

The Swedish Research Council

Partikeldagarna 2017

Kerstin Jon-And, Stockholm University
Board member of the Swedish Research Council

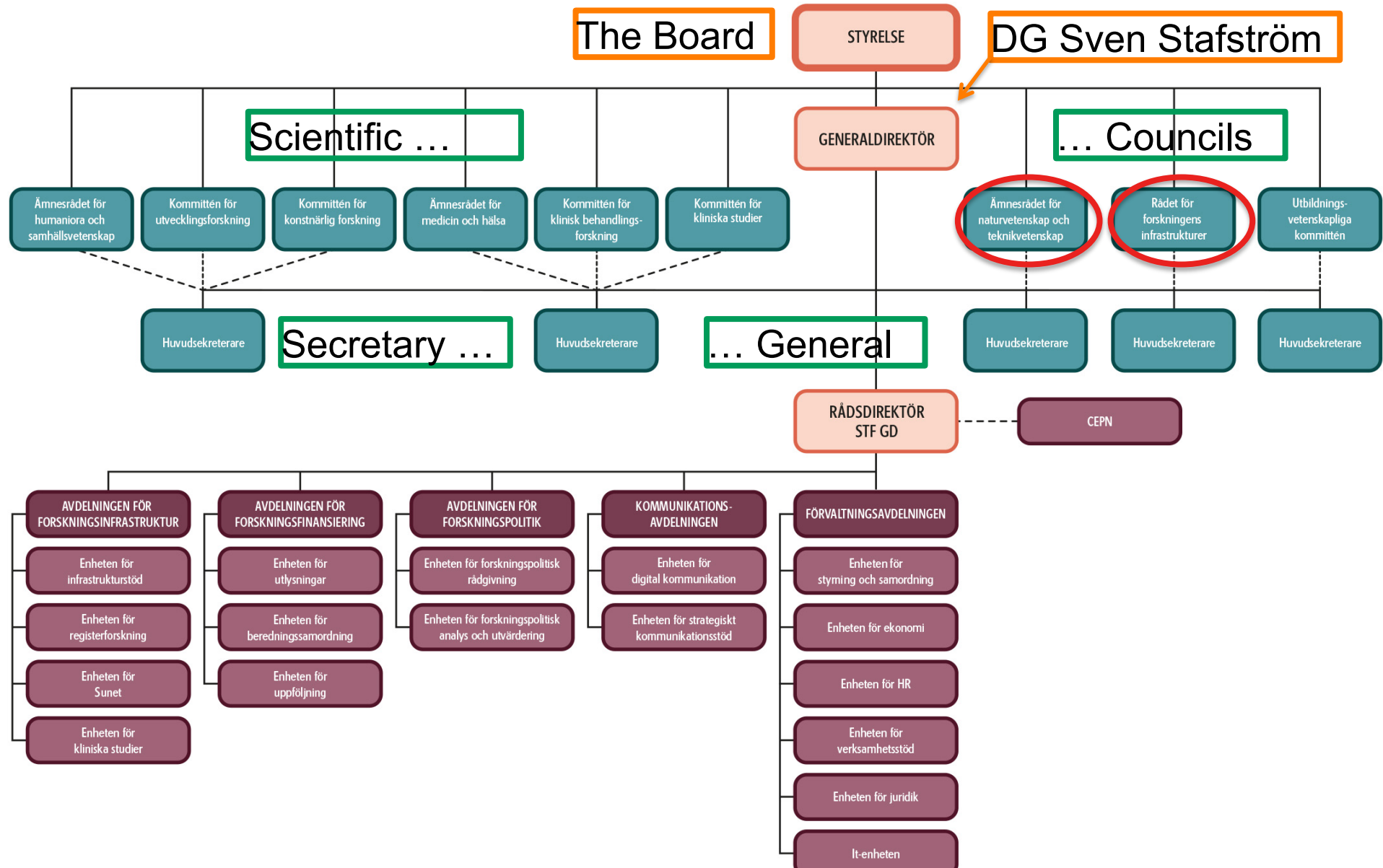
Thanks a lot to Emma Olsson, VR, and Henrik Cederquist, SU,
for providing material

VR --- Part of the research system

- Provides funding for research of the highest scientific quality
- Overall responsibility for national research infrastructure
- Performs analyses and advises the government
- Promotes international collaborative research
- Coordinates and develops communication about the significance, results and conditions of research



The organisation of the Research Council



Members of the Board 2016 - 2018

Appointed by the Government



Agneta Bladh
Chair
Swedish Research Council

[Contact](#)



Sven Stafström,
Director General
Swedish Research Council

[Contact](#)

[CV](#)



Anders Ekblom
Associate professor and Chair of the board
of directors at Karolinska University Hospital

[Contact](#)

Elected by the scientific community via electors



Maria Fällman
Professor of molecular biology
Department of Molecular Biology, Umeå university

[Contact](#)



Peter Hedström,
Professor of analytical sociology and
Director of the Institute for Analytical Sociology,
Linköping university. He also is Senior
Research Fellow at Nuffield College in Oxford.

[Contact/ CV/ Homepage](#)



Kerstin Jon-And
Professor in physics
Department of Physics, Stockholm
University

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Britta Lundgren
Professor of ethnology
Department of Culture and Media
Studies,
Umeå university

[Contact](#)



Jan Nilsson
Vice chair
Professor of Experimental Cardiovascular Research
Department of Clinical Sciences
Lund university

[Contact](#)



Björn Ottersten
Professor of Signal Processing at the
Royal Institute of Technology (KTH)
Director, Interdisciplinary Centre for
Security Reliability and Trust (SnT),
University of Luxembourg

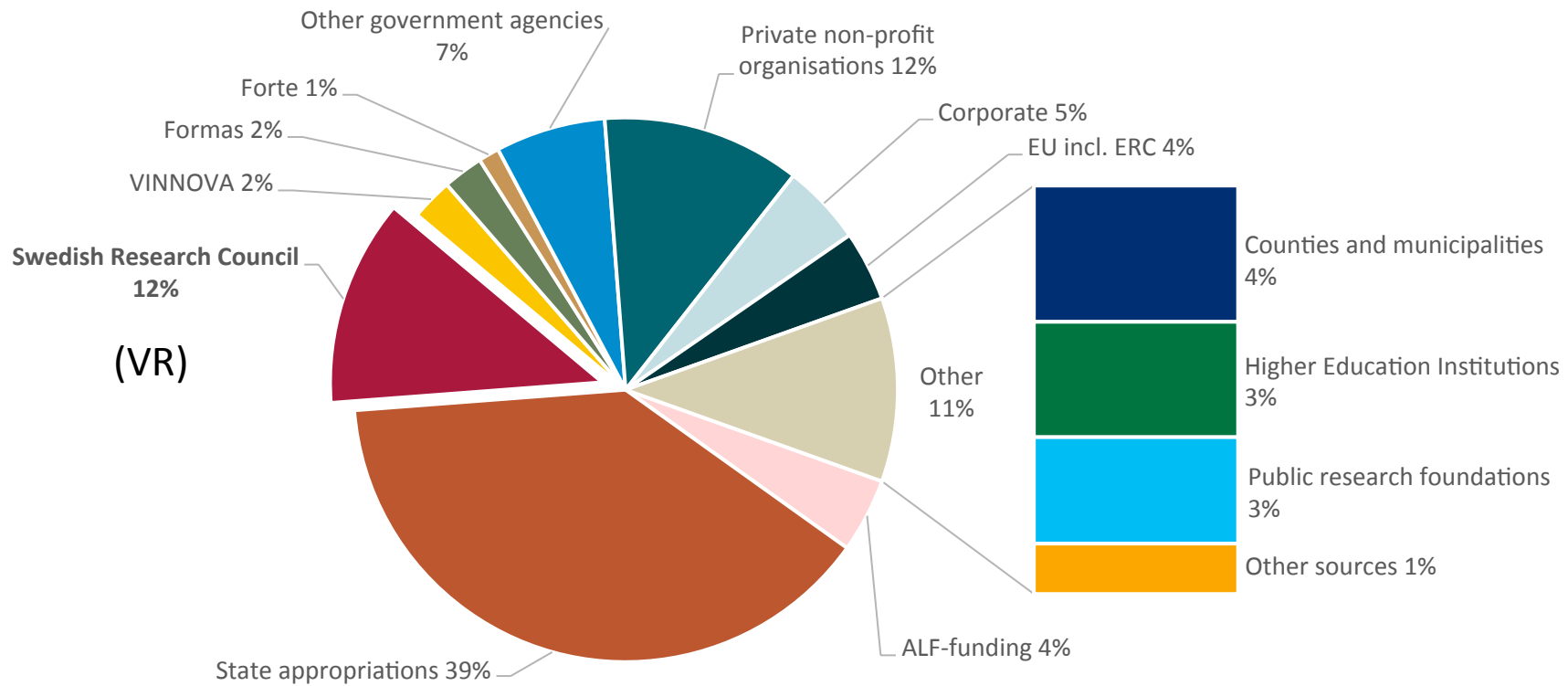
[Contact \(KTH\)](#)

[Contact \(University of Luxembourg\)](#)

The board has the overall responsibility and adopts the work plan for using the government funding for research and research communication

