

NWUA Briefing Note: JOINT ECONOMIC COMMISSION FOR THE NORTH WEST

Date: 29th March 2010

Meeting Theme: Nuclear

The North West region was designated as a Low Carbon Economic Area for Nuclear in 2009 and its status within the nuclear sector is reflected in the skills, research and knowledge transfer capabilities of its higher education institutions. Although a specific area of study and research in its own right, expertise in the North West embraces a wide scope of work including decommissioning, new build, waste management, governance and epidemiology and genetics. This paper intends to provide an overview of the current selection of nuclear activities in the higher education institutions in the North West. Information was provided to JEC 14th December meeting on Low Carbon economy, which also included some nuclear aspects. NWUA responded to the NW Regional Committee's Inquiry into the 'Future of the Nuclear Industry in the North West' and this piece of written evidence is provided at Annexe A. In this submission we also note that many of the activities outside of the 'core nuclear offer' have existing and potential benefit for the nuclear industry.

Skills

The North West's universities offer over **22 courses relating to the nuclear industry** ranging from CPD to full foundation, bachelors and postgraduate degrees. Employer engagement is significant in many of these. For example, the **North West Higher Level Skills Partnership** has funded the development of 5 new HEI courses for work based learners in nuclear sectors. (See Annexe A for details of additional skills provision in the North West).

Institution	Qualification	Industry Partners
NW Higher Level Skills Pathfinder 2006 – 2009		
University of Central Lancashire	Foundation Degree in Nuclear Related Technology (Three distinct degrees; Science and Process Instrumentation and Control Commissioning & Maintenance)	3 industry partners
University of Central Lancashire	Foundation Degree in Nuclear Project Management and Programme Control	2 industry partners
University of Central Lancashire	The Science and Technology of Nuclear Waste Management CPD	5 industry partners
NW Higher Level Skills Partnership 2009 – 2011		
Open University (in partnership with National Skills Academy - Nuclear)	Certificate of Nuclear Professionalism	9 industry partners
University of Central Lancashire	Details of safety case	6 industry partners

The Nuclear Technology Education Consortium (NTEC) is a new concept in postgraduate-level training for the nuclear sector, developed by a strong consortium of UK Universities and HE institutions including the University of Liverpool, Lancaster University, the University of Manchester and the Westlakes Research Institute. The structure and content of the programme, which leads to qualifications up to Masters level in Nuclear Science and Technology, was established following

extensive consultations with the UK nuclear sector, including industry, regulators, MoD, NDA, Government Departments and the Cogent Sector Skills Council.

The Open University, the University of Liverpool, the University of Central Lancashire and the University of Cumbria are University Associate Members of the National Skills Academy- Nuclear, to enable and support high quality career progression to the top of the skills pyramid (only two other HEIs in the UK have this relationship with National Skills Academy-Nuclear).

The Nuclear Graduate Programme is co-ordinated by Lancaster University and funded by the Nuclear Decommissioning Authority. It is backed by more than 20 leading companies, from Rolls-Royce to BAE Systems and Toshiba, and aims to plug a nationwide skills gap in decommissioning. The industry faces a shortage of not only qualified engineers but also graduates in finance, communications and marketing, HR and environmental science.

Specific skills developments undertaken by individual NWUA members relating to Nuclear can be found within **Annexe A**.

Research Centres

The North West hosts many research centres and institutes dedicated to research in the nuclear field. In addition NW institutions are involved in consortia delivering national research programmes, for example the Cockcroft Institute at Daresbury incorporates academia, national laboratories, industry and the local economy in researching, designing and developing particle accelerators. The institute is a joint venture between the Universities of Lancaster, Liverpool and Manchester, the Science and Technology Facilities Council and the NWDA. The Institute is located in a purpose-built building on the Daresbury Science and Innovation Campus adjacent to the Daresbury Laboratory and the Daresbury Innovation Centre, and has established satellite centres in each of the participating universities. Further details of research centres are provided in **Annexe A**.

The nuclear sector is not a RAE unit of assessment in its own right and therefore no direct submissions specifically related to nuclear were given by the North West institutions. However, the nuclear sector does fall within the remit of the physics unit of assessment where the NW achieved 11% of the UK's 4*¹ rated activity in the 2008 RAE.

Knowledge Transfer

Collaboration with businesses and other partners is an important dimension of the work of North West universities. For example, UCLan is leading the Nuclear University Enterprise Network (UEN) together with the NWDA, supported by Westinghouse UK, part of the Westinghouse/Toshiba global organisation specialising in fuel manufacture and reactor design. The UEN will support entrepreneurship across the university, involving academic staff, students and industrial partners, with activities focussed around the nuclear theme and associated science, technology, engineering and mathematics subject areas.

Further examples of collaborative activity can be found within **Annexe A**.

Engagement with the Future Regional Agenda

NWUA has responded by giving written evidence to the NW Regional Committee Inquiry 'The Future of the Nuclear Industry in the North West' which is provided at **Annexe A**, with subsequent oral evidence by Professor Colin Boxall, Lancaster University on behalf of the HE sector.

As part of its work around responding to the economic downturn and supporting recovery, NWUA will be producing a sector report outlining NW HEI capabilities relating to the Low Carbon sector (including nuclear). Identifying HEI capabilities relating to Low Carbon will also be a continuing aspect of the HE sectors engagement with the New Industry, New Jobs agenda. Nuclear is one of the emerging sub-themes demonstrating merit in further development.

HEFCE officially announced its Graduate Internship Scheme on the 11th Feb (<http://www.hefce.ac.uk/news/hefce/2010/interns.htm>). Open to companies within NINJ sectors, six universities in the NW are offering schemes. Information on internships is now advertised in the Business Link North West directory, allowing graduates and employers to access information on the schemes available. In the North West, 935 additional graduate internships have been funded, 540 are to be in place by March 2010 and the remainder by September 2010 (allowing HEI to offer places to 2010 graduates). Businesses have been provided with a national helpline (0845 072 7597) and email address (internship-enquiries@graduatetalentpool.co.uk). Interested students and employers can also visit the Graduate Talent Pool website.
