

Royal Swedish Academy of Engineering Sciences  
Royal Technology Forum  
Strategies for research prioritisation



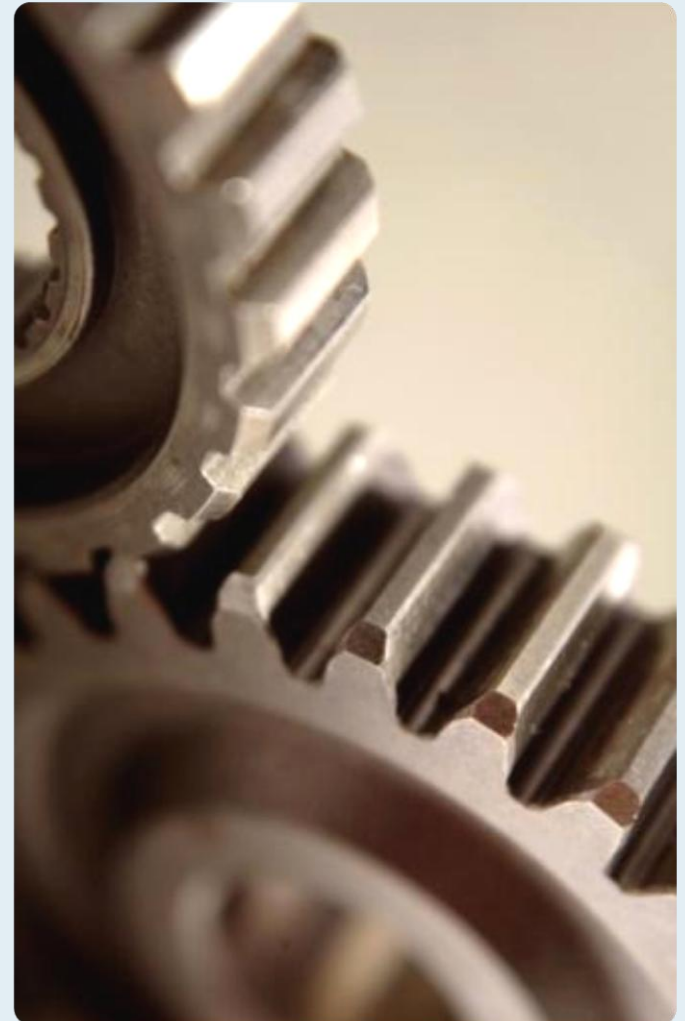
**Björn O. Nilsson**

*Professor, President of the Academy*

October 22, 2009



ROYAL SWEDISH ACADEMY OF ENGINEERING SCIENCES





ROYAL SWEDISH ACADEMY OF ENGINEERING SCIENCES



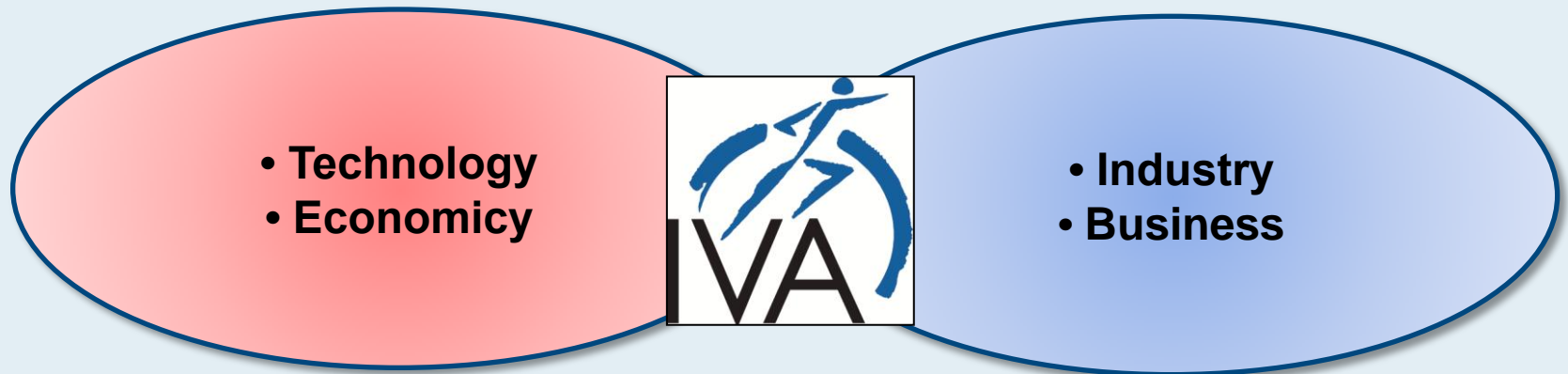
*“To promote the technology and economic sciences and the advancement of business and industry for the benefit of society”*

