Factors facilitating and hindering the implementation of synergies

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„Stairway to Excellence” Workshop
National Research, Development and Innovation Office

Budapest, 24th May 2016
Some background: innovation as a tool of change management

Production of the Hungarian RIO country report

Trends and challenges of the Hungarian R&I system
## Characteristics of inventors vs. innovators

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Inventor</th>
<th>Innovator</th>
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<tbody>
<tr>
<td>Life goal</td>
<td>Create something new</td>
<td>Create a sustainable business</td>
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<td>Preferred work mode</td>
<td>Individual</td>
<td>Group oriented</td>
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<td>Research</td>
<td>Enjoyable avocation</td>
<td>Necessary evil</td>
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<tr>
<td>Recognition</td>
<td>Personal</td>
<td>Team</td>
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<td>Financial goals</td>
<td>Fund future inventions</td>
<td>Fund future retirement</td>
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<tr>
<td>Core competency</td>
<td>Discontinuous inventions</td>
<td>Incremental improvements</td>
</tr>
<tr>
<td>Preference</td>
<td>Complex problems</td>
<td>Customer problems</td>
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<tr>
<td>Social skills</td>
<td>Limited</td>
<td>Moderate to extensive</td>
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</table>
Famous Hungarian inventions:

- Model T Ford
- Rubik’s Cube
- Ballpoint Pen
Innovation = bring about change

HOW?

Business Unit
Process / Product / Service

FUTURE

Performance Targets

Paradigms

Management Systems

Organization, Roles and Skills

Culture

Business Process

Strategies

Technology

Today

Vision & Values

Customer-Driven

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1. **Differentiation**: determine what makes your organisation unique, and focus your energies there, i.e. innovate where you differentiate

2. **Framing**: asking better questions in order not to solve problems that don’t matter, i.e. before looking outside the box for solution, consider whether or not you actually need a completely different box – too many creativity dangerous

3. **Breakthroughs**: expertise is the enemy of innovation. Solutions developed by experts are typically incremental and build on the past. Breakthroughs require a fundamentally different perspective and mixed teams, i.e. people with different points of view and levels of expertise

Source: Shapiro, 2016
“If I had an hour to solve a problem I'd spend 55 minutes thinking about the problem and 5 minutes thinking about solutions.”

– Albert Einstein
Production of the Hungarian RIO country report

• Professional background:
  – 8 years socio-economic research at MTA
  – 6 years at DG JRC IPTS and being part of the ERAWATCH team – forerunner of RIO
  – 6 years experience in knowledge transfer and start-up support at SZE

• Collection and analysis of secondary data, including policy documents, statistics, evaluation reports, websites, etc.

• Exchange information, views with other country experts, EC country desks
Trends and key developments of the Hungarian R&I system

1. Stable macroeconomic environment
2. Increasing GERD, especially BERD
3. New strategies (RDI, S3) in place
4. Integrated RDI funding system and governance (NKFIH) from January 2015
5. Launch of new RDI measures co-funded by the Structural Funds (i.e. GINOP, VEKOP)
1. Stabilising the R&I governance
2. Fostering innovation in domestic enterprises
3. Enhancing the cooperation between science, higher education and business
4. Sustaining the supply of human resources for the R&I system
Challenge #1: Stabilising the R&I governance

- Frequent structural changes and new administration staff - > limits of knowledge transfer

- Integration of RDI funding in order to reduce parallel financing and provide stable institutional background of predictable RDI funding

- Clear overview of measures and publication of annual funding plans

- Promise of use of ex-post evaluations - > policy learning

- Weak systemic character of the „R&I system”, i.e. several innovation intermediaries without strong mission and appropriate funding (i.e. innovation agencies, TTOs)

- New advisory bodies established with internationally recognised researchers that support system
Challenge #2: Fostering innovation in domestic enterprises

• Highly concentrated R&D activities – dominance of large (multinational) firms, mainly pharma and automotive

• Growing number of R&D labs that enjoy tax breaks

• Majority of SMEs has limited ambitions and vision in investing in R&I

• Few successful technology start-ups, few Hungarian innovative products on global markets – lack of commercialisation knowledge and expertise

• Low R&I performance of SMEs and not much improvement in the past decade

• Duration of support measures is max. 24 months and calls limit the innovativeness of project proposals – low risk projects are supported
Challenge #3: Enhancing the cooperation between science, higher education and business

- High number of measures supporting academia-industry collaboration – joint proposals to get public funding but limited own resources invested
- Low patenting activity and low number of academia-industry co-publications – no significant change in the past decade
- Limited transversal skills, team work and expertise in project management especially at HEIs
- Exploitation of research results and knowledge transfer is not yet well explored – TTOs struggle for survival
- Changing of old habits and culture takes time – new model of TTOs required?
Challenge #4: Sustaining the supply of human resources for the R&I system

- Ambitious plans to increase the number of researchers, limited results so far – RDI strategy target: 50,000 by 2020
- Growing number of graduates / share of population with tertiary education
- Limited supply of researchers – > increased stipend to PhD students from 2016
- Researchers careers are not attractive for younger generations – higher salaries in business
- Positive example of reverse brain-drain: „Momentum programme” of MTA
Innovation distinguishes between a leader and a follower.

- Steve Jobs
Thank you for your attention!
Questions?

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