

# Joint Research Centre

the European Commission's in-house science service

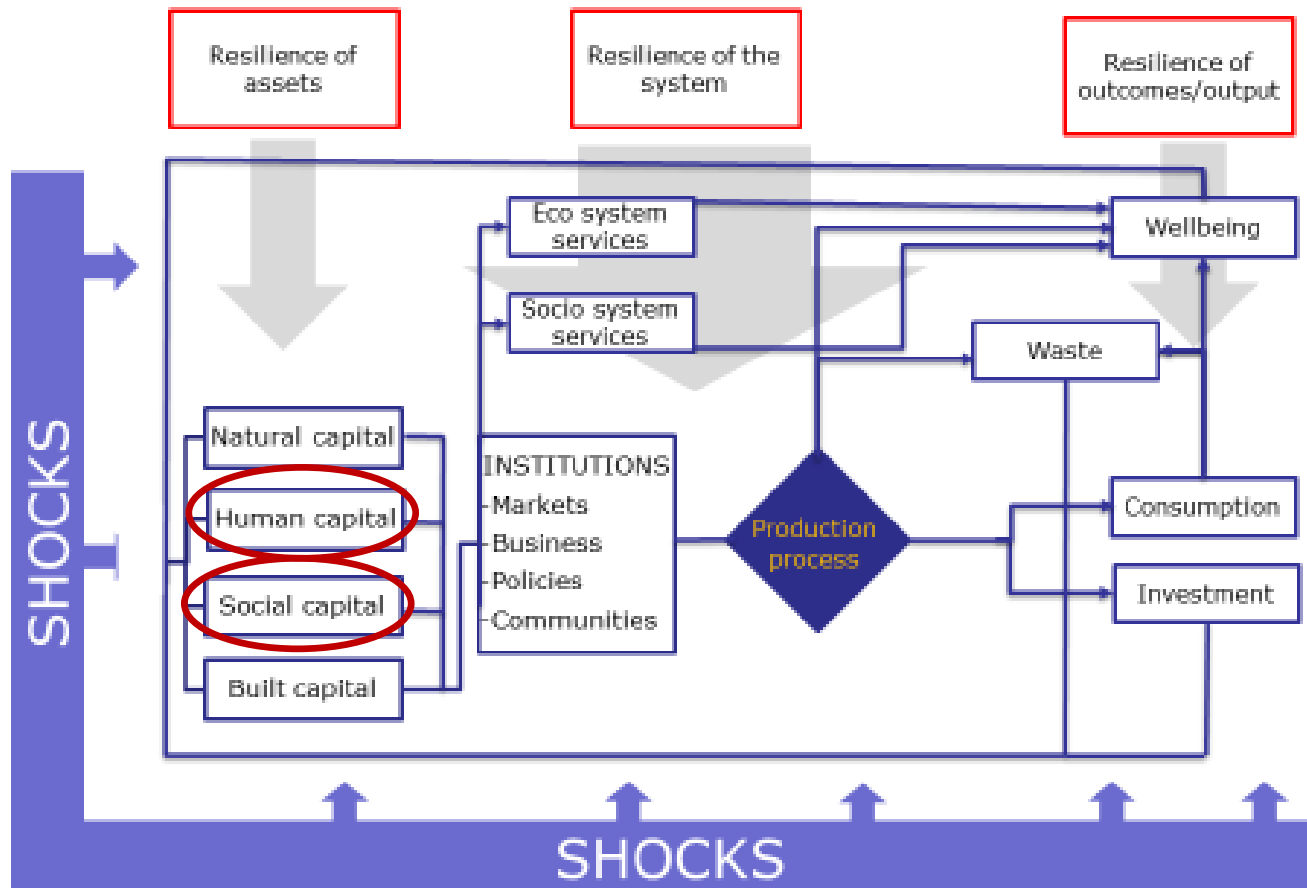
*Serving society  
Stimulating innovation  
Supporting legislation*

