Energus - the home of nucleargraduates

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WHAT IS nucleargraduates?

Established in 2007 by the Nuclear Decommissioning Authority, the nucleargraduates programme was created to recruit and develop a new generation of talented graduates for the nuclear industry. The UK’s nuclear industry is facing its biggest challenge in decades. Existing power stations near the end of their working lives are being decommissioned, while a new wave of plants has been given the go ahead.

Since 2010, nucleargraduates has been wholly funded by organisations across the nuclear industry, all of whom recognise the benefits of developing graduates with an awareness of the political and commercial aspects of the industry, as well as developing technical depth in different subject areas. One of these organisations will sponsor you through the programme before you join them in a substantive role on completion.

“Our nucleargraduates is one of the most ambitious programmes put together by a formidable partnership of international companies”
Remarkably different to other graduate programmes, nucleargraduates offer you a unique opportunity to design your own development programme. A bespoke two-year plan, devised with the help of your own personal technical mentor will allow you to develop both your technical and behavioural capabilities.

Our programme offers you a level of involvement and experience that is unmatched:

- You will have a dedicated industry sponsor and join them in a substantive role on completion of the nucleargraduates programme.
- You will complete at least three placements with different organisations across the nuclear industry and gain a wide variety of experience.
- You will organise your placements with the support of a technical mentor – meaning that you take the lead in your own development.
- You will complete technical and behavioural training modules with access to your own individual training budget.
- You will be assigned a personal technical mentor to take you through to chartered status.
- Community is at the heart of everything we do therefore you will become part of the thriving nucleargraduates community and dedicate 10% of your time to corporate social responsibility activities.
- You will be joining a professionally accredited and award winning scheme.
Don’t just take our word for it...

- **93%** of nucleargraduates saw an increase in their employability skills.
- **86%** of nucleargraduates saw the scheme as establishing them on a route to management in their companies.
- **95%** would recommend the programme to other graduates like them.
- **97%** say the programme has improved the breadth of their nuclear knowledge.
- **93%** say that their personal and professional networks are broader and deeper than they would be without nucleargraduates.

nucleargraduate Lucy Miller with Professor Brian Cox at a nuclear industry event.
**Secondment**

Your first secondment is with the organisation sponsoring you through the nucleargraduates programme. Here you’ll learn more about your sponsor and take your first steps into the exciting world of nuclear. Secondments two and three give the opportunity to gain experience and training in a supply chain, intelligent customer, governmental or regulatory organisation. You’ll get to see the nuclear industry from different perspectives and develop a big-picture understanding – something you’ll put into practise as the next potential leaders of the industry.

With the support of a technical mentor and your line manager you’ll decide which organisation your second secondment and third secondment will be with. As a nucleargraduate your development truly is unique to you. You’ll benefit from the diversity and expertise of the people you’ll meet and gain hands-on experience and training across the industry.

“The key developments for me have been my confidence and communication skills in the workplace. I’ve improved my problem solving, leadership and teamwork skills too.”

**Training Zones**

In between secondments your cohort will come together for residential training zones. These training zones will focus on developing both your technical and behavioural competencies, these include;

- An induction to the Nuclear Industry
- Communication
- Teamwork
- Adaptability / flexibility
- Business Awareness
- Leadership
- Problem Solving

You will further your knowledge, skills and experience in a range of environments while enjoying the company of your fellow nucleargraduates.

**Continuing Professional Development (CPD) & Chartership**

To hit the heights of the nuclear industry, chartership is a necessity. As a nucleargraduate you will be given the support, guidance and funding you need on the path to chartered status.

Having completed your two year Initial Professional Development (IPD) phase with the nucleargraduates programme, you will return to your sponsor in full time employment. Here, your Continuing Professional Development (CPD) phase will progress through to chartered status and beyond.

Those graduates following a commercial or non-technical route will also be supported in pursuing professional development with an appropriate institution, such as the Association for Project Management (APM) or the Chartered Institute for Personnel and Development (CIPD).

