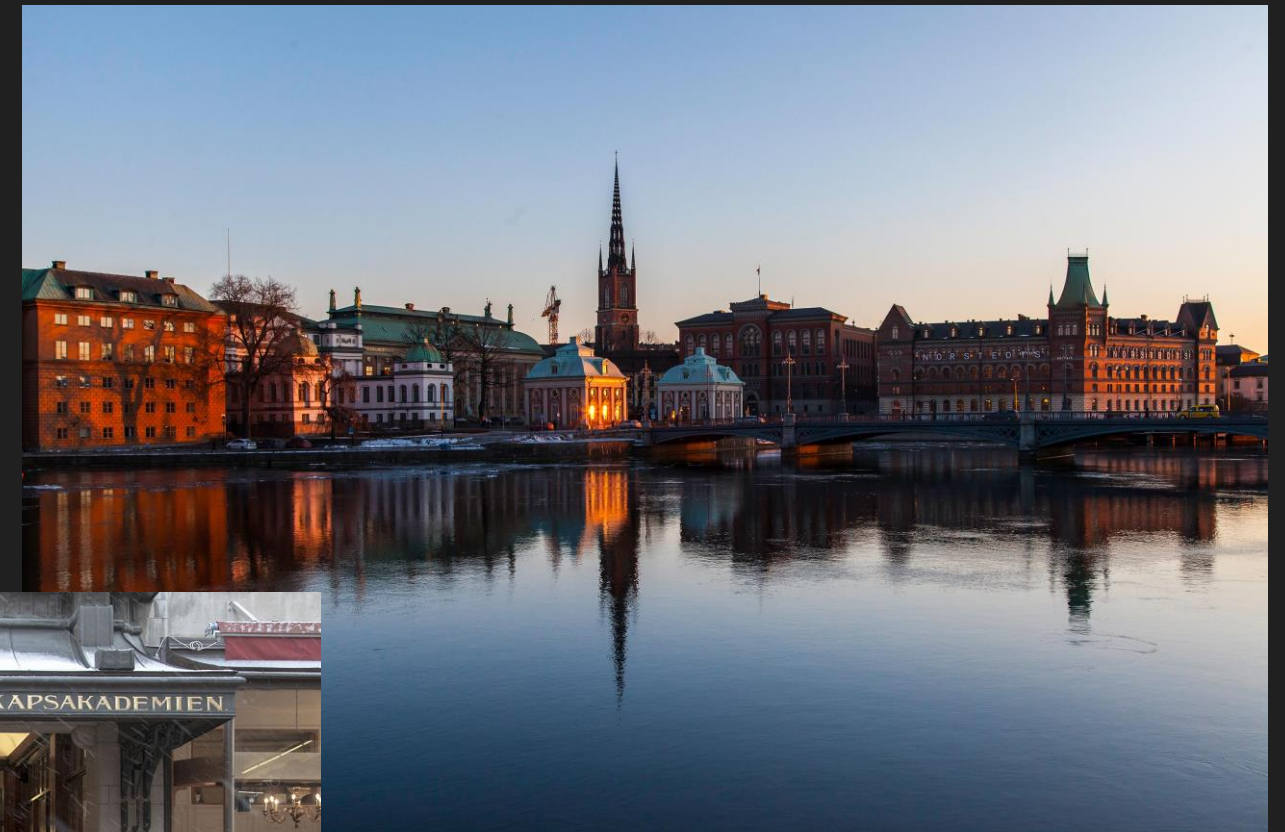




Royal Swedish Academy of Engineering Sciences (IVA)

“To promote the engineering and economic sciences and the advancement of business and industry for the benefit of society”

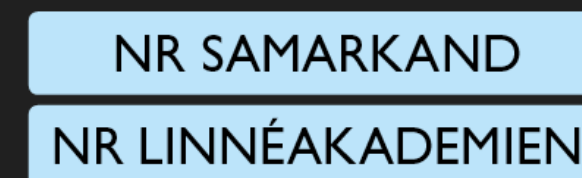
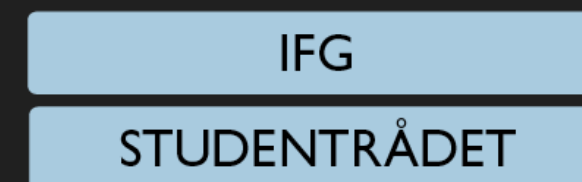
Professor Tuula Teeri
President IVA



