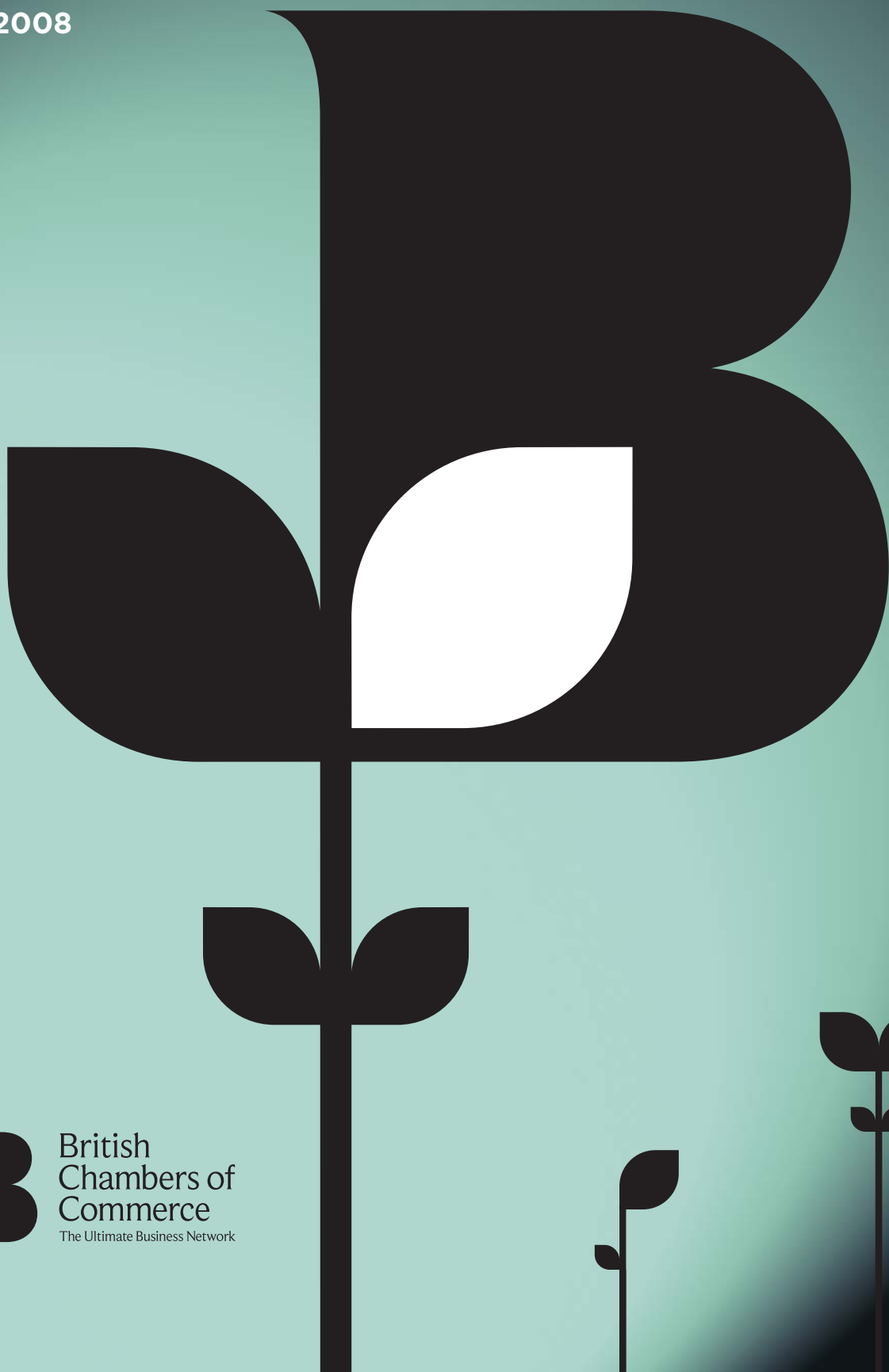


THE IDEAS BUSINESS: THE REAL INNOVATION NATION

A JOINT REPORT BETWEEN THE CENTRE FOR SUSTAINABLE URBAN AND
REGIONAL FUTURES AND THE BRITISH CHAMBERS OF COMMERCE

April 2008



British
Chambers of
Commerce
The Ultimate Business Network

The British Chambers of Commerce (BCC) is the national voice of local businesses, acting on behalf of a network of Accredited Chambers of Commerce across the UK. Representing over 100,000 businesses and 5 million employees, Chambers of Commerce are the Ultimate Business Network. Lying at the heart of their local community, Chambers serve all businesses with a passion no-one else can match

This report has been prepared for the BCC by Beth Perry and Tim May of the Centre for Sustainable Urban and Regional Futures (SURF) with research input from Adrian Monaghan. The report draws on work carried out by BCC and SURF and the views contained herein are those of the authors.

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Welcome to *The Ideas Business: The Real Innovation Nation*, the British Chambers of Commerce’s joint report with the Centre for Sustainable and Regional Futures at Salford University.

With the creation of the Department for Innovation, Universities and Skills and the recent *Innovation Nation* White Paper, innovation policy is an increasing focus for government policy, and rightly so. How well the UK can develop and exploit new ideas will be crucial for the future of our economy in the face of ever growing challenges to our international competitiveness. It is also important for our regional economies, who increasingly have to compete with other regions not only in this country but across the world.

But innovation is not only about our science and research base in universities, important as that is. I see innovation simply as doing things better in new ways. Many companies that I speak to up and down the country are developing new processes, products and services to meet their business needs without considering this to be innovation at all. A broader, more entrepreneurial, definition of innovation is needed that incorporates the knowledge base that exists across the private sector.

To make a real difference on this agenda, policy must reflect what is really happening on the ground where Regional Development Agencies have been given an increased role. Each region has its own unique characteristics which means that a one size fits all approach to innovation will never work. What is needed is a much better understanding of what is happening at regional and local levels on innovation support.

This research begins this process by mapping out what innovation activity is taking place in

the different regions by both Regional Development Agencies and the business community (through local Chambers of Commerce) and highlighting some of the barriers they both face. A clear message is that a great deal of public and private sector activity is currently taking place at a national, regional and local level but this is not sufficiently joined-up. This needs to be addressed by:

- national government removing the barriers that restrict a broader approach to regional innovation policy;
- Regional Development Agencies stepping up to the challenges of joining-up innovation support with activity across the private sector and engaging with business more effectively; and
- Chambers of Commerce ensuring they effectively represent and articulate the innovation knowledge base in the business communities in their region.

This will be a demanding challenge for government, Regional Development Agencies and Chambers of Commerce but a critical one to get right for the future of our economy.

David Frost
 Director General
 British Chambers of Commerce

The future of the British economy is increasingly dependent upon the harnessing of knowledge for wealth creation. The White Paper *Innovation Nation*¹ sets out an ambitious set of proposals whose success will be based on building good partnerships between the education, public and third sectors and business, to ensure that the benefits of innovation reach all parts of the UK. The British Chambers of Commerce's (BCC) joint report with the Centre for Sustainable and Regional Futures (SURF) makes a comprehensive assessment of innovation support in England.

INNOVATION REGIONS: THE REGIONAL DEVELOPMENT AGENCY PERSPECTIVE

The nine English regions all operate within a common national framework and share similar expectations in relation to the delivery of national objectives for science, innovation and knowledge-based growth. Nonetheless, there are differences in approach between regions which provide the opportunity for identifying good practice and learning lessons for the benefit of UK plc.

Regional context is important and the Regional Development Agencies (RDAs) have been keen to emphasise that a one-size-fits-all approach will not work. Three factors that influence the distinctive nature of science/innovation strategies include: the starting position, problems and potentials of the region; the geography of a region; and, the relative strength of the public or business research base.

There are two sets of implications from an RDA perspective for building knowledge and innovation regions:

1. IMPROVING THE REGIONAL OFFER

- a) Establish and maintain the ladder of interventions - RDAs need to ensure that they operate across the spectrum of innovation activities. RDAs should act as an intermediary to identify mutual needs between the research base and industry.
- b) Learn what works - the evidence base at regional level is patchy. Further work is needed to transform information into intelligence and generate comparative learning.
- c) Scaling interventions - initiatives such as the N8 within the Northern Way and innovation within the Greater South East are designed

to upscale innovation activities to build critical mass, but most RDAs did not see sub-regions as appropriate scales of action for innovation strategy. More intelligence is needed in relation to issues of scale, scope and the location of knowledge necessary for regional business growth.

2. ENGAGEMENT WITH BUSINESSES AND CHAMBERS

- a) Getting Small and Medium-Sized Enterprises (SMEs) on board - RDAs acknowledge that engagement with SMEs is essential to build knowledge-based regions. However, there are difficulties in ensuring adequate representation of SME interests on strategic bodies and in reaching SMEs.
- b) Business representation - how business represents itself and how the RDAs engage with business is critical. Where there is a collective voice for business or Chambers, the RDAs have had more positive experiences of engagement with business at a strategic level.
- c) The role of Chambers - Overall RDAs have seen Chambers as highly relevant at a sub-regional level as funnels or access points to SMEs, but less so as strategic innovation actors at the regional level.

INNOVATING BUSINESS: THE CHAMBER PERSPECTIVE

Chamber innovation activities have largely developed from the bottom-up. These include: networking, lobbying, award ceremonies, partnership working, demand-led curriculum development, innovations in joining up business support and international support for R&D. RDAs have not seen Chambers as the first choice for engagement on R&D and innovation - similarly Chambers have not necessarily engaged the RDA in their own activities.

Chambers expressed concern about the effectiveness of regional support for innovation.

However, they also acknowledge their own role in bridging the gap between business and the knowledge-based region. Chambers have a potentially critical role in brokering the relationship between business and academics, using RDA support where appropriate, and representing business interests at a strategic level back to regional decision-makers.

¹ Department of Innovation, Universities and Skills, March 2008

CREATING A WINNING COMBINATION

The principal findings are as follows.

1. INNOVATION SHOULD BE CONSIDERED IN A WIDER SENSE

A broad understanding of innovation is critical in ensuring that businesses of all sectors and sizes can meet their potential to contribute to knowledge-based growth. Innovation should be considered to be doing things better in new ways. This includes issues of skills, employer engagement and knowledge exchange agendas. Innovation needs to move beyond a narrow focus on science and academia towards the kind of everyday innovation that businesses undertake to improve productivity. RDAs need to ensure that the knowledge base is harnessed in its broadest sense.

2. INNOVATION SHOULD NOT BE LIMITED BY ARTIFICIAL ADMINISTRATIVE BOUNDARIES

RDA support must seek out business engagement based upon the economic realities of the area, whether this is sub-regional or inter-regional. Knowledge relevant for regional innovation is not always contained within regions or available at a regional level.

3. RDA ACTIVITY SHOULD BUILD UPON, RATHER THAN DUPLICATE, PRIVATE SECTOR WORK

RDA activity has the potential to crowd out private sector work. RDAs need to ensure that they add value by minimising duplications and providing strategic oversight. This includes developing mechanisms for ensuring that sub-national knowledge and expertise are reflected in national policy developments as well as vice versa. Proposals for joint working on alignment between the Technology Strategy Board (TSB) and the RDAs have been misconstrued as business as normal, without requiring the necessary alterations in strategy or approach. In implementing these proposals, RDAs should take account of private sector activity.

4. NATIONAL CONSTRAINTS ON REGIONAL INNOVATION SHOULD BE REMOVED

National policy should allow for flexibility at a regional level. Regional and local experiences should also feed through to national policy initiatives, particularly in light of the emphasis on regional-specific or place-based approaches. The emphasis tends to be on information flow from the national to the regional rather than in reverse.

RDAs feel hindered by the absence of appropriate metrics and measurement tools, leading to a default output-led model which fails to acknowledge softer changes in the innovation ecosystem. Because activity in regions vary, RDAs should develop their own means to measure performance. There must be proper evaluation and metrics for success (agreed between government and RDAs to ensure they are relevant).

5. MORE JOINED-UP THINKING BETWEEN NATIONAL AND REGIONAL LEVELS

Innovation Nation is a welcome first step to greater joined-up thinking on agendas around science, innovation, business simplification and sub-national economic development, but it does not deal more broadly with issues around different government departments' agendas that influence knowledge-based growth. The Government therefore needs to ensure greater joined-up thinking on agendas around science, innovation, business simplification and sub-national economic development.

In addition, a coherent and long-term funding strategy for SME engagement with the knowledge base is needed. This includes bridging measures to ensure that successful initiatives funded through European sources can be carried forward; and signposting all relevant Higher Education Funding Council for England (HEFCE), Department for Innovation, Universities and Skills (DIUS) and European schemes within the Department for Business Enterprise and Regulatory Reform's (BERR) Gateway to Business programme.

6. DIALOGUE BETWEEN RDAS AND CHAMBERS

RDAs need to establish more coherent mechanisms to engage with different business interests at a strategic level. RDAs and Chambers have similar concerns and common ground in needing to identify what is needed to improve the environment for business and knowledge-based growth. However, the history of interaction is one of misconceptions and misunderstanding. RDAs do not generally consider Chambers to be key actors in R&D and innovation. Similarly, Chambers do not rate RDA support for business R&D and innovation highly. Mutual awareness of what RDAs and Chambers are doing is needed to maximize joined-up support to business.

