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Regional innovation system in the South Moravian Region





Introduction

- Innovations – key factor of the socio-economic development
- Transfer competences to regional level
- Concepts of national and regional innovation systems
- One-size-fits-all?





Aim and methodology

- ...the approach to an **evaluation of regional innovation systems** needs to be differentiated with **respect to their structure** which is affected by previous development, institutional framework and real economic potentials.
- Case study:
 - the South Moravian Region, Czech Republic



Key parameters



- specialized institutions supporting system management,
- regional innovation strategy,
- higher education,
- research and development,
- economic environment,
- public support for innovations,
- innovation infrastructure.



Introduction of the South Moravian Region (1)





Introduction of the South Moravian Region (2)

- Population: 1 140 000 inhabitants
- Dominant and strong capital: Brno (380,000 inhabitants, 2nd biggest city in the CR)
- The second largest town: Znojmo (only 34,000 inhabitants)
- Density of population: 157 inhabitants/km²
- Number of municipalities: 673
- Number of towns and cities: 49
- Districts: 7
- Industry: machinery, ICT, biotechnology, electrotechnical, viniculture





Specialized institutions

- **The South Moravian Innovation Centre JIC** 
 - Established by four universities, the City of Brno and the SM Region
 - Special agency for support of innovations and providing of innovation infrastructure
 - preparation and creation of the Regional Innovation Strategy (RIS)
 - responsible for management and implementation of the strategy
 - leader in support of innovations in the Czech Republic, tools used in the CR for the first time
 - Several international awards, e.g.
 - The Best Science Based Incubator (3rd place, New Zealand)
 - The European Enterprise Promotion Awards (representative of the CR)
- **South Moravian Centre for International Mobility**
 - support to the incoming of experienced researchers, young researchers and international students to the region



Regional Innovations Strategy of the South Moravian Region

- 3rd version (2003, 2005, 2009): 2009-2013
- (4th version – preparation)
- Aiming:
 - 4 sectors: machinery industry, electrotechnology, ICT, life sciences

Priorities:

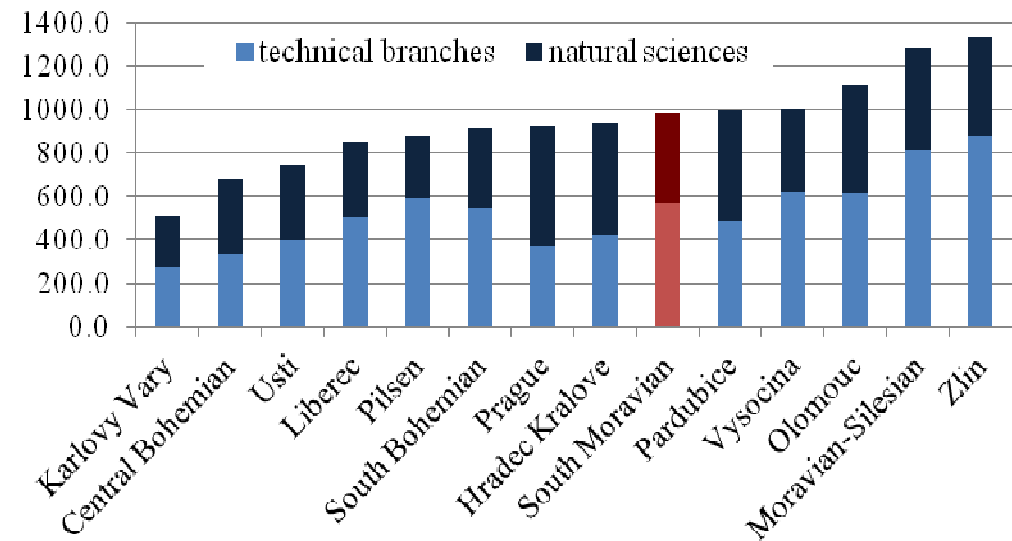
- Technology transfer (e.g. Technology Accelerator Fund – Pre-seed fund; Innovation vouchers)
- Consultancy and services for SMEs (e.g. Business incubators and science parks, seed fund, microloans, consultancy services)
- Human Resources (e.g. Science-technology museum, talented students, cooperation of schools and firms)
- Internationalization (e.g. attracting of foreign researches)