100 years 2019



This is IVA





Long-term goals for Sweden

- World-class research that drives innovation
- Internationally competitive education system that meets the needs of society
- Attractive for investment and for individuals to start, run and develop businesses
- Secure and sustainable energy supply with competitive prices
- Global resources used more efficiently



Project portfolio 2018 (March)

Projects

- Research2Business
- Resource efficiency and circular economy
- Crossroads for the climate
- Digitalisation for growth
-
- ❖ Forestry innovation
- ❖ Good cities of the future

Long term activites

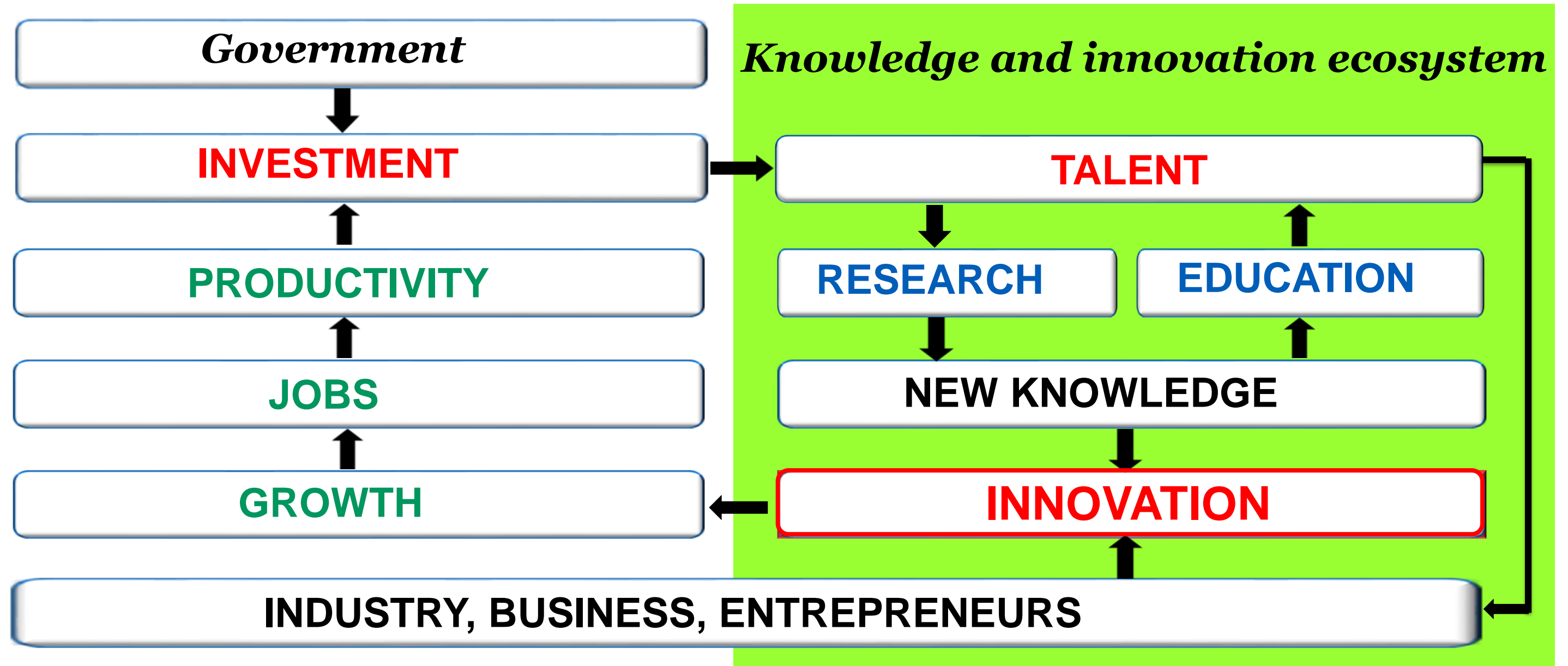
- Prins Daniel's Fellowship & Entrepreneurship Programme
- NTA Digital 2.0
- Smart industry
- Work leap
- Technology leap