**nucleargraduates** is accredited by the following institutes:

- Royal Society of Chemistry
- Institute of Physics
- Institute of Mechanical Engineers
- Institution of Engineering and Technology
- National Skills Academy for Nuclear (NSAN)

**nucleargraduates** is approved by the Nuclear Institute (NI) and works in partnership with the National Skills Academy for Nuclear (NSAN).
Footprints

Footprints is our corporate social responsibility programme that sits at the heart of the nucleargraduates scheme. During your two years, 10% of your total time on the programme will be dedicated to Footprints activity.

During this time you will become a STEM ambassador and pass on your knowledge and enthusiasm to the next generation. You’ll establish a start-up company to help understand the challenges that small companies face and you’ll work with local community projects where you’ll meet some inspirational individuals. International Footprints visits will further expand your knowledge of the nuclear industry and its communities on a global scale.

Footprints is your chance to affect real change in the real world, allowing you to engage with and understand the communities we work in and with. This is the platform for you to see and do things your peers on other schemes may never get the opportunity to experience.

The Small and Medium Enterprise Challenge

Established in 2017 as part of the ‘Footprints’ SME challenge, a group of Cohort 10 graduates developed Coffee Core, a not for profit business which sold chocolate covered coffee beans to help those less fortunate than themselves access higher education.

Working closely with the Malawi Millennium Project through the University of Strathclyde, Coffee Core focus on ‘training the trainer’ helping people start small businesses and providing scholarships for students. They also provide assistance with computers and books and support Open Arms, which look after orphaned babies in Malawi as well as providing seeds and fertiliser for farmers to aid famine relief.

The team raised over £4,200 for the charity.

International Footprints

nucleargraduate Jonathan Hart took this image of the group under the Northern Lights during their International Footprints visit to Sweden. Thirty seven nucleargraduates spent five days exploring the Swedish nuclear industry, holding discussions with industry representatives and engaging with local communities.
Electrical Engineering

Name: Rob Philips
Degree and University: MEng (New & Renewable Energy), Durham University
Sponsor company: Sellafield Ltd.
Year nucleargraduate Programme completed: 2015

What attracted you to the nucleargraduates programme?
The main attraction for me to nucleargraduates was the depth and breadth of the programme. You are presented with such an extensive range of experiences and opportunities whilst on the programme in terms of secondments, STEM / community work, training, conferences, seminars, and much more.

How has the training, provided by nucleargraduates helped with your professional development?
Whilst on the programme you receive a lot of training that covers a wide range of technical and soft skills. The technical training provides a great opportunity to extend your knowledge and deepen your understanding of the industry which is valuable for professional development and provides good evidence for chartership. The soft skill training provides a great opportunity to develop communication, leadership and teamwork abilities and greatly increases your self-awareness, and of others.

In addition to the training provided as part the programme having a personal training budget to use for your own professional development was invaluable as this allowed each graduate to tailor their development to best suit their own personal requirements.

How did your expectations prior to starting the programme differ to the reality?
I wasn’t entirely sure what to expect before I joined the programme but I was very hopeful based on what I’d read about the programme and from previous nucleargraduates. I can definitely say that the programme was even more enjoyable, interesting and rewarding than I had hoped for. The wide ranging and extensive opportunities I had whilst on the programme were invaluable for my personal and professional development and have helped greatly over the past few years. I am also happy to say that I have a far-reaching network of friends and colleagues across the industry thanks to the nucleargraduates programme.

Post-programme, what is your current role / plans for the future?
Over the next few years I am looking to broaden my knowledge and experience by working within other areas of the business such as Commissioning, Operations and Safety & Risk Management.

What advice would you give a future nucleargraduate?
I believe a nucleargraduate needs to have a genuine passion for the nuclear industry, an open mind to new experiences, people and working environments and a willingness to get involved and be pushed outside your comfort zone. If a graduate can show these few key qualities, I believe they would make a great addition to the programme and successful nucleargraduate.

