# Smart Regions 3.0 Conference

Transformation through Smart Specialisation

14-15 November 2019

The Egg Congress and Meeting Centre
Brussels, Belgium

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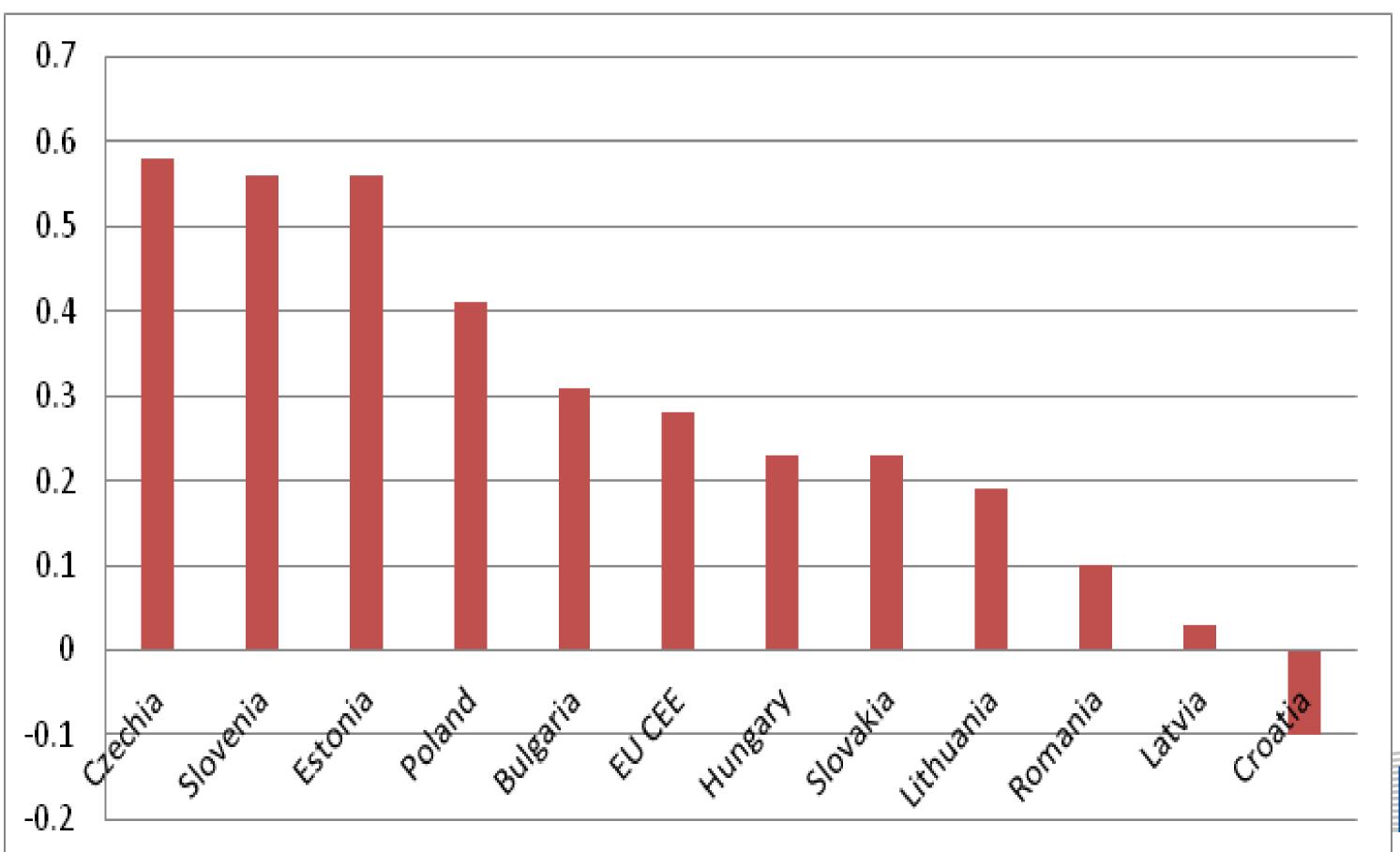
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#### **Smart Regions 3.0 Conference**

