LAMBERT REVIEW OF BUSINESS-UNIVERSITY COLLABORATION

SUBMISSION OF ONE NORTHEAST

1. Introduction and Summary

1.1 This submission is provided by One NorthEast, the Regional Development Agency of the North East of England. The Agency has identified business-university relationships as a central element of the Regional Economic Strategy.

1.2 The role of business-university relationships has been particularly developed in the *Strategy for Success*, which builds upon the Regional Economic Strategy, and seeks to effect a radical change in the Region's economic fortunes by developing and exploiting the Region's research base, primarily the Region's Universities, to develop a knowledge economy in the North East.

1.3 Considerable analysis has been undertaken to identify barriers constraining the development of effective linkages between business and universities, and to learn from international best practice in the establishment of effective linkages.

1.4 This analysis has been incorporated in the design of the Strategy for Success, which is based on the development of five Centres of Excellence which bridge the gap between Universities and industry. The Centres are concerned with technologies where the North East has world class competitive potential.

1.5 The Centres are supported by a specialist technology commercialisation company, NorthSTAR, and a provider of high level skills for innovation and technology management.

1.6 The Strategy is overseen by the Science and Industry Council of the North East of England, which brings together senior representatives of universities, business and the public sector.

1.7 The Agency is developing linked programmes to address other areas of business-university linkages, including the development of tailored skills development programmes.

1.8 One NorthEast welcomes this review since Business-University linkages are at the heart of the Regional Economic Strategy. Specific consultation for this Review have been undertaken with businesses and Universities, to augment that work undertaken to date by the Agency and partners.

2. The Regional Economic Strategy and the Strategy for Success

2.1 The Universities in the North East of England are a key regional asset, able to generate enhanced productivity and competitiveness in the Region's businesses, the creation of an attractive environment for investment and sustainable employment, and the growth of the Region's economy. In 1999, One NorthEast was unique among the Regional Development Agencies in "Placing Universities and Colleges At the Heart of the Region's Economy" in its Regional Economic Strategy *Unlocking Our Potential.* Developments since 1999 have meant that specific policies and activities concerned with Business-University relationships have been made considerably more explicit in the 2002 update of the Regional Economic Strategy *Realising Our Potential*.

2.2 The critical role of University-Business relationships in regional development has been developed further in the *Strategy for Success*. The *Strategy for Success* is being advanced by One NorthEast, the Regional Science & Industry Council and partners, to achieve long-term structural change and sustainable regional development, by boosting productivity and international competitiveness through the effective exploitation of science, innovation and Research and Development, utilising the Region's research base, principally the Region's Universities.

2.3 The role of the Universities in the development of a knowledge economy in the North East is accentuated by the relative weakness of other types of Research and development in the Region, particularly non-University public research, as illustrated in the R&D expenditure tables in Annex 1.

3. Overcoming Barriers to University-Business relationships

3.1 Universities are increasingly seeking to play a leading role in helping to build a knowledge economy within the UK, and this is being encouraged by national policy, including the recent White Paper *The Future of Higher Education* (2002). The five Universities in the North East Region are taking this challenge very seriously and have each committed as major partners in the Region's Strategy for Success and in the Centres of Excellence. The Universities have individually and collectively developed a number of mechanisms to link with business. Examples of collective action include Knowledge House and the North East Centre for Scientific Enterprise.

3.2 The North East Universities also have a strong track record of collaboration. This includes the Universities for the North East umbrella structure and a range of research and education projects.

3.3 However, in the course of the development of the *Strategy for Success*, it became apparent from a number of studies and reviews of experience that, despite this strong progress in linking with industry, there were considerable opportunities for improvement. Sources included the experience of working with key clusters, the Regional Innovation Strategy and Action Plan, extensive cluster mapping and analysis, and the findings of an extensive study of the strengths of the research base undertaken by the consultants Arthur D. Little study. In order to bring about the considerable step-change in regional levels of R&D, innovation and entrepreneurship that was required, it was clear that a major programme of radical, sustained and collaborative action was needed.