NEXT STEPS

It is critical to get the relationships between business, the knowledge base and regions right. This report has begun to illustrate where this is working and where there is room for improvement. An honest appraisal of the current situation is the first step to ensuring an effective contribution to the *innovation nation*.

To take these recommendations forward, BCC will be discussing the policy implications of the report with national opinion-formers and decision-makers, taking forward the experiences of the Chamber of Commerce network and looking into where further work on this agenda is required.

This report is based on collaboration between the BCC and SURF. The aims of this work are three-fold:

- to understand the importance of different regional contexts in encouraging and supporting innovation;
- provide an opportunity for Chambers to learn from best practice in order to more proactively shape and influence the regional innovation agendas; and
- identify key messages to improve the UK's competitive success.

The publication of this report is particularly timely in light of the recent DIUS Science and Innovation Strategy, *Innovation Nation*, which outlines the critical challenges for business, universities and governments at different levels to work together to build knowledge-based regions.

The report is focused on the English regions. SURF have drawn on their expertise in relation to urban policy and regional and local science policy analysis to carry out a review of national and RDA strategies, interviews with innovation managers within RDAs and focus groups with Chambers at the BCC Regional Business Summit in London in February 2008. BCC have drawn

upon the local knowledge of the Chamber network, through a business and Chamber survey and case studies of innovative Chamber activity.

This final report is structured in the following ways. First, we examine the innovation challenge in the UK and highlight the increasing role for RDAs in building knowledge-based regions in England. Second, we provide an overview of regional initiatives for innovation and R&D in England, in terms of governance structures, policy support mechanisms and funding streams. Third, we outline examples of innovative Chambers that are creating opportunities for businesses in this area and examine Chamber and business perspectives on regional innovation environments. Finally, we identify critical issues and learning lessons that need to be taken forward in developing more effective policies and practices.

The work is not designed to be exhaustive, but provide an understanding of key issues that need to be addressed by multiple partners to build innovation regions. Importantly, the report identifies the need for greater mutual awareness and understanding between RDAs and Chambers to maximize the opportunities for businesses and knowledge-based growth.

The future of the British economy is increasingly dependent upon the harnessing of knowledge for wealth creation. Providing competitive advantage through the building of good relations between sectors and effective business support is central to success. Having the right skills in place, identifying knowledge needs and knowing how to build those into practice are the key challenges ahead.

These challenges have been reflected in a series of government initiatives and reviews to ensure that science and innovation are at the heart of economic growth and competitiveness in an international knowledge-based economy. The Science and Innovation Investment Framework 2004-2014 outlines the Government's belief in science, technology and high-level skills as core to future prosperity. This is reflected in increases in the science budget and an ambitious increase in R&D investment as a proportion of national income from 1.9% to 2.5% by 2014.

These aims were reinforced in the Science and Innovation Investment Framework 2004-2014: Next Steps (2006) document and the Leitch Review of Skills (2006). Next Steps implemented a new £9 million international R&D strategy to attract investment to the UK and promote Britain's innovative firms abroad, whilst the Leitch review set its sights on developing a world-class skills base by 2020 and providing employers with a central role under a train to gain, demand-led system of support from government.

The Government continued its strategy to drive business and innovation forward via an acceptance of the recommendations of the Sainsbury Review of the UK science and innovation system (2007). Here we see an intention to improve knowledge transfer between the research base and business using the Higher Education Innovation Fund (HEIF) to build support for business-oriented universities; a doubling of Knowledge Transfer Partnerships (KTPs) to enhance research-business links; better support for early-stage high-tech companies via a Small Business Research Initiative to drive innovation using proof-of-concept funds, along with support for incubators, high-technology clusters and business services.

The Government then pledged to invest £1 billion over the next three years to support business

innovation and technology development, as well as create a new science and innovation strategy. Once again, the aim was clear: to position the UK as a key knowledge economy in the 21st Century via a series of key initiatives (see Box 1 on facing page).

Associated with these initiatives is a desire to simplify the environment for business support. The Government wants to move from around 3000 schemes to no more than 100 by 2010 and to simplify access for business and provide a tangible impact on public policy goals and represent value for money (for more information, see: <http://www.berr.gov.uk/consultations/page40113.html>).

Most recently, the White Paper *Innovation Nation* sets out an ambitious set of proposals (see Box 2 on page 10) whose success will be based on building good partnerships between the education, public and third sectors with business to ensure that the benefits of innovation reach all parts of the UK. Again, this emphasises the relationship between business, knowledge and place and the role of multiple partners in building an *innovation nation*.

The factors that lie behind these initiatives relate to the scale and intensity of activities. The development of the knowledge economy has global and local dimensions, as well as implications for the relationship between cities and regions. Cities are seen to provide critical mass, vibrant environments, connectivity, highly paid jobs and concentrations of cultural and leisure activities. Regions, on the other hand, provide space for the development of projects, wider choices of housing, a workforce and skills base, opportunities for countryside leisure, the production of food and distinctive centres of retail activity.

It is not surprising that there is a greater sensitivity now to issues associated with the appropriate scale at which initiatives should take place. After all, regional and sub-regional assets are key factors affecting the location decision-making of firms. A knowledge-driven skills base depends on the proximity of universities and institutional support mechanisms that facilitate the exchange of knowledge between and within sectors. Localities enable firms to plug-in to local, regional, national and international networks, whilst place is core to stimulating and

BOX 1 - Summary of Key Support Mechanisms for Business

The Product	Who is it for?	What does it provide?
Knowledge Transfer Networks	All businesses that want to grow by exploiting technology	A grant to an intermediary to set up a network in a priority technology area, bringing together businesses, universities and others with an interest in technology applications.
Collaborative Research and Development	All UK-based businesses wishing to exploit technology.	Funding for collaborative R&D projects between businesses, universities and other potential collaborators.
Grant for Investigating an Innovative Idea	Small businesses wishing to exploit an innovative idea.	Reimbursed consultancy to help businesses get advice on the steps needed to implement their ideas.
Grant for Research and Development	Small businesses with an innovative product or technology.	A grant to help businesses carry out R&D that could lead to a technologically innovative product or process.
Knowledge Transfer Partnerships	All businesses that need expert help to innovate.	A grant to cover part of the cost of using a person to transfer and embed knowledge into a business from the UK knowledge base via a strategic project.
Shell Step	Small businesses	A small cost effective short-term placement of university students to undertake project-based work for small businesses.
Cooperative Awards in Science and Engineering (CASE)	A range of businesses and other organisations depending on remit of research council.	Supports research students working for a PhD on collaborative research with industry.

shaping markets: that is, not only supporting the immediate locality, but encouraging diversity and specialisation, providing infrastructural support, setting standards and encouraging the environment for innovative activities.

The Government's proposals all place the region and city-region at the heart of what they are trying to achieve. The Government's view is clear: "the best way to overcome regional disparities in productivity and employment rates is to allow each nation, region and locality the freedom, flexibility and funding to exploit their indigenous sources of growth"². The overcoming of such disparities forms part of a wider concern to stimulate sustained regional and national economic growth through a shift towards an economy based on knowledge-intensive activities.

Within national policy frameworks an increasing role for RDAs in delivering national objectives is evident. In policy terms there is a clear emphasis on the importance of joined-up thinking in research and industrial policy between international and national R&D networks and the economic plans of the regions. The roles of the Science and Industry Councils is critical here, set up in each English region since 2001, to bring strategic industry, academic and public sector actors together at the regional level. Between them, the RDAs reach an estimated 100,000 innovation-interested businesses through various programmes and networks. This has translated into 7,088 businesses being assisted to engage with the knowledge base between 2005-2006.³

The role of RDAs in meeting the aims of policy is further strengthened through their partnership in the Technology Strategy Board to provide

² HMT, Office of the Deputy Prime Minister, Department for Trade and Industry, 2004. *Devolving Decision-Making 2: Meeting the Regional Economic Challenge*. HMSO: London. Page 2.

³ England's Regional Development Agencies, 2007. *Evidence Base on Regional Innovation Support. Product Case Study Approach*. SEEDA. Page 1-2.

BOX 2 – Selected Highlights from *Innovation Nation* (DIUS, 2008)

Demanding Innovation:

The UK needs to complement supply-side measures with demand-side policies

Supporting Business Innovation

To make the UK the best place in the world to be an innovative business

A Strong and Innovative Research Base

To maintain and improve the UK's standing in research

International Innovation

To ensure that the UK is the most attractive location for innovative businesses, individuals and organizations

Innovative People

To maximize the innovative capacity of the UK's people

Innovation in the Public Services

To ensure that the UK's public services are the most innovative in the world

Innovative Places

To recognise the spatial properties of innovation and to ensure that the benefits of innovation reach all areas of the UK

This includes, for instance, a reform of the Small Business Research Initiative, refocused on technology-based research; the interchange of innovation expertise between the public and privation sectors through secondments

This includes proposals for the TSB to bring forward 5 new Innovation Platforms over the next 3 years and a scheme to roll-out innovation vouchers for businesses to work with a knowledge-based institution of their choice.

This includes development of the Lambert online toolkit of model university – business licensing agreements; a new Innovation Index to measure the UK's performance as an *innovation nation*; and a new Innovation Research Centre.

This includes DIUS / Foreign and Commonwealth Office (FCO) co-funding of the Science and Innovation Network and development of an international strategy encompassing higher and further education, skills, research and innovation.

This includes implementation of the Leitch Review of Skills and strategies for Further Education (FE) reform; a pilot revenue-based FE Specialisation and Innovation Fund; National Skills Academies; and new Higher Education centres to unlock human potential and drive regeneration.

This includes creating a Whitehall Innovation Hub to capture and disseminate learning about public sector innovation and the establishment, through NESTA, of a Public Services Innovation Laboratory.

This includes New Partnerships for Innovation to bring together venture capital, universities, businesses and regional government to align efforts and develop innovative solutions to local and regional challenges; further joint working between the TSB and RDAs; a focus on regional or sub-regional innovation measures to capture spatial patterns and greater use of multi-area agreements to promote innovation across administrative boundaries.

1: CHALLENGES IN THE INNOVATION NATION

strategic alignment for regional benefit. The Technology Strategy Board is charged with leading a strategic programme in partnership with the UK Research Councils and the RDAs.

The Regional Innovation, Science and Technology (RIST) group is a partnership working group formed to facilitate engagement between the RDAs/Devolved Administrations and government on innovation, science, technology and knowledge transfer. This is in recognition that greater attention needs to be given to how national and regional policies can work together more effectively to increase innovation and business-university collaboration

and how a wider spectrum of business-university interaction can be encouraged, spreading best practice across different regions and sectors.

Businesses are core actors in this transition through the contribution they offer to the innovation capacity of a region. This is in turn dependent on their accessibility to, and exploitation of, knowledge that is often generated through university R&D. It is also dependent on their accessibility to highly skilled labour markets and the effectiveness of the forums through which their interests are represented, discussed and acted upon.

INTRODUCTION

This section of the report provides a regional profile of innovation environments across the English regions. These have been collated through an examination of the Regional Economic Strategies (RES), website reviews and interviews with science and innovation managers. This has been supplemented by input from the RDAs on specific initiatives, nominated to exemplify the aims and objectives of the RDA and of particular relevance to Chamber businesses. The profiles are not exhaustive, but are designed to give a flavour of how different RDAs have interpreted their increasing responsibilities and remits in building knowledge-based regions. Highlighted activities therefore may apply to some or all of the RDAs. The section ends with a summary of regional differences and similarities, good practice and learning lessons.

REGIONAL PROFILES

The nine English regions all operate within a common national framework and share similar expectations in relation to the delivery of national objectives for science, innovation and knowledge-based growth. For instance, all the RDAs have a form of science and innovation council and all deliver national products, such as KTPs. Nonetheless, there are differences in approach between regions which provide the opportunity for identifying good practice and learning lessons for the benefit of UK plc.

2.1 THE NORTH EAST: PLATFORMS FOR A KNOWLEDGE-BASED ECONOMY

The North East is the smallest of the nine English regional economies, historically characterized by relative economic decline, low value-added manufacturing, a branch plant economy lacking best practice and R&D and geographic isolation from the rest of the UK and Europe.⁴ In the late

1990s economic performance relative to the rest of the UK remained poor, leading to a strong appetite within the RDA and national government to fundamentally transform the region's economy as a basis for onward growth.

Since then the region's economy has been noted for a positive upturn in absolute terms with increases in employment, business survival rates and improvements in quality of place. Underpinning economic renewal is a central commitment to innovation as the basis for economic development and a shift to more knowledge intensive business activities. A fundamental re-structuring of the economy is envisaged in which innovation is not merely an add-on to the RES but central within it. To this extent, the RES is seen as a strategy for innovation.

In evolving towards a knowledge-region, there have been three main phases of development - rejuvenating existing sectors and identifying core themes; working with existing businesses and improving capacity within SMEs and access to the knowledge base. A key mechanism in this approach has been the Strategy for Success, overseen by the Science and Industry Council and underpinned by three Centres of Excellence covering the strategic industrial pillars of the life sciences, process innovations and renewable energies. These have been established to carry out research and development, but more importantly to co-ordinate the commercial exploitation of technologies and new products that emerge from regional research activities. A combination of push and pull strategies has been developed according to the needs of different sectors.

The Centres of Excellence are distinctive in their emphasis on developing large-scale translational platforms, akin to that elsewhere in Europe (see Box 3). This strategy was developed in response to

“The North East will be a region where present and future generations have a high quality of life. It will be a vibrant, self-reliant, ambitious and outward looking region featuring a dynamic economy, a healthy environment and a distinctive culture. Everyone will have the opportunity to realise their full potential.”⁵

⁴ Ibid, page 17.

