

*The Sustainability of
Research:
Lessons from the full
economic costing
programme in the UK*

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Further information on web site

www.jcpsg.ac.uk

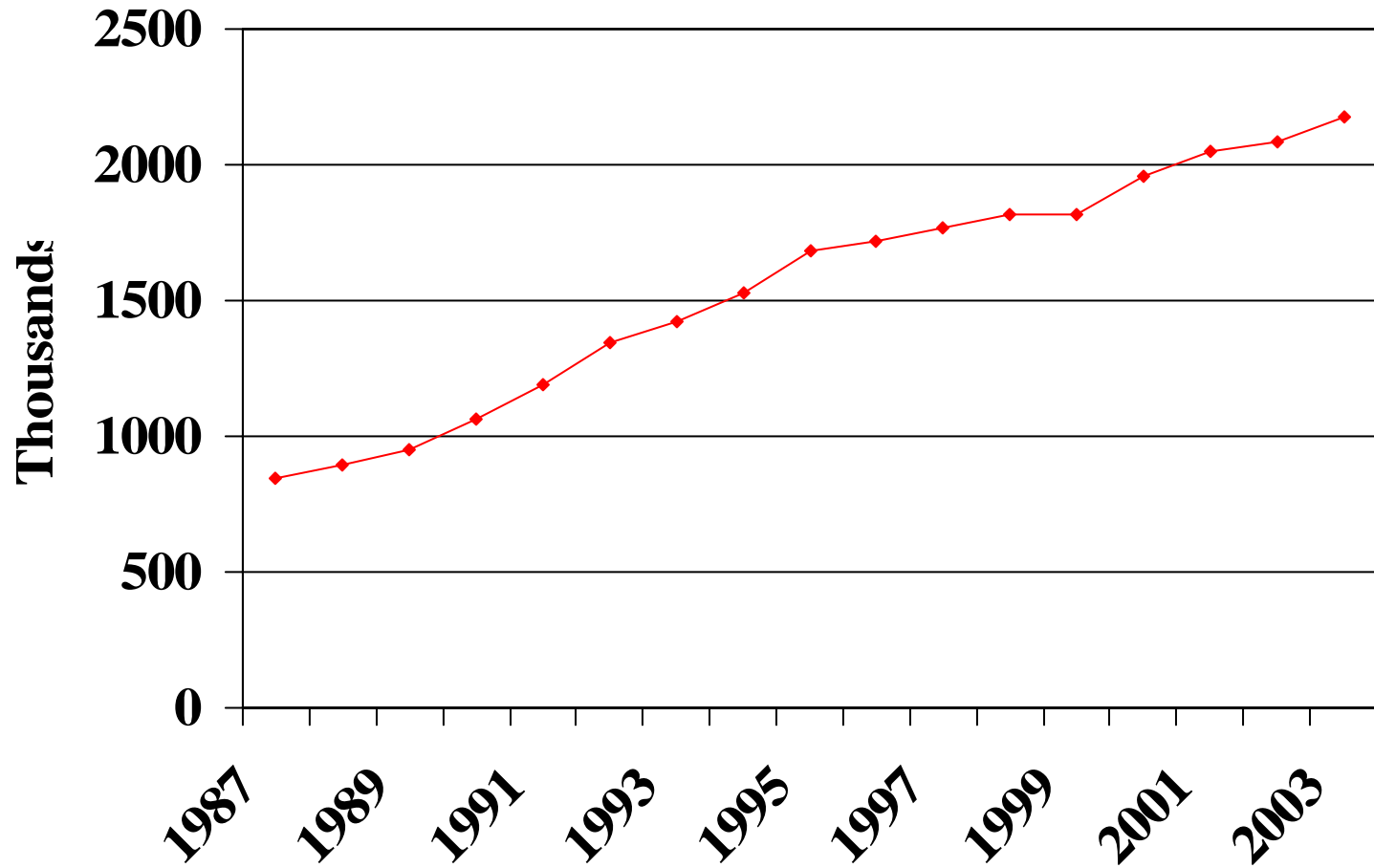
Outline of the “journey” 1989 - 2005

- **UK level analysis**
- **Growth of higher education and research in UK**
- **Funding of research in UK**
- **Costing of research and the Transparency Review of Funding**
- **Is UK research sustainable?**
- **Reform of research funding in UK**
- **Lessons learned**

