

Smart Specialisation in Eastern Europe

Regional Disparities as a Challenge of Science and Business Collaboration

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Chief Scientific Officer

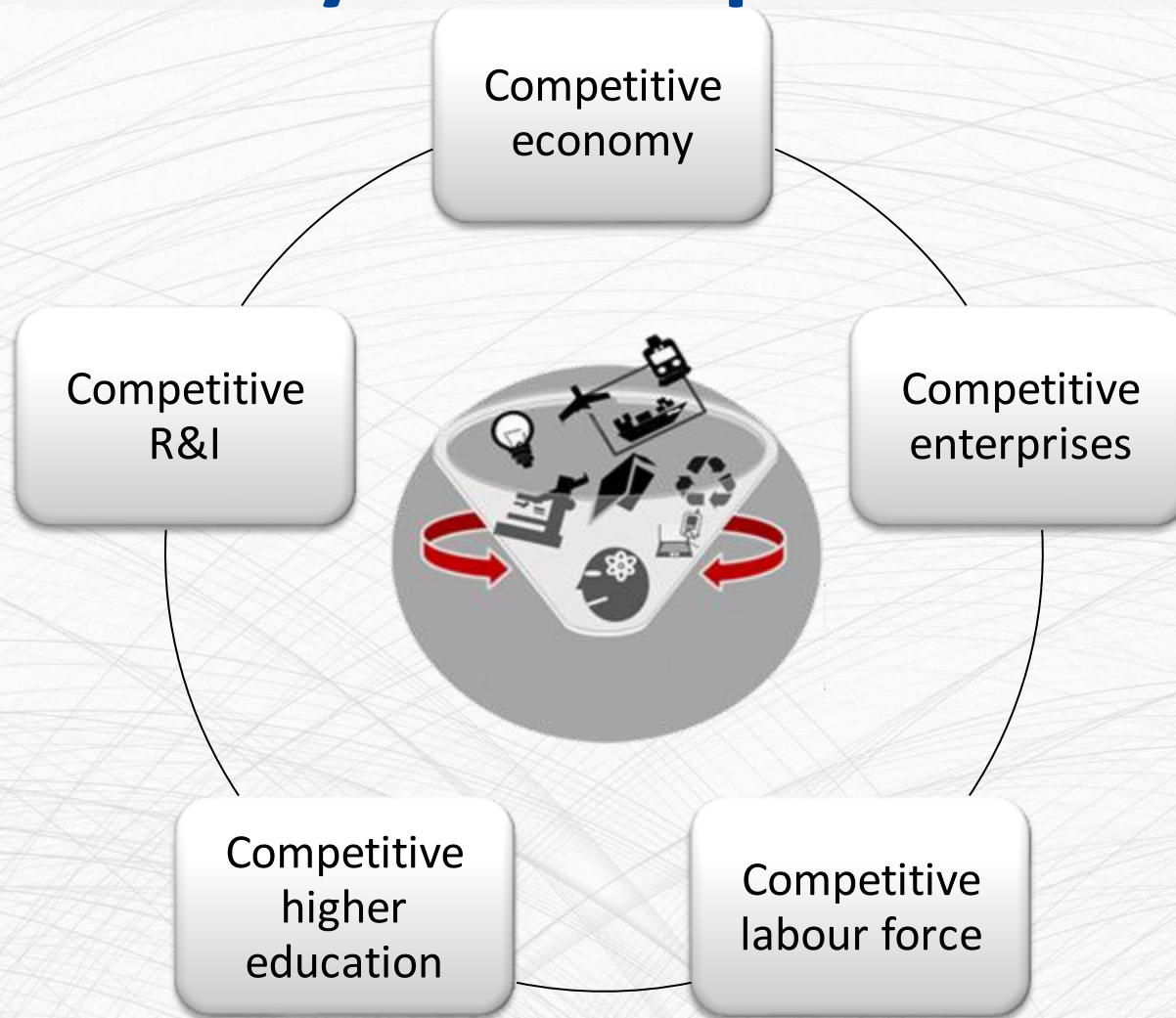
Regional Centre for Information and Scientific Development

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Information Day on Smart Specialisation

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R&I – Key to Competitiveness



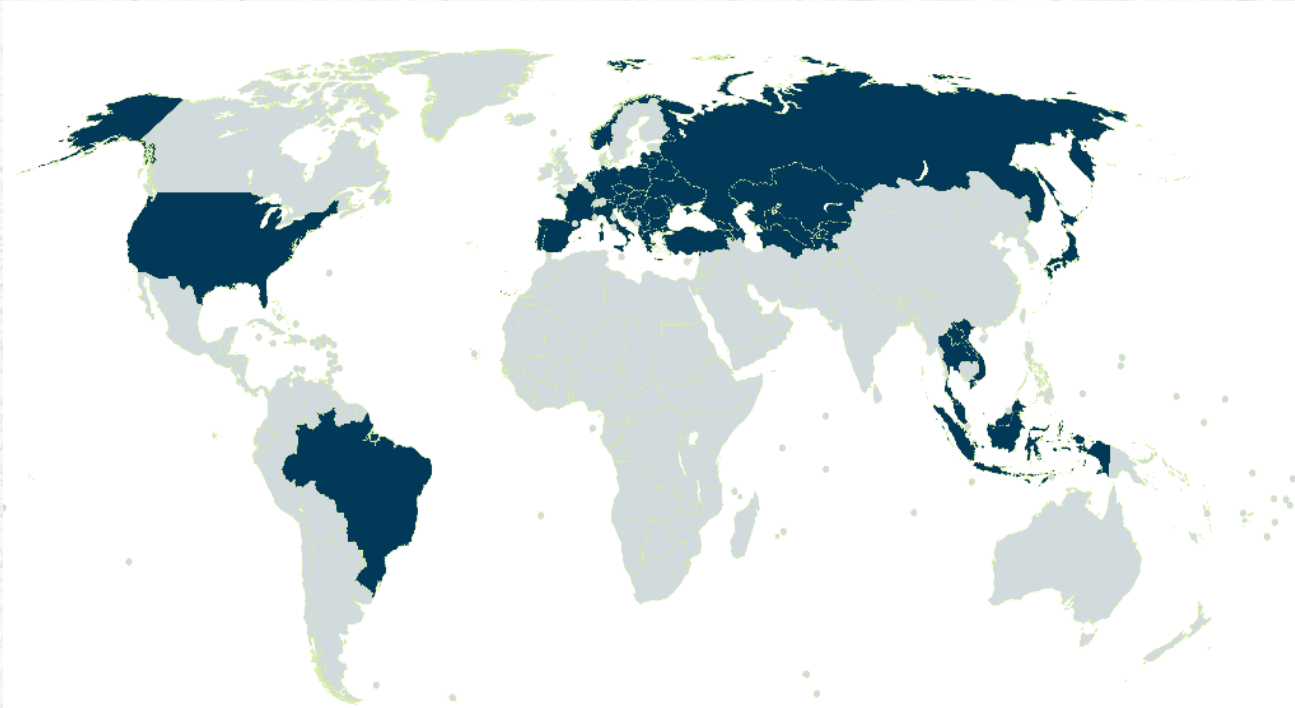
The link between research and competitiveness is efficient knowledge transfer

