

The Yorkshire and Humber Region



- The White Rose University Consortium is a strategic partnership between Yorkshire's research-intensive universities of Leeds, Sheffield and York
- The Consortium has a proven and successful track record for collaboration and has secured over £100 million since 1997
- The role of HE in economic development (Mandleson report)
- Regional context
 - Regional Innovation Strategy (RDA)
 - Yorkshire Innovation
 - EU Structural Funds (2007 – 2013)
 - City Regions (3 in Y&H)
 - Science Cities
- National/International links
 - Northern Way/N8 Universities
 - World Universities Network
- Collaboration encouraged by funding bodies
- Larger interdisciplinary projects
- Encouragement of interaction between HEIs, business and society

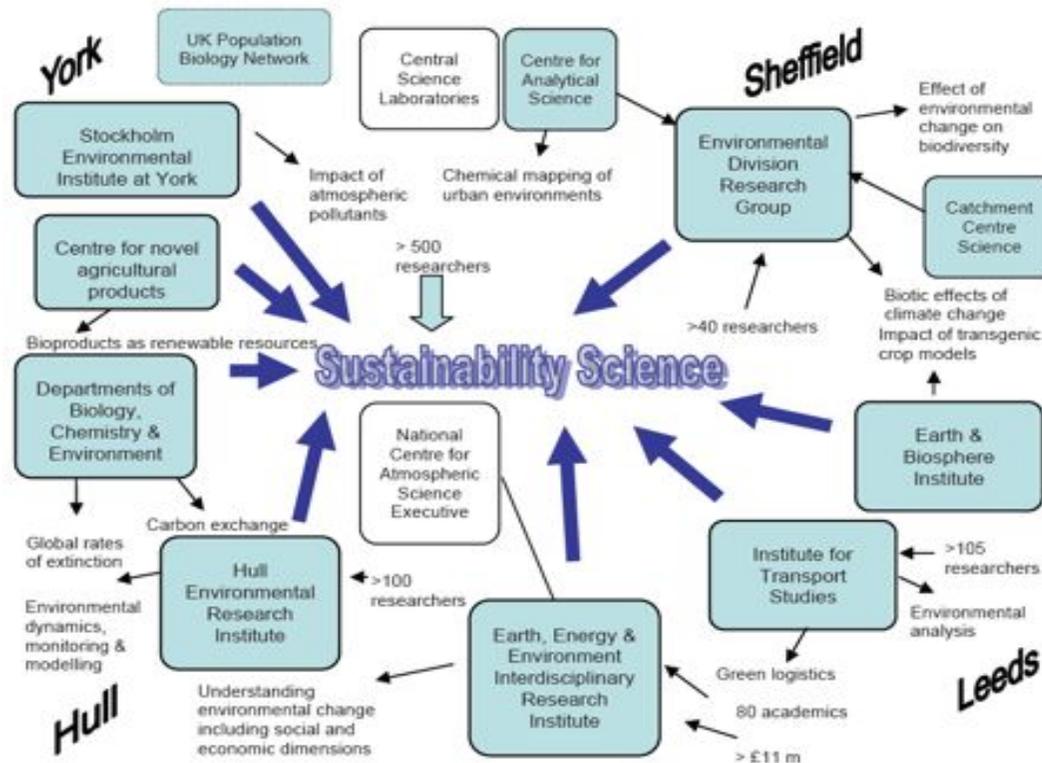


Why collaborate through/with White Rose?

- To develop partnerships which deliver projects that raise the national and international profile of the Universities
- To mobilise our combined strength, capabilities and expertise to create funding opportunities for our partner institutions
- To seize the opportunities offered by the UK's science and innovation agenda and establish White Rose as a key driver of regional economic development within a national and international context.
- **Low Carbon**
- **Health Technologies**

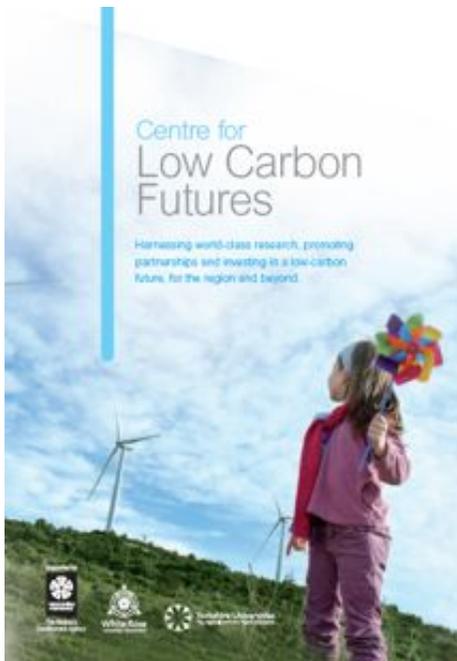


Why Low Carbon?



