
Europe towards a knowledge-based society – the national implementation of the European strategy “Europe 2020“

*Searching for the Holy Grail: The Role of Innovation Capacities in
CEE Economies*

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2. The Theoretical Framework for Evaluation of Innovation Capacities
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Searching for the Holy Grail – Searching for Capacities?

- Innovative potential is becoming critical in terms of long term economic growth and competitiveness
- CEE:
Downturn of economic and social sources in transition and post transition phase, former economic and human capacities lost their values
- But: Policy still falls short from providing substantial support in **strategic** fields related to their existing potentials to built comparative advantages and solid innovational capacities

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The Theoretical Framework for Evaluation of Innovation Capacities

National Innovation Capacities

depend on...

...interaction of
innovators and
environment

**Microeconomic
Framework Model**
(Porter, 1990)

...knowledge and
skills within an
economy

**Endogenous Growth
Theory**
(Romer, 1990; Jones,
2001)

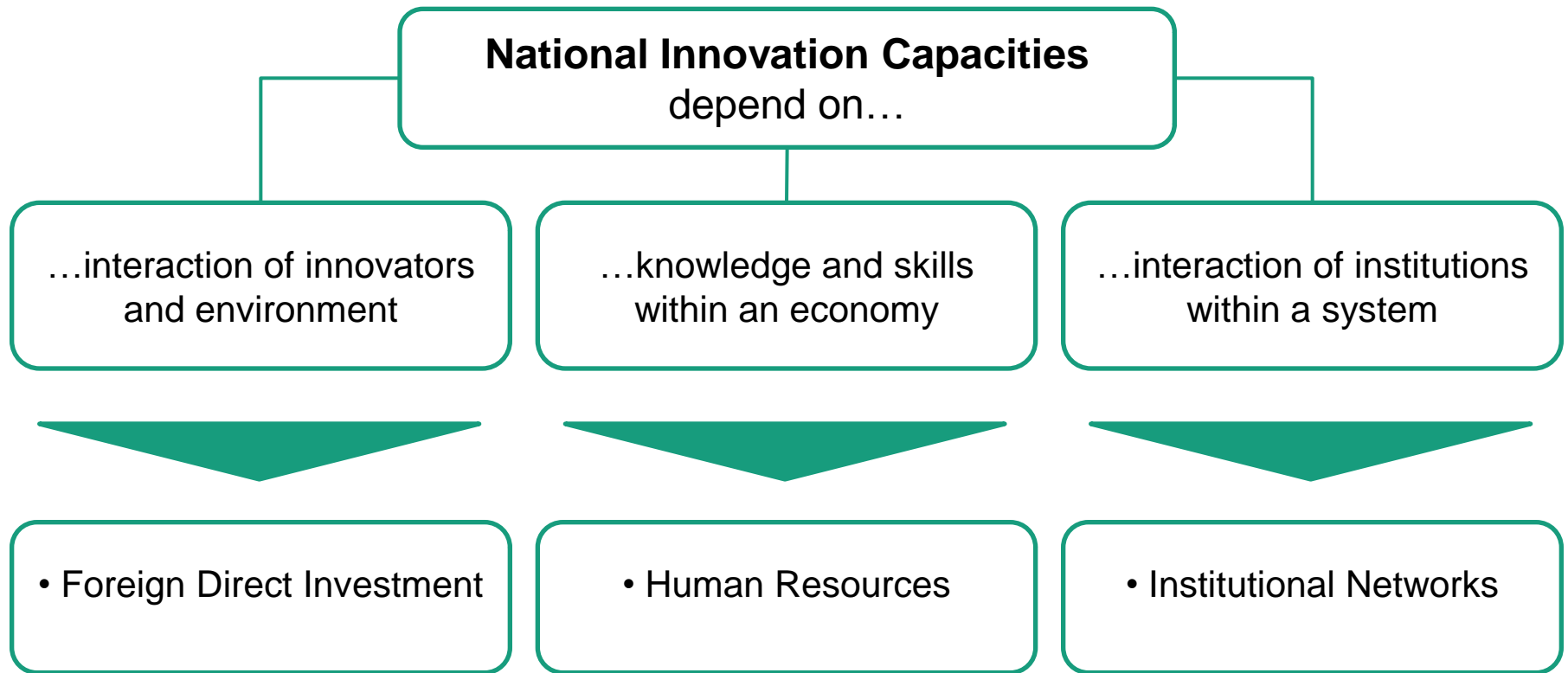
...interaction of
institutions within a
system