Examples of Sponsors
- Rolls-Royce
- Jacobs
Mechanical Engineering

Name: Abigail Monkhouse
Degree and University: First Class MEng Mechanical Engineering, Durham University
Sponsor company: Rolls-Royce Submarines
Year nucleargraduate Programme completed: 2015

What was your final secondment and what did it involve?
My final secondment was as a Graduate Design Engineer within an Engineering Design team. Every day I had to use and apply concepts and learning that I gained through my Engineering degree. Most of my time was spent using 3D modelling software to generate designs, from basic concepts through to extremely detailed designs. I also gained experience in producing technical drawings which were sent out to manufacturers, and through this I was able to gain an understanding of how designers and manufacturers interact and work together. Other tasks which form part of the design process included writing functional and manufacturing specifications, and performing calculations to support the designs.

What attracted you to the nuclear sector and the nucleargraduates programme?
When looking for graduate schemes to apply to, I was attracted to nucleargraduates because of the variety of opportunities that are available throughout the programme. I thought, “if I gain a place on this scheme, not only will I be able to undertake a range of placements in different companies, but I will also have dedicated time for training and development, as well as an instant network of contacts across the nuclear industry”, what more could I want?

What is the standout moment from your time on the nucleargraduates programme?
A key moment for me was standing at the entrance of Vulcan Naval Reactor Test Establishment on the north coast of Scotland. As part of a Continuing Professional Development trip to Dounreay, I had organised an opportunity for my cohort to visit Vulcan and participate in several tours of the facilities on site. To get to this point, I had made use of my contacts within Rolls-Royce, liaised with the Chief Engineer at Vulcan, organised 30 graduates into groups and ensured they all had appropriate Personal Protective Equipment, coordinated the submission of security clearance information, and worked alongside my colleagues to deliver a successful trip to the most northern nuclear site in the United Kingdom. Standing there and realising what I had achieved was a proud and memorable moment.

What are your plans for the future?
Following completion of the nucleargraduates programme I have now taken up a permanent position within my sponsor company, Rolls-Royce. I have started my career with Rolls-Royce in Devonport Dockyard, training to become an Assistant Resident Engineer. It will take me two to three years to become qualified and I am likely to spend 5 years at the Site Office before returning to the hub of the business in Derby to further my career. Looking further into the future, I hope to move into a management position. The learning and development experiences I have gained through the nucleargraduates programme has put me in a fantastic position to build my management skills in the years to come.

Examples of Sponsors
- Rolls-Royce
- Jacobs
- Sellafield Ltd
Chemical Engineering

Name: Will Young  
Degree and University:  
MEng Chemical Engineering, University of Bath  
Sponsor company: Rolls-Royce  
Year nucleargraduate Programme completed: 2016

What attracted you to the nucleargraduates programme?
I was originally drawn to the programme by the variety of secondments available, something that is a unique part of the nucleargraduates scheme, and why I originally applied for it. These secondments are key to not only working in various companies within the nuclear industry, but also seeing the type of roles that are available and helping to guide your own role when you finish the scheme.

How has the training, provided by nucleargraduates helped with your professional development?
The training provided is a mixture of technical and non-technical learning, both of which have aided me in my role. The technical training has helped me to progress towards my chartership requirements, whilst the non-technical training has improved my soft skills. These softer skills are generally not taught at university, and I had some reservations about the courses beforehand, but I found them to be as important as the technical courses at improving my all round skills as an engineer in areas like stakeholder management and requirements capture.

What is your ‘magic moment’ from your time on the nucleargraduates programme?
My favourite moment would be selling our first chocolate bar as part of our Small and Medium sized Enterprise (SME) challenge. Seeing something that you had spent a lot of time researching and designing being sold was really satisfying, and luckily we managed to sell a few more after that! The SME challenge was a really fun and interesting way of learning skills that are directly transferrable into work.

How did your expectations prior to starting the programme differ to the reality?
When first starting the scheme, I thought that I would struggle to fit in a full time job at the same time as professional development courses, STEM activities and running a business in the SME challenge. When on the scheme through, I realised that it all fits in well together, and never became overbearing. There was never a ‘boring’ moment in the two years of being a nucleargraduate, once one course or activity had finished I was always looking forward to the next one.