RCISD introduction

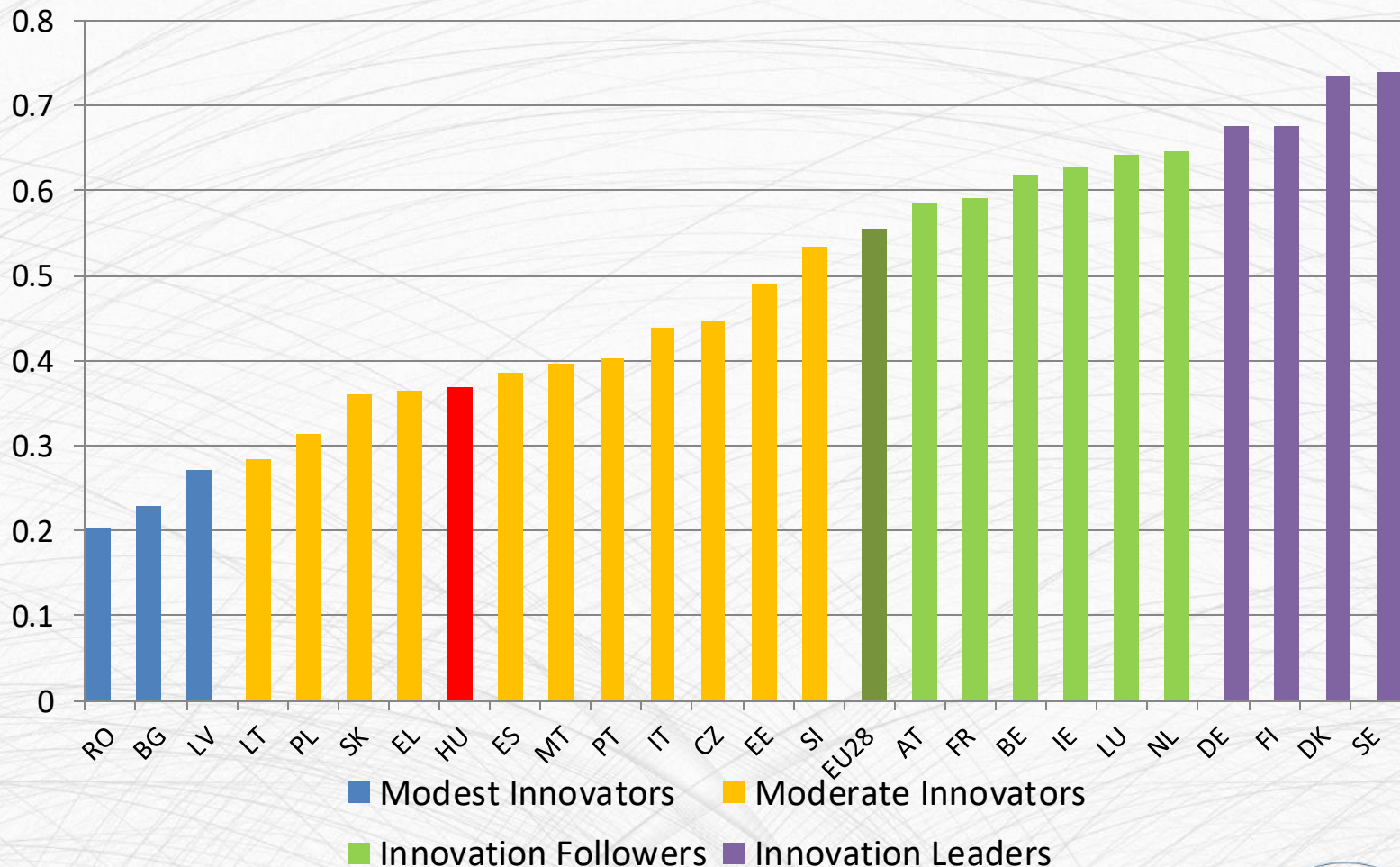
- SME
- Founded by scientists and R&D managers
- Well established platform for regional and international cooperation
- Services
 - advise and consultancy supporting national and international proposals
 - thematic, administrative and financial project management
 - scientific research and analysis
 - education & training

