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Fuelling the Future: A Global Centre for Capacity Building in Nuclear Transport and Radiation Protection

As nuclear energy, medical isotopes, and radiological applications grow worldwide, so too does the volume and complexity of nuclear and radioactive material transport. Ensuring its safety and security depends not only on robust regulation and infrastructure, but on a well-trained, diverse, and future-ready workforce. This includes not just technical specialists, but also project managers, regulators, logistics coordinators, and other professionals who must understand the science, policy and regulation and the practical skills underpinning nuclear and radioactive material transport.

Yet today, capacity gaps persist- particularly in areas such as radiation protection, nuclear safety and security, and regulatory implementation. The challenge is especially acute for young professionals, women, and individuals entering the field from adjacent disciplines. Current training pathways are fragmented, and international mobility of skills is often hindered by a lack of formal, recognised qualifications.

To address this, the World Nuclear Transport Institute (WNTI), in partnership with the International Commission on Radiological Protection (ICRP) and the University of Liverpool, is launching the Centre for Nuclear Transport and Radiation Protection - a dedicated global hub for education, skills development, and applied research in these fields.

Uniquely, the Centre will offer academically underwritten qualifications –including short CPD modules, Summer Schools, and postgraduate research pathways - ensuring that credentials are formally recognised across borders. While certifications from international bodies often carry authority, academic qualifications from accredited universities provide the legal and professional portability needed for cross-border employment. This makes them especially valuable for professionals working in multinational supply chains, or in jurisdictions requiring national academic recognition.

The Centre's initial base in the UK is only the beginning. It is designed to evolve into a network of regional hubs, partnering with local universities and institutions to deliver consistent, high-quality training adapted to regional needs. This ensures global accessibility while maintaining alignment with international safety and security standards.

The presentation will outline how this initiative responded directly to the ICRP's Vancouver Call for Action on workforce development and capacity building. Drawing from lessons learned in large Gigawatt Nuclear New Build projects in the UK, we will demonstrate how targeted collaboration between academia, industry, and international policy bodies can bridge the nuclear and radioactive materials transport skills gap and prepare the next generation of professionals.

In an era of expanding nuclear deployment, diverse transport modalities, and growing public and regulatory scrutiny, the Centre offers a timely and practical solution - building competence, advancing careers, and supporting the safe and secure transport of radioactive material worldwide.

Country or International Organization

Instructions

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