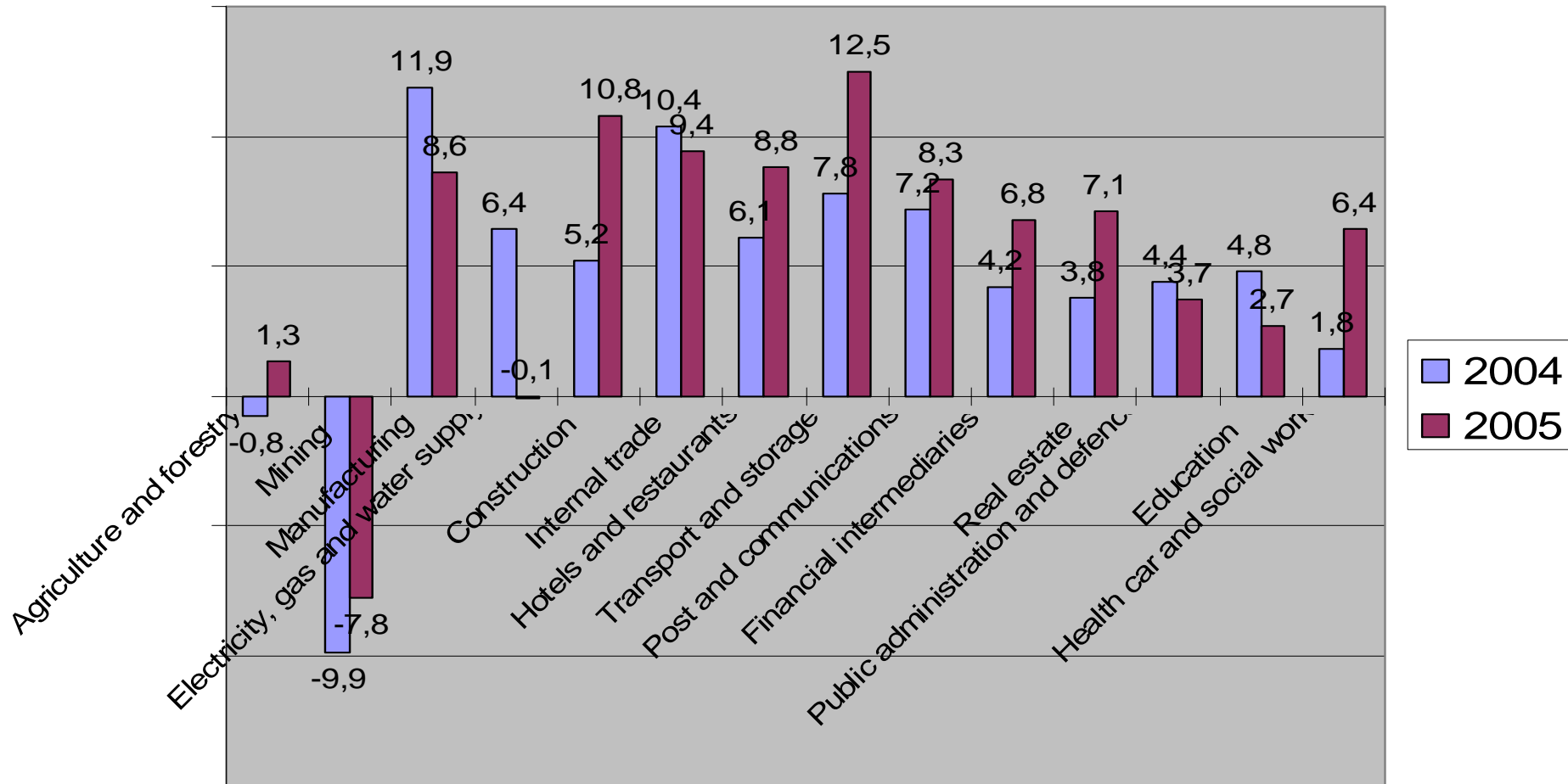
**73% of all Lithuanian industrial production is created by mid and low tech industries. And just 4.4% - by high tech.**

**Structure of Lithuanian economy is not favourable to demonstrate high absorptive capacity of innovations.**

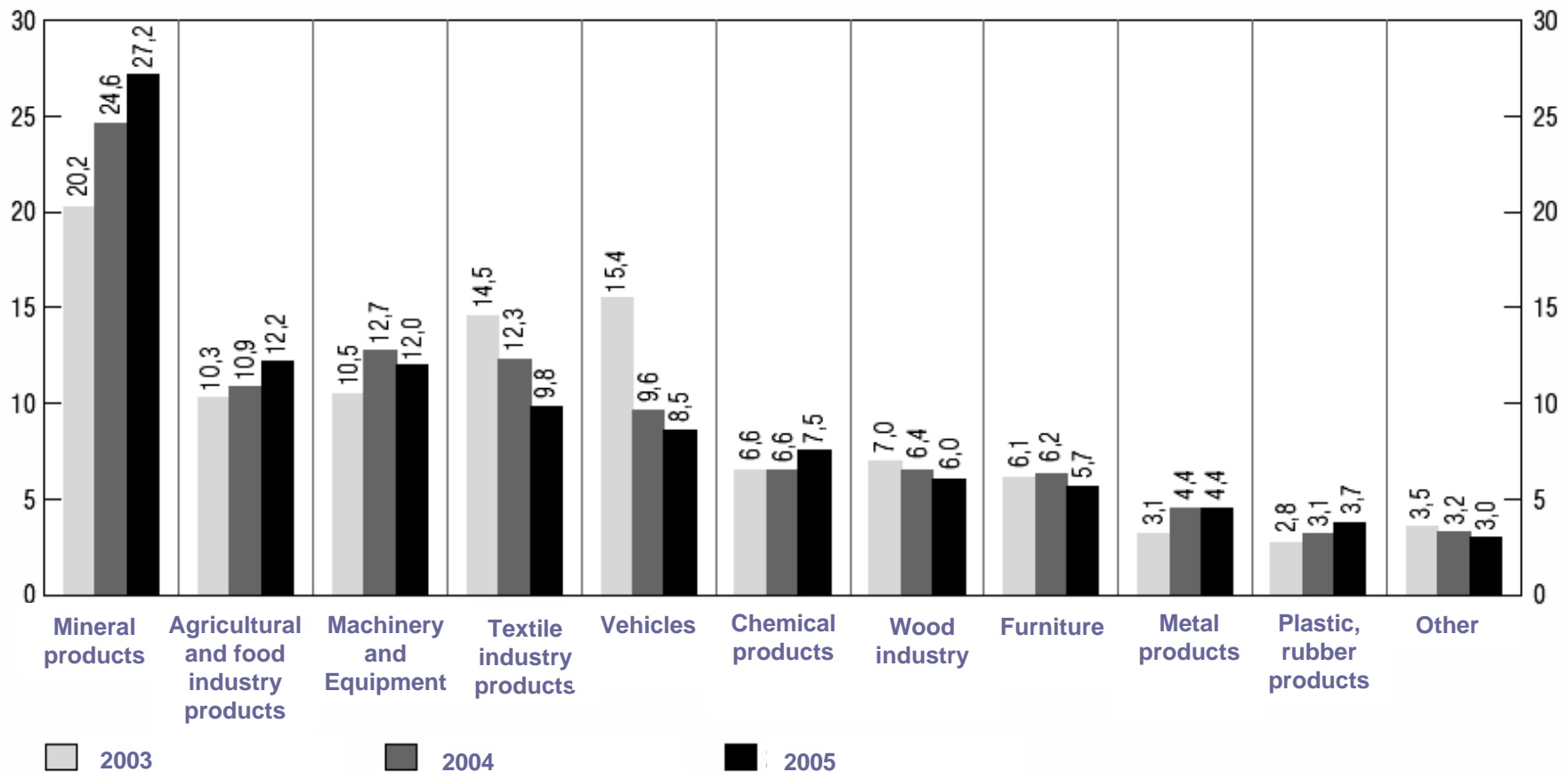
## The value-added across sectors in 2005, bln. Litas



