

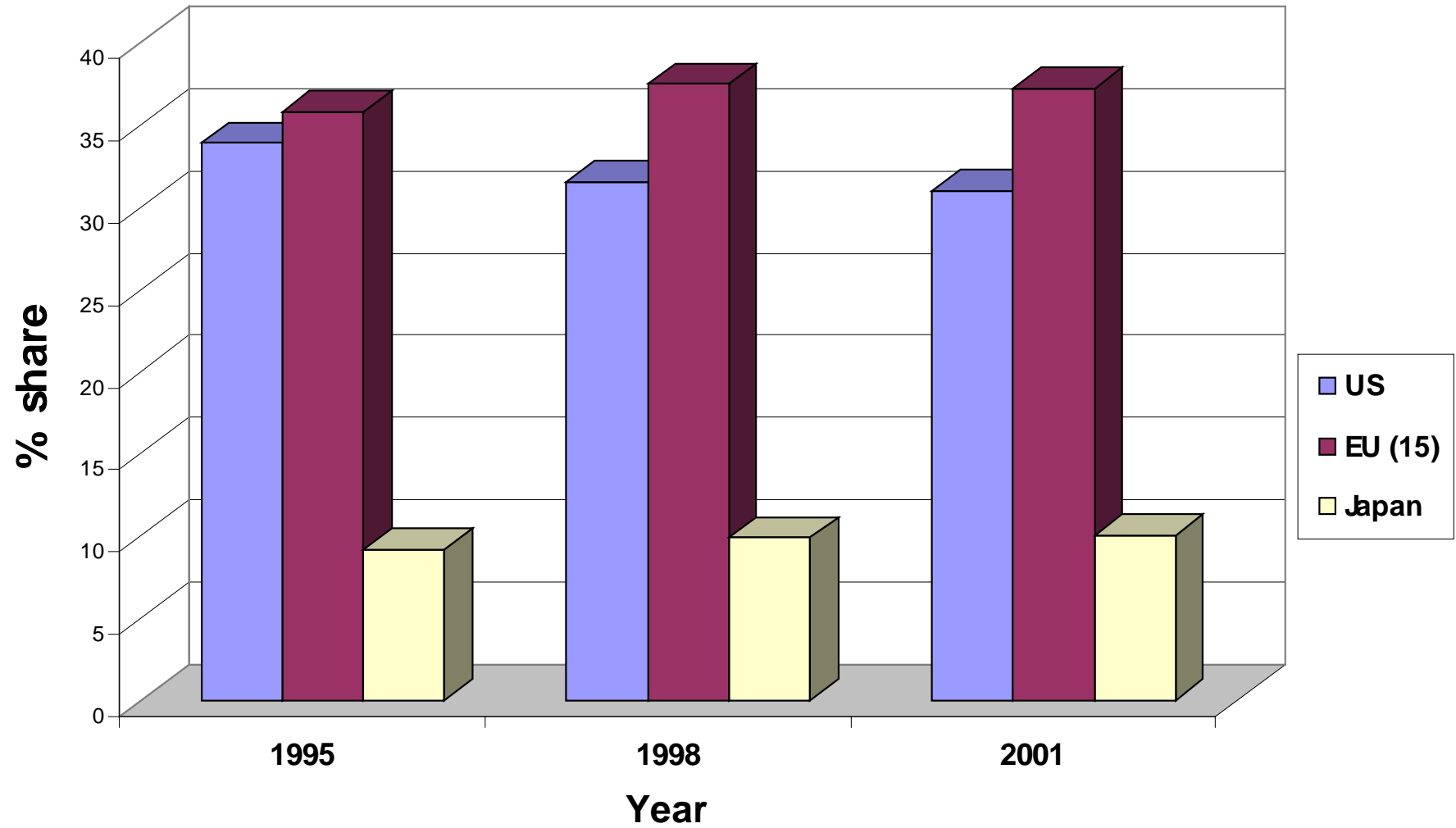
# Fundamental Research in Europe

Foundation of Science and Technology

13 July 2004

