NATIONAL NUCLEAR LABORATORY

National Nuclear Laboratory At A Glance

Innovation Delivered

The UK's National Nuclear Laboratory provides the experts and technologies to ensure the UK nuclear industry operates safely and cost-effectively today and for the future.

We deliver the right amount of innovation to meet our customers' needs. This can range from simply drilling a hole to analysis of underground wastes with our integrated microdrilling technology through to the development of state-of-the-art power systems for spacecraft, based on radioactive materials.

Key Facts and Figures (2012)

Revenue:	£84 million
Profit:	£7.7 million
Employees:	Around 800 (including 450 scientists)
Locations:	6 throughout the UK

What services do we provide?

- Measurement and Analysis
- Environmental Services
- Waste Residues and Processes
- Waste Management Technology
- Fuel and Radioisotope Technology
- Spent Fuel Technology
- Safety Management
- Asset Care
- Security
- Access to Facilities

What is important to us in our business dealings?

- Innovation
- Integrity
- Impact

Who are our principal customers?

Sellafield Ltd
US Department of Energy
Babcock
Westinghouse
Ministry of Defence
EDF Energy
Nuclear Decommissioning Authority
UK and International Governments
European Union

The Central Laboratory, Cumbria - Unique in the UK

Who are we?

The UK's National Nuclear Laboratory (NNL) is a company owned by the UK Government and managed under contract by the SBM consortium, comprising Serco, Battelle and the University of Manchester. NNL operates as a commercial business and receives no direct grant funding from Government.

With over 10,000 person-years of nuclear industry experience across the whole fuel cycle, our core business is to provide the experts and technologies to ensure the UK nuclear industry operates safely and cost-effectively today and for the future.

Business objectives

In addition to operating safely and delivering to our customers, our objectives include:

- Helping to safeguard the UK's strategic nuclear skills and capabilities
- Develop our customer base into new markets
- Optimising the utilisation of our world-class facilities
- Supporting the growth of the communities where we operate, with particular emphasis on West Cumbria

What can we do for you?

NNL offers products and technical services across the whole range of nuclear industry sectors.

Measurement and Analysis

- Chemical, fingerprint, ILW and Low Level Analysis
- Online wet chemical
- Plant instrumentation
- Transport QA and safety
- Detection and measurement

Waste Management Technology

- Immobilisation technologies
- Chemical and process development
- Waste behaviour and materials
- Vitrification

Safety Management

- Chemotoxic and asphyxiation assessment
- DSEAR
- Training
- Criticality safety
- Regulatory support
- Peer review
- Hazard identification
- Radiological assessment

Asset Care

- Impact and structural modelling
- Remote engineering
- Technical consultancy
- Thermo fluids

Waste Residues and Processes

- Decommissioning residues
- Waste residues assessment, characterisation and processing
- Organic wastes and residues
- Post irradiation examination

Spent Fuel Technology

- Actinide chemistry
- Chemical and process modelling
- Radioisotope separations
- University contracts
- Engineering design

Security

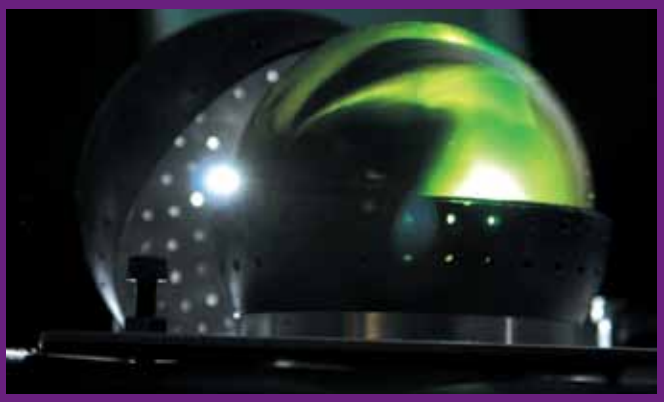
- Security and safeguards
- Nuclear security and vulnerability assessment

Environmental Services

- Geochemistry and hydrology
- Sampling, monitoring and in-situ analysis
- Contaminated land assessment
- Waste and inventory assessment
- Effluents and environmental chemistry

Fuel and Radioisotope Technology

- Fuel cycle assessment
- Design and performance (inc. reactors)
- Product development and QA (inc. codes)
- Nuclear physics



Our Facilities

We operate some of the most advanced facilities in the world, providing a range of services for our customers.

Sellafield/Windscale

- High active, alpha, beta and gamma cells
- Plutonium and MOX facilities
- Active/non-active laboratories
- Full scale test facilities
- Large flexible shielded facility for post irradiation examination

Workington

- Non-active test rig facility

Preston

- Active laboratories capable of handling uranic materials up to production scale
- Engineering facilities for large scale testing

Risley, Stonehouse and Harwell

- Office based activities in support of UK and international customers

For more information on our facilities, please ask for a copy of our Facilities brochure or visit www.nnl.co.uk/facilitiesbrochure

Innovation Programme

A series of 5 signature research areas have been identified as being central to the National Nuclear Laboratory mission. These areas encompass activities which are of strategic importance to the UK and worldwide nuclear industry. In addition, these areas act as a focus for the £1 million NNL inwardly invests each year to further nuclear research and development.

Spent Fuel and Nuclear Materials

Focuses on supporting ongoing operations, disposition of spent fuel, civil plutonium and civil uranium.

Waste Immobilisation, Storage and Disposal

All aspects of waste immobilisation and processing aimed at producing waste forms suitable for inerim storage and disposal.

