

A Short Guide to...

National Nuclear Laboratory

Our History

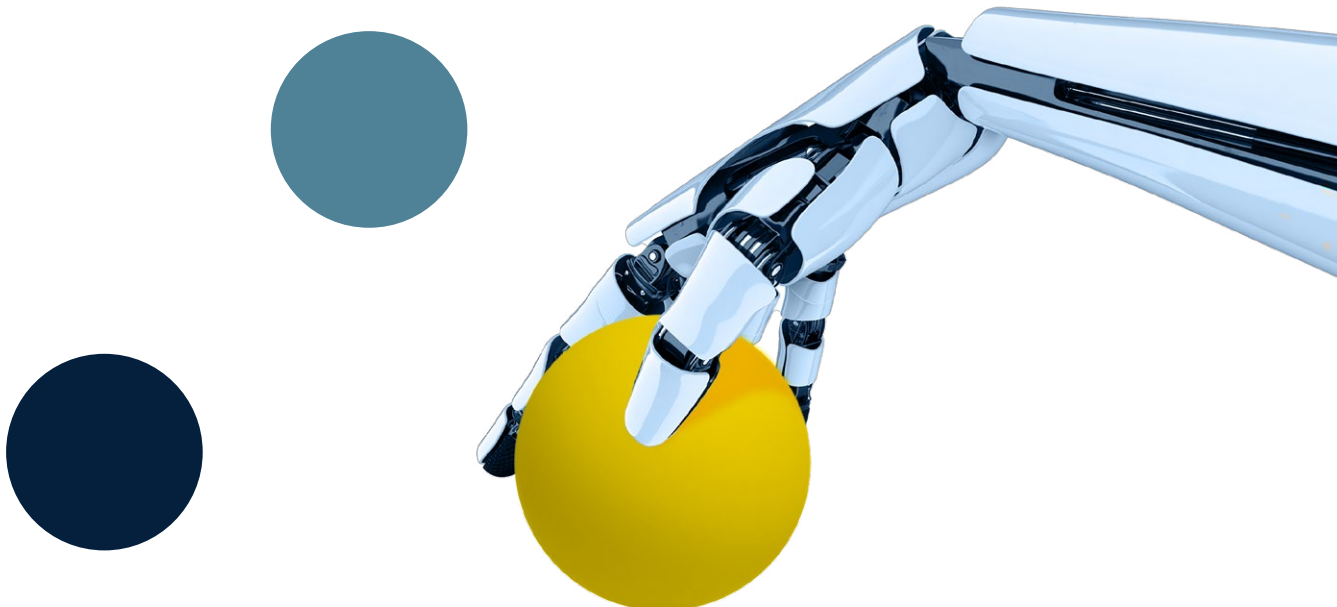
From our origins as the research arm of British Nuclear Fuels Limited (BNFL) we have built a distinct identity as the UK's technical authority on nuclear fission.

www.nnl.co.uk/about/our-heritage

Government owned but operationally independent we combine the decades of expertise of sector veterans, whose science has been at the forefront of nuclear technology over the past 30 years with an emerging generation of talented scientists, engineers and professionals.

We look to promote national skills and interests whilst bolstering the UK's position as a global leader in nuclear technology. We continue to broaden our expertise by working in partnership with those across academia, government and industry, granting access to our specialist facilities for the benefit of UK and global teams.

“As the UK’s national laboratory for nuclear fission, NNL is harnessing nuclear science to help solve some of the world’s biggest challenges.”



Our People

People are the lifeblood of the nuclear sector and we are gifted with some of the most creative and inspired scientific minds in the world.

Across all our work we seek to attract, grow and retain the skills and capabilities needed to secure the UK's nuclear future.

From award-winning graduates to internationally-acclaimed subject matter experts, everyone in our workforce is here to deliver environmentally and financially sustainable solutions to some of the world's biggest challenges.

400

Scientists

150

PhD's - plus 100 PhD's sponsored across UK universities

10k

Combined years of expertise in nuclear science

35

Charterships

+5

Fellowships have been awarded in the past 5 years

230+

Chartered scientists and Fellows in total

Our Facilities

We are custodians of a unique set of facilities and capabilities that enable ground-breaking nuclear research and development. This includes four world-leading laboratories in the North West of England.

In Seascale, Cumbria, at Sellafield:

Central Laboratory

NNL's flagship, the most modern nuclear technology research facility in the world

Windscale Laboratory

Unique in the UK, where operators work to ensure the continued safe running of our nation's nuclear reactors

In Workington, Cumbria:

Workington Laboratory

A large and flexible industrial space for developing technology and skills for the UK's nuclear sector

In Preston, Lancashire:

Preston Laboratory

A centre of excellence for the next generation of nuclear fuels and clean energy technology

In Wales:

Labordy Niwclear Cenedlaethol

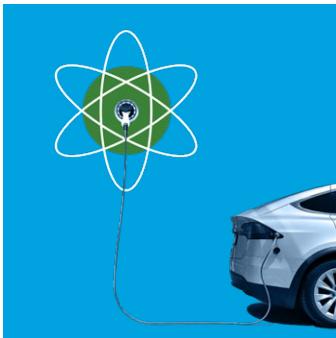
A new base on Ynys Môn / Isle of Anglesey to strengthen our research and development ambitions in Wales

NNL also operates three other research sites at Risley in Cheshire, Stonehouse in Gloucestershire and Culham in Oxfordshire.