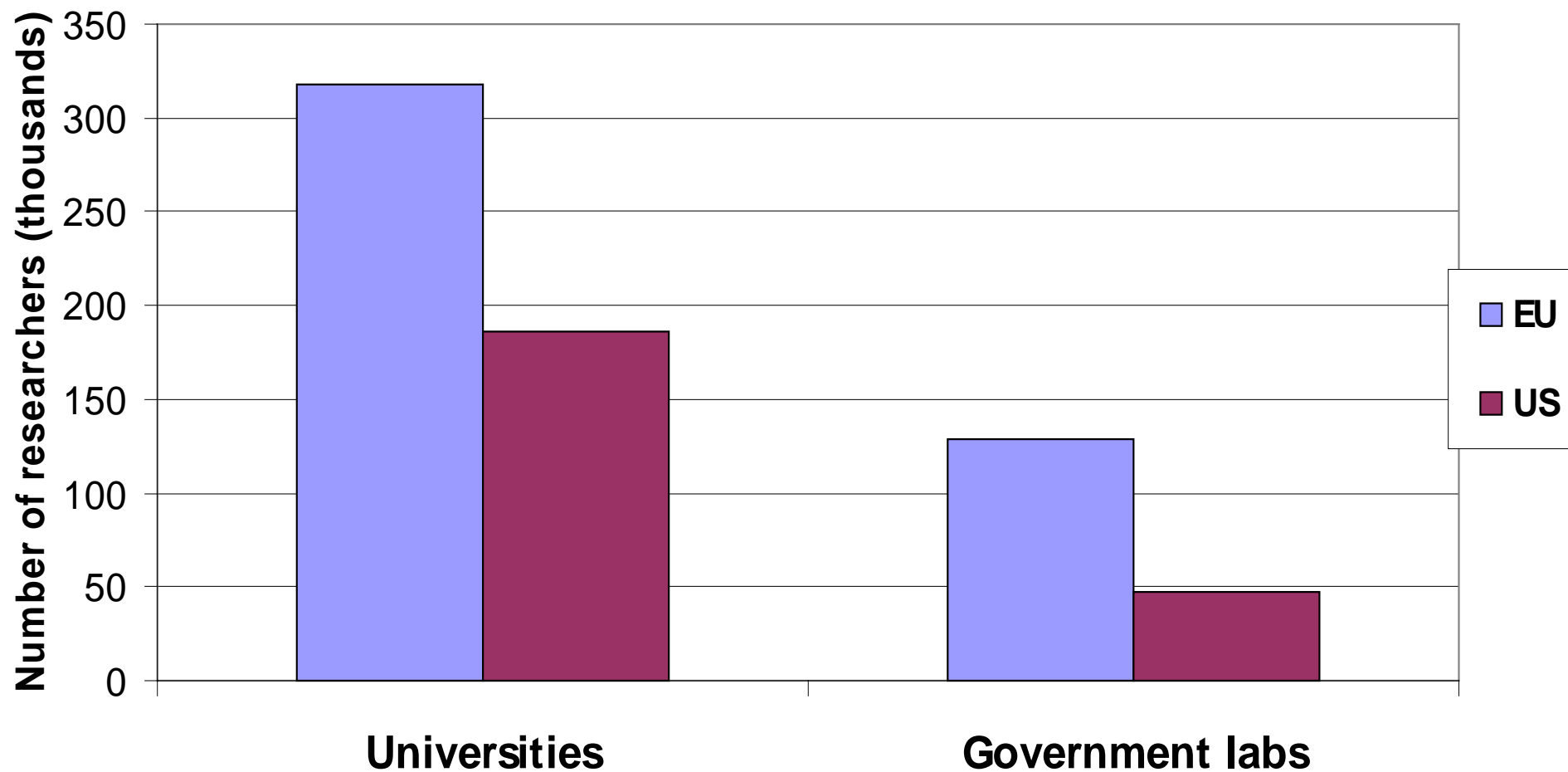
Professor Julia Higgins DBE FRS FREng  
Foreign Secretary, The Royal Society