## Mobilising Human Capital and Innovation in Europe

**Vladimír Šucha**  
Director General

*Aalto University, 25-27 April 2007*

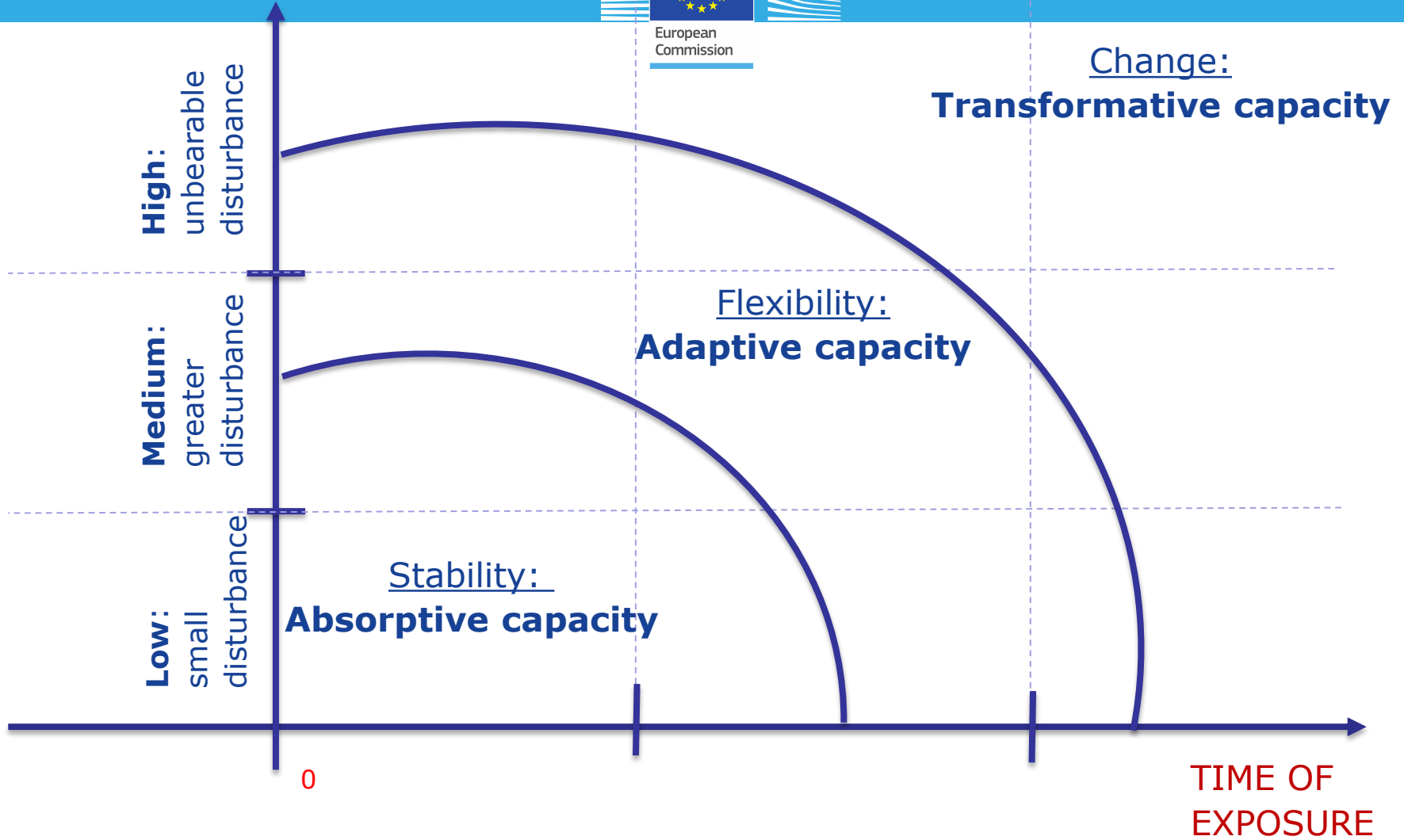
*www.ec.europa.eu/jrc*



# DISTURBANCE INTENSITY



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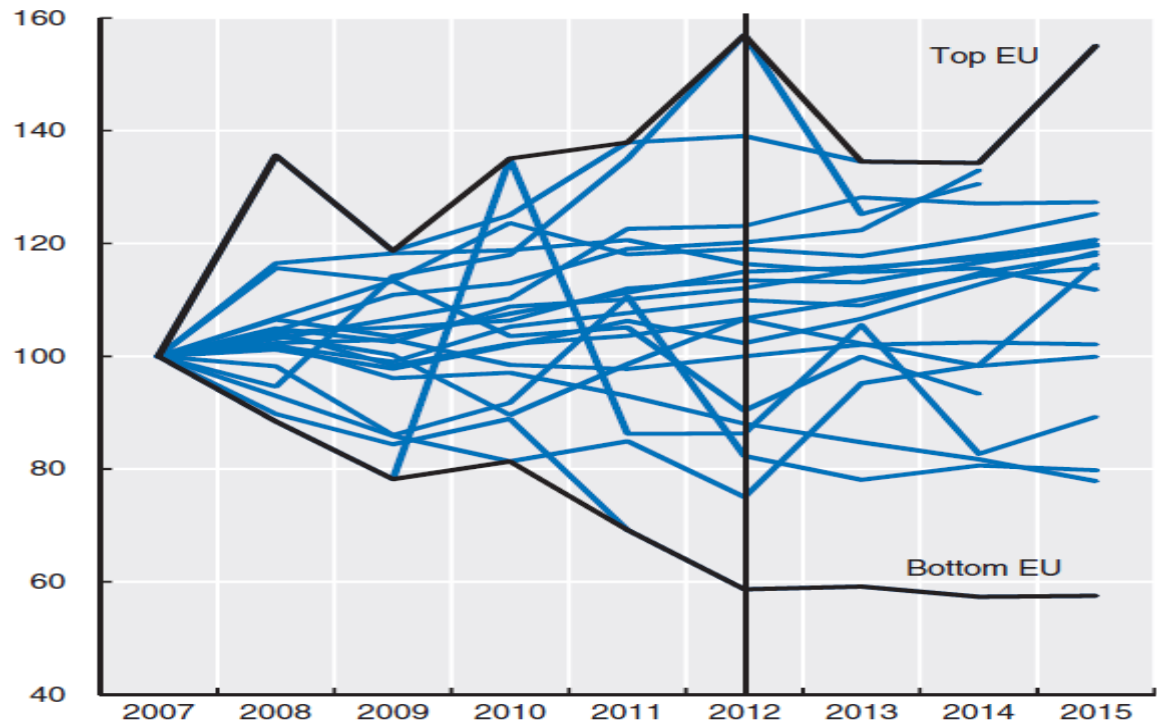


