



HARIDUS- JA
TEADUSMINISTEERIUM

Structural Funds -- Bricks in the Wall

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The Synergies with Research and Innovation Funds: Stairway to
Excellence Riga 25.03.2015.

Synergy

“The interaction or cooperation of two or more organizations, substances, or other agents to produce a combined effect greater than the sum of their separate effects”

Source: Oxford Dictionaries



Topics

Stairway to ... :

- *Europe 2020, Estonia 2020...*
- *Every other development plan*



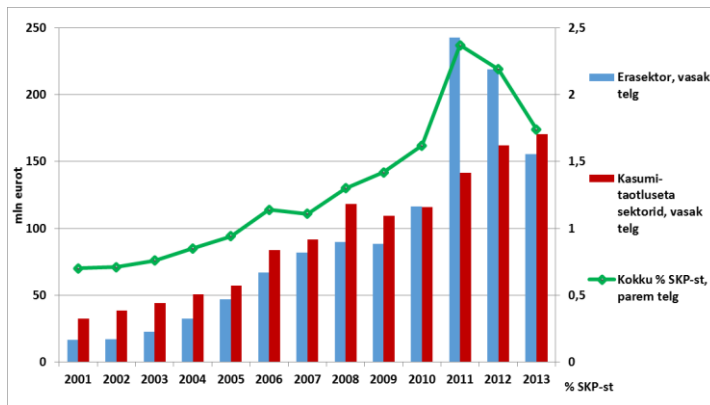
- I will talk about:
 - Estonian R&D policy planning and developments
 - How the national money, structural funds, H2020, etc complement each other
 - Some examples of synergy

Background: Estonia

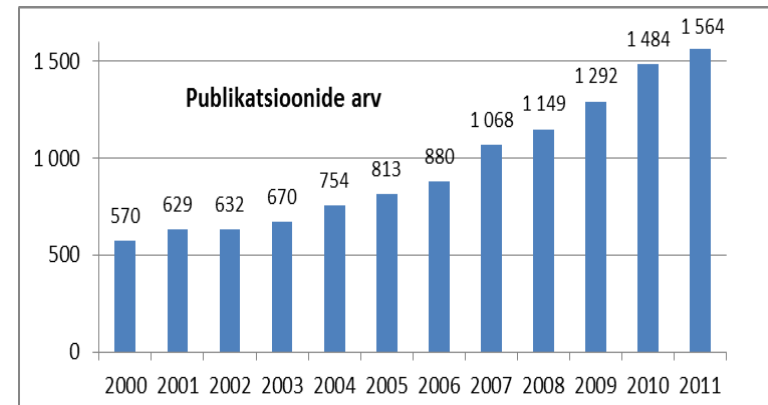
- Very small country (= a region)
 - Still having its own language based culture and higher education system
 - R&D needs to balance btw specialisation and cultural/educational coverage
- Very dynamic
 - Unfavoured starting point, but catching up
 - No stable economic structure to align the research system
- Very lean government
 - Very simple tax structure (no tax incentives for R&D)
- Very “e”
 - E-banking,
 - First e-elections in the world (this year parliamentary election – 31% of

Some statistics

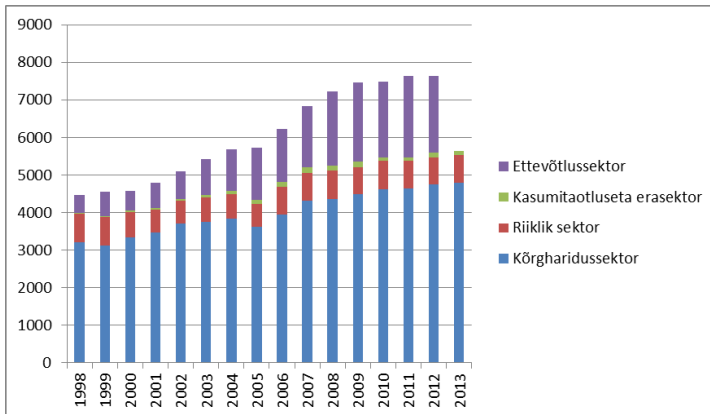
GERD / BERD (% of GDP)