Research funding

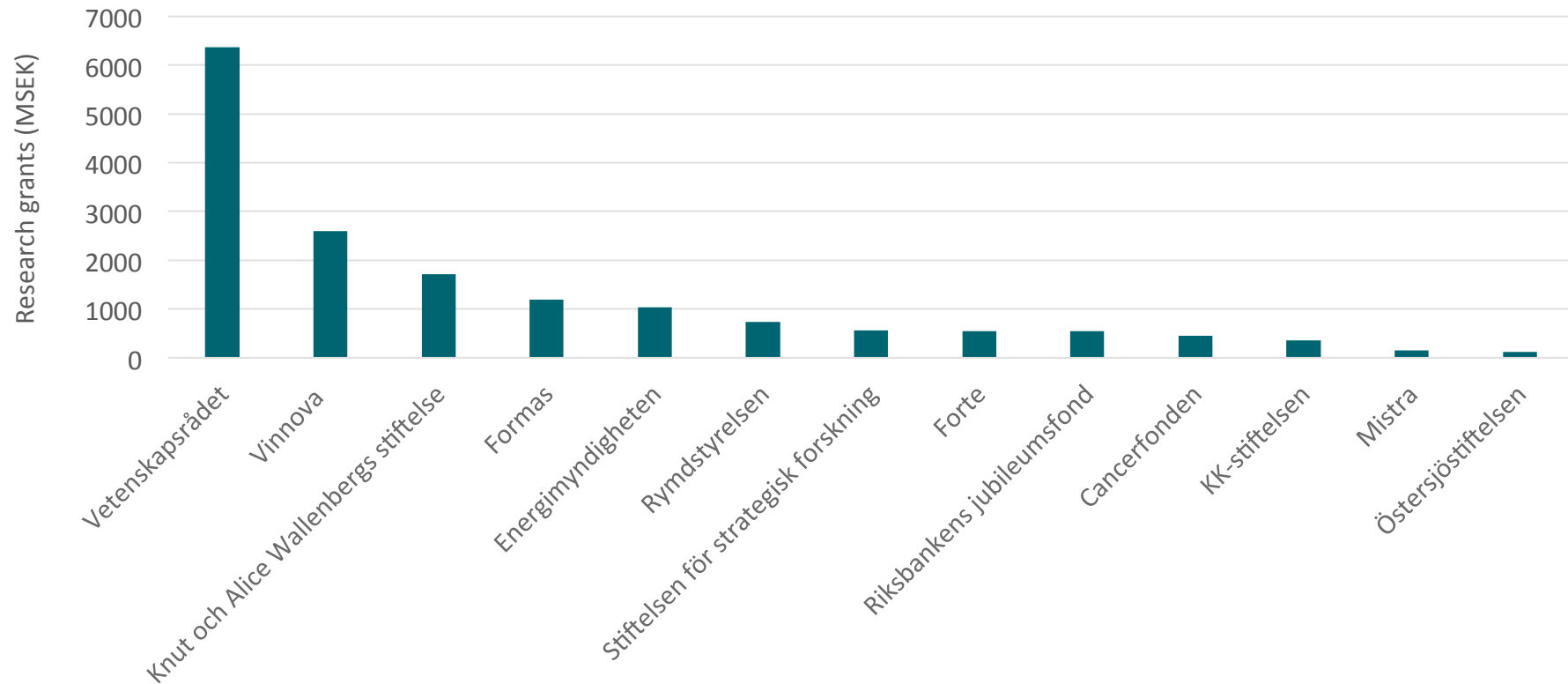
Funding sources for the Swedish higher education sector



Källa: SCB 2015



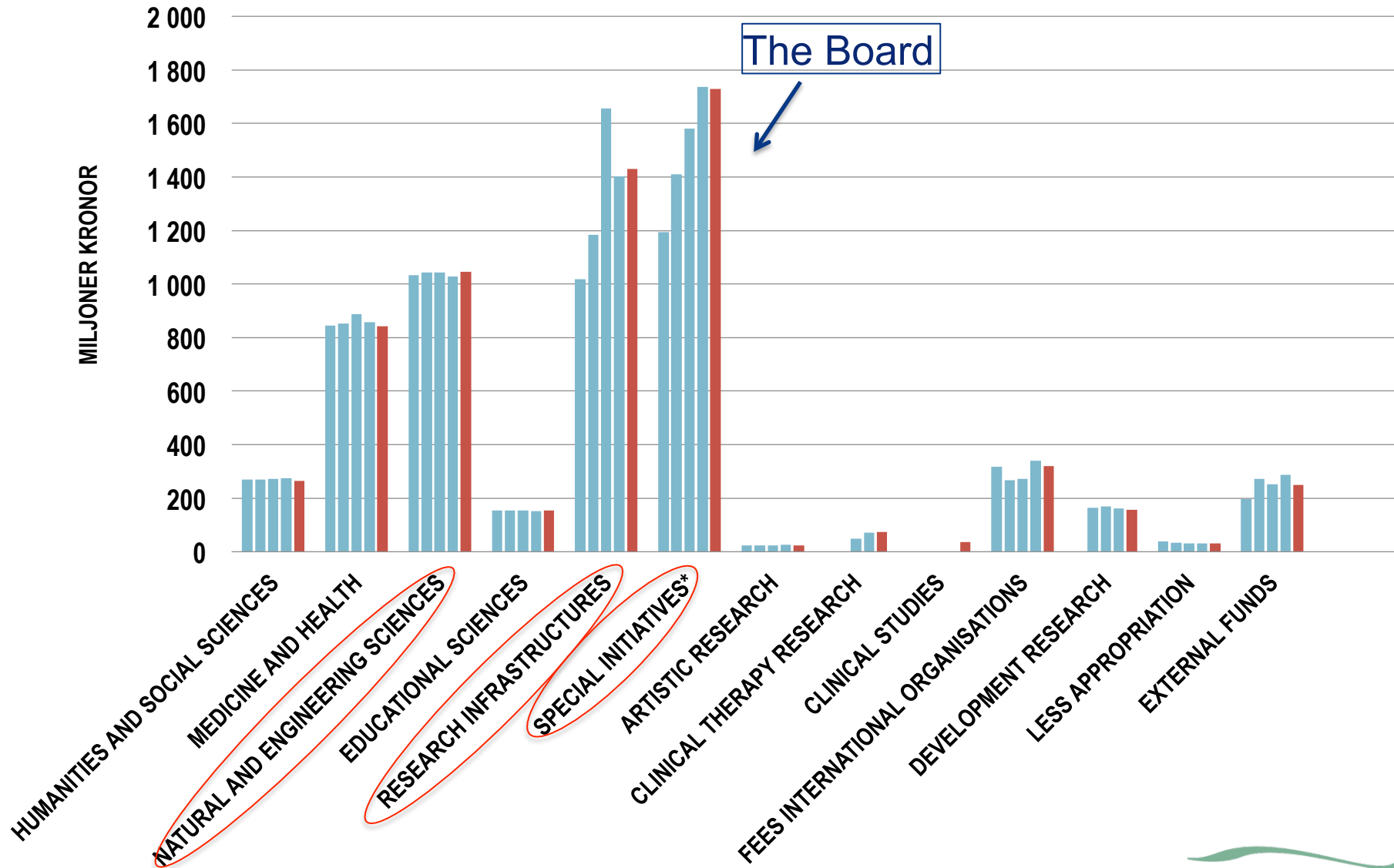
Selection of Swedish research funding organisations



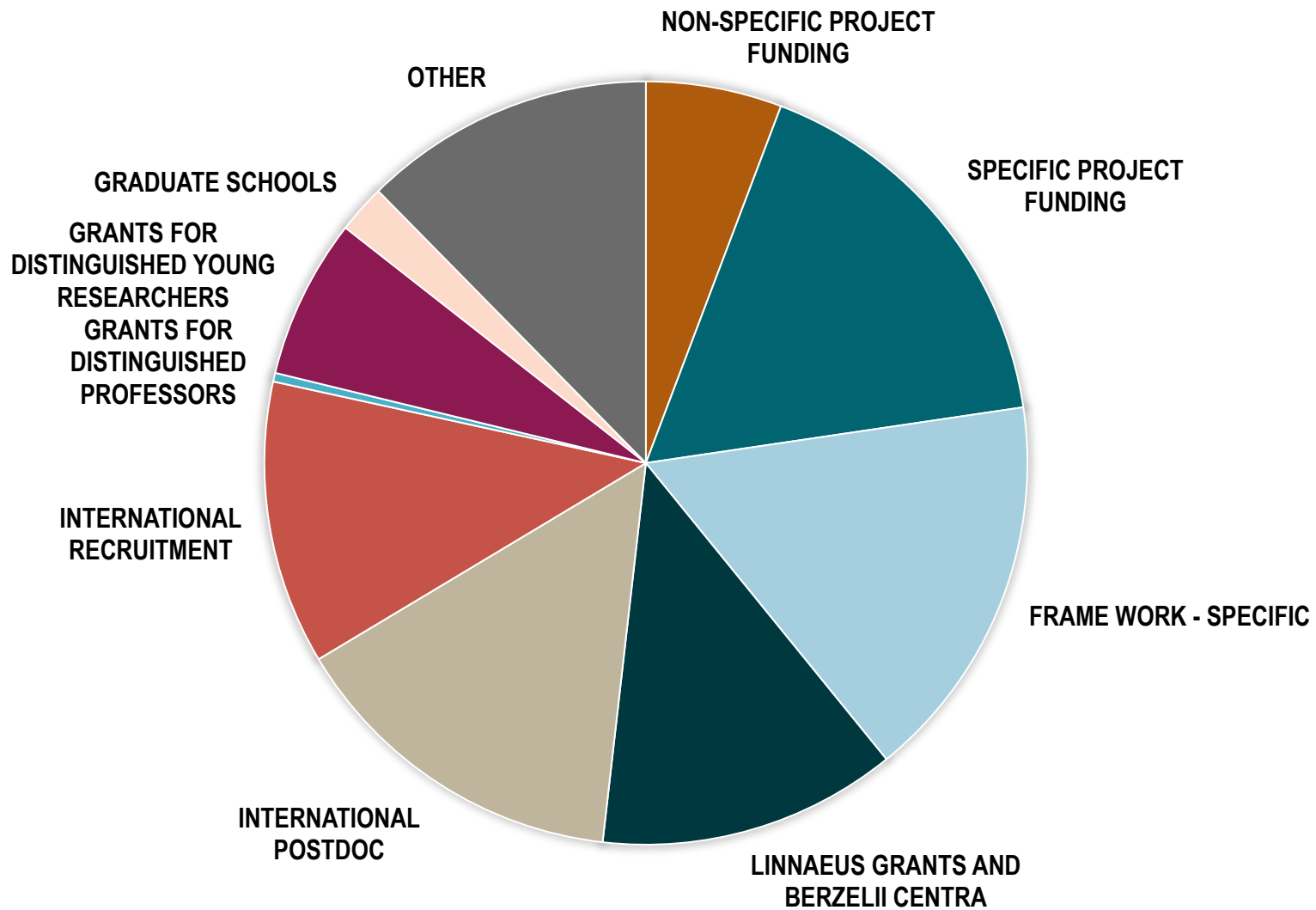
Source: Each organisation's annual report 2015.