- High priority strategically for the region
- Significant economic importance of energy generation, transport fuels, industrial heritage, ports and pipelines and our rural, agricultural and natural parks geography
- World class academic strengths and recognized centres of excellence, with significant Research Council, private and public sector funding

Centre for Low Carbon Futures



- £50m collaboration created to harness the research strengths of Yorkshire's universities to optimise carbon efficiency within businesses, organisations and communities.
- identify and promote technological and process innovations that will lead to the emergence of a competitive, resilient, low carbon economy in Yorkshire and beyond
- create a research and training environment of international quality to meet the most challenging energy and environmental questions
- exploit the basic and translational research capacity of the region for the benefit of the UK economy
- enhance Yorkshire's world-class research institutions and make a significant impact on new and sustained business investment

Centre for Low Carbon Futures Translational Research



- **Climate Change Impact and Adaptation**

Understanding and managing climate change impacts, risks and uncertainties, enabling adaptation to climate change, anticipating the impacts of climate change policies and enabling adaptation to them.

- **Future Energy Conversion**

Investigation of a range of fundamental alternative and renewable fuels including work on oxygen generation, energy conversion technologies, alternative fuel types, simulation and modelling.

- **Biorefining and Biorenewables**

Development of a fully integrated approach to biorefining in order to develop new value streams for farming and industry in the region.

- **Supply Chain Management**

Development of a holistic view of full supply chains in order to create life cycle assessment and supply chain analysis methodologies, and comparing global supply chains.

Low carbon connections



- **Translational research**
 - Centre for Low Carbon Futures
- **Pull-through demonstrator facilities**
 - Carbon Capture and Storage (£160m (EU) for coal-fired power station with CCS)
 - Yorkshire Biorefinery Facility
- **Business collaboration and innovation networks**
 - Centres for Industrial Collaboration (Green Chemistry/Environmental Technologies)
 - Advanced Engineering and Manufacturing/Product Formulation Networks
- **Business adoption of best practice**

Centres of Industrial Collaboration

A world-class scientific, technical and research resource for industry

- International research capability
- Track record and willingness to engage business
- Access to state-of-the-art equipment and facilities
- The flexibility and capability to solve an SME's problems



**Green Chemistry
CIC**
University of York



**Biomaterials &
Tissue Engineering
CIC**
University of Leeds



Stem Cell CIC
*University of
Sheffield*



**Materials Analysis &
Research Services
CIC**
*Sheffield Hallam
University*



Polymer CIC
*University of
Bradford*



**Pharmaceutical
Innovation CIC**
University of Bradford

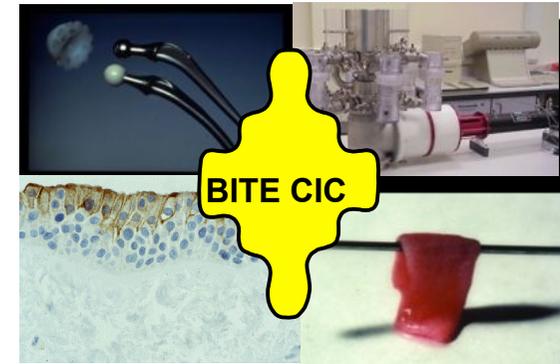
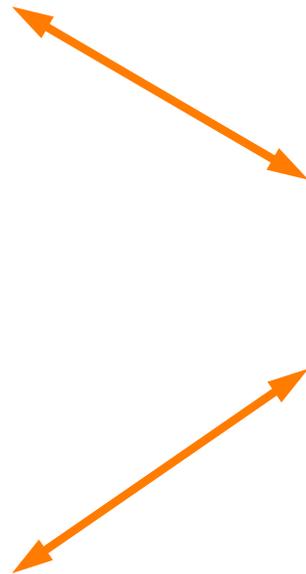