3.4 Key Barriers to Effective Linkages included:

- Mismatches in terms of the research activities and capabilities of the Universities, not corresponding to knowledge requirements of business
- Research being undertaken for reasons of science and research per se, generally legitimately so, rather than market requirements
- Gaps between the condition of a technology when a research project is completed by a University and the form required by a business to incorporate it into their products, processes or services.
- Insufficient mechanisms for businesses to shape University research activities
- Lack of understanding by business as how to shape research or education activities in Universities
- Lack of understanding of specific business needs in many parts of Universities, although clear progress is being made in this respect and there are examples of strength
- Fragmentation of activities between universities and the consequent lack of critical mass
- Wide coverage of subject areas, both in terms of research and teaching, rather than the concentration upon a limited number of specialist areas
- Lack of effective supporting institutions, such as venture capital or specialist legal advice

3.5 It should be recognised that many of the impediments to maximising Business-University linkages were structural, and not specific to the North East. Thus, for example, although policies may seek to address academic incentives and improve those relating to working with business, the gaps in terms of the form of the technology between completion by universities and use by industry would not necessarily be addressed.

3.6 Barriers were often systemic and were the consequence of policies and activities of, for example, the research councils and other elements of the public sector as well as the Universities themselves.

3.7 A number of the barriers were attitudinal and cultural, with limited understanding of the requirements and constraints of other organisations.

3.8 It was clear that policies were often established on a model of technology transfer that assumed a linear process from Universities to industry, whereas effective interaction is a complex, iterative process.

3.9 Furthermore, it appeared that Universities were being asked to undertake too many activities, in that, while they might be effective in meeting their primary objectives of education and research, meeting the needs of business required different skills and capacities, which were not necessarily compatible with the skills and capacities needed to undertake the primary missions.

3.10 In seeking to overcome these barriers, extensive study was undertaken of best practice in the UK and, particularly, elsewhere in the world. One NorthEast has also recruited staff with substantial experience of international science and technology policy, has analysed various models and examples, and has built key partnerships, including with MIT via the Cambridge Massachusetts Institute. Best practice from elsewhere has been adopted where appropriate to meet the particular conditions of the North East.

4. The Strategy for Success

4.1 The Strategy for Success is being advanced by One NorthEast, the Regional Science & Industry Council and partners, to achieve long-term structural change and sustainable regional development, by boosting productivity and international competitiveness through the effective exploitation of science, innovation and Research and Development. Its main components are the Regional Science & Industry Council, five Centres of Excellence in Digital Technology & Media, Life Sciences, Nanotechnology, New & Renewable Energy, and Process Industries, and a Regional Exploitation Company providing commercial and Intellectual Property (IPR) management resources.

4.2 The Science and Industry Council was established in December 2001 at the instigation of One NorthEast, the Regional Development Agency for the North East of England. The overall purpose of the Council is to oversee the further development and implementation of the Strategy for Success programme, developed by One NorthEast in conjunction with regional partners. In addition, the Council enables high level

communication between Universities, industry and the public sector through its members, and champions the role of science and technology in the Region, and wider afield. The Terms of Reference of the Council are provided at Annex 2.

4.3 The Council comprises very senior representatives of Universities in the Region, science based companies (including multinationals and small and medium sized enterprises), and the public sector. The Council is chaired by Sir Ian Gibson, one of the UK's most respected industrialists, and includes three Vice-Chancellors. A full list of members is provided at Annex 3.

4.4 The Council has met every three months since its establishment, and has proven most effective. It has advised and guided on the implementation of the Strategy for Success programme, in the manner envisaged by One NorthEast. Further, it has quickly been accepted as an authoritative body in respect of science and innovation matters, by key stakeholders in the Region, including businesses and their representatives, Universities and local and regional government. The Council has also proven an effective forum for the interchange of views and information, between the three main stakeholder groups.

4.5 The Council was launched in the Region by the Prime Minister and Minister for Science in July 2002, and held a briefing for Parliament at the House of Commons in October 2002. Government is now encouraging all RDAs to establish Councils capable of developing regional SET strategies.

4.6 The Strategy for Success is developing five Centres of Excellence. The purpose of these Centres is to act as the focal point for the commercialisation of science in the Region. This commercialisation can be achieved by three principal routes:

- New companies spinning off from the science base
- Transfer of technology to existing companies
- Attraction of new companies or investment to the Region to link with the science base

4.7 The Centres will act as the link between the science base and commercial applications, through a range of activities, including the further development of a technology, the provision of proof of principle capabilities, the identification of commercial opportunities, the identification of market needs, assistance with Intellectual Property Management, and effecting technology transfer. The Centres explicitly seek to understand and take account of the needs of science and academia and the needs of business.

4.8 It is the view of the Strategy that science is the domain of business as well as academia. It is clear however that gaps between the two need to be bridged. Industry is more likely to invest in scientific research if linkage mechanisms are present. The Centres provide this link mechanism. The Centres will enable industrial needs to be incorporated into research planning as it is clear that in many cases the research outputs of Universities do not match with the knowledge requirements of regional businesses.