VR research funding 2012-2016

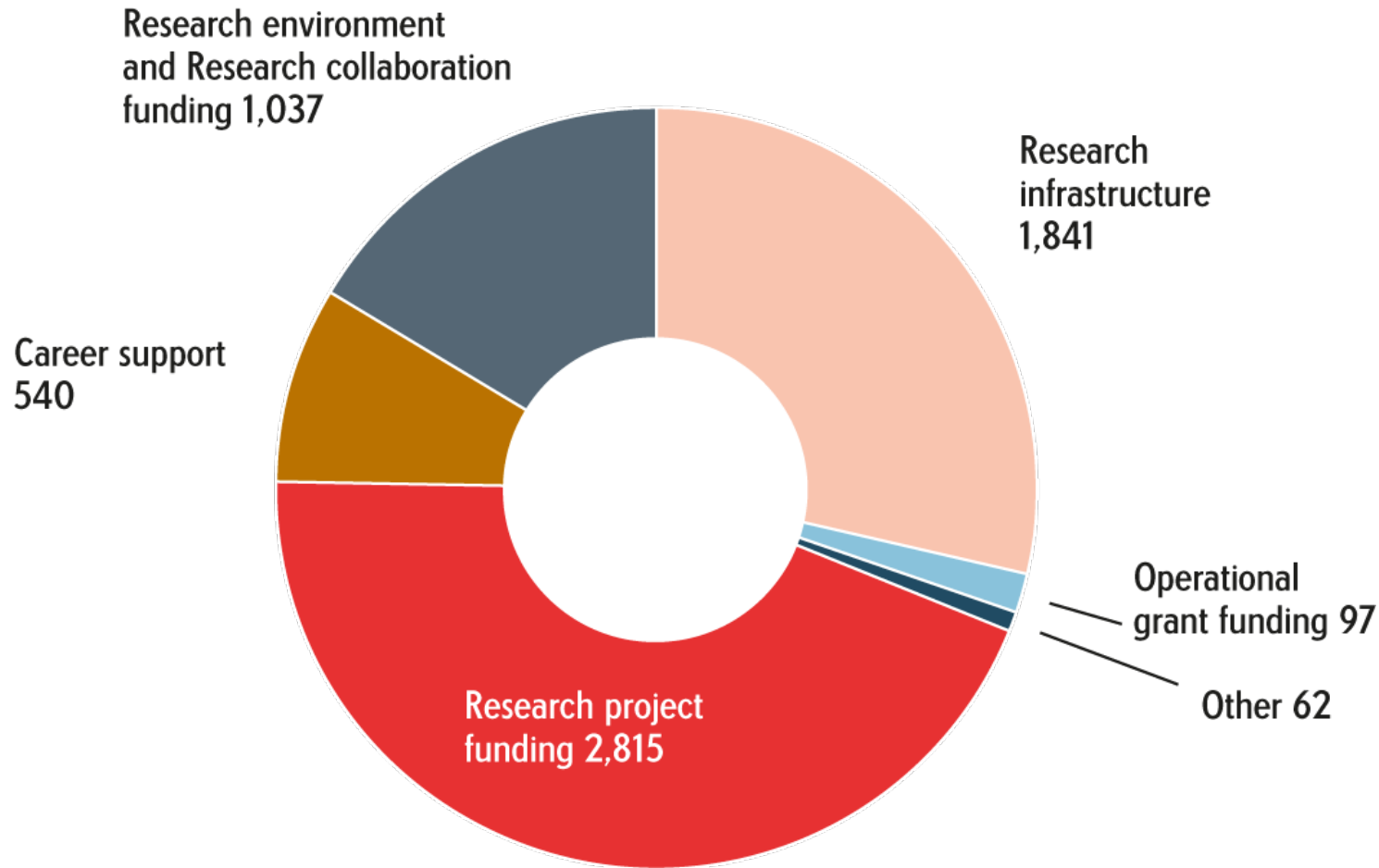


Special initiatives 2016



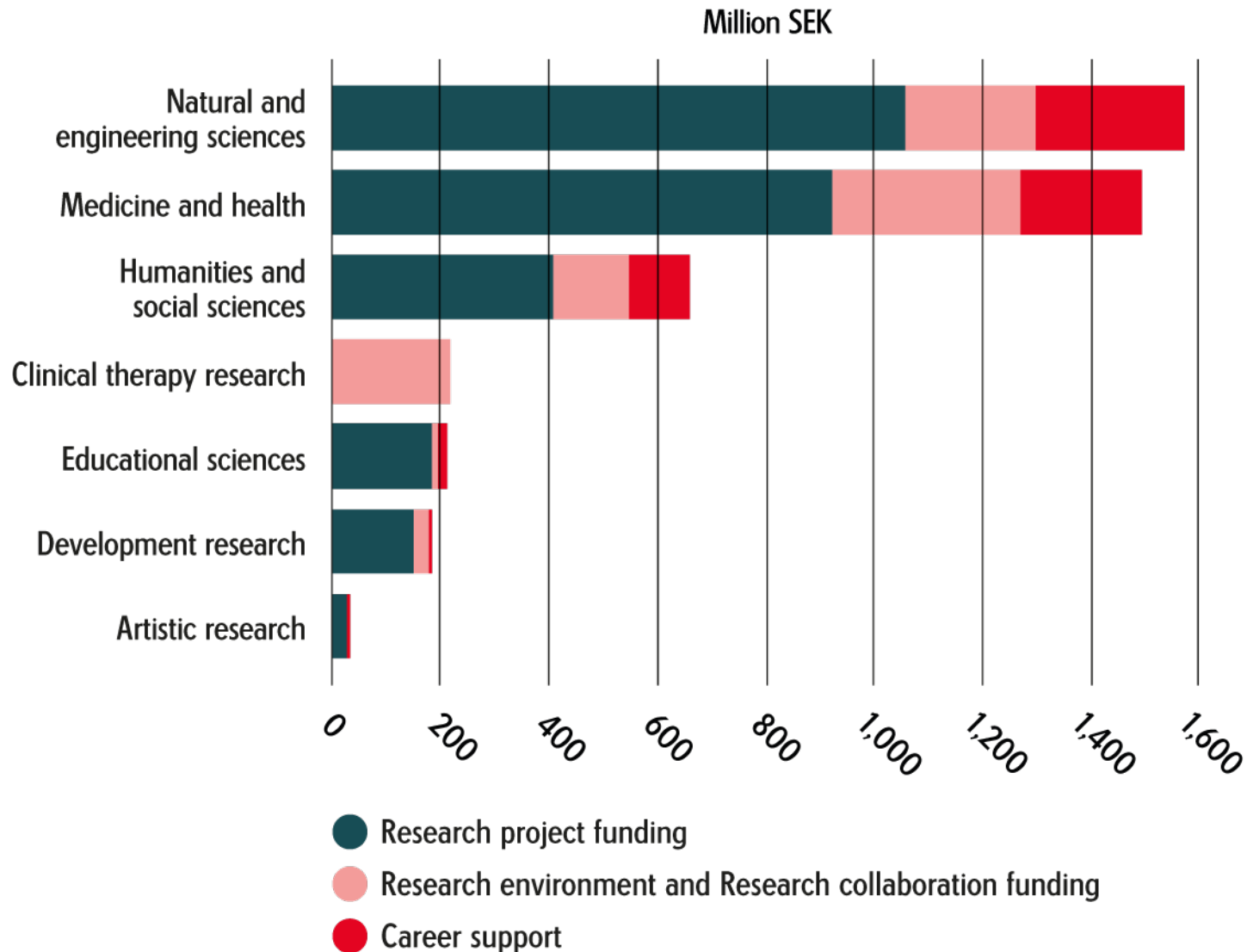
Distribution of forms of grants 2016

Total: 6,392 million SEK



Total amount granted, area and type of funding

Average year, period 2012–2016



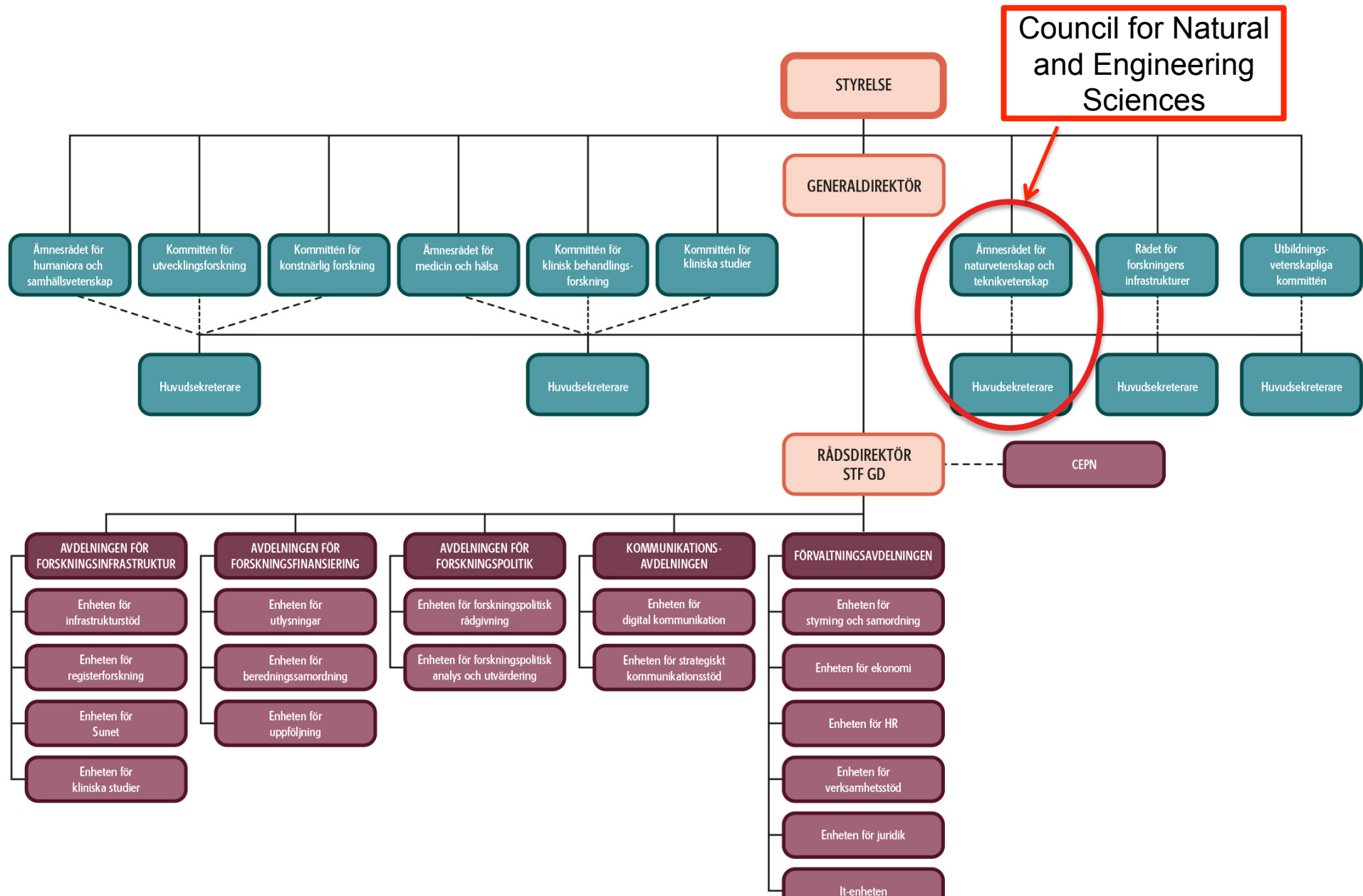
Call for application, assessment, decision



- 6 000 received applications
- 90 review panels
- 800 review panel members



The organisation of the Research Council



The tasks of the scientific council

- Research funding: Evaluation process and panel member
- Budget: Evaluation panel budget, redistribution, and decision
- Strategic work (examples)
 - Research overviews
 - Input to coming research bills
 - Types of grant, long-term planning of future calls for proposals and budget
 - Long term effect on the conditions for the grants (salaries for established researchers)
- NE has started a series of meetings with "vicerektorerna" for natural science faculties at the universities to discuss research funding issues, e.g. conditions for different grant forms

Natural sciences and engineering

- Scientific Council
- Secretary General: Lars Kloo
- Coordinator: Emma Olsson
- 19 evaluation panels + *ad hoc* panels for special initiatives
- Budget 1 GSEK (total to the area almost 1.7 GSEK per year)

The Scientific Council for Natural Sciences and Engineering (2016-2018)

Henrik Cederquist, Stockholm Univ

Nils Dencker, Lund Univ

Dan Henningson, KTH

Kerstin Johannesson, Gothenburg Univ, deputy chair

Kristina Luthman, Gothenburg Univ

Per Persson, Lund Univ, chair

David Sands, Chalmers

Maria Selmer, Uppsala Univ

Kajsa Uvdal, Linköping Univ



NE Panels 2017



Vetenskapsrådet

1. Mathematical sciences
2. Computer science
- 3. Subatomic physics, space physics and astronomy**
4. Atomic and molecular physics, optics and condensed matter physics
5. Analytical, physical and theoretical chemistry
6. Organic and inorganic chemistry
7. Geology and geophysics
8. Soil, Air and water processes
9. Biochemistry and structural biology
10. Cell and molecular biology
11. Organism biology
12. Ecology, systematics and evolution
