Smart specialisation strategy in Bratislava Region

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Smart Specialisation Conference
Innovation strategies on the state and lands level – present situation

- State level: No complex National innovation strategy was developed in 20 years of existence of the Slovak Republic so far
- Lands level: all lands have carried out the RIS 2, but due to low competencies of the land government’s insufficient implementation
- Insufficient support of SMEs, tax and insurance increase, unemployment of 14% / 32% young people, low R&D expenditures of 0.49% / 0.68% incl. SF expenditures
- Results: Innovation scoreboard 22/27, FP7 participation 22/27, unemployment 22/27
- Challenge to change: Central government systematic intervention is necessary
Preconditions of Innovation strategy development and implementation

- GDP growth caused by FDI - the automotive industry development (VW, PSA and KIA and their supply chain) and by the electro technical industry, much less by domestic SMEs
- Systematic SME support in access to finance, to market, to qualified working force necessary
- Support of research universities, SAS, emphasis on applied, “problem solving” research related to SK and EU industry needs
- Structural Funds inflow OPs education, infrastructure, SMEs, R&D, but very low SF administration efficiency EC support needed
- SF forms main part of R&D financing
- Smart Specialization Strategy – priority definition related to limited R&D and Innovation expenditures on national and regional level
BSK is a developed region, but certainly less than stated by the Eurostat.

High concentration of companies and financial institutions, full employment.

VW Slovakia, investments in hi-tech, e.g. e-car manufacturing, impact of supply chain companies.

Concentration of ICT companies – IBM, Siemens, HP and others.

Dynamic development of Slovak R&D ICT companies, e.g. ESET, Sygic, Ardaco, Sitel.

Operation of energetic companies.
Concentration of Slovak R&D base in Bratislava

- 53% of national R&D staff
- 62% of FP7 financial means run in Bratislava (20% in Košice)
- 70%+ scientific publications and quotations and 50%+ new knowledge and technology generation
- Critical mass on basic and **applied** research in main SS domains
- Related to regional and international industry, e.g. automotive
- Creation of modern R&D infrastructure financed form SF, but
- Low financing of R&D activities: 1.2% of the GDP
- Low wages of R&D staff especially young researchers (much less than in Brno or Vienna)
- Insufficient national R&D financing “substituted” by SF
Smart specialisation enables concentration of limited financial means on domains with highest efficiency

Mandate of the Land BA governor to BIC Bratislava to work out the RIS 3 BSK 2014-2020

Smart Specialisation Criteria

BIC Bratislava criteria: FP participation / coordination, SF means obtained, cooperation with the industry, patents, PhD students, (publications and quotations)

Commercialised R&D results in EU 15, USA, SE Asia (BMW, Audi, Ferrari, Intel ...)

Critical mass on R&D potential, international networking, R&D continuity and sustainability

Consultations with the UK and STU rectors, SAS vice-president, CSTI director and prestigious scientists
Smart Specialisation in Bratislava: 3 main domains

- Materials
- ICT
- Biotechnologies
Material research

- Construction materials:
  - Light materials (aluminium)
  - Plastics and polymers
  - Composites
- Materials diagnostics on nano level
- Intelligent surfaces
- Application in electrotechnics, photovoltaic, sensors
- Use: In automotive industry (VW and suppliers), RE technologies (PV panels), aerospace industry, medicine
Security

Navigation systems

Control, automation and robotics

Data recognition and data mining

Use: in manufacturing, telecommunication and marketing processes
Biotech research

- Molecular biology and biomedicine
- R&D in diagnostics of oncology diseases and monogenetic diseases
- R&D in biology active materials, biopolymers, biocompatible and biodegradable materials (e.g. vas implanters)
- Use: mostly in medicine
Vision and objectives

Creation of an R&D and Innovation region of European meaning

In the context of Vienna and Brno (JIC) region, Central Europe and the Danube region via:

- In identified domains – construction and intelligent materials, selected ICT and molecular medicine biotechnologies

- Achievement of critical concentration of technology based companies, incl. hi-tech ones in the defined domains in the region – support of new technology companies creation and allocation of foreign technology based companies

- Relocation of chosen R&D activities of MNC being present in the land Bratislava to Bratislava
Instruments: Development of material infrastructure

- Creation of Competence centres, Science parks and “Science City”
- Sciences parks oriented on 3 main domains
  - SAS, STU, UK
- Incubators
- Technology and Innovation centres
  - VW Innovation centre
- Further upgrade of laboratory equipment
Instruments: Development of non-material infrastructure

- Research university status assigned to the UK and STU – more funding
- Transformation of SAS
- Support of PhD students
- Infrastructure for spin-off creation
- IPR protection
- Knowledge and TT support (patent fees)
- National Knowledge and Technology Transfer Centre at CSTI
- Research cluster development in defined 3 smart specialisation domains
Stimulation of risk funds development (e.g. with support of EIF “new generation JEREMIE”)
Investment stimuli activation for the allocation of foreign high tech companies
IPR financial support
Development of specific loan and grant programmes
Establishment of the Regional Innovation Fund (RIF)
Funds rising for co-financing of PhD students, young scientists and foreign scientists
S3 development as “ex ante” condition for Structural funds planning and implementation
Exception / Flexi solution for SF for R&D in Bratislava region – 2/3 of national R&D potential versus small portion of national SF for R&D (15% ?)
EIB Instruments (loan guarantees / equity investments)
Conclusions

- Political and regional consensus achieved
  - Political: city, land, state, EU (still to be achieved, SF problem)
  - Regional: SAS, STU, UK and regional industry- to be continued
- Critical mass on defined domains – smart specialisation
- People – HR in R&D & Innovation emphasis
- International context (Vienna and Brno region),
- EU excellence
- Integration to ERA
- Infrastructure development in R&D & Innovation
- Exception / Flexi conditions in SF
- Cooperation with central governments – across the relevant ministries (MF)
- Cooperation with the EC – across the relevant DGs
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