**Particle Science &
Engineering CIC**
University of Leeds

Health Technologies: Moving Research into Application

White Rose Functional
Tissue Engineering
Studentship Network
(WREN)

Tissue Engineering
and Regenerative
Medicine
Doctoral Training
Centre



Biomaterials &
Tissue Engineering
Centre of Industrial
Collaboration

Medical Devices
From
Concept to Clinic





Accelerating Innovation in Health

White Rose Health Innovation Partnership

White Rose HIP is a partnership of 22 organisations covering academia, industry and the NHS in the UK and USA providing support to healthcare innovators to create new collaborations and innovative solutions to meet real healthcare needs

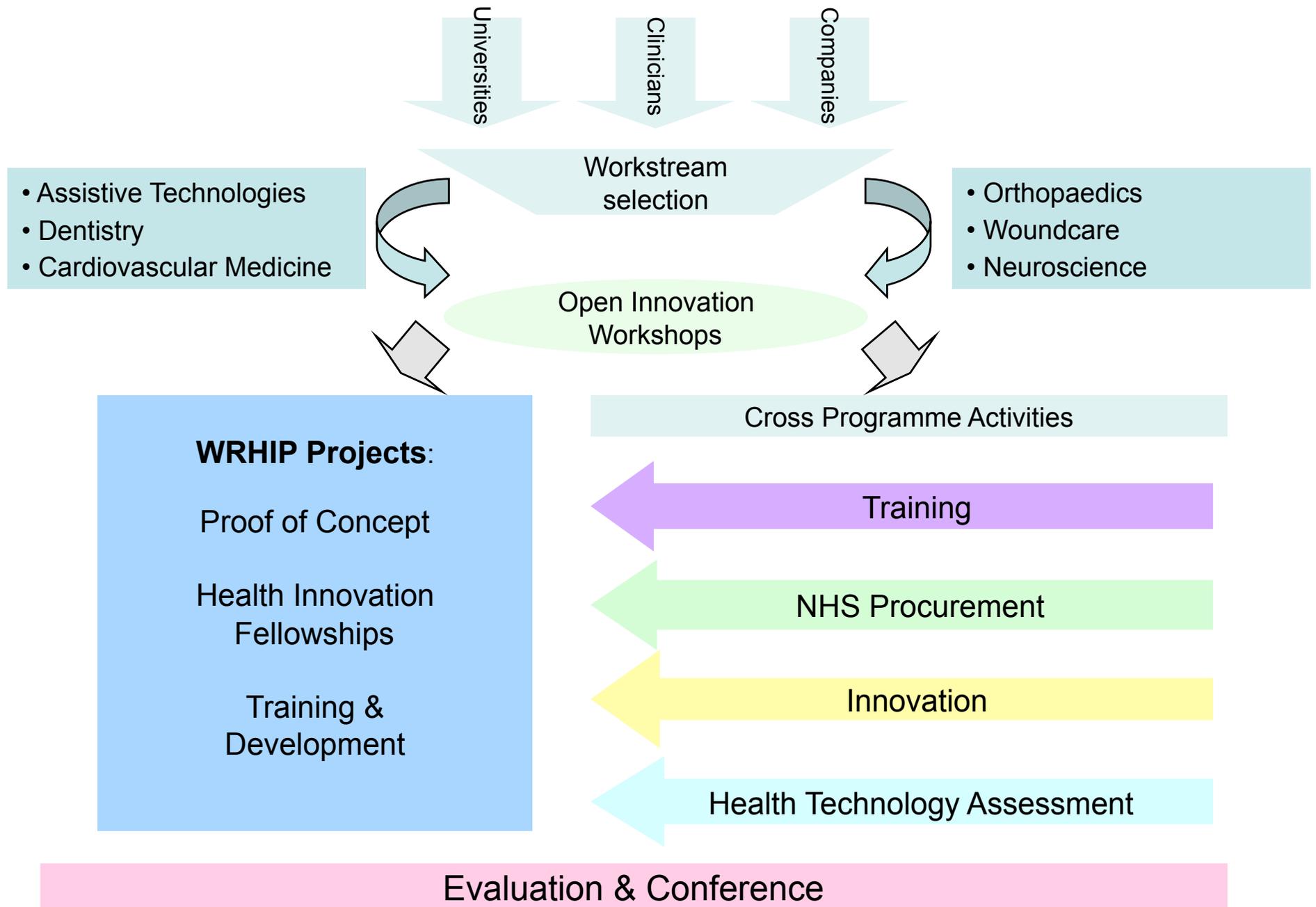
- Models of healthcare management changing
 - Greater emphasis on technologies, devices and combined systems that improve healthcare by targeting prevention, diagnosis, treatment and rehabilitation
- Medical devices – changing industrial trends
 - Technologies
 - Business models
 - Ways of developing new products