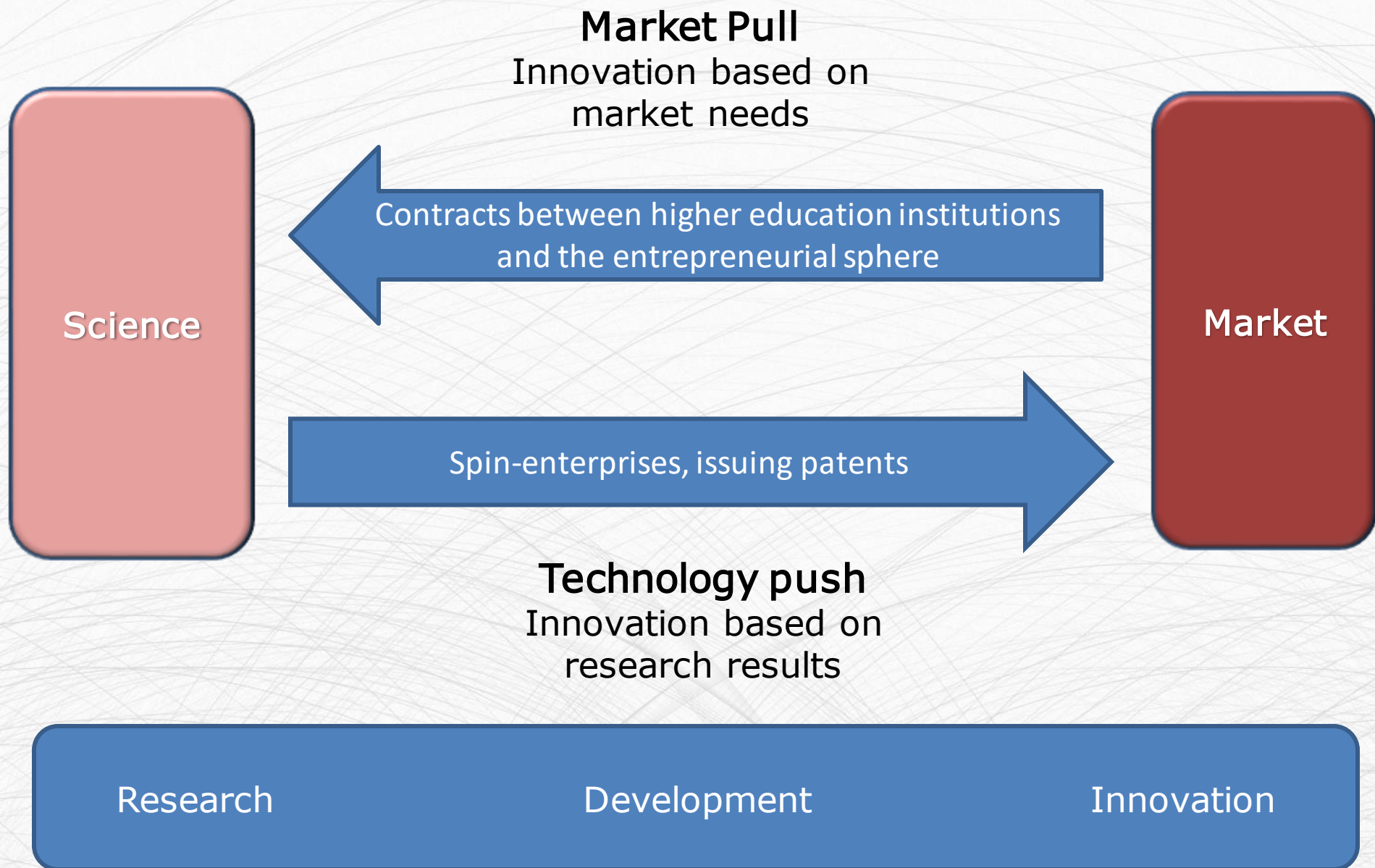
References – international cooperation

- 9 x FP7 and 8 x H2020 projects
- Cooperation with EU, Danube Region, Eastern Partnership Countries, Central Asia, ASEAN, Japan, Brazil, USA (90 partners in 43 countries)



Innovation Union Scoreboard, 2015





Obstacles to efficient technology transfer in Hungary (2)

Inherent historical obstacles

Technology transfer within institutions is not centrally organized, not functioning on an institutional level

Successful researchers are not willing to share their business partners with other researchers

No real acknowledgement of the third mission of higher education institutions (a general characteristic of Humboldtian institutions)

Attitude of the entrepreneurial sphere to the R&D activity of universities

As techtransfer activity on universities are fragmented (organised not on an institutional but on an individual level), the R&D potential of universities is not visible enough

There is no real need for sophisticated R&D activity of universities, requests of companies are below the dignity of researchers

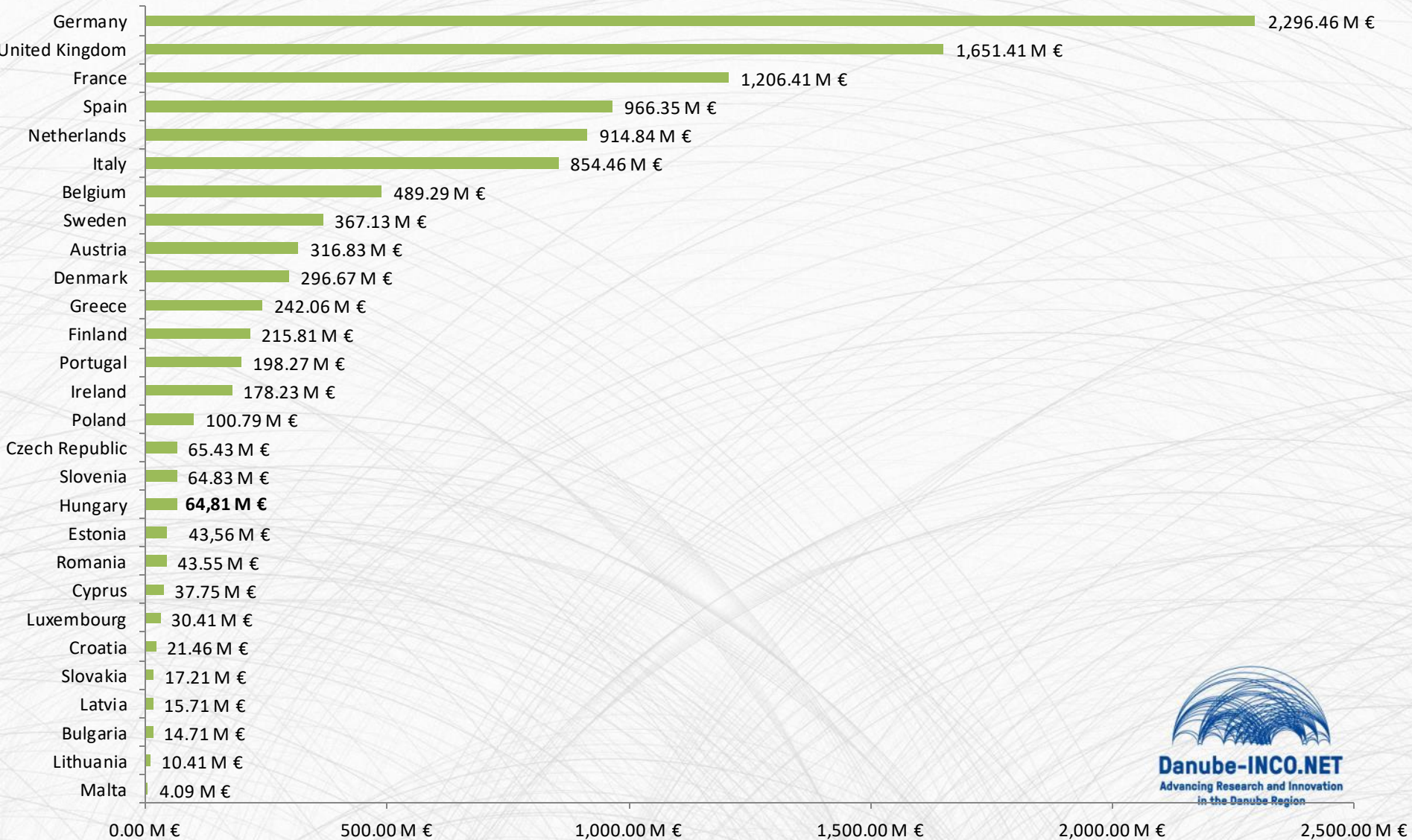
Regulatory framework, market environment