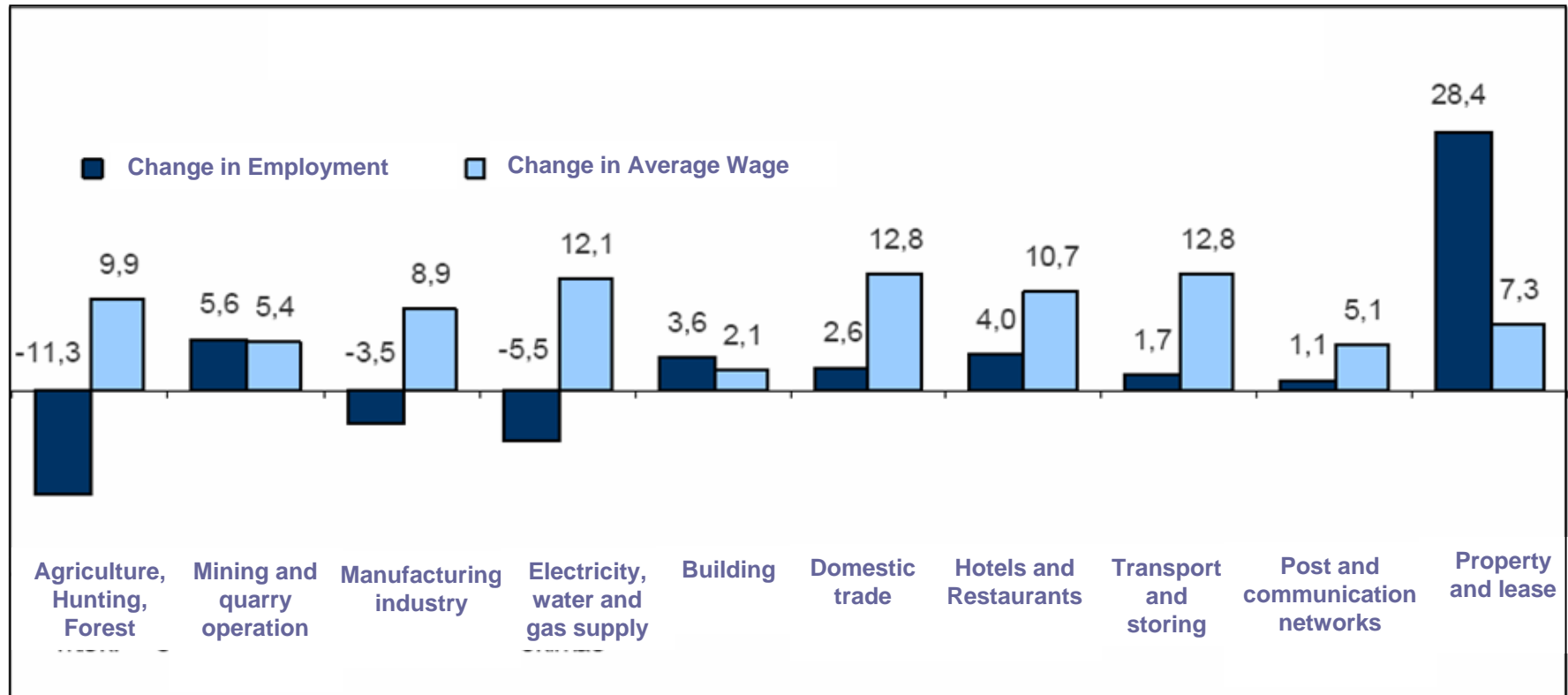
## The change in value-added across sectors in 2004, 2005 (percentage)



# Export structure by product groups (2005)



# Change in Employment and Average Wage (2005, I half, percentage)



# Importance of Manufacturing Sector

The **role** of manufacturing sector in the economic structure is **more significant** than its real share in the total value-added. The main reasons:

- Manufacturing sector is closely linked with the service sector. The successful development of service sector is hardly possible without direct contact with production processes;
- Manufacturing is the main area of economy which contributes to the transfer of scientific knowledge into innovations and technologies.

# Lithuanian competitiveness

- ***Short-term perspective*** – cloudless sky
- ***Long-term perspective*** –  
danger of not staying on the sideway
- ***Medium-term perspective*** - lack of labour force, China factor, decrease in export volumes