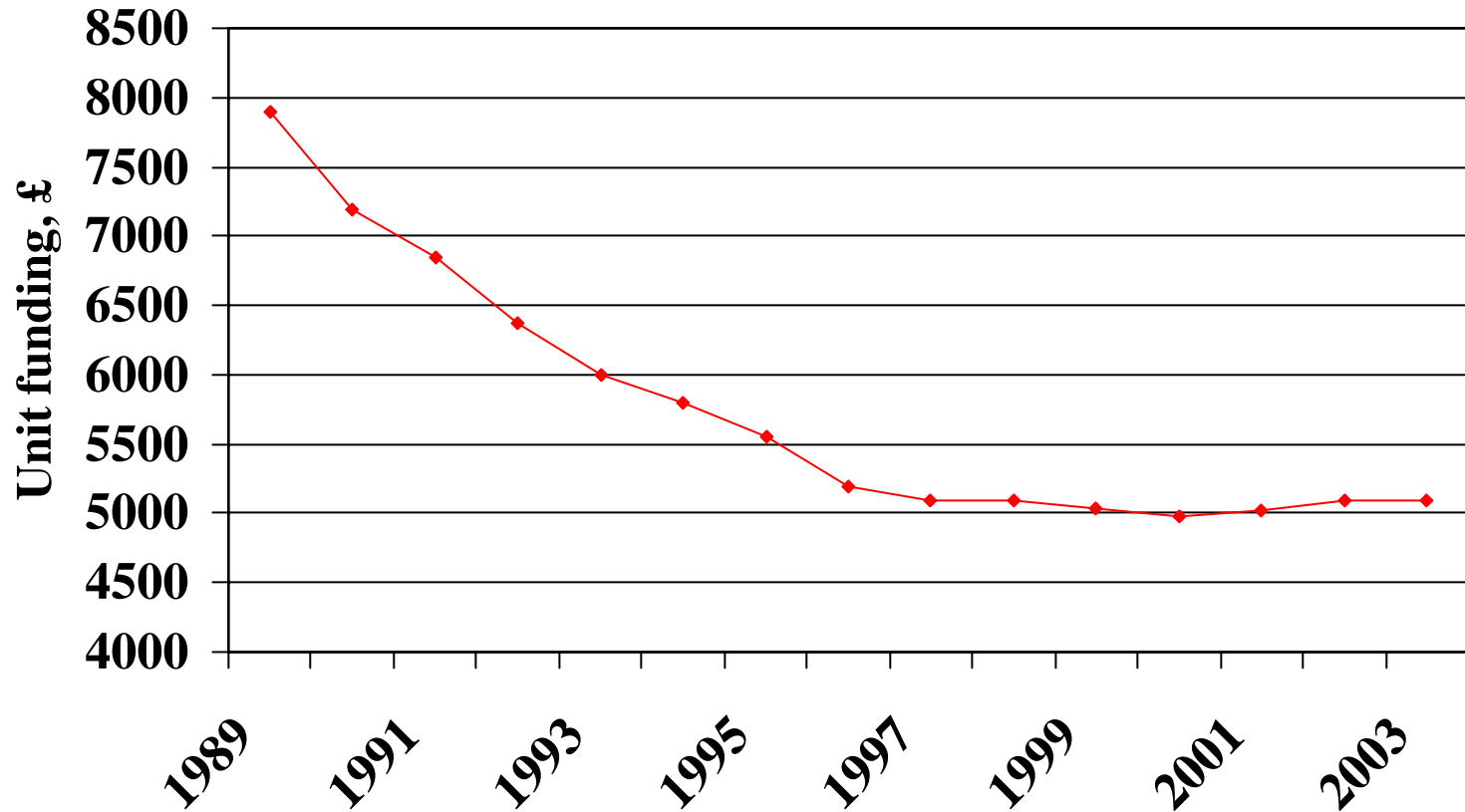
Statistics: Higher Education in UK

- **171 universities and colleges**
- **Approximately 2 million students, full-time and part-time**
- **~ £15.6 billion (€22.6 billion) total funding in 2003**
- **60% comes from Government or Eu**
- **~ £5 billion (€7.2 billion) total research funding in 2003**

Student Numbers



Publicly Planned Unit Funding, £/fte, 2001 prices



Objectives of Research: Government Level

- **National economic development**
- **Human resource development**
- **National and regional reputation**
- **Support of inward investment**

Objectives of Research: University Level

- **Development of reputation, esteem and “brand”**
- **Support of academic staff strategy**
 - **Recruitment**
 - **Retention**
 - **Development**
 - **Motivation**
- **Financial contribution to university**