Entrepreneurial schemes and good practices are imported from the United States without adjusting them to national characteristics

Entrepreneurial culture is underdeveloped, researchers do not have the necessary transversal, and entrepreneurial skills to make themselves visible.

Insufficient continuous funding of technology transfer activity

First results of the EU member states in H2020



Most important problems hindering FP participation

1. Administrative burdens
2. Financial and liquidity problems
 - Companies have to calculate with precise budget, timing, etc.
 - In-kind contribution
 - Lack of motivation: question of additional income in public research institutions for researchers involved in FP projects
3. Problems of „new-comers”
 - Hard to get involved into a successful, experienced consortium – impossible to win as a coordinator
 - Lack of know-how (regulations, techniques) and relationship with experienced applicants from Western Europe
 - Lack of experienced **evaluators** → hindrances in the information channel
 - Lack of expertise in management and administrative issues within research entities & groups
4. Research infrastructure (age, capacities)
5. National funding

Role of National Funding Programmes

- The national funding programmes are of utmost importance to support participation in FPs
 - Enabling accession to international grant systems
 - Preparing the research community for multinational R&D&I culture, standards and environment
- National strategy versus EU strategy
- Development level of regions
- Securing the in-kind contribution

Main issue: bridging the resource gap in research Funding

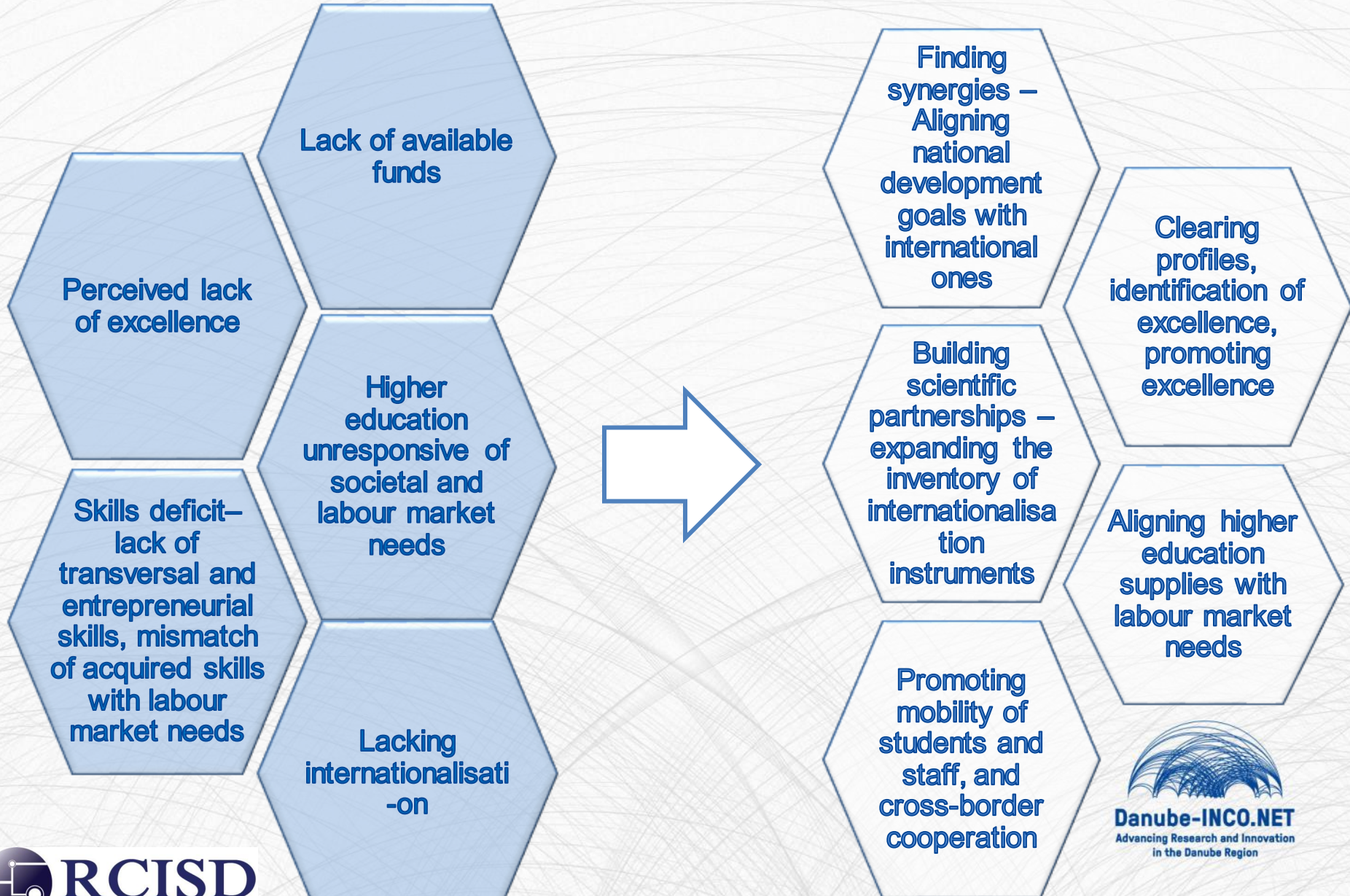
Performance of most of the new Member States falls short of that of the old Member States.

