



Estonian innovation policy: challenges and dilemmas

Tea Danilov

Head of the Foresight Centre

Personal background

- **Ministry of Economy**
 - Head of Technology and Innovation Division
 - Head of Economic Development Department
 - Head of Internal Market Department
- **Enterprise Estonia (EAS)**
 - Director of Entrepreneurship and Export Centre
- **Foresight Centre**
 - Head of the Foresight Centre since January this year

Tea Danilov

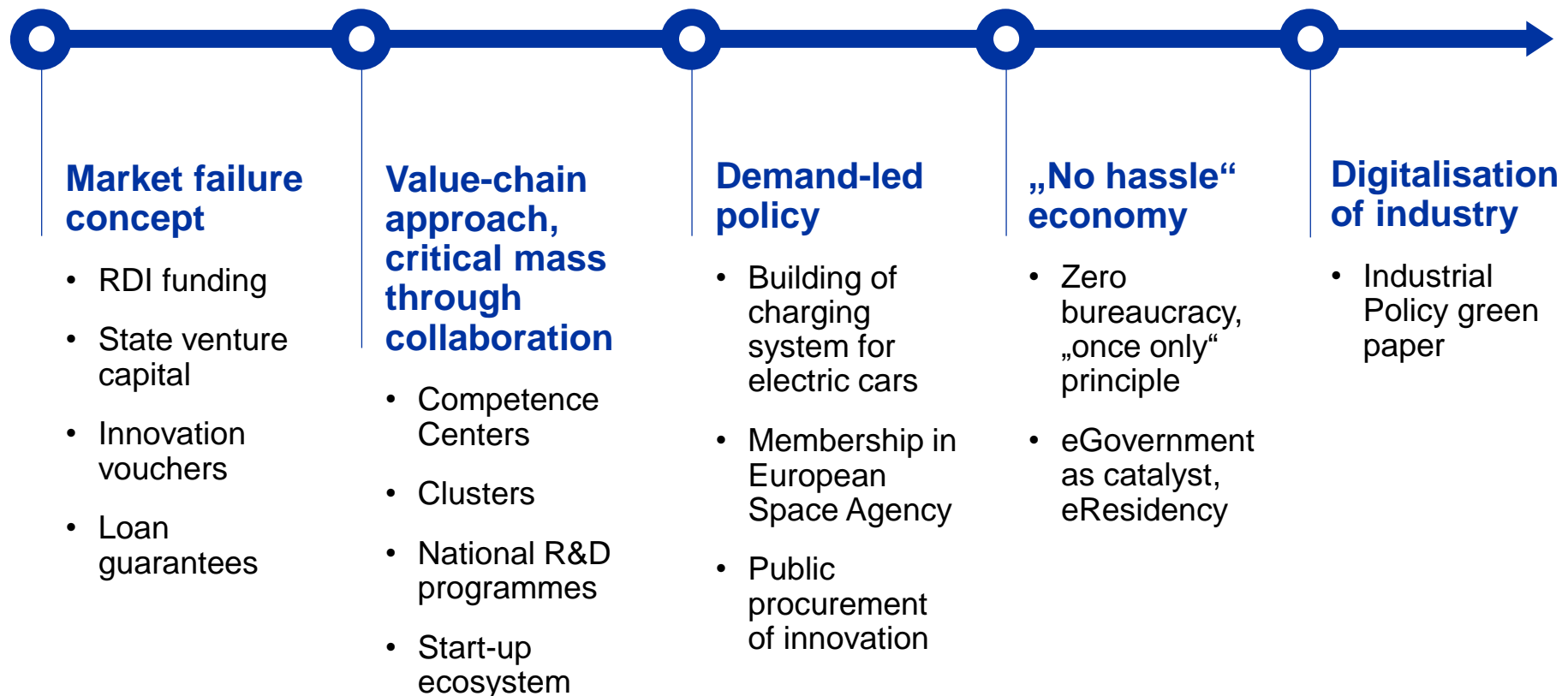


Outline

- The evolution of the innovation policy in Estonia
- Selected results
- Dilemmas encountered
- Challenges ahead