#### Changes in shares of GERD/GDP in percentage points of GDP 2002-2016

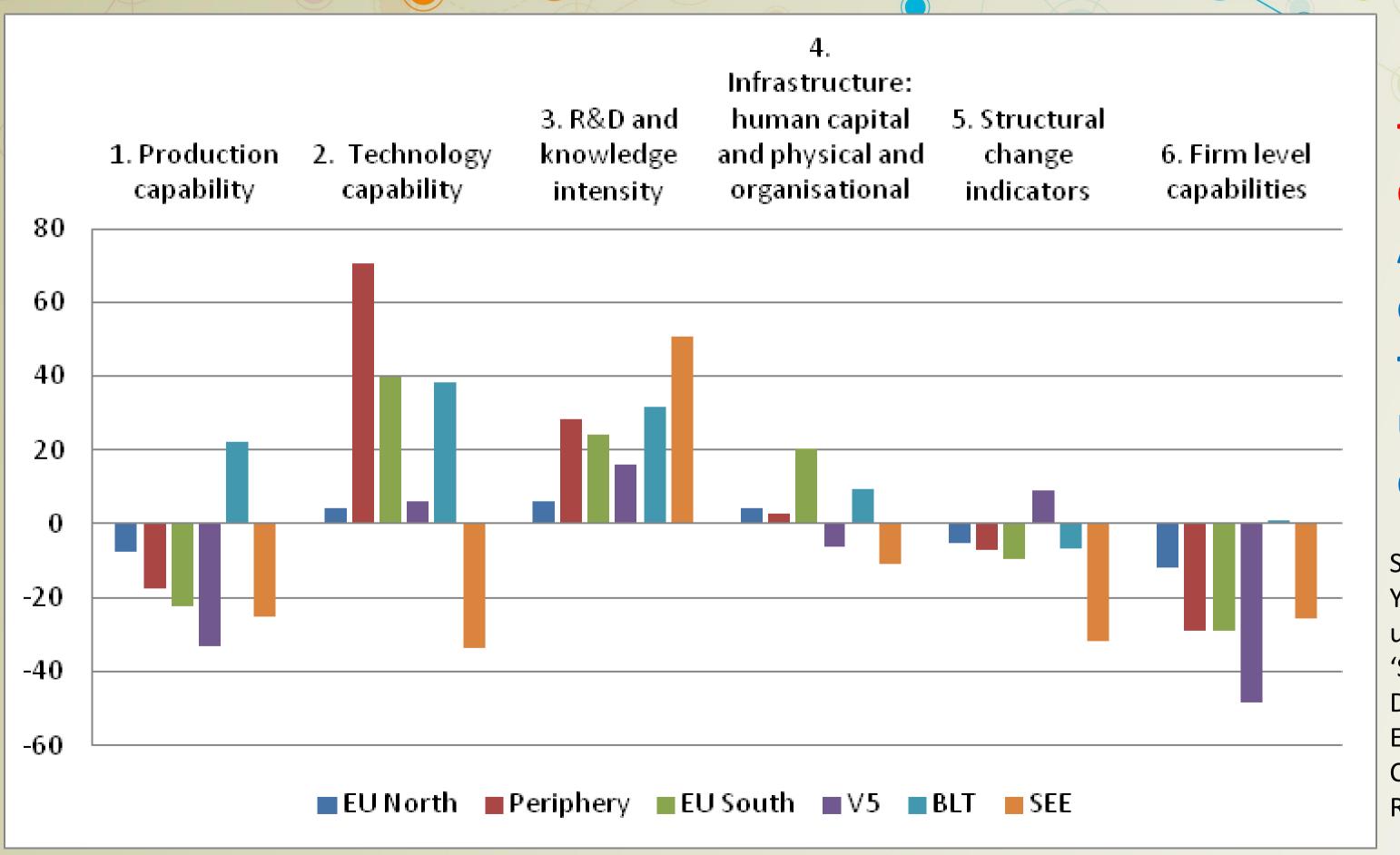


**R&D** as **CEE** success story but also great danger of new numerous isolated **Pockets of Excellence** and their local (i)relevance