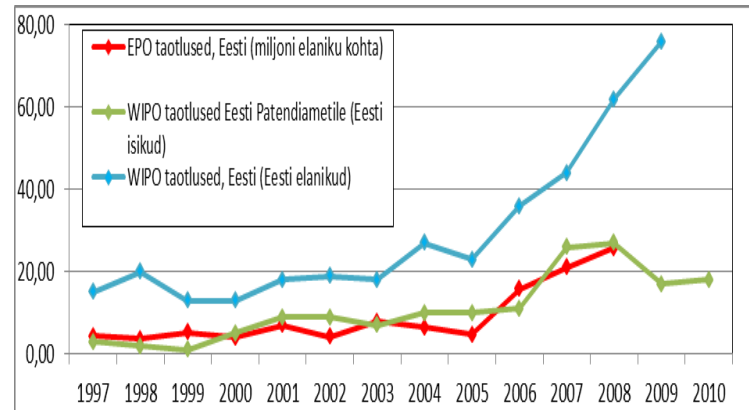
Publications



Researchers

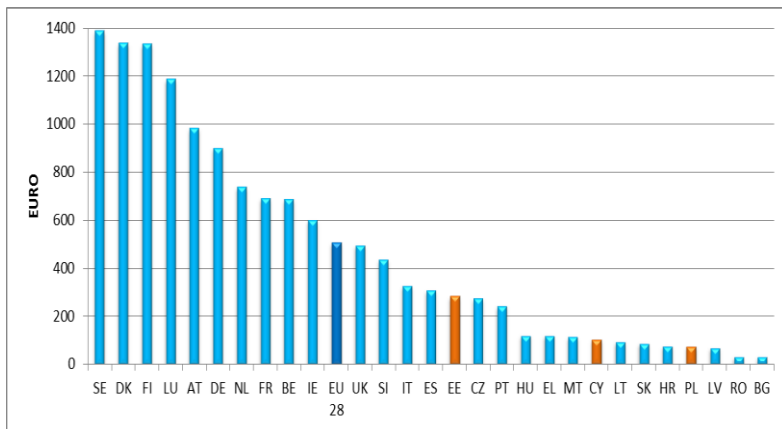


Patents per mln people

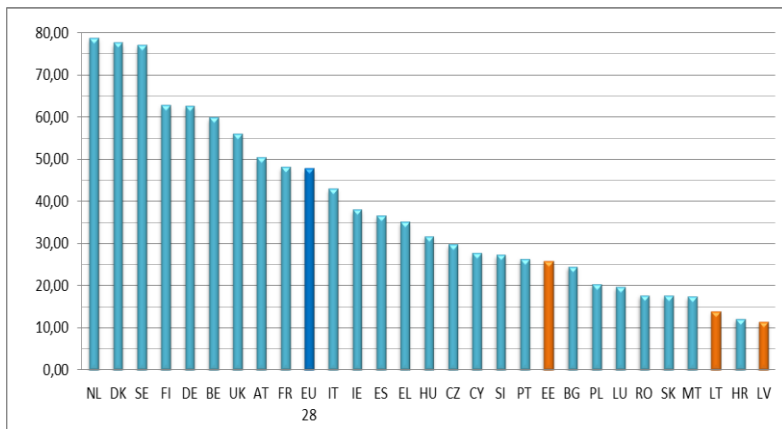


More statistics

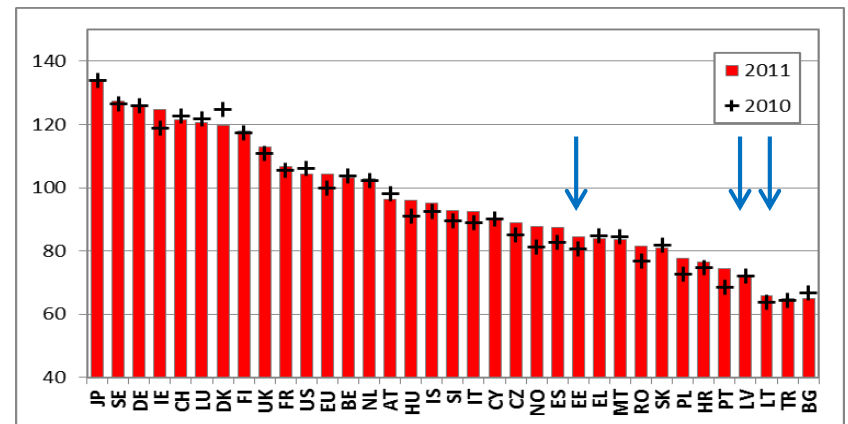
GERD (€ per capita)