Regionální inovační strategie
Jihomoravského kraje



Higher education in the South Moravian Region



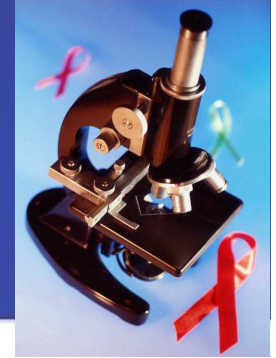
Universities	5
Faculties	27

Students

University	Masaryk U.	Mendel U.	Veter. and Pharm.I U.	Technology U.	U. of Defence	Total
Master	16 188	2 605	2 347	6 637	336	28 113
Doctoral	3 420	519	282	1 919	48	6 188

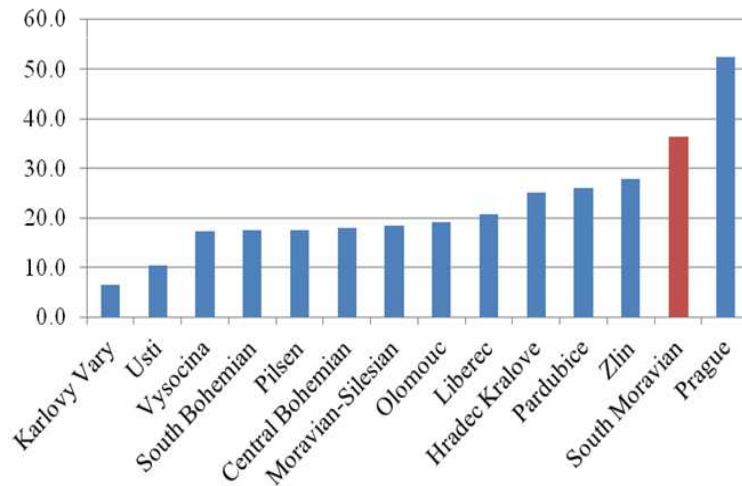


Research institutions

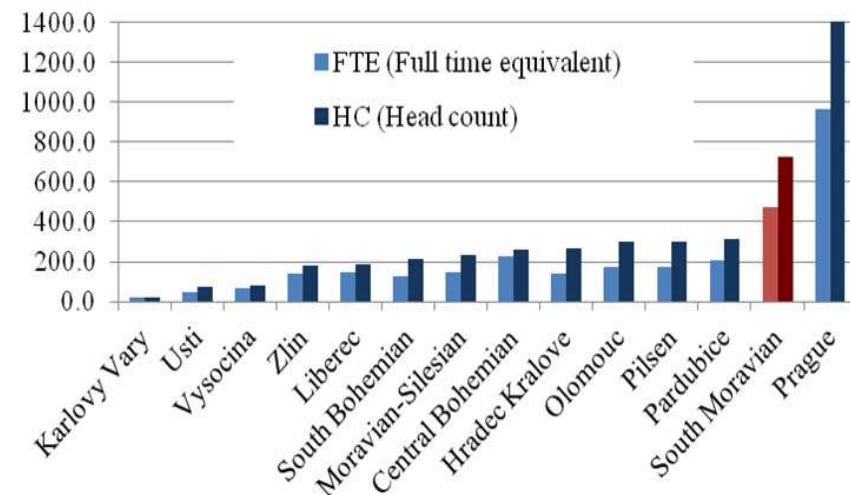


R&D workplaces	420
Human resources HC	8386
Human resources FTE	5446
HC – technical branches	40 %

Number of R&D workplaces per 100,000 inhabitants in Czech regions



R&D personnel per 100,000 inhabitants by region





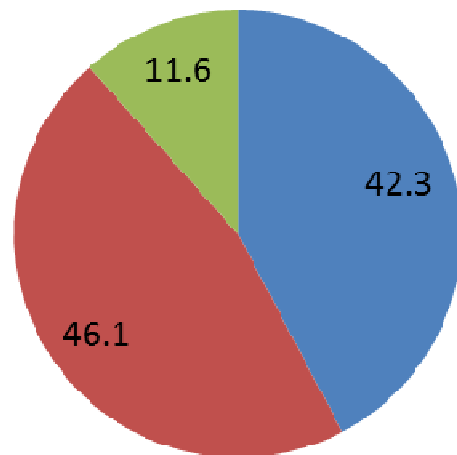
Expenditures on R&D

2010

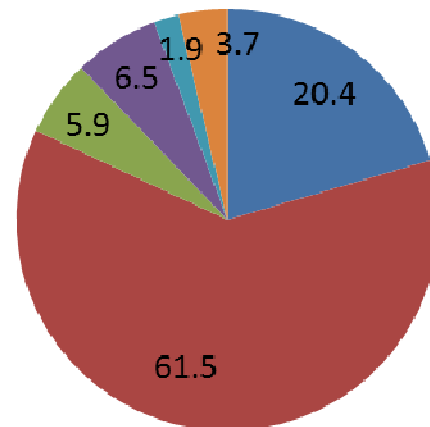
South Moravian Region

Expenditures

8.4 mld. CZK (=336 mil. EUR)