## Publication shares (%) by EU-15, US, Japan



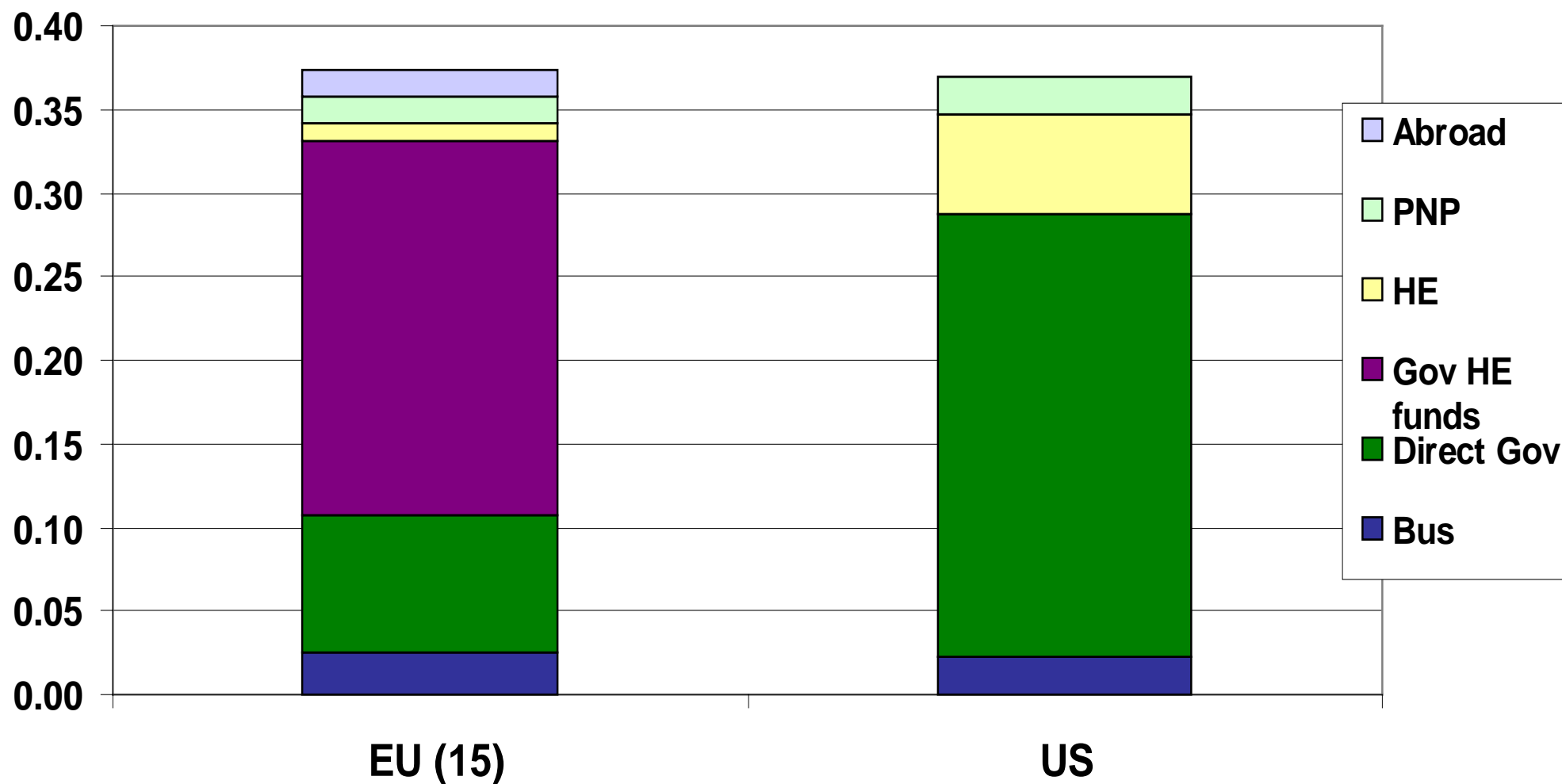
Source: Third European Report on Science and Technology Indicators 2003