**The overall share of EU12 (12+1) participants in all projects is low
Funding of successful projects per participant to EU12 (+1) countries is lower than for EU15 countries**

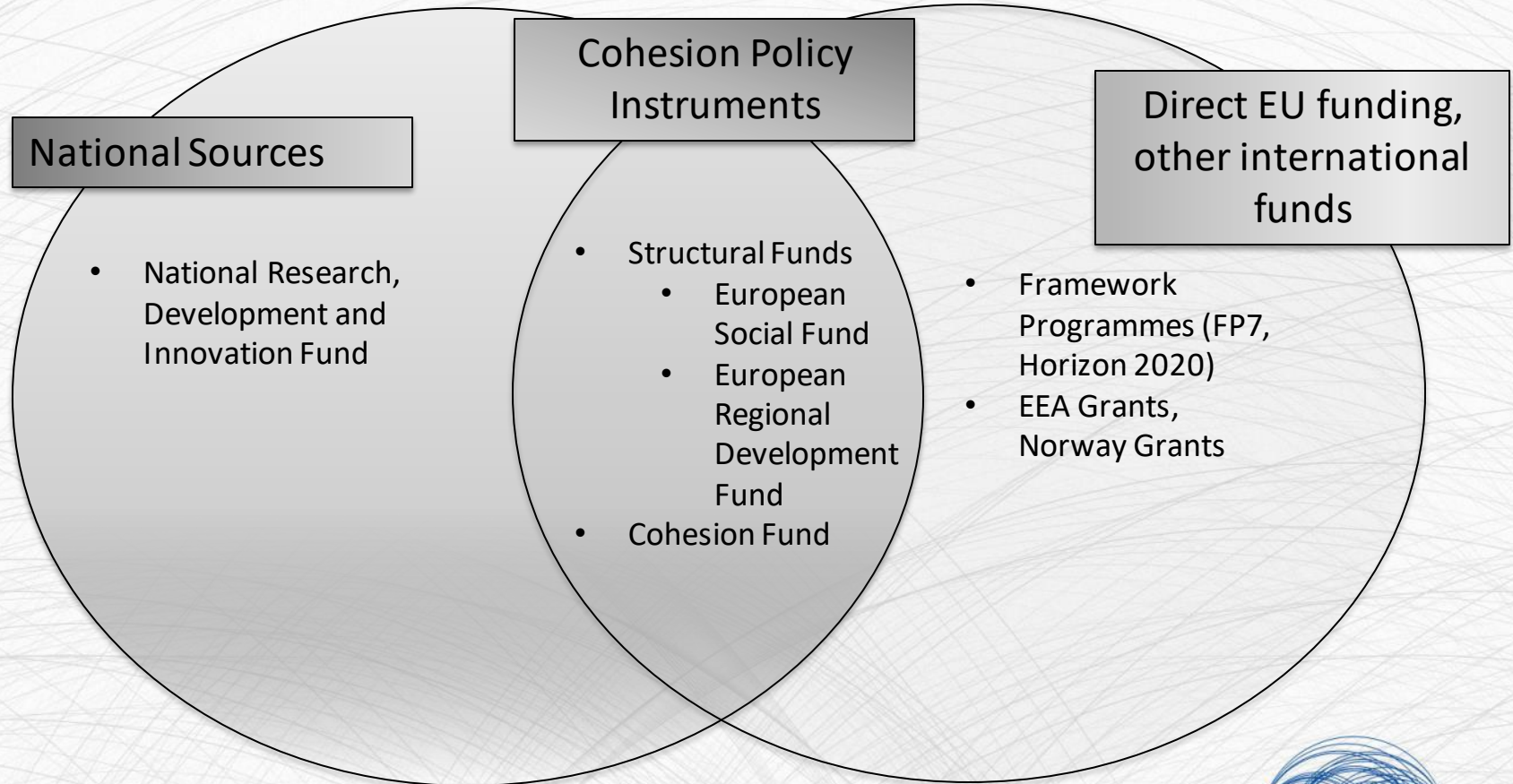
Solution:

Finding synergies between funding opportunities and increasing international integration of national higher education and higher education research

Polarization – the most prominent challenge the European Research Area is facing



Sources of R&D Funding



Main goal: bridging the resource gap

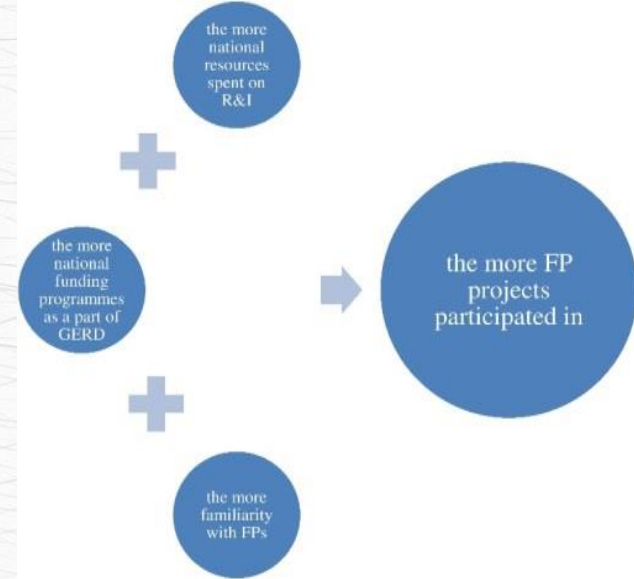
How to Come Closer to the Framework Programme