Research2Business

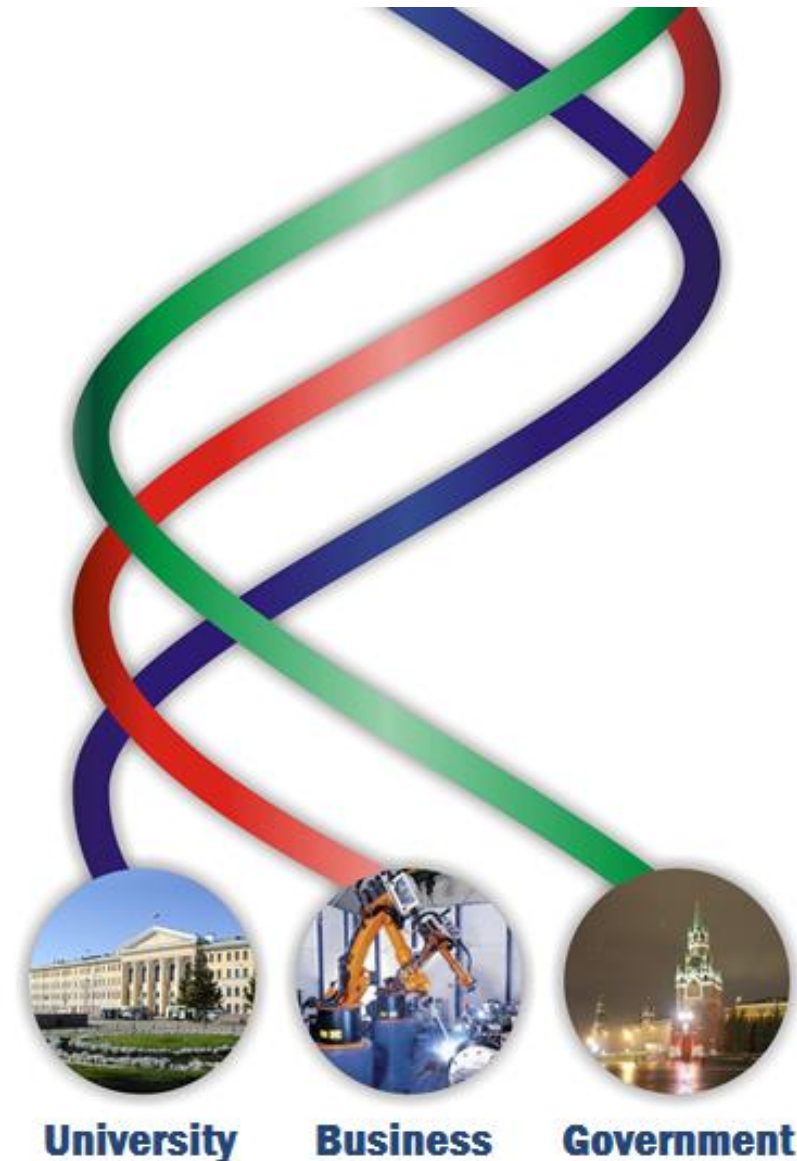
Principles

The virtuous cycle of *knowledge and innovation*-driven economic growth



Research2Business

– a university (of technology) perspective



University activities have traditionally been understood as **teaching and research**.

Universities also contribute towards **economic growth** and social development in the modern "knowledge society".

Therefore, policy makers encourage the other contributions of universities to society, their **Third Mission**.

