



Annual Report

April 2010 – March 2011



Technology Strategy Board
Driving Innovation

NESTA



Introduction

The Scientific and Knowledge Transfer Programmes

1.1 Major advances are expected in: advancing knowledge of a broad definition of innovation through high quality, independent, research which is fully engaged (i.e. co-produced) with policy and practitioner communities; ensuring the maximum impact of new knowledge on policy and practice, reaching out to all potential sources of and audiences for new knowledge; developing capacity, in terms of people, data and methods, for future research and knowledge exchange on broader innovation.

1.2 In order to achieve the advances set out above, the Research Centre will be expected to carry out a programme of interdisciplinary research and make significant contributions in the areas of: New modes of innovation; Innovation in services; the links between innovation, human capital, intellectual capital and business performance.

1.3 The Research Centre will be expected to carry out a programme of engagement with policy and practice communities and make significant contributions in the areas of: developing a dynamic and novel forum for stakeholder engagement, knowledge transfer and networking, within the field of broader innovation, working closely with policy and practitioner communities; drawing together research and other kinds of knowledge, within the UK and internationally, to strengthen the evidence base for broader innovation policy and practice; collaboration with communities of research, policy and practice.

Distributed Research Projects

The Centre Director with the Hub Director will be responsible for ensuring that the Principal Investigators of the Distributed Projects have a full opportunity to work with the Knowledge Hub programme of the UK~IRC and that appropriate Knowledge Hub related activities can be co-developed.

1. Impact and Highlights

A major objective of the UK~IRC is to ensure that its research and related research can be developed and translated into forms of dissemination that not only meet the highest standards of academic rigour but can also be accessed by and be useful to other policy practitioners. Our research and knowledge hub activities are therefore highly integrated. A particular feature of our work in the 2010-2011 has been to develop and strengthen ongoing relationships with the UK policy community and in particular the new incoming administration and coalition government. This has led not only to a series of public and specially commissioned meetings with relevant officials and ministers but also the involvement of the wider innovation programme community and other innovation research groups in UK~IRC hub events. We have actively promoted the involvement of other innovation focussed groups in our knowledge hub activities in addition to those groups funded by the innovation initiative funded programme. We believe that the benefits of this intensive commitment by the members of the UK~IRC team to the combined research and knowledge hub activities is reflected in the selected highlights below.

The depth and range of the innovation related research being conducted by the core teams at Cambridge and imperial has meant that our advice and inputs have been sought at the highest levels of Government. The UK~IRC has also been able to draw on its wide network of national and international leaders in innovation research both to inform its policy dialogue and to take an active part in meeting

and events designed to meet specific requests in relation to policy development. The ability of the UK~IRC to make links between its own research base and the wider innovation community is represented by an event hosted at the request of the Rt Hon David Willetts, MP, Minister for Universities and Science, to provide evidence based advice on clusters in innovation and growth and options for policy development. This invitation only event was designed to maximise the potential for discussion and included representatives from the regional development agencies, the corporate and small business sectors, intermediate research organisations, as well as academic researchers.

The UK~IRC also responded to a request from the Department of Business Innovation and Skills (BIS) to organise a seminar on the evidence based for UK innovation policy. This was held on 1 February 2011. Speakers and participants were drawn from Imperial College and the Universities of Manchester, Cambridge, Exeter, Cranfield, Aston, Cardiff and Nottingham, as well as from the Institute for Fiscal Studies and The National Endowment for Science, Technology and the Arts (NESTA). The event was attended by senior officials from the Department of Business Innovation and Skills (BIS) and HM Treasury.