IVA statutes, §1

**Founded in 1919**

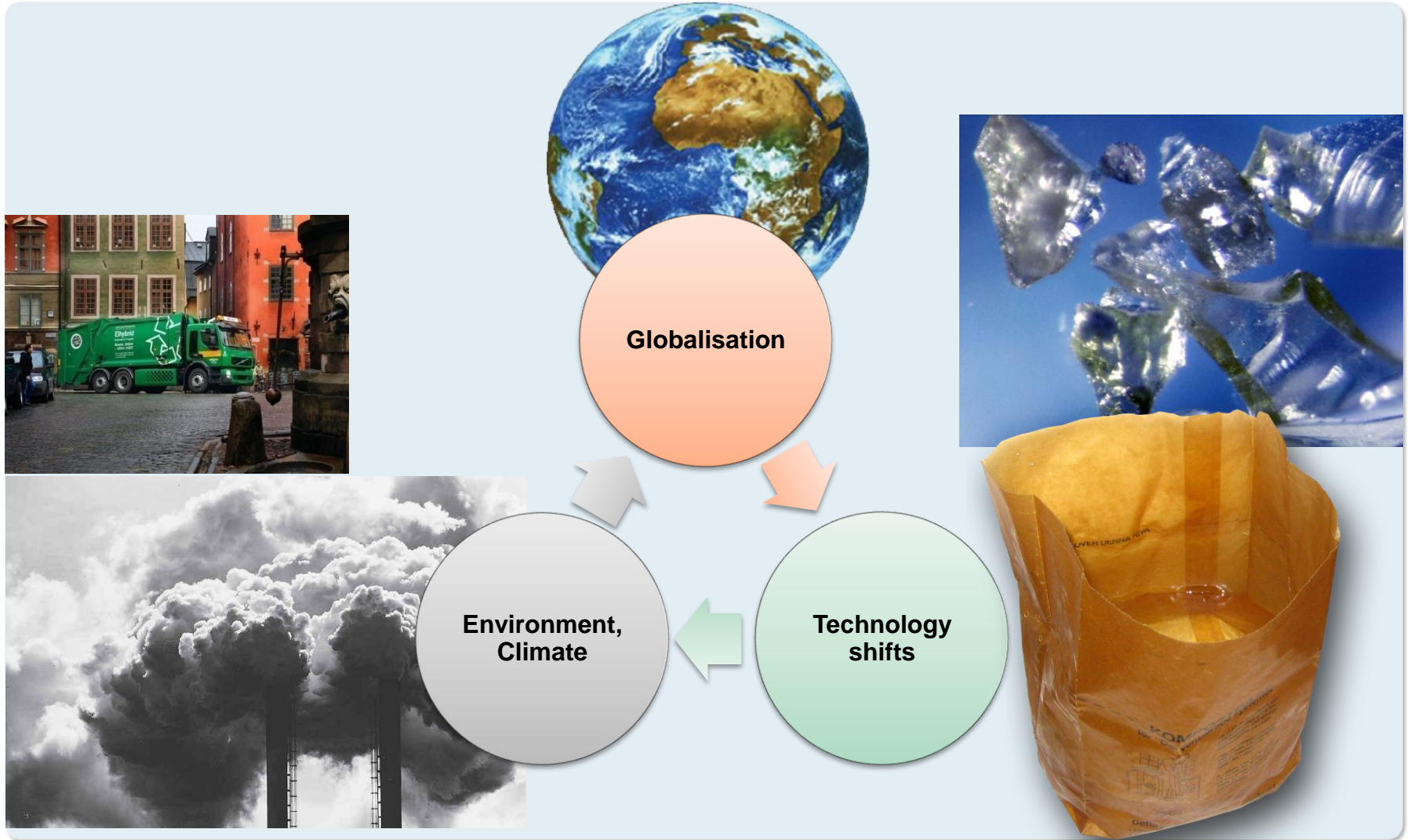
# What is IVA?