## Number of researchers in universities and Government laboratories in the US and EU

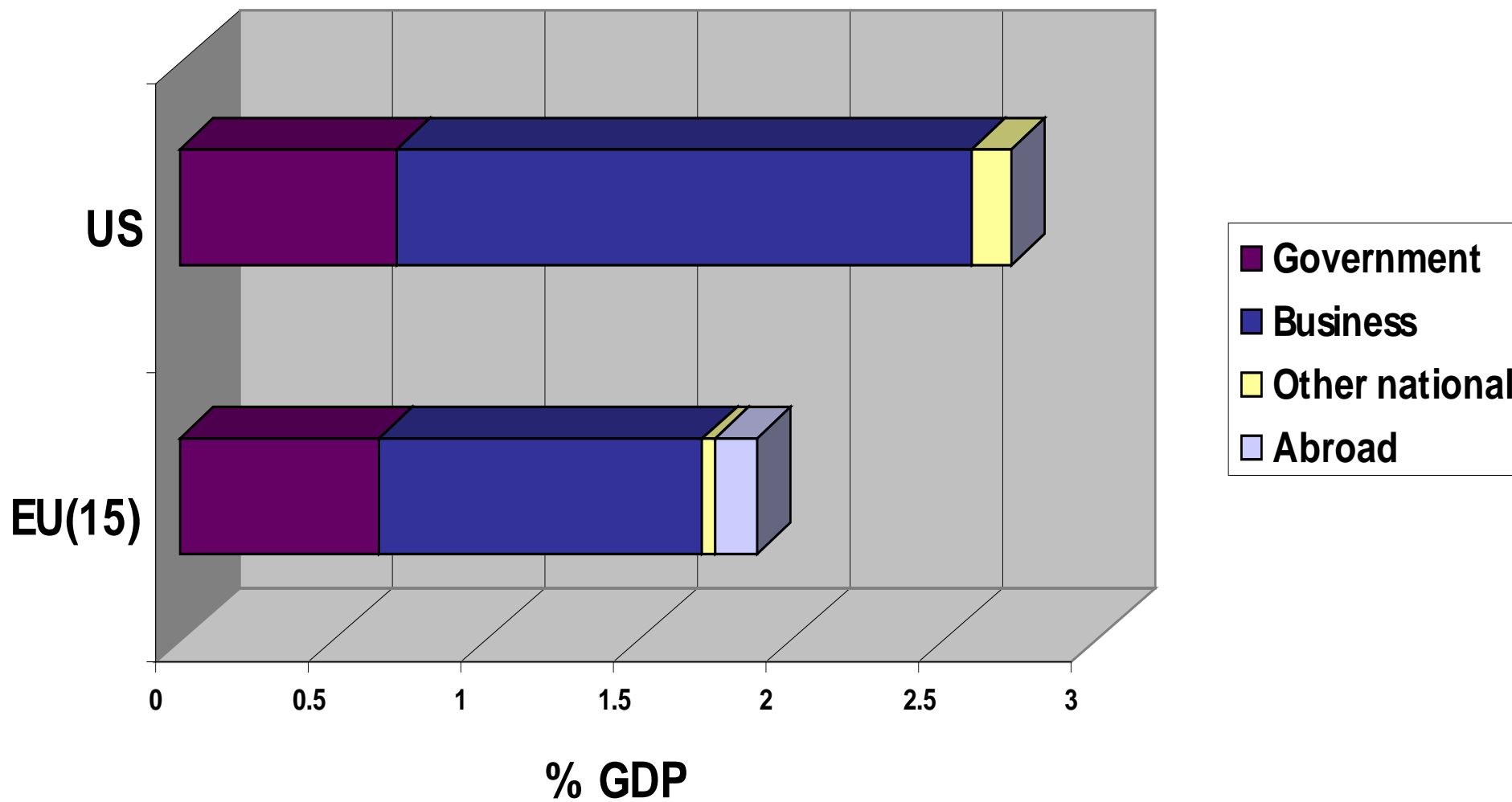