The UK~IRC's commitment to link frontier level research with high level policy debates was also reflected in the UK~IRC Innovation Summit 2010. This addressed the topic of "Re-thinking Impact: Private and Public R&D in an Age of Austerity". In the aftermath of the world financial crisis governments placed great importance on the role that research and the science base may play in the re-balancing of economies as they emerge from recession. At the same time high levels of public sector borrowing led to increasing emphasis on the value for money that governments may expect from their investments in the science base and the justification for that investment in terms of 'impact'. Pressures on charitable and third sector funders who have major investments in support of research also intensified. Research budgets in the private sector too faced major challenges in the face of financial retrenchment and the imperative to justify investment in large scale internal R&D programme in increasingly uncertain commercial and technical environments. The UK~IRC recognised that at the heart of problems faced by both sectors is the difficulty in evaluating the impact of investments in research, innovation and knowledge exchange when market and social returns may be subject to long lead times, and uncertain impacts - on the one hand from a purely private profit-making perspective and on the other from the wider social perspective. This 2010 summit was therefore designed to draw on international and public and private sector experience of best practice methodologies designed to assess the impact of innovation activities, including research expenditure and accessing external knowledge. Speakers were drawn from the Technology Strategy Board, National Physical Laboratory, The Council for Industry and Higher Education, BP, IBM, The Wellcome Trust, Research Councils UK, The Higher Education Council for England, the University of California and the National Science Foundation of the USA.

The UK~IRC also took part in a wide range of internationally networked high level research activities including the co-sponsorship of the Danish Research Unit for Industrial Dynamics (DRUID) Summer Conference . The DRUID summer conference is one of the world's leading venues for innovation scholars. This was the first time that the conference had been held outside of Denmark. The success of this event has led to a follow on event to be held in 2012, which will see the hosting in Cambridge of the DRUID Winter Conference. The DRUID Winter conference focuses on the early stage career development of young researchers in the innovation studies field.

Taken together these examples provide an indication of the extent to which UK~IRC aspires to be and is seen as a central focus for innovation research in the UK and of its ability to form close links with the practitioner and policy communicates.

Highlights from the core research programme:

- Consultation meetings were held with the new Coalition government to promote the research programme of the UK~IRC. These included meetings with David Willetts, Minister for Universities and Science, Vince Cable, Secretary of State for Business, Innovation and Skills, and, Martin Donnelly, the Permanent Secretary of BIS as well as the BIS Innovation Strategy Group.
- UK~IRC hosted a one-day seminar on the evidence base for UK innovation policy attended by senior officials from BIS, HM Treasury and leading academics from across the UK.
- Organised a Chatham House Rule workshop for David Willetts on “The role of clusters in innovation and growth and options for policy development” in Cambridge on 10 September 2010.
- Our work on university-industry collaboration was used as evidence by the Coalition Government in its Spending Review. Specifically, it demonstrated that UK research provides critical resources for the economy. UK~IRC research evidence was disseminated in *The Republic of Engagement* published by the Advanced Institute of Management (AIM), AIM is a UK leader in the field of management research, bringing academics together with business, public sector and policy thinkers in order to develop and deliver research of a world class standard which has an immediate and significant impact on management practice. UK~IRC research also featured in the report *Research for our Future*, published by Research Councils UK (RCUK), was cited by the Royal Society in their report *The Scientific Century* and also by the Prime Minister’s Council for Science and Technology (CST) which is the senior advisory body in this area in the UK in their report *A Vision for UK research*.
- We developed and implemented a major new survey of open innovation practices of UK firms. This data will provide the first comprehensive evidence of the use of these practices and their implications for firm performance.
- The Services team project, led by Bruce Tether, successfully bid for two projects with the UK Intellectual Property Office projects. Both projects provide evidence on the use of IP in services industries. Their combined value was £84k.
- A conference was hosted on University-Industry Links which will lead to a special issue of the *Cambridge Journal of Economics*.

Knowledge Hub Highlights:

- The launch and support of a major report that quantified the forces that drove the UK economy into recession and identified the macroeconomic policies that would support a balanced recovery. The research carried out by researcher Bill Martin was first issued in April 2010 and then updated in September 2010, entitled “Rebalancing in the dark”, following a presentation given to HM Treasury economists on 27 July 2010. This report was widely featured in the media including coverage in The Sunday Times, The Observer, The Financial Times, The Guardian and The Independent.
- In collaboration with Advanced Institute of Management Research (AIM) we launched a report “Republic of Engagement: Exploring UK Academic Attitudes to collaborating with Industry and entrepreneurship”, which draws on a unique set of surveys of academics funded by the

Engineering and Physical Sciences Research Council (EPSRC), this report explores changes in the way academics engage with industry in the UK between 2004 and 2009.