**National Innovation
System**
(Freeman, 1982;
Lundvall, 1992;
Nelson, 1993)

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Innovation Capacities in CEE



Innovation Capacities in CEE – *Foreign Direct Investment*

- Vital factor in the catching up process:
 - Facilitation of privatization and restructuring of the central planning economies
 - Enhancing productivity, encouraging employment, stimulating innovation and technology transfer, creating spill overs
- But use FDI as a strategic tool
 - Stimulate FDI within the context of national priorities to establish own innovation capacities

Example:

Automotive cluster in Romania (Continental, Infineon, Siemens, Renault)

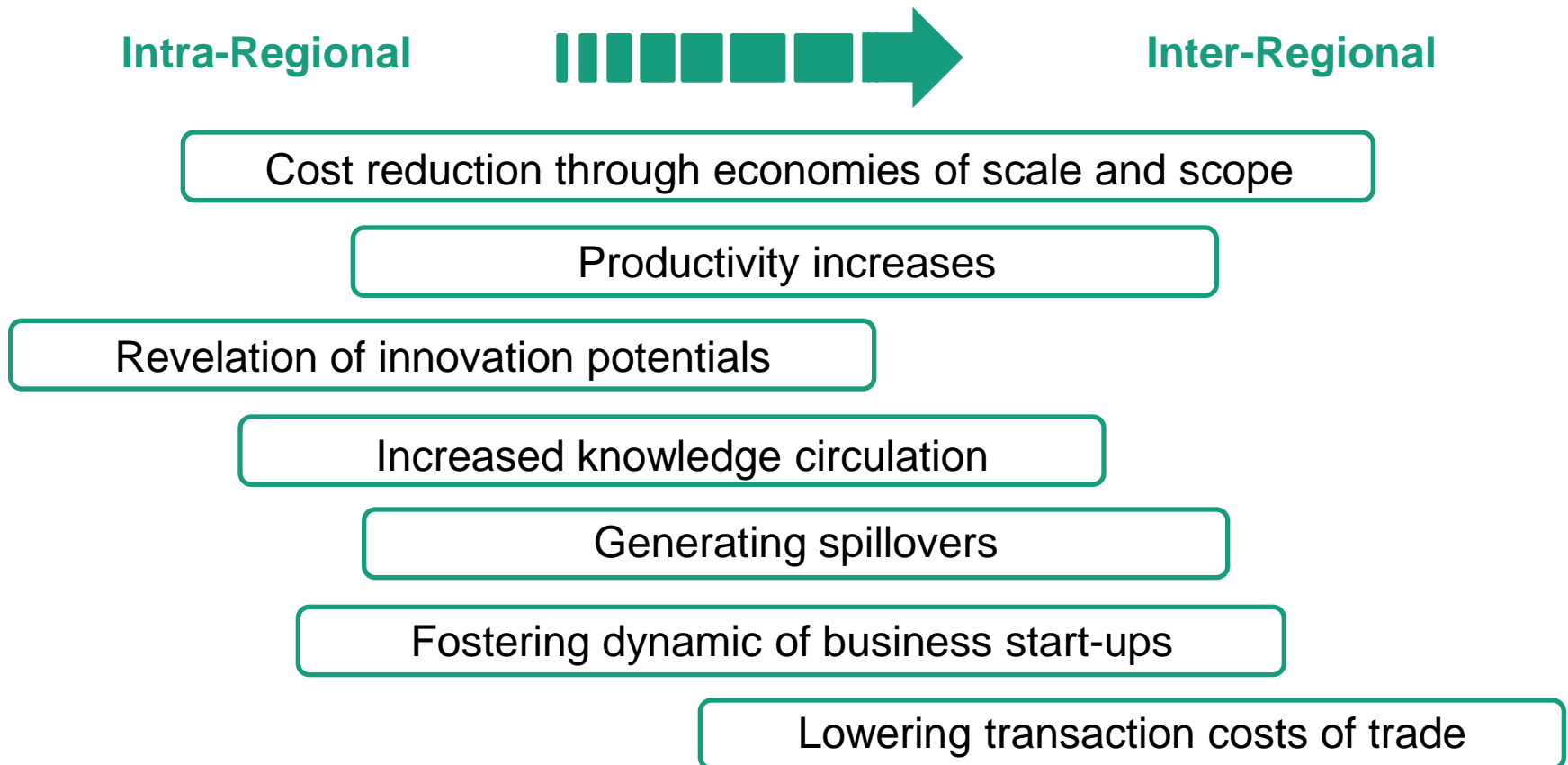
Innovation Capacities in CEE – *Human Resources*

