

# NEWCASTLE

## welcomes

# EDIFICE

Tradition and Heritage of Science & Technology

Reputation for our Warm Welcome and Bridges

- between academia and industry

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# Tradition and Heritage of Science & Technology

**It is the 125<sup>th</sup> anniversary of Joseph Swan demonstrating the non-blackening, graphite filament, incandescent electric light bulb to the Royal Society ,**

**“From the darkness of the North..  
..he brought light to London”**

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# Reputation for our Bridges

- between academia and industry

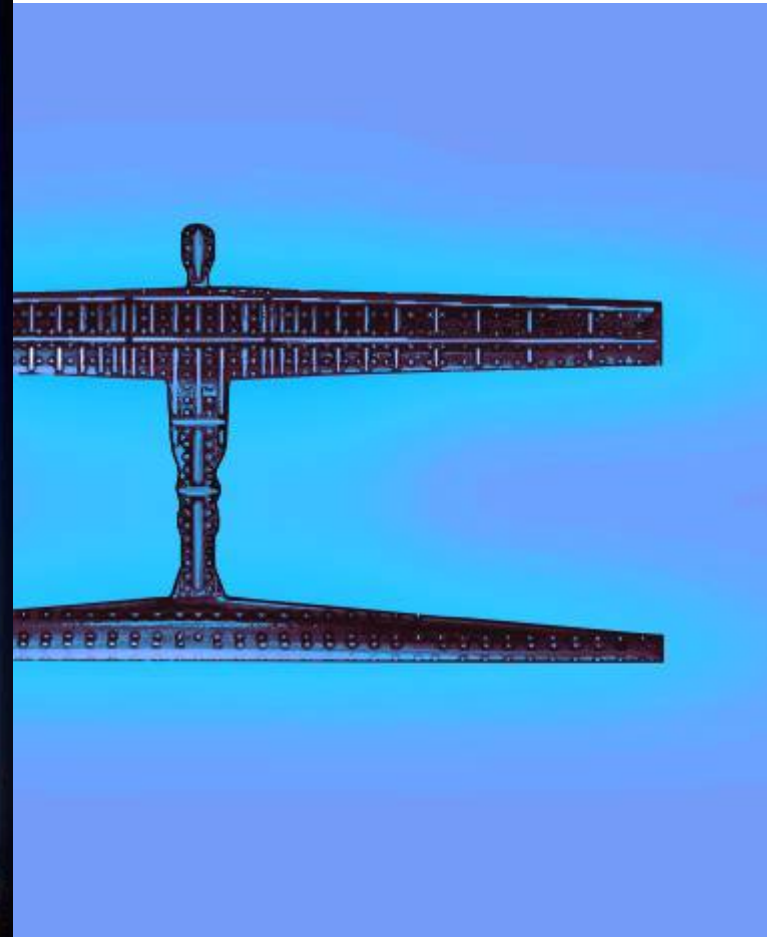


...to regional, national and international visibility and impact!



005

From the detail of world leading activities (e.g. our research)



# Reputation for our Warm Welcome





# "Engineering e-Business through Services and Standards"

The programme and associated debate promises to be both interesting and challenging.

The plenary title was carefully selected to enable the event to cover **both technical** and **business & organisational** issues associated with transacting e-Business.

Designed to encourage discussion around the current advances in business-to-business technologies, and the changes required in organisational structures and business practices to help facilitate the use of these technologies.