+ The more national Resources spending on R&I

+ The more higher GERD / GDP

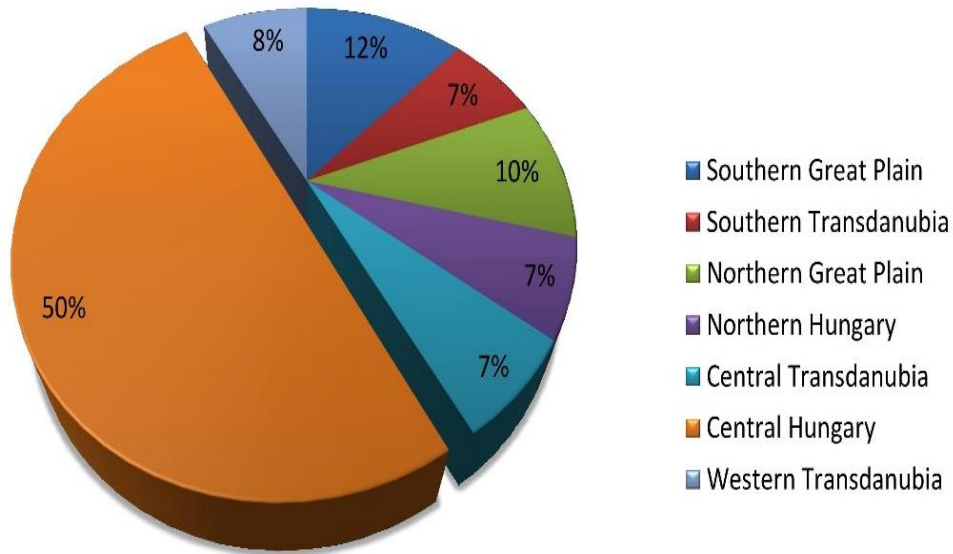
+ The more familiarity with the European Programmes

=> The more FP projects participated in

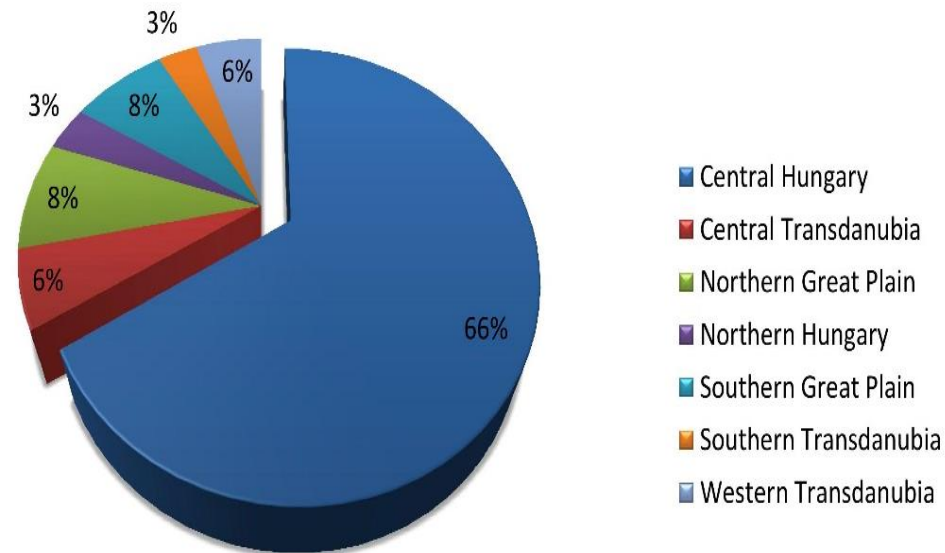


Regional Disparities

R&I units



R&I expenditure



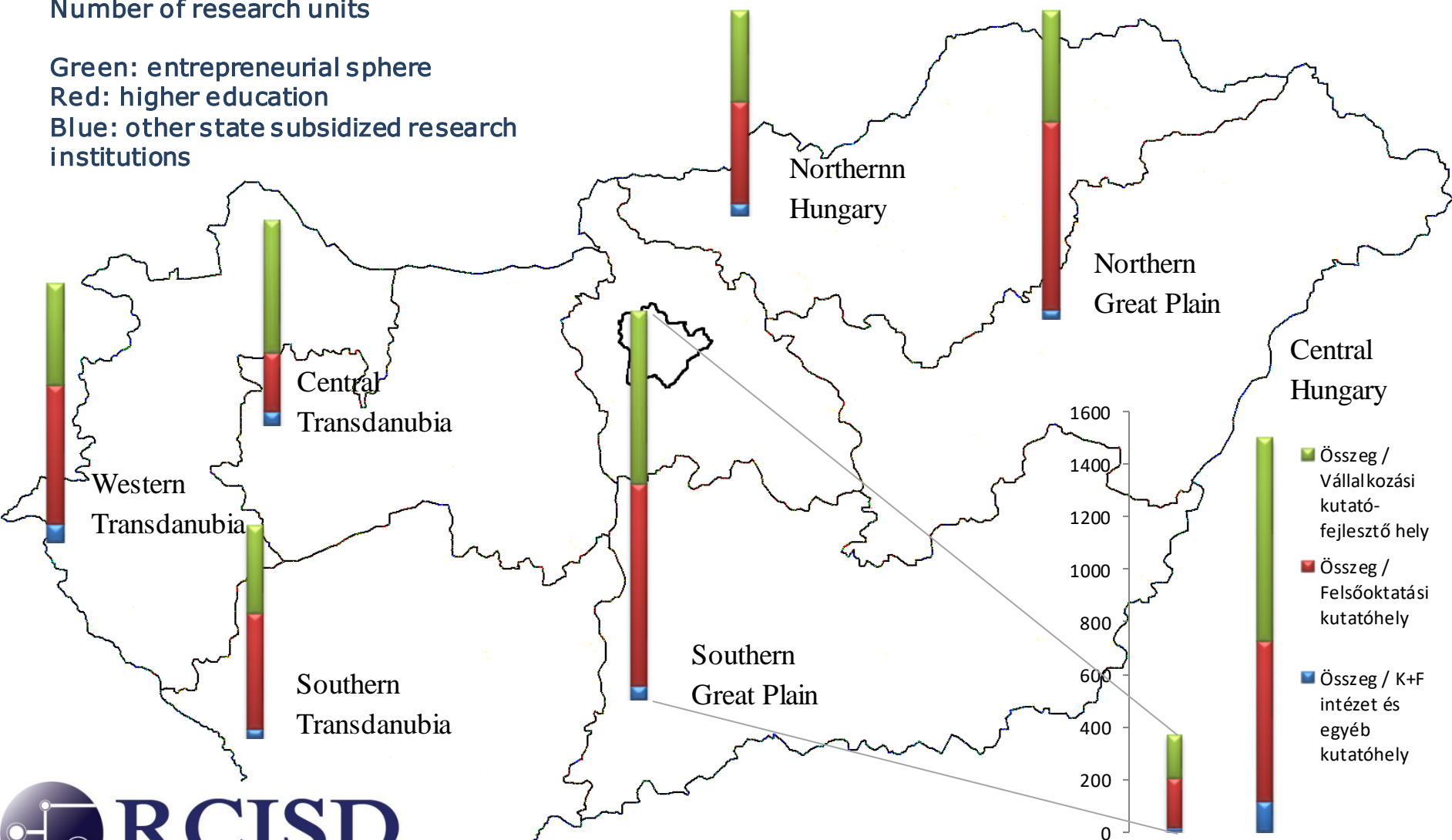
Why is Smart Specialisation Important from the Perspective of Higher Education (1)