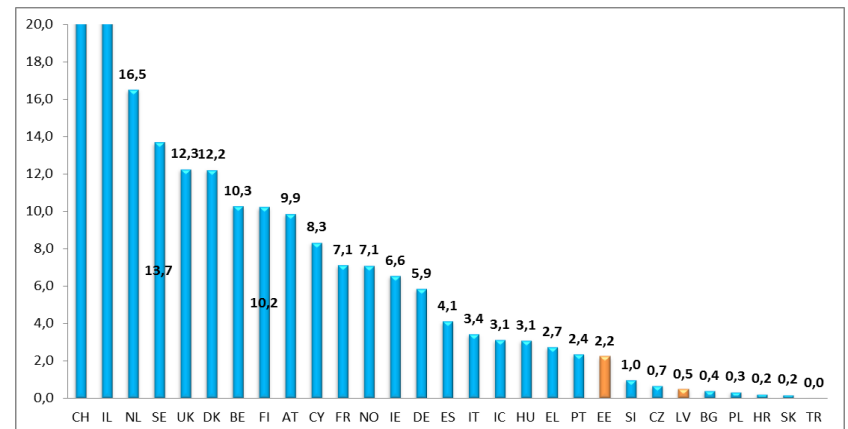
Research Excellence index



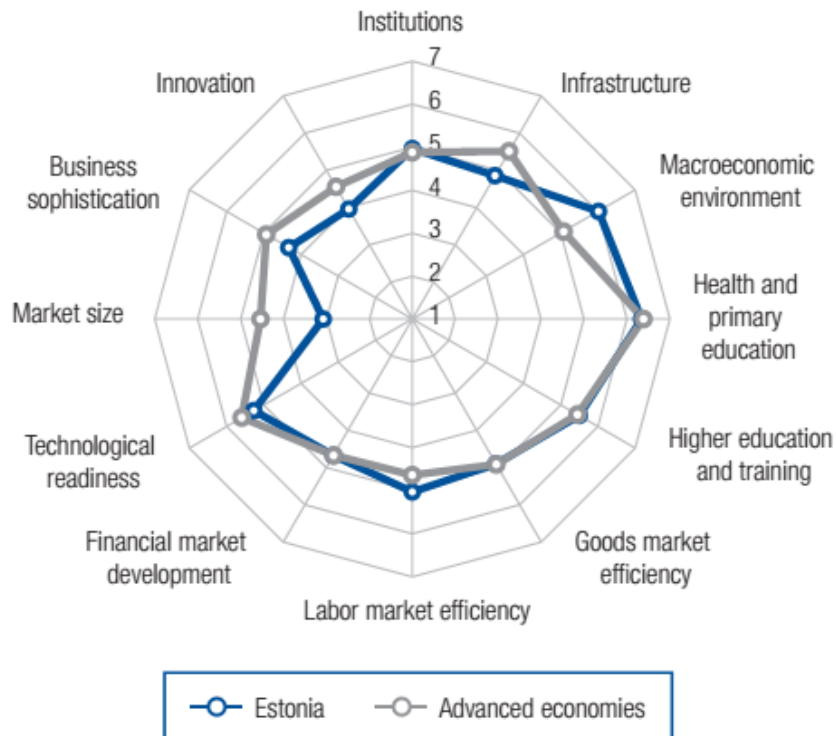
European Innovation index



ERC Grants per mln people

