REPUBLIC OF ESTONIA
MINISTRY OF EDUCATION
AND RESEARCH

Industry-University interactions
Estonian case

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ERAC peer-review of the Estonian R&I system

OUTSTANDING PROGRESS

BUT… NOT WITHOUT CHAL

Some recommendations:

- *Perceive RDI as a means to achieve economic and societal goals*
- *Harness RDI measures to drive structural change in the economy*
- *More clear focus for Estonian RDI programmes (fewer programmes)*
- *Attention on coordination and implementation of policies*
- *Lessen RDI dependency on EU structural funds*
- *Business-financed R&D expenditure*

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

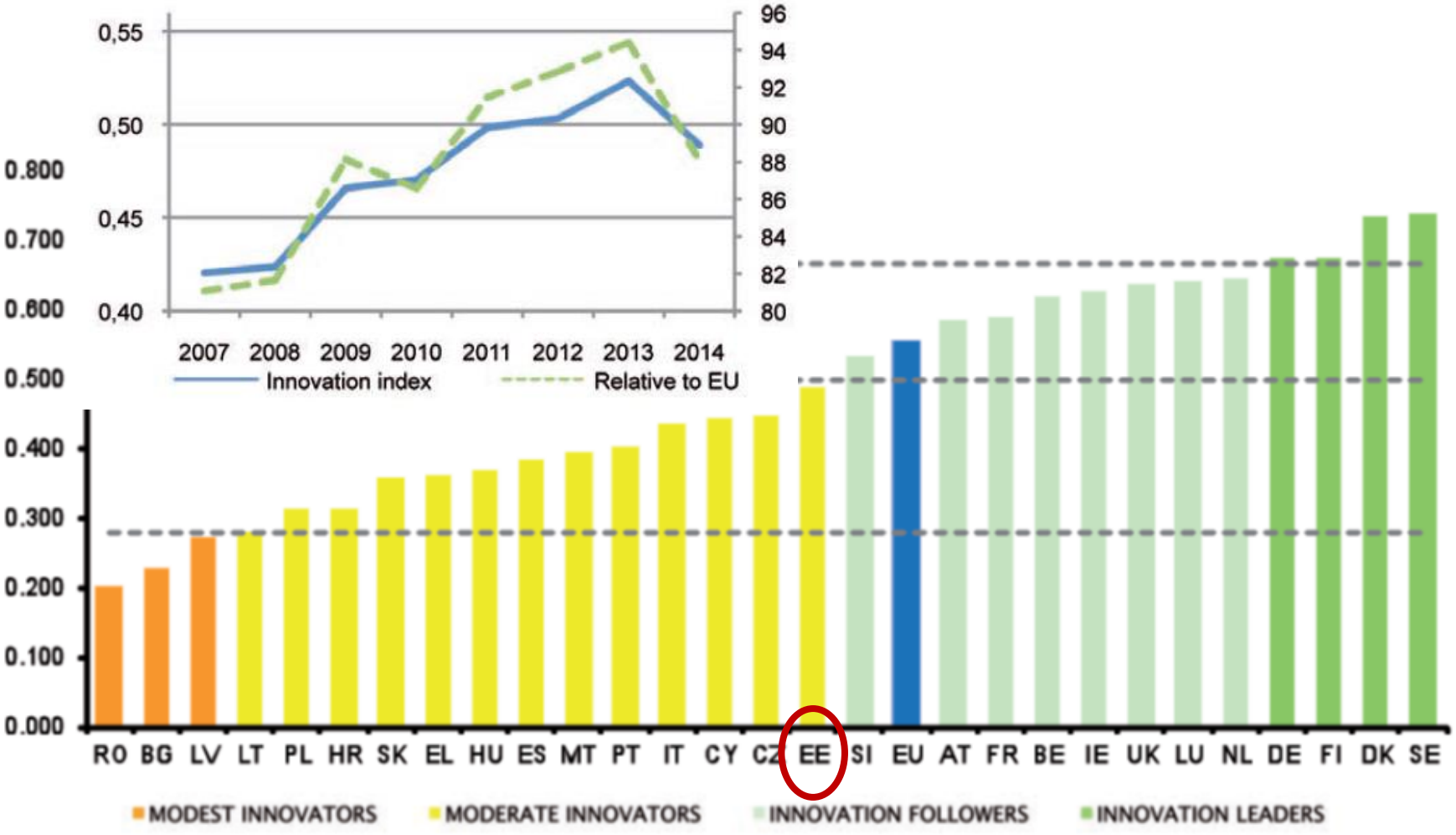
Supply?

