

ESRC
Delivery Plan
2008-2011



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INTRODUCTION AND SUMMARY

Britain faces many challenges that will determine the future of the country and its role in the world. All of these challenges are essentially social scientific in nature or require the deep involvement of social science. If we provide the necessary leadership and resources we can: help improve the health of the nation, boost our relative economic performance, make better provision for our citizens in later life and develop a more efficient and sustainable approach to energy and our natural environment. We can also contribute to addressing global poverty and economic progress in the developing world.

While social science is at the very heart of these challenges, interaction with other disciplines is essential to maximising the impact of such research and to contributing fully to economic development and improved quality of life. Through a shared commitment to co-operation and multidisciplinary, the Research Councils collectively have a number of shared research priorities. ESRC is involved in **all** of these priorities.

These problems can only be tackled by adopting a long-term and informed view which increasingly needs the highest quality social science research. The UK has the skills and capacity to carry out this work but it will require the provision, throughout the next three years, of significant resources. This plan describes an integrated programme of research, capacity development and knowledge transfer to ensure that we do this to our fullest potential.

The ESRC's final allocation from the Comprehensive Spending Review 2007 was: 2008-9 £164.924 million; 2009-10 £170.614 million; 2010-11 £177.574 million. Together with co-funding from our partners, this funding will enable us to deliver on the key priorities for 2008-11, set out in this Delivery Plan.

Supporting the Government's Ten Year Framework for Science and Innovation and the Strategic Objectives of the Department for Innovation, Universities and Skills¹

The priorities in this plan will support the commitments set out in the Government's ten year framework and the strategic objectives of the Department for Innovation, Universities and Skills (DIUS). They will enable the UK to continue to provide world class, independent social science which impacts fully on economic development and quality of life in the UK and beyond.

The priorities include:

- **World class directed research on: Succeeding in the global economy; Global poverty; Population change and migration; Energy and the environment; Global security; Public health; and Individual behaviour.**
- **Leading edge basic social science** funded outside of the key challenges but with impacts on all areas of economic, political and social life.

¹ www.dius.gov.uk/mission.html

- Initiatives to ensure that the economic, social and policy **impacts** of the research funded by the Council are maximised.
- **Improving social science infrastructure** such as enhancing access to and usage of administrative data and bio-medical data.
- **Training the next generation** of social scientists to ensure that the UK will have the skills and capacity to find the solutions to the challenges facing our society.
- **Engagement** with the wider public, particularly young people.
- Providing **international leadership** for social science research policy and removing the barriers to international collaboration.

We will also contribute to carrying out the recommendations of the Sainsbury Review of the UK science and innovation system, by working with the Technology Strategy Board and building on our knowledge transfer work.

RESEARCH PRIORITIES

The Council's research priorities fall into two main categories. These are:

- **Directed Research**, for which there are two sub-categories:
 - Challenges which are solely or primarily social scientific and where we will work in partnership with non-Research Council partners.
 - The RCUK multidisciplinary priorities, in all of which social science is central to the pursuit of the research.

Work in these areas address each of the Treasury's key policy challenges for the Comprehensive Spending Review (CSR) and will build upon past achievements to deliver new knowledge and important impacts.

- **The Responsive Mode** - A continuing commitment to supporting excellent research.

All of our major new research investments will be driven by the twin imperatives of scientific quality and impact. This can only be achieved by the meaningful involvement of both producers and users at all stages of the research process – the 'co-production of knowledge'.

Directed Research - Social Science Taking a Clear Lead

The following three research challenges are predominantly social scientific in focus, and are central to the development of UK society over the coming years.

Succeeding in the Global Economy

Social science is essential to understanding economic development, innovation and global competition and hence to improving the economic performance of both the UK and the developing world. We expect this to be the theme for the centres competition which we will hold in 2008.

The UK Economy

The emergence of new global powers means a change in competitive conditions, global governance and geopolitics is occurring. The challenge for the UK economy is to ensure that its businesses remain competitive. Our prospects will depend on innovation and competitiveness, particularly in the services and creative sectors, areas in which there have not been major research efforts in the past.

Our principal focus will be on ways to improve the UK's relative economic performance through social science research, particularly in the retail, financial services and creative sectors. This will entail multi-disciplinary projects to examine what motivates and enhances productivity and economic performance.

Currently US productivity is higher than that of the UK in the retailing, wholesale distribution and some business services sectors. We will collaborate with these sectors to answer questions so as to improve the performance of UK services. We will also seek to understand better the drivers of success in the financial services sector, where London leads the world, and thus to contribute to its sustainability. We will also build on existing capacity building initiatives including research into the effectiveness of different organisational structures and cultures. The Council will do this in collaboration with the Technology Strategy Board (TSB).

Recent ESRC funded research - Inheritance tax reforms

Proposals by the Centre for Economic Performance (CEP) for new inheritance tax reforms which could raise £250 million and improve UK productivity are receiving Treasury attention. The UK provides by far the most generous inheritance tax exemptions to family firms compared with France and Germany. This gives an incentive for even badly managed family firms to be kept within family ownership. Based on path breaking research using new research tools, CEP researchers propose a cap on the inheritance tax relief of private firms which would, among other benefits, encourage more professional management among UK private firms.

UK economic performance is also strengthened by improving education and skills and by the delivery of public services. There is a need for the acquisition of knowledge and skills at a higher level and by a greater proportion of the UK's workforce than ever before. Research to achieve this is critically needed. We will be enhancing our portfolio in these areas by supporting two new research centres focusing in particular on UK skills needs and social inclusion; by a new initiative on science and mathematics education; and by research on how the quality and delivery of our public services can be improved.

