

A Strategy for Skills to meet the demands of Nuclear Decommissioning and Clean-up in the UK – 8479

Melanie Brownridge, Brian Ensor, Nigel Couzens & Ian Hudson
Nuclear Decommissioning Authority
Herdus House, Westlakes Science and Technology Park, Moor Row
Cumbria, CA14 1QU, UK

ABSTRACT

The NDA remit as set out within the Energy Act¹ includes – “to ensure the availability of skills required to deliver the overall decommissioning and nuclear clean-up mission.”

The NDA approach² to meeting their statutory obligation is by:

- finding the best ways of re-training, re-skilling or re-deploying people in a way that encourages a more flexible workforce;
- identifying and communicating the skills and workforce requirements to deliver the mission; and
- developing the infrastructure and capability initiatives in line with long term needs, for example, a National Skills Academy for Nuclear, Nuclear Institute, National Graduate Scheme, and
- developing locally specific provision.

Firstly, NDA has set the requirement for nuclear sites to write down within the Life Time Plans³ (LTP), at a high level, their Site Skills Strategies⁴; furthermore, a National Skills Working Group⁵ has been established to develop tactical cross sector solutions to support the NDA’s Skills Strategy.

In support of the short, medium and long term needs to meet demands of the NDA sites and the nuclear decommissioning sector, as well as being aware of the broader nuclear sector, investments have been made in infrastructure and skills programmes such as:

- A National Skills Academy for Nuclear – including UK wide representation of the whole nuclear sector;
- A Nuclear Institute in partnership with the University of Manchester focussing on world class research and skills in Radiation Sciences and Decommissioning Engineering;
- Post Graduate sponsorship for decommissioning related projects;
- A National Graduate Scheme partnership with nuclear related employers;
- Vocational qualifications and Apprenticeship Schemes
- Engaging 14-19 year old students to encourage the take up of Science related subjects; and
- A sector wide “Skills Passport”

INTRODUCTION

The Nuclear Decommissioning Authority (NDA) is a non-departmental public body⁶, set up in April 2005 by the UK Government under the Energy Act 2004 to take strategic responsibility for the UK’s nuclear legacy.

¹ Energy Act 2004 Chapter 1 section 9 (2) “General duties when carrying out functions.”

² NDA Strategy 2006 Chapter 7 “Innovation: Skills, R&D and good Practice.”

³ The requirements for Lifetime Plans are set out in NDA PCP07 “Lifetime Plan Procedure.”

⁴ NDA Engineering Procedure EGPR10 “Procedure for Analysing, Developing, Monitoring and Evaluating Skills.”

⁵ The National Skills Working Groups comprises representatives from the NDA, SLCs, Cogent, National Skills Academy for Nuclear, Trade Unions, UK Government departments/bodies

The NDA mission is clear: ‘To deliver a world class programme of safe, cost-effective, accelerated and environmentally responsible decommissioning of the UK’s civil nuclear legacy in an open and transparent manner and with due regard to the socio-economic impacts on our communities’. In line with the mission, the NDA’s main objective is to decommission and clean-up the civil public sector nuclear legacy safely, securely, cost effectively and in ways that protect the environment for this and future generations. The NDA does not carry out clean-up work itself but has in place contracts with site licensee companies (SLCs)⁷, who are responsible for the day-to-day decommissioning and clean-up activity on each UK site. Individual sites develop LTPs that set out the short, medium and long-term skills and resource requirements for the decommissioning and clean-up of each site.

The key drivers for NDA investment in skills include the clear link to improved business performance and the availability of key skills in a diminishing and competitive environment.

NDA SKILLS STRATEGY

Executive Summary

The NDA Skills Strategy informs the overall NDA Strategy taking account of lessons learnt since its establishment and developed thinking based around UK Government skills strategies e.g. Leitch review of Skills and Implementation Plan, Lifelong Learning for Scotland and the Welsh Assembly Government response to Leitch⁸.

The Skills Strategy demonstrates how the NDA is meeting its obligations within the Energy Act 2004 by “*developing world class skills*” through “*excellent people, skills and facilities.*” It summarises current progress and future challenges.

Strategic Objectives are defined which capture activities, processes and investments made by the NDA, partners and stakeholders highlighting the mode of operation used to achieve success to date.

- Objective 1 – Identifying the Need
- Objective 2 – Meeting Skills and Training Requirements
- Objective 3 – Building the Infrastructure
- Objective 4 – Attracting and Retaining the Right Skills
- Objective 5 – Developing and Maintaining Networks

The NDA Strategy for Investment in University Education and Research is complimentary to the Skills Strategy is therefore integrated.