# Technology diffusion: how can we combat its sluggishness and speed up adoption?

**Cross-country investments in intellectual assets (Gross fixed capital formation, intellectual property products, index 2007 = 100, 2007-14/2007-15)**

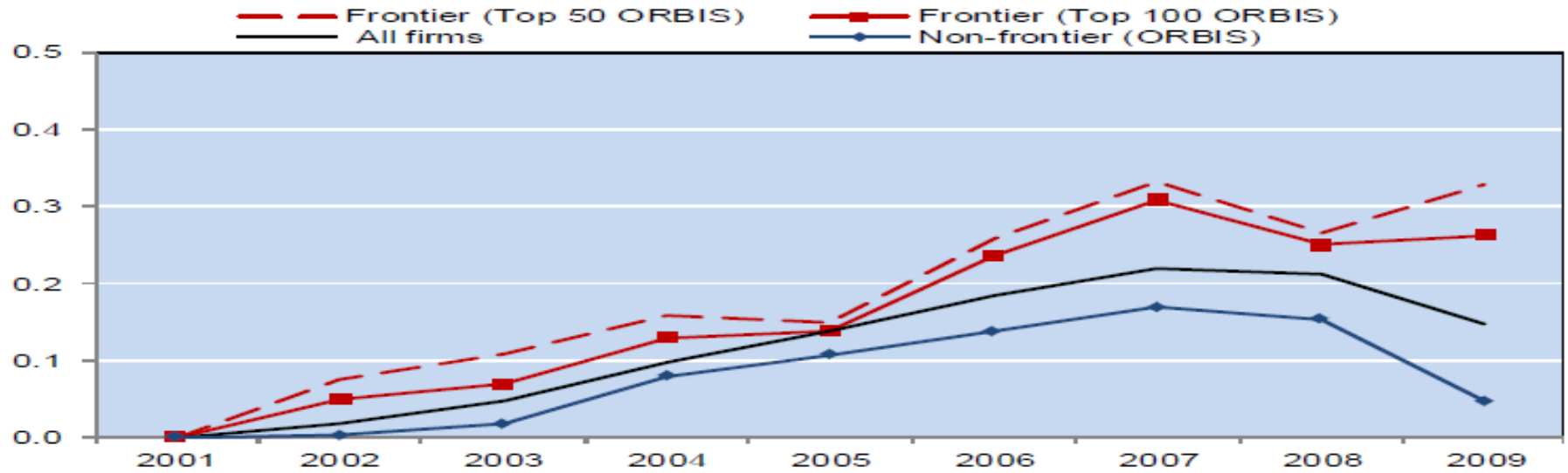
Source: OECD, STI Outlook (2016), p. 171