- 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

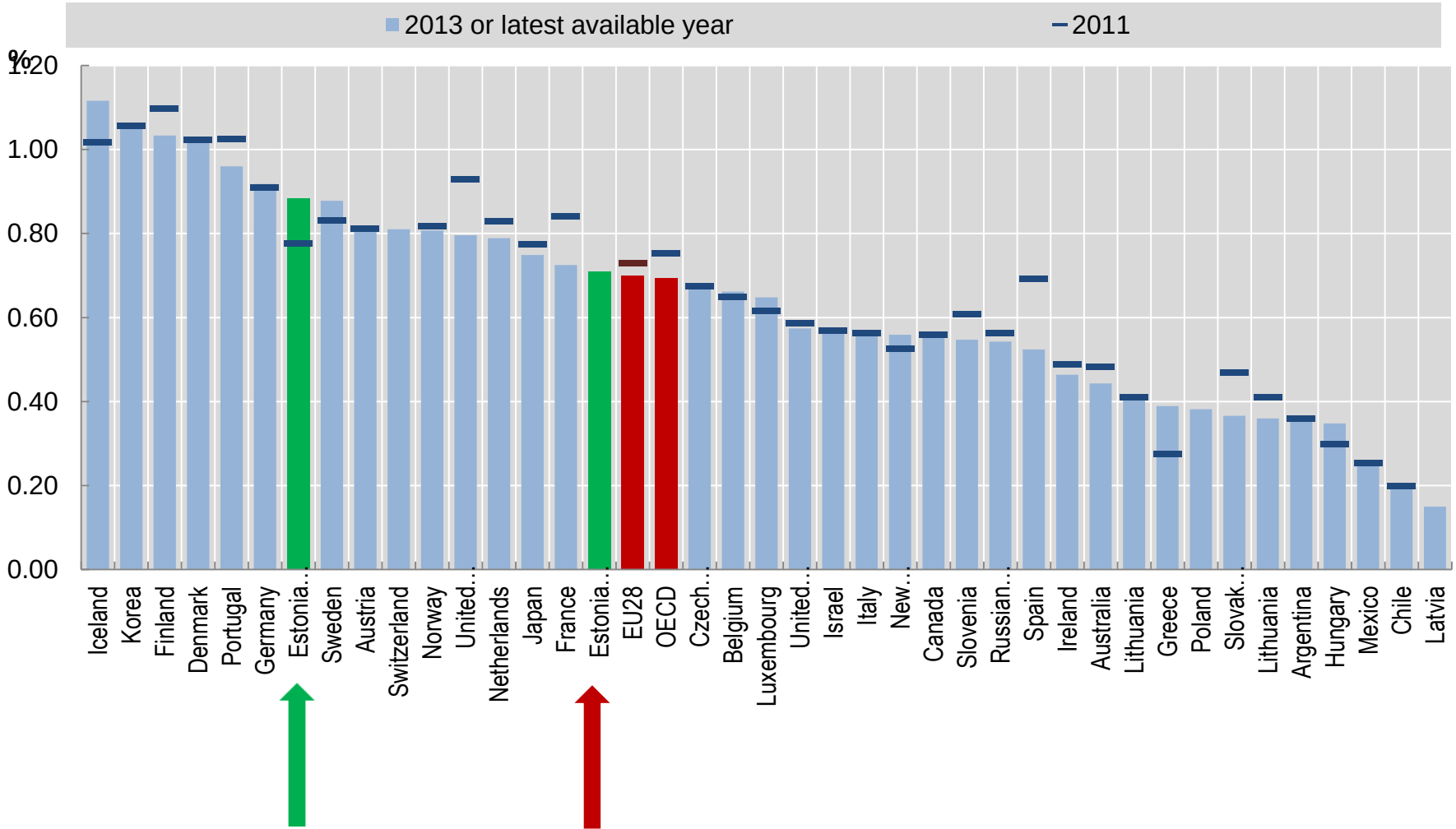
2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
19	18	16	12	14	14	N/A	14	13	13

2020
10!