4.9 The Centres are a means of facilitating collaboration between various R&D groups within Universities and industry, thus achieving critical mass, as well as a greater understanding between providers and users of science.

4.10 The five Centres of Excellence are concerned with:

- New and Renewable Energy
- Process Industries
- Life Sciences
- Digital Technology and Media
- Nanotechnology, Photonics and Microsystems

4.11 Each Centre varies in terms of its specific activities and organisational form, reflecting the specific requirements and current status of the technology, the research base, and industrial needs. Centres have both physical and virtual elements. They are enabling University researchers to work alongside industrial developers. Further detail of each Centre is provided at Annex 4.

4.12 The five areas of technology have been identified on the basis of:

- research activity in the Region of existing or potential world-class strength.
- the capacity to generate competitive products, processes and services in the Region's businesses.

This identification was made following an extensive review of the Region's research base undertaken by Arthur D. Little Ltd. in 2001 and 14 studies of industrial clusters in the Region (in addition to the substantive outcomes of these studies, the process by which they were undertaken, which involved extensive management and participation by the stakeholders, has been of significant benefit in the subsequent implementation of the Strategy). Extensive analysis has also been made of international best practice. Where appropriate, key features have been adapted to the context of the North East and incorporated into the design of the Strategy.

4.13 The Centres are supported by NorthSTAR, which provides access to finance, IPR development, and business development. NorthSTAR will develop further the North East Centre for Scientific Enterprise (NECSE) which is currently funded by OST, and is a partnership between Durham and Newcastle Universities. NorthSTAR will extend the coverage of NECSE to the Region's other Universities and businesses. It will improve the existing provision of professional and commercial services for technology development, and fill gaps in current provision, such as a proof of concept fund.

5. Progress with Implementation

5.1 Considerable progress has been made since the Strategy's formulation. The programme has gathered momentum rapidly as increasing numbers of regional partners commit to the Strategy and its potential impact becomes more apparent. The key activities have been the establishment of the Science & Industry Council, recruitment of the Chief Executives of the Centres of Excellence, development of Centre business plans, the development and refinement of the Centres' corporate structure and constitution, a series of regional and national launches, the commencement of key facility development programmes, and the commencement of research programmes. Section 5 approval was recently granted by DTI to establish the Centres of Excellence as Companies Limited by Guarantee. The first company, the *New and Renewable Energy Centre of Excellence*, was established in early February 2003.

5.2 Five Chief Executives of international standing have been recruited, and they are now recruiting their teams. The Centres are being constituted as Companies Limited by Guarantee. The constitutional form of the companies has been developed to provide maximum autonomy to enable flexibility and the development of long-term sustainability, while providing sufficient safeguards for the public funding invested. The business plans being developed by each Centre all aim to achieve a financial position independent of the RDA within 5 years.

5.3 It is the view of the Council that this objective of developing science within the North East, to the benefit of wealth generation within the Region, can only be achieved to the maximum extent possible if the Centres are world-class, in terms of the quality of the science they are facilitating and the competitiveness of the activities they are giving rise to. This implies the need for world-class people and facilities. In order to recruit the five Chief Executives, an international recruitment programme was undertaken, with internationally competitive remuneration packages being offered. Five exceedingly capable and respected individuals have been attracted, with

significant academic and industrial experience. All are credible within academic science as well as being experienced with business at senior levels.

5.4 It is for these reasons of achieving international excellence that only five areas of science and technology were identified for development as Centres of Excellence. Furthermore, as the detailed plans are being developed, it is becoming clear that development will be concentrated on activities within these broader headings, where the Region has a clear international position.

5.5 A most striking element has been the degree to which both business and academia have supported the Strategy and embraced the firm strategic lead that the RDA is setting. This is especially the case for business leaders, who welcome the bold strategic vision presented and support our methodology for achieving it.

6. Resources and Measures

6.1 Annex 5 presents the level of resources committed to the Strategy for Success and related SET projects by One NorthEast over the period 2002-2006. In the years 2003-2006, the proportion of One NorthEast funds devoted to the Strategy for Success ranges between 17% and 25%. It is also worthy of note that the four Sub-Regional Partnerships in the North East of England receive a significant proportion of total One NorthEast funds to advance Sub-Regional Action Plans. These include SET activity.