Source: Radosevic, E. Yoruk and D. Yoruk (2018)



## Changes in components of Index of technology upgrading 2006-15 in EU25 macro-regions (%)



R&D and technology capability up!! All other components of technology upgrading are down!!

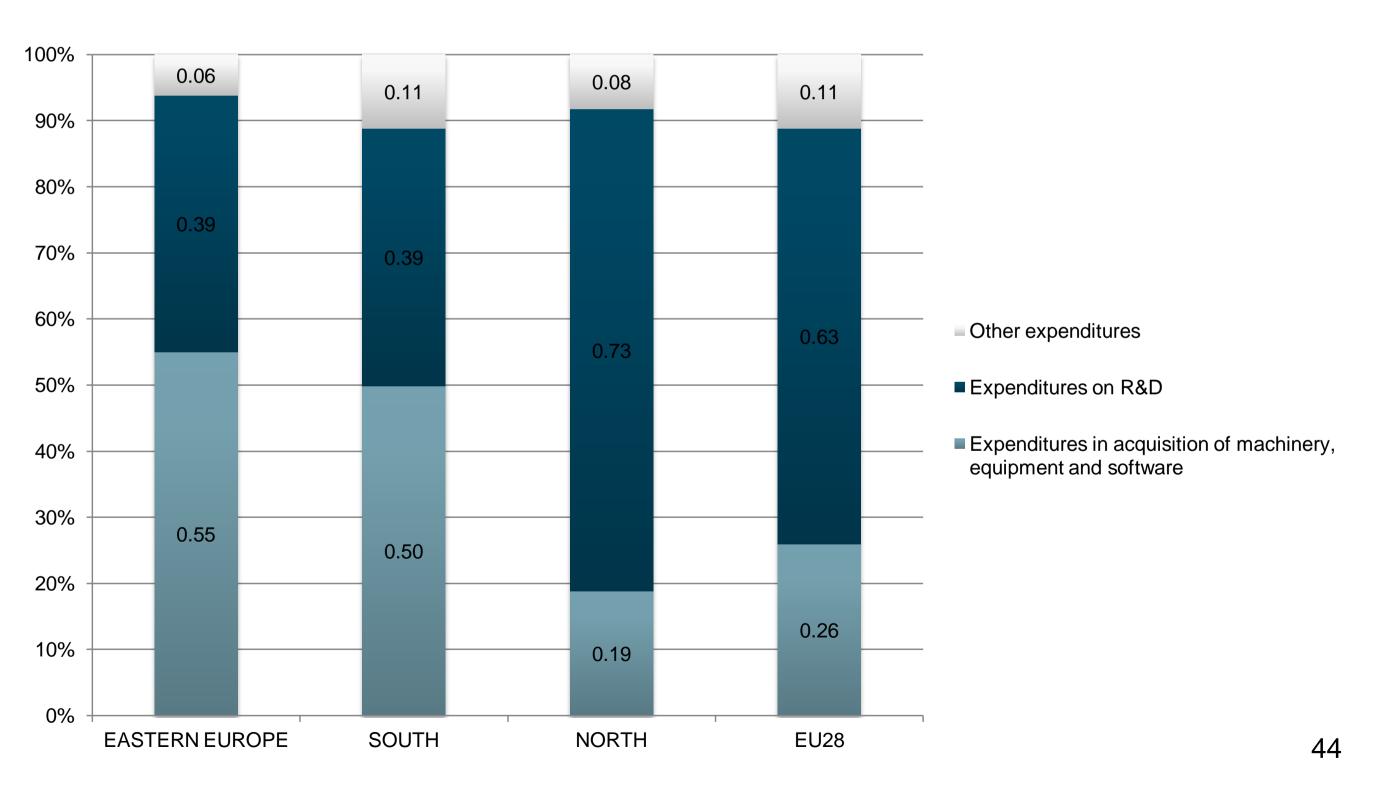
Source: Radosevic, E. Yoruk and D. Yoruk (2018) Technology upgrading and growth in CEE, In 'Social and Economic Development in Central and Eastern Europe: Stability and Change after 1990"