Panel 2. Intra-European divergences  
index 2007 = 100, 2007-15

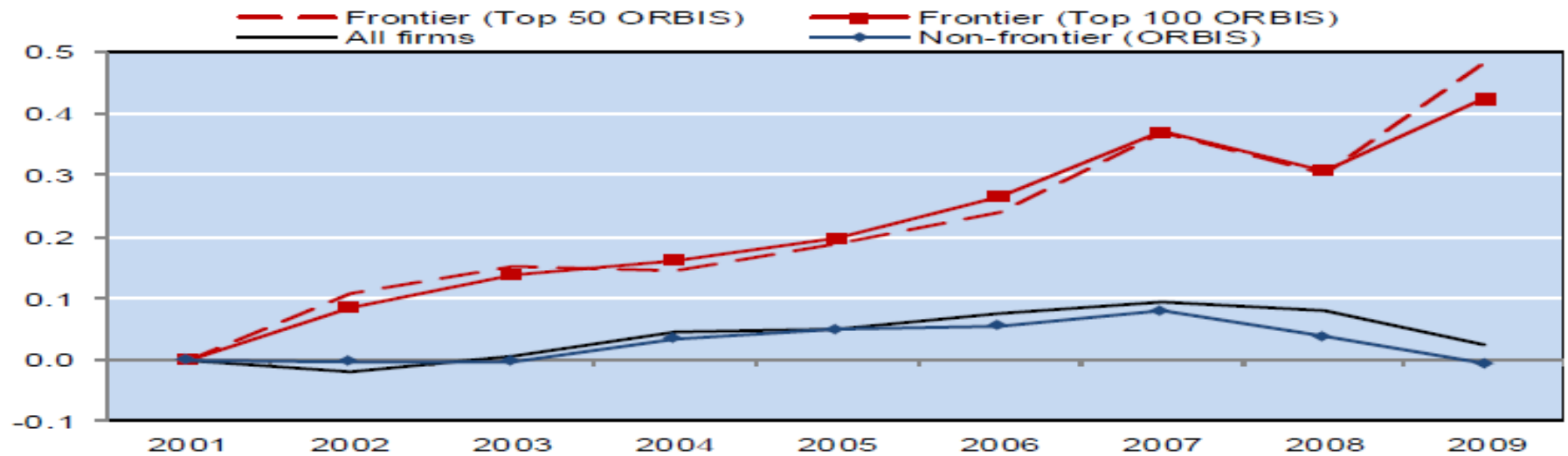


# Percentage difference in labour productivity levels from their 2001 values (index, 2001=0)

## A. Manufacturing



## B. Services

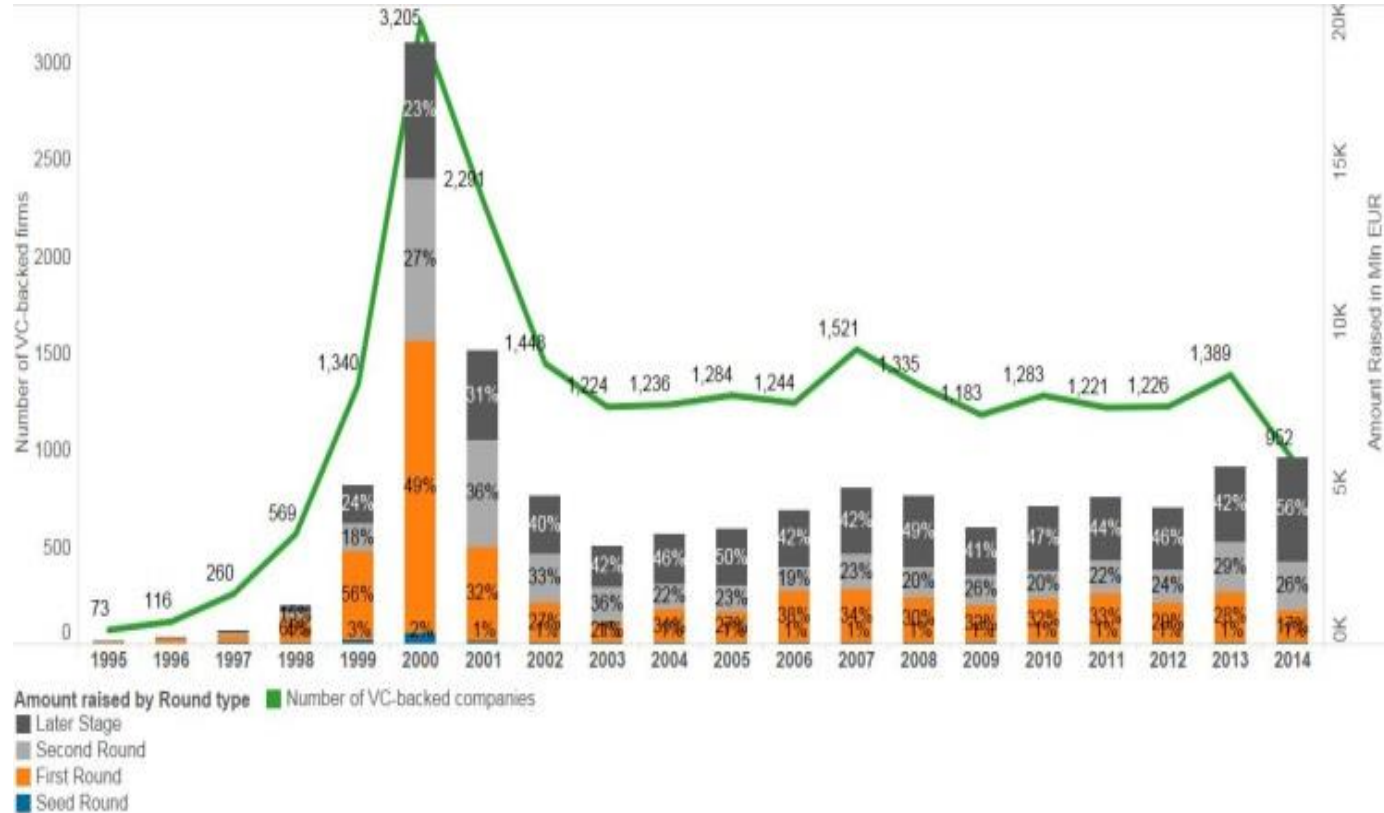




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# Access to finance

VC funding in Europe have decreased significantly after the dot.com bubble burst