- We co-sponsored the DRUID Summer Conference, this was the first time that the conference had been held outside of Denmark. DRUID has established itself as one of the leading conferences on innovation, strategy and economic geography over the past 10 years. DRUID attracts scholars leading scholars from around the world. By sponsoring the event the UK~IRC had an excellent opportunity to be part of a well established international conference and by sponsoring two tracks (Open Innovation and Distributed Innovation and Innovation and Institutions in Services) informed participants to the current work that the UK~IRC are undertaking. The conference was co-organised by UK~IRC Research Director Dr Ammon Salter and several UK~IRC researchers delivered papers or chaired sessions at the conference both in the plenary sessions and break-out streams. The UK~IRC identity was well promoted throughout the conference.
- We held the second UK~IRC Innovation Summit in the Cambridge Judge Business School on the topic of "Re-thinking the Impact: Private and Public R&D in an age of austerity"
- Presentations and policy discussions have been held with senior government ministers and advisers and a number of discussions and workshops have been organised and hosted to assist with policy decision making. Areas covered included: the role of the universities in the innovation system; open innovation; clusters and local economic growth and the impact of research funding
- There were 49 presenters, in addition to the UK~IRC presenters, speaking at UK~IRC events from 36 institutions, Government departments and companies, some examples of these include: BP Group, IBM, National Physical Laboratory, University of California, the Wellcome Trust, Industry Canada, Norwegian Institute for studies in Innovation, Harvard University and the Department for Business Innovation and Skills. Speakers were drawn from twenty universities in the UK, France, Italy, The Netherlands and the USA. Speakers from each of the innovation programme sponsors also presented at UK~IRC events.

2. Progress against Objectives

Project 1: New Modes of Innovation: Managerial and strategic Business Practices and Open Innovation

Project Leaders: Andy Cosh, Joanne Jin Zhang (Research Fellow)

Other Investigators: Alan Hughes, Michael Kitson, Tim Minshall, Ammon Salter, Oliver Alexy, Gerald Avison (TTP), Chas Sims (TTP)

Period: Oct 2009-Oct 2012

Progress to date

During the period, April 2010- March 2011, the team has made significant progress in the following areas:

1. The survey of UK firms with up to 999 employees covering manufacturing and business services (with an oversampling of the clean energy and pharmaceutical sectors) has been completed with 1200 responses.
2. Contacts continue with other leading researchers and research centres in the frontier of OI research these include: Wim Vanhaverbeke, Universiteit Hasselt/ESADE; Henry Chesbrough, University of California Berkeley; Ellen Enkel, Zeppelin University, Germany /St Gallen, Switzerland; Keld Laursen, Copenhagen Business School; Joachim Henkel, TU Munich; Jim love, Birmingham University, UK; Xiaolan, Fu, University of Oxford, UK; Yoshi-Fumi Nakata, Doshisha University, Japan; Yuan Zhou, Tsinghua Univeristy, China; Vincent Kuo, National Taiwan University of Science and Technology, Taiwan
3. The UK~IRC organised both a plenary OI session with invited speakers and a parallel OI theme within the DRUID 2010 Summer Conference; and a young researcher conference in Sept 2010 at Cambridge.
4. A masters project was carried out at Shell Game Changer in the Hague which examined how to assess the benefits of an open innovation programme.
5. Dr Zhang from the team co-organised the 1.5 day conference for Early Career Researchers, with Cher Li, another UK~IRC Research Fellow. This workshop was for early career scholars working on the frontiers of innovation research and it was held in Cambridge in September 2010. The event welcomed researchers from as far afield as Tsinghua and Melbourne, as well as various European institutions. Attendees benefited from feedback, discussion and comments from leading UK~IRC researchers and other eminent scholars. Each delegate was given detailed feedback on their paper as well as an opportunity to exchange ideas with their fellow researchers.