Development and Global Poverty

A challenge of economic growth is to ensure that increased wealth benefits all in society, both nationally and internationally. We will build on our existing commitment to development research, including the partnership with the Department for International Development (DFID) which will impact on policy and practice for alleviating poverty and increasing economic development in the less

developed world. This exciting partnership has attracted hundreds of high quality proposals involving universities in the UK and across the world. With further investment, we anticipate many more in the coming years.

ESRC/DFID Collaboration

ESRC has collaborated with DFID on a major programme of research aimed at poverty alleviation in the less developed world. This includes work on urban poverty and property rights in China; children, transport and mobility in sub-Saharan Africa; increasing participation in higher education in Ghana and Tanzania; the meaning of health security for disaster resilience in Bangladesh; and building food secure livelihoods with aids-affected young people in Southern Africa. Our resources are however, severely constrained relative to the potential for high quality research. The most recent call is likely to have a success rate of under ten per cent and further funds are needed to fund research which will have a real impact on poverty alleviation.

The Rising Powers

While providing a challenge in terms of competition, the 'emerging economies' also provide increased opportunities. Therefore, analysis of them needs to be incorporated into our understanding of the global economy and the global security order. Central research challenges include:

- Causes, sustainability and competitiveness: Why are these economies growing so rapidly; is such growth sustainable; what are the consequences for competitiveness?
- Governance: What international governance challenges arise from the shift in the global balance of power?
- Wellbeing and equity: What type of world is being created by the emergence of these economies: how are people's lives being transformed?

The Council will exploit the opportunities presented by the establishment of RCUK offices in China and India, as well as the possibilities for a complementary leadership role within Europe. We are already strengthening the availability of new data resources to facilitate research in this area. Again we hope to work with TSB in this area.

Migration and Population Change

Significant changes in, for example, childbearing patterns, household structures and migration are occurring throughout much of the world. By 2050 population migration from developing to developed countries could exceed by 33 per cent population decline from an excess of deaths over births. Such rapid transformations create major challenges for society, ranging from infrastructure requirements to medical provision. The UK therefore needs to respond to these challenges in terms of policy development and the planning of essential services. Social science has a critical contribution to make in this area. The research challenges include:

- To investigate the reasons for below replacement level fertility in much of Europe and the long-term impacts of this. This entails identifying the factors and strategies that will enable people to have the number of children that they want when they want, in the context of competing

challenges such as the demands of a professional career. These include, for example structural changes in the economy; cultural and social changes and biological and health risks associated with age of conception. The impact of this research will be the provision of evidence for the development of new policies on welfare, child-care and work-life balance which will maximise the potential contribution of all members of the UK's population.

- To increase the UK's understanding of migration, particularly following the expansion of the EU, including the challenges of economic integration and of matching labour market demands with the available supply of labour in specific areas and regions. These in turn are linked to wider labour market and welfare issues as well as political considerations such as citizenship rights and obligations, social cohesion and debates around multiculturalism.

The impact of this research will be improved policies on both migration and childbearing, for instance through the design of housing and education policies. We hope to fund a new research centre in this area. In addition, the ESRC expects to have a leading role in collaborative work with our partners in the New Opportunities for Research Funding and Co-operation in Europe (NORFACE) network. We will also partner with the Office for National Statistics, the Home Office and with local authorities.

Recent ESRC research at the LSE, the London School of Hygiene and Tropical Medicine and Southampton has simulated the structure of the UK population over the coming few decades. It highlights the seismic changes that will take place in terms of household structure and composition, diversity and the availability (or not) of extended family networks. This work shows the extent to which there is an urgent need for new family policies in the UK which address all aspects of the lifecourse from cradle to grave. Under this strand we will undertake research to inform such policies.

Understanding Individual Behaviour

Many of the challenges facing society depend on individual decisions, choices and behaviour.

Across a wide range of health, environmental, economic and civil areas, understanding individual decision making is central to the future success of government or business strategies. Yet individuals do not make decisions in isolation. They do so in communities which may facilitate those decisions and in the context of national policies which may or may not be supportive. Thus the challenge is multilevel, multivariate and, in many cases, interdisciplinary with important contributions from the biological and medical sciences. As well as basic research in subjects such as social psychology, economics and sociology, there is important methodological research needed in evaluation methods. This is discussed further in the section on sustainability.

As the recent Foresight horizon programme on obesity shows, the policies which influence the incidence of obesity are complex and cover many areas of government. The ESRC intends to work with partners to develop and evaluate appropriate multiple interventions which can mitigate the economic cost of obesity in the UK, currently estimated to be between £6 billion and £9 billion per annum.

Individual behaviour is a cross-cutting priority for the ESRC with close links to almost all of our other research priorities. For instance, this work carries obvious implications for the RCUK research priority on health and wellbeing since public health concerns such as diet and physical activity can only be addressed by understanding and influencing individual behaviour. The economic implications are equally clear, e.g. if the cross-cutting research described here could lead to a marked reduction in obesity then the economic impact on the economy in terms of a reduction in days lost at work, reduced productivity and demands on the health service would be huge. The ESRC intends to work with partners to develop and evaluate appropriate multiple interventions which can mitigate the economic cost of obesity in the UK, currently estimated to be between £6 billion and £9 billion per annum.

Directed Research - Central Involvement of Social Science in the RCUK Research Priorities

The ESRC is centrally involved in each of the RCUK research priorities. All of these challenges require world class social science research funded by the ESRC to make a real economic impact.

