cyclife aquila nuclear
EDF GROUP

Fusion

A Radiant Source of Insights and Innovation in Nuclear Engineering.

Issue 01 2024-2025

2024 in a nutshell

At the close of 2024, it was great to take a moment to reflect on the achievements of our CAN team. Some of these are shared here, such as achieving our ISO 30415 for Diversity and Inclusion and completing some innovative and exciting projects.

A year for innovation and growth - we started to delve more into Nuclear Medicines. We appointed our Scientific Officer, Amin (see page 8 for his interview), who has been attending industry events, sharing his wide breadth of knowledge to relevant projects and fostering new industry relationships. We are excited to build on our strategy for growth in this sector over the coming years.

In the field of health and safety we saw the launch of the new Cyclife EDF Health & Safety Policy, setting out the key commitments, strategy, and initiatives that will continue to improve safety performance moving forward.

We also integrated the Cyclife Guiding Principles; Be Accountable, Take Care, Act Collectively and Feel Pride with our own mission, vision and values. This is reflected in our team who have continued to remain resilient, elite and deliver their work with pride.

2025 is set to be a big year for our growth, learning and skills development and we look forward to sharing the journey with you.

Drew Corbett
Managing Director

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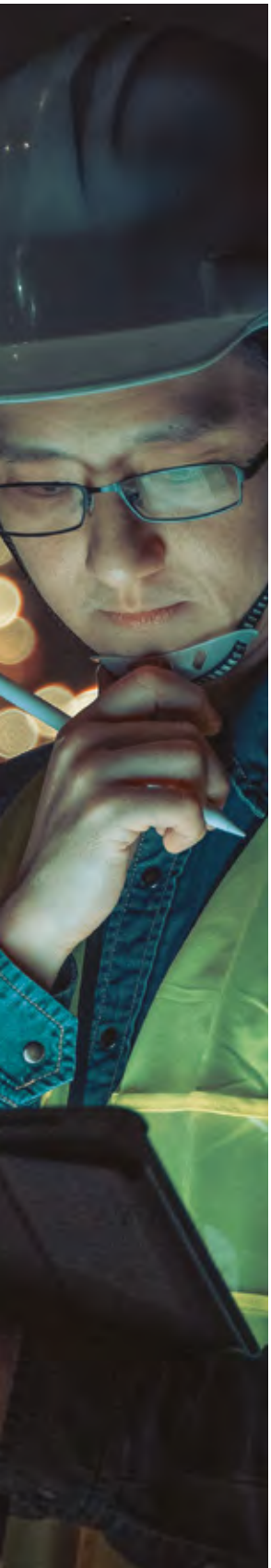


DIVERSITY AT THE CORE:

Achieving ISO 30415 Accreditation for Excellence in Inclusion

In October, we were awarded the ISO 30415 for Diversity and Inclusion, making us the first nuclear organisation in the world to achieve the standard.

As an internationally recognised Standard, ISO 30415 focuses on HR Management and the importance of diversity and inclusion in the workplace. It includes reviews of internal organisation systems, policies, processes and practices to ensure an inclusive workplace. The benefit of the international standard is that it is recognised across borders and can be applied by companies all over the world.

Dr Nara Ringrose, Head of People & Organisational Development said:

"We are immensely proud to have attained ISO 30415:2021 accreditation, a testament to our dedication to the ethical global standards of inclusion, equity, and diversity. Our values and guiding principles cultivate a collaborative culture, and the People Excellence agenda is our foremost priority. This certification allows us to ensure that our HR activities align with business goals and international HR standards."

Attaining the standard was led by the Diversity & Inclusion Working Group; Joanna Kelloway, Recruitment Manager, and Arnie Saakyan, Employment & Management Officer with input from the CAN Executive Leadership Team and Operational Management Team.

This year, a robust process has been established for assessing our HR processes and procedures as well as reviewing the content of the HR staff handbook, supportive toolkits for managers, and training and recruitment data.

The assessment process was vast and included interviews with our employees by an external assessor, regular monitoring of our social media, interviews with the HR team, and preparation of a master ISO presentation.

Our Managing Director, Drew Corbett, reflects on this achievement and what it means for current and future employees:

"Achieving the ISO 30415:2021 Diversity and Inclusion accreditation is a fantastic achievement for our business. Creating an inclusive environment which enables us to build and develop diverse teams has been key to our growth to date and will be vitally important to the continued success of Cyclife Aquila Nuclear. At CAN we have four guiding principles: to act collectively, be accountable, take care and feel pride and I don't think there is any better evidence that we live and breathe these values than this accreditation."

"A testament to our dedication to the ethical global standards of inclusion, equity, and diversity."

The standard demonstrates our ongoing commitment to diversity and inclusion, this includes working and communicating inclusively, advocating and championing diversity and empowering employees to act accountably.