Fuel and Reactors

Includes all research carried out in support of reactors from the design of the fuel or reactor through to the irradiated fuel.

Legacy Waste and Decommissioning

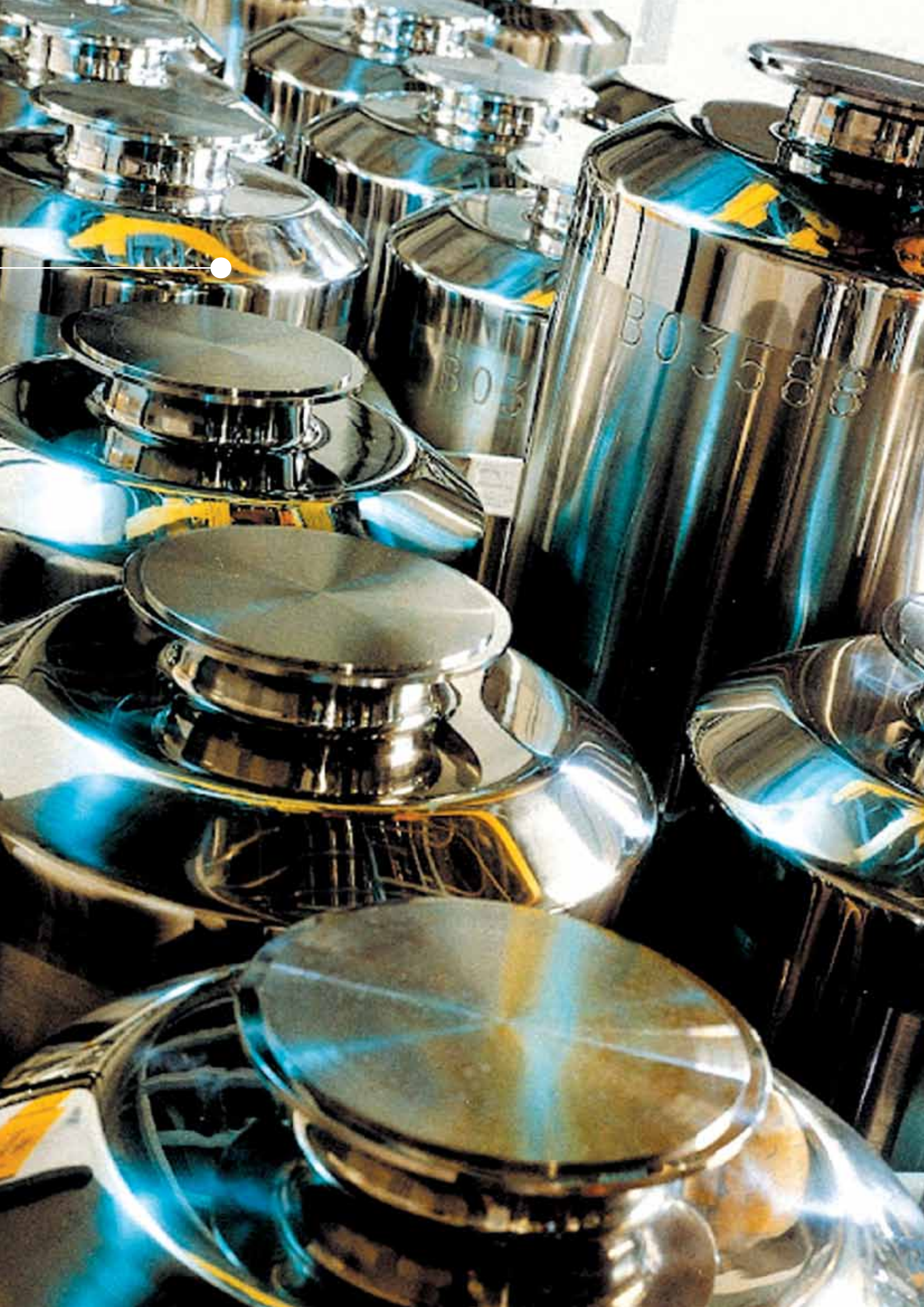
Covers all NNL research associated with the management of post operational legacy of nuclear operations through to their end point, covering the associated legacy of inventory, equipment, plant and site.

Nuclear Security and CBRN (Chemical, Biological, Radiological, Nuclear)

Covers research associated with the nuclear security of facilities and nuclear materials, with a key focus on non-proliferation of nuclear technology and materials and the enhancement of UK resilience to CBRN threat.

Technology Commercialisation

A principal outcome of NNL's innovation programme is the creation of income from the commercial deployment of NNL-developed technologies and intellectual property, generally through licensing agreements with commercial firms in the nuclear industry.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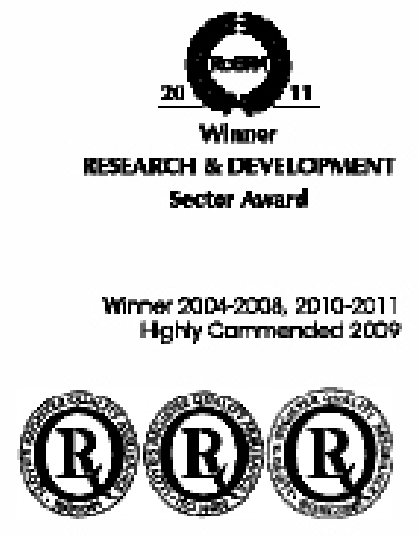

5th Floor
Chadwick House
Warrington Road
Birchwood Park
Warrington
WA3 6AE

T. +44 (0) 1925 289800
E. customers@nnl.co.uk

W. www.nnl.co.uk

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