

'Two years, Three Secondments, Endless Possibilities'

London Footprint 2019— Cohort 12

On the first two days of the London Footprint week, the graduates took part in Influencing, Negotiating and Handling Challenging Situations training delivered by Oakridge Training. The weather was amazing at the University of Greenwich and the cohort made good use of the grounds for activities and discussions.



Day 3 saw the graduates board the Water Bus to Westminster to get to Parliament for the MP Tours, which included the House of Lords and the House of Commons.



This was followed by a visit to BEIS, where Dr Daisy Ray, Dr Rebecca Upson and Jo Guthrie gave the group an insight into the work of the department, followed by discussions with two Cohort 11 graduates who are currently on Secondment with BEIS. The morning ended with a networking lunch which allowed the five Cohort 12 graduates who are about to start a secondment at BEIS to meet their Line Managers.

The group then made their way to Portcullis House for the Q&A session chaired by Trudy Harrison, MP,

with Stephen Speed, Director of Nuclear, BEIS, Craig Lester Director of Nuclear, BEIS, Beccy Pleasant, Head of Skills and Strategy, NSSG and Peter Haslam, Head of Policy, NIA. The session was in depth with questions from each of the four teams and expertly answered and debated by the panel.



Trudy Harrison's selfie with the graduates

Day 4 was given over to the Societal element of the Power & Influence Footprint, with all of the teams working on the charity element of their SME challenge. This was followed by a visit to MOD in Westminster, where the group were given an insight into the work they are involved in by Ian Booth, CEO of the nuclear submarines team.

Day 5 was a Power Walk around London and Greenwich led by David Neita who challenged the graduates to think about personal power and influence. Some very thought provoking activities allowed the



graduates to share their experiences, this led to a much more cohesive and bonded group of people.

Alumni

Rhianne Boag was on the programme in Cohort 7. Here she shares some of her experiences and talks about life after nucleargraduates.

'I joined cohort 7 in 2013, sponsored by International Nuclear Services (INS). My three secondments were at INS in Warrington, Doosan Babcock in Renfrew and Amec Foster Wheeler in Warrington before returning back to INS.

Since 2015, I have worked as an Engineering Analyst with INS within the Technical Department. Due to team size, I was given a significant amount of responsibility right from the start. Some projects I have been part of have been recognised at government level, both in the UK and further afield. I have represented INS by presenting my work at conferences in Germany and in the UK.

Outside work, I am a level 2 qualified rugby coach and am often asked questions about my school subject choices, university, graduate programme and my role now. It's always a story I'm happy to share.

All of this provided me with loads of experiences and culminated in becoming a Chartered Engineer in September 2018.

I feel like I am in the process of giving something back to nucleargraduates now, and I'm really fortunate and grateful to have been asked to mentor a fellow graduate currently going through his own nucleargraduate journey.

Graduates are told "you are in charge of your own destiny" or "the world is your oyster" but for me one of the messages that resonated throughout the scheme, and still does to this day is "if you don't like your situation, move. You are a person not a tree." My team advisor told me this whilst wondering whether I was doing the right thing on one of my secondments. I am glad he did, because I changed my path and have ultimately found a job in an organisation that I am glad to be a part of. It is four years since I left the programme and that time has definitely flown by.'

Thank you Rhianne



Site Visit—Urenco

The URENCO Group is a nuclear fuel company which operates several uranium enrichment plants in the UK, Germany, the Netherlands and the US. URENCO UK Limited became a wholly owned subsidiary of URENCO Limited in 1993, following a restructuring of the URENCO Group. Since then, the site has established itself as a highly successful operation, expanding its production capacity to 4,700 tSW/a in the UK by the end of 2017.

Cohort 12 graduates, Lauren Crawford & Yasmin Yu



prepared this update on a recent site visit

Recently a group of nucleargraduates visited the Capenhurst site where they were escorted around the largest enrichment facility on site where the enrichment process was described. This allowed the graduates to see the different stages involved in the conversion process. In order to produce enriched uranium, the feedstock (UF_6 , also known as HEX) is converted into a gas in a pre-heating stage before it enters the centrifuge. The centrifuge is a gas separator, and rotates at high speed to separate UF_6 based on a difference in mass in uranium isotopes. UF_6 containing ^{238}U is deposited on the inner surface and ^{235}U on the outer. During the visit the graduates saw the large size of an individual centrifuge and the configuration of these in banks called cascades. ^{235}U is the desired product for use in nuclear reactors, and the percentage of enrichment can be adjusted to the customer's specification, typically ranging from 3-5%. The process leaves UF_6 with a lower fraction of ^{235}U , known as tails, which are currently stored on site.

The visit was followed by an insightful Q&A session.

Thank you Lauren and Yasmin

Cohort 11 Graduate



Tania Hoque, NDA sponsored graduate, is in the final few months as a

nucleargraduate. Here she tells us about some of her experiences.