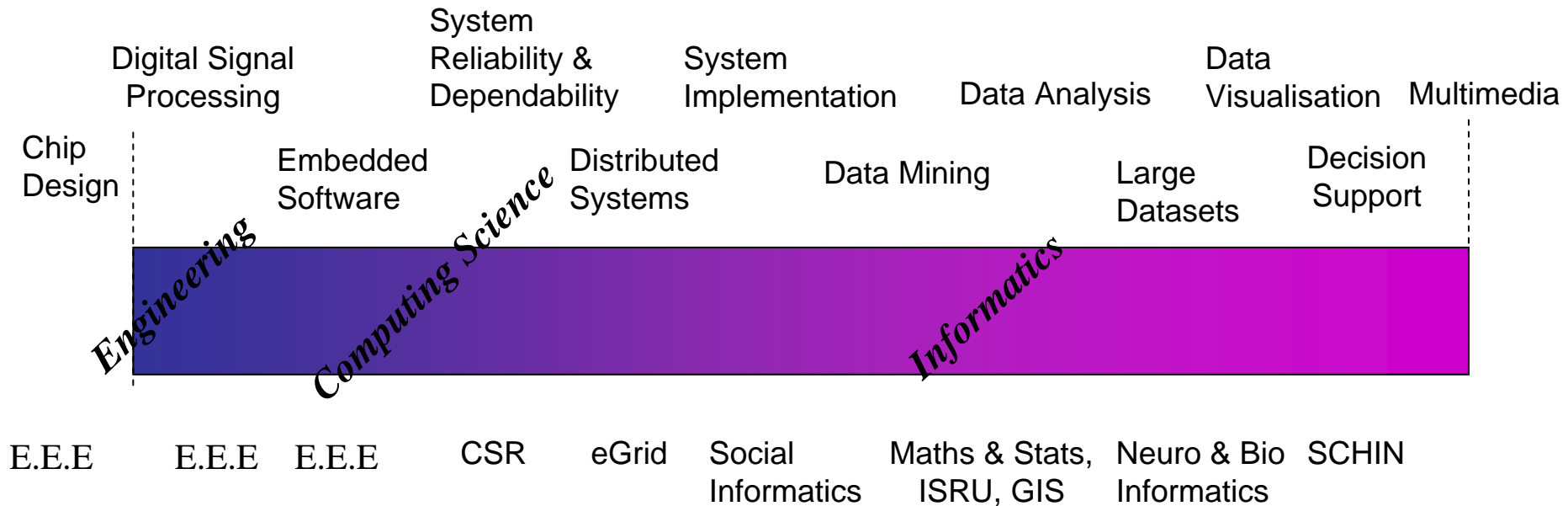
As a venue city, Newcastle has a vibrant mix of the contemporary, cultural, stylish and historic, and is famed across the world for its captivating welcome. There is a abundance of things to see and do, from the fabulous Gateshead Millennium Bridge and The Sage Gateshead, to the classical architecture of Newcastle's historic heart, Grainger Town. This is all supplemented by the exciting art galleries and museums, sensational shops and restaurants, and extensive entertainments to be found throughout the city and its' regions.

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# Regional Research Supply Chain

## Digital Technology & Digital Media Spectrum



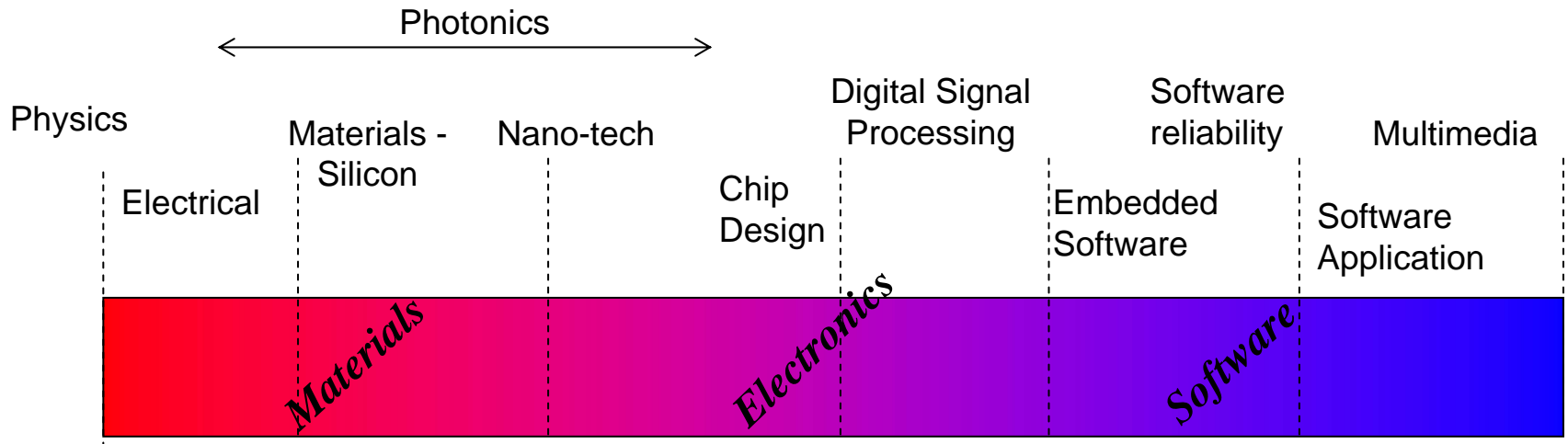
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# Regional Research Supply Chain