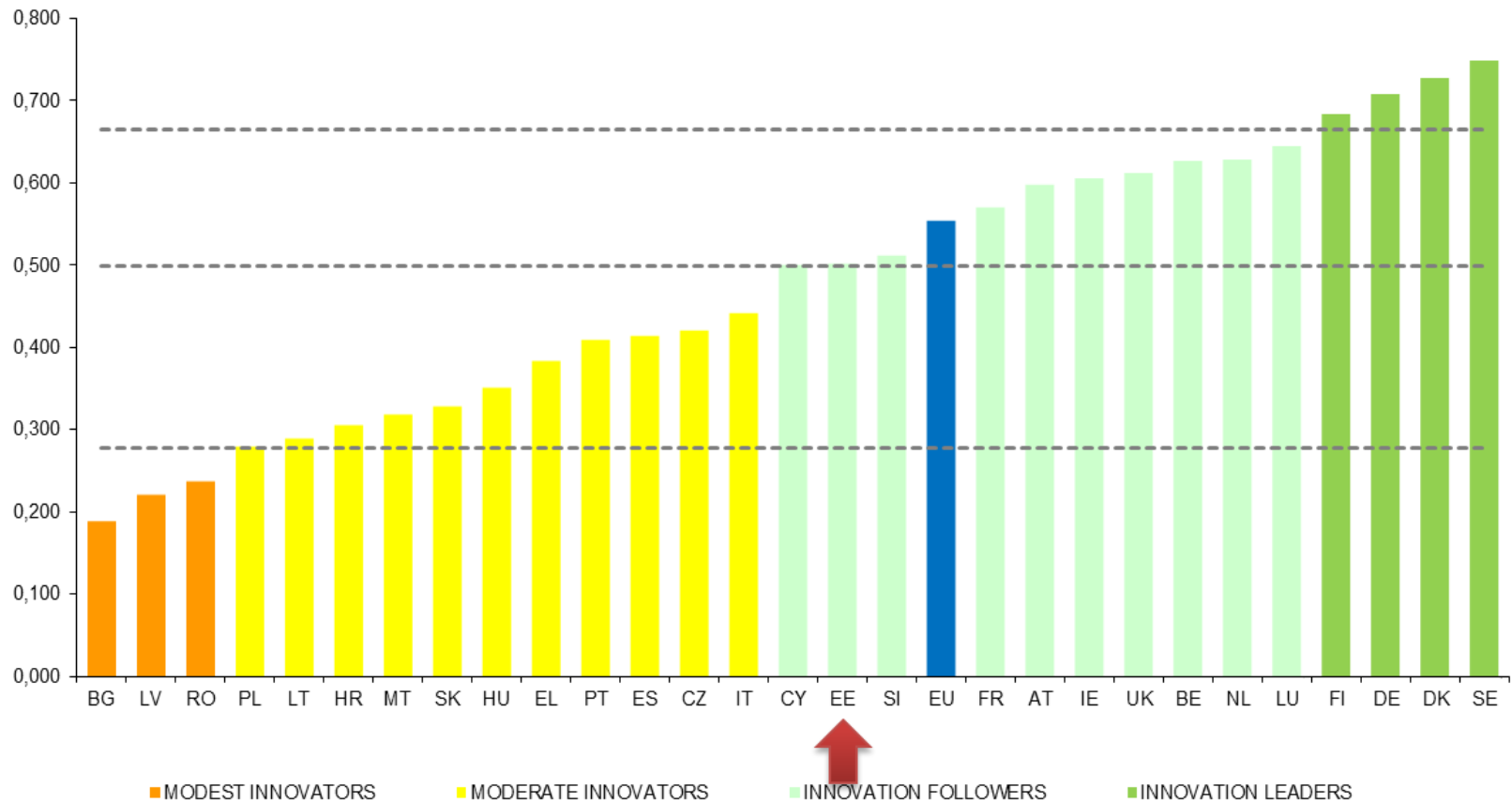


WEF Global Competitiveness Index

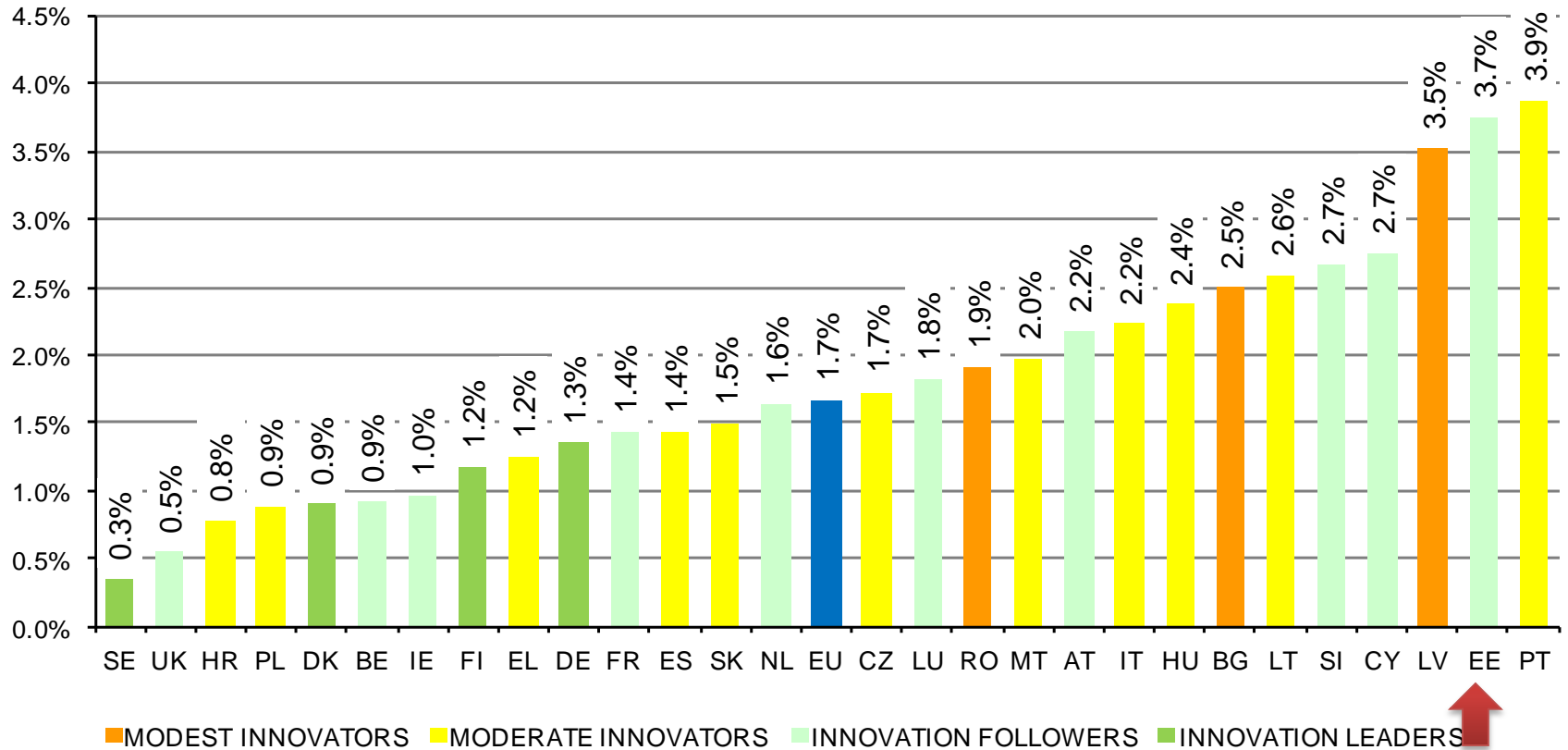


- 144 countries, 120 indicators
- Estonian position 29-th,
- Some worst indicators
 - Buyer sophistication 108.
 - Availability of scientists and engineers 104.
 - capacity to retain talent 97.
 - capacity to attract talent 94.