Post-programme, what is your current role / plans for the future?
I am currently a Fluid Systems Engineer at Rolls Royce, working on chemical fluid systems in the Nuclear Fuel Production Plant on site. This involves having a technical understanding of the chemical processes on site as well as managing key operational site stakeholders. My current plan is to get chartered with the IChemE within two years and then progress towards a management type role, making use of the skills I learned whilst being a nucleargraduate.

Examples of Sponsors
Rolls-Royce  
Jacobs  
Sellafield Ltd
What is your ‘magic moment’ from your time on the nucleargraduates programme?
During my first placement, another nucleargraduate and I received funding from the European Union to take part in the final conference and workshop for the LUCOEX (Large Underground Concept Experiments) project. While meeting a number of delegates from waste management organisations around the world, we were able to present progress in the UK to others and learn from the findings of more progressed organisations. We were also given the opportunity to travel 500m underground to the Aspo Hard Rock Laboratory and see first-hand some of the hard work that is currently underway in Sweden!

Post-programme, what is your current role / plans for the future?
Following the scheme I joined Jacobs (another sponsor on the scheme) and am working on a number of Nuclear and Energy projects… developing my technical expertise and leadership traits. I am working towards chartership and looking to sit my review to become professionally qualified in the very near future. Following that, I suppose the world is my oyster!

What advice would you give a future nucleargraduate?
For the application process I’d say you just have to relax! From application to assessment centre it can be a stressful (and unique experience) but you’ve just got to take it in your stride and be prepared. For the scheme in general, you’ve just got to take every opportunity you can. You’re going to meet so many different people at so many different organisations that there will be so many doors that are open to you. Looking back there are definitely different decisions I could have taken, but everything I did was still incredible and wouldn’t have been possible on another graduate scheme."

Name: Kevin O’Donoghue
Degree and University: Civil Engineering MEng, Cardiff University
Sponsor company: Radioactive Waste Management Limited
Year nucleargraduate Programme completed: 2016

What attracted you to the nucleargraduates programme?
The breadth of sponsors and opportunities around the country was the real clincher for me. As opposed to doing a ‘standard’ grad scheme as a civil/structural engineer and being based with the same company in the same area for 2-3 years, the scheme offered to opportunity to move around the country, work in different companies and environments and make lots of key contacts throughout the industry.

How has the training, provided by nucleargraduates helped with your professional development?
I am still working on projects within the nuclear industry so the technical training that I have undertaken has obviously been of benefit (I also work in electricity transmission so the experience of working and training in a heavily regulated industry has again been beneficial). Every couple of months the cohort usually get together to undertake soft skills training on the themes of leadership, management, communication, etc. Not only have these sessions helped with everyday work activities, the opportunity to regularly meet up and relax with the other nucleargrduates is great and gives you the chance to refresh after the months of work stress!

Examples of Sponsors
➤ Magnox Ltd
➤ Jacobs
Chemistry

Name: Jamie Culshaw
Degree and University: Masters and PhD Chemistry, University of Liverpool
Sponsor company: Nuclear Decommissioning Authority
Year nucleargraduate Programme completed: 2014

What attracted you to the nucleargraduates programme?
As much as I enjoyed my undergraduate and postgraduate degrees, I’d decided that I wanted to do something different than lab chemistry. At the same time, the nuclear industry was on the cusp of a well-publicised renaissance and I could envisage a career in a highly interesting and challenging field. While my PhD was also interesting and challenging, I felt very much as if I was travelling a path with less and less room for diversification of skills. Nucleargraduates provided an opportunity to do that, with technical secondments designing experiments and assessing safety cases, ranging to non-technical work managing multi-million pound projects. It was a no brainer really!

How has the training, provided by nucleargraduates helped with your professional development?
I did not have much previous academic training directly related to the nuclear industry – my PhD was largely synthetic organic and materials chemistry. The training provided by nucleargraduates was therefore invaluable, giving an excellent foundation of knowledge in the nuclear industry which I still use in my job today and contributing towards my successful application to chartered status with the Royal Society of Chemistry.