## Electronics ~ Software Technology Spectrum



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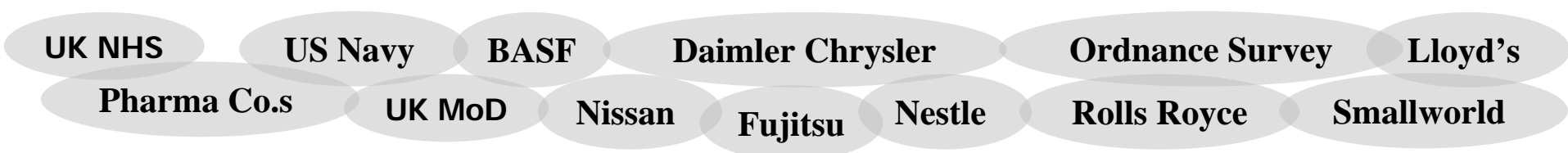
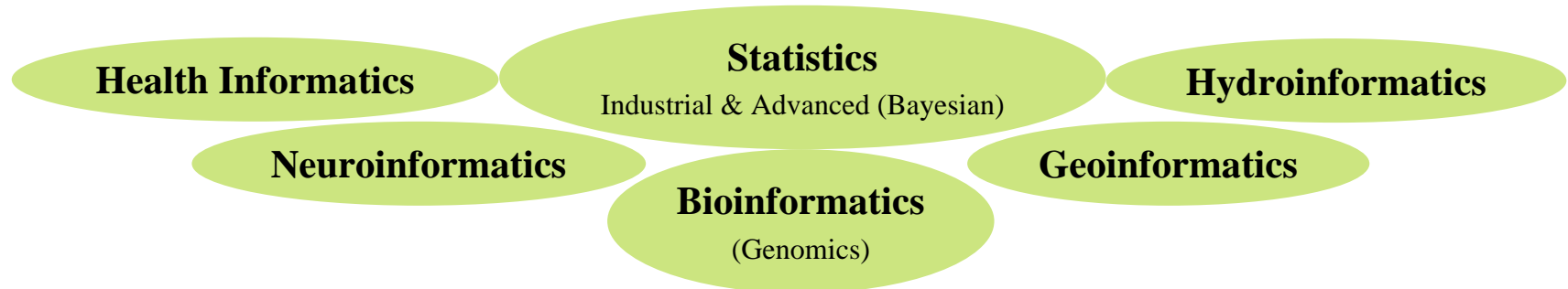


# Newcastle University – Technology Foci

## Informatics & Knowledge Management

Data → Information → Knowledge → Wisdom

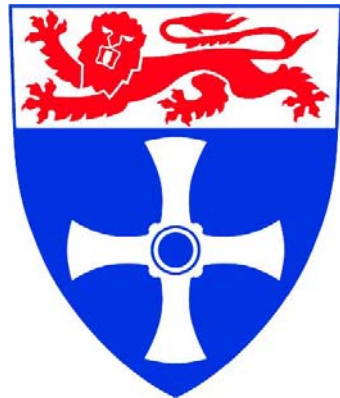
utilisation of large research and corporate datasets is a significant field of development in relation to technology advances in a number of domains