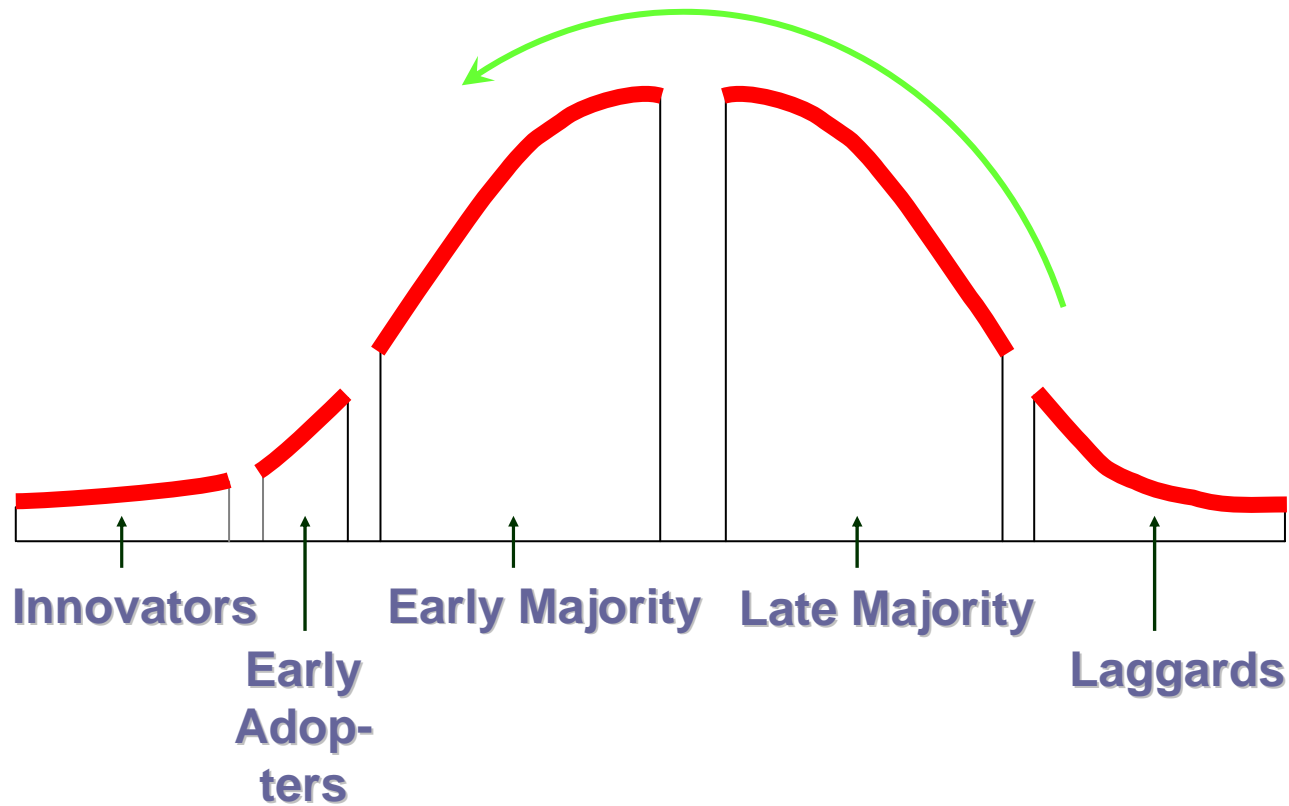




# List of countries in each stage of development

Stage 1 <i>Factor-driven</i>	Transition from 1 to 2	Stage 2 <i>Efficiency-driven</i>	Transition from 2 to 3	Stage 3 <i>Innovation-driven</i>
Income of less than US\$2,000	Income US\$2,000-US\$3,000	Income US\$3,000-US\$9,000	Income US\$2,000-US\$17,000	Income more than US\$17,000
<ul style="list-style-type: none"> <li>• Armenia</li> <li>• Bolivia</li> <li>• Bosnia and Herzegovina</li> <li>• China</li> <li>• Egypt</li> <li>• India</li> <li>• Indonesia</li> <li>• Mali</li> <li>• Morocco</li> <li>• Nigeria</li> <li>• Pakistan</li> <li>• Ukraine</li> <li>• Zimbabwe</li> </ul>	<ul style="list-style-type: none"> <li>• Albania</li> <li>• Peru</li> <li>• Tunisia</li> </ul>	<ul style="list-style-type: none"> <li>• Argentina</li> <li>• Brazil</li> <li>• Bulgaria</li> <li>• Croatia</li> <li>• Estonia</li> <li>• Jamaica</li> <li>• Latvia</li> <li>• <u>Lithuania</u></li> <li>• Malaysia</li> <li>• Poland</li> <li>• Russia</li> <li>• Slovak Republic</li> <li>• Turkey</li> </ul>	<ul style="list-style-type: none"> <li>• Czech Republic</li> <li>• Hungary</li> <li>• Korea</li> <li>• Malta</li> <li>• Portugal</li> <li>• Slovenia</li> <li>• Taiwan</li> </ul>	<ul style="list-style-type: none"> <li>• Belgium</li> <li>• Canada</li> <li>• Cyprus</li> <li>• Denmark</li> <li>• Finland</li> <li>• France</li> <li>• Germany</li> <li>• Greece</li> <li>• Iceland</li> <li>• Ireland</li> <li>• Israel</li> <li>• Italy</li> <li>• Japan</li> <li>• Luxembourg</li> <li>• Netherlands</li> <li>• Norway</li> <li>• Spain</li> <li>• Switzerland</li> <li>• United Kingdom</li> <li>• United States</li> </ul>

# Challenge for “latecomers”



***Strategic goal  
for Lithuania is to create  
conditions for developing the  
national competitiveness based  
on innovations***



From low cost towards exclusivity?

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*Lithuanian “diamond”*

# Lithuanian competitiveness in the World

Context for  
Firm  
Strategy  
and Rivalry

**Relative weakness:**

- + *Flexibility of wage determination*
- *Low technological readiness of enterprises*
- *Weak intellectual property protection*
- *Low value-added production*
- *There are no international offices or technological development centers*
- *Inadequate corporate culture*
- *Weak local competition*

Factor  
(Input)  
Conditions

Demand  
Conditions

**Mix of strengths and weaknesses:**

- + *Favorable geographic location*
- + *Easy access to loans*
- + *Low inflation*
- + *High level of primary enrollment*
- *Ineffective judicial system*
- *Low technological level of local producers*
- *Ineffective and expensive agricultural industry*
- *High extent of bureaucratic red tape*
- *Lack of motivation of FDI and technology transfer*

Related and  
Supporting  
Industries

**Mix of strengths and weaknesses:**

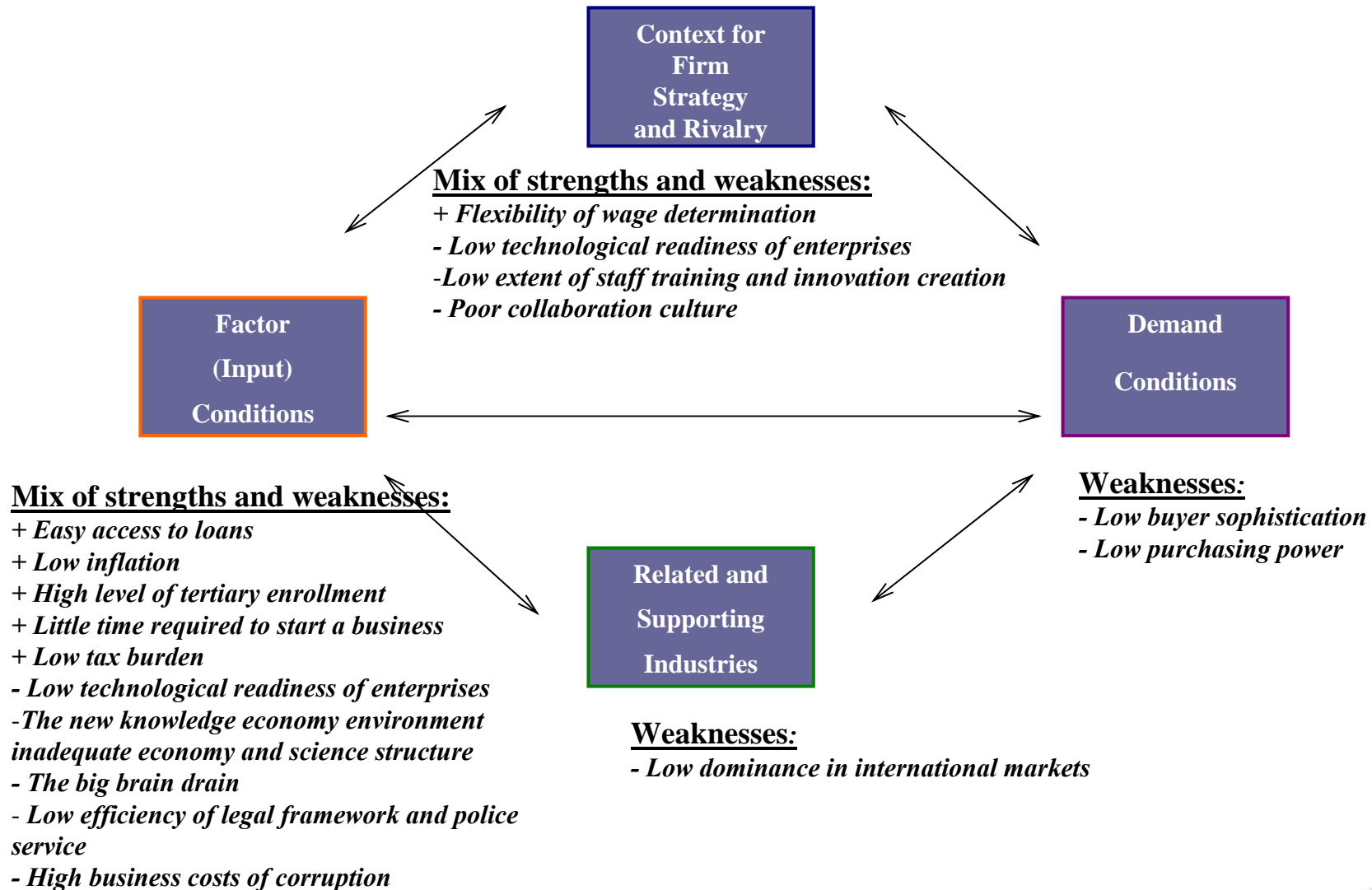
- + *Integration into international clusters*
- *Lack of enterprise specialisation*
- *Fragmented industry structure*