Some dimensions of the Third Mission

- Science / Technology toward **Innovation**
- **Life long learning**
- **Societal Engagement** e.g. toward evidence-based policy

Case Aalto University

Shaping the Future



Aalto University community:
4500 staff, including
400 professors
12 000 students/FTE
90 000 alumni

University reform – more autonomy to develop and implement own strategy, leadership, careers

A foundation university – governed by an external Board

National mission to strengthen the innovative capacity of Finland

Significant increase in resources

- Direct government funding temporarily increased by up to 90 mill. EUR p.a. 2010-2020
- Endowment 700 mill. EUR, estates and other assets 300 mill. EUR
- Annual budget about *400 mill. EUR*

Aalto University in a nutshell

From technology transfer to co-creation and mutual competence building

Science and **Art**
together with
Technology and
Business

Co-creative
education of *game
changers*

(Student-driven)
entrepreneurship

Open innovation
and strategic
*corporate
partnerships*

Research excellence,
building on strengths

Curriculum reforms
Future skills

Advancing research
frontiers by long term
co-creation

Ranking: QS 2017
Field: Top 50 under 50

7

IN THE WORLD

University Wide Art Studies
UWAS

A!

Aalto University
Design Factory



AALTO
VENTURES
PROGRAM

Aaltoes



Startup Sauna



Take home

There are eight different ways in which HEIs and business cooperate:

1. Technology supplier → **strategic partner** ← ①. Collaboration in research and development (R&D),
2. **2-way staff mobility** ← ②. Mobility of academics, + **experts in industry**
3. **Credit earning projects** ← ③. Mobility of students,
4. **Innovation ecosystems** ← ④. Commercialisation of R&D results,
← ⑤. Curriculum development and delivery, + **future skills**
← ⑥. Lifelong Learning (LLL)⁵, **adaptation**
← ⑦. Entrepreneurship,
← ⑧. Governance, **university strategy and leadership**