Project 2: Knowledge Intensive Business Services (KIBS) and Innovative Performance

Project leader: Bruce Tether

Other Investigators: Alan Hughes, Jonathan Haskel, Ken Coutts, Bob Rowthorn, Cher Li (Research Fellow), Stan Metcalfe, Andrea Mina (Senior Research Fellow), Bill Martin, Karl Wennberg, Elif Moreau-Bascavusoglu (Research Fellow)

Period: Oct 2009-Oct2012*Progress to-date*

During the period, April 2010- March 2011, the team has made significant progress in the following areas:

1. The first papers from our research have been presented at conferences, including in a plenary session of the DRUID conference held in London in June, at the Academy of Management in Montreal, Canada, in August, and by invitation at an international conference on knowledge based services held in Rome (December). We have accepted further invitations to present ongoing work in March, at NESTA and the University of Padua, Italy. One working paper has been published by Imperial College and the CBR; others are in preparation.
2. The team undertook an analysis of the design industry for the Design Council and the Department of Business Innovation and Skills which was well received.
3. We have continued to work with the Architects' Journal and New Civil Engineer to gain access to unique data on professional services in return for some analysis of this data.
4. A second research fellow has been recruited (Jan 2011). Dr Elif Bascavusoglu-Moreau has joined the team and is based in Cambridge. She was previously a research associate at Imperial College

Business School. Dr. Bascavusoglu-Moreau will be involved in analyzing the input-output structure of the UK economy, showing how services interact with manufacturing and how this has changed over time.

5. A one day workshop on innovation and professions / knowledge intensive business will take place at Imperial College London on 10th and 11th March, 2011. This will include invited speakers from the United States, the UK and Europe, as well as 'home team' speakers.
6. Dr. Cher Li from the team co-organised the 1.5 day conference for young researchers which was held in Cambridge in September 2010.

Project 3: Network Evolution in Open Innovation Communities

Project Leaders: Ammon Salter, Martin Kilduff

Other investigator: Oliver Alexy, Antoine Vernet

Period: Oct 2010-March 2013

Progress to-date

1. Recruited a Research fellow.
2. Preliminary identification of on-line community data from different sources, including SourceForge and Stackoverflow.
3. Critically reviewed literature on networks in open source and open innovation communities.
4. Audit of available datasets from past projects to look for overlaps and opportunities for comparisons.

Project 4: Evidence Base for Innovation Policy

Project leaders and Associates: Keith Smith, Alan Hughes, Michael Kitson, Ammon Salter, David Connell and Andrea Mina

Period: March 2012-December 2013

This project is not supported by funded research fellows. It draws on inputs by senior academics associated with the UK~IRC programme and other academics and policy makers taking part in the research process. Its objectives are to identify the principle channels by which the evidence base on innovation informs public policy in its national comparative context. Substantive work began in the second full year of funding. It is intended to run throughout the life of the UK~IRC. It has begun with a series of seminars and discussions with senior policy makers in the UK which has been linked with a number of knowledge hub events and with the establishment of a collaborative arrangement with the Centre for Science and Policy (CSaP) at Cambridge. In addition to this activity, the project has worked in collaboration with two other projects funded respectively by the EPSRC and the DIME EU Network to fund for fieldwork which has been carried out in the USA and Japan and has involved a series of case study interviews with key policy makers and intermediaries involved in the policy development process. The final outputs of the project will be a series of papers in the evidence base for policy past, present and future. Important intermediate inputs involve the development of a series of seminars for UK policy makers drawing together not only the insights arising from this stream of research itself, but from the wider innovation policy research base in the UK.

- Established collaborative arrangement with CSaP to host a series of business and policy practitioners to visit UK~IRC and establish potential contacts

- Co-hosted with CSaP a senior UK policy forum on systems approaches to the development of policy attended by representatives of BIS, DEFRA, Ministry of Defence and National Health trusts.
- Held a one-day seminar for BIS on key aspects of evidence from innovation studies research relevant to the current innovation review in progress in the UK.
- Conducted interviews in USA and Japan with key policy practitioners, university leaders and intermediate research institutions.
- Held an innovation summit to draw together public sector, research councils', charitable organisations' attitudes towards the assessment of impact and the experience of impact assessment in the USA.
- Report of the innovation summit with implications for the assessment of impact in preparation.