- A Royal academy
- Knowledge network
  - Academy fellows and Business Executives Council
- Platform for influencing the development of society
- Promoter of knowledge transfer



***Building bridges between academia, business and government agencies***

Royal Swedish Academy of Engineering Sciences  
Importance of research in society  
Knowledge, innovation and entrepreneurship



# Importance of research in society

Knowledge and innovation for growth and prosperity



# Memorandum from the White House...



Aug. 4, 2009

- Barack Obama, Aug. 4, 2009  
"Memorandum for the Heads of Executive Departments and Agencies"
  - In preparation of FY 2011 Budget submissions, redirection of science and technology resources, to address four practical challenges:
    - Drive **economic recovery**, job creation and economic growth
    - Reduce dependence on **energy** imports and mitigate the impact of **climate-change**
    - Applying **biomedical science** to help Americans live longer while reducing health care costs
    - Technologies needed for **national security**

THE WHITE HOUSE  
WASHINGTON

August 4, 2009

M-09-27

MEMORANDUM FOR THE HEADS OF EXECUTIVE DEPARTMENTS AND AGENCIES

FROM: Peter R. Orszag   
Director, Office of Management and Budget

John P. Holdren   
Director, Office of Science and Technology Policy

SUBJECT: Science and Technology Priorities for the FY 2011 Budget

Scientific discovery and technological innovation are major engines of increasing productivity and are indispensable for promoting economic growth, safeguarding the environment, improving the health of the population and safeguarding our national security in the technologically-driven 21<sup>st</sup> century. To this end, the Administration is already investing in: high-risk, high-payoff research; making permanent the Research and Experimentation tax credit; targeting investment in promising clean energy technologies research; improving health outcomes while lowering costs; and nurturing a scientifically literate population as well as a world-class, diverse science, technology, engineering, and mathematics workforce.

In preparing FY 2011 Budget submissions to the Office of Management and Budget, agencies should build on the science and technology priorities already reflected in the American Recovery and Reinvestment Act and the FY 2010 Budget. This memorandum also provides general guidance for the conduct of science and technology activities in Executive Departments and Agencies.