Energy

The Research Councils' Energy Programme brings together energy-related research and training across the Research Councils to address the outstanding international issues of climate change and security of energy supply. This, together with the environment are areas where an increasing proportion of the research agenda is social scientific. Social science research is essential to understanding how a transition to a sustainable energy economy might be achieved. Immediate priorities include: new investments on the economics of climate change; ensuring that the social sciences can play an enhanced role in the next phase of research at the UK Energy Research Centre; new activities on energy and equity and energy security; and ensuring that social science research plays a key role in the Energy Technologies Institute to enhance the development and deployment of low-carbon technologies.

Economic modelling undertaken at the UK Energy Research Centre was used extensively in the UK Government's Energy White Paper 2007 and economists at the Tyndall Centre contributed extensively to the Stern Review. Work by the ESRC-funded Sussex Energy Group on the use of microgeneration technologies has been used to inform the government's recent microgeneration strategy

The Research Councils have identified a need to expand research on energy demand management and energy efficiency as well as transport and energy. All of these are areas where the social sciences need to make a central contribution. Further research is also needed on ways to support changes in energy consumption behaviour within the home, by business and in the delivery of services. This will include analysis of the effectiveness of current interventions, experiments and regulatory and incentive structures. Enhancing research capacity and international collaboration are also essential in this area.

Living with Environmental Change

Living with Environmental Change (LWEC) is an interdisciplinary research and policy partnership programme to increase resilience to - and reduce the costs of - environmental change, addressing the associated pressures on natural resources, ecosystem services, economic growth and social progress.

The key question is how we can change the behaviour of consumers, businesses and governments. These issues have been highlighted by recent major reports such as the Millennium Ecosystem Assessment, the Intergovernmental Panel on Climate Change, the Stern Review of the Economics of Climate Change and the UK Government's Strategy for Sustainable Development.

There is also increasing recognition of the economic and social value of ecosystem services and the need for urgent action to manage these more effectively. The programme will enable decision-makers to make better informed judgements about how to consume such services, how to manage and protect such benefits for the future most effectively, how greater resilience to change might be developed and what social and economic adaptations might be needed.

Work in the ESRC-led Rural Economy and Land Use Programme has recently identified a new way of both reducing and paying for carbon emissions from the UK's upland areas through the restoration of peatlands. Other RELU researchers are working with Defra and the Environment agency to implement the Water Framework Directive in more cost-effective ways.

Building on current activities such as research on environmental system services under the ESRC led Rural Economy and Land Use Programme and the new ESRC Social, Technological and Environmental Pathways to Sustainability Research Centre at Sussex University, priorities for future activities which contribute to LWEC include:

- Strengthening the social science contribution to research on climate change, with new fellowships and an ESRC research centre that will focus on securing international collaboration; supporting low carbon international economic development and innovation; assessing the economic impacts of climate change; and the development of more effective policy tools and strategies.
- Supporting interdisciplinary capacity building through studentships and fellowships and greater international research collaboration.
- Establishing a joint centre in partnership with the Department for Environment, Food and Rural Affairs (DEFRA) on how to promote pro-environmental behaviour and achieve collective action, to support more effective public engagement and to utilise the better data on environmental consumption and behaviour provided by the new UK Household Longitudinal Study
- New research on the links between environmental change and global and individual security that will also contribute to the cross-Council Programme on Global Threats to Security.

Terrorism, Security, Global Conflict and Uncertainty

The RCUK Global Threats to Security Programme will integrate research in crime, terrorism, environmental stress and global poverty, to address causes of threats to security, their detection and possible interventions to prevent harm.

Issues of global conflict are not confined therefore to a narrow agenda solely based on tackling terrorism but must embrace a much broader range of concerns not least the rise of new economic powers and the impact of this on international security regimes. Social science is at the centre of this agenda and the ESRC is therefore leading this particular cross-Council research programme. The research will therefore focus on:

- **Crime** - transnational global crime such as the drugs trade, people smuggling, money laundering and cyber crime.
- **Terrorism** - acts of violence in pursuit of particular aims are increasing across the globe as many disparate groups see violence as a means to achieve their aims.
- **Environmental stresses** – these will continue to interact with human vulnerabilities to provide a powerful basis for insecurity in many parts of the world.
- **Global poverty** - research is needed to capture the direct and indirect contributions to global security arising from the continuing experience of extreme poverty. The world's poorest people are often those most vulnerable to harm from security threats.

Research will be pursued that seeks to understand how crime, terror, environmental stress and poverty interact to create vicious circles. A particular challenge is to move debates away from a narrow definition of national interests to one in which national interests are best served by mutual attention to causes, detection and prevention in the international domain.

The recent publication on Homeland Security, based on the ESRC's initiative on The Domestic Management of Terrorist Attacks, shows how key public and private-sector bodies can prevent, pre-empt, counter and manage terrorist attacks by using a matrix of factors such as types of terrorist networks, tactics and targets.

The ESRC's programme of research will build on current investments such as the New Security Challenges Programme and work on 'radicalisation' and violence. There will be direct links to work being pursued in other priority areas. Research capacity will be enhanced through funding new language based area studies centres with the Arts and Humanities Research Council (AHRC), the Higher Education Funding Council for England and the Scottish Funding Council.

The ESRC's specific contribution to this agenda will include work on how international networks of crime and terror interact with the global flow of people and ideas. This will address issues such as: understanding terrorism and crime as networked phenomena; how best to understand the role of the internet and other forms of modern information and communication technologies in underpinning global networks of crime and terror; and how and why the evolution of specific sets of beliefs, inequalities and injustices appear to sustain networks of crime and terror.