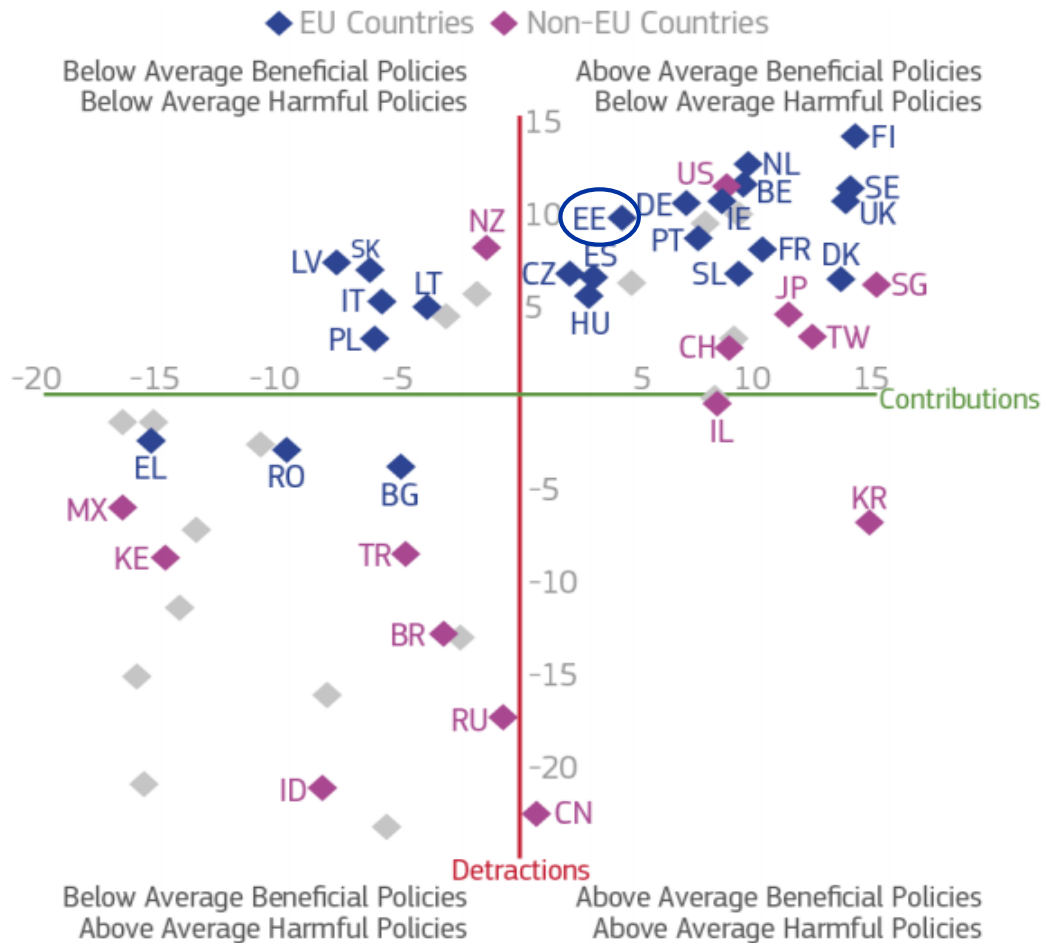


Changing mainstreams & Estonian responses



Selected results





Contributors and Detractors: Ranking Countries' Impact on Global Innovation

Information Technology & Innovation Foundation (ITIF)
2016

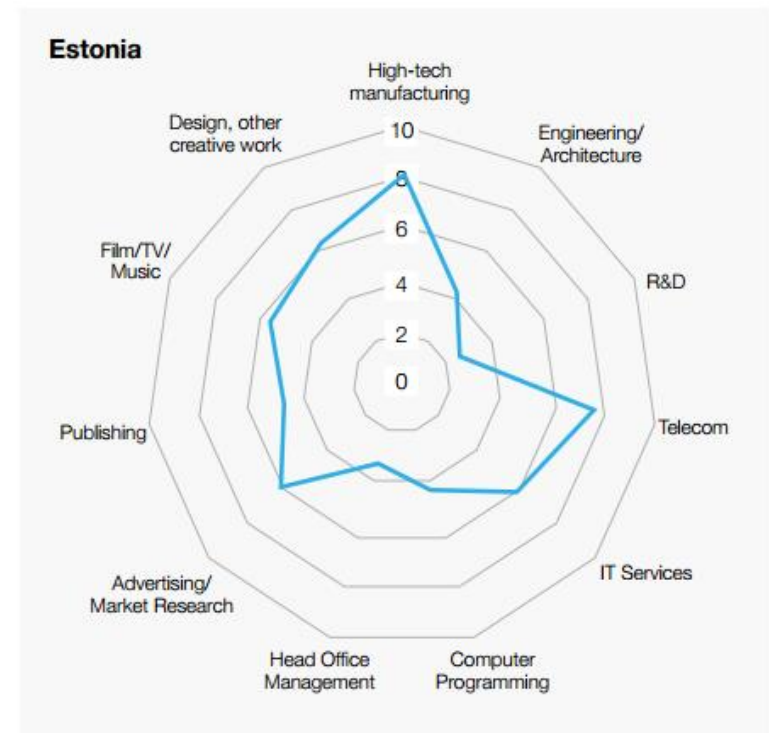
This report assesses 56 countries on 27 factors reflecting the extent to which their economic and trade policies contribute to and detract from innovation globally.



The Geography of Europe's Brain Business Jobs

European Centre for Policy Reform and Entrepreneurship, 2017