Number of research units

Green: entrepreneurial sphere

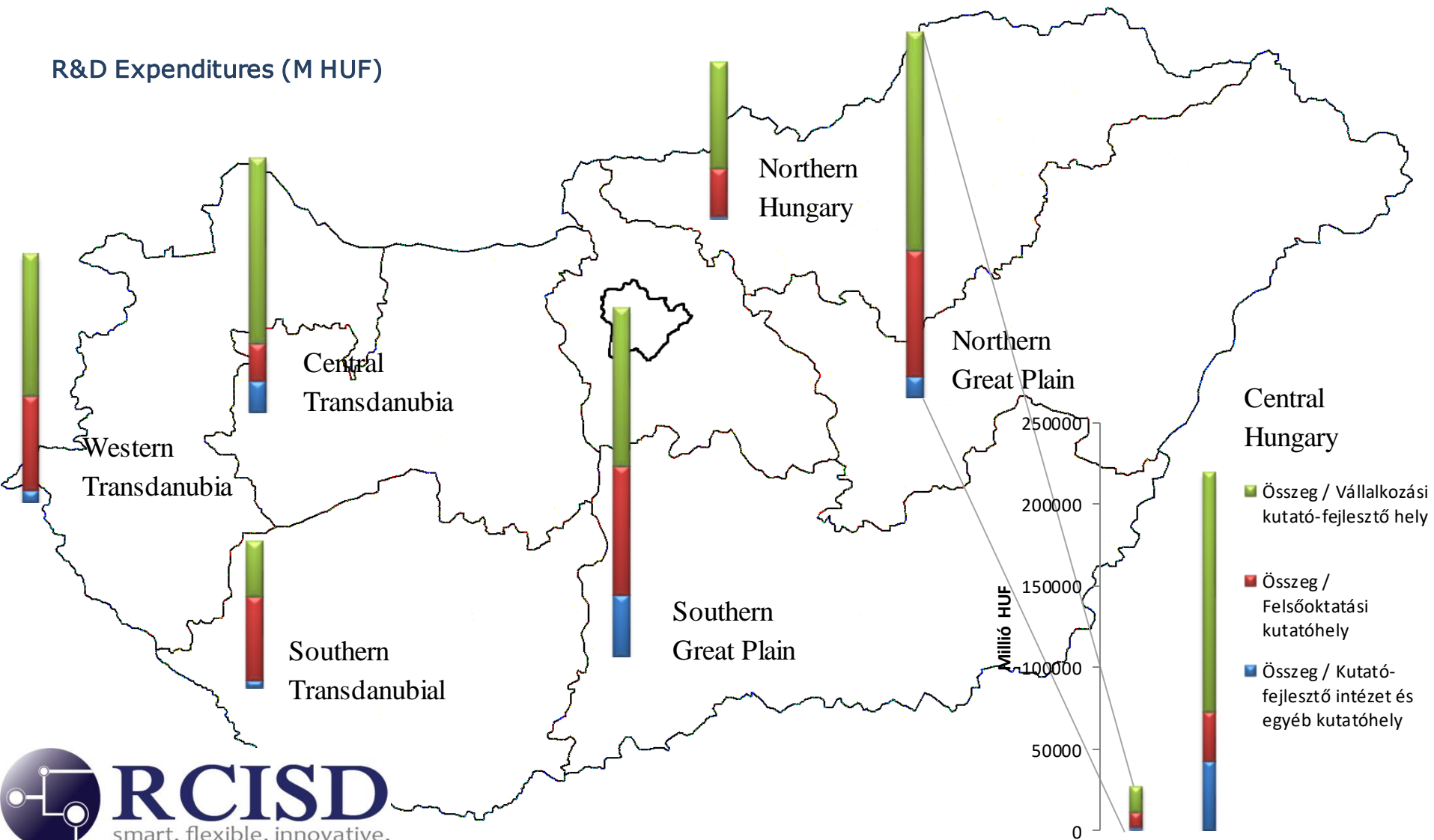
Red: higher education

Blue: other state subsidized research institutions

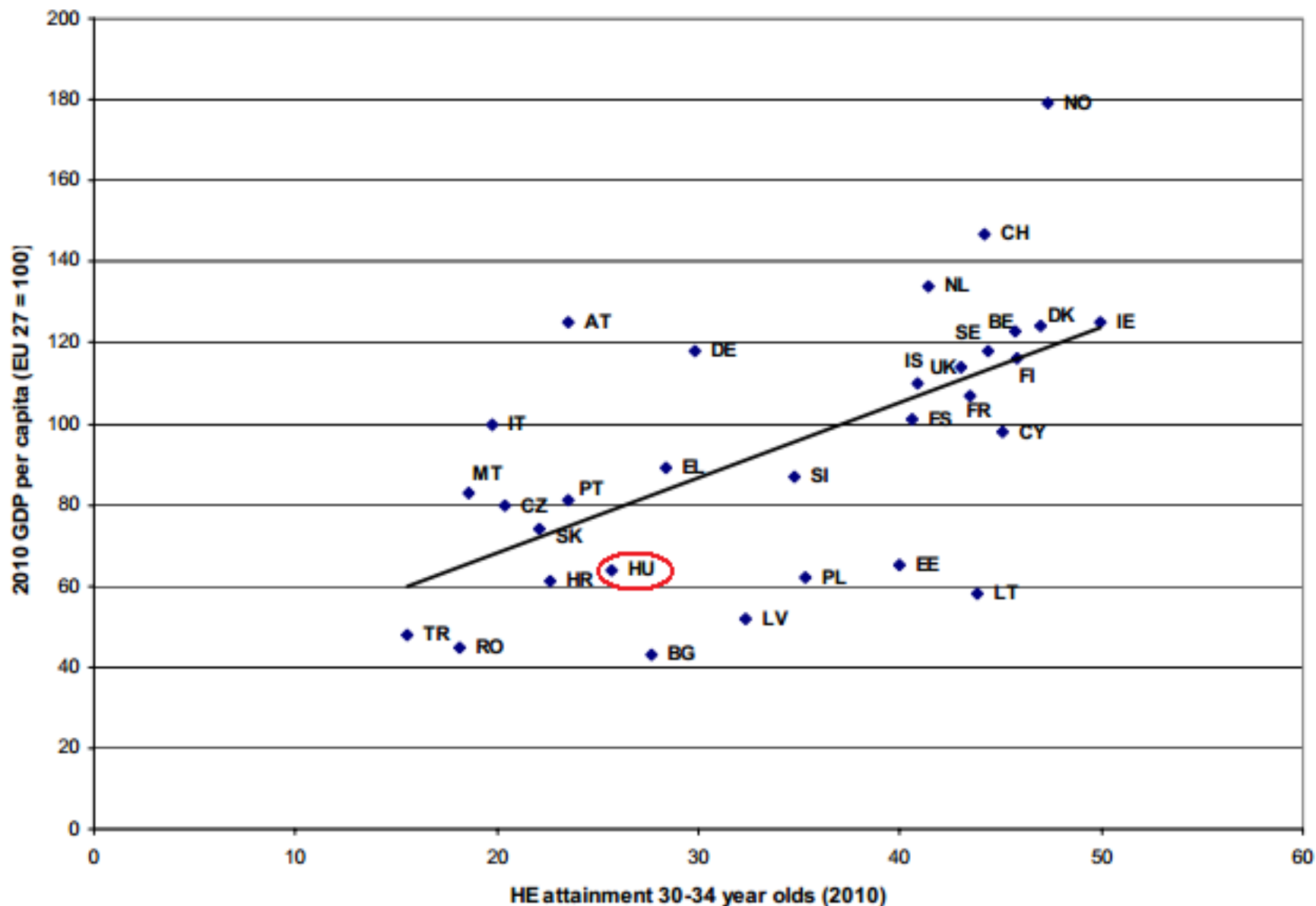


Why is Smart Specialisation Important from the Perspective of Higher Education (2)

R&D Expenditures (M HUF)



Higher education attainment (30-34 year olds) and GDP per capita in 2010



STRATEGIC PRINCIPLE: MOMENTUM OF INNOVATION

Aim

Effective participation with high-value added activities in the international division of labour.

Prerequisite:

high-value added RDI activities and programmes

Prerequisite:

- a) world-class, excellent scientific background
- b) talented researchers and other professionals
- c) competitive infrastructures
- d) calculable and transparent financing scheme

Assignment of policy instruments to the national S3 directions (1)

SYSTEM SCIENCE

- **Enhancing research and innovation (R&I) infrastructure** and capacities to develop R&I excellence, and promoting centres of competence, in particular those of European interest;
- **Creating relationships** and synergies between businesses, research and development centres and the higher education sector
- **Open innovation**
- increasing the international integration of basic research in the Horizon 2020 projects and the **European research networks** by reaching a high level of participation in the programs and strengthening the relationships between the national and European research centres
- Improving the system of conditions of discovery research along the smart specialization; supports the strengthening of the interfaces between education-research-industry (**knowledge triangle**) and the (public) services and higher education institutions, the basic research related to the domestic key technologies and main economic sectors as well as the expansion of young researchers, further the harmonization of the university-academic and corporate capacities.