Lifelong health and wellbeing

This new initiative will establish interdisciplinary research centres targeting the major determinants of health and wellbeing over the whole lifecourse and reducing dependency in later life.

Issues around individual behaviour in relation to both health and wealth; public policy options; and the role of the state all place social science at the very core of the research that is needed.

Ageing

There are considerable benefits to the UK in having an active and healthy older population. There are also profound economic and social implications both at a national level and at an individual level in terms of a citizen's own quality of life. The ESRC-managed cross-Council New Dynamics of Ageing Programme (NDA) aims to advance our knowledge and understanding of the dynamics of ageing and how their consequences can be managed to achieve the maximum benefits for older people.

The ESRC's Growing Older Programme has had a direct impact on the government's strategy for an ageing society - 'Opportunity Age' - emphasising the importance for quality of life in older age of elements such as standards of comparison and expectations; a positive attitude; good health; good social networks and sense of support; living in a neighbourhood with good facilities; and feeling safe rather than more material circumstances such as income, education, home ownership or social class.

A new cross-council initiative on Lifelong Health and Wellbeing will build upon the achievements of the NDA programme and will identify those factors over the whole life course that are likely to be major determinants of health and wellbeing in later life. This will provide new opportunities for effective interventions. The research will therefore focus on:

- Lifecourse factors and experiencing older age - early origins of optimal health, causes and consequences of changing identities and beliefs, changing measures of quality of life.
- Risk factors underlying frailty and disease in later life.
- Assistive technologies and infrastructures within the home, neighbourhood and workplace.
- Economic change, including personal financial factors affecting autonomy.

Potential impacts of this interdisciplinary work include:

- Behavioural and attitudinal changes based on the understanding that (a) the foundations of good health are laid in the early years but also that (b) even at the oldest ages, individual choices can strongly influence health and wellbeing.
- Economic and social gains associated with healthy ageing and reducing dependency and disability in later life.
- Changes in public policy and the development of services and technologies to support independent living.

Work on population change will also cut across this area.

Public Health

A major recommendation of the Cooksey Report was that the Medical Research Council (MRC) should build upon its current links with other Research Councils to ensure that research at the boundaries of health and other disciplines receives priority funding attention. Our commitment to work in this area will help ensure continued Research Council support for high quality research on health services, applied public health and social care. For example, there is crucial work to be done in terms of understanding behavioural drivers of, and impacts on, the transmission and management of infectious diseases, as well as the public's perceptions and use of new health technologies such as those enabled by advances in stem-cell research and nanotechnologies.

Opportunities also exist to combine socio-economic and medical data to enhance our understanding of the relationships between behaviour, economic circumstance and long-term health. The Council is therefore keen to play a full, albeit qualitative, role in the work of the new Public Health Research Board as well as in the UK Clinical Research Collaboration and the national Cancer Research Institute and is currently leading on the commissioning of a major, multi-agency initiative involving the medical charities and the MRC to fund a number of new centres on public health.

Digital Economy

Early adoption of ICT tools supported by research capacity and skilled people better positions a country to reap the economic and social benefits of those tools – this is the aim of Digital Economy. This will transform every single aspect of business, government and public service activity and places social science at the heart of a very wide-ranging research agenda.

The ESRC has previously made significant investments in three high quality programmes of research (Cognitive Engineering, People at the Centre of Communication and Information Technologies and e-Society) that have given us valuable insights into how applications can best be designed to suit the capabilities of the user whilst producing viable products and processes. In partnership with the Engineering and Physical Sciences Research Council (EPSRC), the ESRC is funding work on Technology Enhanced Learning that will deliver interdisciplinary research to support the creation, development and exploitation of digital technologies with the potential to improve the quality of learning experiences and learning outcomes radically.

Outstanding research questions for which high quality social science is necessary include how best to understand the co-evolution of new technologies and their societal and economic applications in a range of different sectors, including the environment, transport, healthcare, public services, creative industries and financial services. There are four particular areas where the ESRC hopes to make new investments:

- Work with the TSB and the EPSRC on identity management and vulnerabilities in networked systems, contributing to the TSB's Technology Platform on Network Security.
- The creative industries and the digital economy, with the TSB, EPSRC and AHRC.
- Delivery of healthcare in the digital economy with MRC, EPSRC, the Wellcome Trust and the Department of Health.
- Enhancing the work of the new joint ESRC/ Department for Transport Centre, contributing to joint investments with the EPSRC and the TSB Technology Platform on intelligent transport systems.

Nanoscience

Nanotechnologies can revolutionise society; they offer the potential of disruptive step changes in electronic materials, optics, computing and in the application of physical and chemical understanding (in combination with biology) to generate novel and innovative self-assembled systems.

Social science has an essential role to play in the nanoscience debate not least in relation to the public's understanding and confidence in and engagement with its potential applications. The ESRC is taking forward work on public perceptions and understandings of both the risks and opportunities of nanotechnologies, in concert with other Research Councils. This work will focus on specific domains such as energy and healthcare; the internationalisation of science and innovation; cultural and social influences; and how to engage with the public. Convergence between nanotechnologies, biotechnologies, information technologies and cognitive science will provide unprecedented opportunities to improve human performance. But this potential will not be realised effectively without social scientific understandings of risk, public confidence and regulation.

Responsive Mode Funding

Responsive funding has always been a core element of our portfolio. It enables the Council to support work of the highest quality based on ideas developed by the social science community in all of the areas within the Council's remit and across a very large research active workforce. Indeed, the ESRC is the largest Research Council in terms of the community it serves, accounting for over 25 per cent of those staff returned in the last Research Assessment Exercise across a wide range of disciplines. Responsive funding ranges from basic or 'blue skies' research, often with an emphasis on developing new theory, through to more applied work, much of which maps onto the Council's current, or indeed possible future, priorities with the potential for significant impact. There is no inherent conflict between funding work in a responsive manner and achieving greater impact.