Objectives of Research: Academic Level

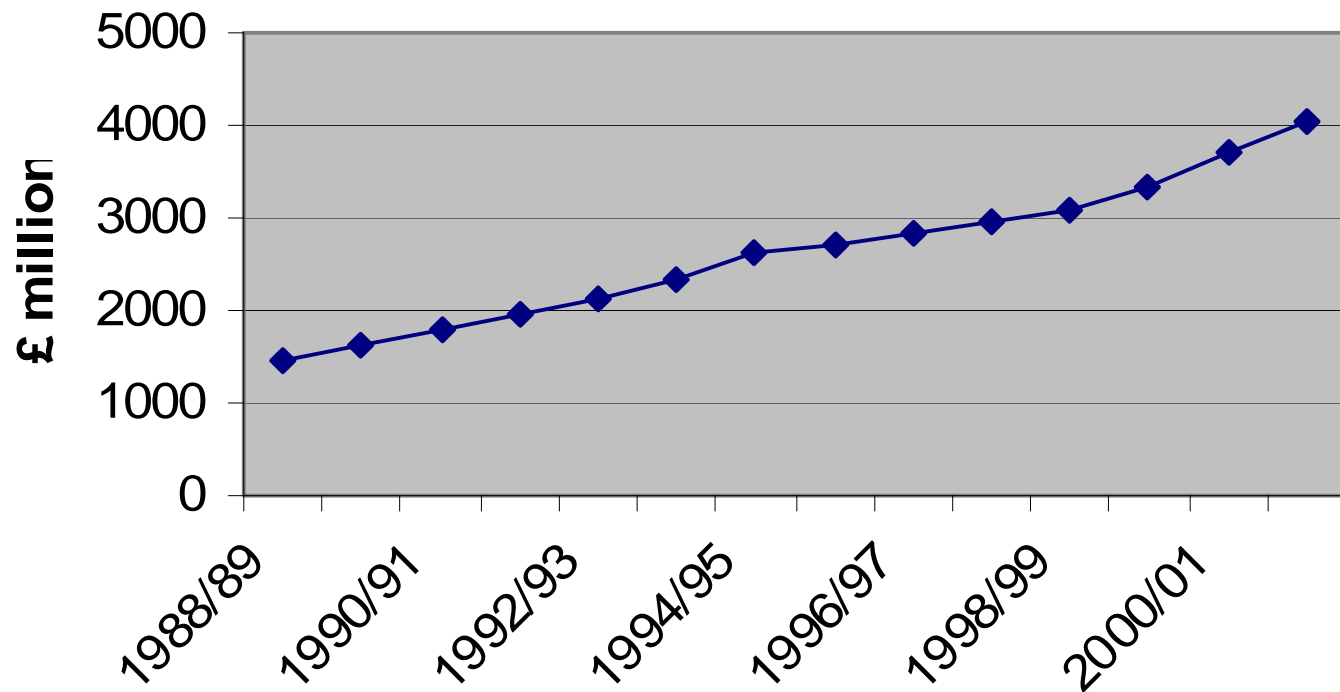
- **Curiosity**
- **Personal contribution to knowledge**
- **Development of experience, reputation, career and peer esteem**
- **Promotion in career**