- Supporting **discovery research**

Assignment of policy instruments to the national S3 directions (2)

SMART PRODUCTION

- Supporting technological and **applied research**, pilot programmes, early product validation actions, and the advanced production capacities and test production of basic technologies
- Promoting the **R&I investments of businesses**
- Creating relationships and synergies between businesses, research and development centres and the higher education sector
- **Product** and service **development**
- Networking and clusters
- Open innovation
- Building the knowledge triangle, namely supporting the interfaces of education-research-industry and supporting the collaboration of the companies and the academic and higher education institutions
- Increasing the R&D activity and adaptation, and innovation performance
- Purchase of instruments and devices related to smart specialisation and supporting the interventions ensuring a new research generation in higher education

Assignment of policy instruments to the national S3 directions (3)

SUSTAINABLE SOCIETY

- Product and **service development**
- Technology transfer
- **Social innovation and eco-innovation**
- Spreading of **general-purpose technologies**
- Building the knowledge triangle, namely supporting the interfaces of education-research-industry and supporting the collaboration of the companies and the academic and higher education institutions
- Purchase of instruments and devices related to smart specialisation and supporting the interventions ensuring a new research generation in higher education
- Increasing the R&D activity and **adaptation, and innovation performance**
- Discovery research in **social sciences**

Thank you for your attention!

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