**Relative strength:**

- *Low and not sophisticated local demand*
- *Low country's investments in the development of high-technology products*



# Lithuania's Competitiveness in Europe



# Lithuania`s economy competitive advantages (VRIO matrix)

Advantages	V	R	I	O
<i>Stability of macro economy</i>	+	+	-	-
<i>Low inflation</i>	+	+	-	-
Functioning market economy	+	-	-	-
<i>Competitive high growth of economy</i>	+	+	-	-
Local market demand as one of the main driving forces of economy growth	+	-	-	-
Capital market quality	+	-	-	-
Well functioning bank and financial mediation sector	+	-	-	-
Substantial and growing export	+	-	-	-
<u><i>Transit friendly geographic location; non freezing port in Klaipėda</i></u>	+	+	+	-
<u><i>Proximity to the most competitive region in the world</i></u>	+	+	+	-
A good mix of big cities and small towns	+	-	-	-
Sufficient electricity supply	+	-	-	-
Sufficient transport and communication infrastructure network	+	-	-	-
Magnetic nature and landscape; wealthy history and culture	+	-	-	-
Favourable for business political and judicial system	+	-	-	-
EU membership	+	-	-	-
A rather big network of education and research institutions	+	-	-	-
Infrastructure of public business services	+	-	-	-
Strong R&D potential	+	-	-	-
High level of primary and tertiary enrollment	+	-	-	-
High employment, especially between seniors	+	-	-	-
Rapid growth of information technology and communication network	+	-	-	-



**From low cost towards exclusivity**

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**Lithuanian Industry:  
between survival and growth**



# New rules of the game

- ***Changes in the philosophy of manufacturing companies – the organizational boundaries between manufacturing and services are eroding.***
- ***Changes in the understanding of competitive advantage factors - the pursuit of both differentiation and cost reduction strategies simultaneously.***
- ***An emphasis on innovation in products, processes and business systems.***
- ***The increasing importance of alliances, clusters, partnership networks and other forms of cooperation.***

# New Needs

- **Networking and collaborative skills for closing linkages between partners;**
- **New infrastructures to support value systems;**
- **New rules for the government;**
- **New organisational models;**
- **Modern production systems aligned to regional core competences and to global best practices;**
- **New strategic thinking practices, needed to be competent with the new hyper competitive environments.**

# The Perspectives of Clusters Development in Lithuania: strengths and weaknesses

## Firm Strategy:

- (+) growing interest to cooperate
- (+) creating trademarks
- (+) integration into international value chains
- (-) lack of motivation to innovate
- (-) lack of confidence among partners
- (-) lack of specialisation
- (-) lack of management skills
- (-) low value-added
- (-) lack of motivation to take advantages of region's potential

## Demand Conditions:

- (+) growing Russian and Central European markets
- (+) growing domestic market
- (+) the need to rationalize the value chains in neighbouring countries
- (+) large regional market
- (-) low and not sophisticated local demand
- (-) low consumers purchasing power

## Industry and Business

## Factor (Input) Conditions:

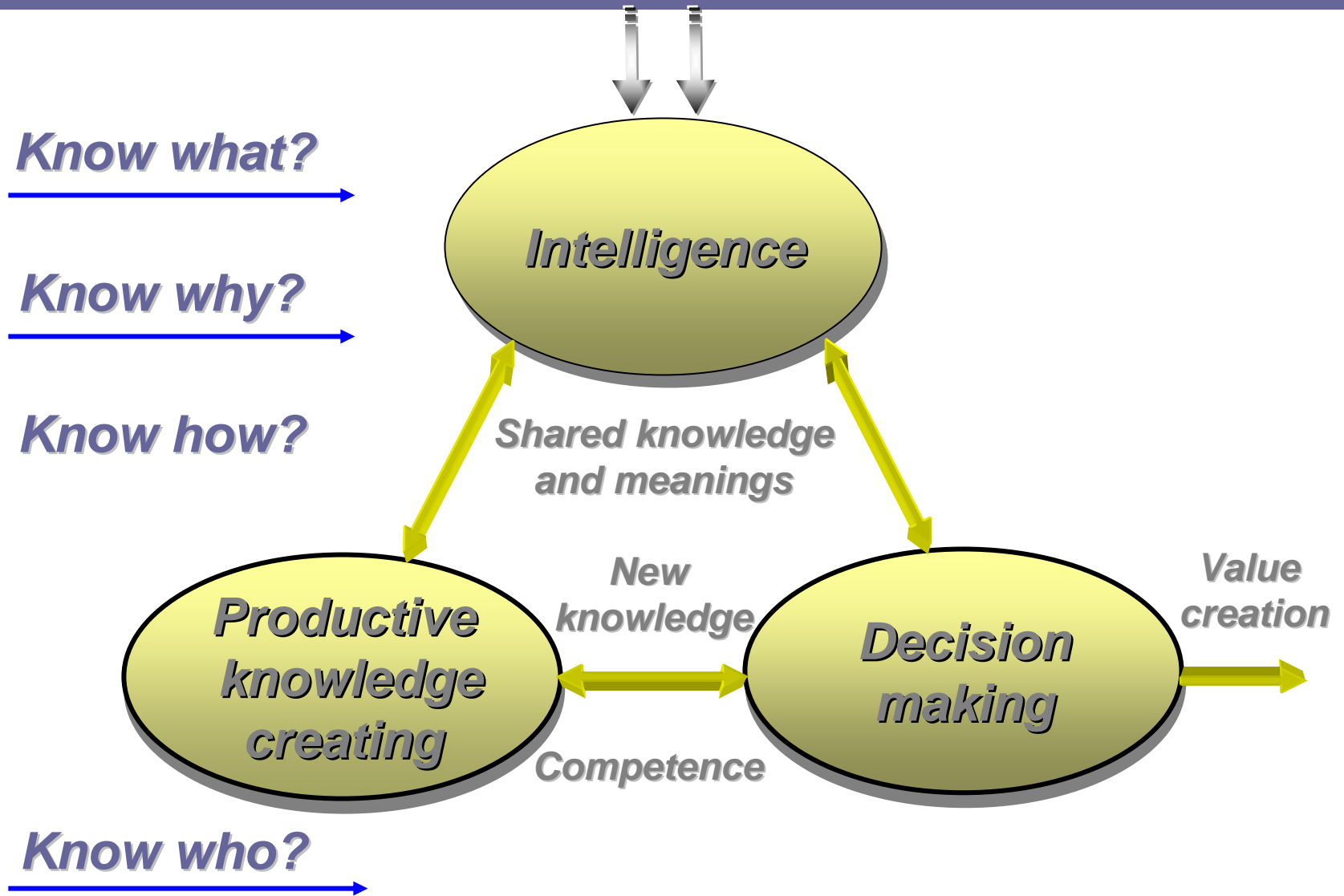
- (+) rapid growth of the economy
- (+) favourable geographic position
- (+) long traditions in engineering
- (+) supply of high skilled labour
- (+) competitive labour force
- (+) developed network of training institutions
- (-) scientific laboratories, education programmes are inadequate to growing requirements
- (-) inadequate training systems (on all levels)
- (-) ineffective innovation system
- (-) low company spending on R&D
- (-) lack of clear economy development policy
- (-) lack of strategy to attract foreign investments and "know-how"
- (-) poorly developed business infrastructure