Routledge, Editors: Gorzelak et al



## Different nature of innovation activities between the EU core and periphery

Structure of innovation expenditures 2010-2012 in EU28 regions

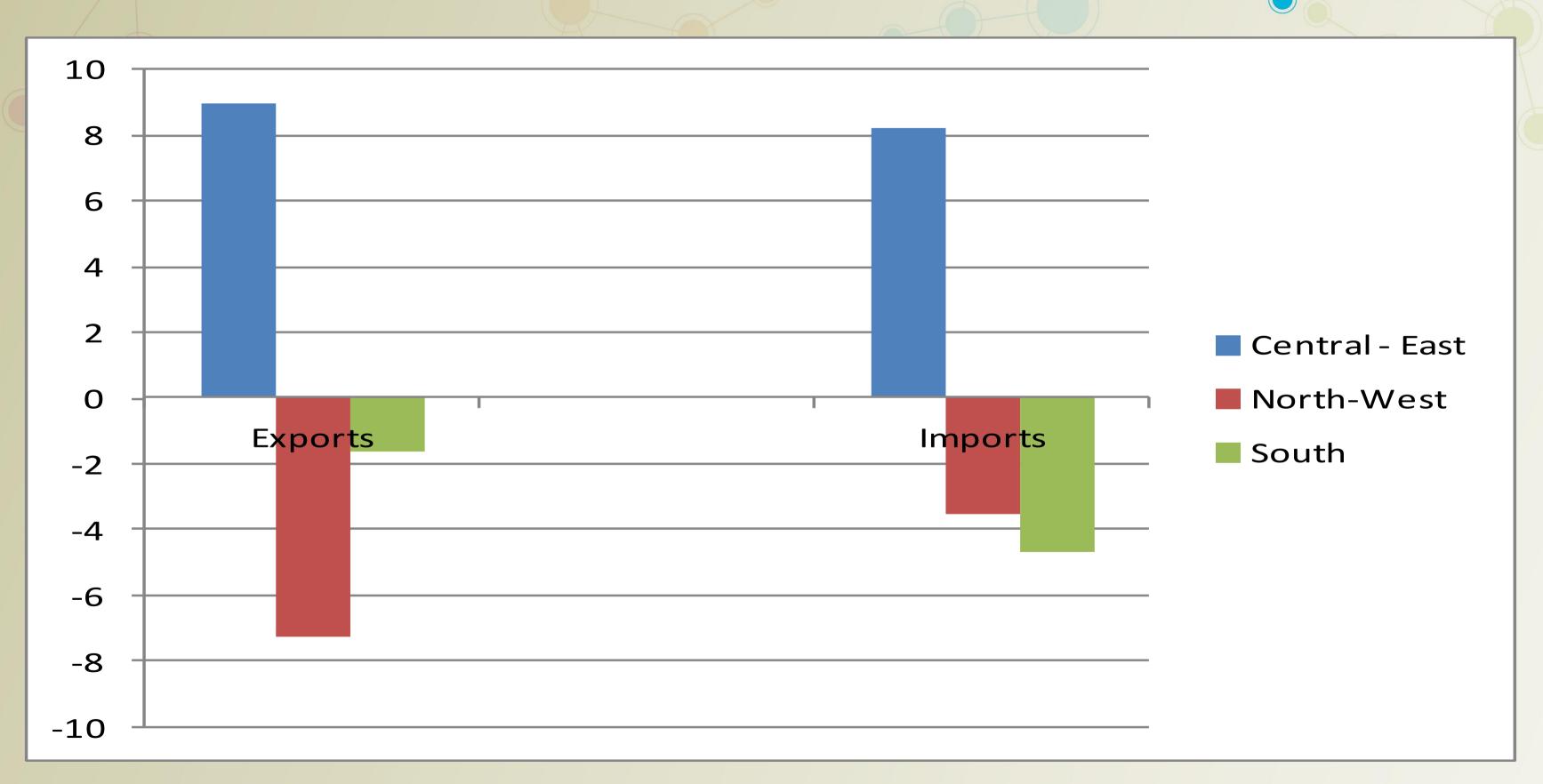


Different levels and patterns technology upgrading require different innovation policies

#### Winners and loser of global value chains based integration

- •Increased concentration of manufacturing in a number of Central European countries > German led Central European supply chain (IMF, 2013).
- •Integration in global value chains supports the manufacturing sector only in the Central European Manufacturing Core countries while it tends to accelerate the deindustrialisation process in other Member States (Stöllinger, 2016)
- •Among vertical investment driven by differences in factor prices, affiliate jobs in eastern Europe appear not to compete with jobs in Austria and Germany (Marin, 2010).
- •Lower costs of CEE affiliates help firms to lower overall productions costs and to stay competitive.

Changes in contributions to intra-EU trade, in percentage points of trade flows (2000-2014)



Source: based on WIIW study (2016) The Evolving Composition Of Intra-EU Trade, WIIW Research Reports, No. 414, November 2016



### Exploring multilevel determinants of productivity gap in the EU

- Multi-level determinants
  - Firm-level determinants:
    - Technology transfer (via FDI)
    - Multi-plant firms
    - Size, age
  - Industry determinants:
    - Industry concentration (within sector-year-country vs. within sector-year-EU);
  - Macro regional determinants: Europe North, East and South
  - Technology gap determinants
    - Own disembodied and external embodied technology: Direct and 'indirect' R&D investments
- Research Question: Which of these determinants play a more important role in explaining the productivity gap?

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#### Results