⁵ One North East, 2006. Leading the way. Regional Economic Strategy. One NorthEast: Newcastle. Page 3.

a severe institutional gap in the region - between businesses with difficulties absorbing new technologies and the size of the platforms required. The scale of the effort involved in developing a ladder of finance for business is also seen as unique - with early stage finance, proof of concept and venture capital funds. This has been especially targeted and focused on the three key strategic pillars in order to ensure a concentration of effort. A particular spatial focus around Newcastle and Science City developments has also evolved, with an emphasis on site development around Science Central which will be the primary location for science city facilities.⁶

This focus on areas of research, industrial clusters and places is not exclusive and the RDA is keen not to rely on trickle down to ensure that innovative activities are connected to wider socio-economic development. The Innovation

Connectors are focused in particular localities to enable the development of world-class facilities, new approaches to integrating business and universities, engaging with the community through education and access to employment initiatives: DigitalCity in Teeside and Sunderland Software City being examples of this approach.

Positive relationships between One NorthEast and the North East Chamber of Commerce are apparent when compared to other regions. The North East is represented by a single Chamber which is well regarded not only as an access point to business, but as a strategic partner. Whilst the Chamber is not on the Science Council as the top level of governance in science and innovation, it is represented on the three Leadership Councils which take the Strategy for Success forward in practice.

BOX 3 Case Study - the New and Renewable Energy Centre (NaREC)

The New and Renewable Energy Centre (NaREC) was established in 2002 as a Centre for Excellence for new and renewable energy technologies. The company was incorporated in February 2003 as a knowledge-based services organisation. Based in Blyth, Northumberland, NaREC is working to enable the move towards a low carbon economy on a national and international scale by assisting the development and market growth of new energy technologies.

NaREC is dedicated to meeting energy challenges by supporting developers of innovative technologies. NaREC encompasses a range of independent research, testing and development facilities across the spectrum of industries, from small to large companies. A specialized team of technical and engineering consultants work with developers to bridge the gap between innovation and commercial realisation. NaREC is the largest near-to-market R&D facility in this field in Europe.

The facility has been critical in encouraging pull through to SMEs, in terms of new and existing businesses. With a budget of £35m, the overall target for the Centre was 200 start-ups per year and this has already been exceeded to produce over 1000 start-ups since the beginning of operation. For more information, see <http://www.narec.co.uk/>

OTHER INITIATIVES

- *Codeworks*: this is the Digital Centre of Excellence to identify and back new technologies and digital and media applications to reinforce existing and establish new digital industries in the North East of England
- *North East Productivity Alliance (NEPA)*: this is a partnership between ONE, public agencies, industrialists and academic experts, which aims to improve the performance of the North East's manufacturing industry through engineering fellows, a digital factory, and workforce development and best practice dissemination teams.

⁶ For an overview of Science City developments, see Science Cities Consortium, 2007. Transforming Regions by Building Successful Science Cities. Submission to the Comprehensive Spending Review.

“Our vision is...to be a great place to live, work and do business, that fully benefits from a prosperous and sustainable economy.”

2.2 YORKSHIRE AND HUMBER: AN INTERMEDIARY INTERFACE

The Yorkshire regional economy has seen a 12% increase in Gross Domestic Product between 2001 and 2006, along with an additional 1,000 businesses locating to the region and a 16% increase in regional businesses participating in R&D activity. Leeds is the regional capital, whilst York's Science City status was confirmed by the Chancellor of the Exchequer in 2004 building on an existing initiative. A positive-sum approach to regional growth in the UK has been adopted as the best means to lead to the economic competitiveness of UK plc as a whole, through an emphasis on the mutually beneficial relationship that the region has with London.⁷

Underpinning Yorkshire Forward's strategy is an acknowledgement of the relationship between business, innovation and place. Business, as both a partner and customer, is central to the RES with the region's priority sectors accounting for 300,000 to 350,000 jobs and a quarter of the region's economic output. Sectors have been targeted in which innovation and technology play a major role because of their potential to make a long-term difference to the region's future economic growth.

A strong sub-national approach has been adopted, with an emphasis in the RES on implementation by the range of agencies and businesses in places, which have the ability to deliver change. Science City York is acknowledged as central to sub-regional economic development, with a role in regional strategy, but does not assume such centrality as in other regions with science city designation, such as the West Midlands.

Yorkshire's Regional Innovation Strategy seeks to create a platform for partnership amongst the region's private and public sector stakeholders, encourage private sector and university investment in innovation and enable the development of a regional innovation system, which will connect into wider systems for enterprise, investment and skills. The regional approach is notable for its particular emphasis on demand-led and business-centred

innovation, with an emphasis on companies rather than universities: “it's less of a push-agenda and more about reorienting the agenda towards technical and practical help to foster an innovation culture.”

An absence of large R&D companies, coupled with a strong public sector research base represented by the White Rose Consortium (Leeds, Sheffield and York universities), has led to an emphasis on small businesses and a strategy of open innovation: that is, ensuring that innovations are passed along the supply chain from large to small companies to create a virtuous cycle of growth. Within this approach, high-tech and traditional sectors are deemed important, with an emphasis on food and drink, tourism, financial and professional services, as well as bioscience, digital and creative industries.

The overall approach is one of providing an intermediary-interface. Yorkshire Forward has moved away from direct interventions or funding basic research towards funding softer mechanisms to enable businesses and universities to interact and develop their own sustainable relationships. This approach is exemplified in the Knowledge Rich scheme, a portal through which business questions can be answered by academics, or in the Yorkshire Science and Technology Network, which brings academics and industry together. The Centres for Industrial Collaboration (see Box 4) are also held up as a working example of the RDA's approach, with their strong commercial outlook and aims of developing commercial awareness in universities and greater appreciation of the value of HEI for businesses.

Key success factors include ensuring that companies contribute financially to research, hence avoiding a grant-dependency culture and appointing appropriate personnel to populate the university-business interface. The commercial managers of the Centres for Industrial Collaboration (CICs) have been carefully chosen to combine both academic rigour and business focus, skills that need to be brought together in the right proportions to actively mediate between the interests of academia and industry.

⁷ Yorkshire Forward, 2006. Regional Economic Strategy 2006-2015. Yorkshire Forward, Leeds. Page 32.

⁸ Ibid, page 12.

BOX 4 Case Study - Centres for Industrial Collaboration

The aim of this project is to create a network of sustainable business-focussed centres within the region's universities. The CICs have been set up to help businesses by transferring skills and technology from universities to small and large companies to encourage greater levels of industrial innovation and R&D. Yorkshire Forward has set specific targets for SME interaction which ensures that the centres have to actively engage and market their services to business.

To date 14 CICs have been accredited in the areas of biomaterials and tissue engineering, engineering design, environmental technologies and wireless technologies, based around existing and potential research excellence and engagement with the region's industrial base. Host universities have received £600,000 over three years to establish sufficient commercial income to be self-sustaining. Funding is from the European Research and Development Fund and regional sources and is designated for a professional business/university interface and promoting services to business, not for research subsidies for either companies or academic groupings. Underpinning this approach is a desire to see a culture change in regional business towards R&D.

Since their conception CICs have collaborated on more than 1,700 projects with businesses worth more than £40m, estimated to have led to the creation or safeguarding of more than 1,300 jobs for the region. The majority of those developed in the initial phases are still operating commercially post-funding. The CIC concept was recently short-listed for the Innovating Regions in Europe European Innovation Scheme Award. For more information see

<http://www.yorkshirecic.com/>

OTHER INITIATIVES

- *Knowledge Rich*: an interface to enable businesses to access university knowledge in response to specific enquiries. £500,000 worth of contracts have been generated so far through this portal.
- *Yorkshire Science and Technology Network*: four networking events per year on various themes including open innovation with co-sponsorship from national organisations such as NESTA.
- *Strategic Cluster Champions*: a service provided by senior industrialists to the priority cluster groups with an open remit to network between the knowledge base and industry.

“To create...a dynamic, sustainable international economy which competes on the basis of knowledge, advanced technology and an excellent quality of life for all.”⁹

2.3 THE NORTH WEST: KNITTING SUPPLY AND DEMAND

The Northwest has, like the North East, seen a recent move from underperformance in relation to the national economy to a position where it is now growing faster than the English average in terms of growth in GVA, number of firms, number of employees and employment rate. The region is characterized by a high number of graduates, above average levels of private sector R&D per capita and a number of leading Higher Education Institutions (HEIs) and internationally competitive sectors.¹⁰ Within this asset mix, business is held to be the region's wealth creator. At the same time, the number of both knowledge workers and businesses in the region are below the English average and R&D investment is limited to a few large companies.

The North West was the first region to establish a Science Council in 2002. The region has a strong emphasis on science and research, reflected in the designation of an industry-led Science Council, yet is unusual in having both a science strategy and a separate innovation framework. Like the West Midlands, the North West is a region that seeks to operate across the innovation spectrum: from science-based innovation to business-focussed innovation support. The science strategy seeks to harness the strengths of universities and regional R&D businesses for greater economic growth. It is primarily focussed on R&D intensive sectors, with a range of interventions from near-basic/translational research (through the North West Science Fund) to science-based knowledge exchange activities with businesses. In contrast to the first science strategy, SMEs are a particular target for the RDA.

The above has led to an acknowledgement that closer working is needed between the science and innovation strands of the Agency's work, as well as a desire to mainstream SME interests across the innovation spectrum. This is through an emphasis

on reducing barriers to access across all schemes, rather than simply through targeted SME-interventions. The emphasis is on high risk, high impact activities with market opportunities, business support, skills and venture capital and knowledge transfer schemes to provide the right environment for commercialisation. The proposed Knowledge Centre for Materials Innovation is one such example. Similarly, investments in strategic sites such as the Daresbury Science and Investment Campus or Manchester's Innovation Investment Fund are not only aimed at high-tech, knowledge-intensive businesses but at companies of various size and sector.

The approach to innovation more broadly is multi-faceted, based on raising awareness, building capability, aggregating the demand of SME's for a particular service and encouraging access to the knowledge-base. A holistic view of innovation is adopted, recognising that it encompasses a broad church of activities and that a one-size-fits-all strategy will not accommodate the range of business or place-based perspectives on innovation that exist. The North West Development Agency's (NWDA) approach is represented in the Knowledge to Innovate programme (see Box 5) which represents an example of capacity building in innovation. Within this programme, universities are one potential source of support, but not conceived as the primary target. Underpinning such interventions is a desire to effect a cultural change in innovation through more systematic rather than piecemeal activities, resulting in a legacy of skills for innovation in companies that are supported.

The North West is currently the innovation lead for the Northern Way initiative. The Northern Way initiative was established in 2004 by central government to bring northern regions and cities together to improve the sustainable economic development of the North and reduce gaps in prosperity between the English regions. Prime

⁹ North West Development Agency, 2006. Northwest Regional Economic Strategy 2006. NWDA: Warrington. Page 3.

¹⁰ Ibid, pages 14-15.

amongst the investment priorities for the £100m growth fund includes driving-up innovation, building entrepreneurship and meeting employers' skills needs.

Activities so far have included the creation of the N8 group of research-intensive universities to grow the knowledge base of the North through the establishment of five virtual centres in water,

regenerative medicine, ageing and health and molecular chemistry. £6m has been allocated for the centres, whose success is seen to depend on the involvement of industry, with steering groups comprising industry, RDA and university representatives. This is the first time that a group of UK universities have formed a jointly held company - N8 Ltd - to work together and with business.

BOX 5 Case Study - Knowledge to Innovate

This project aims to improve regional levels of innovation and competitiveness; reduce the timeframes for bringing innovations to market and build company innovation capacity and knowledge. Funding of £2.9m has been allocated over three years (ending in 2010) specifically for SMEs, focused (though not exclusively) on regional priority sectors. Delivery is based on three key modules: practical innovation; leadership for innovation and organizational innovation, coupled with early activity which uses innovation advisors or brokers before companies are referred onto the knowledge to innovate (k2i) team. Overall, the programme seeks to instill leadership for innovation from management to shop floor, and develop a culture of innovation within the workplace.

Businesses can apply through a wide range of referrals (personal, Business Link, cluster/sector organizations) or direct through the k2i website. Whilst only in its third quarter, the programme has already delivered 28 business support interventions and supported six businesses with leadership/skills needs. The experience of the k2i programme to date emphasises the need to access suitable clients for all business support products as a key barrier to early and effective development. An important lesson for policy-makers is the need to develop a more diversified 'client access' model early on in initiatives in order to ensure that target audiences can be reached and represented. For further information, visit <http://www.k2i.org.uk/>

OTHER INITIATIVES

- *European Funding:* Frameworks NW is a fully-funded support service by NWDA to help organizations across the region access European funding for Collaborative Research through €50 billion European Framework Programmes.
- *Daresbury Science and Innovation Campus:* Daresbury Innovation Centre is a state-of-the-art building which provides both start-up and growing businesses with a wide range of facilities, including laboratory, workshop and office space, internet access, meeting rooms and specialist business support.
- *Biomanufacturing Facility:* the National Biomanufacturing Centre is a world class centre that combines state-of-the-art biotech manufacturing technologies with a low cost user approach.