## Clusterisation Processes:

- (+) growing understanding of the importance of clusters
- (+) some mikro clusters are already in place
- (+) strong lobbying by Lithuanian Confederation of Industrialists
- (-) poor but growing cooperation
- (-) lack of efficient business information systems
- (-) poor links between industries
- (-) poor links between companies, educational and research institutions
- (-) lack of motivation to cooperate
- (-) lack of network and cluster development experts



# The Propeller for Value Creation in Clusters



# The principles of cluster policy

- 1. Policy has to combine both general and specific means**
- 2. The process of clusterisation, although self-evolving, has to be effectively governed**
- 3. The “bottom-up” and “top-down” approaches in policy have to be balanced**
- 4. Clusterisation has to be linked with the scientific and business infrastructures**
- 5. Policy should rely on national history, culture, traditions**
- 6. Local clusters must be a part of international business systems**
- 7. Clusters are the tool for innovations in business**
- 8. Most essential – the establishment of mechanisms for continuous development and improvement, not “high-tech myopia”**
- 9. Overemphasis on clusterisation may have undesirable side effects**

**In the “Club” or outdoors?**

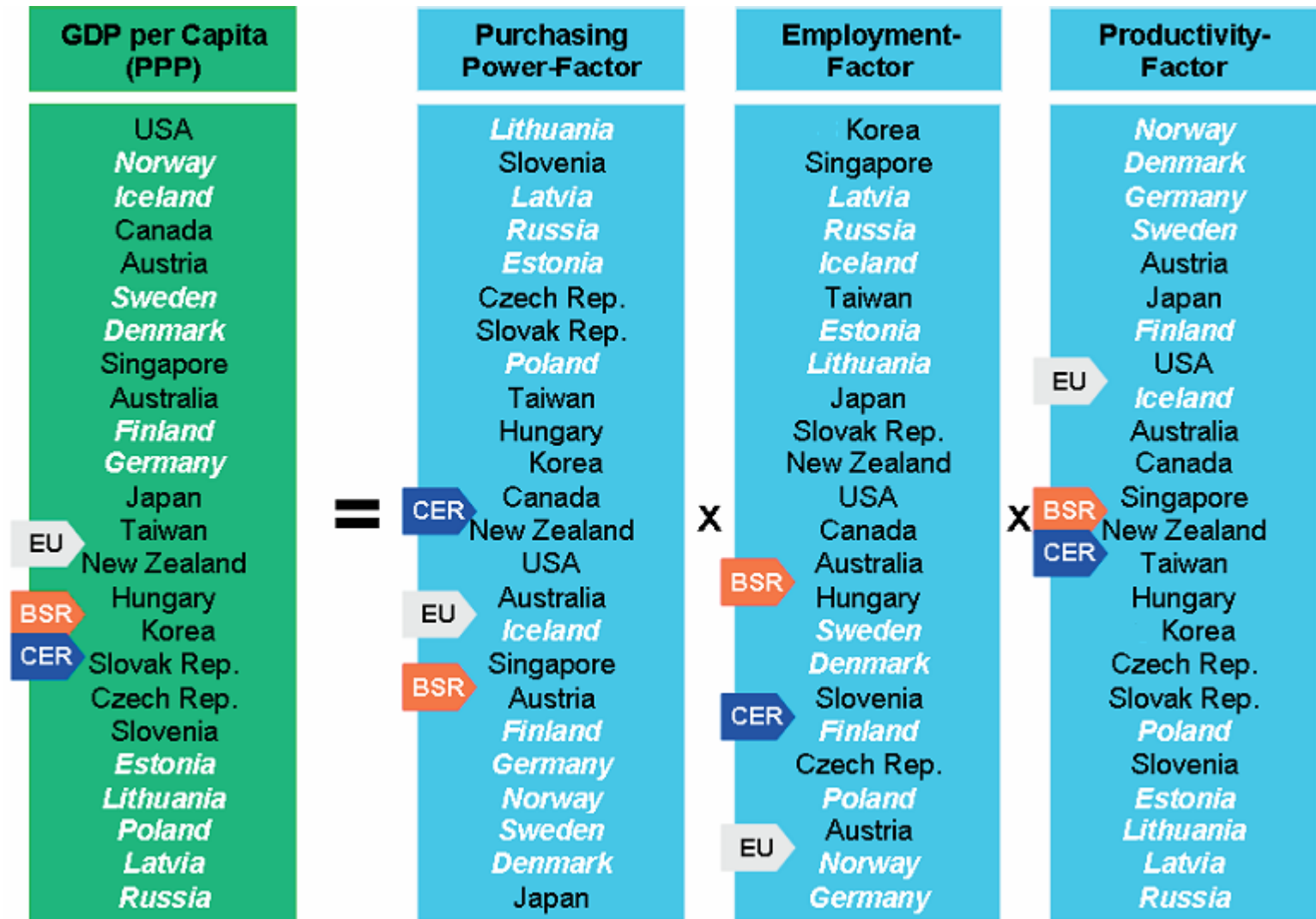
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# Growth Competitiveness Index, WEF, 2005