13. Electronics, electrical engineering, semiconductor physics and photonics
14. Signals and systems
15. Applied physics
16. Mechanical engineering
17. Biotechnology, chemical engineering and environmental engineering
18. Materials science
19. Biomedical engineering



Number of applications



Vetenskapsrådet

Year	2017	2016	2015	2014	2013	2012	2011
Project grants	1195	1241	1261	1343	1261	1161	1210
Project grants for junior researchers	-	-	633	645	776	714	698
Starting grants	504	538	-	-	-	-	-
Project grants - Energy	138*	141	155	-	-	-	-
Other **				234	113	328	33
Totalt	1837	1920	1894	2222	2150	2203	1941



Review

- Open calls and tough competition
- Well defined process
- Peer review
- Review panels
 - Active researcher; experts in specific areas
 - Typically **8** to **12** members
 - Academic and geographic spread
 - >30% international experts --- **increasing**
 - Gender equal
 - **Max 6 years**, and **max 3 years as chair**
 - Strict rules for Conflict of interest
 - External reviewers when needed

More international panel members:
Less issues with Col
Need to focus on training panel members
More focus on the research plan!!!



NE, types of grants

Main instrument:

Project grants

- Total: ≈ 1000
- 4-year grant
- Average grant size $\approx 800-850$ kSEK/year (max 1500 kSEK /year)
- Total budget: ≈ 750 MSEK
- ~ 1300 applications per year
- Success rate: $\approx 20\%$

Starting grants (2-7 years after PhD)

- Total: ≈ 250
- 4-year grant
- Average grant size ≈ 850 kSEK/year (max 1500 kSEK /year)
- Total budget: ≈ 250 MSEK
- ~ 500 applications per year
- Success rate: $\approx 10\%$



Other grants

- **Research environments**
 - 3-4 million sek per year
 - 6 years (with review after 4 years)
 - At least 2 co-applicants
- **Tage Erlanders guest professor**
 - 1 year grant, areas varies
- **International postdoc grants (up to 2 years after PhD)**
 - Swedish phd required
 - Grant time 18-36 month
 - 2/3 of the time spent abroad
- **Consolidator grants (7-12 years after PhD)**
 - Every second year
 - 6 year grant, 2 MSEK per year
 - 8-9 in NT in each call
- **Distinguished professor grants (12 + years after PhD)**
 - Every second year
 - 10 year grant, 5 MSEK per year
 - About 4 in NT in each call