“To be a global centre where people and businesses choose to connect.”¹¹

2.4 THE WEST MIDLANDS: ENGAGING ACROSS THE INNOVATION SPECTRUM

The West Midlands, spatially organised around the Birmingham city-region, has traditionally been a location for some of the leading international engineering and manufacturing firms and accounts for 25% of total UK exports. It also prides itself on a strong innovation record, with more than 50% of all new UK registered patents emerging from the region. Yet the West Midlands still lags behind the Greater South East in terms of R&D and the regional business base needs to modernise and diversify. In order to develop a knowledge economy in the region, Advantage West Midlands (AWM) has identified a number of priorities, which include ensuring that businesses have the capacity to become ‘intelligent and visionary customers’ of the knowledge base, whether in the public or private sectors.

Interventions are aimed at the supply-side through universities, as well as engaging with end users through a market-driven approach, which includes raising public awareness about innovation and making innovation stick by creating innovation champions within the region. Unlike the North West of England such activities are coordinated under one body, named the Innovation and Technology Council.

Two particular initiatives targeted at the high-tech or knowledge-intensive end of the innovation spectrum include Birmingham Science City and the three High Technology Corridors. Birmingham Science City has received £80m from the RDA over three years reflecting the considerable emphasis given to this activity. Incentivising collaboration between the research-intensive universities of Birmingham and Warwick is a key objective as a stepping-stone to building critical mass. The high-tech corridors (Central Technology Belt; Coventry, Solihull and Warwickshire; Wolverhampton to Telford) aim to attract high-value added businesses with the aim of a net

increase in value-added employment and levels of regional economic activity through the use of the existing knowledge base. The technology corridors are said to have retained 2400 jobs, created 54 new businesses, provided support services to 500 businesses and helped 400 people improve their skills.¹²

It is not the case that high-tech interventions are only relevant to large companies. Within the Science City initiative, which includes strategic representation from Birmingham Chamber of Commerce on its Board, there is a strong steer for universities to engage with local businesses and deliver to higher-tech SMEs.

Contrary to some other RDAs, AWM does fund basic research with an emphasis on developing new technologies or capabilities as a lever to access other sources of finance. However, the RDA views business as a key partner in such initiatives, not only as a customer but also as an investor and partner in the development of strategic initiatives. The collective forum provided by the Confederation of West Midland Chambers is seen as useful in enabling the Agency to access a single business voice, rather than through seven individual Chambers.

At the other end of the spectrum are initiatives aimed at low-tech but nonetheless knowledge-intensive businesses, designed to encourage interaction more generically between companies and universities or to foster open innovation. Universities are not seen as the only source for knowledge-based regional growth. Other initiatives include the Innovation Networks, for instance, offering £15,000 for SMEs to collaborate with each other to introduce new products or services and the high-profile INDEX scheme (see Box 6). This is a national pilot with research council, national government and RDA funding which aims to catalyze the relationship between universities and businesses that have previously had no contact with the knowledge base.

¹¹ Advantage West Midlands, 2007. Connecting to Success. West Midlands Economic Strategy. AWM: Birmingham. Page 4.

¹² Englands RDAs, Evidence Base on Regional Innovation Support, page 14.

BOX 6 Case Study - INDEX Voucher Scheme

The West Midlands has been keen to address the challenge of how to increase the engagement of SMEs with the university knowledge base. A pilot innovation voucher scheme was launched in the West Midlands in spring 2007. The INDEX (INnovation Delivers EXpansion) scheme is funded by AWM, the Economic and Social Research Council (ESRC) and the Engineering and Physical Sciences Research Council (EPSRC). The two-year pilot project is managed by Aston University and delivered by all 13 HEIs in the West Midlands.

The innovation vouchers gives businesses the choice of how they would like to use funding to improve their innovation performance (for example, by creating new products or services or by developing new technology) and which university partners they would like to work with. The scheme is therefore flexible and demand-led.

The INDEX voucher scheme is being piloted over two years with 40 vouchers allocated in June 2007, 100 vouchers in Jan 2008 and 80 to be allocated in April 2008. The vouchers are worth £3000 and are allocated at random to companies, which meet the criteria of being SMEs working in one of 9 key industry sectors. As well as the universities and the central INDEX website, the Birmingham Chamber of Commerce, the West Midlands Confederation of British Industry and the Institute of Asian Businesses have been involved in steering the project and encouraging involvement by companies. This has resulted in nearly 400 applications for the 140 innovation vouchers awarded so far, demonstrating the demand for innovation support in the region's small companies that has been made visible through the scheme. For more information, see: <http://www.indexvouchers.org>

OTHER INITIATIVES

- *Innovation Networks*: £15,000 for SME to collaborate to introduce new products or services to get small companies to talk to each other.
- *Digital Media Fund*: Screen West Midlands will be running a £10m fund for innovative digital media companies and projects in the region. The funding comes from AWM and Channel 4, which has confirmed Birmingham as the UK Commissioning Hub for England and Wales' Four Innovation for the Public fund. The fund will run for two years and West Midlands companies will be able to apply for £20,000 to £1.5m.

By 2020, the East Midlands will be a flourishing region. Increasingly prosperous and productive, we will enjoy levels of sustainable economic well-being and a quality of life higher than the European average and comparable with the best in the world.¹¹

2.5 THE EAST MIDLANDS: BUILDING ARCHITECTURE FOR THE INNOVATION ECOSYSTEM

Economic activity in the East Midlands is concentrated within the Three Cities sub-areas of Nottingham, Derby and Leicester. The labour market is relatively stable but is characterised by the persistence of a low pay/low skill environment where high employment rates are to an extent maintained by a concentration of low pay/low skill jobs.¹⁴ Like other regions, a sub-regional approach is advocated, as a one-size-fits-all solution is not seen as appropriate for such a geographically large and spatially diverse region.

Innovation is a specific strategic priority in East Midlands Development Agency's RES, which emphasises that the region's skills, knowledge and creativity are important assets for business leading to the need to improve levels of collaborative knowledge exchange between business and HEIs. Business itself is seen as a central actor in achieving the objectives of the RES. Levels of investment in innovation are relatively high but concentrated in a small number of large companies. Workforce skills are lower than the UK average and enterprise activity is identified as needing improvement. Objectives for the region reflect this business focus in terms of increasing the number of companies engaged in innovation, the effectiveness of the innovative process and ideas generation.

Exposure to foreign competition is a critical factor as businesses that compete in international markets often have higher rates of innovation and productivity. However, the Agency notes that foreign investment in particular must be carefully targeted, knowledge-driven and R&D intensive and given priority over generic low-skilled employment provision.¹⁵ This is seen as critical if the region's skill base, sectoral make-up and economy are to

move away from a low skill manufacturing economy to a more knowledge intensive higher value-added economy.

Innovation East Midlands (InnEM), the region's science and industry council, highlights that companies in the East Midlands are only half as good as the national average at bringing new products to market. This low level of innovation exploitation is described as "putting a major section of our economic base at risk".¹⁶ To address this issue, a holistic approach to innovation has been adopted through the Agency's flagship iNet programme. The iNets aim to "design an architecture for addressing innovation ecosystem challenges" within the region through offering a middle ground or neutral zone for businesses and industries to interact (see Box 7).

The emphasis is on developing a culture of innovation through awards, networking and celebrating successes in the region. Examples include the iFestival or Lord Stafford Awards (also available in the West Midlands), which aim to encourage, develop and reward collaborative relationships between businesses and universities. The emphasis is on a range of measures which seek to improve innovation capacity as a means to overcoming a perceived cultural lack of enthusiasm for innovation.

Business representation is important here. InnEM includes representatives of SMEs as well as research-intensive global players such as Astra Zeneca and Rolls Royce. In addition, the East Midlands Business Sector Alliance has been set up and is supported by EMDA to bring together a representative mix of businesses and networks from across the regions to provide a collective voice to inform regional developments. The Sector Alliance has been a key route, for instance, through which the iNets are being established.

¹³ East Midlands Development Agency, 2006. A flourishing region. Regional Economic Strategy for the East Midlands, 2006-2020. Nottingham: EMDA. Page 32.

¹⁴ Ibid, page 23.

¹⁵ Ibid, page 67.

¹⁶ East Midlands Innovation website, <http://www.innovationem.org.uk>

BOX 7 Case Study - iNets

The East Midlands has adopted a holistic approach towards R&D and innovation support through the recent development of the i-net concept, estimated at £16m over three years. An iNet is a concentration of businesses, universities, the public sector and individuals (the innovation stakeholders) that are brought together around a shared interest in a market sector or the technologies that underpin it. The activities of the iNet are supported by a dedicated iNet team that operates on behalf of the innovation stakeholders. The intention is to significantly raise the number and quality of interactions between innovation stakeholders and so increase levels of innovation with the aim of impacting on the productivity, long-term sustainability and growth of businesses in the East Midlands.

The initial sectors for i-Nets are around healthcare and bioscience; food and drink; transport and sustainable construction. These are based on existing centres of business or university excellence. iNets will have a physical presence – the iHub – to bring together key stakeholders, specifically SMEs and HEIs. Under the iNets, activities will include a team of Innovation advisors; an innovation support grant fund to SMEs and an HE collaboration fund. The main point of access will be through the business support gateway, via Business Link. Key outputs are expected to include increased businesses supported; skills training provided; increased SME-university collaborations. For more information, see <http://www.innovationem.org.uk/main/default.aspx>

OTHER INITIATIVES

- *East Midlands Grants for R&D*: grants up to £200,000 for businesses to lead to technologically innovative products or processes.
- *The iFestival*: an annual celebration of innovation targeted at businesses, universities and general public audiences (March 7th – April 17th 2008).
- *HE Innovation Fellowships*: grants around £12,000 to support the commercialisation of ideas, products and services to increase the flow of knowledge from universities to businesses.
- *Regional FP7 Support Service*: to operate alongside iNets to provide expert bid writing, information and mentoring service to East Midlands companies and HEIs.

“To create...a leading economy, founded on our world-class knowledge base and the creativity and enterprise of our people, in order to improve the quality of life of all who live and work here.”¹⁷

2.6 THE EAST OF ENGLAND: BUSINESS AS INTELLIGENT CUSTOMERS

The East of England is characterised by a diverse and fast growing economy, with a particularly strong service sector and more than 30 globally leading research centres. Despite being the second largest region, there is no distinctive regional capital and there are fewer large towns when compared to other regions. There is also a spatial dimension to economic disparity in the region, with a significant proportion of business conducted in the areas close to London.¹⁸ This proximity to the capital is also appropriated by East of England Development Agency (EEDA) to position the region as being complementary to and enhancing London's status as a world city, particularly through its potential as a knowledge support network for London. The implication here is that positive returns may come to those businesses that invest in the region from London-based spillovers.

EEDA is one of only two RDAs that specifically identifies the growth of the knowledge economy within its RES vision. Indeed, a particular regional strength to realising the vision is the region's R&D leadership in areas such as pharmaceuticals, Information, Communication and Technology and advanced manufacturing. The RES notes that a higher proportion of regional GVA is spent on R&D than any other UK region, yet it is also noted that the region suffers from a lack of consistency in turning knowledge into innovation and that productivity levels and links between business and the regional knowledge base could be improved.

Business is seen to play a key role here, especially in relation to global leadership in developing and realizing innovation in science, technology and research. The breadth of business support envisaged spans generic region-wide support, specialist support for high-tech or fast-growth businesses and also for those businesses perceived to be of regional significance e.g. large employers.¹⁹ Exploitation of the region's knowledge base is through stimulating demand from corporate businesses and SMEs to make business an intelligent customer and through

the creation of collaborative and mutually beneficial firm/sector/HEI science/technology/innovation networking activities.²⁰ Businesses are seen as knowledge consumers, innovation suppliers and regional wealth generators.

EEDA's strategy for regional economic growth more broadly reflects the movement from cluster to sector-based strategies, a more programmatic outcome-focused approach. Three cross-cutting themes are: underpinning knowledge transfer, lifelong health and the sustainable environment. These are seen as important in enabling knowledge exchange to be mainstreamed across the work of the Agency, as well as providing the opportunity for businesses across sectors and of all sizes to be supported through the regional innovation environment.

A holistic approach is adopted to create the right environment for investment. The lead product in this portfolio that seeks to address the stimulation of innovation, knowledge exchange and collaborative networking in these priority sectors is the Enterprise Hub (see Box 8), each designed to support high growth, innovative businesses in the region's main knowledge-based sectors and tailored to meet the needs of specific sectors. Investment in softer networking activities are seen as more important than physical infrastructures which are largely valued for the revenue they generate.

A major plank of current activity focuses on the development of science parks. These are being developed around four large research-intensive businesses – Glaxo, Ford, BT and Unilever – and designed to reflect their needs. This reflects a strong demand-led approach but also has two other functions: first, to lead to innovations along the supply-chain, hence benefiting small businesses in the region and second, to retain large R&D players in the region through this embedding of innovative supply chains within the region. The emphasis is not on generating revenue for local HEIs, and companies on the parks will be encouraged to work with universities or knowledge providers from across the UK and abroad.

¹⁷ East of England Development Agency, 2004. A shared vision. The Regional Economic Strategy for the East of England. EEDA, page 9.

¹⁸ Ibid, page 33.

¹⁹ Ibid, page 34.

²⁰ Ibid, page 17.