Pressures to Increase Research

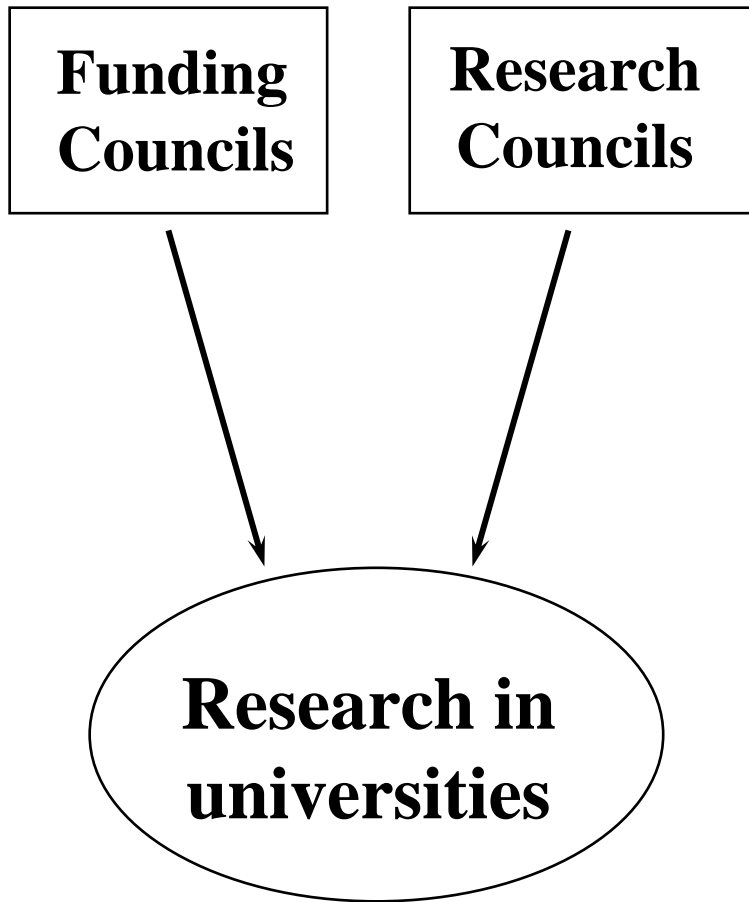
- **Government economic policy: global competition and the “knowledge economy”**
- **Expansion of higher education sector**
- **University and academic staff aspirations and objectives**
- **Competition and the Research Assessment Exercise (RAE)**
- **Drive to increase university income**

Growth of Research

Total University Research Funding 1988-2002



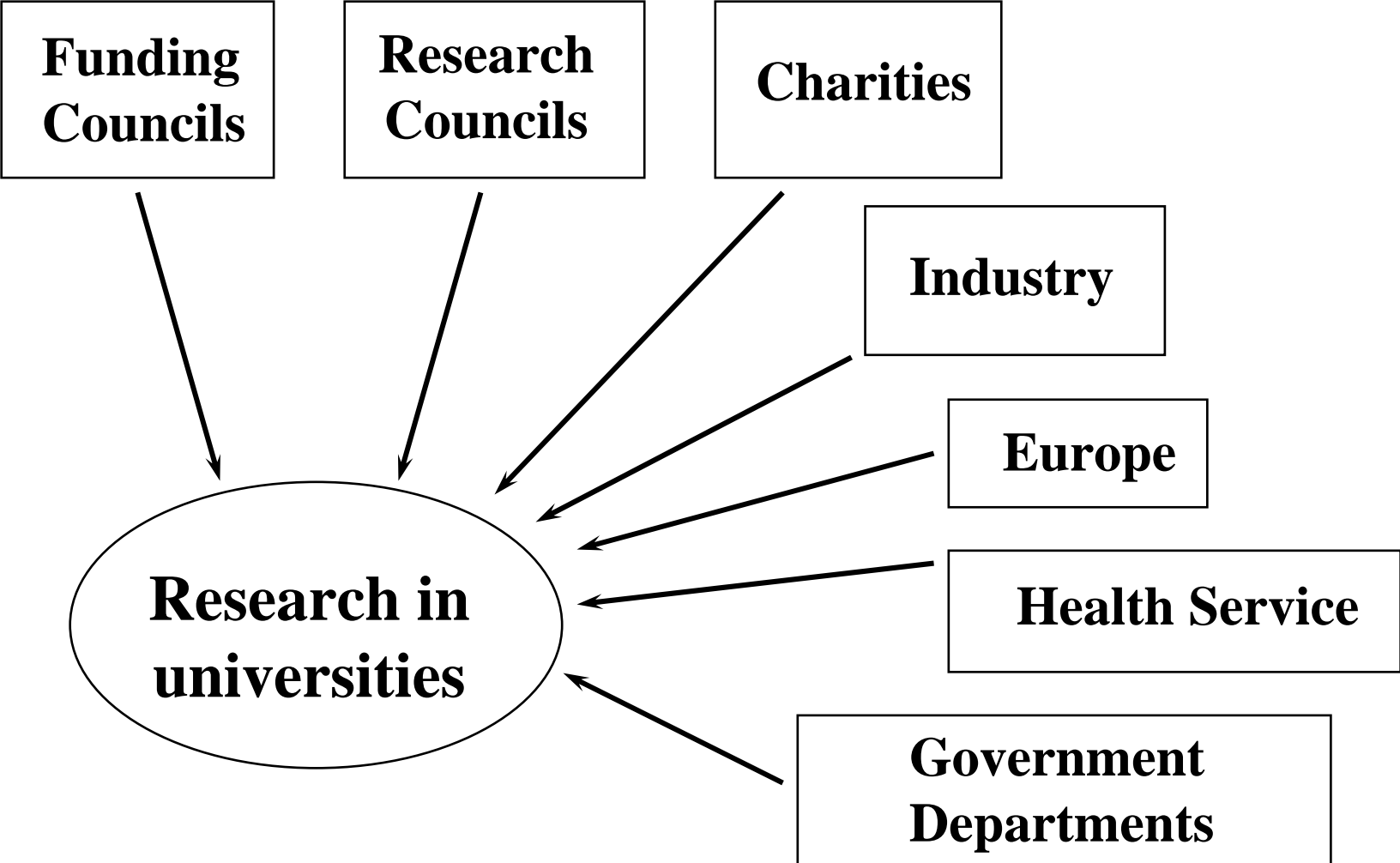
Public Funding of Research – Dual Support