The Council's responsive funding provides a continuum of support for researchers throughout the academic lifecourse. These opportunities range from the first grants scheme, introduced in 2005, through to the large grants and professorial fellowships schemes. The demand for funding through these schemes has been impressive in terms of both the quality and quantity of applications.

The most recent awards in the large grants and professorial fellowship schemes will produce major impacts in such areas as:

- social and biological determinants of human cognition and development
- patterns of youth crime
- conflict management in multi-cultural and contested cities
- the social and political implications of the new brain sciences.

The ESRC will maintain its strong commitment to interdisciplinarity both within and beyond the social sciences and through all funding modes. We will ensure that this is given greater emphasis in our assessment processes and in the training and guidance given to peer reviewers. The Council will also be announcing changes to its responsive funding arrangements to ensure that it gives greater encouragement to transformative, innovative and 'high risk, high potential impact' proposals.

SUSTAINABILITY – STRENGTHENING THE SOCIAL SCIENCE INFRASTRUCTURE

The delivery of leading edge social science research must be underpinned by a sustained investment in a world class data infrastructure based on an integrated suite of global resources and the most advanced skills, tools and techniques. Demand for such a data infrastructure is high, with use of the Council's Economic and Social Data Service more than doubling in the last five years. We have already made significant strides in responding to such demand through our investment in an internationally renowned portfolio of data resources. We remain committed to meeting the substantial costs of maintaining this portfolio in the future. Bigger and better datasets are required to study our ever more complex society effectively. Investment in the new world leading UK Household Longitudinal Study is an exciting start. However, further expansion of the UK data infrastructure continues to be essential.

We will drive forward such expansion through our National Datasets Strategy. This Strategy has for the first time brought a range of partners together to identify key national data needs. With additional funding there now exist huge opportunities to exploit these partnerships fully and to develop leading edge data resources to help answer some of the key questions within our research challenges. The Council will in particular:

- Seek to improve access to a new suite of socio-medical data resources by combining socio-economic indicators and bio-medical markers, including genetic information. Working in conjunction with MRC and the Wellcome Trust, we will also provide access to this highly sensitive information through designated secure data laboratories. These will provide an unrivalled source of data for understanding issues such as gene–environment interactions and the links between lifestyles and health.
- Establish new data resources on environmental attitudes and behaviours. This will cover both the individual and broader household and include themes such as energy efficiency, low carbon lifestyles and consumption behaviour. This will be one of the foci of the UKHLS.
- Enhance access to administrative data. There is a vast body of data collected by government which, if made fully accessible, could radically enhance the research capabilities of the social science community to undertake informed policy analysis. These cover such key areas as health and well being, social security, education and business. We will work in conjunction with government departments to open up access to these data through a groundbreaking national network of virtual micro-data laboratories.

We will also maintain the UK's international leadership role in developing a global infrastructure, through the recently created and ESRC inspired International Data Forum. This will be crucial in opening up access to new data sources, supporting new research on the developing economies and on many other areas within the key challenges.

If we are to exploit our expanding data infrastructure fully, then it is also of vital importance that our researchers have access to the most advanced research methods. The ESRC have always been at the international forefront of methodological research and pioneered world class developments in advanced quantitative methods. We remain committed to maintaining this international reputation by building on the National Centre for Research Methods and the National Centre in E-social Science.

There remains, however, undoubted scope to deepen our current programmes of methodological research. As datasets become bigger and more complex, then so does the demand for ever more

sophisticated tools and techniques to analyse them. We hope to develop innovative approaches to the storage, merging, mining and modelling of complex data resources including real time data streams, text, voice and images.

We have also been in discussion with a range of government departments about the development of new approaches to the evaluation of policy interventions where there are major challenges in designing and evaluating multiple social interventions in real world and real time settings. We intend to work with these departments to create a Policy Trials Service which will produce a step change in the quality and impact of policy evaluation and support improved targeting of policy interventions at all levels.

SUSTAINABILITY - PEOPLE AND DISCIPLINES

If the UK is to maintain its position as a world leader in social science then it is critical that it sustains a high quality research base. However, there are very serious threats to the long-term health of the social science community. The UK social science workforce is ageing. In the next ten years 31 per cent of social scientists are due to retire, and the recruitment and retention of new researchers is not keeping pace with this rate of attrition.

With funding provided by the last CSR allocation, we have started to combat these threats. The Council has initially focussed on three shortage areas - economics, advanced quantitative methods and language based area studies. Additional investment in these areas is starting to pay dividends but needs to be maintained. For example:

- The availability of more studentships and higher stipends have been successful in boosting recruitment and retention in economics. Volume is up by 50 per cent in the last three years.
- We have developed a major strategic initiative with the Funding Councils in advanced quantitative methods. Higher stipends have helped to stimulate demand for studentships with application numbers doubling in the last year. More work will be done to expand postdoctoral numbers and mid career training programmes to ensure that we have the skilled research base to exploit our world class data infrastructure fully.
- The ESRC has led a new £25 million strategic initiative with AHRC and the Funding Councils creating five new Language Based Area Studies Centres in the key shortage areas of Chinese, Japanese, Central and Eastern European and Arab studies. These Centres will produce a new cadre of high quality researchers building capacity across a number of our research challenges.