6.2 The Agency is actively seeking to take advantage of other sources of funding, for example, through ERDF, ESF and the opportunities that arose through the DTI University Innovation Centre programme. Under the UIC programme, the Region was awarded £7.2 million over the next 5 years for the Regional Nanotechnology Initiative.

6.3 It is worth noting however that there is often a lack of alignment between regional, national, and international funding sources. In some cases, different funding sources are even incompatible. There are examples where activities in the North East of England Objective 2 Programme are not aligned with the Agency's activities and objectives. Greater strategic alignment of the funding sources available to RDAs would significantly enhance the impact of programmes like the Strategy for Success. This is discussed further in Section 7.

6.4 The levels of expenditure detailed in Annex 5 are significant. These sums are necessary to create truly world-class Centres of Excellence and to

achieve the desired step-change in regional levels of R&D, innovation and entrepreneurship.

6.5 The effectiveness of the Strategy for Success will be measured by the following performance indicators:

- The levels of both public and private R&D expenditure attracted to the Region;
- A process of peer review – both regionally and nationally;
- A process of "business" peer review – the Agency will establish appropriate mechanisms to facilitate this. This will lead to a greater understanding of how the Region's Universities are supporting business development;
- Levels of inter-University collaboration;
- Levels of University-Business collaboration;
- Number of spin-off companies;
- Levels of investment – in particular, the numbers of Technology Transfer Agreements;
- Employment levels;
- GDP.

6.6 Independent studies are already identifying and reporting signs of success. The UK Innovation Survey (DTI, 2002) conducted by the Office of National Statistics, finds that during the period 1998-2000, the North East Region has the highest percentage of large enterprises involved in innovation activity (89%), and for all enterprises, the North East (51%) is second only to the West Midlands (52%) and above the UK average (47%). Further, the North East cited the greatest likelihood of enterprises reporting innovation-related expenditure (43% compared to the UK average of 36%) and more firms in the North East regarded the science and engineering base as an important source of information (36% compared to a UK average of 28%).

6.7 The London Business School Global Entrepreneurship Monitor study highlights that whilst overall, entrepreneurship performance in the North East is still relatively poor, the North East is second only to London in the numbers of technology start-ups (20% compared to 25%).

7. Other Business-University Linkages

7.1 Whilst the Strategy for Success is a focused and prioritised programme, the Strategy is a cornerstone of the Agency's Regional Economic Strategy and Corporate Plan for the period 2003-2006. Other important RES activity, most notably the development of Frameworks for Regional Employment Skills Action (FRESAs), other activity relating to graduate retention and workforce development, and the Regional Cluster

Development Programme, are linked with, and informed by, the Strategy for Success programme.

7.2 The Agency will utilise FRESAs to assist Universities to meet the specific skills requirements of employers, beyond the areas of the Centres' of Excellence. The Agency and partners are also improving skills needs' intelligence through Skills Intelligence NorthEast (SINE). It is clear that skills available in the Region are not sufficient for a developing knowledge economy. Programmes to address this weakness go beyond linkages between universities and business and even beyond the Universities themselves to primary and secondary education.

7.3 Linkages between business and universities are wider than the three clearly recognised roles of education, research and knowledge exchange. Other linkages relate to the roles of Universities as major employers, the local purchasing of students and academic visitors, the provision of cultural facilities and the development and occupation of property, particularly in urban centres. A particularly significant impact of universities on business is their influence on their local area, attracting employees and new businesses to that place. Many of these linkages are not sufficiently understood.

8. Alignment of National and Regional Policies

8.1 The Agency has allocated substantial funds to Science, Engineering and Technology activities and University-Business relationships. Furthermore, through various measures, including the funding of Sub-Regional Partnerships, we seek to influence the spend of other regional bodies, including Local Authorities and Universities. The Agency is also instigating work in conjunction with the CBI to increase the use of R&D tax credits in the Region. However, much public funding allocated to such bodies, including that explicitly allocated to these activities, is not aligned with the Agency's objectives and activities. Moreover, national policies and funding are generally developed without reference to regional activities with a consequence of further non alignment. This alignment means that maximum benefit is not being gained from Science, engineering and Technology and University- Business relationships expenditure, and may mean that various policies are in conflict with each other.

8.2 A clear example of this misalignment is Research Council funding with regional funding. Research Council funding in general does not take account of regional objectives and activities when allocating funds. Such an approach does not achieve potential gains from linking regional funding and Research Council funding, for example, with the former providing capital infrastructure and the latter funding research staff. This

is not to suggest that Research Council funding should not be allocated to achieve scientific excellence. Rather, the approach adopted by One NorthEast is also concerned with supporting scientific excellence. One NorthEast, in conjunction with the East Midlands Development Agency and the South East of England Development Agency, has established a working group with the Research Councils to examine the potential for joint working.

