Industry-University interactions
Estonian case

Ursula Tubli
Ministry of Education and Research /
Research Policy Department /Advisor

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OUTSTANDING PROGRESS
BUT... NOT WITHOUT CHALL...
Demand?

• Firms contribution to R&D is low
• Capacity of firms for a cooperation is characterized by small number of international patents, trademarks and design
• Export is based more on the manpower than knowledge intensive production and services

Supply?

• Impact of the R&D to the socio-economic developments is modest
• Objectives of R&D project does not reflect the long-term needs
• R&D system and rapid changes does not give security and perspective for institutions and people
Estonian position in the Innovation Union Scoreboard

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2020

10!
Public R&D funding, % of GDP, 2013

Source: OECD Science, Technology and Industry Outlook 2014
R&D intensity in Estonia

<table>
<thead>
<tr>
<th>Year</th>
<th>Business sector (mln €)</th>
<th>Public sector (€)</th>
<th>R&amp;D intensity, % of GDP</th>
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<tr>
<td>2006</td>
<td>65.1</td>
<td>115</td>
<td>1.12</td>
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<td>2007</td>
<td>73.8</td>
<td>125</td>
<td>1.07</td>
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<tr>
<td>2008</td>
<td>87.6</td>
<td>140</td>
<td>1.26</td>
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<tr>
<td>2009</td>
<td>100</td>
<td>150</td>
<td>1.4</td>
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<tr>
<td>2010</td>
<td>130</td>
<td>180</td>
<td>1.58</td>
</tr>
<tr>
<td>2011</td>
<td>231</td>
<td>210</td>
<td>2.31</td>
</tr>
<tr>
<td>2012</td>
<td>211</td>
<td>190</td>
<td>2.11</td>
</tr>
<tr>
<td>2013</td>
<td>171</td>
<td>150</td>
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<td>2014</td>
<td>143</td>
<td>140</td>
<td>1.43</td>
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Strategies for 2014-2020

STARTING POINT 2014

- Roles of actors in KT are not sufficiently recognized and supported on system level
- The third-mission of university is not well understood
- Low R&I capabilities of firm and low motivation to cooperate with the university

OBJECTIVES

- Good framework conditions for development and making social and economic effects of RD&I
- Research excellence and versatility
- Increasing the socio-economic impact of R&D, cooperation with businesses, needs of the labor market
- Changing economic structure: smart specialization
- Estonia is active and visible in international RD&I
- Change in the approach to learning

RDI strategy 2014-2020
Lifelong Learning Strategy and its HE programme 2014-2020
Estonian Entrepreneurship Growth 2020
educational, creative, research and development institution
mission to advance science and culture
provide services to the society
students as responsible citizens able to demonstrate initiative
cooperate with each other and internationally with entire society

6 public and 1 private University

- Biggest R&D institutions, have undergone several reforms
- but kept their core identities in the KT
- The autonomy of universities is extremely high, in Europa (EUA):
  4th in Organizational
  2nd in Financial
  1st in Staffing
  4th in Academic
Decisions regarding science-industry interactions are taken at a university/institutional level.

No legal barriers by the state in general.

Simple tax structure, no tax incentives for R&D.

Instrument to influnces and support KT is based on funding.

BUT…

- How to strategically strengthen the major actors (universities and firms)?
- How to improve the functionality of the system?
initial aims of competitive mechanisms have been to steer research behaviour and ensure the efficiency of the distribution of funds and R&D quality
Measures to support KT

- Roles of actors in KT are sufficiently recognised and supported on system level
- The third-mission of universities is well understood
- R&I capabilities of firm and motivation to cooperate with the universities, tailor-made support system for the structural change of the economy

*less project-based measures, more focus RIS3 change the funding model*

R&D and HE policies need to concentrate on the basic values

- People, quality, entrepreneurship, infrastructure and cooperation
- On the verge of change of economic structure (critical phase, metastability) R&D may drive economic changes
R&D FUNDING
institution based vs project based financing
Source: OECD 2015

Current baseline funding formula

New baseline funding formula from 2017
HE FUNDING – shift to preformance based

distributed for the support of activities connected with extent, quality and efficiency of provision of instruction
*2013-2015-2018 increase the cooperation with industry

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<th>Current funding formula</th>
<th>New funding formula from 2017</th>
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<td><strong>Baseline funding</strong></td>
<td><strong>Performance funding</strong></td>
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<tr>
<td>80%</td>
<td>80% cooperation with industry</td>
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activities supporting the provision of instruction of national importance

70-75% 20-25%
Measures

RDI strategy 2007-2013

Focus on general capacity building in research impact

6 priority areas
specialisation areas

More than 30 measures for R&D and HE
and HE

RDI strategy 2014-2020

Focus on economic and societal

3 smart

About 10 measures for R&D

Support for Structural Reforms in RD and HE institutions (110 M€)
Support for Centres of Excellence (35 M€)
Science Popularisation (4 M€)
Support for applied research for societal challenges (23.8 M€)
Support for scientific advisors in ministries
Support for applied research between business and academia (35.5 M€)
Scholarships for students in RIS3 areas, Industrial PhD programme (21.5 M€)
Support for Technology Competence Centres (40 M€)
Support for Clusters (10 M€)
Internationalisation of Research and Higher Education (49.3 M€)
Support for Research Infrastructure Roadmap, including ESFRI (26.3 M€)
Support for Start-Up programme (7 M€)
Innovative procurement (20 M€)
Thank You!

Ursula Tubli
ursula.tubli@hm.ee

wide view
stay focus
stay flexible
different roles
different capability
everything counts
everyone counts