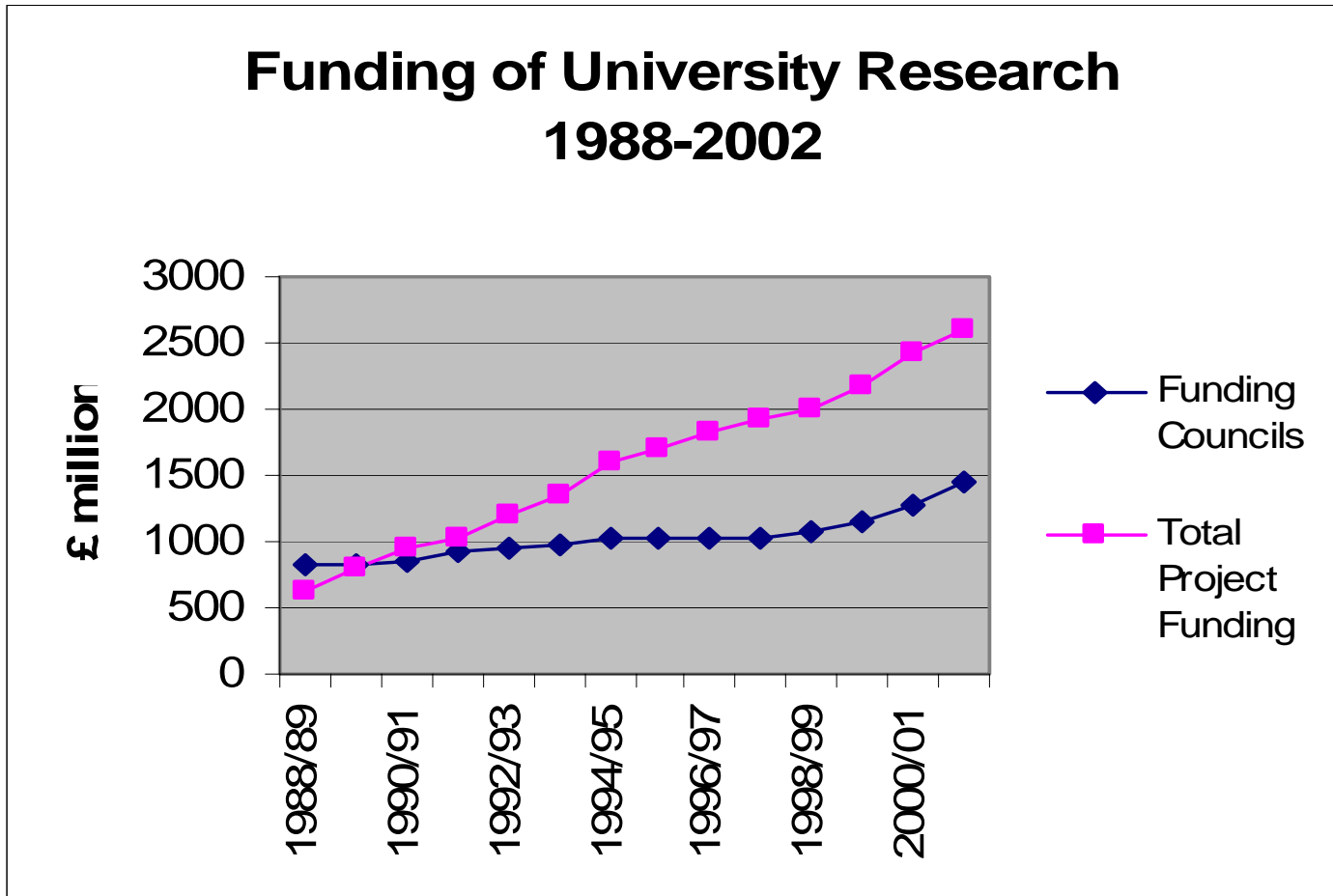
**Funding Council QR
provides capability and
capacity in universities**