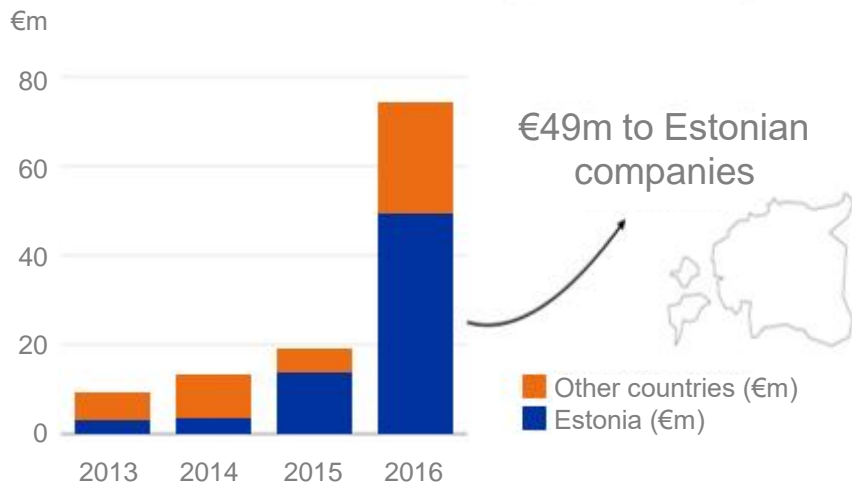
Country Ranking		All brain business sectors, jobs per 1000 working age population
1	Sweden	87.1
2	Denmark	79.1
3	Netherlands	77.0
4	UK	76.1
5	Luxemburg	70.1
6	Germany	65.8
7	Norway	65.4
8	Finland	59.8
9	Austria	59.7
10	Estonia	55.1
11	Slovenia	54.4
12	Belgium	52.7
13	France	52.5
14	Czech Republic	51.4
15	Hungary	50.6



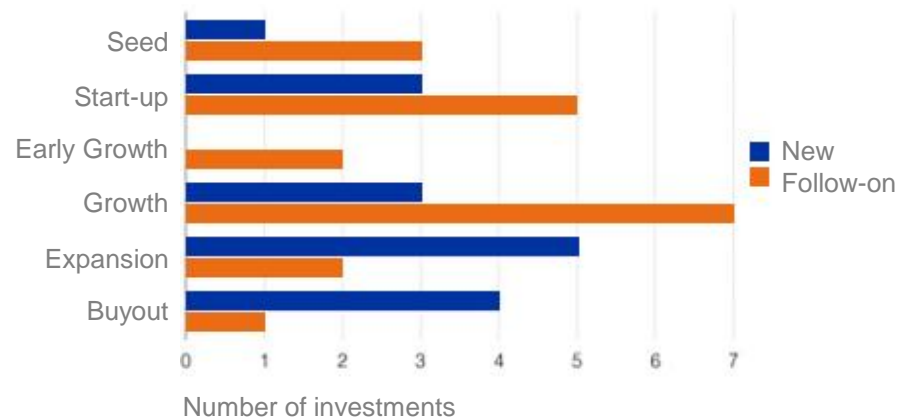
Venture capital investments in Estonia

Source: Estonian Private Equity and Venture Capital Association

€74m invested (+385%)