Commercial application of this added value pathway has already been implemented in the UK health market, and is under consideration within other market sectors. [NIIRU@ncl.ac.uk](mailto:NIIRU@ncl.ac.uk)



# Commissioning & Business Models



Customer

Supplier

€£ \$ - cash flow

€\$ £ - cash flow

Supplier

Customer



Strategic Partnerships

Advantageous combination  
of core strengths

Development of joint unique  
selling points

3<sup>rd</sup> Party Customers

3<sup>rd</sup> Party  
Funding  
Streams



“money pots”

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# Delivering the Knowledge Economy in the North East

## **NORTHERN INITIATIVES :**

### **N8 & Science City**

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## Key phrases from the FP7 vision...

- .....to gain leadership in S&T by supporting cooperation between universities, industry, research centres and public authorities across the EU and rest of the world.....
- .....to promote translational / applied research....
- [note : the region has considerable expertise and experience in EU programmes  
- in FP6 alone The University of Newcastle has ~90 Programmes involving 1300 Partners and €36M in value]



# The North of England Science Initiative

**A major collaboration between the  
Universities of Durham, Lancaster,  
Leeds, Liverpool, Manchester,  
Newcastle, Sheffield and York**

**The largest research pooling initiative in the UK-ever!**

***'Part of the Northern Way:  
Improving the economic performance of  
the North of England, for UK Ltd'  
[in parallel with the Science Cities initiatives]***

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# The Combined Strength of the North of England Eight 'Research' Universities ('N8')



## The Universities of Durham, Lancaster, Leeds, Liverpool, Manchester, Newcastle, Sheffield, York

- Total annual turnover is around £1.75 Billion
- Total Research income is over £620M
- ~8,000 academic staff; ~160,000 students

## By comparison, the Universities of Oxford, Cambridge, Imperial, UCL, London School of Economics

- Total annual turnover is around £1.75 Billion
- Total Research income is around £820m
- ~7,200 academic staff; ~85,000 students

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# Can the N8 make an Impact ?



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Gary Nestor BSc PhD DipMgmt





# THE NORTH'S BIG EIGHT

— the new global power base in Britain

The Northern Way initiative has forged a powerful alliance of the eight research-intensive universities in Northern England, creating unique opportunities to drive forward the Government's ten year strategy for science and innovation.

The group, known as the NB, aims to apply research excellence to the industrial and social needs of UK plc in innovative and imaginative ways, providing more effective routes to realising the Government's plans.

The NB's first step has been to identify areas of research excellence of a truly interdisciplinary nature which are predominantly held in the North of England, are not mirrored elsewhere in the UK, may be some of the most important and relevant research of our age and which may be translated into significant benefits for UK plc over the next decade. The eight universities – Durham, Lancaster, Leeds, Liverpool, Manchester, Newcastle, Sheffield and York – can draw on a wealth of experience in terms of research excellence, relevant and multi-disciplinary technology transfer, commercialisation and regional development.

With a total turnover of £1.75bn, a research income of £520m, over 8,000 academic staff and 160,000 students, the NB's critical mass rivals that of the 'golden triangle' in South East England and many powerful groupings in the USA.

The 'top five' themes for initial consideration are:

- ageing & health
- energy
- molecular engineering
- regenerative medicine
- sustainable water use

These five initial projects all involve creating new avenues for effective 'research brokerage' at the interfaces between industrial needs, societal demands and university research excellence.

These new avenues may result in industry coming on to university campuses to work alongside leading academics, new physical or virtual 'institutes' or 'technology villages' and the creation of specialised groups offering insights and strategic advice.

Wherever these new avenues lead, the emphases will be on 'excellence with purpose', research focused on societal needs and ensuring a cutting edge for high-value-added UK industry beyond 2010.

There will, of course, be significant interrelationships among the five themes: for example between water and energy in terms of the environment and between ageing and regenerative medicine in health care. There will also be synergies and resonances with the activities of the Northern region's three 'Science Cities'. All of these linkages will be explored.

A number of major funding bodies have already expressed considerable interest in what promises to be one of the largest 'research pooling' exercises relevant to economic development in the UK.

