The Journey of the South Moravian Region to an Innovative Region

Faculty of Regional Development and International Studies
Mendel University in Brno, Czech Republic
South Moravian Region – Basic Introduction

- Brno – second largest city in the Czech Republic
- Self governing region without explicit powers over research

- Inhabitants: 1.1 million
- Students: 86,000
- Researchers: 6,500

- 3.4% of regional GDP is invested into R&D (50% private)
- 400+ companies with own R&D
- 28% of global production of electron microscopes
- 40% of global market share of antivirus producers in the region

1. High unemployment rate in the region (12%)
2. Establishment of Regional Authorities
3. FDI policy perceived as „failure“ – end of Flextronics plant leaving 2,500 unemployed people behind
4. Debate about the new Lisbon strategy – role of R&D&I in regional economic development
5. InterpRISe project realisation (EcosOuverture)
Main Points for Innovation Policy of JMK - 2000-2002
Main Points for Innovation
Policy of JMK - 2000-2002
Origins of innovation policy in South Moravia – Leadership engagement : 2002

1. Organizational Measure – Establishment of South Moravian Innovation Centre (JIC) and the System of Management and Monitoring of RISSM
2. Definition of Priority Branches for Innovation Support in South Moravia and Setting-up of Clusters + Creation of Continuous Monitoring of Economy in South Moravia
3. Elimination of Administrative Impediments Related to Innovation Support
4. Creating Networks Between Local Companies and Local R&D Capacities with Foreign Investors
5. Information About Research & Development Financing, Interconnection of Research & Development Capacities with the Commercial Sector
6. Financing of Start-Ups of Technology Companies
7. Establishment of Technological Incubators
8. Establishment of Industrial Clusters
2003: Establishment of South Moravian Innovation Centre (JIC)

- Today—Leading agency in Central and Eastern Europe
- Key success factors:
  - non-political CEO (at his position till today – 14 years)
  - generous public funding from the very beginning
  - business organization culture – perceived by firm clients as a main advantage
- First institutionalization step
2004: RIS (2) actualisation and formal approval

- Actualization of RIS
- Entering to the EU and Structural funds availability
- Decision on setting up of two Technological Incubators (3,000 + 3,000 m²)
2005: CEITEC project preparation – First steps

• R&D infrastrucutre project
• Life sciences & Advanced materials
• 220 mil. €
• Ability to repeat consensus
Key steps in 2006

- Start-up microloan fund established (JIC)
- Programmes for talented students established (JCMM)
- CEITEC project under intensive preparation
- Biotech cluster initiative established—later failed
- OP RDI – drafting started—very high pressure from the South Moravian actors (€2.2 billion for R&D infra)
2007: New generation of RIS drafted

- Robust governance structures established—academic representatives officially involved into the process
- RIS management team part of Constructed Regional Advantage project
- Field research among companies (185 companies—physically visited by RIS management)—first time when „civil servants“ went out to the field on such a large scale…
- New Mayor was able to understand and increased investments into RIS measures
Key steps in 2008

- RIS no. 3 2009–2013 was approved both by the South Moravian region and City of Brno
- OP RDI was approved (€2.2 billion for R&D infra)
- Two incubators opened (financed from Structural funds 2004–2006)
- Innovation voucher scheme established–first intervention for mature companies
Key steps in 2009

- OP RDI „pushing“ research organizations to open up (performance indicators for contract research and international grants)
- Very rigorous selection process for newly established R&D centers (international evaluators etc.—completely new approach in CZ)
- New political power sponsor – Václav Božek – regional counsellor (social democrat, former academic, understanding of research etc.)
Key steps in 2010 and 2011

- R&D internationalisation:
  - SoMoPro programme opened (attracting foreign researchers to the region)
  - Reg Pot (FP7) projects realised (three in the region)
  - Structural Funds to fund opening of R&D centers

- StarCube – first start up accelerator in Czech Rep.
- Monitoring and evaluation system of RIS established
- Attempt to set up Regional Technology transfer office establishment – failed
2012: Fourth actualisation of RIS started

- Involvement of businesses
- International visibility of advanced RIS system
2013: Strategic framework of RIS SM 2014–2020 (= S3)

**MISSION**

Achieve long-term development and prosperity in South Moravia through international competitiveness

**VISION 2020**

Develop South Moravia’s innovation potential to the level of the most innovative regions in the EU (% GDP of business R&D, # ERC grants; % intl. students).

**VALUES**

- Ambition
- Discipline
- Trust
- Leadership
- Ethics
- Openness
- Entrepreneurship
- Support
- Cooperation
Key milestones of the innovation policy

National level

Regional level

RIS\textsuperscript{1} 2001–2004

RIS\textsuperscript{2} 2005–2008

RIS\textsuperscript{3} 2009–2013

RIS\textsuperscript{4} 2014–2020
Aim of JIC as of 2015:
Investment of South Moravian region and City of Brno into RIS projects from 2003-2015
In the last five years were established over 30 start up companies with total investment over 9 mil. €
Over 1500 highly qualified jobs in more than 220 technological companies

(Kiwi.com, Y Soft Corporation, Flowmon Networks, Safetica Technologies, GINA Software, Phonexia, Sewio Networks)
Arrival of 62 top scientists to Brno supported by 10 mil. €, third of them came from top 20 world universities
Support of 319 collaborations between universities and companies
Support od 87 talented students /doctorands towards scientific carrier, some of them already develop their own successful technological companies
Vybrané dosažené výsledky
RIS JMK
Establishing of conditions for influx of investment of investment from EU structural funds – more than 650 mil. €
Creation of ecosystem for collaboration of big companies with small and technological companies and with academia
Number of researchers in companies, share of regions of total of Czech. Rep. (CZSO, 2015)