Source: OECD S&T Indicators 2003/1

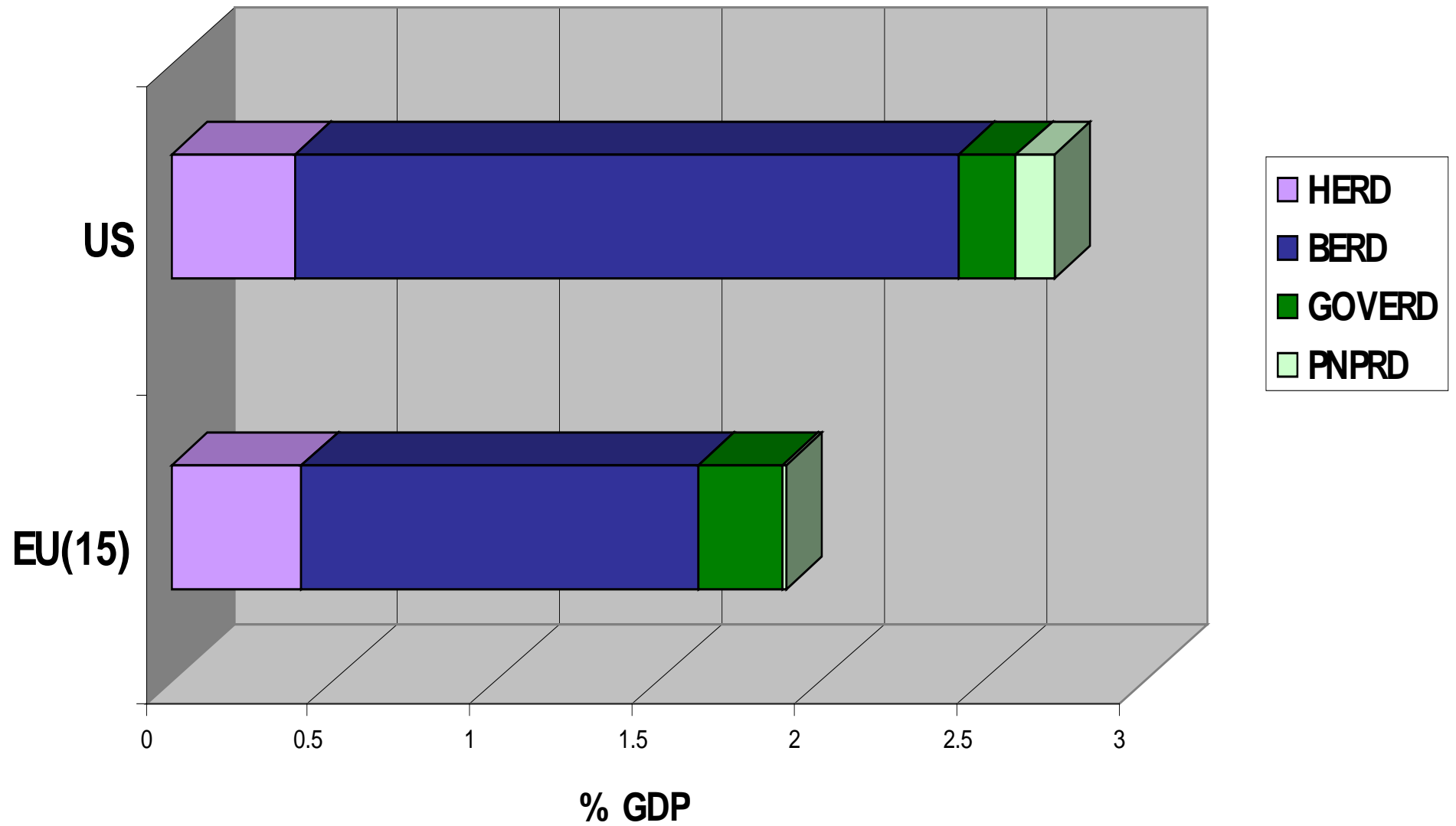
## Funders of Higher Education Research as % of GDP (1999)