Of course, the NB recognises that its objectives could not be achieved without collaboration with regional partners, including other northern universities. The NB will continue to work closely with the three regional development agencies of Northern England and the Science and Industry Councils, so that there is a clear focus on areas which align with business strengths in UK plc.

While the NB intends to provide alternatives to existing avenues of funding, it also aims to complement them. The group's proposals do not duplicate Research Council activities but build on the excellence they have supported.

There may also be instances, especially those building further critical capacity in some areas of research and technology, where the NB may play a part in leveraging funding from Research Councils or the European Union.

**PARLIAMENTARY BRIEF  
AUGUST 2005 9(11)**



THE UNIVERSITY OF *York*



Durham  
University



LANCASTER  
UNIVERSITY



THE UNIVERSITY  
of LIVERPOOL



The  
UNIVERSITY  
OF  
Sheffield.



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# Delivering the Knowledge Economy in the North East

## **NORTHERN INITIATIVES :**

### **N8 & Science City**

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# Science City press release

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# NEWCASTLE SCIENCE CITY - the vision

- **Newcastle Science City** will be a new and unique integration of science, business and economic development.
- It will establish new approaches to translating scientific research into applications, particularly by business.
- It will create an environment – including new build (**Science Central**) where science and business can work together in a manner and on a scale competitive with any other location elsewhere in the world.
- It will establish new world class facilities for scientific research, teaching and business.
- It will effect major improvements in the participation and achievement of young people in science.
- It will be driven and enabled by a unique partnership, bringing together our universities, our Local Authorities, primarily Newcastle City Council, our Regional Development Agency, One NorthEast, our NHS, key institutions such as the Centre for Life, and businesses.
- It will provide new ways of working with Industry to deliver the Government's 10 yr plan for Science & Innovation...and FP7...

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ional  
Development Fund



# NEWCASTLE SCIENCE CITY- the vision

- ...to establish **a new type of University in the UK** which is “open for business and regional development” – where business, academic activities, and the development of the Region are inextricably linked to mutual benefit;
- to **develop new approaches** ... to enable businesses and other organisations concerned with the application of research, **to shape research** programmes at an early stage in their development, ....
- **driven and enabled by a unique partnership**, bringing together our universities, our Local Authorities, primarily Newcastle City Council, our Regional Development Agency, One NorthEast, our NHS, key institutions such as the Centre for Life, and businesses.
- **to integrate the differing but complementary strengths of the Universities of Newcastle, Durham, Northumbria** ..creating, **on a global scale**, leading sources of scientific research and teaching, ....
- **to develop major new physical spaces**, providing world leading facilities for research, teaching and the integration of business,...establishing a “**Science Central**” site as one of the most significant and extensive investments in economically relevant scientific facilities in Europe over the next few years;
- **the nurturing and attraction of people to work in science and learn science**, including the attraction of world class researchers and the widespread promotion of participation by our schools.

# NEWCASTLE SCIENCE CITY - objectives

- Development of internationally-leading science- based research, business and education, in a globally competitive environment, in the City of Newcastle
- Integration of science and technological research in areas of current and future strength with related commercial and business development
- Thus providing a key driver for the development of the City, the City Region, the NE of England and the UK
- Thus providing new ways of working with Industry to deliver the Government's 10 yr plan for Science & Innovation