BOX 8 Case Study - Enterprise Hubs

The lead product in EEDA's portfolio that seeks to address the stimulation of innovation, knowledge exchange and collaborative networking is the Enterprise Hub. The Enterprise Hub model is an initiative designed to stimulate economic activity at an early stage amongst knowledge-intensive high tech businesses. It aims to develop a network of high-level innovation support and foster a culture of innovation through encouraging university/ business collaboration.

Specifically, the Enterprise Hubs assist smaller businesses through setting up networks in key knowledge-based sectors – life sciences, ICT, creative industries, energy, environmental goods and service technologies and advanced manufacturing and engineering. The hubs draw on industrial hub champions and the provision of a physical infrastructure such as incubators, centres or parks. Existing outcomes of the scheme include 297 jobs created or safeguarded and the creation of 39 businesses. In addition, 78 businesses are said to have been facilitated to collaborate with the knowledge base. For more information, <http://www.eeda.org.uk/enterprisehubs.asp>

OTHER INITIATIVES

- *The Finance for Innovation portfolio*: proof of concept funds to assess the market potential for innovative ideas; grants for R&D supporting technological research and development and 'running the gauntlet' supporting businesses seeking investment.
- *London Technology Network*: a not-for-profit joint venture, comprising a network of over 100 university-based research experts linking 6,000 academics across London, the East and South East, to map their research in order to provide technology solutions to business needs.

By 2016 the South East will be a world class region achieving sustainable prosperity.²¹

2.7 THE SOUTH EAST: LEVERAGE IN THE GREATER SOUTH EAST

The South East's regional economic strategy is framed both by global and cross-regional considerations. The presence of London as a world city and its proximity to the Inner South East is seen as important in providing core business opportunities. Similarly, the context of the Greater South East is important in leading to global competitiveness.

The Greater South East brings together the areas covered by SEEDA, the East of England Development Agency and the London Development Agency and is heralded as "an advanced industrial super-region...[which] is meeting today the challenges that other regions will face tomorrow".²² This super-region is characterised by containing over a third of the UK population, over half of the UK's HEIs, the world's 10th largest economy, 40% of UK government R&D and 60% of business R&D activities.²³

While there is no designated science city, the broader concept of the Science City Region frames strategic responses within the three RDAs. SEEDA points to the South East's access to potentially world-leading centres of the knowledge economy such as the Oxford to Cambridge Arc or the Thames Valley and the three RDAs work closely together to maximize innovation investments. Joint areas of activities include the London Technology Network, Innovation Mapping and the Research Excellence Directory. This is not to signify complacency - while the Greater South East has been described as a "knowledge transfer cauldron", SEEDA also argues that the region's own knowledge base must become more business friendly in its responsiveness to meeting business needs.

The knowledge economy is central to the South East's RES. Globalisation as a means for national competitiveness is to be provided through increasing the region's share of Foreign Direct Investment (FDI) and business performance overseas; increasing private sector investment in R&D and its collaboration with the regional

knowledge base; increasing the proportion of regional business turnover attributable to innovation; and reducing regional underperformance with regards to the size of the labour market and its skills.

Engagement with business on this agenda is through the Science and Industry Council, although the difficulties in ensuring SME representation on such high-level strategic boards were echoed, as with other RDAs. Alternative routes for engaging with businesses outside this forum do exist, such as the sector consortia. In terms of contexts for engagement, SEEDA has created an Innovation Action Plan to take forward support for business, innovation and knowledge. With one of the smaller RDA budgets, the emphasis is on networking and partnerships and using existing sources of finance to leverage additional resource, for instance, through national funds such as KTPs, STEP or CASE awards. Knowledge networks have been promoted across the region to facilitate knowledge transfer between business and HEIs, with schemes such as the Innovation Advisory Service (see Box 9 for example) which aims to add value to the innovation process, broadly understood to include new products and services, new customer solutions or internal operations.

SEEDA also has an Emerging Technologies Programme which provides funding for four business-led R&D projects (nanotechnology, healthcare technologies, sustainable energy technologies and intelligent transport systems). These projects will enable collaborative consortia to translate new knowledge into commercially successful products and services. This is to be complemented by the establishment of at least two science and innovation campuses to bring business clusters and knowledge transfer networks together; build on internationally recognized research groups to provide businesses with new opportunities to develop innovative products and services and enable business-to-business collaboration, particularly in relation to pre-competitive research and development.

²¹ South East of England Development Agency, 2006. Regional Economic Strategy for the South East, 2006-2016. SEEDA, page 44.

²² Ibid, page 24.

²³ Ibid, page 23.

BOX 9 Case Study - Innovation Advisory Service

The Innovation Advisory Service (IAS) was introduced with SEEDA funding in 2005. It aims to raise regional competitiveness by increasing innovation in technology-intensive businesses, helping businesses improve profitability through innovation in products, processes, business models and skills and creating a knowledge supply chain market place to support open innovation. The service is aimed at technology-intensive companies of all sizes but particularly those with 30 - 1000 staff.

The key component of the IAS is a team of highly competent advisors who have worked at director level in the private sector and have specific technology experience. The service is fully funded and prides itself on being bureaucracy free with rapid response rates. The advice is non-prescriptive and emphasizes the commercialisation of knowledge, whether through university-industry links or business-to-business knowledge exchange.

In the first two years of operation the IAS directly increased innovation expenditure, mostly R&D, by £29m which in turn will have a multiplier effect on regional productivity over time. For more information see <http://www.iasse.co.uk/>

OTHER INITIATIVES

- *Knowledge Network*: a bottom-up initiative to allow businesses to identify where they need support. £50k per year available, with seven networks funded in total from air traffic management to software developments.
- *Business Fellows*: located in university departments to act as talent scouts.
- *SEEDA Enterprise Hub*: the first hub was formed in 2001 and a network of 22 hubs has subsequently developed (£2m per annum). The network has supported 5,529 start up and early stage companies; created 720 new businesses and provided learning opportunities for 1, 149 entrepreneurs.

“To create a sustainable world city including strong long-term economic growth, social inclusion and environmental improvement.”²⁴

2.8 LONDON: EXPLOITING THE KNOWLEDGE INFRASTRUCTURE AND MAINSTREAMING INNOVATION

As a world city, London enjoys national, international and global status as a competitive economy characterized by high levels of productivity, high value-added manufacturing, traditional competitiveness in the financial services sector and global excellence in the creative industries. It also has a strong knowledge infrastructure – a key reason given for businesses locating to the city – with 40 HEIs and 25% of all national research funding being awarded to them.²⁵ A broad aim of the RES is to ensure that London’s reputation as a European city for business is maintained to enhance continued inward investment from business. This will require a continued focus on the fundamentals – London’s workforce, infrastructure, quality of life, cost base and regulatory environment – and effective promotion and marketing.²⁶

The provision of innovation support features as an important theme in the RES section on investment in enterprise. This is detailed in the existing London Innovation Strategy which sets out the three key priorities of creating a culture of innovation across London organizations; harnessing the world-class knowledge base to benefit enterprise and encouraging and enabling London’s enterprises to be innovative. This is to be done through increasing the take-up of innovative products, processes and services; the development of sectoral interventions to address market failures; and the promotion of effective collaboration between business and HEIs.²⁷ Business interests are seen to be particularly fragmented in London, necessitating a strong sub-regional approach with sub-regional agencies, including Chambers, operating as intermediaries between the RDA and direct business interests.

The Innovation Strategy is in the process of being updated. Four key issues inform the development of the new innovation framework. Firstly, connections between London’s large SME base

and the world-class knowledge base need to be improved, from universities to FE colleges and the NHS. A recent survey revealed that only 2% of SMEs engage with the knowledge base, despite the wealth of expertise that exists in the region. Secondly, the strategic emphasis has shifted from engaging with the great and the good towards enabling businesses across London to develop an innovative business culture. Thirdly, internationalisation of collaborative activities between HEIs and industry is necessary as a consequence of the high concentrations of business and research expertise within the M25 corridor, which has bounded collaborations within the region. Increasing uptake of European framework programmes and collaborating with those in other regions and internationally is a key priority. Finally, in the design of the new framework, the Agency is looking for a public-facing innovation strategy created by businesses and universities themselves. The current process of consultation is intended to identify the key issues that users and stakeholders need addressing to facilitate knowledge exchange in the region.

There are similarities between structures and processes for innovation in London and elsewhere. A Science and Industry Council has been established under the name of Catalyst. This is dominated by large research intensive universities and global R&D businesses, but with the intention of encouraging those businesses represented to spread innovation through the supply chain to gain access to SMEs and other business communities. In addition, specific initiatives are aimed at SMEs. These include the London Technology Network (see Box 10), tailored national initiatives such as the Design Council’s Design and Demand project or Knowledge Connect. The latter aims to help SMEs navigate engagement with a wide range of knowledge providers, through a system of support which includes business advisors and seed grants.

The context for innovation in London differs from that elsewhere in relation to formal governance

²⁴ London Development Agency, 2005. Sustaining Success: Developing London’s Economy. London Development Agency, London. Page 5.

²⁵ Ibid, page 46.

²⁶ Ibid, page 48.

²⁷ Ibid, page 80.

structures. London has a directly-elected Mayor and Assembly which leads to different processes of scrutiny and management. This is seen both as a constraint and as an opportunity on innovation in the region. For instance, although innovation is not

one of the Mayor's strategic priorities, the LDA is keen that innovation is embedded within approaches to addressing other strategic priorities, such as the Olympics or the Thames Gateway.

BOX 10 Case Study - London Technology Network

The London Technology Network (LTN) is a not-for-profit government initiative with a Board featuring heads of technology transfer from London's largest research universities. Its mission is to help technology-intensive companies be more efficient and effective in their knowledge acquisition from London's universities.

LTN was awarded the contract to run a London-based Innovation Relay Centre (IRC) in 2004. This is a EURO 3.5m project over four years, which aims to enhance clients' abilities to perform technology transfer. Clients can be universities, research centres, large companies or SMEs but all transfer technologies must involve at least one SME to qualify under the IRC programme.

LTN generates approximately £15m per year of collaborative deals between London's businesses and universities using its Technology Consultant and Business Fellow networks. For more information see <http://www.ltnetwork.org/>

OTHER INITIATIVES

- Knowledge Connect: this aims to help SMEs navigate engagement with the knowledge base. £4m has been allocated over three years, £1.5m of which is business grant.
- SME Innovation Support programme: this is designed to stimulate development and growth of SMEs in London in the London Objective 2 areas through improvements in product, process, technology and business practices.

South West England will have an economy where the aspirations and skills of our people combine with the quality of our physical and cultural environment to provide a high quality of life and sustainable prosperity for everyone.²⁸

2.9 THE SOUTH WEST: INTERNATIONALISING AND LOCALISING FOR INNOVATION

The South West RDA frames the region as an area with perfect conditions for growth, with over 1,500 international companies and five of the top ten most entrepreneurial UK cities. Combined with a knowledge base of nine universities (each with their own specialisms), world class excellence in a number of sectors, good connectivity to London from its eastern side and a high quality of life enhanced by the natural environment, the South West is positioned as a pot of resources, assets and clusters to be tapped into by new business investing in the area.

The South West region's economy is spatially organised around a number of cities. Bristol, in particular, is a city-region and Science City. Productivity per capita in the South West is 7% lower than the English average and the economy is characterised by under-investment in human and physical capital, limited knowledge exchange between the knowledge base and business, and competitiveness based on cost rather than high value-added products and services. Globalisation is felt to demand a response where untapped skills, innovation, competitiveness and entrepreneurship can be developed, harnessed and applied.

The RDA has produced a Regional Innovation Strategy (RIS) and a marketing document to promote the regional offer to business. The RIS echoes the need for innovation as set out in the RES and proposes a series of generic actions to be undertaken in order to create a more favourable climate for innovative activities. These include establishing innovation networks within the region to encourage companies to learn from each other; developing links with private and public sector organisations that promote the benefits of innovation; working through the RDA priority

sector groups to spread awareness of the benefits of innovation; and developing a technology excellence network linking Centres of Expertise and Excellence to business incubators, industry clusters and intermediaries.

Business is critical in achieving the RES vision. Business objectives relate to improving regional businesses' recognition of the benefits of competition and innovation; ensuring better connections with markets and ideas within the region and beyond; and investing in the capacity for future wealth – in people, place, and innovation and image of the South West.²⁹

One of the key objectives of the South West in relation to innovation is building greater international bridges. Maximising regional engagement with national and international initiatives is seen as important, particularly given low levels of exporting which is seen to reduce exposure to globalisation and therefore the perceived need for innovation. A twin approach to focussing on the specificities of the regional economy is also taken. For instance, a strong sub-regional approach is taken, acknowledging differences between urban high-growth cores and the wider South West. Similarly, the emphasis is not on enterprise per se but the growth and growth of the right kind of businesses for the knowledge economy, in the context of concentrated business R&D in a few large companies.

Further and higher education is critical to ensure that the right connections are made (see Box 11). Underpinning international and local actions is a broad approach to innovation which emphasises the need for a creative and interactive process, which cuts across science and technology to include the social sciences.

²⁸ South West RDA, 2006. Regional Economic Strategy for South West England. South West RDA, Exeter. Page 14.

²⁹ Ibid, page 15.

BOX 11 Case Study - Great Western Research

The aim of this initiative is to improve the competitiveness and productivity of South West businesses in priority sectors through increasing collaborative R&D with world class research in the regions' HEIs, with the objective to ensure that business take-up of HEIs services is increased. The scope of the initiative has been defined by existing areas of research excellence in three lead universities - applied maths, sustainability, creative arts, materials, psychology and ICT and a target of engaging 28 SMEs in the project was also identified. Funding from the RDA has been matched by national research funders, regional business and universities themselves to make a total of £14.08m available for the scheme.