#### Prioritizing key science and technology activities

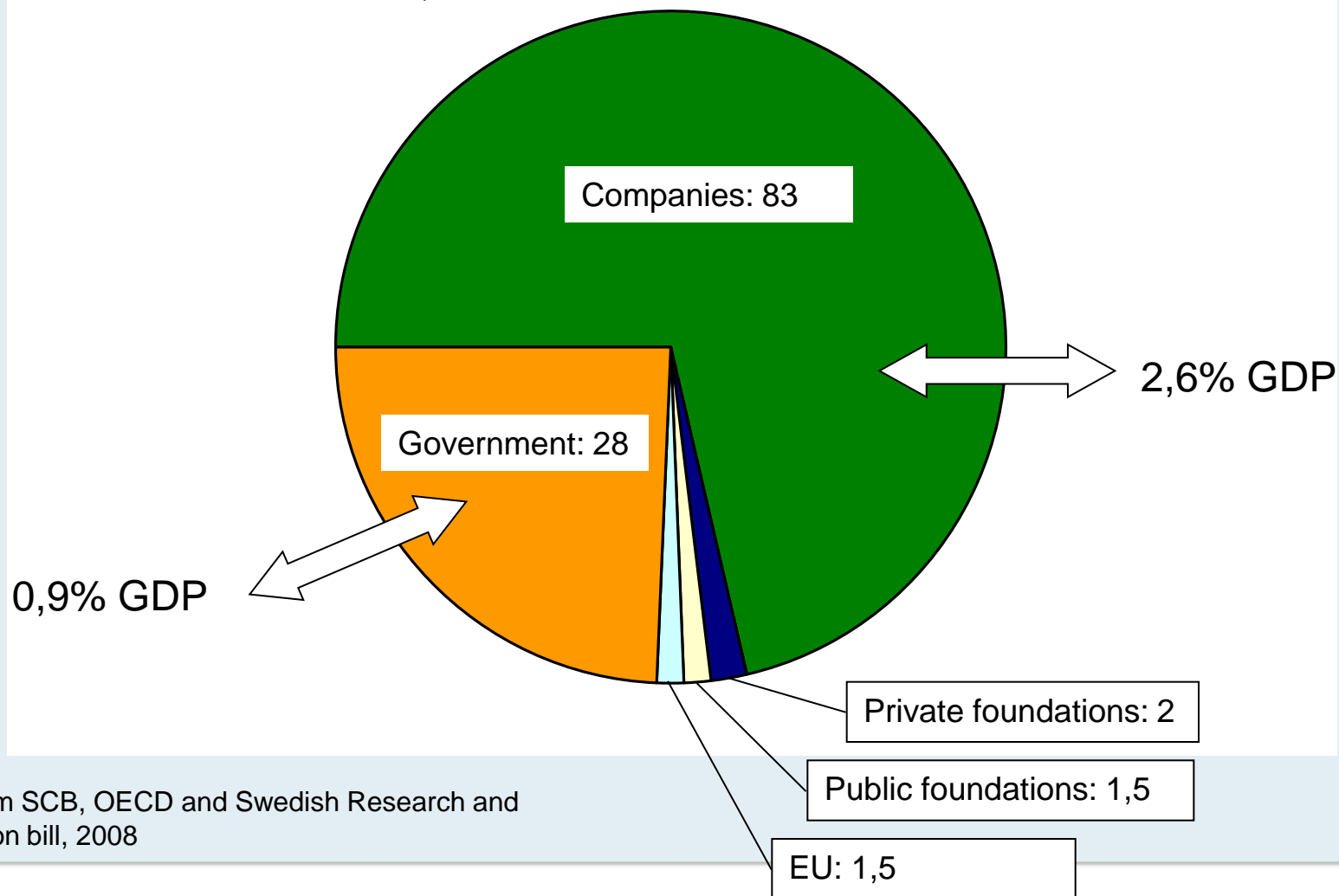
Agencies should explain in their budget submissions how they will redirect available resources, as appropriate, from lower-priority areas to science and technology activities that address four practical challenges and strengthen four cross-cutting areas that underlie success in addressing all of them.

The four practical challenges are:

- Applying science and technology strategies to drive economic recovery, job creation, and economic growth;
- Promoting innovative energy technologies to reduce dependence on energy imports and mitigate the impact of climate-change while creating green jobs and new businesses;