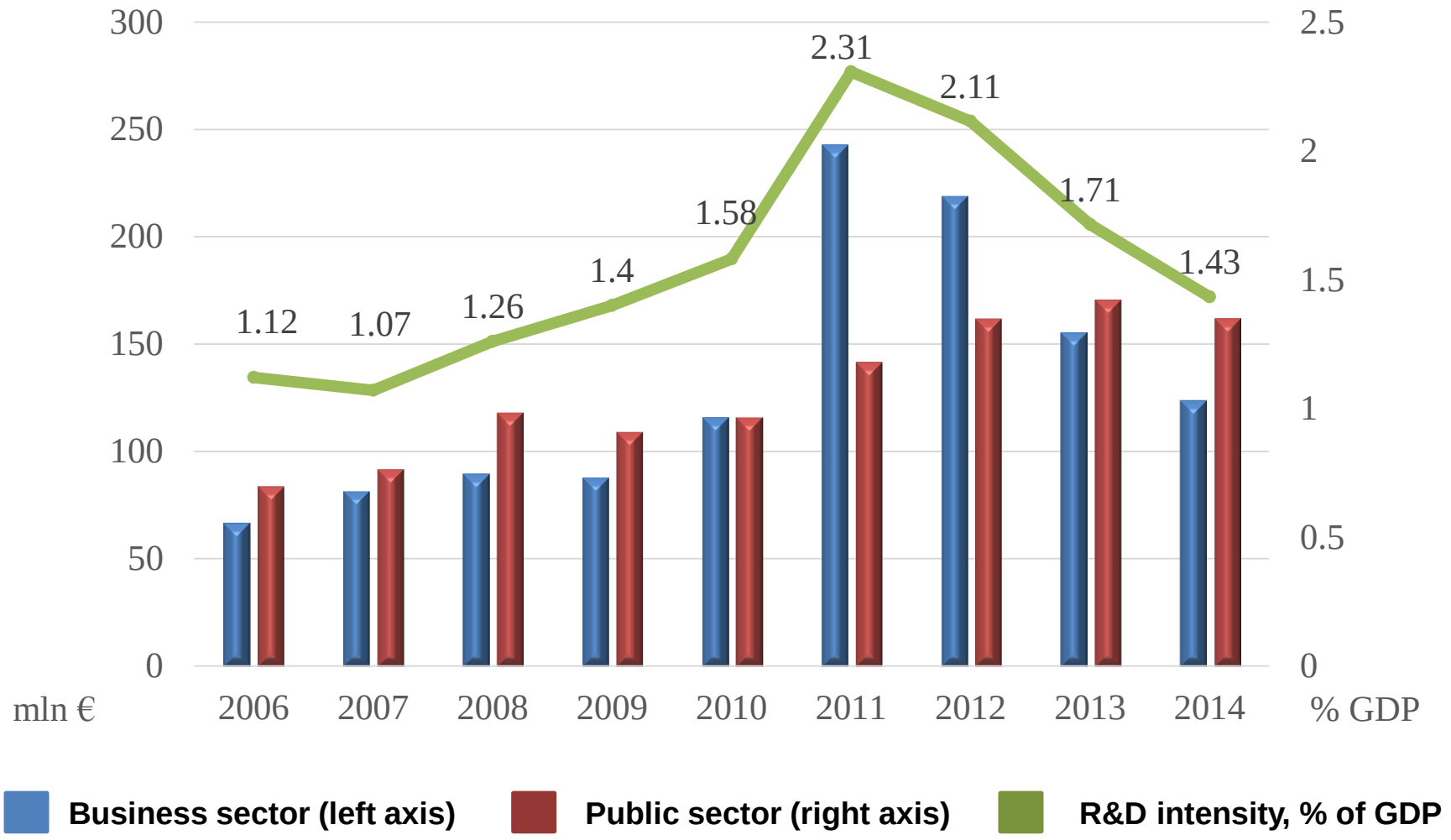


Public R&D funding, % of GDP, 2013

Source: OECD Science, Technology and Industry Outlook 2014



R&D intensity in Estonia



Strategies for 2014-2020

RDI strategy 2014-2020
Lifelong Learning Strategy and its HE programme 2014-2020
Estonian Entrepreneurship Growth 2020

STARTING POINT 2014

- *Roles of actors in KT are not sufficiently recognized and supported on system level*
- *The third-mission of university is note 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

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 extreamly high, in Europa (EUA):

  4th in Organizational
  2nd in Financial
  1st in Staffing
  4th in Academic

Decisions regarding science-industry interactions are taken a university/institutional level