Source: De Prato, G., Nepelski, D., & Piroli, G. (2015)

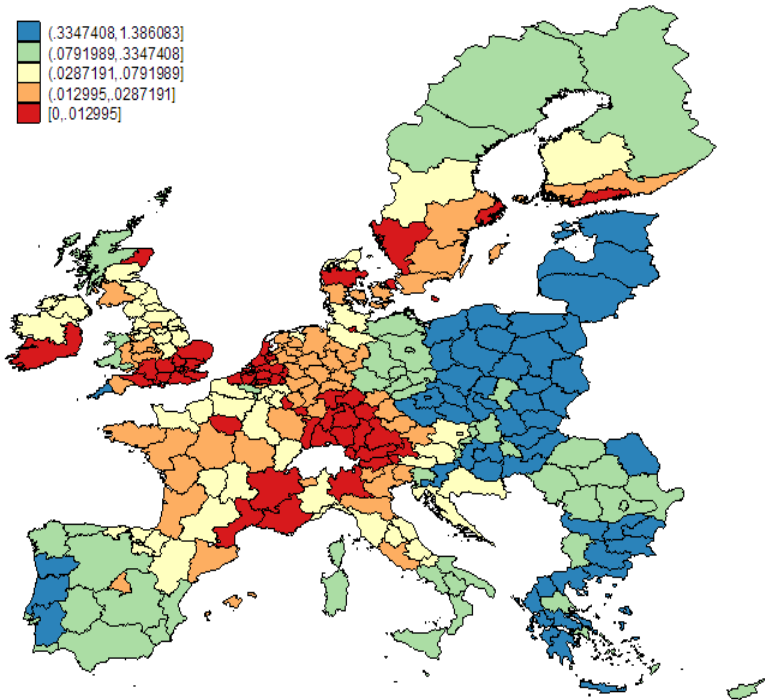


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# Innovation Divide in Europe

## SF-based R&D Intensity as a % of GDP 5 Country Groups

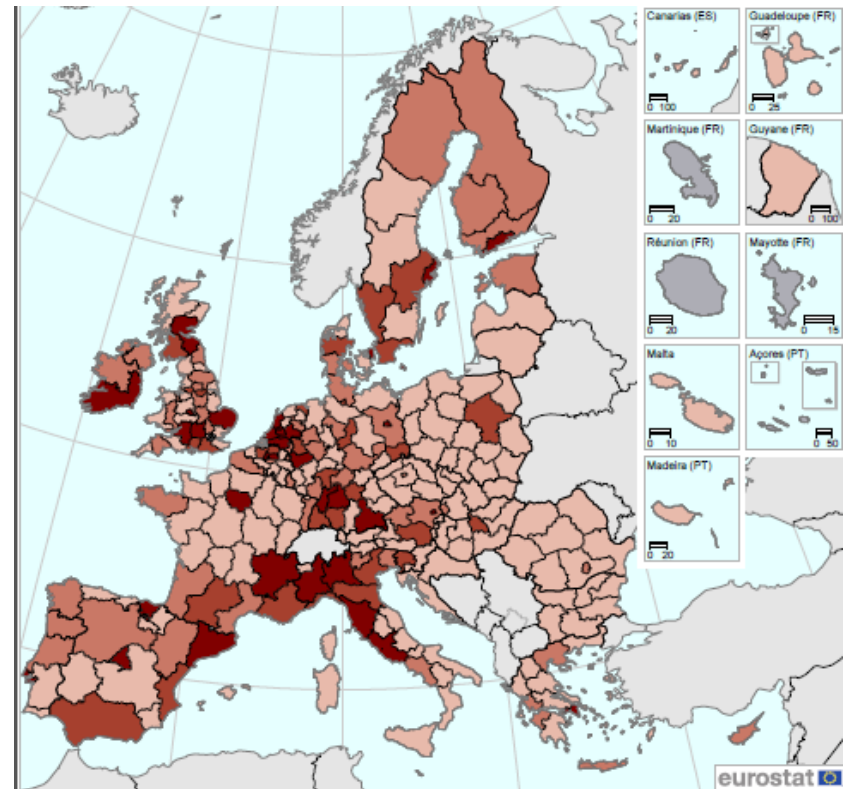
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- (.0791989, .3347408]
- (.0287191, .0791989]
- (.012995, .0287191]
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Source: EC-JRC 2016