**Research Councils
support specific “peer
reviewed” projects**

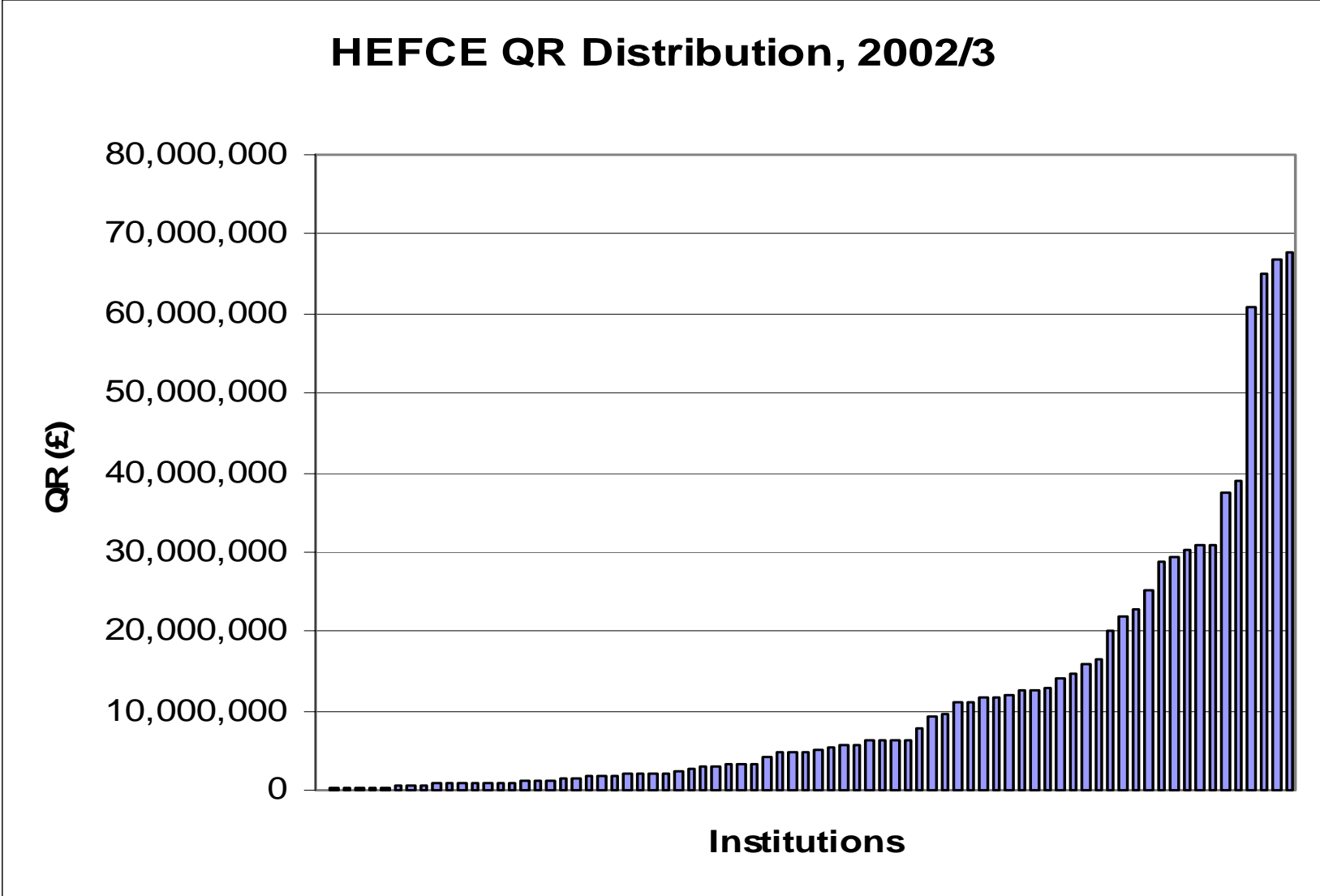
Funding is Complex: Many Sources



Dual Support Funding of Research



Funding Council QR Distribution



Transparency Review of Higher Education Funding

1998-99 onwards

- **TRAC costing methods designed and implemented to calculate Full Economic Cost of university activities**
- **Allowed costs to be compared with income**