The scheme allows for PhD studentships to be co-defined by two of the region's HEIs and businesses which are then co-funded and co-managed. As a result, the scheme brings existing academic institutions together in new collaborations, as well as creating relationships between new businesses and the university knowledge base. Studentships are scored according to a range of criteria including the quality of research, the degree of academic collaboration, the benefit to business and regional relevance. As the first studentship began in 2006, it is as yet too early to assess the impact of such a scheme. Initial indications show that different sectors are more or less suitable for these studentships, for instance, with flexibility required in timing and funding to encourage demand in particular sectors (i.e. the creative arts sector). However, the popularity of the scheme is demonstrated through a current over-subscription in case places become available. For further information, visit www.gwr.ac.uk

OTHER INITIATIVES

- *South West Grants for R&D*: up to £500,000 for a range of interventions to risk share and offset costs - <http://southwestrda.org.uk/what-we-do/innovation/support-1/grant-for-rd-1.shtm>
- *Knowledge Exploitation South West*: a region-wide collaborative knowledge transfer programme costing £4.3m. Interim outcomes include 139 business projects undertaken, over £5.4m of gross value added to business, 42 proof of concept grants awarded for new business ideas and 1380 entrepreneurship learning opportunities provided.
- *Leading by Design*: a project aimed to develop more innovative, profitable and sustainable businesses in the region through the use of design, with a strong SME emphasis in its second phase.

GOOD PRACTICE AND LEARNING LESSONS

2.10 SIMILARITY AND DIFFERENCE IN REGIONAL INNOVATION ENVIRONMENTS

Underpinning RDA activity is a common understanding of the role of innovation in leading to regional economic growth and specifically, the need for strong business engagement in building knowledge-based regions³⁰. A consensus on good practice is emerging around an understanding of innovation that is:

- broad in its approach to science, technology, creativity and skills and looks across sectors, including for instance, financial and professional services;
- culturally embedded through softer networking initiatives, award schemes and/or celebrations;
- balanced between push and pull, or supply and demand side measures;
- focused on business-to-business as well as university-business interactions through an increased appreciation of open innovation or supply-chain innovation; and
- relevant to a range of different business interests: from large corporate R&D businesses to SMEs; from foreign-owned multi-nationals to traditional domestic industries; from existing to new businesses.

As one RDA representative noted; “we need to maintain a ladder of interventions that are fit for purpose”.

An understanding of regional context is of central importance. RDAs have been keen to emphasise that a one-size-fits-all approach will not work and as a result, as one person put it: “the intensity of interventions differs across regions”. Understanding regional differences according to what can and cannot be achieved, with whom and how, is central to the effectiveness of interventions. Three factors that influence the nature of science/innovation strategies are worth emphasising at this point:

- **Starting position, problems and potentials of the region** - A key issue in the West Midlands has been identified as the difficulty in getting graduates into traditional manufacturing industries, whilst South East

and North West strategies include addressing the concentration of R&D in a few large companies. The poor economic performance of the North East has led to a strong emphasis on innovation as underpinning the restructuring of the regional economy. In certain cases, different contexts may lead to similar responses. Yorkshire and Humber is characterised by many small businesses and supply chain firms, whilst the East of England has a few key big R&D players - yet in both cases the result is a strategy to ensure that the benefits of innovation are cascaded from larger to smaller companies.

- **The geography of a region** - The dominance of Birmingham and Newcastle within their respective regions has led to a (relatively) unproblematic emphasis on science city initiatives, whilst there remain issues over spatial distribution in relation to the position of York, Nottingham and to a lesser extent Bristol. Connectivity and mobility is core to success, as is a clear understanding of what can and cannot be achieved and with what consequences for quality of life for different populations.
- **The strength of the public or private research base** - Here we see a clear influence in the extent to which different RDAs are prepared to support direct research within universities and to which increased research funding is seen as a goal in its own right. The North West and West Midlands are both regions that have directly funded research in universities, whilst also having demand-side initiatives. The starting point for some regional strategies is existing research excellence in universities (i.e. Great Western Research, South West), whilst other initiatives, such as the science park development in the East of England, are based clearly on existing industrial players.

Learning between the RDAs in respect to science, innovation and business does take place. Relevant forums include the national-umbrella group, RIST, as well as cross-regional groupings such as the Northern Way or the Greater South East. Examples of initiatives that have been rolled out from one region to the next include the London Technology Network (London), the Innovation Advisory Service (South East) or Innovation Vouchers (West Midlands). Inspiration from other places is also

³⁰ Perry, Beth and May, Tim (eds) 2007. Governance, science policy and regions. Regional Studies, November, Vol. 41: No. 8.

evident: Yorkshire's Centres for Industrial Collaboration were based on best practice from the Welsh Development Agency's Centres for Excellence for Technology and Industrial Collaboration (CETICS), while the North East looked to international examples for evidence on large-scale translational platforms for research, technology and innovation.

2.11 ISSUES FOR RDAS

IMPROVING THE REGIONAL OFFER

There are three main implications from this review to improve the regional offer from RDAs for building knowledge-based regions.

- 1) Establishing and maintaining the ladder of intervention

RDAs need to ensure that they operate across and join up the spectrum of innovation activities. A polarised view of either push- or pull- strategies, university- or business- initiatives, high- or low-tech initiatives is not useful. Instead, RDAs should seek to look for the middle ground and act as an intermediary to constitute mutual needs between the research base and industry.³¹ Key to this process is identifying the right personnel, with necessary skills and credentials, to undertake brokering roles between academia and business. That means tackling current institutional incentives that constitute careers within particular trajectories that are often inward, rather than outward facing.

- 2) Learning what works

The evidence base at regional level to justify particular approaches to science and innovation is patchy and often poor. Whilst information is exchanged between RDAs about specific initiatives, work is required to transform information into intelligence and generate comparative learning. Areas for greater examination include: how initiatives can be tailored for particular contexts (i.e. innovation vouchers); understandings of innovation activities that recognise outcomes are not straightforward and amenable to crude measures; how regional knowledge from businesses and universities can be better harnessed for more collective benefit; the roles of intermediaries in knowledge exchange that are not passive conduits, but active shapers of activities; and an examination of whether public finance actually incentivises business R&D or creates a culture that can undermine sustainable relationships.³² RDAs are operating with implicit

assumptions about such issues that need more explicit examination through the production of intelligence and understanding in partnership with different stakeholders.

- 3) Upscaling interventions

The scale and scope for knowledge-based regions is variable. Initiatives such as the N8 within the Northern Way and innovation within the Greater South East are designed to upscale innovation activities to build critical mass. Whilst there is a strong sub-regional approach being taken to regional economic policy in broad terms, in recognition of the fact that place matters, most RDAs did not see sub-regions as appropriate scales of action for innovation strategy. At the same time, they have distinct interpretations of what constitutes the knowledge-base. Increasingly it is being noted that knowledge of relevance to business may not be bounded within the region or that knowledge-based businesses need to be attracted as well as developed. Thus businesses on the planned science parks in the East of England will be encouraged to network with universities outside the region; the East Midlands has emphasised the role of Foreign Direct Investment in leading to knowledge-based growth and One NorthEast has involved universities in Manchester and Liverpool in the harnessing of specific research strengths for industrial rebirth. Therefore, a key area where more intelligence is needed is in relation to issues of scale, scope and the location and type of knowledge necessary for regional business growth.

ENGAGING WITH BUSINESSES AND CHAMBERS

The second set of implications of this analysis relates to RDA engagement with businesses and with Chambers in particular. These following points are linked via an emphasis upon the importance of business representation for regional benefit.

- 1) Getting SMEs on board

All RDAs acknowledge that engagement with SMEs is essential to build knowledge-based regions. Preferential routes for SME access to R&D, or the setting of particular targets, are commonplace. Yet all RDAs note difficulties in ensuring adequate representation of SME interests on strategic bodies, such as science and industry councils, as well as difficulties in accessing SMEs. This is coupled with a frustration at the ability of individual companies to represent what are seen as more strategic issues associated with regional development.

³¹ May, T., 2008. Active Intermediaries. Business, Universities and Regions. Special issue of Regions, no. 269.

³² Perry, B. (ed) 2008, Business and the Knowledge-Based Region. Special issue of Regions, no. 269.

2) Business representation

It is recognised that there are complex sets of reporting lines within different regions, through sub-groups, cluster organisations or sub-national partnerships. SME engagement is largely anticipated through lower levels of organisational structure rather than at a strategic level. Nevertheless, how business represents itself is critical. In many regions, there are several Chambers as well as other business organisations. Where there is a collective voice for business, such as through the East Midlands Business Alliance, the RDAs have had more positive experiences of engagement business at a strategic level in a wide range of policy areas, including innovation. There is a clear need to work with other intermediaries in knowledge exchange outside universities, but a difficulty in identifying appropriate partners.

3) The role of Chambers

There is a gap in the representation of business interests, particularly SMEs, to RDAs in the science and innovation agenda. Yet RDA views on how well Chambers can fill this gap are variable. Examples of good practice of Chamber engagement came from the North East and West Midlands. The existence of a single regional Chamber in the North East was seen as a critical success factor, as well as the catalytic effect of the region's structural problems. In the West Midlands, Birmingham Chamber of Commerce was key in the development and delivery of the INDEX Voucher scheme and sits on the Science City board. As one interviewee noted, "there are islands of good contact [with Chambers] and islands of no contact".

More broadly, Chambers are seen as highly relevant, but more so at sub-regional level or as funnels or access points to SMEs, rather than strategic actors in their own right. This was coupled with an acknowledgement that the role of Chambers will increase over time as issues relating to sense of place and the sub-national agenda rise in importance. Few RDAs could identify Chambers with whom they had a strong relationship with on science and innovation at a strategic level. Yet all RDAs noted that Chambers were critical in reaching tens of thousands of businesses in the community: "they are the eyes and ears of business on the ground". In recognition of this role, one RDA is currently considering a proposal to pay Chambers to sit on sub-regional partnerships to engage with all businesses and not just those in their own membership.

Challenges remain. There is a perception from RDAs that some Chambers do not fully understand the science and innovation agenda, or have little intelligence to offer. Fundamentally, Chambers were seen by RDAs as a broad church and not necessarily representative or reflective of changes in the industrial base of the knowledge economy. More significantly, there is an obvious mismatch between the expectation that Chambers will engage at a sub-regional level and concerns from the RDAs about whether the sub-regional level is appropriate for the development of strategic priorities for the knowledge-based economy.

All of the above issues point to a clear opportunity for improved collaborative relationships between RDAs and Chambers for business and the knowledge-based region.

INTRODUCTION

In this section of the report examples of how Chambers of Commerce are embracing the innovation agenda are provided, along with business and Chamber perspectives on regional innovation support. For this purpose it draws on a survey and case studies carried out by BCC, as well as a series of focus group at the Regional Business Summit in February 2008.

The Chamber of Commerce network has the potential to provide the local, strategic voice and networking activity that can effectively link up innovation support with real everyday innovation in SMEs. As a powerful and influential network of accredited chambers, representing over 100,000 businesses of all sizes and sectors in every region of the UK, the Chamber of Commerce network is uniquely positioned to be a key player in taking forward the innovation agenda.

All RDA strategies place a key emphasis upon the role of business in working with the knowledge-base to improve regional productivity and competitiveness. Chambers are seen as potential conduits to such businesses and there are clear opportunities to improve mutual understandings between business, Chambers and RDAs to create more effective policies and practices.

INNOVATIVE CHAMBERS

In contrast to the perception of RDAs, there are a number of examples of Chambers engaging in R&D and innovation activities on behalf of their members. To examine these, profiles of relevant initiatives are provided in this section.

3.1 TECHNOLOGY TRANSFER NETWORKS

Hereford and Worcester (H&W) Chamber of Commerce has been leading a unique project to link up the defence research community with local SMEs as a two-way route to market. The project was designed to maximise the effectiveness of existing schemes to tap into the technology base.

With one of the main research branches of the international defence and security technology company, QinetiQ, and a Chamber Member, H&W began work in 2005 with the Defence Diversity Agency (DDA) and the then Department for Trade and Industry to create a Technology Transfer Network pilot, reaching out to local members and non-members. The Chamber

brought this together with Contact, the knowledge transfer network representing the Universities in the West Midlands, and invited businesses, both members and non-members, to tell them of the technology challenges they faced in their business. Based on those responses, solutions were then brokered from the defence research base or the universities to suit the needs of the business. This also generated a number of other responses which required alternative forms of business support and which were forwarded to the appropriate agency.

This has evolved into work with Chambers in other regions, including Coventry and North Hampshire, where the other main QinetiQ headquarters are based. Following the abolition of the DDA by the Ministry of Defence, the Chamber has continued to work with QinetiQ to broker links between them and SMEs in particular.

Working with partners in this way the Chamber has learned that for many businesses the solution to their problems can be off the shelf technology, something that has been discovered by researchers as part of their ongoing work. For example, an engineering company wanted to reduce weight in a product while maintaining strength and a new material was identified which resolved their problem and which could help other businesses as well.

Long-term research partnerships can also be established, sometimes in surprising areas. For example, the Chamber was approached by a group of businesses in the horticultural sector and was able to broker a research project with universities and this business cluster to resolve a number of specific issues facing their sector.