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# EU Regions in Horizon 2020 (Oct. 2016)



Default subtitle2

Administrative Boundaries: © EuroGeographics © UN-FAO © Turksat  
Cartography: Eurostat — IMAGE, 23/02/2017

Legend:

- <= 43950597
- 43950597 – 162506689
- 162506689 – 451337297
- > 451337297
- Data not available

0 200 400 600 800 km

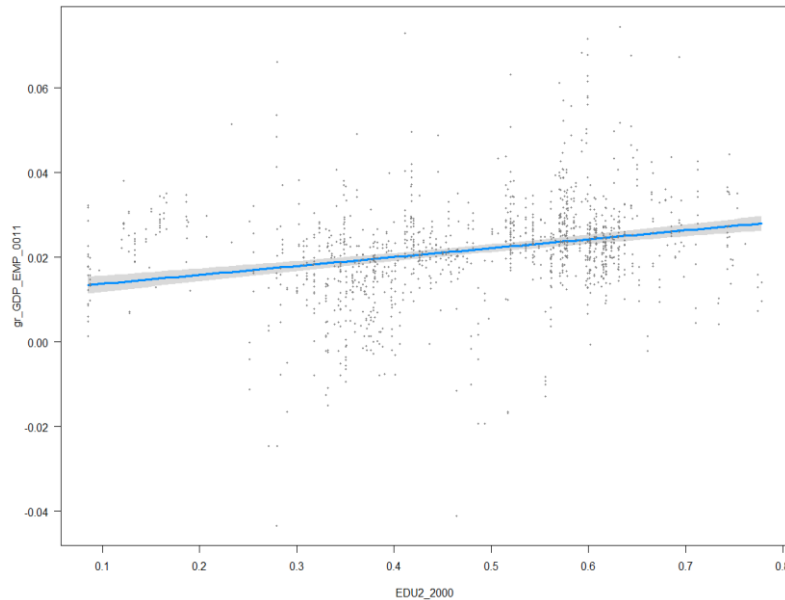


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# Education: effects on productivity

## Effect of *secondary education*

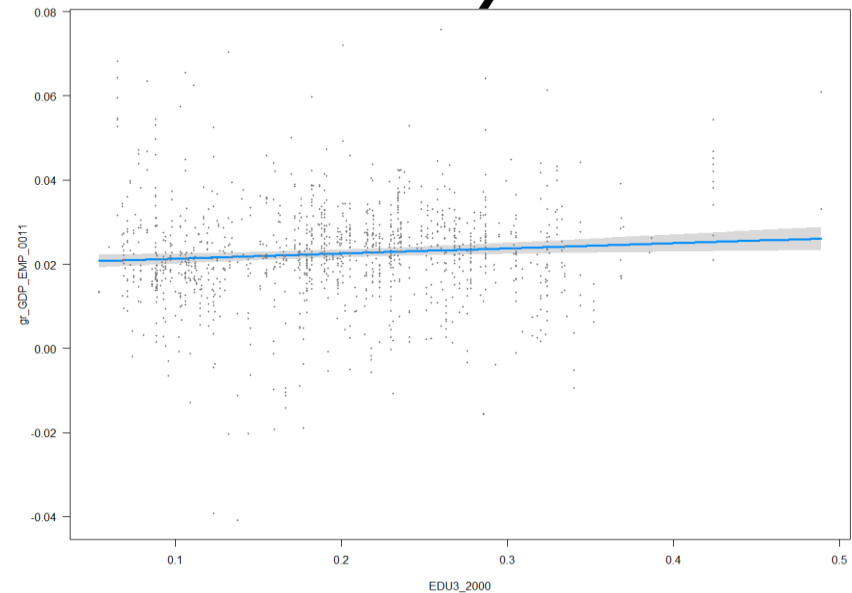
Annual productivity growth  
2000-2011



1% increase in share of people with **secondary education** implies an a EU average 0.021% increase in productivity.