We wish to build upon this success and now tackle other shortage areas. Our strategy is to work in collaboration with other partners to develop major new initiatives and maximise impact. For instance, working with the business schools to develop an ambitious new initiative aimed at improving the quality of the research base in management studies. This will include exploiting the infrastructure provided by the Advanced Institute of Management Research (AIM) and developing our collaboration with the Foundation for Management Education.

Over recent years we have also supported a number of highly successful interdisciplinary capacity building schemes with the NERC, MRC and EPSRC. We will continue to support such schemes, which are an important part of our response to many of the interdisciplinary research challenges identified in this plan.

We have also been collaborating with the other Research Councils to strengthen our collective understanding of research careers. The ESRC has been the driving force behind current plans to develop a RCUK longitudinal study of doctoral students. This will for the first time create an authoritative national picture of the careers and economic impact of a cohort of PhD completers.

ECONOMIC, SOCIAL AND POLICY IMPACT

The Council regards knowledge transfer and the achievement of impact as integral to all of its activities. Impact therefore pervades all aspects of this plan. The concept of 'impact' in the social sciences applies to all sectors and not only the private sector or the UK economy. It embraces 'economic impact' in the sense of direct and often quantifiable economic benefits; wider social impacts that will benefit society more generally such as effects on the environment, public health or quality of life; and impacts on government policy, the third sector and professional practice.

These wider aspects are crucial. There is a significant cost to the public purse of a failed policy and significant benefit from a successful one. Many of the policies of the last decade in relation to benefits and family tax credits, for example, have been informed by rigorous social science research, most of it funded by the ESRC. Similarly, public sector productivity and a healthy workforce are as important to the UK's economic wellbeing as increased profits in the private sector. For example, it is estimated that absenteeism costs the economy £13.4 billion a year. An improvement to that figure of only 0.1 per cent based on improved knowledge of health, diet and wellbeing would more than repay the costs of additional investment in research in this area over the CSR period. We believe that the research described in this plan could have much bigger impacts.

The commitment to achieving greater impact is reflected in the Knowledge Transfer and Economic Impact strategy agreed by Council in October 2006. The key elements of this strategy are:

- creating and supporting economic impact through **knowledge exchange, people transfer and infrastructure**
- playing a **leadership role** within the social science community
- **communicating the economic impact** of the social sciences.

These objectives will be realised over the next three years and beyond through the following initiatives.

1. Embedding the model of the co-production of knowledge by integrating knowledge transfer and economic impact throughout the research process. In all of our new investments researchers will be required to have clear plans to engage with users and to generate and demonstrate impact from the outset, throughout and following the whole research process.
2. The introduction of a new follow-on grants scheme with earmarked funding. This will be a substantial extension of the current impact grants scheme and will be open to all social scientists. It will provide up to a year of additional funding at full cost where the research team can demonstrate the potential for significant economic, social or policy impact. Approval of funding will be based on a light touch review process to allow for speedy decisions and to encourage people to apply. The Council's commitment to this will be £3 million a year by the end of the CSR period.

3. The development of a positive relationship with the Technology Strategy Board (TSB) as part of a significant increase in support for business engagement. The Council is already one of the principal funders of Knowledge Transfer Partnerships with a current commitment of over £1 million a year. The Council has also invested heavily in developing UK management research in recent years, not least through AIM, and collaboration with the TSB offers new opportunities. The Council will aim to spend £8 million in partnership with the TSB over the next three years.
4. Implementing the Council's new business engagement strategy, also in close partnership with the TSB. This will focus on the prioritisation of particular business sectors including both those where the TSB has particular expertise and those new areas in which the TSB is expanding its portfolio. These priority areas reflect the potential of social science to have a real impact in that area; the relative, and often growing, importance of the particular sector within the UK economy as a whole; and, existing investments and relationships. We will ensure that we work with and address the needs of SMEs as well as larger enterprises. The priority groupings are:
 - energy; financial services; consultants/intermediaries
 - health technologies; retailing
 - creative industries; sport, leisure and tourism.

Specific activities will include:

- adding value to existing investments through business fellow placements and workshops
 - further collaborative research through the Venture scheme
 - increasing the proportion of activity with the private sector within the current knowledge transfer schemes, including Collaborative Awards in Science and Engineering.
5. Increasing the budget for the highly successful Ventures scheme, a scheme that is primarily based on the co-production model. There are now over 20 initiatives supported through the Venture mechanism with a wide range of partner organisations. This is the acid test of the value for non-academic organisations of working with the Council in that they believe independent research will help to deliver the twin aims of scientific quality and increased impact. Over this period, Ventures funding will be targeted on our priority areas to ensure we maximise the funding opportunities available in these areas.

Current Ventures are addressing, with partners, key research and policy issues such as:

- Public health
- The regional economic impact of HEIs
- Population issues in Africa
- Bilingualism
- Problem gambling
- Population change in Scotland

6. We know from previous ESRC research that 'people transfer' is one of the most effective forms of knowledge transfer. We have engendered opportunities both for established academics and doctoral students to be supported on placements in non-academic organisations and for research users to have the opportunity to work in a HEI. The Council wishes to increase substantially the number of opportunities for such placements at all levels and across all sectors and this will also require an injection of additional funding. The Council will also increase its provision of training and development opportunities in areas such as entrepreneurship and communicating with non-academic audiences.

ESRC funded placements to date have included the work on climate change by economist Simon Dietz at the Treasury as part of the Stern Review. In Dietz's own words, "In formulating policy advice, civil servants tend to have a broad knowledge and academics a deep knowledge. The weakness of one approach is compensated by the strength of the other. I highly recommend funding for more secondments of academic researchers into policy and business".