1. **Finland**
2. United States
3. **Sweden**
4. **Denmark**
5. **Taiwan**
6. Singapore
7. Iceland
8. Switzerland
9. Norway
10. Australia
11. **Netherlands**
12. Japan
13. **United Kingdom**
14. Canada
15. **Germany**
16. New Zealand
17. Korea, Rep.
18. United Arab Emirates
19. Qatar
20. **Estonia**
21. **Austria**
22. **Portugal**
23. Chile
24. Malaysia
25. **Luxembourg**
26. **Ireland**
27. Israel
28. Hong Kong SAR
29. **Spain**
30. **France**
31. **Belgium**
32. **Slovenia**
33. Kuwait
34. **Cyprus**
35. **Malta**
36. Thailand
37. Bahrain
38. **Czech Republic**
39. **Hungary**
40. Tunisia
41. **Slovak Republic**
42. South Africa
43. **Lithuania**
44. **Latvia**

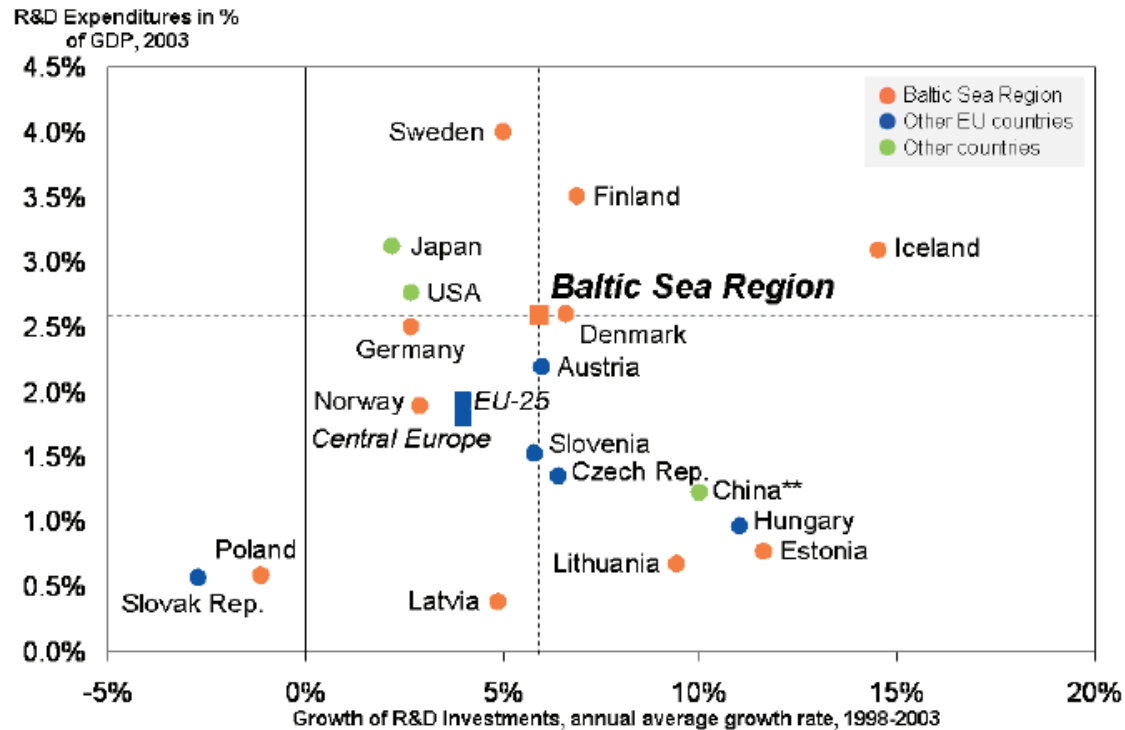


# Prosperity drivers, selected countries and regions





# R&D Investment and Growth



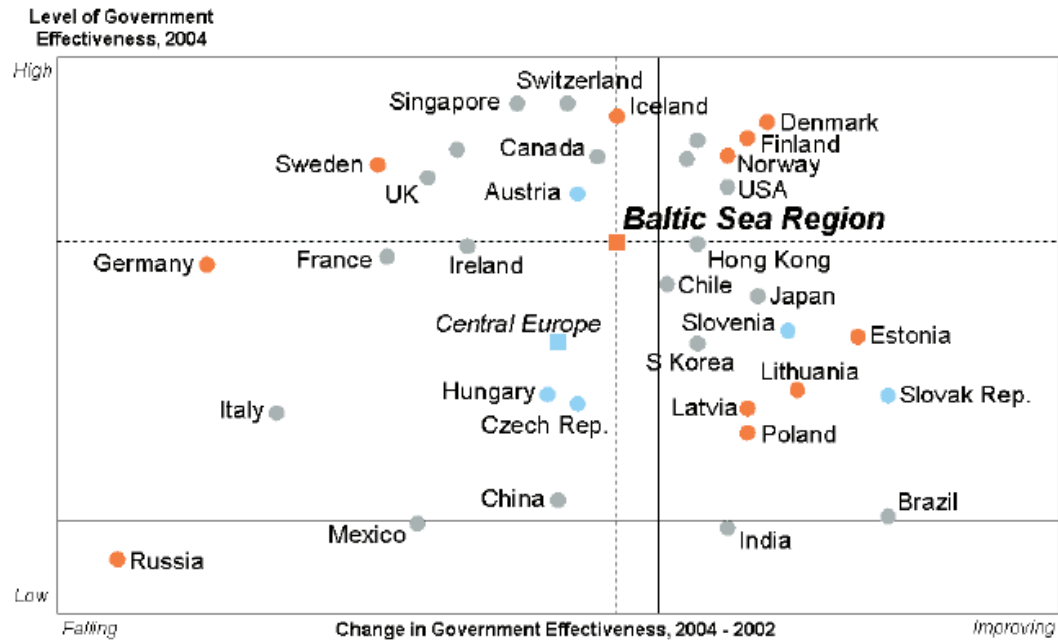
Source: Eurostat (2005), DG Research (2005), World Bank KAM, authors' calculations

\* data for China, Japan, Iceland and EU-25 from 2002

\*\* annual growth rates in China have exceeded 10%; total R&D expenditures, in real terms, have grown by almost one-fifth each year