H&W are keen to explore whether this has the potential to be a knowledge transfer network in all regions, making use of the BCC, along the lines of the currently existing Young Chamber network to encourage young entrepreneurs.

3.2 PRODUCTIVITY ALLIANCES

North East Chamber of Commerce (NECC) is developing an innovation campaign to increase both private and public sector spend on R&D in the North East, which is currently the lowest of any UK region.

Throughout summer 2008, NECC will be launching a campaign promoting the innovation taking place in North East companies, including both manufacturing and creative industries, to demonstrate the potential for growth and lobby for greater R&D spend in the North East, including the location of significant government research centres in the region.

The campaign will highlight that despite the low R&D levels, the region is home to a string of dynamic businesses, university expertise and initiatives such as Newcastle Science City, Software City in Sunderland and Digital City in Middlesbrough which all need to be built upon.

NECC is working with businesses to highlight the returns available for investing in R&D and has the support of organisations in the region including the Centres for Excellence and local universities for the campaign which they will be taking to media, politicians, government and internationally.

As a regional Chamber of Commerce, NECC's proposals demonstrate the potential of what could be achieved by ensuring a co-ordinated private sector approach to innovation policy at a regional level

3.3 UNIVERSITIES AND CHAMBERS WORKING IN PARTNERSHIP

Leeds Chamber of Commerce has developed a close relationship with its two local Universities to make the case for innovation being at the core of the city's redevelopment strategy.

The Chamber has taken the view that universities are key players in the local economy in their own right (as a major employer, property owner and with 80,000 students) and has therefore invited the Vice-Chancellors of the University of Leeds and Leeds Metropolitan Universities to be part of their Chamber board.

This has proved to be a mutually beneficial relationship. The Chamber has been able to support innovation permeating into the local SME sector through being able to identify relevant university contacts and graduate placement opportunities stemming from the University's strength as a medical teaching facility. The universities have also set up two new business schools and a business innovation centre to create spin-out opportunities.

This work has formed part of the strategy to create a Leeds Innovation Zone across the city,

working with Centres for Industrial Collaborations (CICs) and innovation advisors. Using this strength at a city level, the Chamber has also become the voice of business at a regional level on the Yorkshire Science and innovation Council and has been responsible for rewriting the regional economic strategy with a focus on fostering innovation.

By involving the local universities as part of the Chamber Board, Leeds Chamber have been able to position themselves as the voice of both public and private innovation in the area and created a number of business opportunities for their members.

3.4 NETWORKS OF LEARNING

Hertfordshire Chamber of Commerce and Industry (HCCI) has begun work on a project to create a network of local electronics companies to share innovation and technology between businesses.

Through their unique access to the local business community, HCCI identified a number of their SME members who were electronics companies in need of technicians to meet their business needs. With over 10,000 electronics industry workers in the area, they saw that there was a real opportunity to use the Chamber's network to set up an association of allied industries to share ideas, products and services.

They therefore approached an initial core set of member companies to establish the network with the objective of using the Chamber's perspective on the ground to link up businesses with other potential partners. While the project is currently only in initial stages HCCI's network has already successfully linked up business opportunities for a number of vending machine companies, a satellite building company, an electronics engineering business, and a large pharmaceutical company.

While this has been an independent initiative by HCCI, the Chamber has received some support from local universities and Business Link. In terms of businesses in the region there is massive potential to extend the network and HCCI are keen to take this project forward with a broader audience. However, while it is a project that would be likely to generate a return on investment, HCCI are finding it difficult to find any substantial public funding to expand the scheme to a regional level.

Whichever direction the network now takes, the Chamber has approached the project as representing the entire local business community, whether or not they are Chamber members. A great deal has been achieved by the Chamber acting independently but much more could be achieved if this could attract strong regional support.

3.5 TECHNOLOGY IMPACT AWARDS

North and Western Lancashire Chamber of Commerce's successful nomination of a local Lancaster Chamber member business for the first Chamber Awards for the impact of technology on business in 2007 demonstrates the useful role that Chamber's can play in showcasing and promoting innovation in companies.

The Chamber Award for the impact of technology was set up in 2007 to highlight the innovation shown by entrepreneurs and businesses in generating value by taking full advantage of improvements in information technology. It is part of the Chamber Awards, begun in 2004 by the BCC, to recognise and celebrate business excellence through the successes and achievements of its Accredited Chambers of Commerce and their members at a regional and national level.

Lancaster Chamber of Commerce members Flowers Direct won the Microsoft Sponsored Award for the Impact of Technology on your Business (for over 50 employees) at the Chambers Awards held at the Victoria and Albert Museum, London on the 29th November 2007. CVD Fire Protection of Lanarkshire Chamber won the award for companies with less than 50 employees

An online flower and gift company, Flowers Direct, used an internet-based system to streamline their entire company from supply chain to customer delivery and significantly grow their business. Their technology investment enabled them to win big contracts for companies including Debenhams, against much larger competitors like Interflora.

The involvement of Chambers in awards such as this demonstrates the important shop window role Chambers can play. Not only does this serve to raise the profile of the businesses that win the award, but it also serves to demonstrate to other businesses the value of investing in innovative technology or R&D themselves.

3.6 LEADERSHIP AND MANAGEMENT FOR LOCAL BUSINESS

NECC has worked closely with one of their local universities to develop an innovative course in Leadership and Management that meet the needs of local businesses.

As a regional chamber, in speaking to their members, NECC identified a need to develop the skills of the middle management tier of their companies. This also chimed in with the Leitch Review of Skills, which recommended that half the working population in 2020 should have level four qualifications.

NECC felt this could best be delivered for their members through a business-oriented qualification. In 2006, they decided to work with a local university to develop a foundation degree (without Honours). While there was an initial lack of interest from universities, through persistence they found a partner in the University of Teesside. Speaking to employers, NECC found that the demand was for a course with independent modules, a step-on/step-off approach for students to accommodate the needs of work, no academic year, and assignments based around work projects.

The course took five months to develop and now provides a steady income stream for the Chamber with a number of students having completed the course. This demonstrates that Chambers can engage with universities on developing the skills that businesses need by using their unique understanding of the needs of the business community and furthermore, this can be a useful revenue stream.

3.7 INNOVATIVE BUSINESS SUPPORT

Sussex Enterprise has worked closely with Business Link Sussex to assist their development of an innovative approach to co-ordinating government-funded business support at the local level, including a number of companies in the high technology and creative industry sectors.

Using devolved funding from SEEDA, and working with key partners including Sussex Enterprise, Business Link Sussex have collaborated on a shared marketing campaign that uses one point of access for businesses via telephone or email.

In-depth training for a customer-facing telephone and online team has allowed effective

referral to relevant partners where appropriate, by sharing use of the Customer Relationship Management system. Not only does this provide a consistent method of referral, it allows monitoring to ensure that businesses' needs are being effectively met and partners are using the full array of government-funded support on offer.

These more localised projects, carried out so far in Hastings and Coastal West Sussex, provide a model that fully embraces the principles of the Business Support Simplification Programme but allows local economic differences and business needs to be recognised and addressed.

This process can also work in referring companies to the Business Link Innovation Service in the South East, technology transfer and similar arrangements with Universities, Colleges, Centres of Excellence and Industry Sector specialist services as appropriate.

This example shows that by working with the local chamber, the infrastructure of Business Link can be used to present a clearer offer of the support and more effective referral of businesses across the network of government-funded support.

3.8 SUPPORT TO EXPORT

Greater Manchester Chamber has a long-term relationship with Business Support Solutions (of whom they are a 50% shareholder), to provide their members with tailored advice, information and services. Their Innovation Team has been crucial in helping prepare a small engineering company to access R&D support to enable them to successfully export to the United States.

Affordable Automation is a small engineering company manufacturing specialised equipment for small and large pharmaceutical sector companies. They have developed several pieces of equipment to assist these businesses in the manipulation and storage of their large stocks of samples and trials that must be undertaken when a new drug or bio-process is developed. The company has been a member of Manchester Chamber for many years and over these years has received support and advice from the Innovation Team.

Their latest project, a piece of equipment and software equipment called Fluidmate, was conceived approximately 12 months ago. It enables samples and sample trays to be selected

from a sample store (containing hundreds of thousands of dose capsules) and transfers them automatically to a dosing station for further sampling or dosing in drug laboratories, before returning them to the store or another designated place. Normally highly paid scientists perform these tasks manually and the provision of this equipment has enormous potential to save costs and time.

In order to develop the project, Affordable Automation spoke to Business Support Solutions who helped them to successfully apply for a maximum Micro award of £20,000 by the NWDA under their GRAND Award scheme for R&D. The project went ahead and the company was able to take a demonstration piece of equipment to one of the largest Pharmaceutical Equipment fairs in America. The result of this is that so far the company has received orders for equipment in the order of \$750,000 with more enquiries in pipeline.

Through their membership of the Chamber and the relationship they had built with the Innovation Team, this small business was able to access R&D support which enabled them to export. This illustrates that the right kind of support through a Chamber can enable small businesses to grow, not only at a local or regional level, but to go and trade internationally.

3.9 LOOKING ACROSS THE CHAMBERS

The examples highlighted above illustrate the range of ways in which Chambers are engaging with R&D and innovation on their members' behalf. Importantly, there are overlaps in RDA and Chamber perspectives in terms of identifying best practice in engagement, notably in the North East and West Midlands. Examples of Chambers working for innovation include networking, lobbying, award ceremonies, partnership working, demand-led curriculum development, innovations in joining up business support and international support for R&D.

These initiatives have largely developed from the bottom-up. Just as RDAs have not seen Chambers as the first choice for engagement on R&D and innovation, so Chambers have not necessarily engaged the RDA in their own activities. This leads to a critical question over how regional R&D innovation support, structured through the RDAs, is perceived by businesses and Chambers.

PERSPECTIVES ON REGIONAL INNOVATION SUPPORT

3.10 THE BUSINESS VIEW

Evidence from the BCC's Business and Innovation Survey reveals a mixed picture in terms of business engagement with the knowledge-based region and the roles of Chambers as intermediaries. Of the businesses surveyed, 74% said that they did undertake research and development within their business, in a wide range of areas from market research, product design and testing to software development and desk-based research. However, only a third of respondents were aware of any regional initiatives to support business engagement, indicating a lower level of awareness than might be expected given business activity in this area.

Knowledge of initiatives included proof of concept funds or R&D grants through to specific initiatives such as the IAS or the CICs. Even fewer businesses surveyed had accessed such regional funds, although there were examples of those who had had a positive experience. These included process development grants from cluster organisations; a knowledge transfer in further education pilot project; proof of concept funds; and KTPs or direct R&D grants. The benefits of such grants were largely in terms of developing new technology (40% of respondents), rather than developing collaborations, conducting research or hiring staff. Other benefits cited included improved credibility, new ideas and international competitiveness. More broadly, 46% of respondents did not know where funding came from in their locality, whether European, national, regional or local with the majority of R&D activities being funded internally.

Universities were cited as the most popular organisations with which to work, closely followed by individual companies and consultancies. The most common form of support taken has been advice and networking. Yet this is in contrast to the types of support desired, namely greater financial support. There is clearly a tension between the emphasis of the RDAs on softer networking and cultural change and the need for more immediate inputs and outputs from business.

Views on national support programmes are equally sceptical. In relation to KTPs and R&D

tax credits, the majority of respondents were not aware of whether any evidence of their effectiveness exists. Comments included that both are time-consuming and retrospective. The surveyed companies noted that KTPs were of limited value, difficult to manage and not appropriate for the internal development of infrastructure support for instance. Perspectives on tax credits are mixed. Some businesses note that they are relevant to only a few companies, namely large companies already undertaking R&D rather than small ones trying to engage, with many businesses slipping through the net. One respondent noted the difficulty they had experienced in finding out whether their R&D activity was eligible for tax credits. Others see them as particularly useful for early stage companies. Again, direct methods of cash grants are preferred over indirect forms of assistance.

This is all coupled by a real frustration from business. As one noted, "there is little help available to small firms to actually get money for research and many hoops to jump through before you get it...why is this money so difficult to access?". Here, there is clearly room for improvement in the roles Chambers can play. 52.1% of respondents said that they did not currently receive any support from their Chamber in relation to R&D. The need for Chambers to cover costs and act commercially was cited as a reason for this gap, with businesses being placed in a position of increasing costs to acquire promotion and support through the Chambers. As one comment noted, "it is discouraging for Innovators when there is such a lack of vision and a failure to recognise golden opportunities by Chambers of Commerce, Business Link and Investment Funds, along with time-consuming red tape."

3.11 THE CHAMBERS VIEW

A similarly variable view of regional innovation environments stems from the Chambers. The Chamber survey revealed that Chambers engage more regionally around R&D on behalf of their members than with other levels of government and that the regional level would become more important over the next five years. More information, advice and technical support, rather than financial support, was the factor that most Chambers felt would improve levels of business R&D and innovation - again in contrast with the perspective from business. Overall, however, more Chambers rated the current level of public

support for R&D in their area as poor than as good. One respondent noted that it was often easier to get support for development rather than research, despite the bridge from new knowledge to product development being of commercial value. The views from business that there is insufficient R&D support for small to micro businesses was echoed by Chambers, along with concern that it is often new start-ups that are emphasised rather than existing businesses.