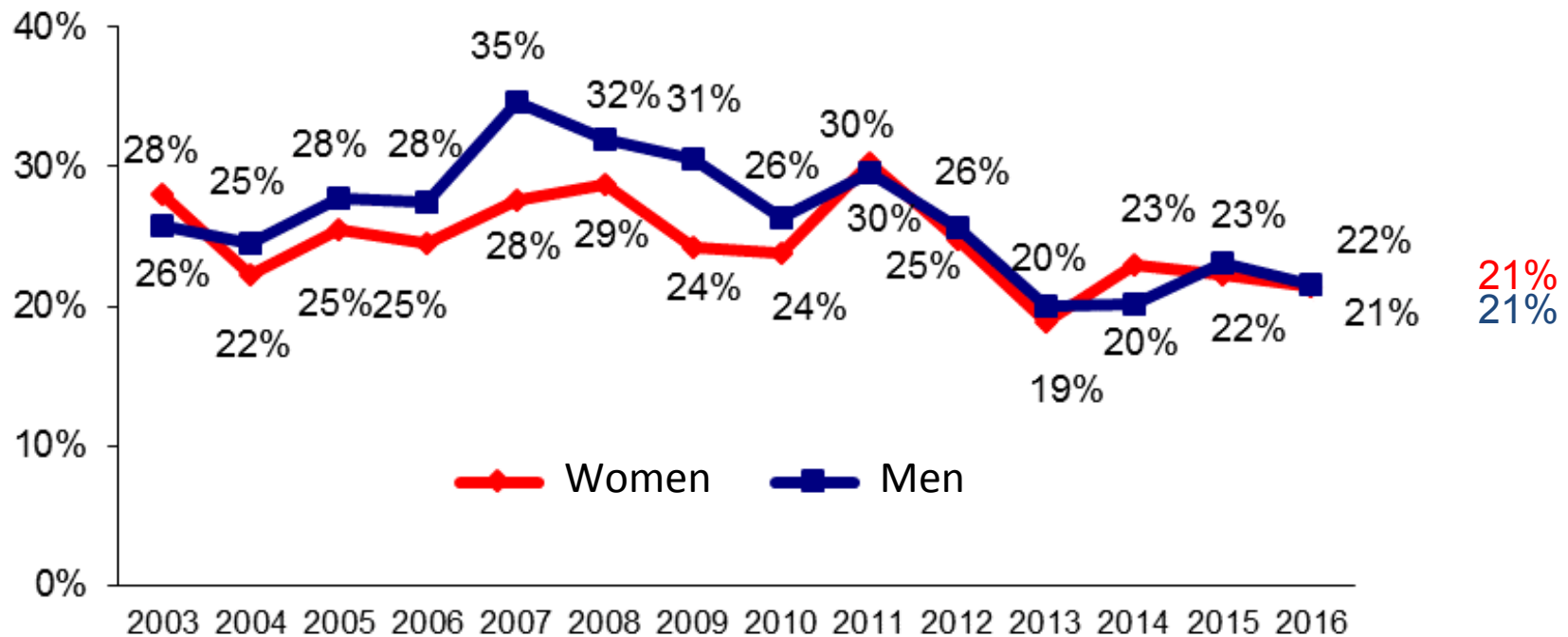
This year's call

- Decision published Oct 31 2017 on vr.se

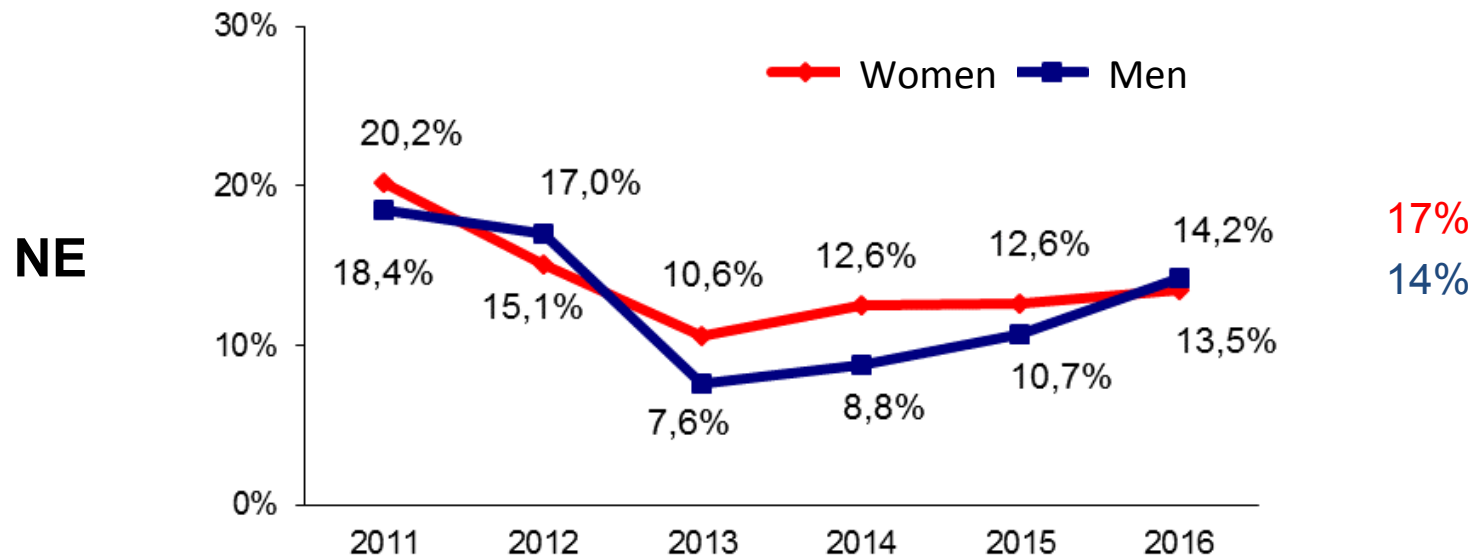
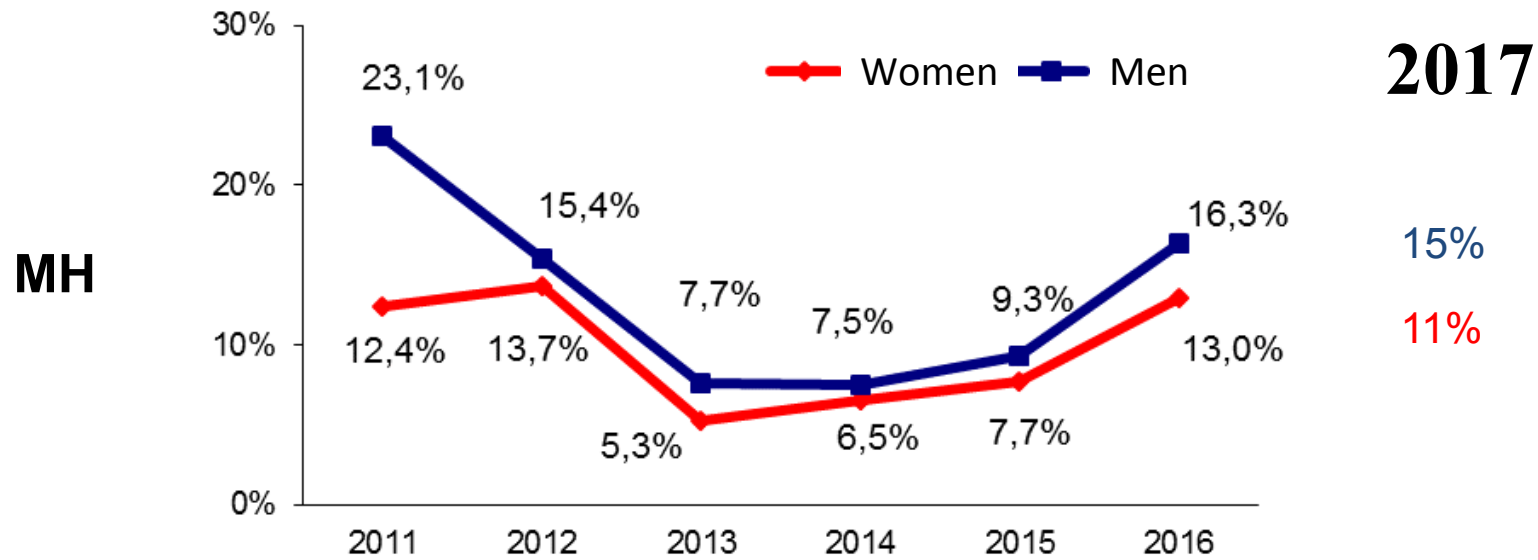
	Project grants	Project grants for junior researchers	Total
Number of applications	1183	499	1682
Number of awarded grants	251	74	325
Success rate	21%	15%	19%
Average grant (per year)	853 kSEK	857 kSEK	