An Action Plan has been incorporated into the NDA Skills Strategy to show delivery milestones, responsibilities, partners and investments.

Purpose

⁶ The NDA sponsoring Government department is the Department for Business, Enterprise and Regulatory Reform (DBERR)

⁷ SLCs currently contracted by the NDA are Sellafield Ltd, Doureay Site Restoration Ltd, Magnox North Ltd, Magnox South Ltd, Reactor Sites Restoration Ltd, Springfield Fuels Ltd and LLWR Ltd.

⁸ World Class Skills: Implementing the Leitch Review of Skills in England
Skills for Scotland – A Lifelong Learning Strategy
Welsh Skills and Employment Strategy – Consultation end 2007

The NDA Strategy⁹ sets out the key skills issues and supporting actions needed to ensure a suitably skilled and qualified workforce is in place to deliver the NDA's mission. The basis of the Strategy remains unchanged and will be enhanced by the consolidation of existing progress and planned future actions.

The NDA Skills Strategy:

- sets out progress against the NDA Strategy 2005 with respect to Skills;
- consolidates progress to date;
- shares success stories and good practices; and
- outlines a Strategic Skills Action Plan to cover the next three to five years.

As part of the review of the NDA Strategy in 2008, the Skills Strategy document will inform the process and act as a key mechanism for discussion to inform the consultation process. It is expected that where appropriate, the comments from the consultation will be incorporated into the NDA Strategy section covering skills.

The Skills Challenge

Since 2005 the NDA and other stakeholders have made significant progress in the skills arena for which we are proud of our achievements to date. There has been substantial good practice established and the NDA has led the way on key skills projects to support the Mission. However, there is a need to build on previous success to continue progress in meeting skills challenges and put in place an infrastructure which will reflect the excellence demanded and expected from a world class nuclear decommissioning industry.

The challenges that face the skills area include:

- diminishing skills base and low uptake of key subjects. This is in part due to demographics but also competition from other industries
- ability to meet the regional and national requirements
- diversified contractor base
- lack of clarity on the long term needs.

The NDA is fully committed to the Skills Strategy and its publication will demonstrate and consolidate the good progress to date, highlight the many initiatives currently underway and reflect the contribution made to the outcomes of the recent review of skills by Lord Leitch and responses from the UK Regions. It also identifies the ongoing development opportunities across the sector in the form of a Strategic Action Plan which sets out expectations and milestones of the NDA and stakeholders to meet challenging programmes supported by appropriate investments.

The foundations for change to secure skills for decommissioning and potential new build are well documented in the Energy Act 2004, the NDA Strategy and supported by various demographic and key skills studies from OECD, Coverdale, Leitch and Cogent¹⁰. There are a wide source of influencers and shapers to the NDA Skills Strategy and these are illustrated in Figure 1 "NDA Skills Strategy-Influencers and Shapers".

⁹ NDA Strategy dated March 2006

¹⁰ Nuclear Education and Training – Cause for Concern, Nuclear Energy Agency/OECD 2000
Nuclear and Radiological Skills Study, Tony Coverdale (DTI) 2002
Nuclear Employers Survey, Cogent Sector Skills Council 2005

The Energy Act 2004 sets out the responsibility for the NDA to ensure there is *“an appropriately skilled workforce available to carry out decommissioning and clean up”*.

The NDA Strategy which was published in 2005 defines a Skills Strategy which will *“ensure the industry has a sufficiently skilled workforce to carry out our mission”*. It sets out the key issues impacting the sector both now and in the future as well as promoting opportunities to share best practice. It also acknowledges that skills development has the potential to make an important contribution to the socio-economic agenda.

The NDA’s Value Proposition 2007 sets out strategic priorities which include:

“...investing in skills, R&D and innovation...engaging with the supply chain and creating a world class organisation – developing high performing people and teams operating to the highest quality standards”

Taking the above into consideration it is clear that the focus on skills, meeting changing requirements and the continued availability of a well educated, informed and enthusiastic potential workforce are essential to the success of the NDA and its contractors. Through commitment to a shared strategy and partnerships in developing an infrastructure which will be truly regarded as excellent the NDA mission can be fulfilled to the benefit of all.

Mode of Operation

The NDA mode of operation in delivering its obligations with respect to skills is through a strong and well established network of partners and stakeholders.

The NDA works in partnership and takes a strong leadership role where appropriate in developing and delivering skills solutions using the following principles:

- strong partnerships with SLCs;
- delivering skills solutions collaboratively;
- networking to the best advantage;
- leading and influencing where appropriate;
- leverage and sustainability of investments;
- sharing good practice; and
- defining “World Class” and benchmarking the industry.