'My first secondment was within the assurance directorate of the Nuclear Decommissioning Authority. My role as a risk manager allowed me to work with colleagues across many areas of the organisation as well as the wider NDA group. The secondment allowed me to gain a good understanding of the NDA's corporate strategic objectives and the risks that the organisation faces.'

'My second secondment was split across two business units at Rolls-Royce, giving me an appreciation of the range of work being carried out across the Raynesway site. The second part of this secondment involved re-designing a cooling system for a test facility intended to model an aspect of the Dreadnought-class submarine nuclear steam raising plant.'

'My third secondment at Abbott Risk Consulting gave me the opportunity to see the industry from the perspective of an SME. I prepared several commercial bids for the nuclear business unit, giving me exposure to complex sets of tender questions used by organisations to assess suppliers and award contracts. I developed a mathematical model for assessing the risk associated with ice thrown from wind turbine blades and scribed for several Hazard and Operability (HAZOP) studies for Floating, Production, Storage and Offloading (FPSO) unit designs. Through this, I was able to travel to the Netherlands and Singapore and made sure to use up any free time for sight-seeing and tasting the local delicacies!'

'I have just started my final secondment at BEIS, where I will be working on the Nuclear Liability Fund policy and AGR decommissioning. This will involve working with EDF, the NDA and other key stakeholders to provide advice to BEIS ministers.'

'From the very beginning of the scheme, I have been given a great deal of responsibility across a range of challenging objectives. On top of this, I have been given amazing opportunities that I would not have received if I were on any other scheme!'

SME Challenge

Every year the graduates take part in an SME challenge where they have to think up a business idea, pitch for funding and start a business with the aim of raising money for their chosen charity, while learning the inner workings of business.

Cohort 11 started their businesses in September 2018 and are currently selling a range of products before closing down prior to finishing the programme in October.

The product of Team Enten is an original storybook, written by the team and beautifully illustrated by a friend of the team. The book is a STEM based story for primary school children to engage and encourage them into STEM subjects. The team has now sold over half of its 1000 originally printed books, and is in profit to the order of around £1,000. The team is now supplementing this by selling the remaining stock individually in their respective offices around the country. They are also pursuing a lead with a STEM engagement organisation in Australia, who have indicated that they may be interested in purchasing a quantity that will require a second print run. Two graduates are in Cumbria distributing books to two schools sponsored by Energus. The children will each receive a book after taking part in STEM activities.



Planet One—A story of Energy

This is a fantastic initiative that will leave a lasting footprint, and we are looking forward to seeing how much the team raise for their chosen charity – The Smallpeice Trust, a charity that encourages STEM in schools.

Team Ncompass are supporting Growing Well, a safe and welcome garden environment in Cumbria for people dealing with mental health problems. They work to empower and develop their service users, teaching them key skills to allow them to move forward in life. The Team called their company 'Power Plant', and the product is a grown your own sunflower plant kit. The team will donate the profit and remaining stock to the charity.

Cohort 2019

Cohort 2019 will start their journey as nucleargraduates in October. In June the majority of the cohort attended the 'Know Your Programme Day' in Birmingham. This is a chance for the graduates to get to know one another, as well as learning more about the programme.



Cohort 11 graduate, Ryan Beech spoke to the new cohort about his journey and experiences, giving them an insight of what is to come.



Cyber Graduates

We have now recruited a second cohort of Cyber Security Graduates who will start their journey with us in October 2019.

Cohort 1 Cyber Graduate Dean Mckinnel started his two year development programme in November 2018. Here Dean tells us about his experience so far.

'My experience of the Energus Cyber Graduate Programme has been one of the most engaging experiences so far in my journey to becoming a cyber security professional.

Shortly after my induction I started my first secondment at Direct Rail Services where I am developing IT systems and leading projects that have a real business impact. I have been given the confidence to pursue professional qualifications that will aid my development. As I move to other secondments I hope they will be as enjoyable as my current one.'

Keep watching for more news on Cyber Graduates



YGN Speaking Competition

Miguel Trekel-Lopez—Cohort 12 nucleargraduate was recently awarded second place in the YGN Speaking Competition for London & the South East.

Here Miguel tells us about the day.

'I took part in the YGN Young Speakers Competition for London and the South East and was awarded second place for my presentation. My talk was about reframing the perception of nuclear, and how we perceive the world through stories, not statistics. Despite nuclear being statistically one of the safest forms of power generation, the public perceive it as one of the most dangerous. As an industry, we have failed to lead the narrative and I explored how we could begin the change this.



Jennifer Liley gave the winning presentation. She is an EDF employee seconded to CGN working on the Bradwell GDA. She revealed some fascinating insight into how different cultures have different attitudes and behaviours in a working environment and how this has affected the Bradwell GDA approach, as well as what we can learn from working with other cultures.

David Ward, a Cohort 7 nucleargraduate, came third with a talk on the use and misuse of Dosimetric Quantities.'

Well done Miguel. It is also great to see alumni graduates taking part in Nuclear Institute initiatives.

Thank you for taking the time to read this newsletter. If you would like further information on nucleargraduates or Cyber Graduates please get in touch.

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