Development of Full Economic Costing (TRAC)

- **Identify as many costs as possible as direct:**
 - **Academic staff time**
 - **Materials, equipment etc.**
 - **Estates and facilities costs including support**
- **Allocate indirect costs on a consistent and robust basis using consistent cost drivers**
- **Add in economic adjustments for maintenance and cost of capital**

Implementation Issues for Institutions

- **More information is required about the use of staff time, but must avoid undue bureaucracy and burden**
- **Much better information is needed about the use of space and facilities, and their costs**
- **Possible impact on culture**
- **Better strategic planning needed**

Transparency Review Outcomes

| | Research | Teaching |
|------------------------------|------------------|------------------|
| | Intensive | Intensive |
| Publicly funded T | -4% | -2% |
| Non publicly funded T | +35% | +30% |
| Publicly funded R | -35% | -90% |
| Non publicly funded R | -30% | -80% |
| Other activities | +25% | +10% |

Informal data, 1999-2000

Analysis by Activity

| | Activity % of turn-over | Total Activity Costs | TR % surplus/ deficit | Surplus/Deficit £M |
|-------------|-------------------------------|----------------------------|-----------------------------|-----------------------|
| PFT | 43 | 5590 | -3 | -170 |
| NPFT | 6 | 780 | +35 | +270 |
| PFR | 24 | 3120 | -40 | -1270 |
| NPFR | 12 | 1560 | -40 | -620 |
| O | 15 | 1950 | +25 | +490 |

Informal data, ~2000

Government Responsibility

- **Didn't have a clear cost framework for the sector during growth**
- **Didn't have a clear definition of Dual Support Funding for research**
- **Allowed perverse incentives to develop that were counter-productive**

University Responsibility

- **Universities didn't know their full costs at activity level**
- **Didn't have robust administrative processes to cope with cost pressures**
- **Didn't price research properly for commercial contract work**

Sustainability: a Definition

- **For an activity to be sustainable, resources must be identified to meet the full economic costs in the long run:**
 - **direct,**
 - **indirect,**
 - **maintenance of infrastructure,**
 - **cost of capital and forward investment for innovation**

Sustainability

- **Although sustainability is principally a financial discipline, it should also include Human Resource considerations, and it has a cultural aspect**

The Way Forward

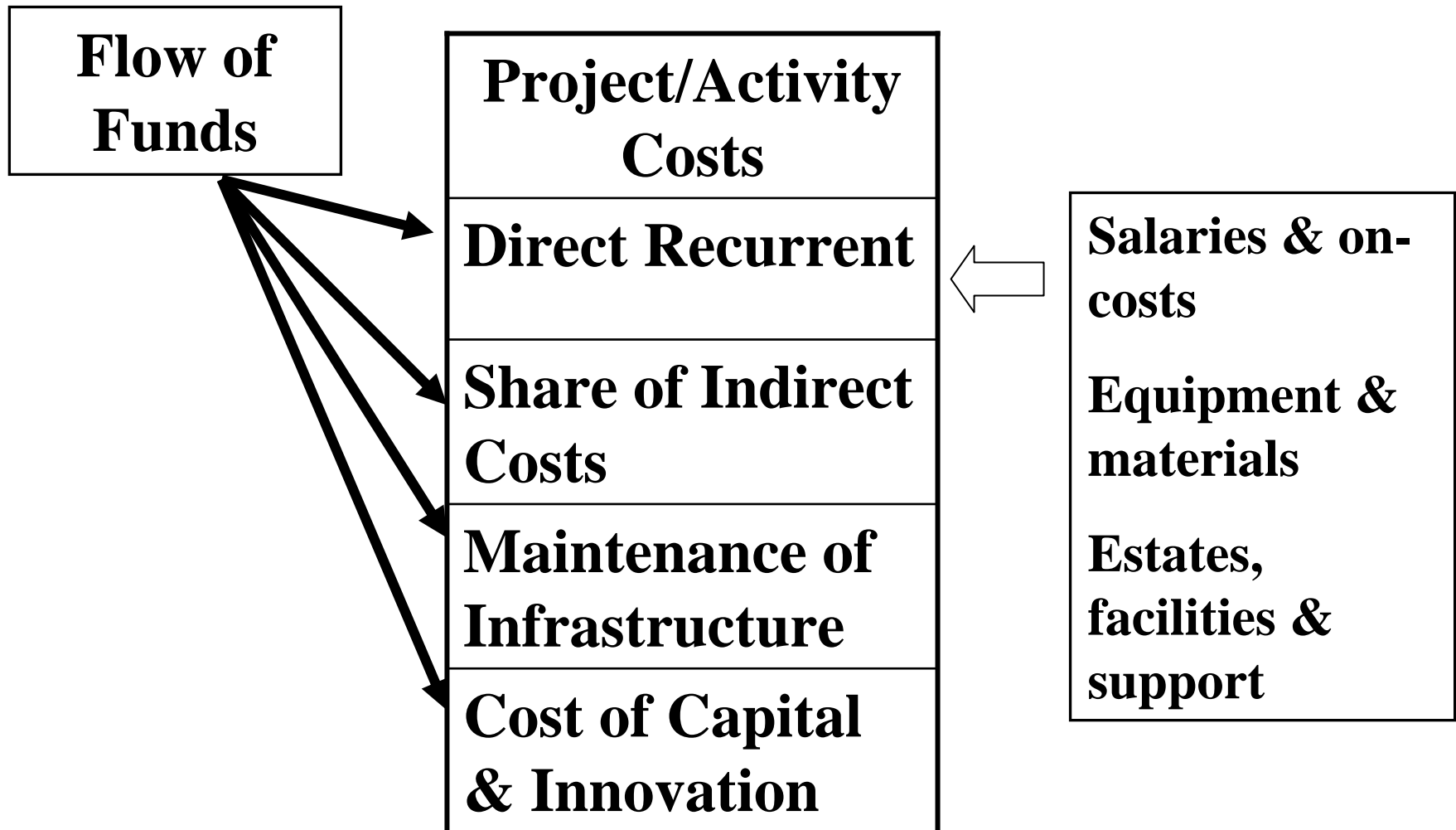
The Sustainability problem will not be solved without action by both funders and universities, and a change in culture by both