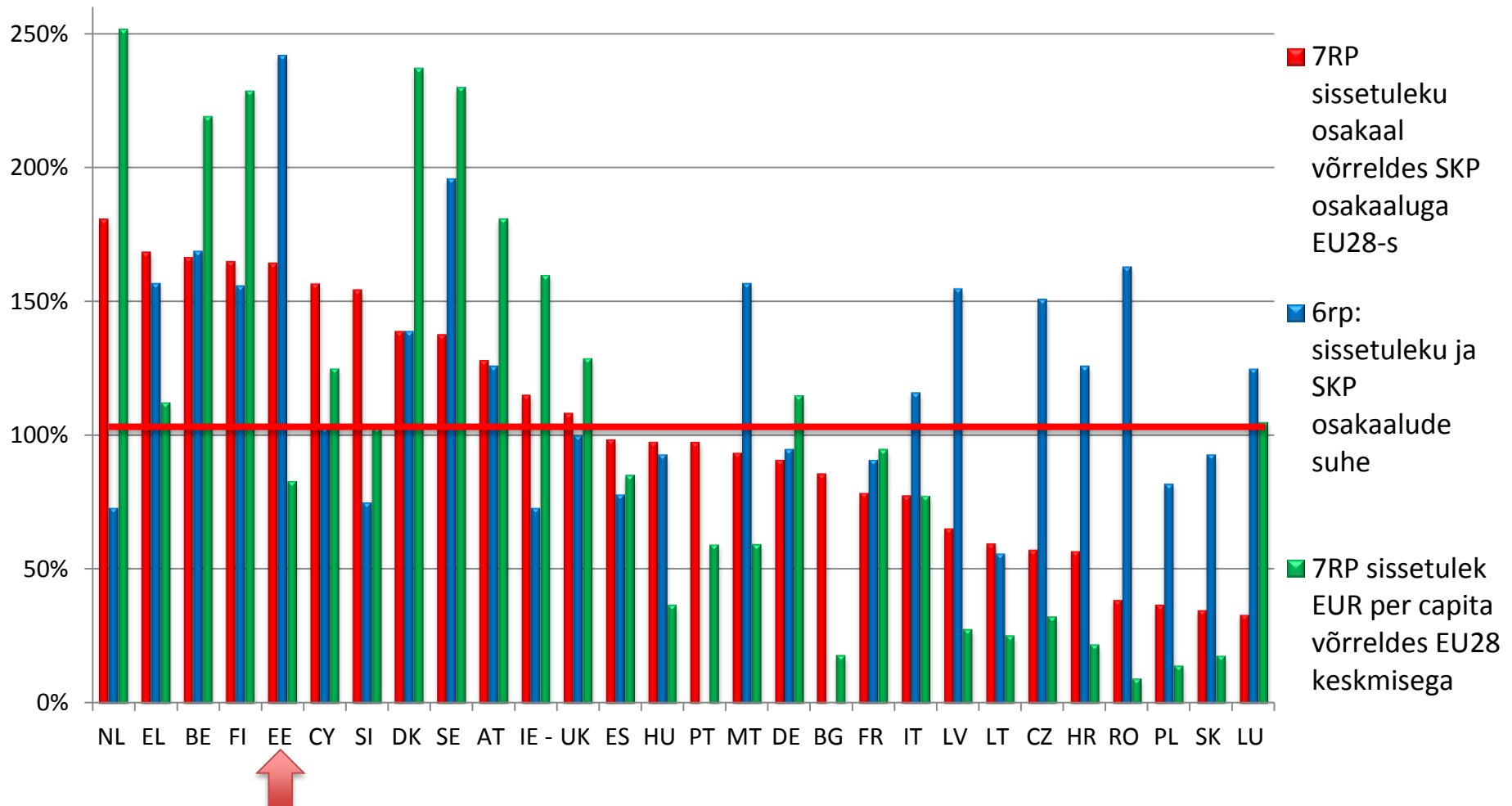
Innovation Performance of the EU Member States (2014 Summary Innovation Index)