3. Knowledge Hub

Progress against objectives

The Hub has continued its approach of systematic dialogue with key stakeholders and has forged a range of new alliances and partnerships

The Hub has continued its knowledge exchange including a wide range of research on innovation (including collaborating with other projects commissioned as part of the initiative) and has developed links and relationships with other national and international institutions concerned with innovation policy and practice, including BIS, NESTA, the Technology Strategy Board, the CBI, the Council for Science and Technology, the OECD, the EU, CIHE (Council for Industry and Higher Education), DIME (Dynamics of Institutions and Markets in Europe), DRUID, EU PRO and Centre for Science and policy (CSaP).

In 2010 the Hub continued to work with communication specialists to redevelop the front page of the website and increase the exposure of it's corporate identity across a range of media. An intranet facility was introduced for team members to share access to files and information easily. There is now a fully operational contacts database in use for mailings of newsletters and events.

The centre has held 9 dissemination and research development events over the year, which were attended by over 800 delegates. After all of our events were request feedback questionnaires be completed, asking attendees questions such as what their objectives were for attending the event and if these were met. To date the feedback we have received on the events has been very positive.

The UK~IRC has through the Hub provided policy briefings and inputs into co-developed events with DCLG, BIS and TSB (in relation to innovation briefings, commentary on OECD innovation policy and impact evaluation respectively), sponsored the launch or publication of 4 major policy reports and had an active Twitter page with 105 registered followers, the blog was not well used and so has suspended but can be reactivated should the need arise, posted 5 podcasts on the website highlighting key results and insights from presentations from Hub events, and actively promoted media coverage of the UK~IRC research in a wide range of media. The UK~IRC also held it's second Innovation Summit in December 2010. For fuller details see Section 4.b.

4. Investment Specific Indicators (*In Progress – to be completed by 31st March 2011*)

a. Investment Specific Indicators

In the year 2010-2011, UK~IRC associated researchers had 3 journal articles published or accepted for publication, 7 books and official research reports and policy submissions, 3 chapters in books, produced 7 working papers or other publications and gave 28 presentations at universities and policy and practitioner forums. UK~IRC associated researchers published in a broad range of leading journals, such as Research Policy, Academy of Management Review, Strategic Management Journal, Journal of Business, Venturing Journal of Organisational Behaviour and Regional Studies in 2010 and early 2011. In addition, the Centre is playing an important role in supporting dialogue and exchange among leading thinkers on innovation through its support and hosting of the DRUID 2012 Winter Doctoral Conference in Cambridge January, 2012. Following the successful of the UK~IRC hosting the DRUID Summer conference in 2010, this will be the first time that DRUID has been hosted the Winter conference outside Denmark. Moreover, members of the research team have had their work accepted for major international conferences, such as the Academy of Management Conference.

Our research has commanded attention in the popular press. In total, 26 newspaper articles and media features have showcased research from the wider programme.

Finally, our work has been influential in shaping policy through our engagement in leading policy communities and committees, such as the Council for Science and Technology, The Royal Society, Council for Industry and Higher Education (CIHE), HEFCE, RCUK, BIS, TSB and the BIS CIS 6 Project Board as well as intensive involvement in international contexts including the EU, the OECD and Japan. .

b. ESRC General Indicators for Reporting to Government

Please complete the table below, as well as separately giving more detailed information on indicators A-D in the format set out below the table.

<i>Indicator</i>	<i>Number</i>
Indicator A: Number of activities and events involving the general public	8
Indicator B: Number of projects attracting co-funding (leveraged funding attracted by the investment)	8
Indicator C: Number of public policy/business orientated seminars and workshops	7
Indicator D: How many non-academic users have worked within the investment on a formal basis to	Number of non-academic users hosted: 0

<p>complete a specific programme of work?</p> <p>How many researchers have the investment placed in user organisations on a formal basis to complete a specific programme of work?</p> <p><i>NB – placements funded through ESRC placement schemes should not be included.</i></p>	<p>(ii) Number of researchers placed in user organisations:</p> <p>0</p>
<p>Indicator E: Number of non-academic users on the investment's Advisory Committee</p>	<p>(i) Total number of Advisory Committee members: 14</p> <p>(ii) Total number of non-academic user members:</p> <p><i>Including:</i></p> <p>Number of private sector members: 6</p> <p>Number of public sector members:</p> <p>Number of third sector members: 2</p>