In addition to the survey, focus groups at the Regional Business Summit in February 2008 in London were conducted. In the section below we identify the three most important sets of issues that emerged from those groups.

PARTNERSHIPS FIT FOR PURPOSE

A key issue relates to the nature of university-business interactions and the respective roles of partners. At a fundamental level, the appropriateness of the university as the central actor in science and innovation was questioned by Chambers. Universities were characterised as research-driven rather than exploitation focussed, leading to problems relating to time-scales, confidentiality, intellectual property and emphasis on specific as opposed to generic applications. Universities were noted as having schemes to encourage business interaction, funded by national organisations or RDAs, but this was described as a scattergun approach which businesses find confusing. Some universities were seen to compete for funding from other organisations, such as the Learning and Skills Councils, rather than focussing on their core business of research and teaching. Some examples of good practice between universities and Chambers were identified, such as in Leeds, and several Chamber members sit on strategic university bodies. Nonetheless, relationships more generally between universities and Chambers were portrayed as unequal. The incentives for universities to engage were not clear, with some concern that getting returns on assets and estate management were the real drivers. In such a context, changing behaviours and creating true partnerships was seen as difficult and often unrewarding.

Scale and scope was also raised as an issue in engagement. There was no automatic connection perceived between the presence of a university in a particular locality and its

relevance to local businesses. As one Chamber representative noted, “we will advise our business to go to the best university in the country or the world”. The assumption that the knowledge base comes from universities as opposed to businesses themselves was criticized. In addition, Chamber participants in the focus groups felt that greater understanding of the term knowledge-based business is necessary to encourage growth and competitiveness.

REGIONAL SUPPORT MECHANISMS

A series of strengths and weaknesses were apparent in Chamber perceptions of how different RDAs support business in innovation and R&D. Mixed messages can be seen in attitudes to RDA support, with some doubt from Chambers that added-value is apparent. Good practice was cited in relation to the North East or West Midlands, for instance. Nonetheless, a number of areas for concern or improvement were identified by Chambers, relating to:

- the short-term nature of finance for advisory or support services without considering how sustainable initiatives may be, particularly those based on European funding;
- the accessibility of RDA structures to businesses and lack of joined-up thinking between HEI/HEFCE business interaction schemes and plans for the Business Support Simplification Programme;
- the emphasis on universities as delivery agents for knowledge-based growth, coupled with a concern that engagement is a tick-box exercise. A preference for more business-led or demand-focused initiatives was clearly articulated;
- the relevance of cluster-based strategies instead of focusing on groups of businesses which share similarities;
- evidence on how well intermediaries are working in the knowledge exchange arena;
- fragmentation of effort and a perceived inability to focus on key areas, the something for everybody approach doesn't work;
- a narrow emphasis on particular ways of seeing innovation or on property-centric innovation as opposed to knowledge exchange; and

3: INNOVATING BUSINESS - THE CHAMBER PERSPECTIVE

- an absence of balance between long-term interventions and bridging interventions which enable businesses to see more immediate returns.

CHAMBER ENGAGEMENT

The third set of issues relates to the role of Chambers themselves in bridging the gap between business and the knowledge-based region. Here, there is an acknowledgement that greater learning is necessary between Chambers about their engagement with R&D and innovation at a strategic level within different regions. Chambers were seen to have potentially critical roles in brokering the relationship between business and academics, using RDA support where appropriate and representing business interests at a strategic level back to regional decision-makers.

Overall, it was felt that this role could be strengthened. In particular:

- Chambers need to better represent the changing knowledge base within their localities and ensure that new knowledge-based businesses are attracted to become members. This should be reflected at a strategic level on Chamber boards;

- Chambers need to be better at representing current activity in R&D and innovation to portray an accurate and positive image to external audiences;

- Chambers need to reinforce their roles as an intermediary between universities and businesses and between RDAs and businesses through greater learning, awareness and representation;

- Chambers need to consider how joint action between Chambers on a regional level may lead to greater strategic input and influence over RDA activities; and

- Chambers need to spread greater awareness and learning about how they can positively influence the business environment for knowledge-based growth at a local level. This may include, for instance, networking smaller and larger firms in open innovation networks.

More generically, this points to the need for Chambers to adopt a balance between representing the needs of existing members from the bottom-up, seeking to influence policy-makers on their behalf and also creating new opportunities from the top-down for businesses to grow and engage with this agenda.

National frameworks for science and innovation make it clear that there is a strong role for RDAs in building the knowledge economy and delivering national objectives for competitiveness and growth. Central to their activities is encouraging the exchange of knowledge between businesses and the research base as a pre-condition for growth and an acknowledgement that place matters in developing effective practices among different partners.

This report has examined the relationship between regional innovation environments in the English regions and the activities of the Chambers of Commerce and businesses on the ground. There are two key conclusions to the report 'in order to make the necessary changes for *Innovation Nation* to become a reality on the ground.

4.1 JOINED-UP THINKING TO ADDRESS MUTUAL NEEDS

A number of similar messages from the RDAs and the Chambers have been identified relating to the environment for knowledge-based growth. These are:

INNOVATION SHOULD BE CONSIDERED IN A WIDER SENSE

Innovation Nation represents a departure in principle from previously narrow, linear and sector-specific understandings of innovation. How is that vision to be delivered effectively?

The message from RDAs and Chambers is that a broad understanding of innovation is critical in ensuring that businesses of all sectors and sizes can meet their potential to contribute to knowledge-based growth. Innovation should be considered to be doing things better in new ways. This includes issues of skills, employer engagement and knowledge exchange agendas, as well as replacing a polar view of supply or demand with initiatives designed to identify mutual needs between universities and business. Innovation needs to move beyond a narrow focus on science and academia towards the kind of everyday innovation that businesses do to increase their profits and increase productivity and become more entrepreneurial. Getting business expertise and identifying key personnel who we have characterised as 'active intermediaries' between the research base and industry is critical in this respect. This would be a critical departure from previous practices, but more effective as a result.

RDAs need to ensure that the knowledge base is harnessed in its broadest sense for the benefit of business and innovation and this also means recognising the existence of different types of knowledge. This includes not only universities, but also further education colleges, other public sector research establishments, the National Health Service and critically, other businesses. Whilst universities are the most frequent collaborators with business, questions remain over what can and should be realistically expected of them in terms of commercial and innovative activities.

INNOVATION SHOULD NOT BE LIMITED BY ARTIFICIAL ADMINISTRATIVE BOUNDARIES

RDA support must seek out business engagement based upon the economic realities of the area, whether this is sub-regional or inter-regional. Knowledge relevant for regional innovation is not always contained within regions: the message on the ground is that the right connections may be local, but they may also exist beyond regional boundaries.

RDA ACTIVITY SHOULD BUILD UPON, RATHER THAN DUPLICATE, PRIVATE SECTOR WORK

At a regional level RDAs are conducting a great deal of activity, in some instances duplicating work that is being conducted by other actors, including business. RDAs need to ensure that they add value by minimising duplication and providing strategic oversight. This includes developing mechanisms for ensuring that sub-national knowledge and expertise are reflected in national policy developments as well as vice-versa.

Forums for collaborative working do exist, such as the RIST group, or discussions around the Technology Strategy Board. However, there are questions over the added value of such collaborations. It has been agreed that the RDAs will collectively align £180m with the priorities of the Technology Strategy Board. Yet this has seen misconstrued as business as normal, without requiring necessary alterations in strategy or approach. In implementing these proposals, RDAs should take account of private sector activity.

NATIONAL CONSTRAINTS ON REGIONAL INNOVATION SHOULD BE REMOVED

National policy should allow for flexibility at a regional level. Regional and local experiences should also feed through to national policy

initiatives, particularly in light of the emphasis on regional-specific or place-based approaches. The current emphasis tends to be on information flow from the national to the regional, rather than in reverse. Here it is clear that good central-regional relations and consistent messages from the centre are central to success.

A critical issue is to improve the evidence base for knowledge-based growth. RDAs feel hindered by the absence of appropriate measurement tools, leading to a default output-led model that clearly fails to acknowledge softer changes in the innovation ecosystem. Key areas for improved understanding include: evidence on the roles of universities as actors in knowledge-based economic development; the relative importance of internal and external sources of knowledge and how those can best be harnessed, plus a better understanding of the roles and responsibilities of regional or sub-regional actors.

MORE JOINED-UP THINKING BETWEEN NATIONAL AND REGIONAL LEVELS

Given the issues identified in this report, *Innovation Nation* is a welcome first step to addressing some of these concerns, but it does not deal more broadly with issues around the knitting together of government departments' agendas that directly and indirectly influence knowledge-based growth. It is currently not clear how plans for New Partnerships for Innovation, multi-area agreements which encompass innovation, place-based strategies or initiatives such as Science Cities fit with the development of a single integrated region-wide strategy and regional responsibilities for innovation. This has implications for how businesses and representative organisations can best engage with the innovation agenda.

The Government therefore needs to ensure greater joined-up thinking on agendas around science, innovation, business simplification and sub-national economic development. This must be based on a more honest appraisal of the strengths and weaknesses of actions at particular scales of activity. A one-size fits all regional approach to innovation is not likely to deliver the level of support at sub-regional levels that will reflect the business dynamics of an area.

This latter point is critical in light of the Sub-National Review. Here we see a clear emphasis

on clarity of roles and responsibilities, together with recognition for action at the 'most appropriate' level. Most RDAs, perhaps unsurprisingly, express the view that innovation requires a more strategic regional approach and is less suitable for devolution to sub-regional actors, unless of a certain size or critical mass (i.e. large metropolitan areas). At the same time, however, it is assumed that Chambers will largely engage with economic development through sub-regional partnerships, hence being effectively cut off from strategic developments around innovation and R&D.

In addition, a coherent and long-term funding strategy for SME engagement with the knowledge base is needed. At the regional level, this includes ensuring that the ladder of interventions is understood by businesses and that initiatives through HEFCE and DIUS are also encompassed with BERR's Business to Gateway programme. Leveraging resource from European, national, regional and local sources is critical, whilst there is clear concern over what will happen when funding from the ERDF and European Social Fund is reduced. This is of particular significance to SMEs, as many knowledge exchange activities at the regional level have been catalysed by EU funding.

DIALOGUE BETWEEN RDAS AND CHAMBERS

RDAs need to establish more coherent mechanisms to engage with different business interests at a strategic level. RDAs and Chambers have many similar concerns and share common ground in identifying what is needed to improve the environment for business and knowledge-based growth. At the same time, the overall story is one of misconceptions and the need for better dialogue between RDAs and Chambers. Although there are many examples of good practice, RDAs currently do not generally consider Chambers to be key actors in R&D and innovation, despite evidence that many Chambers are taking this seriously. Similarly, Chambers do not tend to regard RDA support for business R&D and innovation highly, although many initiatives are available and the aspirations of both groups are similar.

There is a clear need for greater understanding of why perceptions are poor, what the reality is and how relations can be improved. Mutual awareness of what RDAs and Chambers are doing is needed to maximise the possibilities for

joined-up support to business in the knowledge economy. Misconceptions too easily lead to missed opportunities. Business engagement must be ensured at the appropriate level for the economy of the area, but equally RDAs must ensure that where they engage with businesses they offer them a clear decision-making role, rather than anything which is viewed as a 'talking shop'.

Recent government announcements, such as *Innovation Nation* have made it clear that this is not an agenda that RDAs or Chambers can afford to ignore. Chambers need to consolidate their current activities and represent those externally so that their role, offer and intelligence can be better understood. This includes creating greater opportunities for learning between regions so that best practice can be shared.

4.2 NEXT STEPS

It is clearly critical to get the relationships between business, the knowledge base and regions right for the future competitiveness of the economy. This report has begun to illustrate where this is working and where there is room for improvement. An honest appraisal of the current situation is the first step to ensuring an effective contribution to the *innovation nation*.

The message that Chambers have a greater role to play in taking innovation seriously and being active intermediaries between universities and businesses is clear. But addressing core challenges requires a concerted effort on the part of all actors at national, regional and local levels and across sectors.

To take these recommendations forward, BCC will be:

- taking forward the discussion of the policy implications of this report with government, opinion-formers and decision-makers to identify practical measures that can be taken to embed a new approach to innovation into activity at a regional and local level;
- working with the Chamber of Commerce network to ensure that the knowledge and expertise of what is happening (or not) on the ground is fed into policy developments and spreading best practice between chambers; and
- identifying where further research, collaborations, or promotion are necessary to add to the ongoing innovation debate.

AWM	Advantage West Midlands
BCC	British Chambers of Commerce
BERR	Department for Business Enterprise and Regulatory Reform
CASE	Cooperative Awards in Science and Engineering
DIUS	Department for Innovation, Universities and Skills
EEDA	East of England Development Agency
EMDA	East Midlands Development Agency
ERDF	European Regional Development Fund
ESF	European Social Fund
FDI	Foreign Direct Investment
GVA	Gross Value Added
HEFCE	Higher Education Funding Council for England
HEIs	Higher Education Institutions
KTP	Knowledge Transfer Partnership
LDA	London Development Agency
NWDA	North West Development Agency
R&D	Research and Development
RDA	Regional Development Agency
RES	Regional Economic Strategy
RIS	Regional Innovation Strategy
RIST	Regional Innovation, Science and Technology Group
SEEDA	South East of England Development Agency
SME	Small and Medium-Sized Enterprise
SURF	Centre for Sustainable Urban and Regional Futures
SWRDA	South West Regional Development Agency



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