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<tr>
<td></td>
<td>HC</td>
<td>FTE</td>
<td>HC</td>
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<tr>
<td><strong>HC</strong></td>
<td>15 471</td>
<td>13 253</td>
<td>19 882</td>
</tr>
<tr>
<td>Praha</td>
<td>5 187</td>
<td>4 321</td>
<td>5 619</td>
</tr>
<tr>
<td>Středočeský</td>
<td>2 605</td>
<td>2 385</td>
<td>2 554</td>
</tr>
<tr>
<td>Jihočeský</td>
<td>230</td>
<td>194</td>
<td>283</td>
</tr>
<tr>
<td>Plzeňský</td>
<td>482</td>
<td>435</td>
<td>874</td>
</tr>
<tr>
<td>Karlovarský</td>
<td>106</td>
<td>104</td>
<td>76</td>
</tr>
<tr>
<td>Ústecký</td>
<td>274</td>
<td>235</td>
<td>321</td>
</tr>
<tr>
<td>Liberecký</td>
<td>446</td>
<td>422</td>
<td>808</td>
</tr>
<tr>
<td>Královéhradecký</td>
<td>515</td>
<td>445</td>
<td>659</td>
</tr>
<tr>
<td>Pardubický</td>
<td>997</td>
<td>926</td>
<td>1 102</td>
</tr>
<tr>
<td>Vysočina</td>
<td>428</td>
<td>374</td>
<td>499</td>
</tr>
<tr>
<td>Jihomoravský (South Moravia)</td>
<td>2 020</td>
<td>1 615</td>
<td>4 008</td>
</tr>
<tr>
<td>Olomoucký</td>
<td>645</td>
<td>500</td>
<td>872</td>
</tr>
<tr>
<td>Zlínský</td>
<td>780</td>
<td>673</td>
<td>1 009</td>
</tr>
<tr>
<td>Moravskoslezský</td>
<td>755</td>
<td>626</td>
<td>1 197</td>
</tr>
<tr>
<td><strong>Share of JMK in Czech Rep.</strong></td>
<td><strong>13,1</strong></td>
<td><strong>12,2</strong></td>
<td><strong>20,2</strong></td>
</tr>
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### Number of small companies (0-49 employees) with 5 and more researchers (CZSO, 2015)

<table>
<thead>
<tr>
<th>Region</th>
<th>2005</th>
<th>2014</th>
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<tr>
<td></td>
<td>Nr. companies</td>
<td>Share on CR</td>
</tr>
<tr>
<td>Praha</td>
<td>45</td>
<td>38,5</td>
</tr>
<tr>
<td>Středočeský</td>
<td>11</td>
<td>9,4</td>
</tr>
<tr>
<td>Jihočeský</td>
<td>4</td>
<td>3,4</td>
</tr>
<tr>
<td>Plzeňský</td>
<td>6</td>
<td>5,1</td>
</tr>
<tr>
<td>Karlovarský</td>
<td>0</td>
<td>0,0</td>
</tr>
<tr>
<td>Ústecký</td>
<td>0</td>
<td>0,0</td>
</tr>
<tr>
<td>Liberecký</td>
<td>1</td>
<td>0,9</td>
</tr>
<tr>
<td>Královéhradecký</td>
<td>2</td>
<td>1,7</td>
</tr>
<tr>
<td>Pardubický</td>
<td>4</td>
<td>3,4</td>
</tr>
<tr>
<td>Vysočina</td>
<td>1</td>
<td>0,9</td>
</tr>
<tr>
<td>Jihomoravský (South Moravia)</td>
<td>23</td>
<td>19,7</td>
</tr>
<tr>
<td>Olomoucký</td>
<td>11</td>
<td>9,4</td>
</tr>
<tr>
<td>Zlínský</td>
<td>1</td>
<td>0,9</td>
</tr>
<tr>
<td>Moravskoslezský</td>
<td>8</td>
<td>6,8</td>
</tr>
<tr>
<td>Czech Rep. – total</td>
<td>117</td>
<td>100,0</td>
</tr>
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Selected indirect impacts of RIS JMK on regional economy – Brno as a centre of global technological development centres

26 development centres of global MNCs
## South Moravian Region: GDP as a % of average GDP EU

<table>
<thead>
<tr>
<th>Year</th>
<th>2000</th>
<th>2003</th>
<th>2011</th>
<th>2015</th>
</tr>
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<tbody>
<tr>
<td>%</td>
<td>61.6</td>
<td>68.3</td>
<td>78.4</td>
<td>85.8</td>
</tr>
</tbody>
</table>

### Analysis:

#### 2004:
- **Students**: 55,000
- **S&T students**: 25,000
- **R&D intensity**: 1.4% of GDP
- **Web of Science publications**: 1,241
- **Researchers**: 6,043

#### 2014:
- **Students**: 86,000
- **S&T students**: 30,000
- **R&D intensity**: 3.8% of GDP
- **Web of Science publications**: 3,833
- **Researchers**: 12,040
Expected results/possible risks:

• Enhanced competition for (not only) R & D employees, even internationally - the inability of companies to get the needed people and thus not to use attractive development opportunities

• Digital Technology in Traditional Production / Industry 4.0 - Losing the Benefits of Cheap Labor Force

• Linking creative industries to traditional ones - not only can they produce high-quality and inexpensive
How to react to these challenges?

- Promoting image of the region, marketing region - "Velvet Innovation", attracting talent to the region, supporting internationalization / arrival and integration of foreigners, Brno ExPat Center

- Utilization of a knowledge / research base in favor of traditional industries (engineering, electronics ...) - DIGIMAT, Intemac

- Support for creative industries (digital media, digital marketing, design ...) - creative vouchers, Creative Center Brno
Thank you for your attention!

pavel.ptacek@mendelu.cz