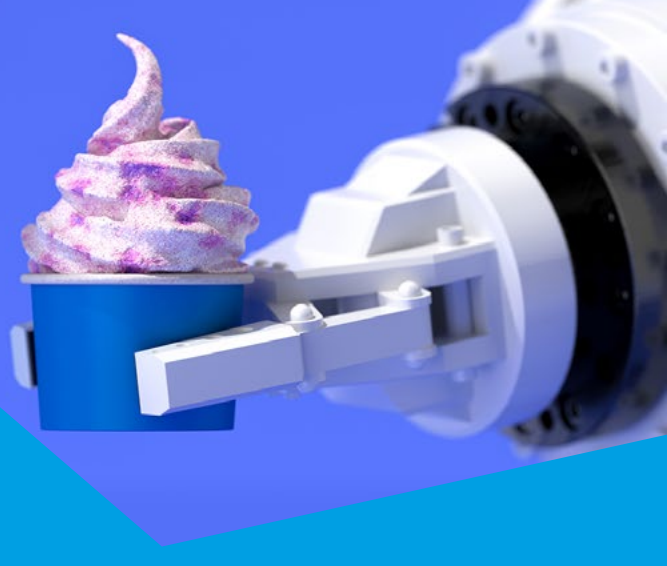
GAME CHANGERS



INNOVATION FESTIVAL 2022

Rosehill Theatre, Whitehaven, 11 May 2022

9.00AM - 9.30AM

ARRIVAL AND REGISTRATION

9.30AM AUDITORIUM

WELCOME: INNOVATION AT SELLAFIELD AND NUCLEAR GRAND CHALLENGES

Robin Ibbotson, Chief Technology Officer, Sellafield Ltd
Katherine Eilbeck, Head of R&D, Sellafield Ltd
Sara Huntingdon, Head of Innovation, NDA

10.00AM - 10.45AM

EXHIBITION AND REFRESHMENTS AVAILABLE

10.45AM - 11.45AM AUDITORIUM

TALKS AND TECHNOLOGY DEMONSTRATIONS

Clifton photonics
A miniature fibre-optic Raman probe for POCO applications

Fraunhofer UK Centre for Applied Photonics
From hydrogen sensing to condition monitoring, addressing nuclear challenges with photonics

Unitive Design
A backscatter X-ray profilometer, for mapping out the contents of pipes and vessels

Resolute Energy
Expanding polymers which can be deployed into small cracks and pore spaces to block leak pathways

Brunel University London
Power Ultrasonic for pipe unblocking

11.45AM – 13.15PM LUNCH AVAILABLE

12.40PM – 13.15PM AUDITORIUM

LIGHTNING TALKS

Quick fire talks by early-career innovators from a range of organisations sharing work-in-progress and recent successes and learning.

Joe Bradbury and Lachlan Peacock, Sellafield Ltd
SPOT Autonomy

Fiona Lambert, Sellafield Ltd
Blister Bags on Bulges

Alex Lockwood, Sellafield Ltd
Developments in the Particles with Fluids Centre of Expertise

Matthew Nancekievill, University of Manchester
Deployment of Lyra ROV in ductwork on DSRL site

Miz Hacque, Sellafield Ltd
Advancing the culture of innovation at an enterprise with meta-learning

Laura Moore, Sellafield Ltd
Dragons Den body camera project

Jamie Zabalza, University of Strathclyde
Automated Classification of Special Nuclear Material through X-ray Radiography

Daniel Cunningham, Eadon Consulting
Dead Ends and Daft Ideas

13.15PM - 13.45PM AUDITORIUM

CROSS-SECTOR THINKING

Jamie Gallagher, Science Communicator and Facilitator:
Catching up on the day so far

John Maddison, iSH Programme Director:
How iSH makes your ideas work

Angela MacOscar, Head of Innovation, Northumbrian Water:
Identifying common challenges and opportunities between water and nuclear

13.45PM - 14.30PM

EXHIBITION AND REFRESHMENTS AVAILABLE

14.30PM - 15.30PM AUDITORIUM

TALKS AND TECHNOLOGY DEMONSTRATIONS

University of Strathclyde
Hyperspectral Imaging and Signal, image & video processing.

University of Manchester
Heterogeneous solvent scrubbing for cleaning up spent solvents in spent nuclear fuel recycle.

GHD
Assessment of solute transport within groundwater at the Sellafield site using mass flux measurements.

Net Zero Technology Centre
Claxton and Aberdeen University have developed a laser cutting tool for use underwater providing the energy sector with high performance, accurate cutting solution.

16.00PM

CLOSE

STALLS AND EXHIBITIONS

Unitive Design
A backscatter X-ray profilometer, specifically for mapping out the contents of pipes and vessels. The system can be deployed from a single side, unlike most X-ray imaging systems.

University of Strathclyde
Hyperspectral imaging and signal, image and video processing, for condition, monitoring and inspection and for early-detection of corrosion.

FIRMA
A full scale mechanical articulated maintenance decommissioning device.

iSH
iSH is creating a solutions hub where businesses in Cumbria will be able to collaborate and work with other specialist companies from around the UK and the rest of the world to deliver solutions to industry challenges.

Net Zero Technology Centre
Claxton and Aberdeen University have developed a laser cutting tool for use underwater providing the energy sector with high performance, accurate cutting solution.

Hybrid instruments
Characterising contaminated groundwater with a single, compact and relatively inexpensive probe capable of distinguishing between ^{137}Cs and ^{90}Sr

Clifton Photonics
A live, interactive demonstration of a miniature fibre-optic Raman probe for POCO applications. Observe the detection and identification of organic chemicals in real-time.

Engineering Centre of Excellence, Sellafield Ltd
With world class workshop and inspiring spaces, this exciting new 'off-site' development delivers both practical and theoretical projects, developing capability and delivering end-to-end problem solving with quick access to local supply-chain experts.

Pajarito
ALIAS is an on-line, real-time and inexpensive direct measurement/ quantification instrument for the analysis of alpha activity in liquids.

Resolute Energy
Expanding polymers which can be deployed into small cracks and pore spaces to block leak pathways. Creates efficient swellable and flexible seals in areas where conventional methods are unable to reach.

University of Manchester
Heterogeneous solvent scrubbing for cleaning up solvents in spent nuclear fuel recycle, with potential to reduce waste volumes and plant infrastructure by a significant margin compared to the current liquid-liquid extraction process.

Createc and Createc robotics
Robotics and other tools for deployment in nuclear.

Barrnon
Concrete scabbling of walls in legacy nuclear storage ponds allowing the removal of the contaminated layer of concrete.

Fraunhofer UK, Centre for Applied Photonics
Working with Sellafield and Game Changers Fraunhofer UK CAP has addressed a number of challenges using photonic technology. Examples include hydrogen sensing, condition monitoring of containers and site remediation.

Eadon Consulting
Remotely operated diamond wire cutting machine for size reduction of a wide range of materials.
A high payload capacity, modular platform for long range deployment of cameras, sensors and tools through 150mm diameter ports (REACH).

Brunel University
A technology that encompasses several ultrasonic transducers, arranged in a collar which is fitted on the outside of a pipe to remove blockages and partial blockages.

Capsa
Innovative waste management solutions for the disposal, safe transport and long term storage of hazardous waste.

i3D robotics
A remotely operated 3D mapping system that combines high-resolution imaging with machine learning / object recognition to identify sharp objects.

www.gamechangers.technology

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