Broadening the Perspective: Tying the local to the global in the knowledge economy

North East England – moving from an industrial economy to a knowledge economy

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The Challenge

• The North East is the smallest and poorest English Region with a population of 2.4 million
• Traditional Industrial base of Mining, Shipbuilding, Heavy Engineering, Manufacturing and Iron and Steel – all closed or in decline
• GVA per head in the North East stands at around 80% of the UK average
• Productivity of those in work is below the national average
• The number of people of working age in employment is below the national average
• Only 48.7% of students in the North East achieve five A* to C GCSEs against a national average of 52%
• Only 24% of young people in the region enter higher education, significantly below the national target of 50%.

The Strengths of the Region

• The North East has five Universities – Newcastle, Northumbria, Sunderland, Durham and Teesside
• The region has a great tradition of innovation in science and technology
• Strong regional identity
• Committed and Focused Regional Development Agency
• Acceptance of a need for change and a determination to move from industrial economy to knowledge economy

Innovation Connectors

Developments/Projects that provide a strong geographical focus for science, innovation and creative activities and drive forward internationally competitive capacity in universities and within businesses.

• Drive regional growth and stimulate the regeneration of deprived communities;
• Enable the development of new world class facilities and new approaches to integrating business and universities, and engagement with the community.

Each Connector encompasses:

• university research;
• technology based businesses;
• supporting activities (such as employability, training and skills development);
• key facilities.
Newcastle Science City

Substantial new capabilities and activities in respect of the development and commercialisation of science, particularly in the following areas:

- Ageing;
- Stem Cells and Regenerative medicine;
- Energy;
- Molecular Engineering.

The core of the Science City will be in the western area of Newcastle at the former Newcastle Brewery Site, Newcastle General Hospital and the areas around the Centre for Life.

Other sites will be developed that directly link to this agenda. Newcastle Science City will develop innovative approaches to the education of young people in science throughout the region.

Energy Centres

Network of research and innovation facilities throughout the region concerned with new and renewable energy, taking a key role in the development of new, more sustainable approaches to the use of energy by businesses, public organisations and domestic users. These include:

- NaREC (New and Renewable Energy Centres) centre at Blyth;
- CREEL (Centre for Renewable Energy from Land) at the University of Newcastle
- GREAT Institute (Geothermal Research Education and Training) at Easington;
- Fuel Cell Application Centre and Centre for Biomass and Biodiesel in Tees Valley;
- New technology for oil and gas, including carbon capture, in Tees Valley.

Teesside Digital City

Partnership between the University of Teesside and individual businesses

- Developing research, facilities and business in respect of new media, particularly games and animated film;
- Developing new facilities for business in central Middlesbrough;
- Furthering the development of the innovative cluster of related businesses already established in this area.
Wilton Centre
The most significant new materials related research, development and innovation cluster in Europe.
In the last five years, the decline of R&D previously associated with the chemicals industry on Teesside has been reversed and Wilton is now the largest private research concentration in the UK.
Major investments currently being implemented include:
• The National Industrial Technology Facility;
• The hub of the National Nano-Particulates Network.

NETPark at Sedgefield
Centre for research and development, building strengths in the area of novel electronics.
Opportunities for existing and new businesses in the region, building on the strengths of the Universities of Durham and Newcastle, process industry businesses located primarily in Tees Valley and electronics and electrical engineering businesses.
The key project:
• PETECH Centre (Plastics Electronics Technology Centre);
• Major research and engineering facility for plastic electronics technology and devices.

Sunderland Software City
Developed with private sector leadership and to build upon the strengths of the region's universities, particularly Sunderland, and businesses in respect of software development for business applications.
The project will seek to develop new and existing businesses engaged in software development. It will provide:
• start up and grow on facilities;
• intensive coaching;
• access to research, finance and markets.

Conclusion
A partnership between:
• Government;
• Universities;
• Private Sector.
Regeneration based on:
• traditional industrial strengths such as energy and process industries;
• new industrial specialisations such as bioscience and software.
A strategy and implementation policy to produce dramatic change in the region within a generation.