- Support for technology gap interpretation of the productivity gap in the EU
- Own R&D at the sectoral level is a significant determinant of closing productivity gap and technology transfer (domestic and imported) also plays an important role in closing the gap
- •But negative interaction between endogenous technology effort and technology transfer shows lack of complementarities (mismatches) in interaction between R&D and technology transfer (FDI/GVC) Policies
- > The importance of coupling of own R&D effort with the inward and international technology transfer

#### Policy messages

- The nature of innovation activity in EU LDC/LDRs is different: beyond only R&D based innovation policy > focus more on manufacturing and servicing capability
- Interaction between own R&D and imported technology: coordinating R&D and technology transfer (industrial/FDI/GVC) policies) > merge FDI and innovation agencies
- Place based policies alone are insufficient response to this structural issue including conventional cluster policies! > A response: GVC oriented cluster policy / GVC oriented industrial policy
- Challenges of implementation of innovation policy (Weak institutional capacities for innovation policy; Challenge of experimentation with accountability) > Asses your operational, technical and political capacities for industrial innovation policy

## Building coalitions for technology upgrading

- •'Investing in those upgrading-related investments that required extensive information, negotiation, monitoring, and short-term costs, but whose benefits would emerge only in the medium or long term'
- •Source: R. F. Doner and B. R. Schneider (2016) The Middle-Income Trap. More Politics than Economics, World Politics 68, no. 4 (October 2016), 608–44
- How to build upgrading coalitions in less developed regions and countries?
- Policy should not ignore 'vested interests'. They have to be recognised but also made accountable