■ enterprise sector
■ government sector
■ others sources



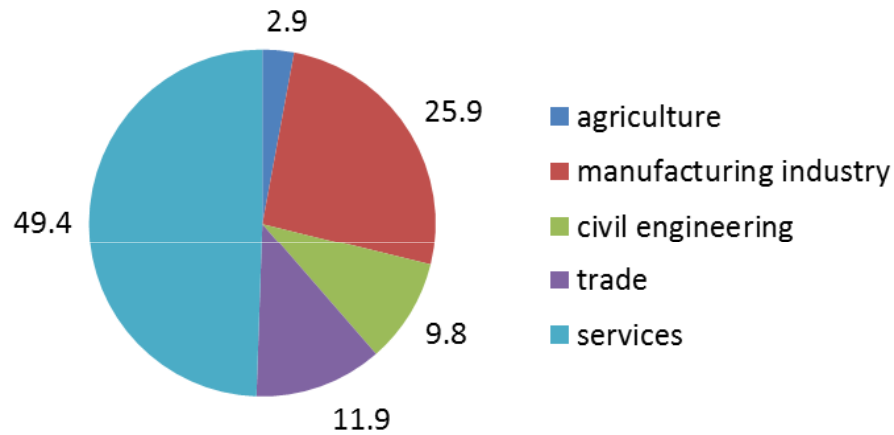
■ natural sciences
■ technical sciences
■ medical sciences
■ agricultural sciences
■ social sciences
■ human sciences