7. The Council has already agreed a number of changes to improve the management, reporting and evaluation arrangements for its major research investments so as to maximise the wider impact of its work. These include a stronger requirement for all awards to demonstrate the impact of their research; to report all outputs in real time; and to highlight major impacts in their annual reports. Final reports will now be requested 12 months after funding has ended so that it will be possible to capture a far wider range of impacts and to evaluate the work on the basis of both academic quality and subsequent impact. Impacts generated following final reports will be traced on an ongoing basis until at least five years post-award.

In addition, the Council's portfolio of case studies, discipline based reviews and methodological work will be extended to strengthen the evidence base in terms of what works and how best to assess and measure economic, social and policy impact.

We will measure our achievement of these objectives by increases in the volume of funding and activity; the quantitative measurement of outputs, primarily through the outputs framework; and the qualitative assessment of impact through commissioned evaluations and user surveys. This will include new work to assess the economic impact of ESRC research drawing on the recommendations of the current RCUK Knowledge Transfer and Economic Impact Group project.

Impact is of course central to all of the activities described in this plan so that additional investment in the research priorities and other areas will in themselves entail a considerable increase in our expenditure on impact and knowledge transfer.

SCIENCE IN SOCIETY

In close partnership with the other Councils and the RCUK Science in Society unit, ESRC will extend its science in society activities, with a continuing emphasis on promoting research careers; strengthening the evidence base on engaging with the public; and widening the range of activities for the general public, especially young people. In the next CSR period we will:

- increase support for schools based events
- build on the successful open meeting held in 2006 by organising further such events and ensuring public consultation on the development of new priorities
- provide further training in public engagement for social science researchers as part of the RCUK commitment to improved training in engagement
- develop a series of research syntheses providing the evidence base for science in society practice drawing on ESRC and other research.

INTERNATIONAL STRATEGY

The ESRC's international mission is to be one of the world's leading social science research agencies and to ensure that other sciences both draw on and inspire the growing body of world class social science research. Within that context we have three main goals:

1. A commitment to removing the barriers to trans-national research collaborations. We already have 13 international partnerships and will aim to increase them. Working with our partner agencies, we will streamline and co-ordinate the processing of applications, enhancing the ease with which the bilateral funding schemes can be used to support collaborations between leading researchers.

We are committed to developing further collaborations with the US, India and China, using the RCUK offices in all three countries to identify and develop opportunities. Through the continuing partnership with DFID, we will also encourage greater collaboration and innovative approaches to development research, driven by the need to achieve more effective policy impact.

2. To take advantage of opportunities for international collaboration, social science researchers need appropriate tools and training. Through the National Centre for e-Social Science, we will pursue the application of innovative and powerful computer-based infrastructures and tools for the benefit of UK social science.
3. We will enhance the effectiveness of international funding bodies and initiatives by continuing to emphasise stringent standards of assessment and evaluation. We will add value to a range of formal and informal networks on both a European and global level. This includes the 'big six'

funding agencies' forum to co-ordinate on issues of common concern and interest, including the changing role of the European Research Area and the European Research Council.

ESRC will be the managing Research Council for the new RCUK Office in India. Our allocation therefore includes £4 million to take forward the Science Bridges programme with India.

EFFICIENCY

The Council will continue to achieve efficiency savings throughout the next CSR period, for example through streamlined grants processing and final reporting requirements and through more efficient research commissioning. Through our strategic planning and decision-making processes, we will continue to ensure the reprioritisation of expenditure by focusing new investment on our strategic priorities. The impressive increases in co-funding of the last few years, particularly through the growth of the Venture Fund and partnership funding of national infrastructure and facilities, will be maintained but this leverage can only be obtained with an initial increased investment from the ESRC itself. And not least, the Council is committed to the RCUK Shared Services Centre (SSC) and to further cross-Council harmonisation that may lead to some 20 per cent savings in ESRC administrative costs. Our agreed contribution to the SSC is £1m over the CSR period.

ANNEX 1 – FINANCIAL INFORMATION

Table 1

Distribution of Council's Budget by Strategic Area over CSR Period

£m	2008/2009	2009/2010	2010/2011
Area 1: Succeeding in the Global Economy	18.546	18.517	17.680
Area 2: Energy, Environment and Climate Change	10.317	12.441	12.260
Area 3: Religion, Ethnicity and Society	7.033	7.798	8.435
Area 4: Education for Life	12.247	13.840	15.178
Area 5: International Relations and Security	6.616	5.330	5.296
Area 6: Population Change	13.406	13.092	17.870
Area 7: Understanding Individual Behaviour:	19.764	19.942	20.951
Area 8: Impact and Knowledge Transfer	12.072	12.922	13.790
Area 9: Health of Disciplines	33.200	35.324	37.429
Area 10: Data and Resources	16.739	17.369	15.682
Area 11: Other	14.984	14.039	13.004
Grand Total	164.924	170.614	177.574

Table 2

Distribution of Council's Budget by Funding Mode over CSR Period

£m	2008/2009	2009/2010	2010/2011
Strategic and Collaborative Research	35.096	35.879	37.200
Responsive Research	45.766	49.667	53.568
Research Resources	18.798	18.098	17.830
Postgraduate Training	49.064	49.737	50.409
Administration Costs	3.871	3.785	3.700
Knowledge Transfer and Communication	6.013	6.756	7.500
International, Policy, Evaluation and Programme Management	6.316	6.692	7.367
Grand Total	164.924	170.614	177.574

Table 3**Proposed Contribution to RCUK Priorities**

£m	2008/2009	2009/2010	2010/2011	Total
Energy	5	6	9	20
LWEC	5	6	9	20
Security	5	8	10	23
Lifelong health and wellbeing	8	10	12	30
Digital Economy	-	1	2	3
Nanoscience	-	0.5	0.5	1
TOTAL	23	31.5	42.5	97

Annex to ESRC Delivery Plan - Current Economic Impact

The best impact comes from excellent research. For example, our Venture scheme is based on scientific excellence, collaborative funding and equal partnership. **There are currently 31 such collaborations** with partners including government departments such as DFID and the FCO and various charities and foundations. These have generated additional funding for UK social science. **External co-funding for the Council in 2006-07 was £16.4m.** We anticipate that this will rise to £40m by the end of the CSR period.

