

## **Remarks made at The Foundation for Science and Technology Christmas Reception held on 9<sup>th</sup> December, 2009**

### **Professor Alan Thorpe**

Chair, RCUK Executive Group and  
Chief Executive, Natural Environment Research Council

### **Sustained research investment fuels the UK economy**

#### **1. RCUK investments deliver “Excellence with Impact”**

##### *Research Excellence - world beating*

- Top universities – UK has 4 of top 6, and 8 in the top 34, universities worldwide
- In last 3 years: Nobel Prizes in physics, chemistry, medicine and peace.
- International benchmarking 2009: “UK research remains the most productive and efficient in the G8, continuing to rank as second only in the world to the USA on leading scientific indicators”

##### *Impact – a UK success story*

- Research student trained → Researcher employed → Prize won → Economic or societal impact
- Average time taken is 17 years
- Investment timelines:
  - mobile phones: 1973 – first stable liquid crystal display and first solid polymer electrolyte for batteries both used later in mobile phones; 1991 – first phone call on a GSM phone; 1993 – CMOS imaging sensor to be used in mobile phone cameras; 1995 – Lithium ion batteries used in phones; 2000 – auction of 3G licences used game theory; 2008 – new phone software helps manage chronic health conditions
  - stem cells: 1981 – how to culture stem cells from mouse embryos; 2007 - Nobel prize in medicine to Sir Martin Evans; 2009 – regenerative medicine market estimated to be worth £500 million a year worldwide

#### **2. Investment return is many-fold**

##### *Facts and figures*

- **Economic return:** Every £1 invested in cardiovascular or mental health research between 1975 and 1992 earns ~39p each and every year for UK over the long term
- **Trained people:** 43% of RCUK-funded PhD students go into research in all sectors; 26% move into industry and commerce (we support 20,000 PhD students)
- **Links with business:**
  - 21% of PhD projects have a formal collaboration with business and industry.
  - RCUK works with over 2500 businesses and we have partnerships with 18 of the top 20 FTSE companies
  - Since 2006 over £2 billion of funding has been secured by RCUK through collaboration with UK business and industry
- **International gearing:** In last 3 years ~ £1 billion of inward investment can be directly linked to RCUK efforts to attract international funding into UK research

### 3. Conclusion

- Research investment is critical to us having a productive economy, a healthy society and a sustainable world.