Our Focus Areas

Driven by our mission **nuclear science to benefit society**, we have four core focus areas. These are the cornerstones of our ambitions that shape what we deliver to our customers and for UK society.



Clean Energy

Securing the UK's place as a global leader in the clean energies of the future by developing advanced nuclear technologies and leading their deployment



Environmental Restoration

Driving a step-change in the way legacy and future wastes are processed by applying innovative science and breakthrough technologies



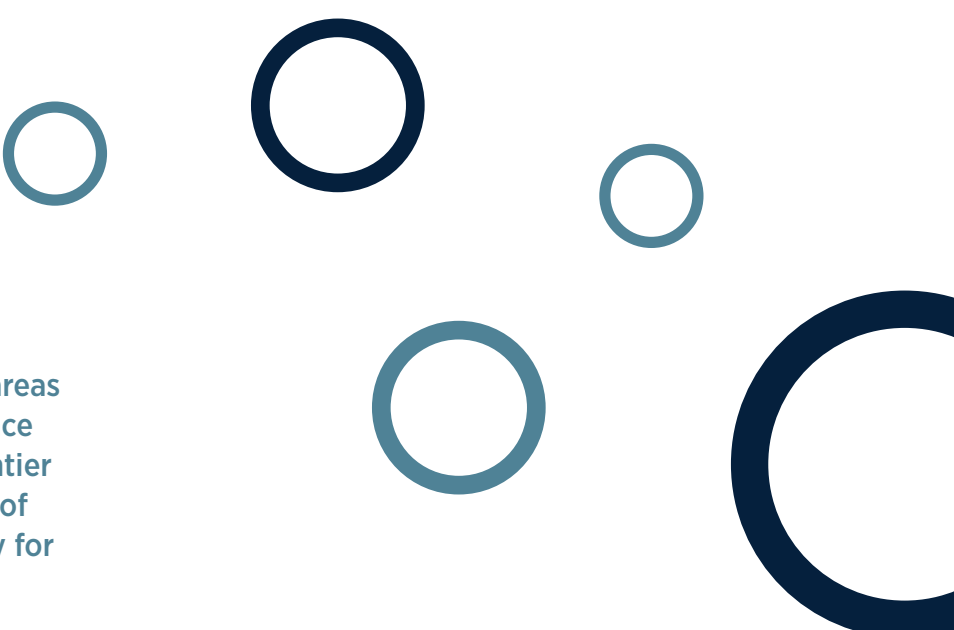
Health and Nuclear Medicine

Establishing a homegrown supply of vital medical radioisotopes



Security and Non-Proliferation

Facilitating the global deployment of new nuclear technologies by ensuring security and non-proliferation



All the work we do across our focus areas is underpinned by cutting-edge science and technology. To remain at the frontier of innovation, we have a programme of investment in science and technology for the next five years and beyond.

Partnership Working for UK Benefit

NNL has spearheaded the UK's work on advanced fuels including through the [Advanced Fuel Cycle Programme](#) – carried out on behalf of the Department for Business, Energy and Industrial Strategy (BEIS) as part of its £505 million Energy Innovation Programme.

Following its launch in 2019, a £10 million extension to the programme was announced in 2021 funded through the BEIS £1 billion Net Zero Innovation Portfolio.

Sharing our Specialist Facilities

As well as progressing our own people we are also fostering talent outside of NNL.

In 2017 the [Centre for Innovative Nuclear Decommission](#) (CINDe) was established at our Workington Laboratory. CINDe is a PhD Hub that gives researchers the opportunity to carry out their projects whilst working in industry fully integrated in our teams.

New Generation of Skills

NNL delivered the BEIS funded [Advanced Nuclear Skills and Innovation Campus](#) (ANSIC) pilot developing the next generation of highly skilled nuclear workers to accelerate the deployment of advanced nuclear technologies (ANTs). Employability workshops, online learning resources and the 'Science and Technology Leadership Programme' at the University of Liverpool were a key focus of the scheme.

Innovative Science and Technology

Investing in scientific research and unleashing innovation is vital to our work as a national laboratory.

Our portfolio of work includes: driving capability in nuclear-enabled hydrogen and engaging in open innovation to provide nuclear power for space exploration creating a global hub of expertise on advanced fuel cycle science.

International Collaboration and Development

NNL has established a first-of-its-kind [global forum of national laboratories](#) working on energy research – combining nuclear, renewables and other low-carbon sources to progress an integrated approach to decarbonisation.

The first summit took place in January 2022 bringing together national laboratories from the UK, USA, Canada, France and Japan.