Progress so far

Considerable progress has been made in developing initiatives which support delivery of the Skills Strategy.

Strategic priorities over the last two years have focussed on:

- the re-training, re-skilling and mobility of staff to meet decommissioning requirements;
- understanding skills requirements needed to support delivery and acceleration of Site Licence Company (SLC’s) plans; and
- evaluating the potential to enhance the supporting education and training infrastructure and facilities needed to develop, support and sustain world class skills

Some of the many success stories where initiatives are developing at a rapid pace and in some cases already being deployed are:

National Skills Academy for Nuclear Site Skills Strategies	Nuclear Institute Standard Resource Codes	National Graduate Scheme National Occupational Standards
National Skills Working Group Energy Foresight	MSc in Decommissioning and Environmental Restoration 14-19 Diploma Module in Radiological Safety	Foundation Degree in Decommissioning Skills passports

Additionally, building a robust education and training infrastructure is underpinned by the NDA's Strategy for investment in University Education and Research which promotes a pro-active and dynamic approach to maintaining an allegiance with key universities and research providers.

The Skills Pyramid (Figure 1 below) continues to be a visual representation of the NDA approach to addressing skills investments and illustrates where some substantial progress has been made against all skill levels.

The recent publication of the Leitch Review and the subsequent "World Class Skills" Implementation Plan (published by DIUS and endorsed at UK cross-government department level to include DBERR, DIUS, DfES, Treasury, DWP and the Prime Minister) provides focus and an opportunity to promote the excellent work which is being progressed across the nuclear sector to support development of world class nuclear skills. The response to this in both Scotland and Wales is also recognised and reflected in the Skills Strategy. It is clearly aligned to, making good progress towards and in some areas, leading the way with progress against each headline recommendation and mapped out in Appendices accordingly.