Objectives

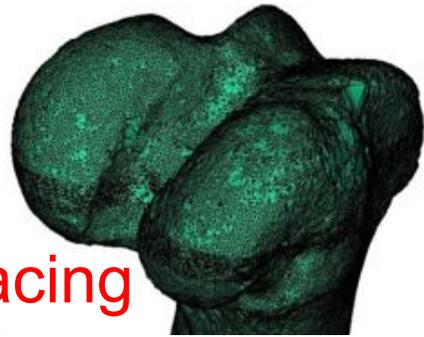
- To stimulate more and better quality collaborative innovation / R&D across Yorkshire and Humberside
- To demonstrate open innovation can be performed in a diverse trans-national partnership emanating from Higher Education sector.
- To provide support to healthcare innovators to create new collaborations and innovative solutions to meet real healthcare needs
- To develop master classes and continuing professional development (CPD) modules to support innovative R&D

White Rose Health Innovation Partnership – The Process



Proof of Concept Projects

Joint Resurfacing Implants



Smith & Nephew are working with the **University of Bradford** to explore a pioneering method of resurfacing joints. This new technique could offer a less invasive alternative to total joint replacement.

Natural looking prosthesis are crucial to regaining quality of life and self esteem for patients following disease or trauma but production is a highly skilled, time consuming process so many patients wait a long time for these.

The School of Clinical Dentistry at the **University of Sheffield** and **Fripp Design** are combining the strengths of two modern technologies (rapid prototyping and 3D colour printing) to revolutionise this process.

Customising Prosthesis



Proof of Concept Projects

Partners from the **University of Leeds**, the **New Jersey Institute of Technology** and **Sound Alert Technology Plc** are working together to develop a technology using special sounds which the ear finds easy to locate to help children with **Developmental Co-ordinating Disorder**.



The York Neuroimaging Centre at the **University of York** and the **New Jersey Institute of Technology** are working together on an innovative **diagnostic imaging** technique which could replace current methods used in MRI and PET scanning. This new technique, called hyperpolarisation, vastly improves the sensitivity of the MRI scan without increasing the use of heavy metals.

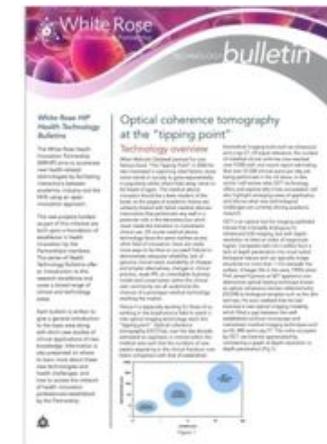


The aim of this **University of Leeds** project, in collaboration with the **Foetal Medicine Foundation**, is to create a web-based computer application to enable ongoing **QA of ultrasound practitioners** in Nuchal Translucency measurement.



This diverse program was developed in response to discussions with the Y&H industry base, and covers areas such as IT, mobile and wireless technology for health, electronic product design and health technology assessment www.cpd4healthinnovation.co.uk

- Training and Development projects (Ultrasound-guided needle puncture simulator training materials; Patient Voices – digital story telling)
- Health Technology Bulletins (Wound care, bio-photonics)
- Health Technology Seminars (DNA-based diagnostics)
- Master Classes and CPD modules





Outcomes

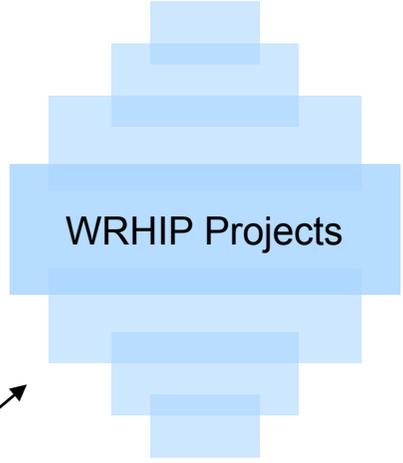
The Partnership
22 organisations
2 countries