8.3 It is the view of One NorthEast that substantial gains can be achieved by explicitly seeking to align national and regional expenditure on Science, engineering and Technology activities and University- Business relationships. If this alignment is undertaken appropriately, it will not compromise standards of scientific quality. The Agency therefore welcomes the discussions now taking place between the Research Council and the RDAs, and seeks to accelerate these.

8.4 The Agency also welcomes the greater role for RDAs in such activities as HEIF and specific research programmes such as Gentics Knowledge Park. However, while strongly supporting the need for a regional dimension to national policy, One NorthEast believes that national co-ordination is necessary to ensure that national objectives are met and duplication avoided. This can be achieved by the RDAs working with national funding bodies. A potentially strong example of such activity is the current development of a national strategy for Nanotechnology by the DTI working in conjunction with RDAs.

8.5 A potential major concern where national policy may conflict with regional policy is the Higher Education White Paper's proposal to establish 6* Research Departments. It is important in identifying these that due account is taken of regional needs and opportunities. It is the view of One NorthEast and the Science and Industry Council that alternative approaches for achieving critical mass should also be examined, such as Centres of Excellence. Furthermore, the Centres of Excellence also encompass collaboration with businesses.

9. Concluding Remarks

9.1 In many ways, the Region's Strategy for Success is being held as an exemplar strategy for the rest of the country. On the back of the Strategy, there have been many detailed discussions between Government and the Region on the future of science and technology, University-business linkages and associated funding streams.

9.2 The key lessons that have arisen during the design, development and implementation of the Strategy for Success include:

- The importance of a focused and prioritised Strategy;
- The importance of the Strategy as an activity in its own right, but also as a source of development through commercialisation;
- The importance of inter-University collaboration and the achievement of critical mass;
- The need to genuinely achieve international excellence;
- The value in spending time, effort and resources in obtaining stakeholder buy-in and ensuring that business and academia consult one another and work together;
- The importance of international best practice and experience;
- The need to let key stakeholders shape the detail of emerging strategies;
- The need to align regional and national policy;
- The fact that RDAs are not utilised to their maximum advantage to support Science, engineering and Technology and University-Business relationships;
- The need to improve understanding of the regional dimension amongst science policy makers;
- The need to improve understanding of the role of Science, engineering and Technology and University- Business relationships in regional development amongst regional policy makers – including within RDAs themselves.

ANNEX 1

Regional Distribution of Government R & D Spend

Regional Expenditure on R&D by Source of Funding in 2000						
	Expenditure 2000 (£m)			**Expenditure 1999 (£m)**		
	Business	**Government**	**Higher Education**	**Business**	**Government**	**Higher Education**
United Kingdom	11,510	2,134	3,633	10,231	2,073	3,040
North East	**164**	**2**	**122**	**178**	**3**	**105**
North West	1,451	57	287	1,224	58	238
Yorkshire & Humber	304	48	284	287	31	241
East Midlands	933	56	204	775	51	159
West Midlands	576	194	192	708	182	167
East of England	2,758	259	324	2,367	255	211
London	810	258	895	614	202	775
South East	2,964	635	515	2,542	698	460
South West	867	307	160	907	329	138
England	10,827	1,816	2,984	9,601	1,809	2,494
Wales	144	65	139	125	51	113
Scotland	400	238	440	424	200	375
Northern Ireland	139	15	70	81	12	57

ANNEX 2

Science & Industry Council Terms of Reference

- Guide and advise One NorthEast in the development and implementation of the Strategy for Success;
- Promote the Strategy to other partners and relevant parties;
- Act as an influential voice for science and technology to attract public and private investment to the Region;
- Foster productive partnerships between industry, commerce, policy makers, support organisations and Universities and Colleges;
- Determine the structure and composition of the management structures of the Centres of Excellence and NorthSTAR;
- Establish the terms of reference and scope of activity of the Centres of Excellence and NorthSTAR;
- Determine the business plans and strategies of the Centres of Excellence and NorthSTAR.