# Research investments in Sweden 2008

Total 116 Bn SEK = 3,7% GDP

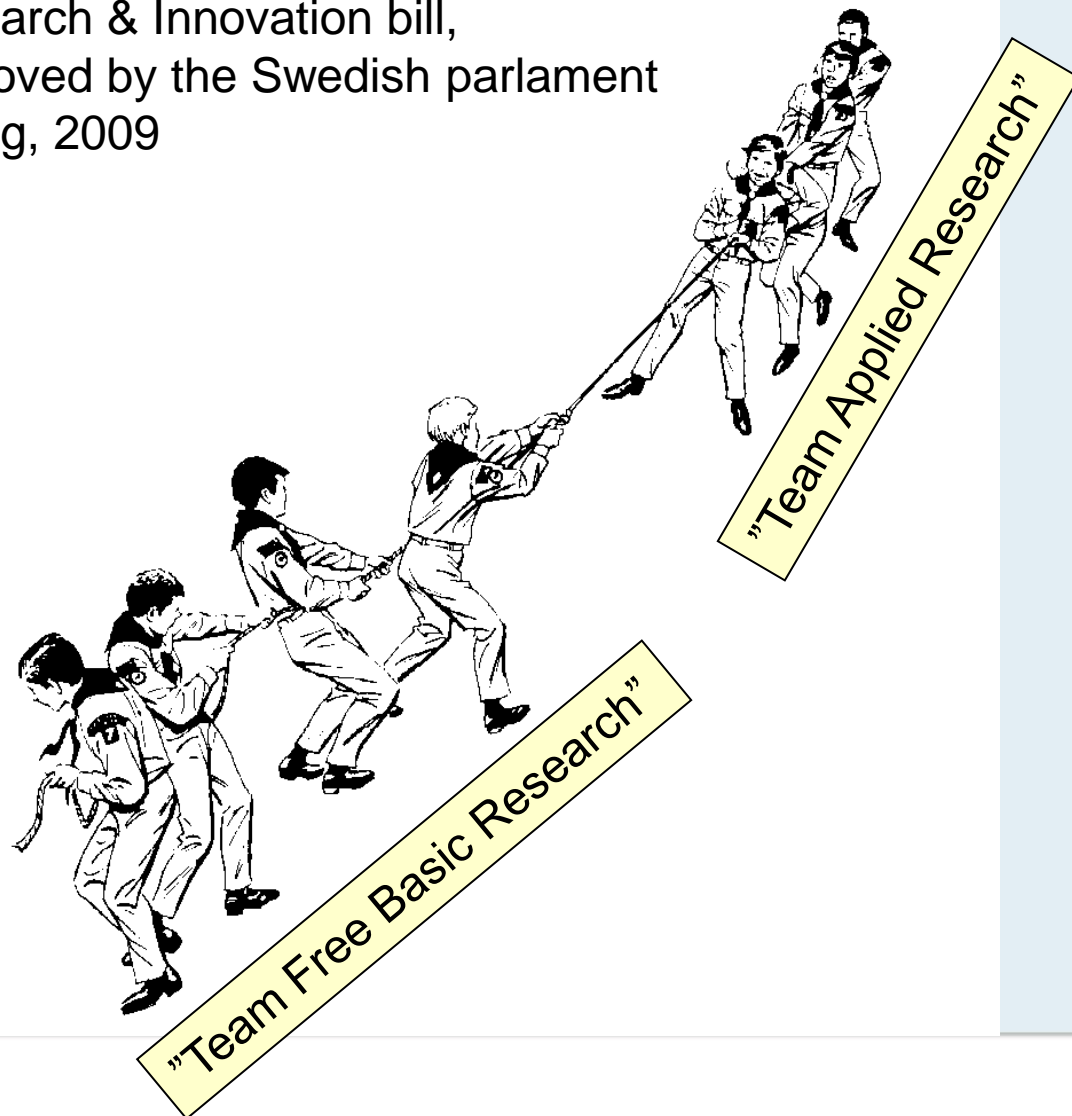


Data from SCB, OECD and Swedish Research and Innovation bill, 2008

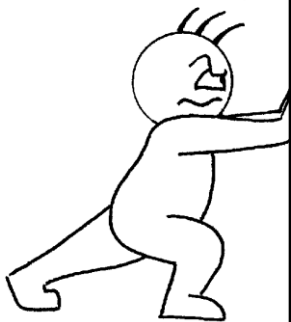
# "Tug of war" in the Swedish research debate

between "Free Basic Research" and "Applied Research as defined by needs"

Research & Innovation bill,  
Approved by the Swedish parliament  
Spring, 2009



# "Push" & "Pull" in Research prioritisation



**PUSH**  
from  
*curiosity  
driven  
research*



**PULL**  
from  
*defined  
needs*