1% increase in share of people with **tertiary education** implies a EU average 0.012% increase in productivity.

## Effect of *tertiary education*

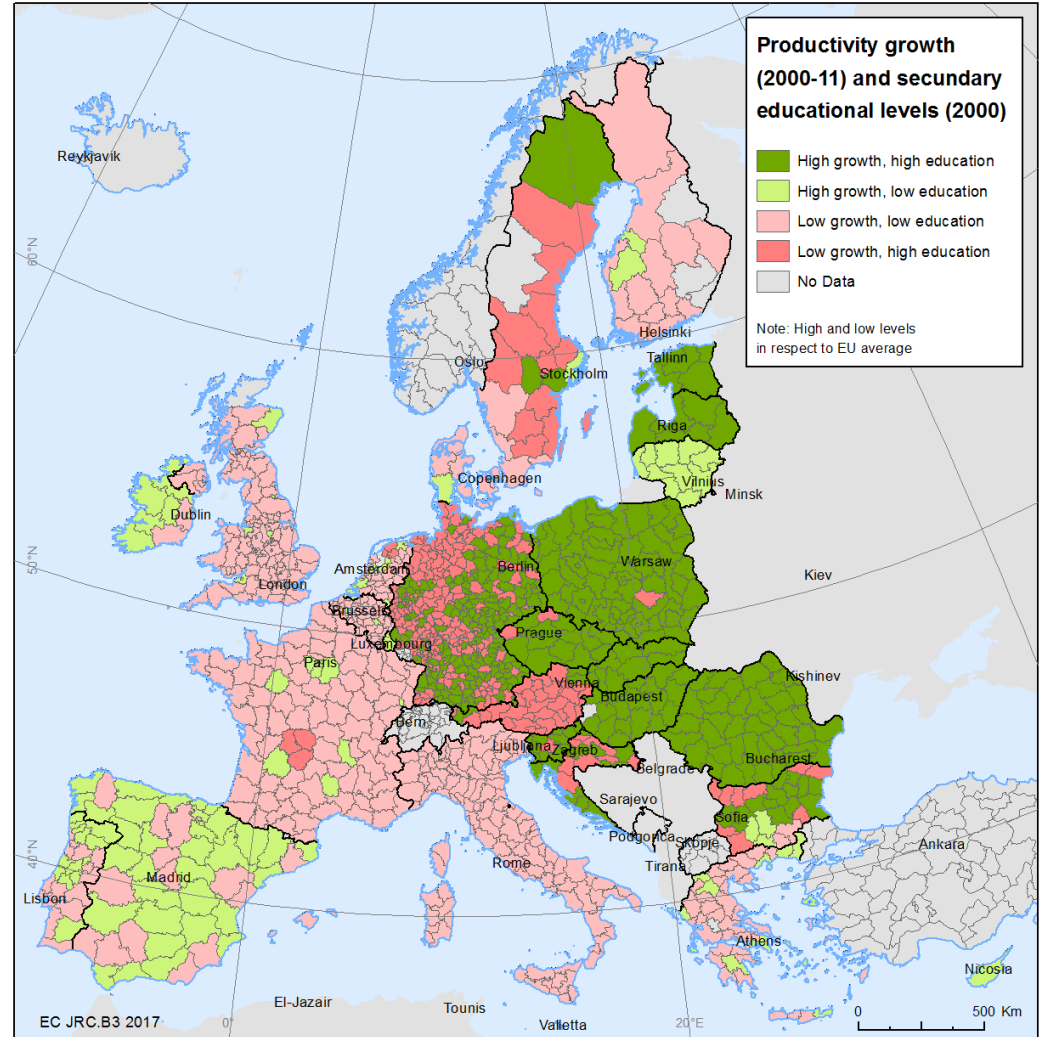






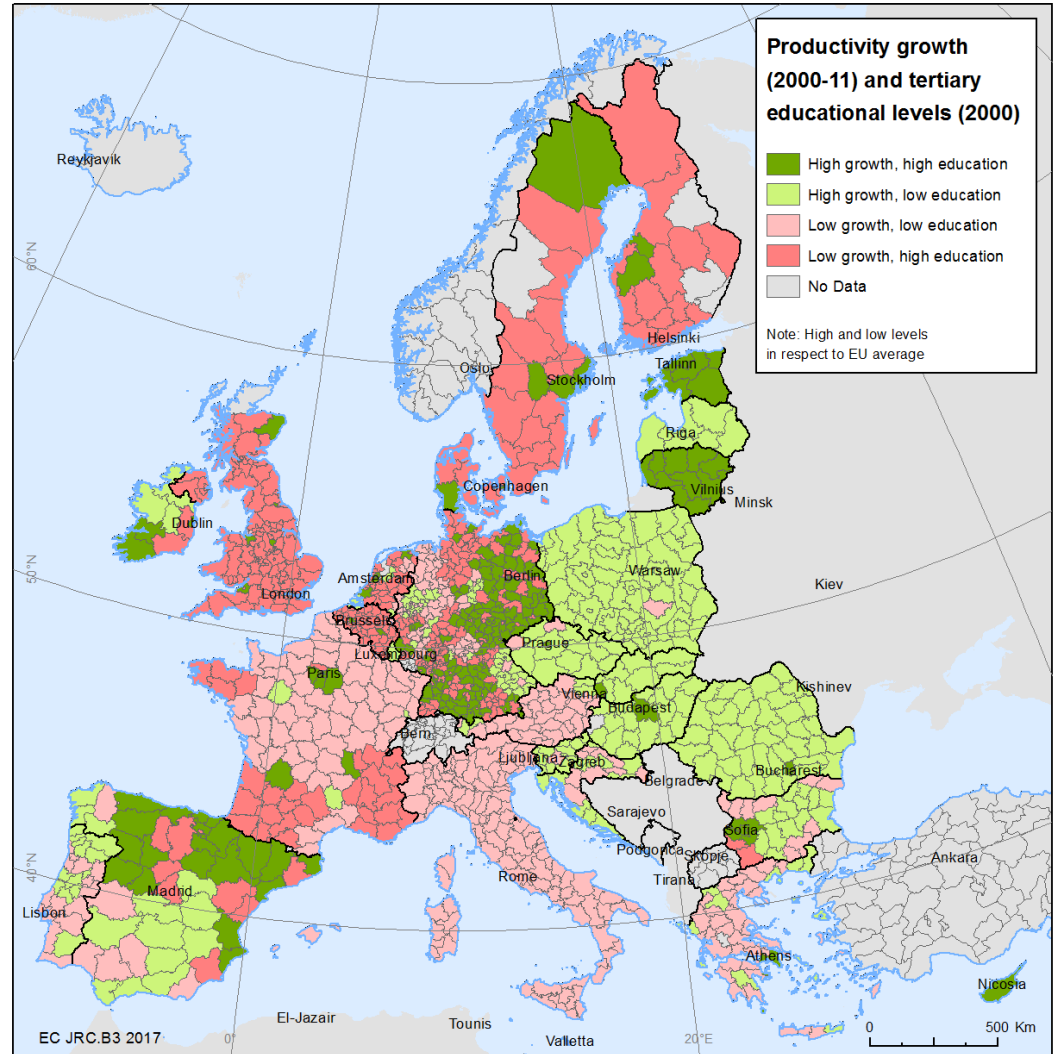
# Relation between productivity growth 2000-2011 and secondary educational levels in 2000

Source: EC-JRC, 2017 on-going project on determinant of local growth





# Relation between productivity growth 2000-2011 and tertiary education in 2000



Source: EC-JRC, 2017 on-going project on determinant of local growth



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# Economic Gains from Reaching Finland (Percent of GDP)



Source: EC-JRC based on "The economics of Improved Schools "by Prof. E. Hanushek, 2016

## ***Aalto, Espoo: A successful example of place-based innovation ecosystem***

- Concentration of highly skilled human capital and research infrastructure
- Vision, political commitment and collaborative culture of Helsinki-Uusimaa Regional Council and Espoo City
- Emergence of a strong orchestrating actor: Aalto University, with its
- Local culture of innovation and entrepreneurship
- Focus on the potential and capability of people
- Financial and policy support from central government
- Successful involvement of entrepreneurs



# Fostering the European Innovation Ecosystem: How

- Moving towards **regional-specific R&D targets**
- **Role of non R&D innovation** in Stairway to Excellence
- **Opening up regional structural funds** to external actors, supported by Pan-European platforms
- Fewer and simpler **EU funding instruments** with better aligned rules and increased flexibilities
- **Targeting funding towards radical innovations**
- Encouraging **universities** to become major players in the local innovation ecosystems
- Strengthening the role of **Social Sciences and Humanities (SSH)**