No leagal barriers by the state in general

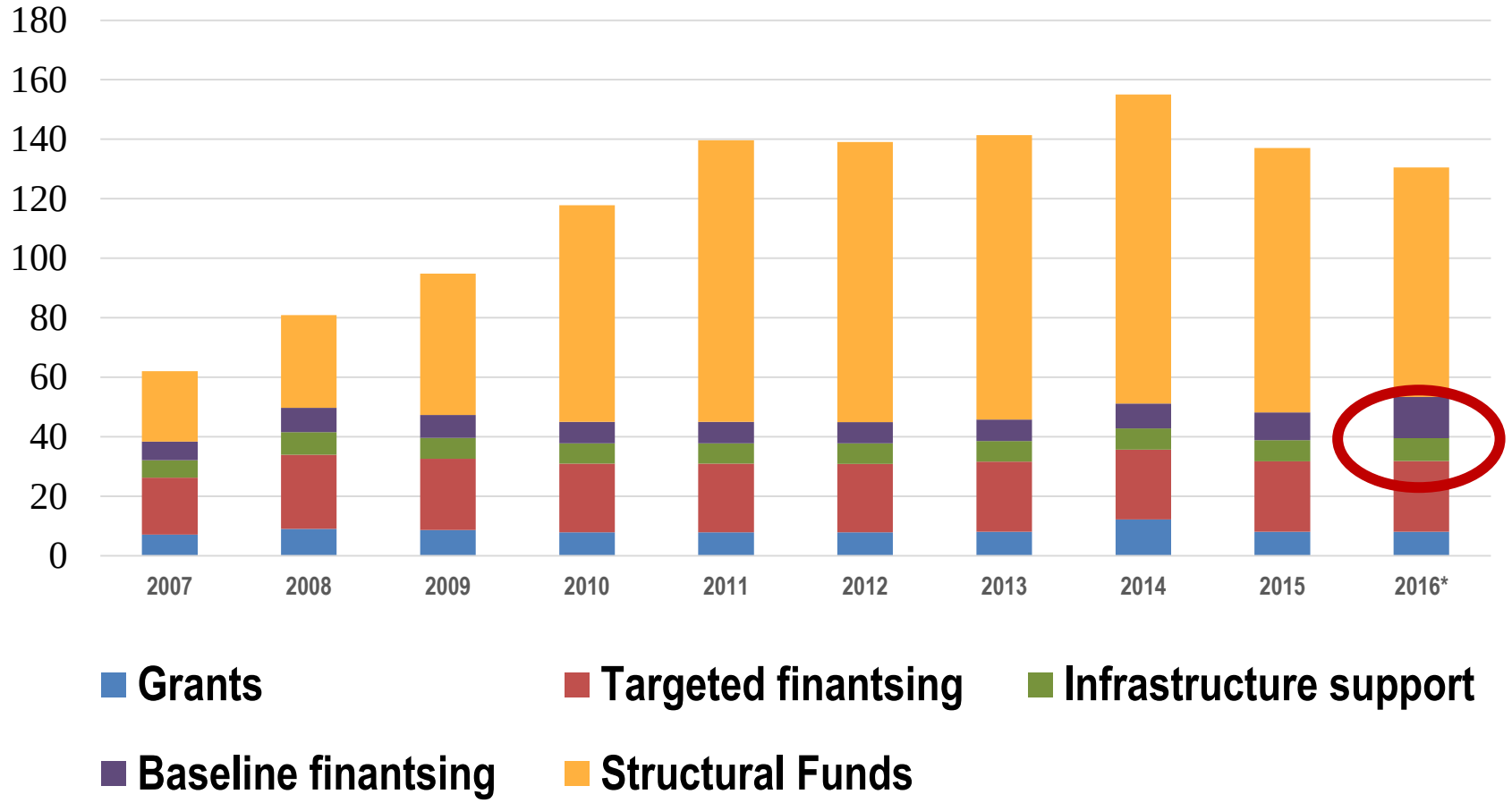
Simple tax structure, no tax incentives for R&D

Instrument to influents 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?

R&D budget of Ministry of E&R (MEUR)