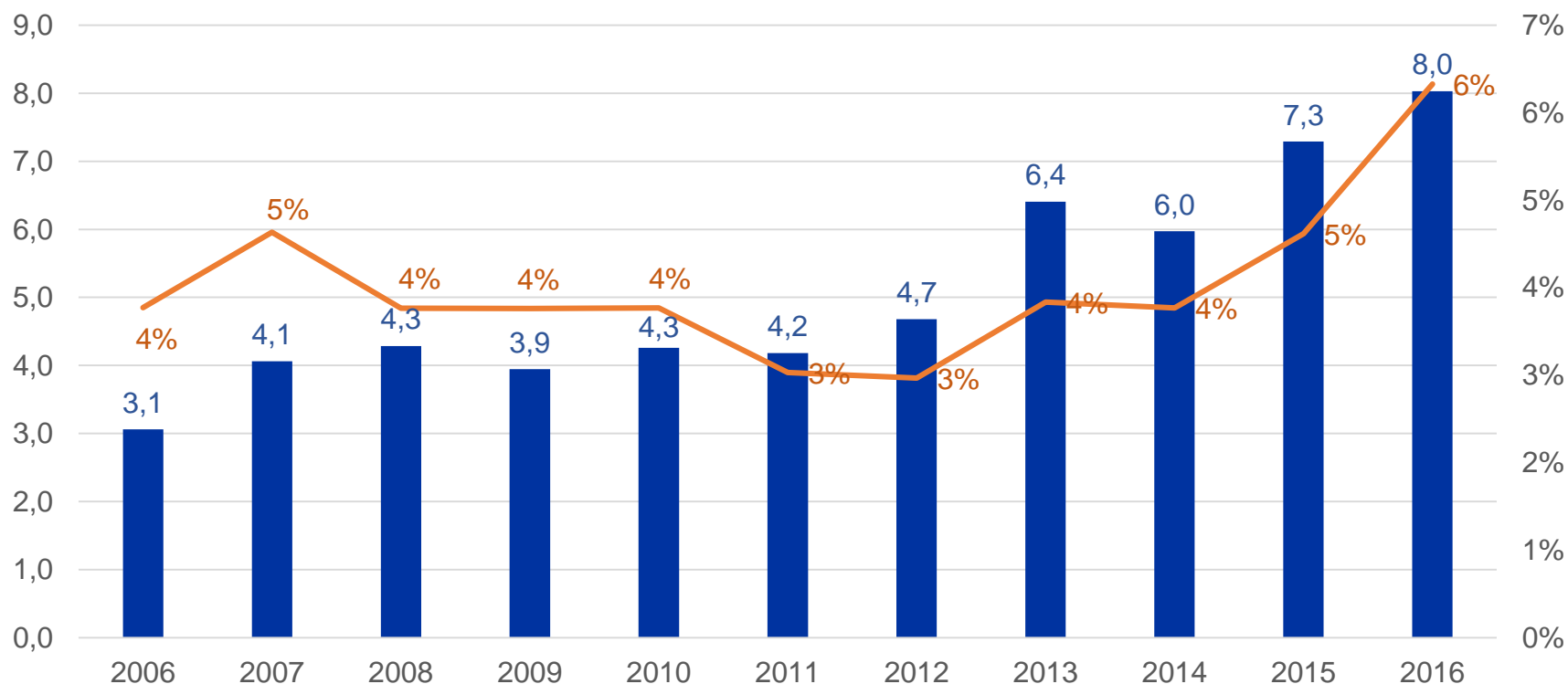


2016 investments by stage



Enterprise-academia cooperation

Source: Statistical Office Estonia



■ Expenditures of the universities that are financed by companies (mio EUR)