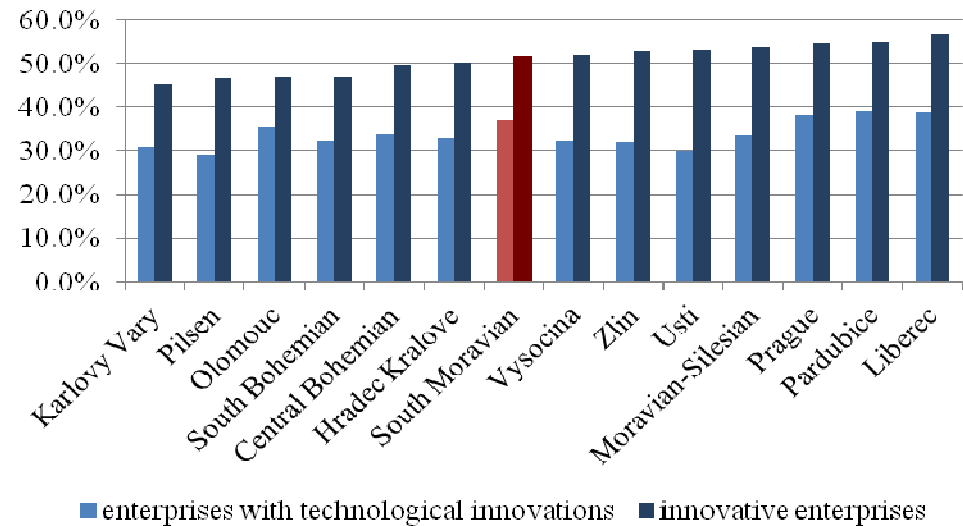
Economic environment



Employment



Share of innovative enterprises and enterprises with technological innovation





Public support for innovations

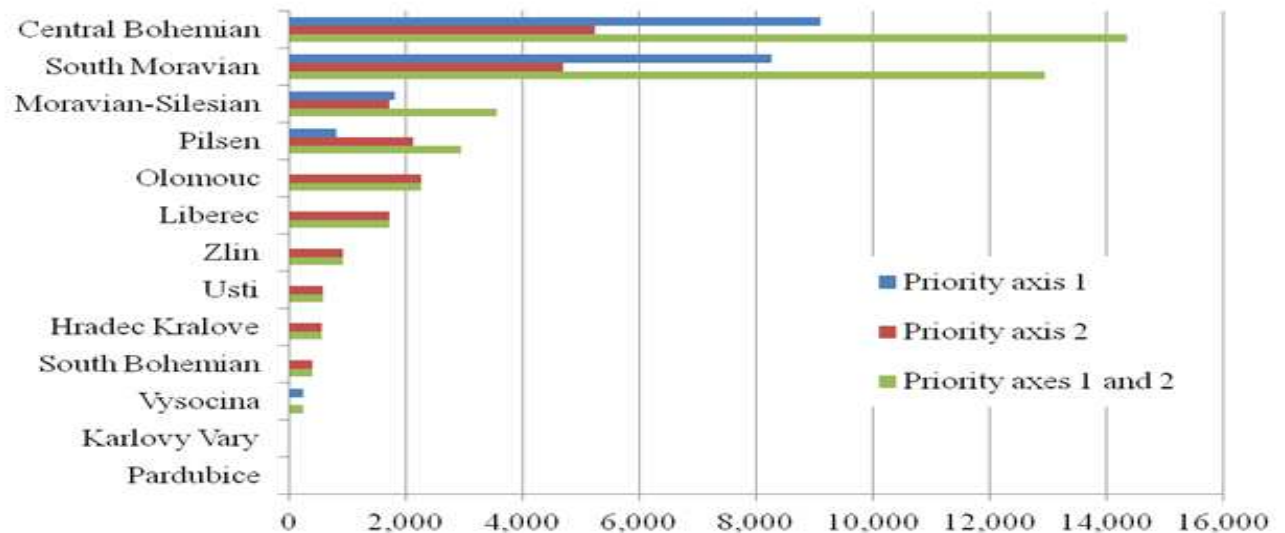
- Source: European Regional Development Fund (85 %) + state budget (15 %)
- Eligible territory: Czech Republic, except Prague
- Programming period: 2007 – 2013
- 2 operational programmes aimed at innovations:
- Operational program Research and Development for Innovations (OP RDI)
- Operational program Enterprise and Innovations (OPEI)



OP Research and Development for Innovations

- Aim: to support R&D infrastructure
- building and equipment of research workplaces and increasing of tertiary education capacity
- Priority axis 1: European centres of excellence
- Priority axis 2: Regional R&D centres

Graph 5: Subsidies from the OP RDI in the Czech regions (in mil. CZK)



Note: 1 EUR = 25 CZK, 1 USD = 19 CZK



OP Research and Development for Innovations

The most important projects in the South Moravia Region

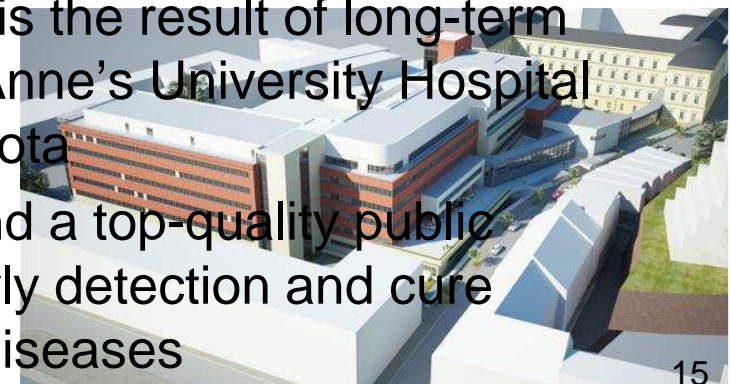
CEITEC

- research centre of scientific excellence
- 4 universities and 2 research institutes
- aim of the project: to build laboratories outfitted with first-class equipment that will be used for basic and applied research in the field of life sciences and advanced materials and technology



ICRC

- International Clinical Research Center which is the result of long-term close cooperation between experts from St. Anne's University Hospital Brno and Mayo Clinic in Rochester in Minnesota
- an innovative science and research center and a top-quality public healthcare center focusing on prevention, early detection and cure primarily of cardiovascular and neurological diseases





