

#### ERAC Mutual Learning Seminar 21 March 2013

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### **Swedish R&D funding**

#### **Total R&D**

- 121 billion SEK (2011)
- Private sector 2,28 % of GDP (2011)
- 3,46% of GDP (2011)
- National goal 2020: around 4%



# Total 4 billion SEK increase (13%) of allocation of funds 2013–2016

Universities: 900 mn SEK

Research councils: 545 mn SEK

Recruitment: 300 mn SEK

Strategic research areas: 300 mn SEK

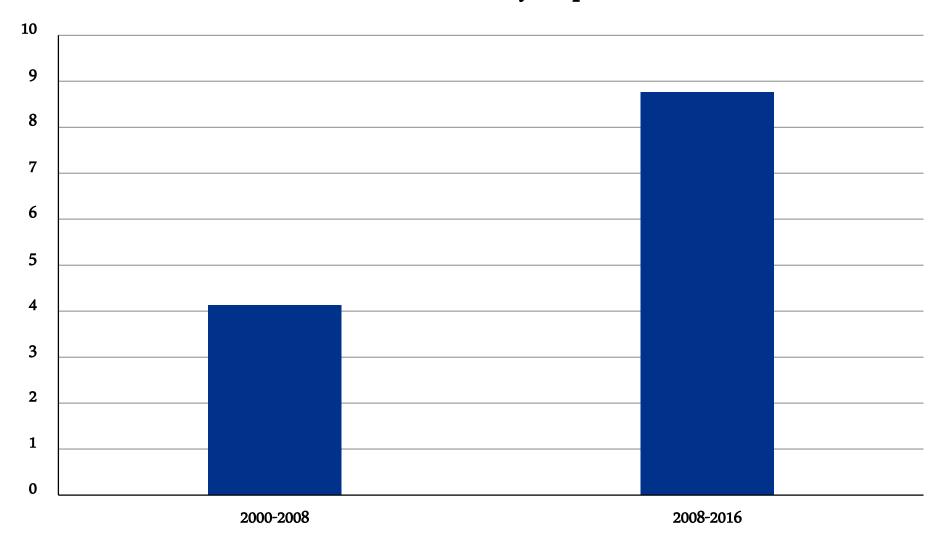
Strategic innovation areas: 225 mn SEK

Life Science: 600 mn SEK

European Spallation Source: 200 mn SEK (total cost SE 6 billion)



#### Total increases 8-year periods





# COUNCIL RECOMMENDATION on the National Reform Program 2012 of Sweden

### Take further measures in the upcoming Research and Innovation bill to continue improving:

- excellence in research
- the commercialization of innovative products
- development of new technologies



## Measures in the research and innovation bill for improving excellence

- Increased funding to universities
- Reallocation of direct funding
- International recruiting of scientists
- Young scientists
- Program for excellent senior researchers
- Future allocation system based on peer-review



#### Increased funding to universities

- SE universities very dependent on external funding (43%).
- External funding increases quality, but have some drawbacks (timeconsuming, risk-avoidance, short term etc.)
- 900 mn SEK increased funding 2014-2016.
- Main reasons: 1) increased risk-taking and 2) increase the permanent employment of researchers.



#### Allocation of direct funding

- 2010: New system for allocation of direct funding to universities.
- 10% of total funding redistributed based on quality.
- Quality measurements
  - Publications/citations: 50%
  - External funds grants and contract research: 50%
- 2014: Modification of the system. 20 % of funding redistributed.
- More incentives for universities to specialize.
- Internal evaluations should influence the distribution locally.



#### International recruiting of scientists

- Top scientists important for quality. Low level of international recruitment in Sweden
- New program for recruitment of top scientists
- The Swedish Research Council, 250 million SEK
- 5-15 million for each recruitment, 7-10 years periods
- Universities applies for grants for recruitment



#### Young scientists

- Post-doc funding is a problem for Swedish young scientists
- Difficult to get permanent employment at universities
- New program at the Swedish Research Council
- 50 mn SEK



#### Program for senior researchers

- The most excellent Swedish research has decreased in volume the latest decades.
- The most cited publications are fewer than in comparable countries.
- Mission to Swedish Research Council to take initiative to a new program for the very best researches.
- 7-10 year program
- Stimulate high risk and great potential



#### Future allocation system based on peer-review

- Draw-backs with present system
  - different traditions of publication in different disciplines
  - measures historical achievements
  - less risk-taking
- The Swedish Research Council, together with other research councils, will propose a new system for allocation, which includes peer review.
- The future system will also take into account collaboration with society and industry.
- Allocations in 2018, at the earliest.



### Thank You!