Sustainability and Flow of Funds

For each activity (perhaps each project), the university should identify the flow of funds needed to meet the full economic cost

This means costing and pricing the activity properly and ensuring that the funds are used for the correct purpose

Flow of Funds in University for Sustainability



Pricing and Transparency Review Categories

| Category | | Pricing |
|-----------------|------------------------------|--|
| PFT | Partially deregulated | Changing from cost based to market or value based |
| NPFT | Unregulated | Market based |
| PFR | Regulated | Cost based |
| NPFR | Unregulated | Market or value based |
| Other | Unregulated | Market or value based |

Sustainability of Publicly Funded Research

Dual Support Reform: 4 Key Steps

- **Implement methods to determine Full Economic Cost (fEC) of projects**
- **Determine the funding framework for projects based on fEC**
- **Manage flow of funds to meet fEC of projects**
- **Light touch verification of proper use of funds and of sustainability of activity**

Sustainability of Non-publicly Funded Contract Research Reform of Research Pricing

- **Set prices in relation to the value of the research to the customer**
- **Understand market and competition**
- **Take account of full economic cost, not just marginal cost, and expect to make a surplus**
- **Avoid the “low price culture”**
- **Avoid the historical low “ruling price” set by Government in the past**

What is Government Doing to Achieve Sustainability?

- **Ensuring that HEIs can determine Full Economic Cost of activities and projects in a robust way**
- **Reforming the Dual Support System for publicly funded research**
- **Putting in additional funds for Publicly Funded Research**
- **Ensuring that government departments fund the full cost of projects that they commission**

What should Universities be doing?

- **Implementing effective costing, decision making and planning processes at activity level**
- **Implementing effective pricing processes for Non-publicly Funded Contract Research**
- **Managing the flow of funds to ensure sustainability of research activities**
- **Integrating financial and academic decision making for research in a clear research strategy**

Management Decisions

If price exceeds full economic cost for a project and it is within the strategy, then proceed

If cost exceeds price, then either refuse the project, or reduce costs, or subsidise if strategically important

i.e. manage the flow of funds

Summary of Lessons Learned

- **There are powerful pressures at both national and university level to increase research**
- **Unless the full costs of research are known, it is easy for the volume of research to exceed the capacity to fund it**
- **Combined action by both funding agencies and universities is needed to make research sustainable in the long term**
- **The research strategy for the university must integrate both academic and financial aspects**

**Research is good,
more research is better,
but only if it is managed well
and is sustainable**