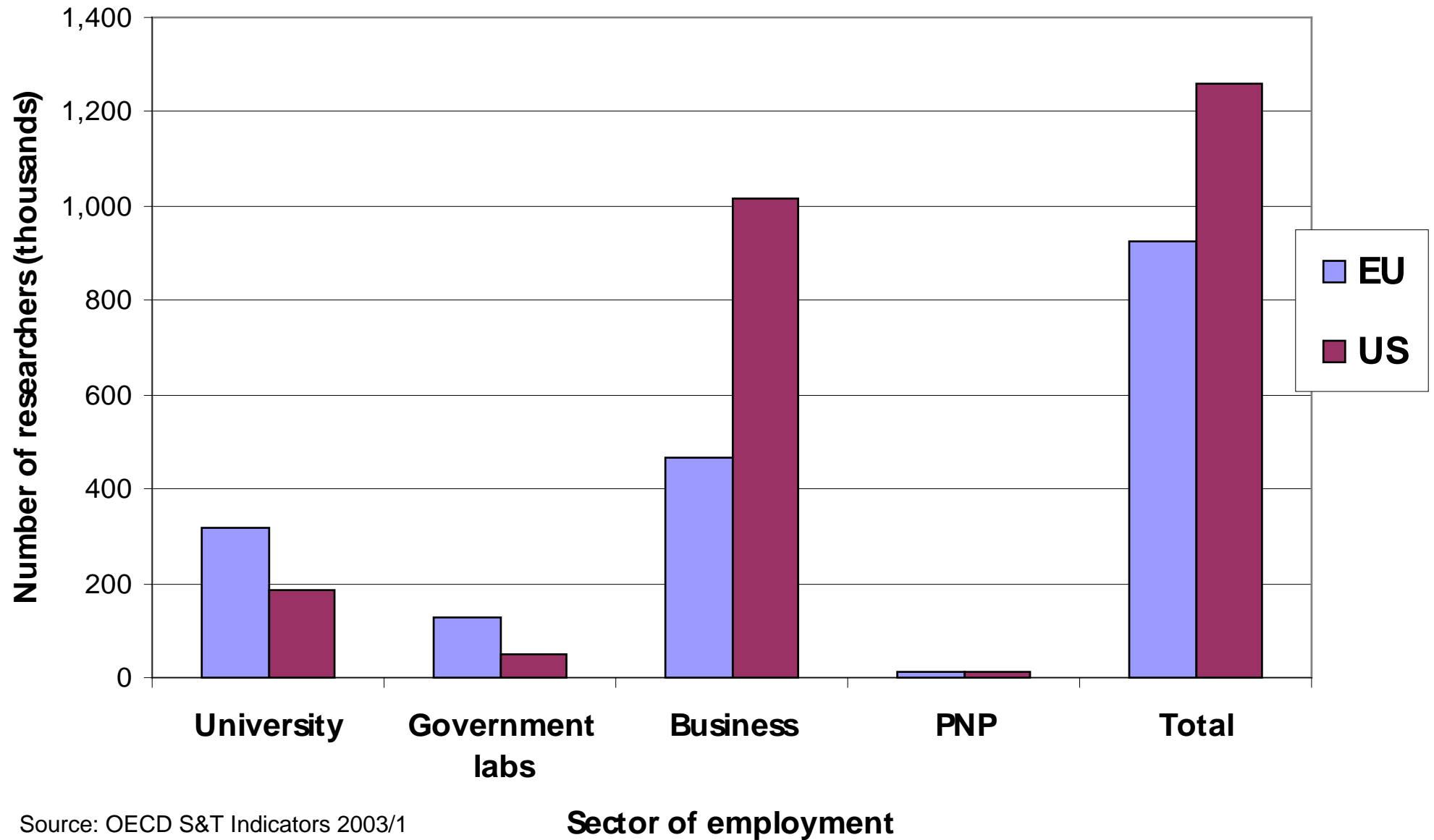
# Funders of GERD (2000)



## Components of GERD by Performer (2000)



# Number of researchers in the EU and US in 1999



Source: OECD S&T Indicators 2003/1

# Impact of EU publications

	Publications	Publications/ population	Publication/ GDP	Publication/ HERD
EU Publications (US=100)	106	77	115	111