— Share of funds provided by companies in the total funding of the universities (% , r.s)



The target group dilemma: excellence vs extension



Number of companies with R&D expenditures

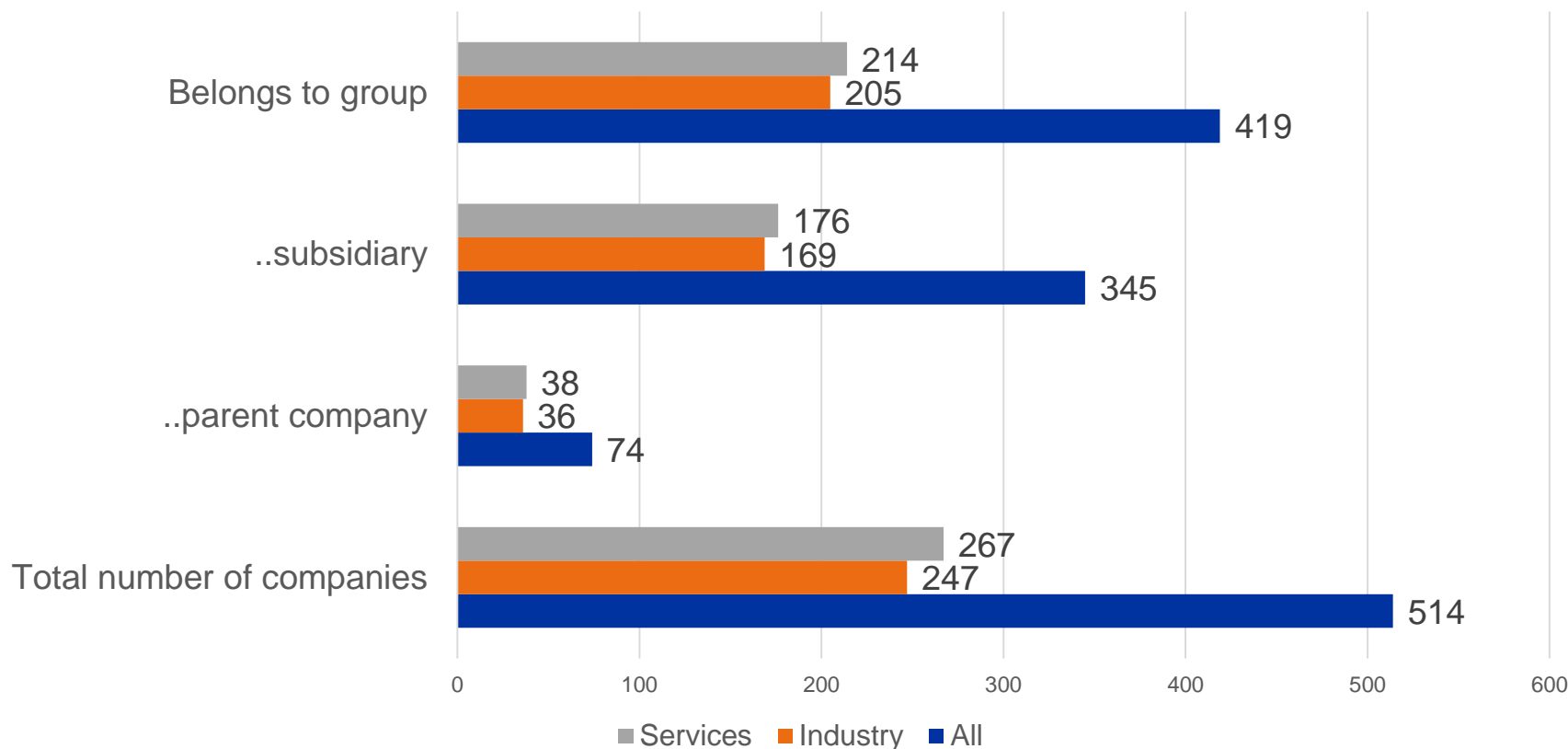
Source: Statistical Office Estonia

Year	Number of companies		
	100% of RD expenditures	90% of RD expenditures	75% of RD expenditures
2004			
2005	198	75	37
2006	185	59	25
2007	241	75	34
2008	240	77	34
2009	303	108	51
2010	287	104	48
2011	277	95	43
2012	258	71	27
2013	232	68	28
2014	226	81	38
2015	225	68	33
2016	257	71	33