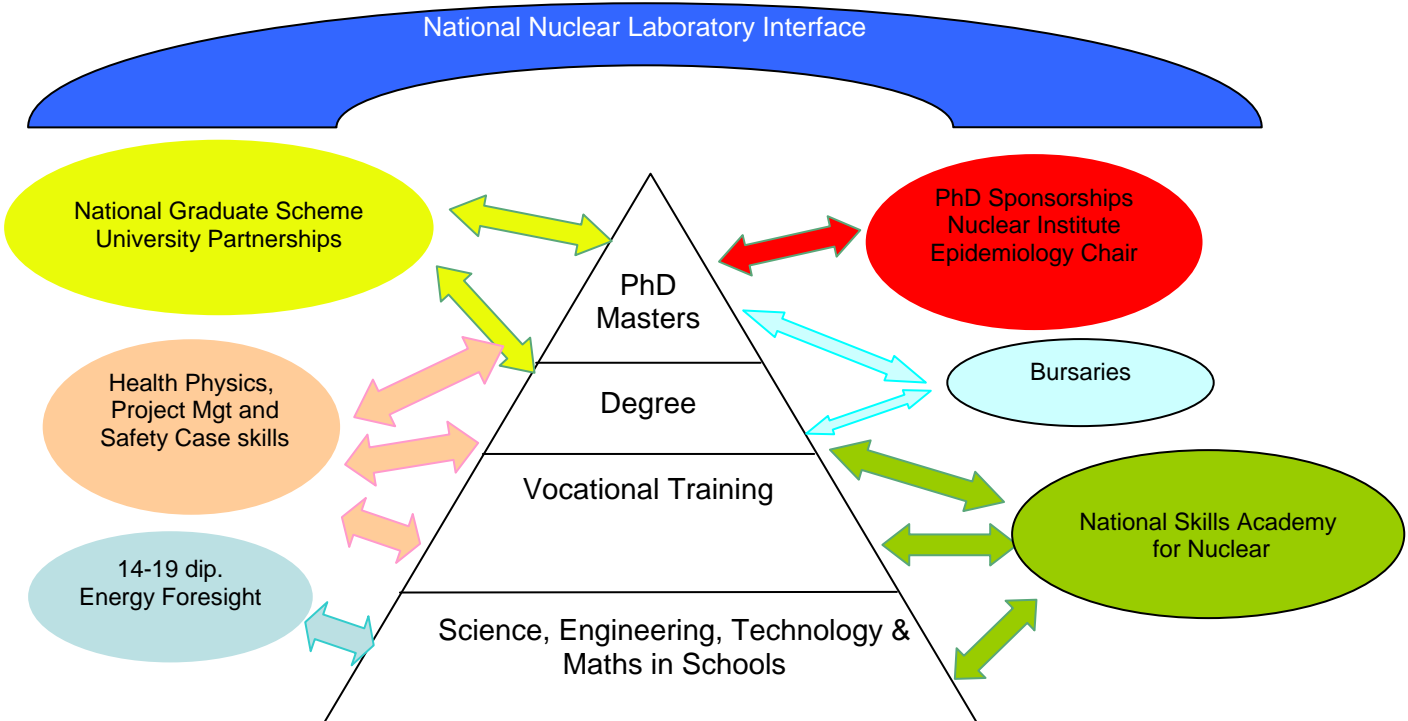


Fig.1 The Skills Pyramid

The Skills Programme

The Skills Strategy is being delivered through a robust Skills Programme (Figure 2) which provides the framework for the portfolio of projects and enablers which are being developed and/or deployed to support delivery of the Strategy. An NDA led National Skills and Resourcing group will steer strategy and oversee progress. It will be Chaired by the NDA and comprise HR Directors of SLCs, Cogent, DBERR. The National Skills Working Group will continue to develop tactical cross sector solutions to support the Skills Strategy.

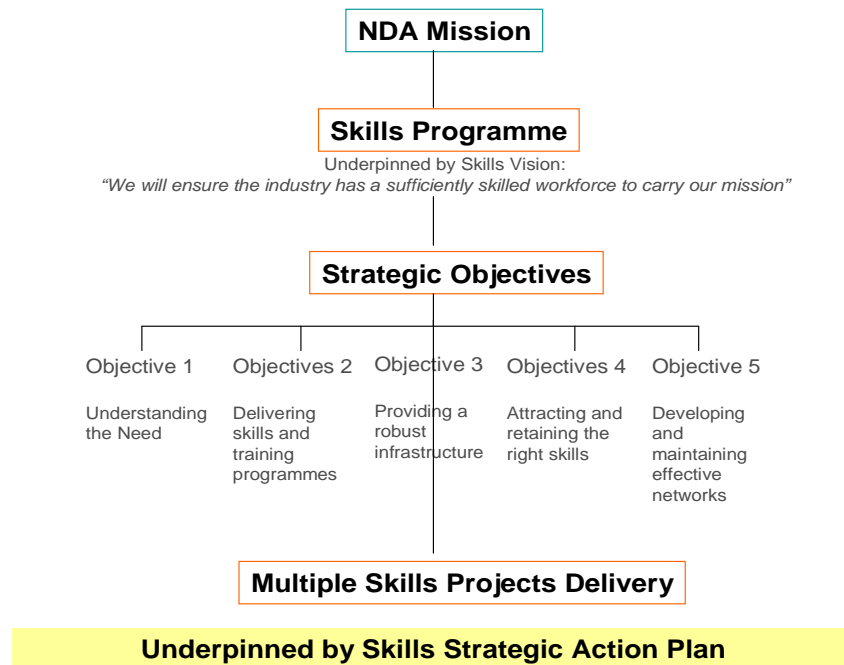


Fig.2 The NDA Skills Programme

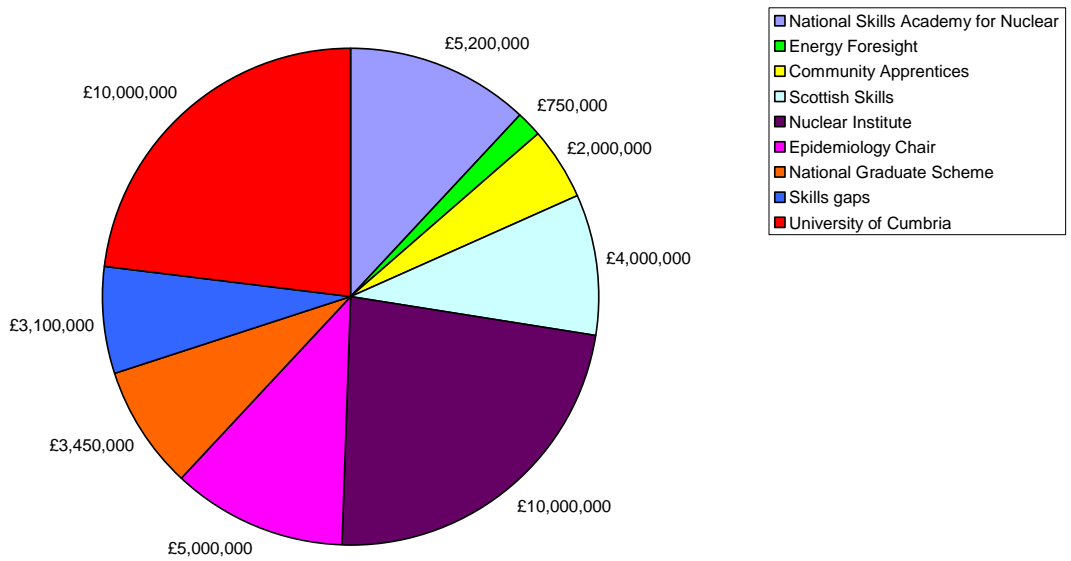
NDA Investment

In May 2005 the NDA Board approved an allocation of £35.2M to support the Skills Strategy. To date ~£20M has been committed or expended and substantial leverage¹¹ has been identified to demonstrate wider commitment from stakeholders and partners to achieve sustainability and value adding.