How did your expectations prior to starting the programme differ to the reality?
I think my expectations of the programme were relatively close to the reality. I’d hoped to have the opportunity to discover the industry, broaden my skill set and find something which I genuinely enjoyed doing and nucleargraduates definitely provided that – providing you’re willing to seize those opportunities when they arise.

Post-programme, what is your current role / plans for the future?
I’m currently employed as a chemistry inspector by the Office for Nuclear Regulation, conducting inspections at operating nuclear civil power stations and assessment of requesting party submissions as part of the generic design assessment of new nuclear reactors. In the future, I hope to become a fully competent nuclear inspector, continually influencing and promoting safety improvements across the industry.

What advice would you give a future nucleargraduate?
Research the industry. Having been a candidate at an assessment centre and input to the assessment, it speaks volumes when someone has taken the time to try and understand the role for which they’re applying. Additionally, don’t be afraid to ask for advice or assistance, most people will understand the position you’re in (and will have been there themselves) so will be more than willing to help.

Examples of Sponsors
➤ Sellafield Ltd
➤ Rolls-Royce
Trawsfynydd nuclear power station that is in the process of being decommissioned by the NDA.
What is your ‘magic moment’ from your time on the nucleargraduates programme?
For our cohort’s International Footprints, we got the opportunity to visit Sweden. The whole week was amazing. We met with politicians to understand how public perception of nuclear is different, we visited nuclear sites and their test site for a geological disposal facility. On top of all that, we had a tour around an iron ore mine in the far north of the country – an evening with the local Sami people, seeing the northern lights, and feeding reindeer is something I’ll never forget.

Post-programme, what is your current role / plans for the future?
Since nucleargrads, I have returned to my sponsoring company, Sellafield Ltd, working for the Decommissioning Capability Development team. Our role is to develop, trial, and demonstrate potential new technologies (and ways of doing things) so that future decommissioning projects can take advantage of them. Ultimately, to make decommissioning at Sellafield safer, faster, and cheaper. This has been a really good opportunity for me to gain an in-depth knowledge of Sellafield, while addressing the right competencies for chartership with the Institute of Physics.

What advice would you give a future nucleargraduate?
Get stuck in. I believe the more effort you put in, the more you’ll achieve, the greater responsibility you’ll get, and the better time you’ll have.

Closely linked to that is to make sure to keep learning. Through the scheme you’ll be able to get such a range of experiences: secondments, training, the SME project, etc. – don’t miss out on the opportunities to develop!

Examples of Sponsors
- Sellafield Ltd
- Rolls-Royce

Name: Bill Johnson
Degree and University: Physics MPhys, University of Manchester
Sponsor company: Sellafield Ltd
Year nucleargraduate Programme completed: 2015

What attracted you to the nucleargraduates programme?
When I was coming to the end of my Physics degree, I was really keen to find a job where my physics knowledge could be applied to solve real challenges. When I stumbled across the nucleargraduates programme it was clear to me that this was different from anything else I’d seen. The opportunity to go on secondments across country (or world), to explore different companies and roles, building my wider understanding, sounded incredible (and was!).

Also, because these secondments would be individual to me, it would allow me to try different things and understand what I did (and didn’t) want to do as part of my future career.

How did the training, provided by nucleargraduates, help with your professional development?
We did training on all sorts of subjects; from technical details of the nuclear industry, through to project management and commercial arrangements. I think for me this has complimented my physics knowledge, giving me a broad knowledge of how the industry (and business in general) works – not something my degree covered in any detail.
Environmental Science

Name: Rosie Archard
Degree and University: Environmental Science (BSc) – University of Dundee
Sponsor company: Magnox Ltd
Year nucleargraduate Programme completed: 2016

How did your expectations prior to starting the programme differ to the reality?
The reality is that it can be hard work moving house every 6-8 months and leaving newly made friends. It can take its toll but the upside is that there are always new experiences to be had!

