

Internet

1967
UK researchers at National Physics Laboratory publish paper on 'packet switching' – sending data via telephone wires

1973
University of Cambridge develops key software used to make internet secure

1987
Researchers at the University of Southampton invent a critical device to make long-distance data transmission cost-effective

1989
Tim Berners-Lee invents the world wide web – paving the way for a global internet boom

1993
CERN releases intellectual property rights to the web and its software

2000
Researchers at the University of Lancaster develop software enabling laptop users to remain online on the move

2009
70% of UK households connected to the internet (ONS)

2009
RCUK-supported researchers are developing the 'semantic web' – including 'information agent' software that provides rapid access to relevant, timely and reliable data wherever it resides. It is set to revolutionise everything from emergency response to protecting against identity theft

Mobile phones

1973
George Gray of the University of Hull invents the first stable liquid crystal displays, later used in mobile phone displays

1973
Peter Wright at the University of Sheffield puts forward the first solid polymer electrolyte – kick-starting a new field in battery technology for mobiles

1987
15 phone firms sign an agreement to build mobile networks based on the Global System for Mobile (GSM) Communications

1991
First phone call on a commercial GSM phone

1992
First text message sent

1993
Researchers at the University of Edinburgh develop CMOS imaging sensor used in mobile phone cameras

1995
Lighter, smaller Lithium Ion batteries – developed from research at University of Oxford – replace nickel-based batteries in mobile phones

2000
Camera phones reach the market

1999
The first mobiles to send email and use the web launched

2000
Government secures £22.4 billion of commercial revenue from auction of 3G licences informed by RCUK research into game theory

2004
Over one billion mobile handsets sold globally each year. Mobile phones represent 2.2% of GDP

2008
UK researchers pioneering new phone software that helps those with chronic conditions manage their health

Rapid manufacturing

1980s
Rapid prototyping – the creation of parts direct from computer design files – using plastic lays foundation for new low-cost, low-waste manufacturing techniques

1984
RCUK 'Application of Computing to Manufacturing Engineering' programme supports early rapid manufacturing work

1990s
A new process, 'Selective Laser Sintering', paves way for rapid manufacture of products using metals

1994
RCUK Innovative Manufacturing Initiative supports rapid manufacturing advances in aerospace

1995
Rapid manufacturing techniques refined by researchers at Cranfield University and used by Rolls-Royce in production of engine parts

1998
Rapid manufacturing capability extends to titanium

2005
Increased use of titanium in aerospace industry makes low-waste rapid manufacturing an attractive option

2009
Rapid manufacturing moving into new fields. Research teams at Loughborough pioneering techniques with global sports brands to allow mass customisation of sports equipment

Budget analysis

Pre-1969
Treasury has a monopoly on information relevant to the Public Finance Bill

1969
Institute for Fiscal Studies (IFS) formed to study the economic impact of existing taxes and propose changes to the fiscal system

1978
Meade report on 'The structure and reform of direct taxation'

1982
First Green Budget by IFS published to act as Green Paper for the Finance Bill and encourage consultation

1991
RCUK funded centre inaugurated at IFS for research analysis of Budgets

1997
Chancellor introduces the Pre-Budget Report to 'help build the foundations of shared understanding and sense of national economic purpose between government, business, and individuals'

2001
IFS produces analysis of parties' manifestos and Government's record in key microeconomic policy areas

2007
Mirrlees Review, co-funded by RCUK, carries out a review of the tax system

2009
RCUK economists advise Government on the economics of recession

2009
Mirrlees Review to publish 'Reforming the tax system for the 21st century', a review of the tax system from first principles

Green economy

1980s
UCL report the UK has only five environmental economists. Sustained RCUK investment means there are now several hundred supplying vital evidence for a green economic future

1986
RCUK funded researcher David Pearce writes 'Blueprint for a Green Economy', still the most referenced book on economics and the environment ever

2006
Stern Review highlights climate change as a major factor for economies

2007
London is centre of carbon finance market, valued at about £38 billion

2009
National Ecosystem Assessment provides first ever quantitative analysis of environmental benefits for society and the economy

2009
RCUK funded Centre for Climate Change Economics and Policy at the LSE informs HM Government's 2009 Budget

Productive Economy