Natural and Engineering Sciences Success rates 2003-2016

2017



Success rates starting grants 2011-2016



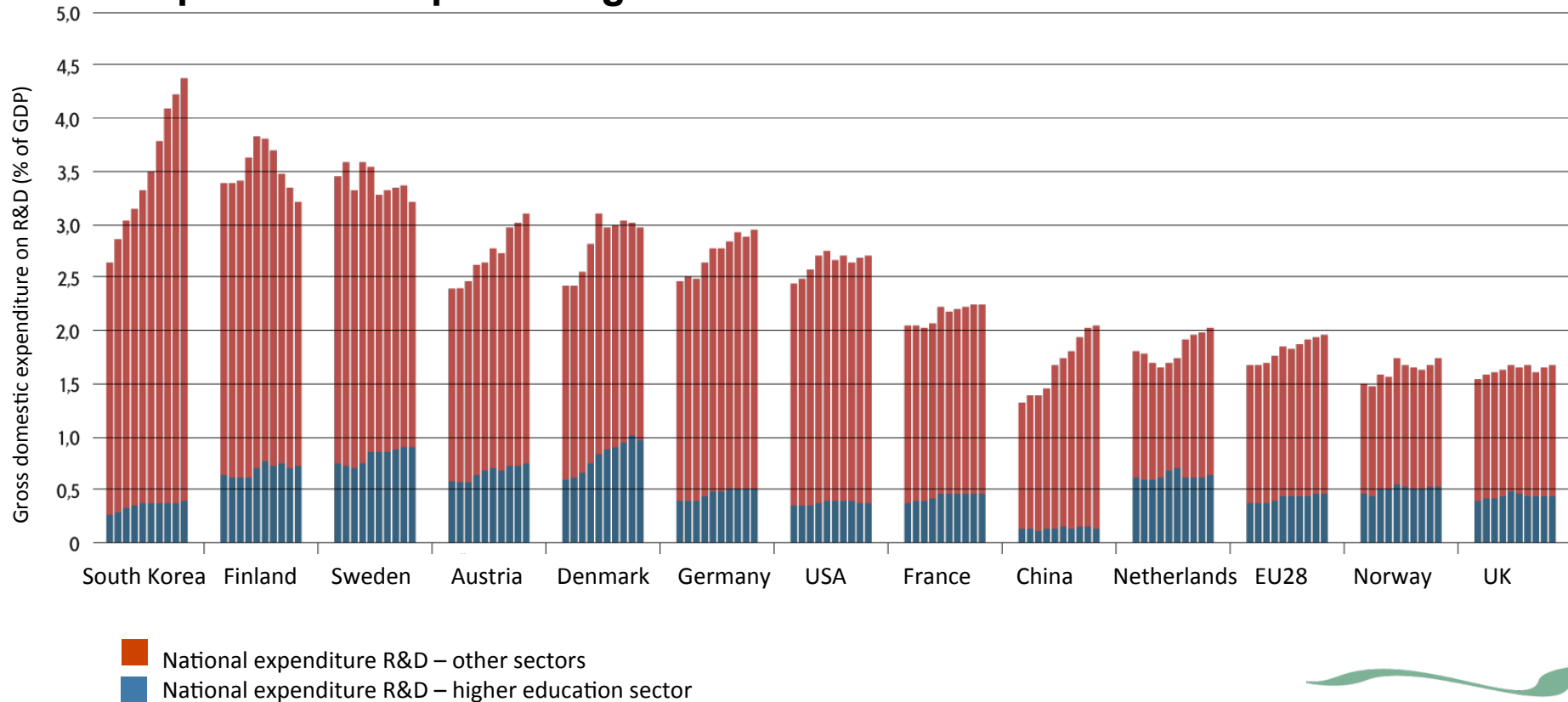
The Research Barometer

Swedish research in international comparison, illustrates the state of Swedish research through some 30 indicators

<https://vr.se/Forskningsbarometern2017>

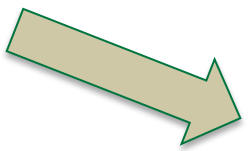
Example:

R&D expenditure as percentage of GDP 2005-2014 for a selection of countries



Source: OECD 2014





Update of European Strategy for Particle Physics

- Current European Strategy adopted by CERN Council in May 2013, <https://cds.cern.ch/record/1567258/files/esc-e-106.pdf>
- Council has decided to strive to approve an update in May 2020

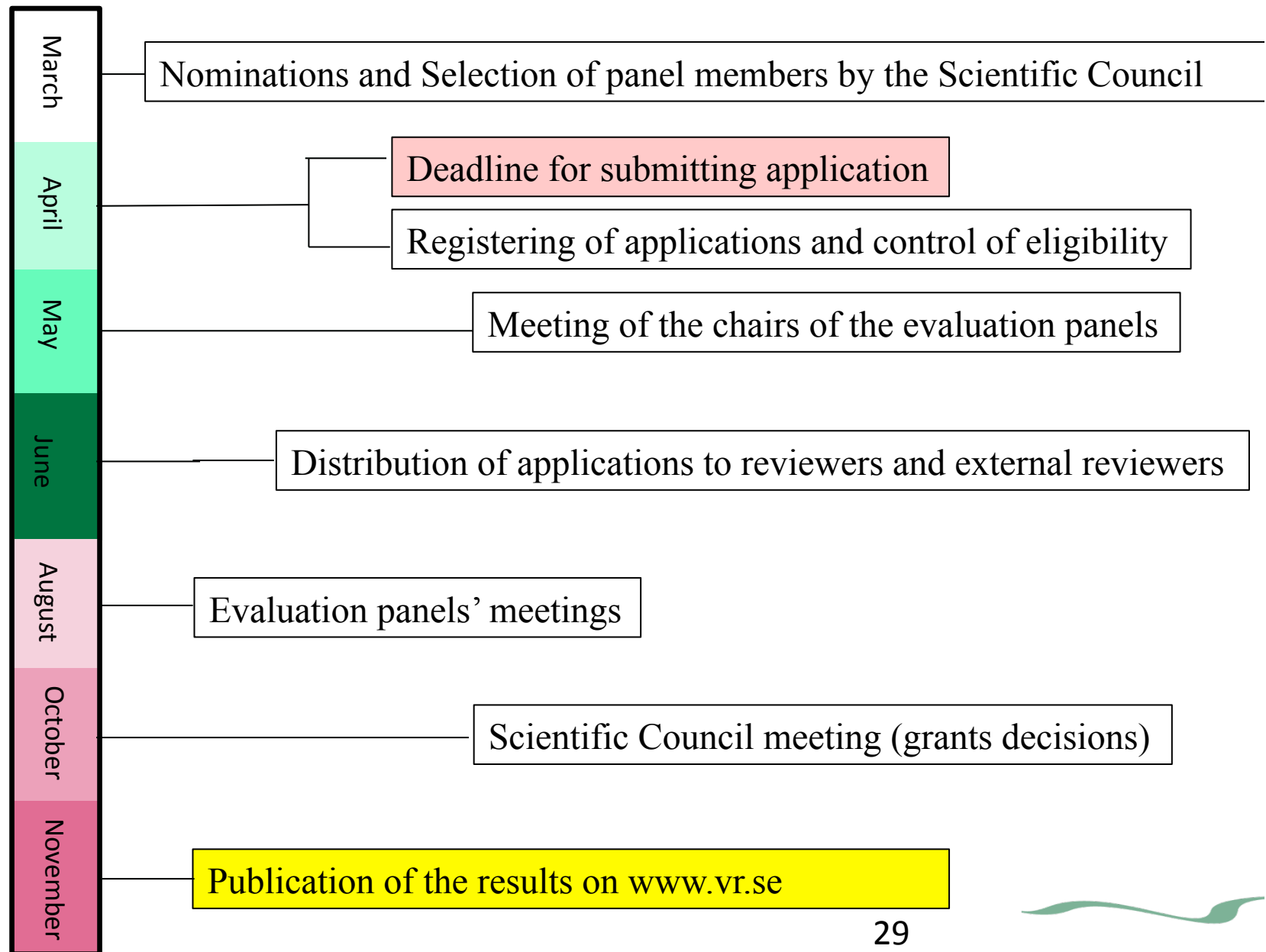
Major procedural steps

- **September 2017:** Strategy Secretary elected, Halina Abramowicz. Strategy Secretariat established, HA, SPC Chair (Keith Ellis), ECFA Chair, Chair of European Laboratory Directors' meeting (Leonid Rivkin)
- **Sep 2017-March 2018:** Secretariat prepares a plan for the update process
- **March 2018:** Council formally opens the process by
 - setting up the **European Strategy Group** to prepare the “Draft Strategy Document”
 - setting up the **Physics Preparatory Group** to prepare the scientific contributions in the “Briefing Book “
 - approving the plan for the update
- **May 2020:** Council approves the Draft Strategy Document

Proposal: Swedish strategy meetings have previously been organised to prepare input to the process. It's time again! When?