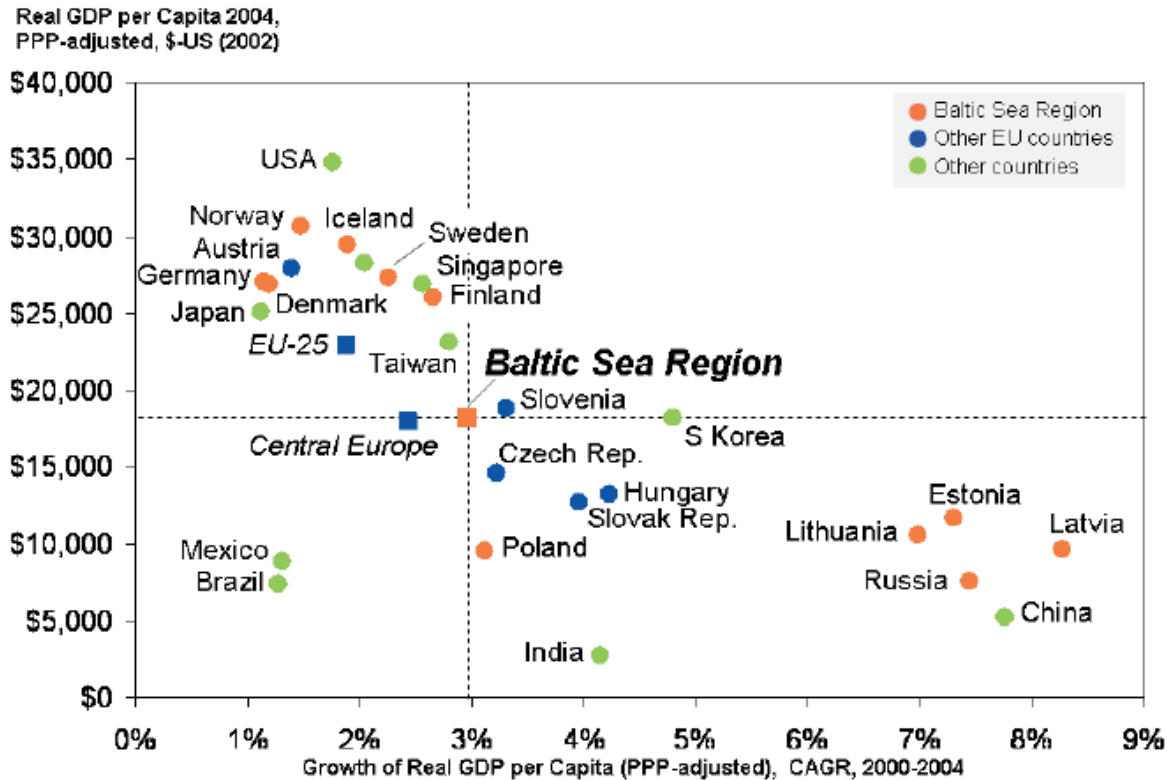
# Government efficiency, selected countries



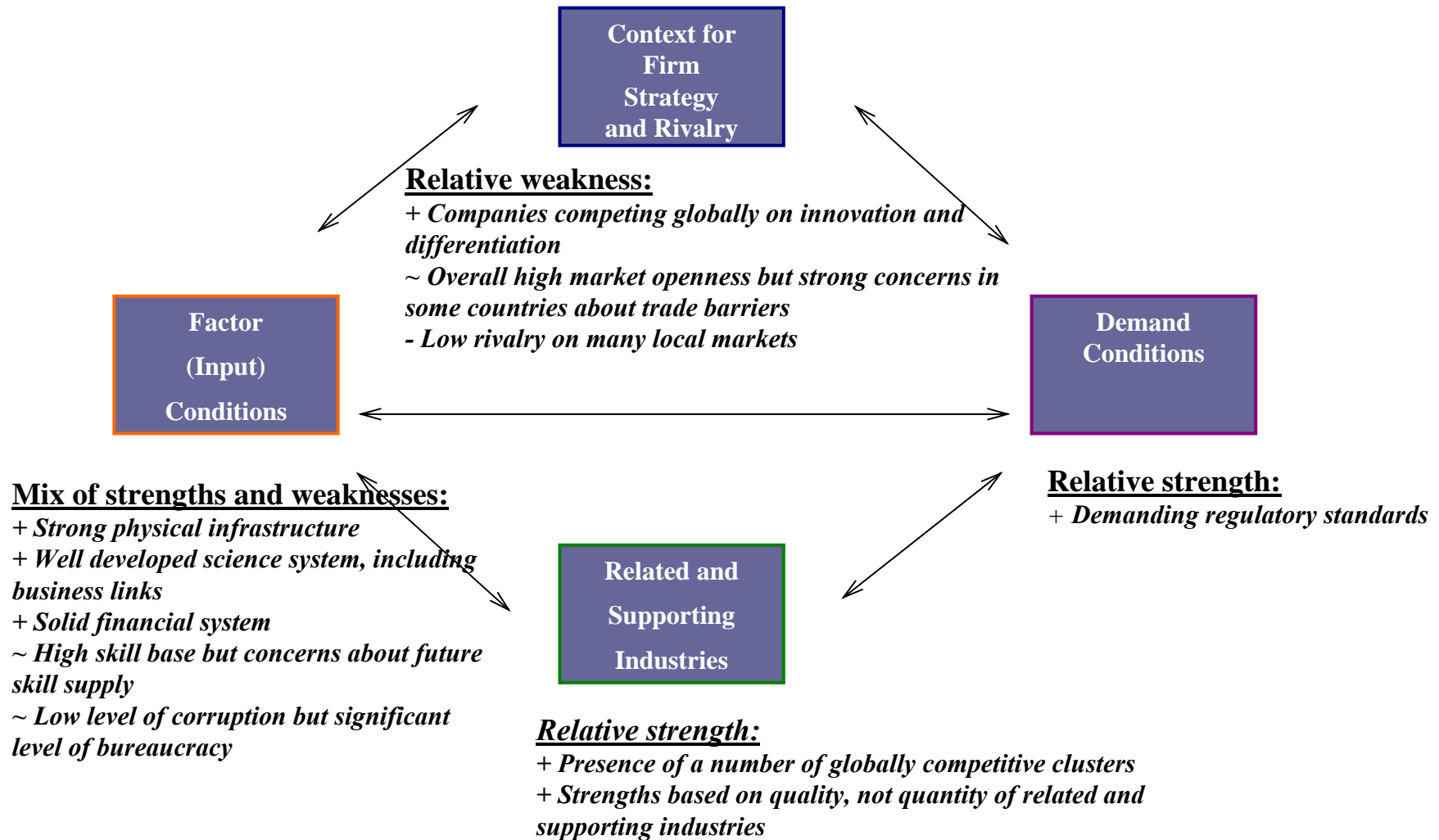
Source: World Bank (2005), author's analysis.