Universities

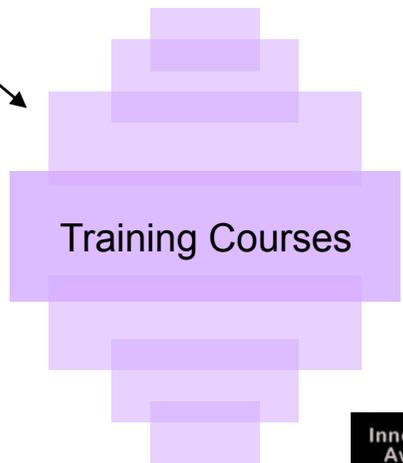
Clinicians

The Project Team
9 people

Companies



40 projects (funded)
100 projects (applied)
>250 people



28 courses
>500 people



New R&D contracts (48)
Consultancies (142)

New Patents (11)
Licences (5)
Spin outs (2)

Innovation Tools
HTA
Procurement Toolkit

Enterprise Fellows (9)
Leveraged income (£2M)

New networks

New collaborations



150 project ideas
2 countries
>150 people

6 workshops
2 countries
>200 people

“Over its first five years, it plans to develop ten new products”

“The IKC will work in new and innovative ways to halve the time to exploitation for new medical products or services”

Commercial Output of
New Products or Services



Culture Change

“Engineering 50 Active Years After 50”

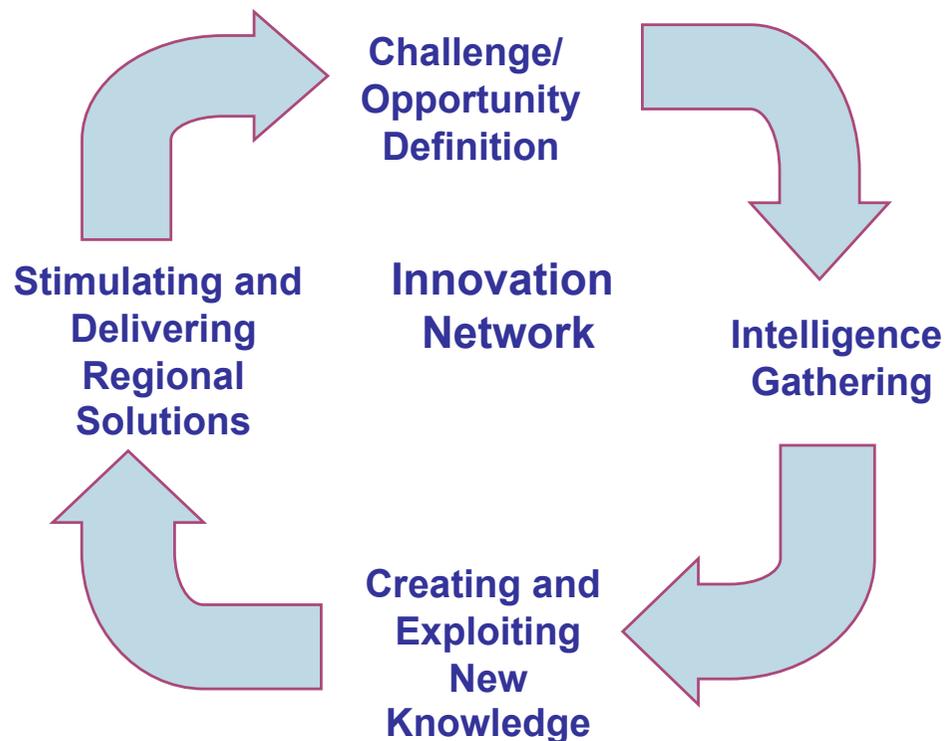
“Bench to Bedside & Back”

- The primary purpose of this IKC is to deliver a 10-fold increase in the rate of new medical device commercialisation from the University, culminating in 2 device launches per year by 2014.
 - The secondary purpose is to deliver a culture change within the University in the mind set of academics and clinicians toward new product or service innovation and collaboration.
 - A successful outcome will enable expansion of the IKC model across other commercial sectors and across other universities.
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Yorkshire Health Innovation Network

The overall **aim** of the Innovation Network is to engage, inspire and stimulate companies, to identify and respond, through innovation, to future national and global business challenges and opportunities, with the business community taking the lead and driving a new service offering which will result in new high value products and services.