SPARES

Preparatory process

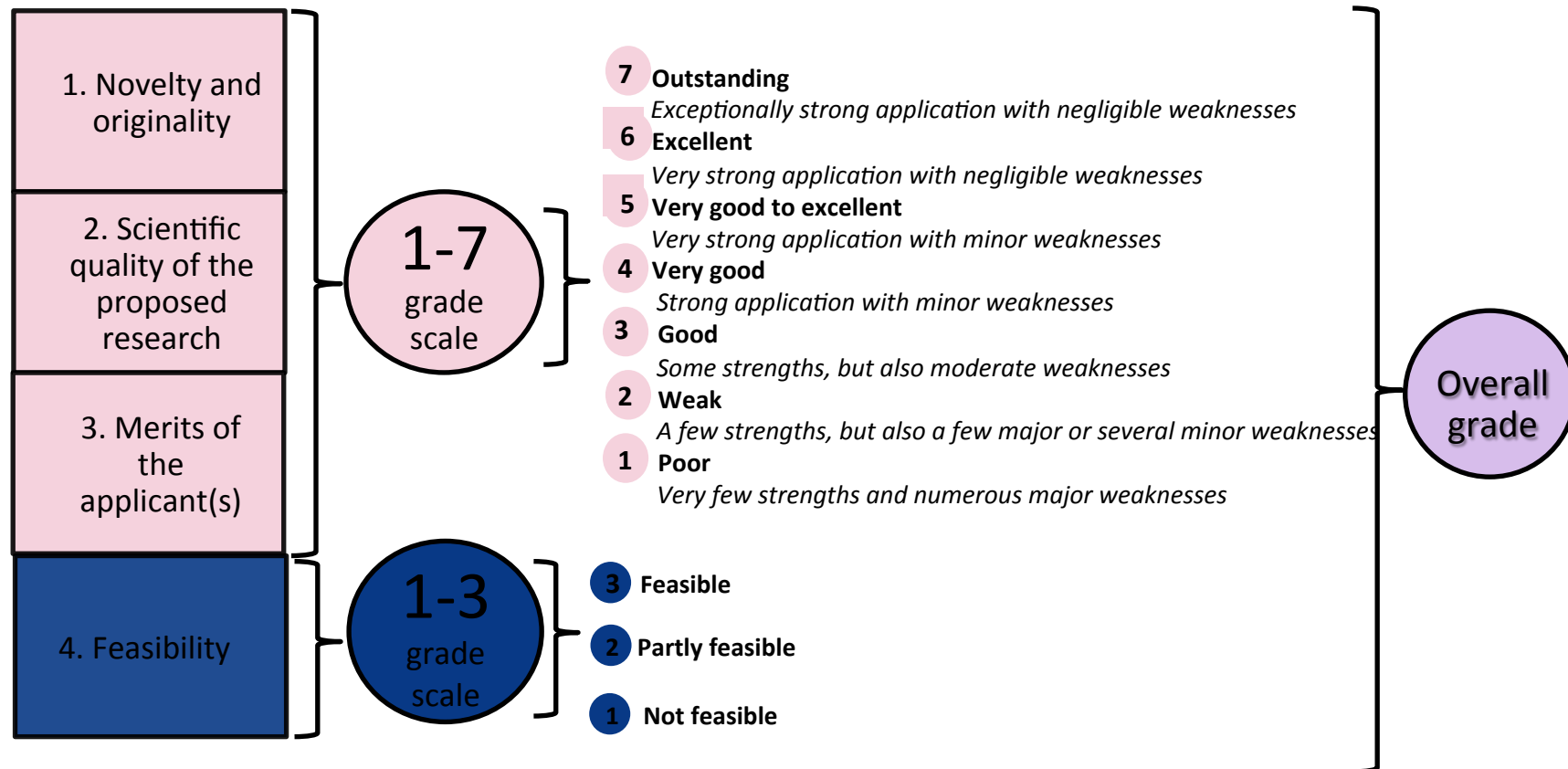


Assessment criteria and grading scale

Four quality components

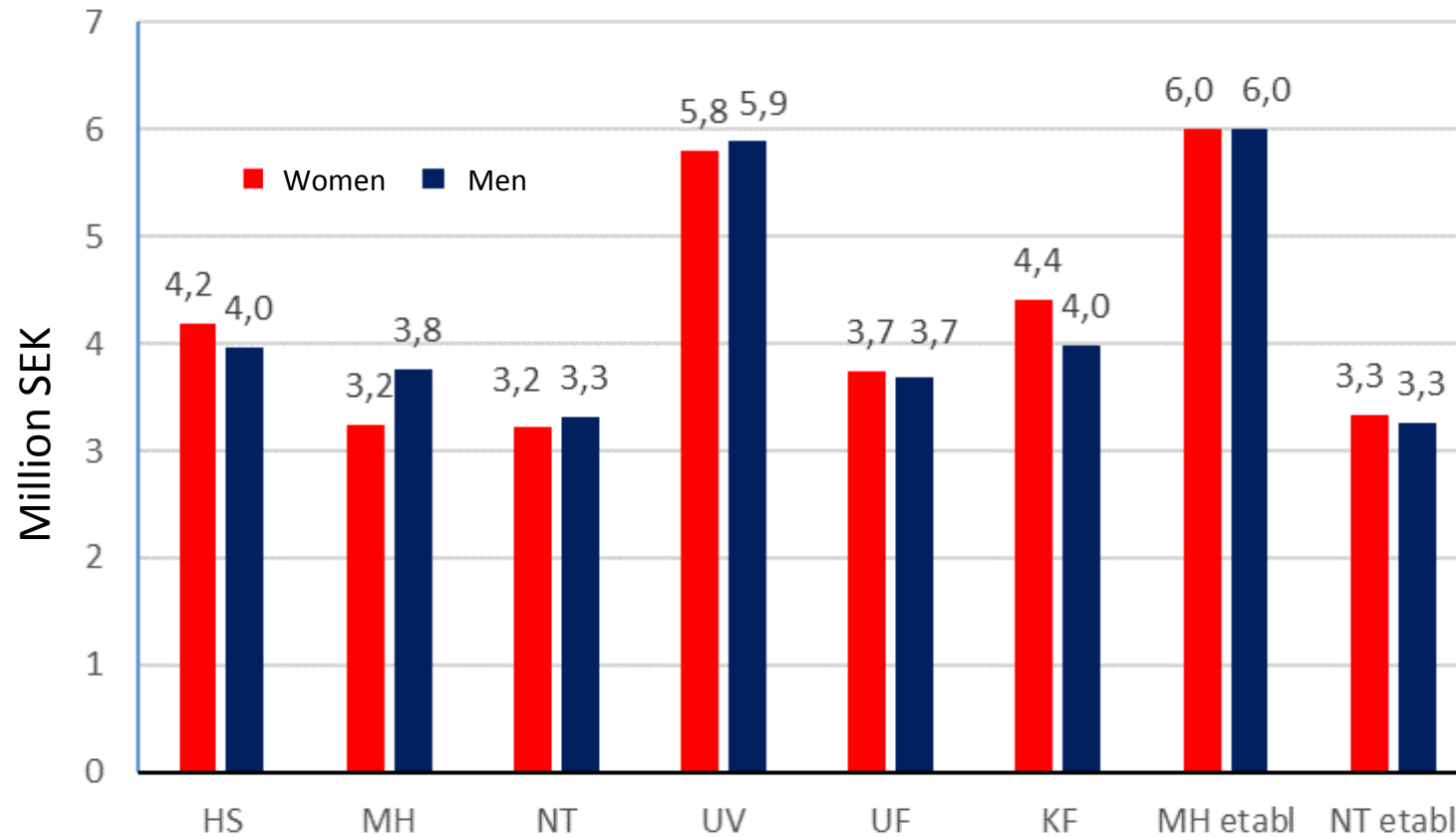


One Overall Grade

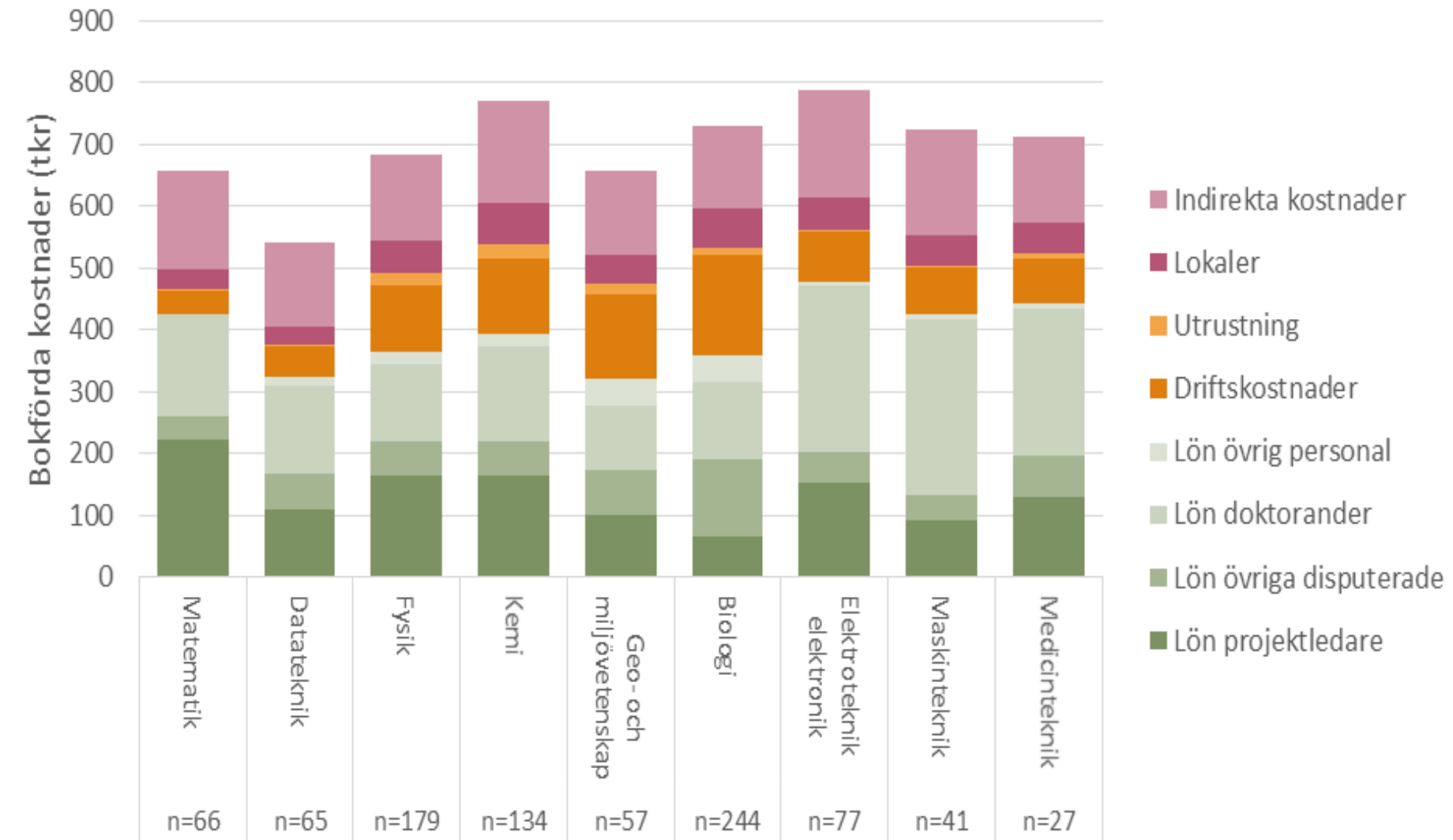


Project & starting grants 2016

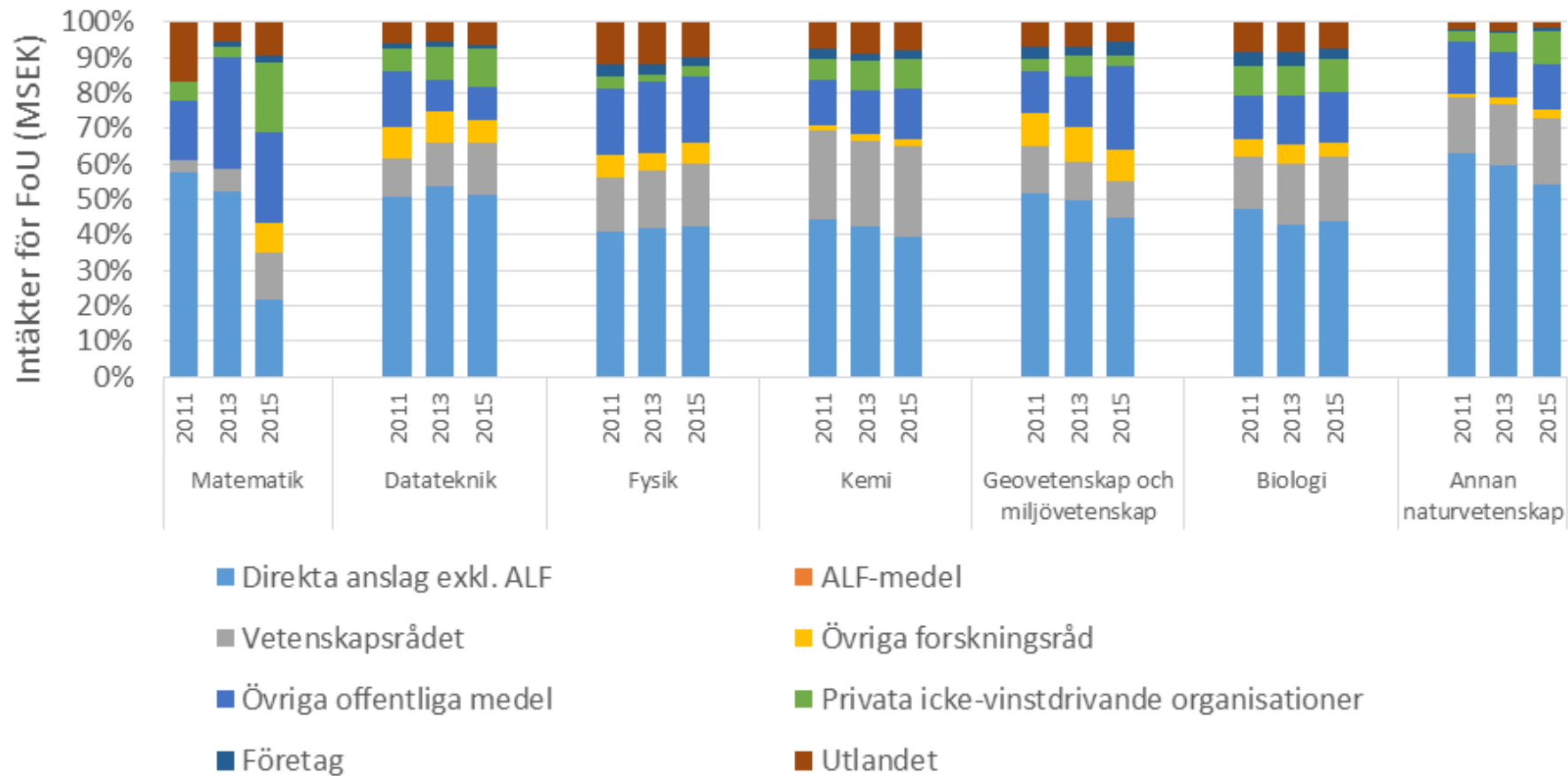
Average grant size



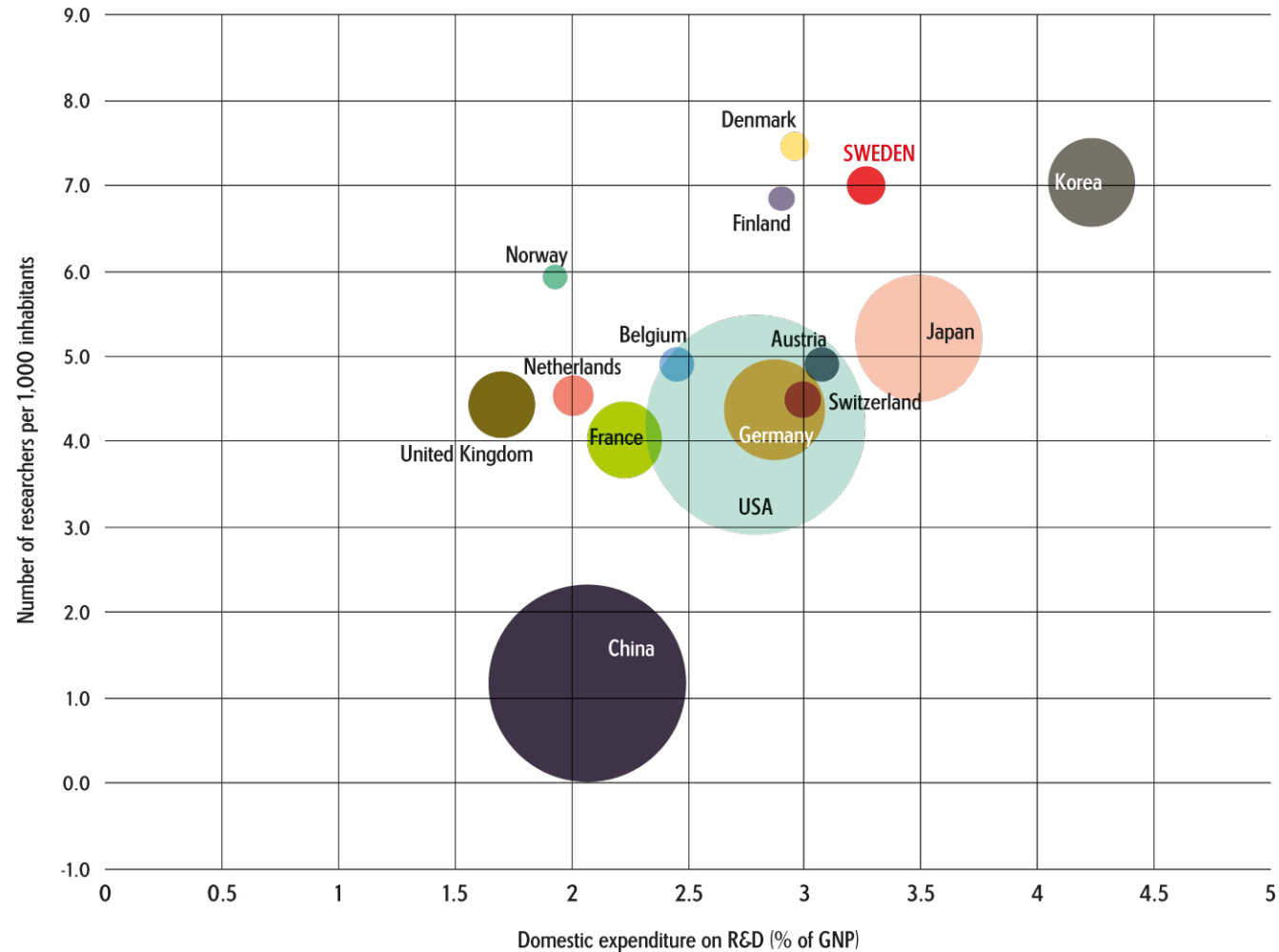
Usage of grants 2014, within some areas in NT