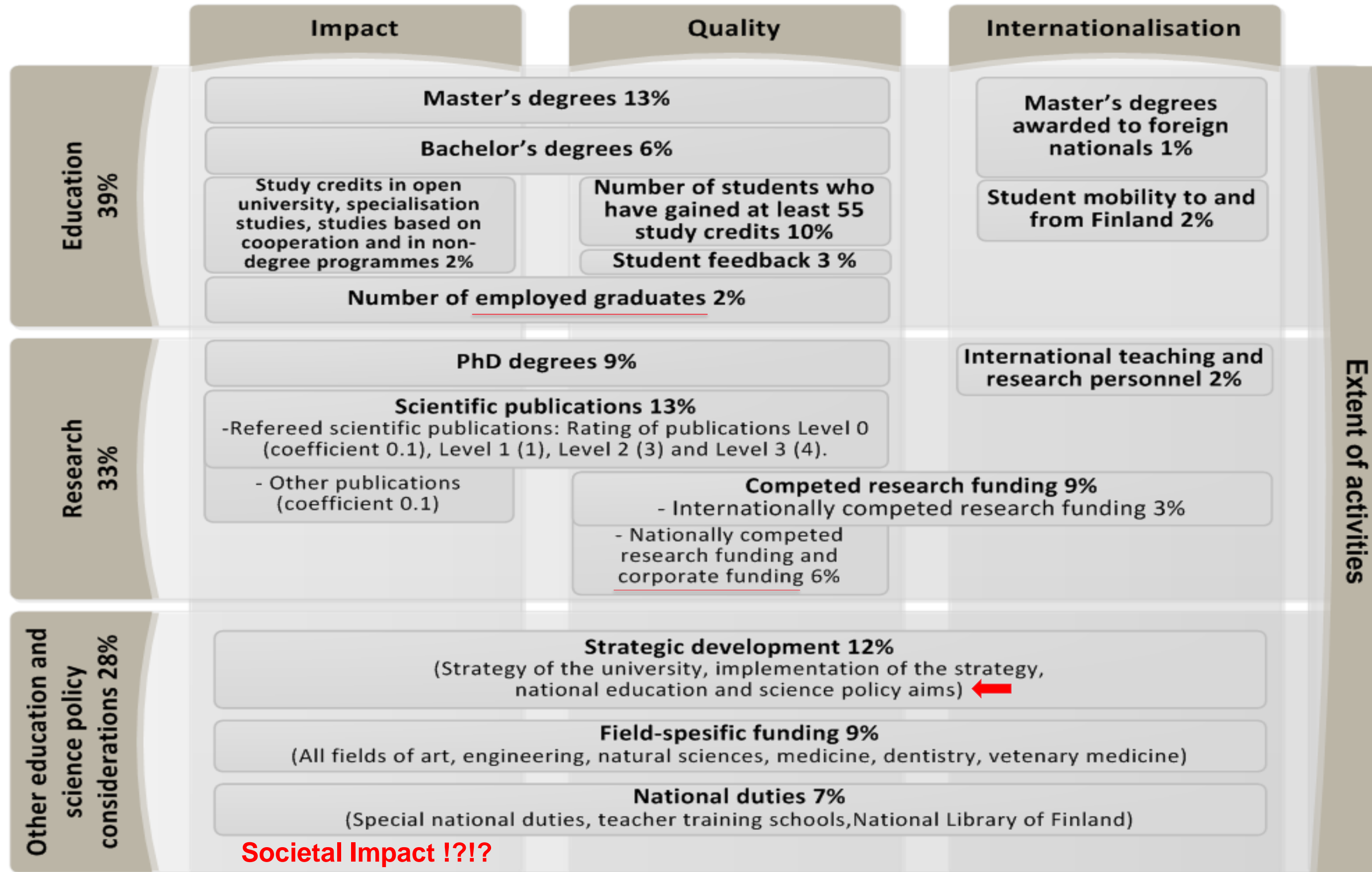
WIN - WIN

It takes two to – achieve difficult things

Government actions

Incentives for the Third Mission?

Core funding of Universities in Finland



Nordic collaboration

The most innovative countries in the world

Opportunities to increase collaboration

- Research & education, joint programs
- Industry partnering
- Job market, recruitment base
- Policy / best practice

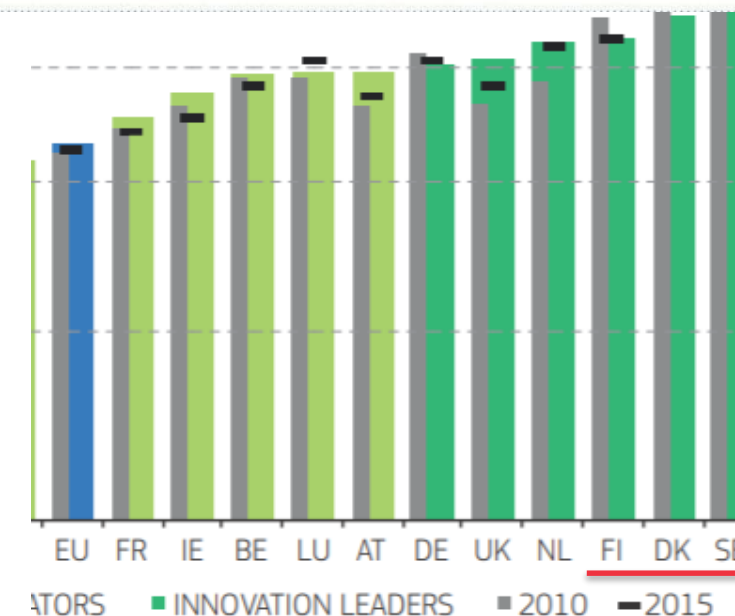


The Top 10 Most Innovative Economies	
Global Competitiveness Report 2017-2018	
	Rank*
Switzerland	1
United States	2
Israel	3
<u>Finland</u>	4
Germany	5
Netherlands	6
<u>Sweden</u>	7
Japan	8
Singapore !	9
<u>Denmark</u>	10

Source: The Global Competitiveness Report 2017-2018
*2017-2018 rank out of 137 economies

Business Insider

1. South Korea !
2. Sweden
3. Singapore !
4. Germany
5. Switzerland
6. Japan
7. Finland
8. Denmark
9. France
10. Israel
11. USA
12. Austria
13. Ireland
14. Belgium
15. Norway





NordForsk

+ Sister organisations, Nordic Innovation and Nordic Energy Research.

Base Funding approximately 12,5 MEUR p.a. from the Nordic Council of Ministers.

Co-funding by the national funding agencies in the Nordic countries approximately 9,9 MEUR in 2016.

12 projects ongoing/22,4 MEUR – what is the impact?

Nordic Research Councils award about **2.000 MEUR** p.a. for just ‘basic’ research

- *About 1% investment on Nordic collaboration*



*Thank
You!*