Companies with more than 100 employees belonging to corporate groups, as of 2011

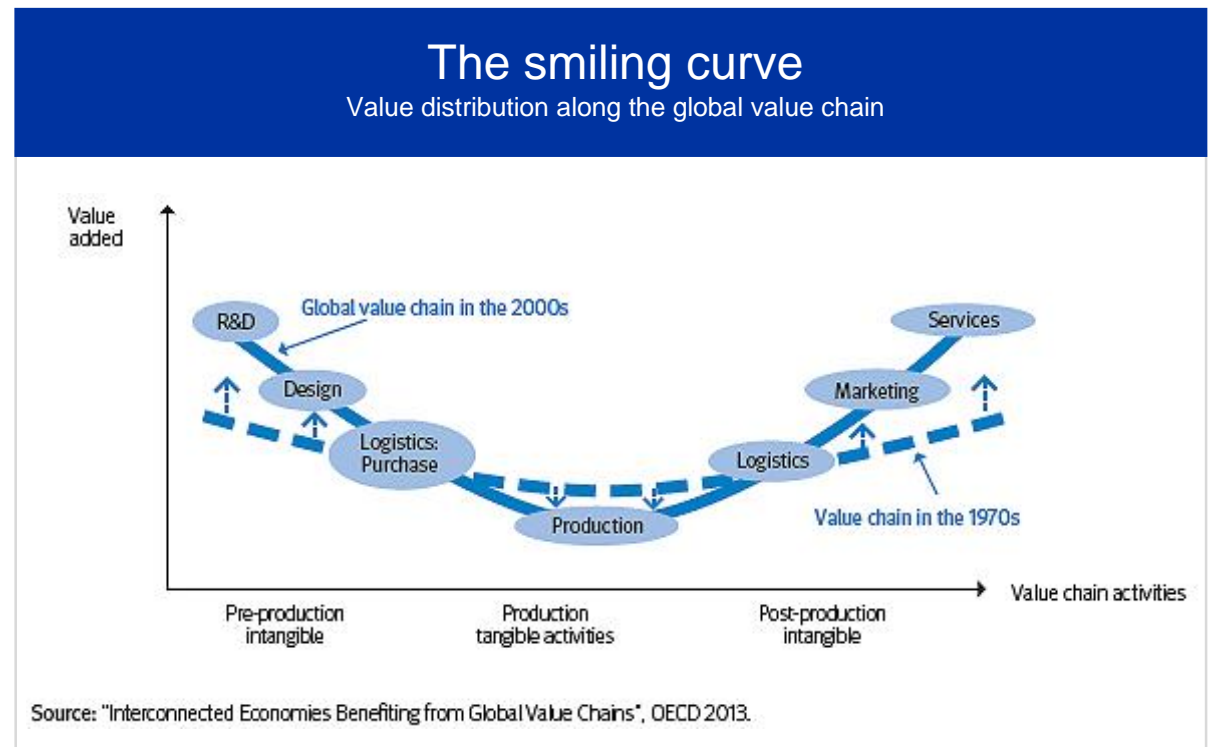
Source: Statistical Office Estonia



Obstacles to innovation in Estonian companies

Kaarna, K., Ojamäe, K., Welch, E., Fisher, B., Lember, K. „Eesti ettevõtete uuendusmeelsuse toetamise võimalused“ 2015

- Identifying and testing market signals
- Design and development competencies
- Marketing and distribution
- Feedback from customers
- Upscaling





Down-stream, where the challenge is scaling, we need to allow expenses in such taboo fields as marketing, which has traditionally been viewed as too far from the lab bench. /.../ Extension schemes to spread new-to-region innovations deserve a lot more emphasis.