Natural sciences, relative part of funding from VR



Sweden's R&D in international comparison



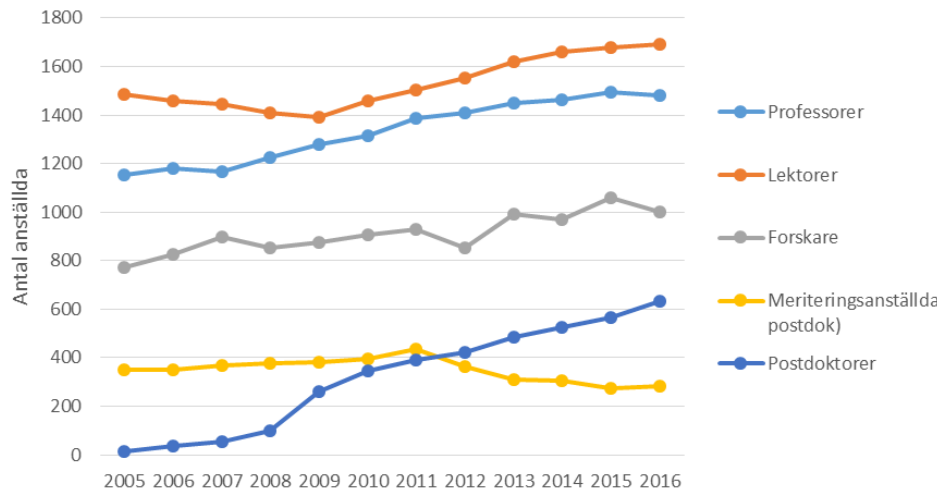
The size of the circles illustrates the gross domestic expenditure on R&D in each country in absolute numbers.

Source: OECD 2014



Number of employees (individuals), professor, lecturer, "tenure track", postdocs and researchers within NT

Natural Sciences



Engineering