Stimulate a radical change in approach to innovation through development of an **innovation culture** (knowledge sharing and inspirational leadership).

A **positive approach to risk** (using the knowledge gained and health economics/health technology assessment approaches to enable robust innovation strategies with early stage de-risking)

The challenges and their conversion to opportunities will be prioritised in collaboration with regional business champions ensuring **demand pull** which will be reinforced through all the process stages.



White Rose
university consortium

More Information



Inside: Good Working, Effective Communication, TED Project, Westwood, BTI CC, C21U

White Rose Research Triangle

The groundbreaking £2.5M White Rose Research Triangle project is now underway, with three Inward Investment Managers in place, working towards their target of radically increasing the region's business competitiveness and performance.



Inward Investment Managers Adam Lamb (Leeds), David Huxford (Sheffield) and Peter Huxford (York) will draw on their backgrounds in regional development, Consumer Healthcare, R&D and Clinical Health care R&D to attract a significant amount of private sector funded R&D across the region.

The real focus of the Research Triangle in healthcare is to ensure services - widely recognised as being central to the economic performance of Yorkshire and the region.



Inside: White Rose Grid, Technology Transfer Fund, TED Project, Faculty Packaging Partnership

Accelerating health innovation

A unique partnership to accelerate the adoption of innovation products, services and research in the health sector is to be initiated in the region thanks to a successful White Rose bid to the Higher Education Innovation Fund.

The £1.5m project, from Leeds University Partnership (LUP) will bring together, for the first time, a wide range of medical and healthcare professionals for focus on identifying and effective innovation in the health sector - one of the largest global markets. The partners include the Universities of Leeds, Sheffield Hallam and Bradford, Teaching Hospital Yorks in Leeds, Bradford and Bradford Health, the regional R&D Innovation Hub (BRID), Health, the regional Health Technology Knowledge Transfer Network, Healthcare Technology Innovation, Yorkshire Research and Innovation Collaborative. The project builds on the work of the HEFST funded White Rose Research Triangle Innovation Hub, aimed at accelerating the development of research and specific technology spin for health and life-science collaborative development.



Yorkshire and the region has an extensive health sector, comprising England's largest teaching hospital trusts, major global health care companies, over 500 medical technology SMEs and multiple start-ups. The project provides the opportunity for these organisations to work collaboratively to deliver high-quality technology leading to nationally recognised performance, cost effectiveness and evidence for public use.

White Rose (WR) focuses on taking White Rose's expertise. This research partnership will provide a framework for the delivery of new technologies, methodologies and practices into the medical and healthcare sector of a region that has previously been possible. The partnership can particularly well-placed to step the solution in this area in one of their unique endeavours with about 100 in the Leeds, extensive research expertise in the technology area, and their capacity for commercial collaboration.



Inside: Research Design Service

Research Design Service

At the heart of the Research Design Service (RDS) is a team of experts who will provide a range of support and advice to researchers in the region. The RDS is a unique service that will provide a range of support and advice to researchers in the region. The RDS is a unique service that will provide a range of support and advice to researchers in the region.



Home

The White Rose University Consortium (White Rose) is a strategic partnership between Yorkshire's leading research universities of Leeds, Sheffield and York. The combined research power of the three institutions ranks alongside that of the Universities of Oxford and Cambridge and accounts for 86% of the region's research spend.

In Production	Latest News	Quick Links
<ul style="list-style-type: none"> Our role is to ensure effective collaboration between the three universities. We do not provide funding, however we facilitate and support our partner universities encouraging creativity and innovation to ensure that together they can secure funding and resources to pursue their research. 	<ul style="list-style-type: none"> 14/09/2005 ESS: Selby District Council resolves to grant outline planning permission 17/08/2005 New White Rose Newsletter launched 18/07/2005 Bioscience Forum 2005 Website goes live 13/05/2005 ESS: Outline planning application submitted 21/04/2005 What is the White Rose Grid? 	<ul style="list-style-type: none"> HEIF3 Consultation Event White Rose ePrints Repository White Rose: Yorkshire's Research Triangle Research Together

[projects | events | news | links | contacts | privacy policy | accessibility policy | site map]



Inside: EITDA award for new Doctoral Training Centre

EITDA award for new Doctoral Training Centre

The White Rose University Consortium has been awarded the EITDA award for its new Doctoral Training Centre. The award is a recognition of the consortium's commitment to research and innovation in the region.