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

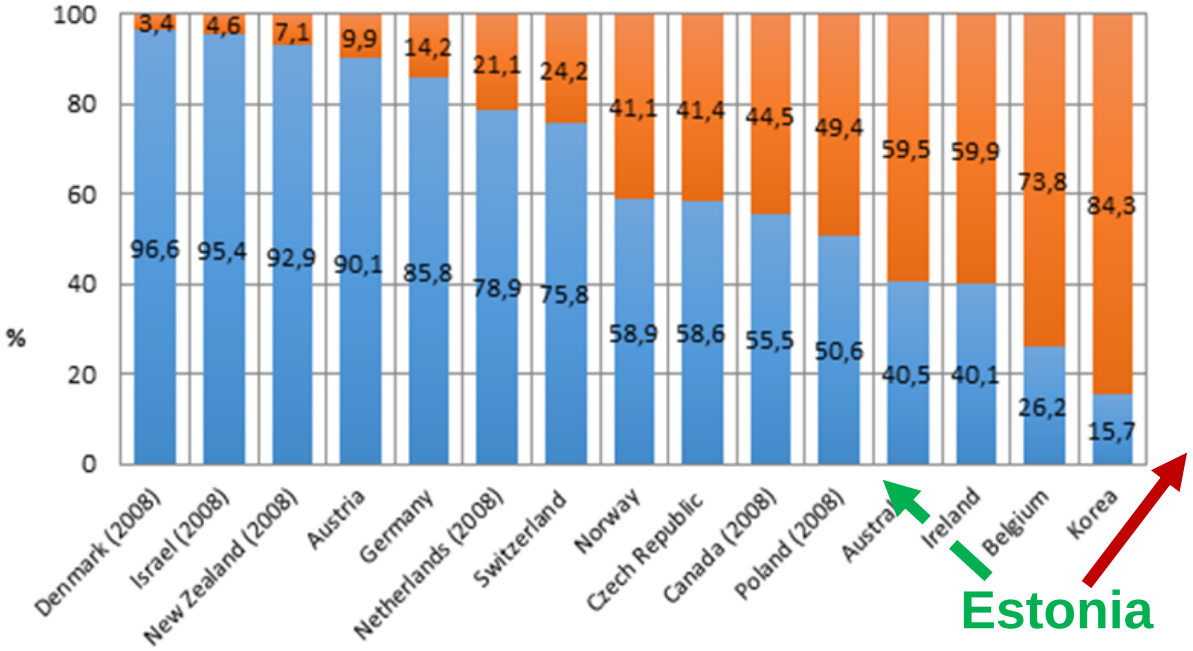
- Roles of actors in KT are sufficiently recognised and supported on system level
- The third-mission of universities is well understood
- R&I capabilities of firm and motivation to cooperate with the universities, tailor-made support system for the structural change of the economy

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

Scientific publications	number of patents and patent applications	research revenue from abroad and **business sector contracts**	nr of defended PhD	support to research of national importance
50%		**40%**	**10%**	**5%**
95%				

New baseline funding formula from 2017

Scientific publications	number of patents and patent applications	research revenue from abroad and **business sector contract**	nr of defende d PhD	support to research of national importance
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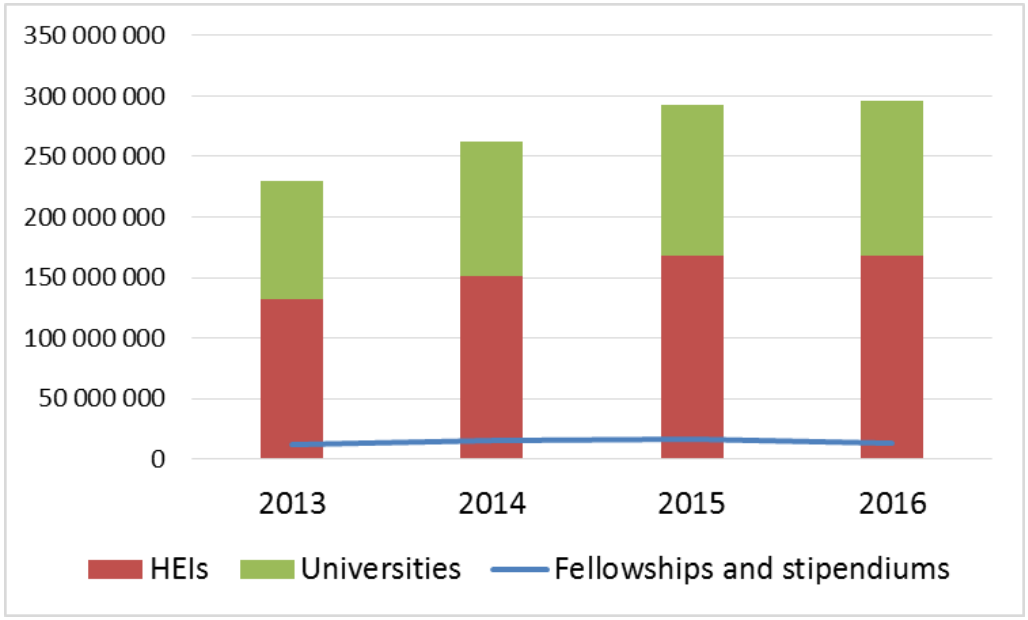
HE FUNDING – shift to preformance based



Current funding formula

distributed for the support of activities connected with extent, quality and efficiency of provision of instruction *2013-2015-2018 increase the cooperation with industry	activities supporting the provision of instruction of national importance
70-75%	20-25%

New funding formula from 2017

Baseline funding	Performance funding		
	cooperation with industry	based on performance agreement	additional PhD funding
80%	**10%**	3%	7%

Measures

RDI strategy 2007-2013

Focus on general capacity building in research

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 impact

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€)

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Thank You!

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