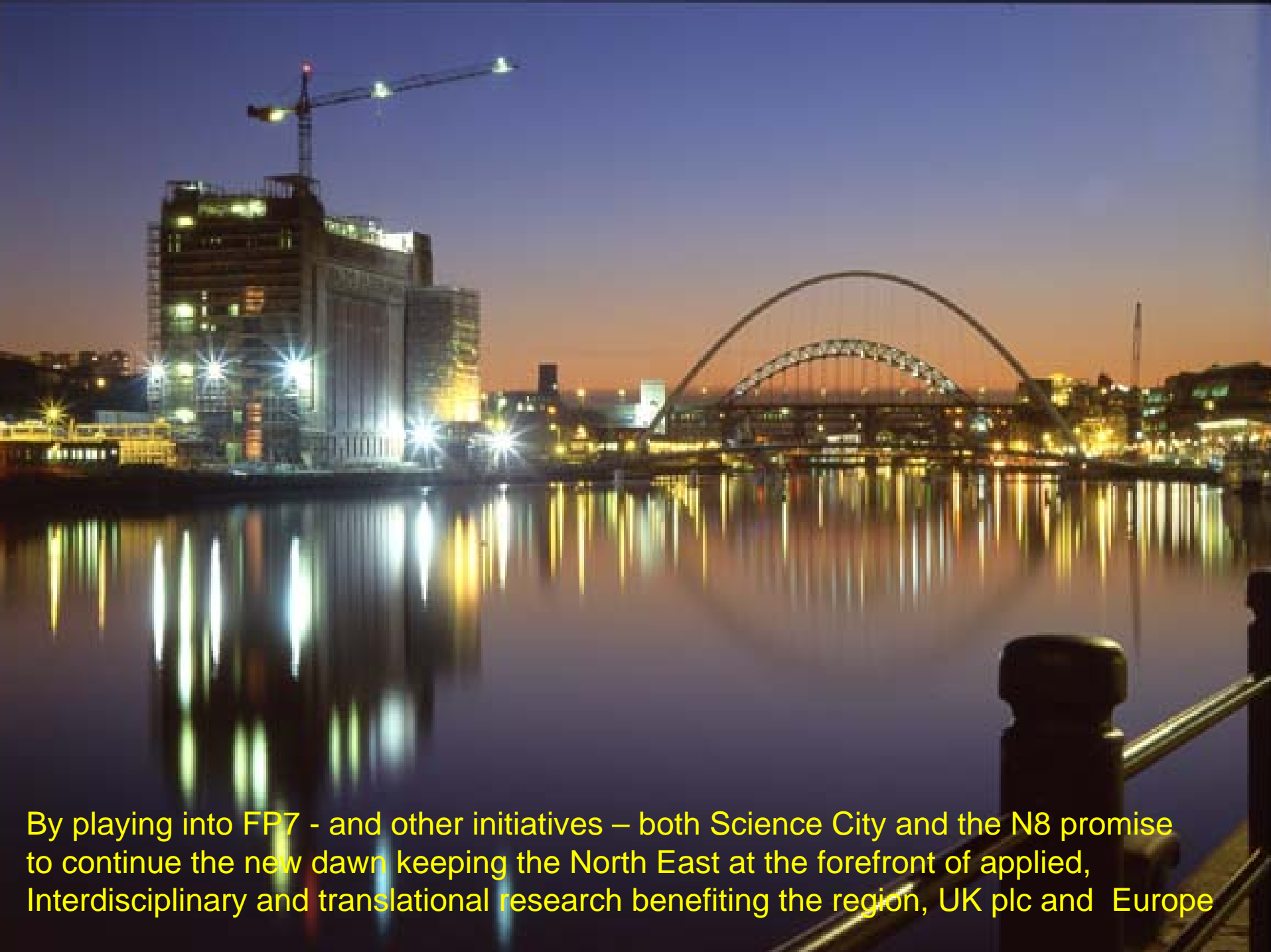
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# Science City video

**NITRO@ncl.ac.uk**





By playing into FP7 - and other initiatives – both Science City and the N8 promise to continue the new dawn keeping the North East at the forefront of applied, Interdisciplinary and translational research benefiting the region, UK plc and Europe



16.12.03

**THE BILLEN INTERVIEW**

The man behind "Les Liaisons Dangereuses"

**12**

**ARTS**

The space race: can our modern buildings convey a sense of colour?

**14**

**LAW**

Remembering the characters and cases that defined 2003

**INSIDE**



**THE TIMES**

**TUESDAY**



The North East - rapidly becoming the centre of the UK

**THE NEW CAPITAL OF BRITAIN**

WHY SOUTHERNERS ARE MOVING TO NEWCASTLE PAGES 4-5



Newcastle welcomes EDIFICE Nov2005



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Project part financed by  
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