Mandelin, Ringrose 2016 „Opportunity now: Europe’s mission to innovate“



The dilemma of constant policy innovation vs consistent high-quality execution





While Estonian innovation policy is one of the most developed amongst the New EU Member States and is well structured and advanced in terms of the use of different instruments, the capacities of the RTDI policy system have to be increased.

OMC Peer Review Report for Estonia, 2007



Application for the development plan grant

IMPLEMENTATION OF THE DEVELOPMENT PLAN TOGETHER WITH THE EAS CLIENT MANAGER

PREPARING FOR THE DEVELOPMENT PLAN

ASSESSMENT OF ENTERPRISE'S CURRENT STATUS AND AMBITION

Up to 6 months

Up to 3 years

THE DEVELOPMENT PLAN

1-2 weeks

DIAGNOSTICS
product/service,
competences, finances etc.

EAS SERVICES	EAS GRANT
KIK, KREDEX, ARCHIMEDES	OTHER

TRAINING OPPORTUNITIES:
strategy, business model, product development etc.

MENTOR

POSSIBLE COMPONENTS OF THE DEVELOPMENT PLAN

MAPPING



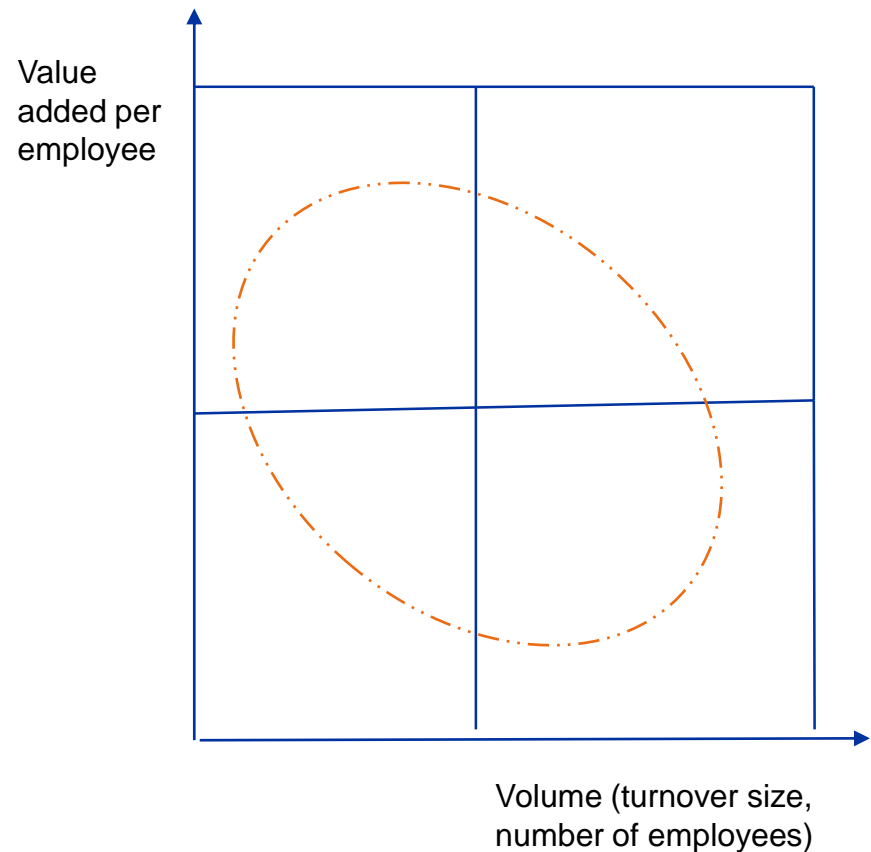
The big question of magnitude



EAS annually

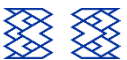
- **600** companies in voucher programme
- **400** companies in export services
- **200** companies in clusters
- **100** companies in competence centres
- **100** companies in development programme
- **50** companies in European Space Agency & Horizon 2020 programmes

Ca 1500 companies in total



Challenges ahead

- It takes two to tango: motivation of universities & demand from companies
- Extension & dissemination, new-to-firm innovation
- Embracing both ends of the „smile curve“
- One-stop-shops, „low overhead“ ways of support
- Stronger clusters & ecosystems



Thank You!

Tea.Danilov@riigikogu.ee

