Knowledge transfer at universities and other public research organisations in Hungary

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An event on behalf of the European Commission
Content

- Facts about the research system in Hungary
  - The structure of science management in Hungary
  - Most important higher education institutes
  - The Hungarian Academy of Science

- The knowledge transfer infrastructure
  - Science and innovation profile of Hungary
  - R&D expenditure
  - Number and ratio of R&D employees

- The knowledge transfer performance
  - IPR performance of PROs in Hungary
  - IPR performance of universities

- Regulatory background of IP protection in HU
  - IP management of PROs in Hungary – Innovation Act
  - Consequences of Innovation Act

- Challenges and recommendations
The structure of science management in Hungary

Source: report of the Hungarian Academy of Science 2009-2010
Higher Education Institutions

- Szécheny István University in Győr
- University of Western Hungary in Sopron
- University of Western Hungary in Győr
- University of Szent István in Gödöllő
- University of Nyíregyháza
- University of Debrecen
- University of Miskolc
- University of Pécs
- University of Veszprém
- College of Dunaújváros
- Kecskemét College
- University of Szeged
- Eötvös Loránd University
  - Budapest Technical University
  - Budapest Technical College
- Eötvös József College in Baja
- University of Debrecen
Hungarian Academy of Sciences

Organisation:
- 15 research centres and institutes
- subsidised research units at universities

Main responsibilites:
- supporting and representing various scientific fields
- distributing scientific results
- establishing connection between Hungarian and international research
Science and innovation profile of Hungary

Hungary: __________________________ OECD average: _______________________

Source: OECD STI Outlook 2010

Presentation
Gábor Németh

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R&D expenditure in Hungary

R&D expenditure in percentage of GDP

Source of R&D funding (2010):

- Government: 39%
- Entreprises: 47%
- Financed by abroad: 12%
Number and ratio of R&D employees by sectors

- Enterprises
- Universities
- HAS and other PROs

<table>
<thead>
<tr>
<th>Year</th>
<th>Enterprises</th>
<th>Universities</th>
<th>HAS and other PROs</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006</td>
<td>8169</td>
<td>8523</td>
<td>8169</td>
</tr>
<tr>
<td>2007</td>
<td>7834</td>
<td>7778</td>
<td>7834</td>
</tr>
<tr>
<td>2008</td>
<td>8050</td>
<td>7960</td>
<td>8050</td>
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<tr>
<td>2009</td>
<td>8234</td>
<td>8372</td>
<td>8234</td>
</tr>
<tr>
<td>2010</td>
<td>8256</td>
<td>14999</td>
<td>8256</td>
</tr>
</tbody>
</table>
### IPR performance of PROs in Hungary

<table>
<thead>
<tr>
<th>IPR activity</th>
<th>2009</th>
<th>2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patent applications (national route)</td>
<td>756</td>
<td>646</td>
</tr>
<tr>
<td>Applications filed by HAS</td>
<td>37</td>
<td>34</td>
</tr>
<tr>
<td>Applications filed by other PROs</td>
<td>32</td>
<td>19</td>
</tr>
</tbody>
</table>
Service inventions and patent applications (2005-2010)

- Budapest University of Technology and Economics
- University of Debrecen
- Eötvös Loránd University of Science
- Pécs University of Science
- Semmelweis University
- Szeged University of Science
Commercialization of IPRs at universities (2005-2010)
IP management of PROs in Hungary

- 2004 Innovation Act
  - PROs shall adopt an intellectual property rights management policy (IPR Policy)
  - setting up a legal framework for spin-off companies
  - researcher can work for a spin-off company
  - a guide to facilitate the elaboration of individual IPR Policies
Consequences of Innovation Act

- PROs set up internal IP policy
  - Positive:
    - addressing the most basic issues
    - obligatory for researchers to know basics of IP
  - Negative:
    - forced condition, not internal initiative
    - lack of experience with wording it right

- HPO’s guide with setting up standard IP policy

- Establishing TTOs at PROs
  - Primarily at universities
  - Mostly state financed or EU support
Challenges and recommendations

Difficulties and challenges for PRO TTOs

- Funds are running out – no alternative resources
- Time was too short
  - not enough for TTOs to gain solid ground
  - not enough to build relationships, networks
- Weak ties to economy
- No trained TT professionals
  - no history/background rooted in the culture and economy of the country
Challenges and recommendations

Difficulties of the management of PROS’s IP on a national level

- shortage of dedicated funding, majority of PRO R&D funding is based on state grants
- direction of development is determined by state grants not institutional initiatives
- often restructured system to finance and manage the research field
- lack of TT focused education = lack of TT professionals
- system of TTOs is fragmented, lack of critical mass, resulting in inefficiency
- legal regulation for spin-off companies is not in accordance with the international practices
Challenges and recommendations

Difficulties of the management of PROS’s IPR on an institutional level

- the protection of the rights of the inventors is not properly defined
- institutional regulations were formally set up but did not change past habits
- regulations are not clear about the IP rights of PhD students either during or after their studies
- legal relations are not clear, creating legal disputes (especially true in case of licenses)
- reward system to motivate the inventors is inadequate
- no measures to sanction underperformance in research work
Thank you for your attention!

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