Growth in innovation performance 2006-2013



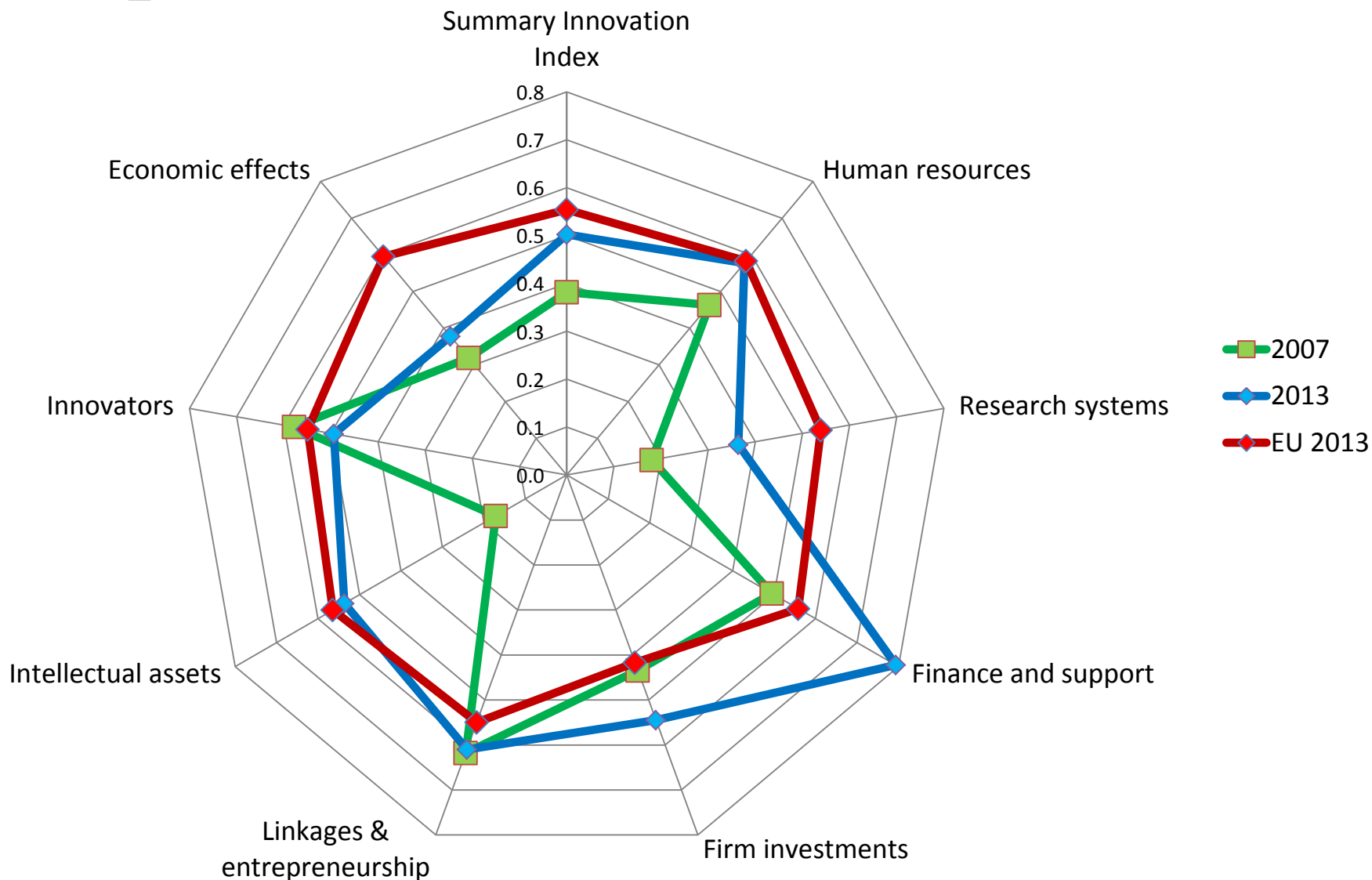
FP6 and FP7 grants per GDP and per capita (EU28 average = 100%)



So far

- The developments have been pretty good
 - Fast and multifaceted
 - Our research is internationally fairly competitive
- A big share of financing it came from SF
 - Switching on necessary policy mix elements
- But it is far way to go to top players
- More stress needed
 - to impact to the society
 - To excellence and internationalisation

Innovation Union Scoreboard components evolution



SF and framework programmes

- SF has contributed with resources (for growing R&D volumes)
 - Initiating new policy elements
- Framework programmes have given quality standard, motivation, inspiration
- Estonia has been successful in FP-s while hunger is big, competition experience is good and abilities are pretty good

The new RDI strategy 2014-2020

- Main goal:
 - Good framework conditions for development and making social and economic effects of RD&I
- Targets 2020:
 - GERD 3%, BERD 2% of GDP (2011: 2,41% and 1,52% of GDP)
 - 10. place in innovation Union Scoreboard (2011: 14. place)
 - Productivity per employed 80% of EU average (2011: 68%)
- Specific goals:
 - Research excellence and versatility
 - Increasing the socio-economic impact of R&D
 - Changing economic structure: *smart specialisation*
 - Estonia is active in international RD&I cooperation

