## National Centre for Sport and Exercise Medicine - East Midlands ...and connecting it to N3





## **2012 Olympic Health Legacy**



- Improving the nation's health through sport, exercise and physical activity
- Transforming the delivery of sport and exercise medicine within the UK
- Creating three new facilities to co-locate and integrate research, education, clinical and wellbeing services to deliver exceptional health benefits throughout the UK and beyond
- Accelerating the translation of research and basic science into new models of patient care and front line practice
- £30 million capital investment
- Part of Public Health England remit since August 2013
- Regional hubs in London, East Midlands and Sheffield

## **NCSEM** regional hubs



Loughborough University

University Hospitals of Leicester NHS Trust

Nottingham University Hospitals NHS Trust

Nottinghamshire Healthcare NHS Trust

University of Leicester

The University of Nottingham

SHEFFIELD east midlands LONDON

> University College London Hospitals NHS Foundation Trust

> > University College London

Sheffield Teaching Hospitals NHS Trust

NHS Sheffield

The University of Sheffield

Sheffield Hallam University

Voluntary Action Sheffield

Sheffield International Venues

Sheffield City Council

Sheffield Chamber of Commerce

## **NCSEM East Midlands**



- 'Hub' in a newly built facility at Loughborough University
- Designed to bring together the research, education and clinical capabilities of the partners
- Will facilitate a wide range of joint working initiatives between exercise scientists and clinicians
- Will work with a number of partners on the Loughborough University campus and the wider sporting community, including sport governing bodies and the English Institute of Sport

## **Our vision**



To build on existing capabilities in research, education and medicine within the East Midlands to deliver:

- an international centre of excellence attracting research funding, advising government and providing educational and clinical services to elite and recreational athletes, NHS and private patients, clinicians and allied healthcare professionals
- a transformation of the way that physical activity and exercise are used in the prevention, management and treatment of long term conditions

## **Our aims**



- Create an international centre of excellence for research in sport and exercise medicine
- Accelerate the translation of research and basic science into new models of patient care
- Provide a comprehensive clinical service including a state of the art diagnostics facility on Loughborough campus
- Promote the take-up of exercise as a prescriptive medicine and as preventative therapy
- Promote knowledge transfer and inform clinicians, allied healthcare professionals and deliverers of exercise

## **IOC** accreditation





- International Olympic Committee Research Centre for Prevention of Injury and Protection of Athlete Health
- One of only nine centres around the world
- NCSEM tasked with researching, developing and implementing effective preventive and treatment strategies for sportsrelated injuries and illnesses

### Research foci



- Exercise as an intervention to address disease related pathology (acutely and chronic intervention)
- ii. Musculoskeletal trauma and exercise rehabilitation
- iii. Implementation of exercise medicine to the general public for physical and mental health and wellbeing
- iv. Nutrition in the context of public health (healthy living) and athletic performance

### **Education**



#### MSc Musculoskeletal Medicine

- Programme structure
  - The low back, principles of musculoskeletal medicine and research
  - The upper limb, cervical and thoracic spine
  - The lower limb and sports and exercise medicine
  - Systemic disorders and the integrated approach
  - Research project linked to supervisor's research area

# MSc Musculoskeletal Sport Science and Health

- Programme structure
  - Orthopaedic biomechanics
  - Neuromuscular function
  - Motion analysis of human movement
  - Muscle physiology and metabolism
  - Sports injury
  - Research methods for sport and exercise
  - Human nutrition
  - Cardiorespiratory physiology
  - Research project linked to supervisor's research area

## Clinical services



- Sports and exercise medicine
- Sports respiratory medicine
- Cardiac and pulmonary rehabilitation
- Orthopaedic service aligned with the SEM service
- IAPT integrating exercise with a CBT service for patients with mild/moderate anxiety/depression
- Mindfulness Based Cognitive Therapy (MBCT) offered to athletes and general population for managing stress and anxiety
- National Sleep Centre training and consultations plus clinical therapy for athletes, coaches and the general population

### And then we introduce IT



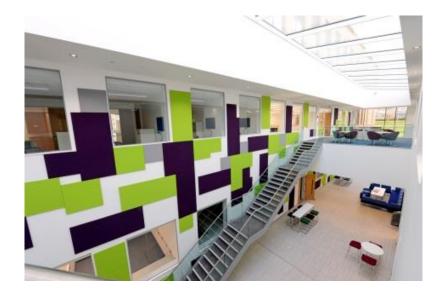
- 3 different IT departments
- Who is responsible for what?
- Who is leading?
- Who are the users and what do they want?



## **Connectivity alternatives**



- A dark fibre to each trust
- A wavelength over the MAN to UoN & UoL
- A dark fibre to Loughborough hospital and onto their N3 connection
- Use the existing N3 connection to the campus medical centre
- A dedicated N3 connection for the building



## Why N3?



- Radiology facilities
- PAS Patient Admission System
- EMRAD East Midlands Radiology Consortium
- PACS Picture Archiving & Communications Systems
- RIS Radiology Information Systems
- Information Governance

## The plan



- Procurement led by NUH
  - Some advantages to this
  - But some disadvantages
- Delivered to our main communications hub on campus and routed over our infrastructure to the building
- Interim solution for PACS designed by the trusts and EMRAD until everyone has moved to the new EMRAD solution
- Desktop solutions delivered by VDI thin clients in all clinical rooms but clinicians can also bring their own devices

### It takes time



- First discussions with NHS bodies in late 2013
- Nothing happened until mid 2014
- Agreed to order N3 in November 2014
- Survey done in January 2015
- N3 installed March 2015
- Testing done and go live in May 2015

## **Lessons learned**





- N3 was not what we thought it was
- Not everyone uses N3 in the same way
- Different NHS trusts = very different approaches
- ...and is often like herding cats
- N3 is expensive
- ...but not difficult to use