ANNEX 3

Membership of the North East Science & Industry Council

Council Members

Sir Ian Gibson	Chair - Science & Industry Council
Professor Janet Bainbridge	EPICC
Charles Bragg	Procter & Gamble
Professor Sir Kenneth Calman	University of Durham
Mike Collier	One NorthEast
Bob Coxon	ICI
Professor Christopher Edwards	University of Newcastle
Professor Kel Fidler	University of Northumbria
Richard Maudslay	House of Hardy
Lord David Puttnam	NESTA
Chris Thompson	Express Engineering
Professor Gordon Edge	Scientific Generics
Michael Stephenson	Helena Biosciences

Observer

David Slater	Government Office North East

One NorthEast Secretariat

Neil Mundy	Director of Integration
Chris Pywell	Head of Strategy for Success Team
Dr. Caroline Gladwell	Science & Industry Council Policy Manager
Gillian Durkin	Strategy for Success Executive

ANNEX 4

Centres of Excellence

New and Renewable Energy (NaREC)
The North East of England provides ready access to world-class capabilities in the marine, offshore oil and gas, power generation and renewable energy sectors. The Region has innovative companies developing new technologies, and world-class research in our Universities. The Region has pioneered the development of Renewable Energy, such as the Blyth Offshore Wind Farm and the EEST Wave Testing Facility.

Process Industries
The key objectives of this Centre are to:

- Develop a self-sustaining capability in technology and management necessary for the regeneration, diversification and growth of the Process Industries;
- Provide a demand-led management process that will enhance and enlarge the contribution of the Universities through improved focus and effectiveness of programmes in both applied research and education;
- Effect a major improvement in the commercialisation of relevant technologies (in partnership with NorthSTAR), and to support emergent businesses through to full scale manufacture.

To ensure delivery of the above, the initial thrust of the Process Industries Centre will be directed to prove excellence in two related areas:

- Advanced Manufacturing and Process Design
- New Product Development in Material Properties

The prime purpose of the Centre will be to deliver Applied Research in both of these areas. Industry-sponsored programmes will be established to build on the international capabilities of Universities in the Region and beyond.

Nanotechnology, Photonics and MicroSystems
This Centre is based on a strong and developing partnership between Universities in the Region and the private sector. Independent studies have highlighted the internationally competitive position of Newcastle University in biomedical nanotechnology, nanobiotechnology and process intensification, and of Durham University in polymer science, molecular electronics and photonics. Research strengths across all five North East Universities include:

- Biotechnology: protein chaperones, DNA delivery, protein and tissue engineering, drug delivery
- Sensors: environmental, chemical/gas, biological, inertial
- Materials: thin films, coatings, nanoscale functional characterisation, failure analysis
- Spintronics, molecular and bio-devices, molecular wires, self-assembled devices, organic LEDs

Nanotechnology developments are very closely related to those in the Photonics and Microsystems fields.

Life Sciences
The main purpose of CELS is to develop a globally competitive technology exploitation and commercialisation focus in the North East, thus generating new businesses and jobs. The key objective of CELS is to identify the key areas of regional scientific excellence and the parallel platform technologies synergistic to their development.

A strong and broadly based bioscientific research portfolio currently exists in the Region with activities spanning medical, agriculture and environmental areas. Scientific hotspots have been identified including ageing and health, oncology, human development, and plant biotechnology. Complementary to the development of these hotspot areas is the need to identify and develop enabling technologies such as bioinformatic tools.

Digital Technology & Media
DigiCoE will bring together the Region's existing strengths in its Universities and companies to create world-class capabilities. It will enhance this capability by research and training. It will launch new products and services, bringing together the converging technologies of digital hardware, software and media content.

The Region's digital community is committed to implementing inclusive, transparent and proactive activities which will enable our digital industries to grow in technical, business and creative expertise, creating world-class excellence, wealth and jobs.

ANNEX 5

Core One NorthEast Strategy for Success Expenditure Forecast

Strategy for Success Budget		2002/03	2003/2004	2004/2005	2005/2006	2006/07	Totals
Science and Industry Council	Total	0.2	0.35	0.35	0.35	0.35	**1.6**
NaREC	Total	1.6	4.095	7.267	5	5	**22.962**
Cels	Total	2	3.02	5.03	4	4	**18.05**
Nano	Total	2.87	1.35	1.4	4	4	**13.62**
CPI	Total	0.245	2.3	3	4	4	**13.545**
Digicoe	Total	0.6	2	3.745	4	4	**14.345**
Northstar	Total	0.25	1.384	3.1	3.1	3.1	**10.934**
Infrastructure	Total (Cap only)	5	6	12	14	16	**53**
ERDF (Indicative assumption)		0	6	12	14	16	**48**
Total		**12.52**	**26.499**	**47.892**	**52.45**	**56.45**	**196.056**