Indicator A: Activities and events involving the general public

Title:	Date:	Format: [type of event (e.g. lecture/broadcast ...)]	Total number of participants:	Number of general public participants
DRUID Summer conference	16-18 June 2010	Conference	270	70
Comparative Analysis of Enterprise Data & COST Conference 2010	24-26 th Sept 2010	Workshop	50	10
Global Entrepreneurship Monitor Research Conference	30 Sep -2 Oct 2010	Workshop	85	10
University –industry Links and Science Innovation Policy in the UK Seminar in Tokyo	29- Nov- 2010	Seminar	60	30

University –industry Links and Science Innovation Policy in the UK in Doshisha University in Japan	1 st Dec -2010	Seminar	30	15
Innovation Summit 2010	7 Dec 2010	Conference	103	30
Evidence-based Innovation Policy & Practice	28 Jan 2011	Workshop	50	5
Professional Services	10-11 March 2011	Workshop		

Indicator B: Number of projects attracting co-funding (leveraged funding attracted by the investment)

Name of project:	Amount of external funding:	Name of co-funding body/bodies:	Start and end date of co-funding:	Specify whether private, public or third sector
DRUID Summer conference	£31,750	ESF £10,500, Eco-Cit - £16,000, ISC - £750, 3 x Exhibitors £1500	16-18 June 2010	Public & Third sectors
Universities and the Knowledge Economy	£5,000	CJE	28 June 2010	Third sector
Comparative Analysis of Enterprise Data & COST Conference 2010	5,000	AIM, COST, Institute for Employment Research, NESTA, Kauffman, OECD, G-COE Hi-Stat Program,	24-26 Sept 2010	Public & Third sectors
Global Entrepreneurship Monitor Research Conference	£7150	George Mason + CESIS £6150, Strathclyde University £1000	30 Sept-1 Oct 2010	Public sector

Bid, supported by SABIP, for 'Quantifying the role of IPRs in UK knowledge investment'	£42,021.11	IPO	June to November, 2010	Public sector
Bid, supported by SABIP, for 'Analysing the value of copyright industries'	£42,021.11	IPO	June to November 2010).	Public sector
Innovation Summit	£10,000	CIKC, TSB & CBR Internal funds	7 Dec 2010	Public sector
Evidence-based Innovation Policy & Practice	£3,000	BIS	27 Jan 2010	Public sector
Professional Services	£3,000	AIM	10-11 Mar 2011	Third sector

Indicator C: Public policy/business orientated seminars and workshops

Title:	Date:	Target audience: [<i>private sector/public sector/practitioners/third sector</i>]	Number of participants:
Universities and the Knowledge Economy	28 June 2010	A workshop held by invitation only for academics in connection with a Call for papers by the Cambridge Journal of Economics	23
The role of 'clusters' in innovation and the growth and options for policy development towards them	10 Sept 2010	A Round table discussion by invitation only for <i>private sector/public sector/practitioners/third sector</i>	20
Early Career Researchers Workshop - New Frontiers in Innovation Research	13-14 Sept 2010	Workshop open to post doctoral students	25
Innovation Summit	7 Dec 2010	Open to all including private sector/public sector/practitioners/third sector	103

Distributed projects meeting	18-Jan -2011	Workshop open to project groups and funding bodies	30
Evidence-based Innovation Policy & Practice	28 Jan 2011	Open to all including private sector/public sector/practitioners/third sector	50
The Future of Innovation Policy in the UK	1 February 2011	Seminar by invitation only for <i>private sector/public sector/practitioners/third sector</i>	45
Professional Services: Innovations and Practices	10-11 March 2011	Workshop open to all for <i>private sector/public sector/practitioners/third sector</i>	25

Indicator D: Number of (i) non-academic users hosted and (ii) number of researchers placed in user organisations NB – Placements funded through ESRC placement schemes should not be included.

Name:	Hosted: [Where from?]	Placed: [Where to?]	Dates:	Placement days or hours:	Purpose:
	None	None	None	None	None