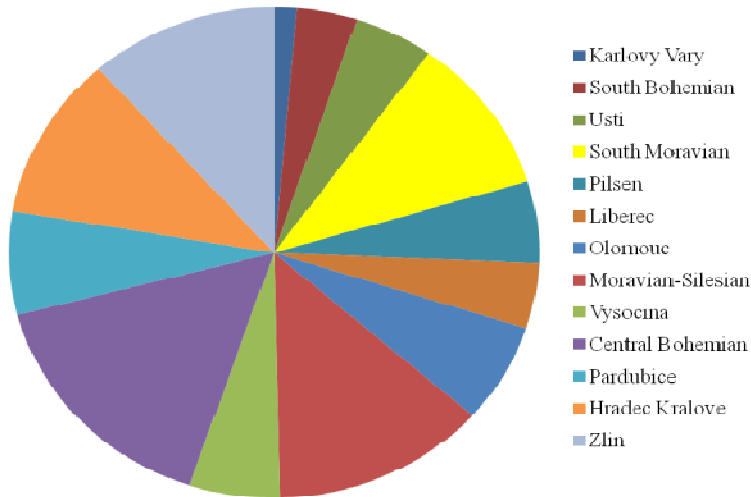
OP Enterprise and Innovations

- focuses on the business environment development and support of enterprises, especially the innovative ones
- Beneficiaries: 1) firms 2) universities, research institutes and territorial administrative units
- In our analysis we deal with subprograms that are aimed at introduction of innovations most of all:
 - Innovation Program (innovation projects)
 - Potential Program (development centres (departments) in enterprises)
 - Prosperity Program (business incubators and science parks)

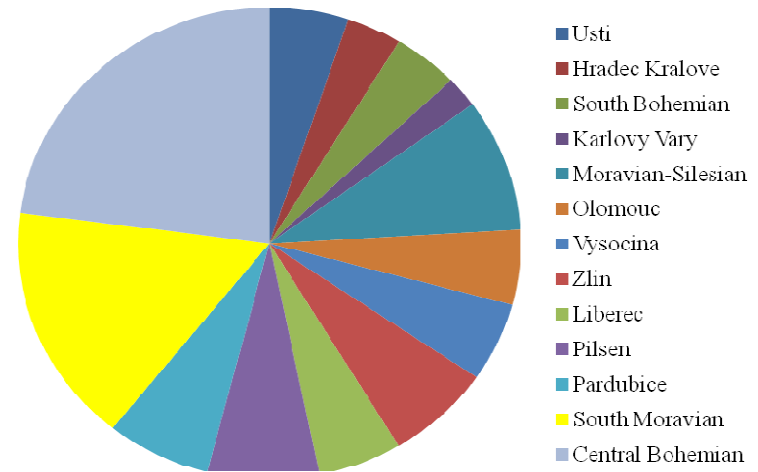


Subsidies from the OPEI - share of individual regions

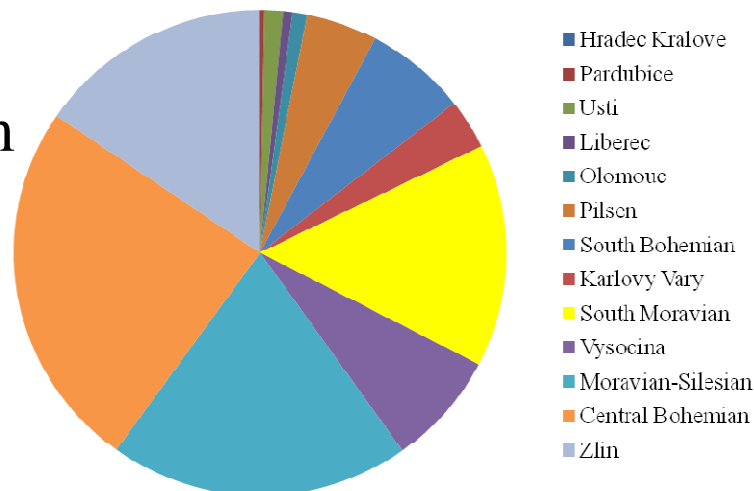
Innovation program



Potential program



Prosperity program





Innovation infrastructure

- two technology incubators and STPs (INTECH) →
- biotechnology incubator INBIT
- Czech Technology Park
- Incubators and STPs of Research Institute of Building Materials

Preparation:

- incubator INMEC incubators
- CERIT Science Park
- Prof. List STP
- BI and STP for creative industry
- BI and STPs in Blansko and Břeclav,
- Competence Centre in Kuřim,
- business incubator Novira,
- two STPs established by the Regional Chamber of Commerce
- STP Morava-Záhorie





Conclusions

The South Moravian Region:

- sophisticated institutional framework embodied by the South Moravian Innovation Centre
- considerable concentration of universities into the regional capital
- high number of students corresponds and high number of those that study natural science and technical branches
- high number of entities and employees in the field of R&D
- relatively high volume of financial resources for R&D
- enormous development of innovation and enterprise infrastructure is in progress
- significant potential for further development



Czech Republic - NUTS3 Regions