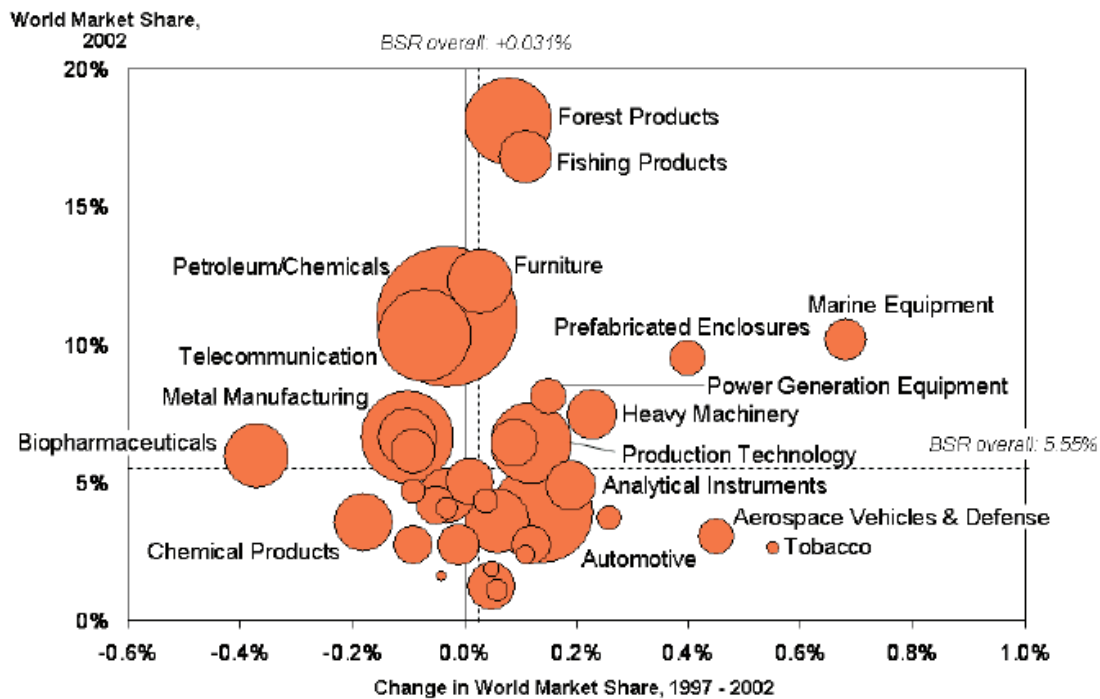
# Prosperity, selected countries and regions



# The 2005 Baltic Sea Region “diamond”



# Baltic Sea Region World Export Market Share by Cluster

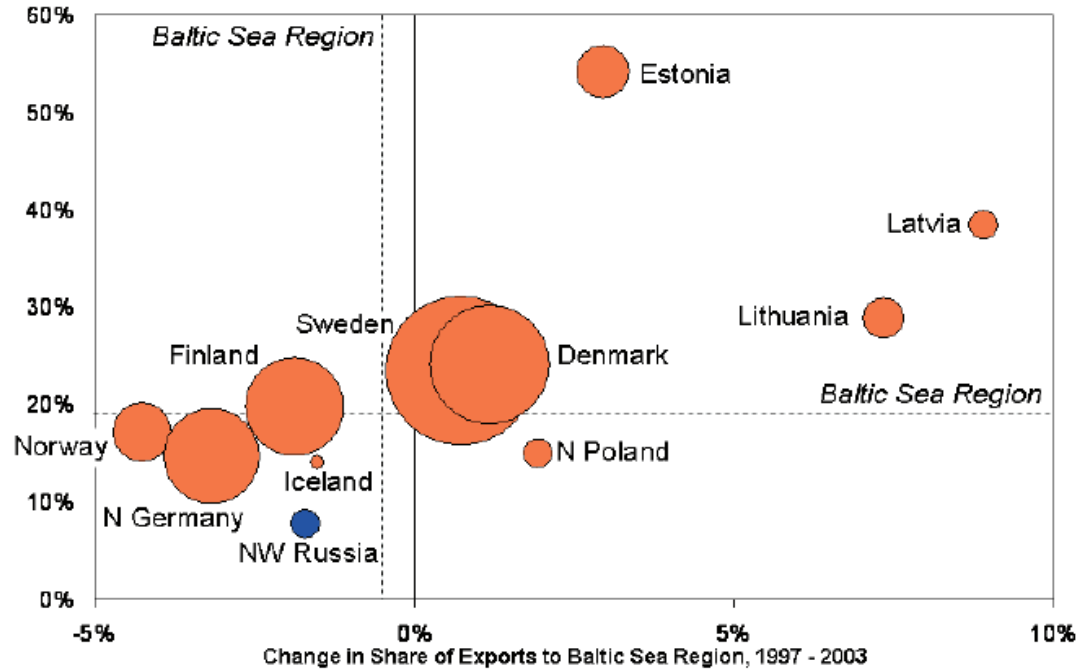


Source: WTD (2005), Institute for Strategy and Competitiveness, author's analysis.



# Importance of Baltic Sea Region trade by country

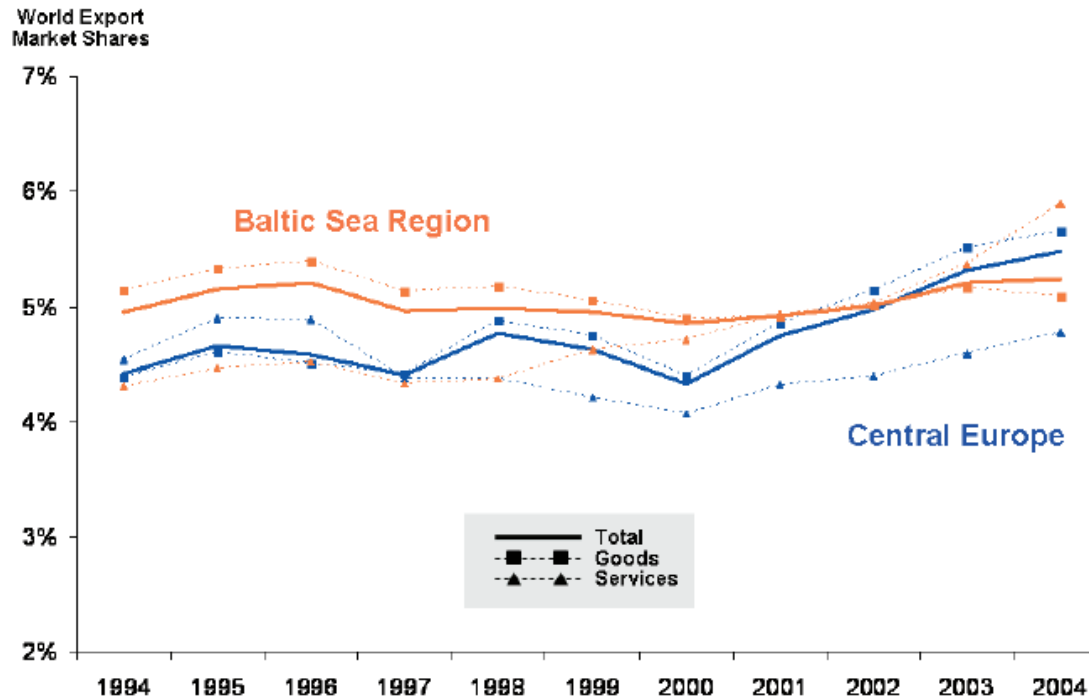
Share of Country Exports to Baltic Sea Region, 2003



Note: Assumes trade patterns for sub-national regions follow exactly the respective national averages; bubble size proportional to export value  
Source: WTO (2005), author's analysis.



# World export market shares, selected European regions



Source: WTO (2005), author's analysis.

*The strategic priority*

for Lithuanian economy –

rapid and effective integration into  
the Nordic business system





***LET IT HAPPEN !***