Post-programme, what is your current role/plans for the future?
Waste Co-ordinator at Berkeley Site, Magnox. I am currently working towards becoming a waste engineer and looking to be competent in radiological and non-radiological waste so that I have future options in many industries.

What advice would you give a future nucleargraduate?
Top tips for those applying to the programme? I begged for a second interview during the video interview… perhaps that is the winning technique? I also threw myself across a table during the assessment centre to prove to the interviewers how much I wanted the opportunity. Stick to the cliché though and just be yourself. You aren’t expected to know everything and be the best thing since sliced bread. They want to see potential and not the finished product.

Examples of Sponsors

» Magnox Ltd
What is the standout moment from your time on the nucleargraduates programme?

A very difficult decision! nucleargraduates are responsible for organising their own International Footprints (CSR) trip, an opportunity to learn about another countries nuclear industry and their social, economic and political outlook on it. I was a part of the organising team for my groups’ trip to Sweden. It took a lot of time and effort to organise it all but it was well worth it to see everyone in a learning environment and enjoying themselves. We were able to see the SKB facilities in Oskarshamm, take a 16hr train journey to Kiruna to learn about the Sami people and the Iron Ore mines, and held discussions with Swedish nuclear professionals in Stockholm.

What are your plans for the future?

I am currently working as an assistant sales manager with my sponsoring organisation, International Nuclear Services. I would like to continue to work in the nuclear industry in the future as there are many exciting opportunities and challenges available in different areas. It is an industry which I have grown to enjoy working in and have learnt and continue to learn a lot whilst being in it.

Business operations roles include; finance, commercial, project management, strategy, communications and human resources.

Examples of Sponsors

➤ Sellafield Ltd
➤ Nuclear Decommissioning Authority
One thing that our nucleargraduates appreciate is the company and support of other nucleargraduates. Throughout your time on the scheme you will be part of a close cohort of other like-minded graduates that includes everyone from scientists to engineers, accountants to project managers. Your colleagues will always be there, and the bonds you form in that group will be some of the strongest you have ever made. Why? Because only other nucleargraduates will understand what it’s like to be a pioneer – changing the face of our industry forever.
Benefits

- Starting salary of £26,000 rising to £27,000 in your second year
- £1,000 Golden Hello
- Pension Scheme with employer contributions
- 25 days annual leave plus Bank Holidays
- Individual travel and subsistence budget during the two years
- Up to six discretionary days leave per year for study, relocation, etc.
- Membership of up to two professional institutions
- Exceptional training and support
- Potential to travel the world
- Potential to travel the world

**nucleargraduate Bevan Newell enjoying his community activities with the RNLI.**
Applications Process
Three simple steps to unlock your potential:

**STEP 1**
Online Application Form
Online Application Form For all our roles you will need to complete an online application form at www.nucleargraduates.com/apply to tell us more about you.

**STEP 2**
Online Situational Strengths Assessment
Our online test provides you with a glimpse into your first year as a nucleargraduate whilst assessing whether you will be a good fit for the programme and our sponsors. nucleargraduates: Fuel Your Future is an integrated assessment designed specifically for the programme, so unfortunately there are currently no practise tests available. If you would like to practise similar types of questions, then please feel free to at www.practice.cappassessments.com.

**STEP 3**
Video Interview
Our video interview gives you the chance to tell us why you should be a nucleargraduate. Using the latest technology you can record your interview at a time and place convenient for you before uploading it to be reviewed by a member of our team.

**STEP 4**
Assessment Centre
During the two-day assessment centre you will take part in a number of exercises – individual interviews, role play and group exercises. It gives us the opportunity to get to know each other and provides you with information about the nucleargraduates programme, the nuclear industry and the organisations looking to sponsor you.

Once you’ve demonstrated that you have what it takes to be part of the exciting world of nucleargraduates you will normally receive your offer within a week. Congratulations!

“nucleargraduates has made me feel at home in this industry. I have a credible nuclear knowledge base and the confidence to make decisions and drive progress.”

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