- Human resources are important for S&T capacity building
 - Still high potential of know how in basic research, but it needs to be complemented by applied research know how
 - High share of young people with great demand for higher education and entrepreneurial spirit
- Use knowledge as a strategic tool
 - EU-Membership and internationalization contribute to the exchange of S&T personnel and students, foster brain gain
- Use brain drain as a strategic tool
 - International networking

Example: pro-active human resource policy in Croatia (Unity through Knowledge Fund, Brain Gain Program), generate incentives for Croatian institutions to collaborate with Diaspora

Innovation Capacities in CEE – *Institutional Networks*

- Connecting research infrastructure, including the academies, universities, R&D-institutions, and firms is prerequisite for an efficient innovation system



Innovation Capacities in CEE – *Institutional Networks*

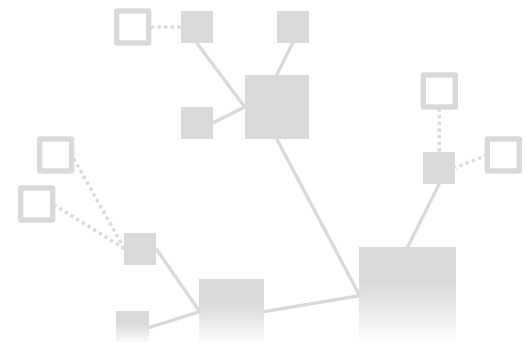
- Strategic development of framework conditions for
 - Funding of more consortia within innovation programs
 - Public Private Partnerships
 - Participation in European and international funding programs (e.g. FP7)
 - Redefining the role of academies, universities, and research institutions (today: academies → basic, pre-competitive research, universities → education)

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Conclusion – *The Chicken Egg Problem...*

- New products require capabilities
- But: accumulation of capabilities means insufficient support of other priorities because additional capabilities are not available
 - “Overdiversification” → low (or at least no) impact in fields of interest
- How to deal with this?
 - Efficient and strategic use of own and foreign resources:
 - Moving towards “nearby” products that are close to existing technologies and capacities (e.g. Taiwan, S-Korea)
 - No “nearby trees” → improvement of existing products, technological spill-overs, adding value to subsistent resources (e.g. Norway, Chile)



Tasks to be Managed by Policy-Makers Steering the Innovation System

Unfortunately

...there is no holy grail

...and no easy one-fits all solution

Policy makers should...

▶ Be aware of national peculiarities especially (real!) strength and weaknesses of the National Innovation System

...and subsequently...

▶ Develop a mix of policy measures addressing different aspects of the National (!) Innovation System.

Thank you for your attention.

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