We introduced an impact grants scheme in 2005. This will now be incorporated within a new follow-on grants scheme to maximise the impacts of that research which has the best potential for practical application. Expenditure on this will rise from £0.5m in the first year to £3m by 2010-11 by which point we expect to fund 40 such awards a year.

UK Labour Market Impacts

- ESRC has a number of exchange schemes encouraging the greater movement of people between universities and business/the public/voluntary sectors. **68 new placement awards (31 in HEIs and 37 in user organisations) were made in 2006-07.**
- Approximately **500 ESRC-funded people trained and qualified** to doctoral level in the social sciences join the UK labour market each year. The most recent employment destinations survey showed that of these **18% were employed in the business and public service sectors.**
- ESRC research in education and management also contributes to the development of a more highly skilled labour force. For example, a publication by the Advanced Institute of Management (AIM) - 'The Exceptional Manager' - is likely to have a major impact on management education in the UK.

Business and commercial impact

- 2007 saw the development of a **dedicated strategy** to improve engagement with, and the relevance of our research for, business. This is focused on priority sectors and particular impacts are anticipated in energy; financial services; health technologies; retail; the creative industries; and sport, leisure and tourism.
- Our contribution to the Knowledge Transfer Partnerships (KTP) scheme in 2006/07 was £1,147,106 for 17 partnerships involving 44 projects. In 2006-07 81% of employers reported an increase in profits or savings.

Impact case studies:

- A KTP between Arriva Passenger Services Limited and Cranfield University on enhancing bus driving standards and embedding a culture of safety included the development of a prototype bus-driving simulator; a 'bus driver behaviour index'; and establishing a safety-orientated culture. **Over £1 million has been saved on insurance claims, fatal accidents were reduced by 31%, staff turnover fell by 16% and absenteeism by 26%.**

- A psychological validation of a software product aimed at students with learning disabilities demonstrated the effectiveness of the software. This resulted in an immediate influx of \$550k of new business for the company, as well as a predicted export boost of \$2.9 million.

Research case studies

- The RCUK impact case study of AIM described a range of business and commercial impacts, specifically on innovation and productivity, **estimating a potential total annual benefit to those firms engaged with the research of between approximately £4 million and £20 million.**
- The Low Pay Commission asked the ESRC Centre for Business Research to assess the impact of the minimum wage on SMEs. This research served to allay fears that such legislation would have a detrimental effect on economic competitiveness. This research therefore had an impact on both business and government.

Policy and Practice/ Quality of life Impacts

Examples of ESRC's impact on public policy, the voluntary sector, and quality of life include:

- The ESRC Centre for the Analysis of Social Exclusion has directly informed a range of multi-million pound government policies on social exclusion (e.g. the Sure Start Programme, anti-social behaviour, health initiatives to reduce teenage pregnancy and family tax credits).
- The Centre for Economic Performance has had a significant impact on government policy over the last ten years particularly in tackling unemployment through policies such as the New Deal, working families tax credit and the national minimum wage. The combined cost to the public purse of youth unemployment and Job Seekers Allowance is currently some £35,000m a year. This burden would only need to be reduced by 0.03% to more than offset the ESRC's total annual investment in research in this area.
- A researcher from the ESRC Future of Work programme was seconded to the Women and Equality Unit of the DTI, where she was able to influence policy on parental leave, the gender pay gap and child care. Research findings also contributed to the White Paper on Work and Families (2003) which introduced new legislation on maternity and paternity leave.
- Psychology research is being used in the training of police officers to improve the detection of deception through police interviewing techniques and ultimately an increase in the number of offenders apprehended.

User Views

The 2007 RCUK user satisfaction survey found that 72% of respondents were very or quite satisfied with their partnership with ESRC.

Summary – key impact measures

User collaboration with ESRC	External co-funding	£16.4m in 2006-07
	User satisfaction survey	Mean score of 4.28 for partnership participation
		75% of users would speak highly of the ESRC
		Overall user satisfaction index was 69 out of 100
	Number of impact grants	21 awarded in 2006-07
Human Capital	Number of trained and qualified people joining the UK labour market	500 in 2006-07 based on a 80% thesis submission rate and a 92% employment rate
	Academic placements in government departments	11 in 2006-07
Business	Seminars for business	14 in 2006-07
	Workshops on entrepreneurship and commercialisation	Six in 2006-07
	New KTPs by sector	Private 9 (35%). Total in 2006-07 26
	Collaborative innovation vouchers for SMEs	40 awarded in 2007-08
	Involvement in AIM	36% of the top 100 FTSE companies
	New CASE awards by sector	27% in private sector in 2007
Policy & practice/Quality of Life	AIM outputs	350 government policy citations
	New KTPs by sector	Public 12 (46%), Voluntary 5 (19%).
	New CASE awards by sector	36% in public sector, 35% in voluntary sector in 2007
	Concordat agreements with government departments, devolved administrations and other bodies	16 in 2006-07
	Getting Research into Practice Workshops	Five held in 2006-07