In addition further allocations have been agreed to support the National Community Apprenticeship Programme and the University of Cumbria to realise a total commitment of £43.5M over a 5 year period

¹¹ Leverage is defined as funding raised from non-NDA sources to support the initiative

**NDA Investment Summary
£43.5M between CSR05 and CSR08**



NDA Skills Budget Investment and Leverage

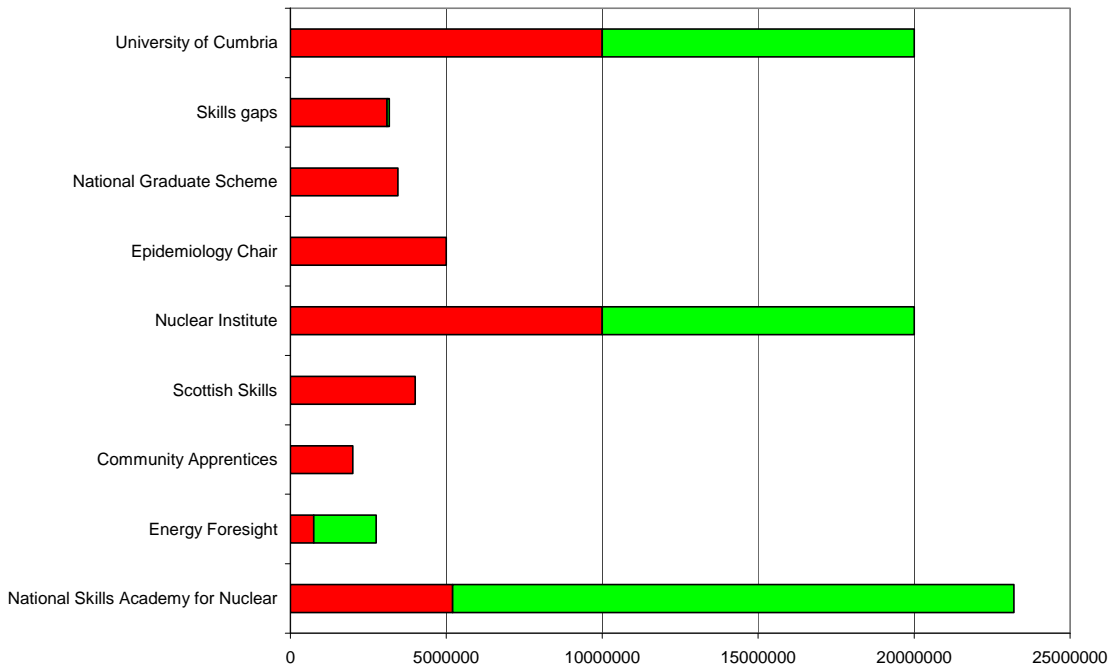


Fig 3. NDA Investment Summary between 2005 - 2011

Promotion and dissemination of the Skills Strategy

The promotion of the Skills Strategy highlights and brings together the good progress to date and encourages ongoing development opportunities across the sector via an integrated Strategic Action Plan.

The Skills Strategy provides the springboard for achieving the NDA mission and developing, delivering and sustaining world class skills by:

- developing excellent people;
- with opportunities in world class facilities;
- through pathways to meet future needs; and is
- linked to improved delivery of the Mission.

Accordingly, the Skills Strategy carries the theme of “*Developing world class skills*” with a strategy strap line “*excellent people, skills and facilities*”

CONCLUSIONS

The skills challenge has many dimensions but requires addressing due to the clear link to improved business performance and the availability of key resources in a diminishing and competitive environment. The diminishing skill base is due to reasons such as demographics and competition from other industries such as the oil industry. Getting the balance between meeting regional and national requirements will prove critical to success. The lack of clarity on the long term needs will also drive the strategy. NDA recognises that the work to date is the beginning of a long term approach and programme. We have developed a skills strategy that is consistent across all 20 sites and examples of key developments in infrastructure are in progress.

Looking forward NDA will seek benchmarking opportunities and ways to make tangible links between skills and performance.