Excellence and versatility



- Estonian research is competitive and visible in the world, while covering main directions. Estonia is an attractive place for RD&I. Research career is valued.
- Targets 2020:
 - Scientific publications among the top-10% most cited publications worldwide as % of total scientific publications of the country), 11% (2010: ~ 7,5%)
 - PhD degrees awarded per year 300 (2012 – 190)

Increasing socio-economic impact of R&D



- R&D is oriented to the needs of society and economy, appreciating applications. RPO-s cooperate with business and government. State is a smart procurer of research
- Targets 2020:
 - Government budget appropriations or outlays on R&D (GBAORD), except General Advancement of Knowledge: 40% (2011 estimated ca 30%)
 - Share of publicly-performed research financed by business 7% (2011 2,95%)

Changing economic structure: *Smart Specialisation*



- Research system actively contributes to change economic structure. Share of knowledge-intensive business is growing. Value added in export has grown
- Targets 2020:
 - Employment in high and medium tech sectors 9% (2010 6%);
 - Export share of high tech products and services 15% (2010 10,4%)

International 1 cooperation



- Estonia is active and visible in international R&D cooperation. International cooperation contributes solving grand challenges. Estonia participates in joint R&D infrastructures. Our businesses have access to world research infrastructures results
- Targets 2020:
 - Share of National Public Funds for Trans-nationally Coordinated Research, 3% (2010: 1,31%)
 - Success in EU framework programmes per population at least EU average

Strategy, SF and H2020

- SF activities are a part of RDI and entrepreneurship growth strategies:
 - But not any more for volume growth, but to support necessary changes to reach better impact.
 - Adjusting RD system to serve more society and economy, and to have better sustainability itself
 - Supporting different activities
 - Applied research, Growth enterprises, excellent research, addressing global problems with International coop., Innovative public procurement
 - The share of SF in RDI strategy is decreasing
- But also RDI strategy contributes EU2020 (a goal of SF)

Strategy, SF and H2020 (2)

- Horizont 2020 offers
 - inspiration
 - Cooperation platforms
 - Additional resources
 - Success in H2020 is a direct goal of the RDI strategy
- But also RDI strategy contributes EU2020 (a goal of H2020)
- Research excellence as well as capacity building is addressed by RDI strategies, H2020 and SF

A synergy happened

- **Estonian Genome Project:**

- Founded and supported nationally for collecting genome data. Now being part of personal medicine pilot project
 - Several projects from FP7, incl. REGPOT „Opening Estonian Genome Project for European Research Area (OPENGENE)“:
 - From SF infrastructure support and a CoE support.
 - Constitutes a part of BBMRI ERIC
- Has created synergy, build capacity, brought foreign experts, etc.
 - Currently very active in Smart Specialisation field

A synergy happened

- **Center of Translational Medicine:**

- The building and part of equipment created with SF support
- Won 2015 H2020 ERA Chair project *TransGeno: The ERA Chair for Translational Genomics and Personalized Medicine*
 - And several other intl. projects
- Belongs to EATRIS ERIC

Synergy designed

- **Research internationalisation programm of SF**, designed to support intl cooperation,
 - motivating researchers apply for ERC grants H2020:
A grant will be given to researchers who get very good evaluation but unfinanced in ERC call
 - Supports of taking part in ERA, IU ja H2020 initiatives (incl ERA Chairs, KIC-s, ERANet Cofund). Financing will be given for costs not covered by H2020.

Synergy designed

- If successful, Teaming project will be supported separately. Two applications retained:
 - Tartu University, Tallinn University of Technology and Edinburgh University project (*Centre of Excellence on Connected Digital Economy*)
 - Tallinn University of Technology and Aalto University Project (FINEST Twins Smart City Center of Excellence)
- Some SF funds are reserved. In existing measures, the teaming will be taken into account. Additionally national contribution will be given

In conclusion

- Building up excellence takes time
- Estonian RDI strategy, entrepreneurship growth strategy, structural funds and Horizon2020
 - Are planned to complement and support each other
 - Are aimed to the same goals

These instruments fit together



And if they fit– the synergies will happen!



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Synergies happen, if strategy is set (!)

Thanks!

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