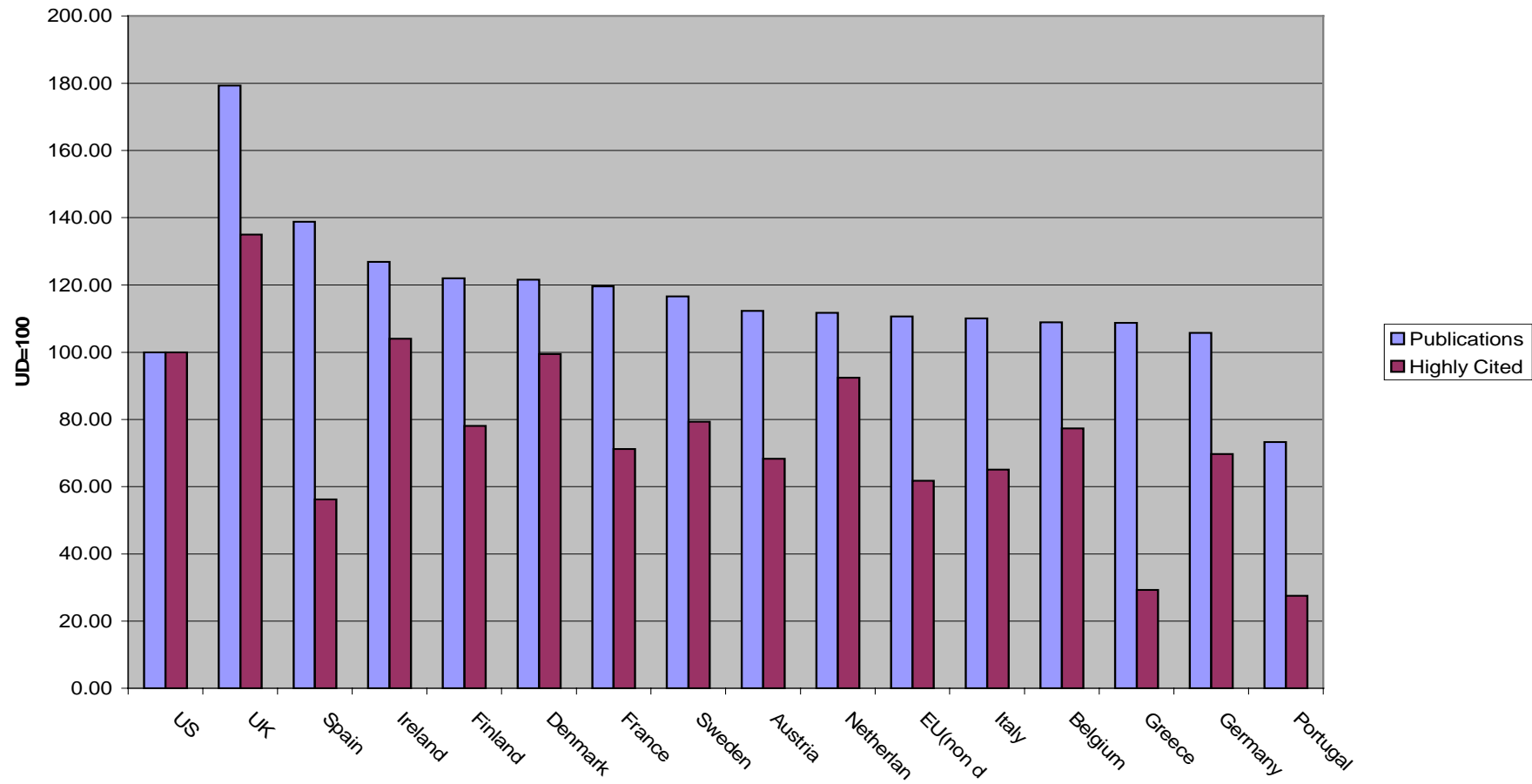
	Publications	Publications/ population	Publication/ GDP	Publication/ HERD
<b>Top 1% EU publications</b> (US=100)	59	42	64	62

Source: Private communication Evidence UK, based on ISI data.



# Publications and Highly Cited Publications per \$bn

Source: based on ISI data analysed by Jonathan Adams, Evidence Ltd



## ERC should initially be given no more than three main tasks:

- A highly selective grants system for the very highest quality research proposals;
- Possibly a very selective 5 – 10 year senior post doctoral fellowship scheme – along the lines of the Royal Society University Research Fellows;
- Responsibility for commissioning the collection of consistent information on fundamental research activity across Member States' institutions.

Appropriate governance of the ERC is crucial.  
It must:

- be a peer review based organisation;
- provide independence (on a day to day basis) from both the Commission and Member States;
- allow for the Commission and European Parliament to set broad guidelines;
- allow for the ERC to be answerable to the European science community.

# Conclusions:

## ❖ Fundamental research is:

- A globally competitive business. The EU and Member States must be able to compete with/ for the best researchers in the world.
- Crucial to Europe's (and the UK's) future development
- Many different outcomes from undertaking fundamental research and there is a role for support at the Regional, Member State and Central levels.

## ❖ It is essential that Europe increases the impact of its highest quality research teams

## ❖ A centrally funded ERC is key to this, but it must be established on the right terms:

- Peer review at all levels – from the Governing body downwards - answerable to the European science community;
- An autonomous governing body;
- Quality must be the prime criterion for decisions.