We will continue to maintain the ISO standard by developing new HR policies and internal training, talent management, and promoting diversity dimensions, including the demographic and other personal characteristics of the workforce, such as age, disability, sex, sexual orientation, gender, gender identity, race, nationality, ethnic or national origin, religion or belief.

BEYOND BUSINESS:

CAN's social responsibility in action with ActiveMe360 and AAW

At CAN we are committed to our Corporate Social Responsibility (CSR), ensuring we are partnering with charities and organisations that work closely with their communities and are making a positive difference. In 2024 we partnered with two organisations, ActiveMe360 through Winchester City Council (WCC) and Always Another Way (AAW).

Winchester City Council and ActiveMe360

We provided sponsorship and funding for WCC's Community Football Project which was held during half-term throughout the calendar year. The sessions allowed children to play football in a positive, inclusive environment across the Winchester district. The sessions are accessible for a range of ages and abilities, allowing players to explore and develop their football skills through exciting games and activities.

Calum Drummond, Health Improvement Manager at Winchester City Council says:

"By working together, we deliver fun and challenging sessions for children and young people outside of the curriculum."

ActiveMe360

"Our partnership with ActiveMe 360 and Cyclife Aquila Nuclear has allowed us to provide regular sports activities to the doorsteps of our local communities. By working together, we deliver fun and challenging sessions for children and young people outside of the curriculum".

Always Another Way

We also partnered with Always Another Way, an organisation set up to improve mental well-being in West Cumbria, particularly in Copeland and Allerdale.

They aim to provide comprehensive and tailored mental well-being support through a range of services including coping strategies, connect groups, alternative therapies, colour-coded (LGBTQ+) groups, mental well-being courses and personal therapy. All of these services are free and funded by donations and support from the wider community.

Over the past few years, we have been supporting AAW with general assistance, marketing advice and donations. Our Marketing and Communications Coordinator has been working closely with the charity to assist them with their social media and website presence, enhancing their profile and ensuring their messages are communicated clearly and consistently.

Lyn Cavaghan, Executive Officer shares her thoughts on the partnership, she says:

"We have had the pleasure of partnering with Cyclife Aquila Nuclear, who have significantly supported our organisation in various ways. They have provided invaluable assistance and guidance with bid preparation and grant writing, attended our AGM and Vision Day for our team, which helped define our new mission, continued social media support, and made a very generous donation. Their contributions have been instrumental in advancing our work and impact locally."

We are excited to continue working with Always Another Way and look forward to seeing what the future holds for them as they continue to grow!

A BRIGHTER FUTURE

A greener pathway? Nuclear is the answer...

Having worked in nuclear for 8 years and having had the benefit of learning about it at a young age, the path to a sustainable future is clear to me, we need to be utilising energy sources with minimal environmental impact. Whilst renewable energy sources such as wind and solar are essential, nuclear power also has a crucial role to play in the transition to a greener world.

It's already proven that nuclear generates electricity that produces virtually no carbon emissions during operation, making it one of the cleanest energy sources available. As we look to reduce our dependence on fossil fuels, nuclear energy offers a stable, reliable alternative that complements fluctuating energy sources such as wind and solar.

Unlike renewables, which are dependent on weather and daylight and therefore have limited availability, nuclear energy provides constant power around the clock.

Then consider that advances in nuclear technology, including small modular reactors (SMRs) and ongoing research into nuclear fusion, are moving nuclear energy into a new era of safety and efficiency.

These technologies address traditional concerns about waste and safety and will provide a cleaner, more adaptable energy source for different locations around the UK. SMR plants have a smaller footprint and can be deployed close to demand centres, reducing transmission losses and increasing energy security.

Regardless of your opinion on nuclear power, the stakes are high in the climate crisis. With what scientists are forecasting, ruling out low-carbon options like nuclear power could have devastating consequences for us.

I'll continue to advocate that utilising nuclear energy together with renewables improves our chances of a sustainable, low-carbon future. Given these potential benefits, the question is not why nuclear energy should be considered, but why it is not already at the centre of our sustainability effort?

"Advances in nuclear technology, including small modular reactors (SMRs) and ongoing research into nuclear fusion, are moving nuclear energy into a new era of safety and efficiency."

Steven Barker
Head of Commercial

Follow us on LinkedIn

For our latest news, updates and vacancies follow our LinkedIn page and be part of the conversation.

REACHING FOR THE STARS

Launching CAN into space

At the end of 2023, we were awarded a significant contract to design and build a facility to manufacture radioactive power cells to provide a vital source of energy for future space missions.

The production process will be housed in a high integrity glovebox suite to ensure the highest levels of safety and cleanliness.

What is a glovebox?

Gloveboxes are containment systems. Their purpose is to protect operators and the wider environment from a potentially harmful material and to protect the material from potential contamination from operators or the outside environment.

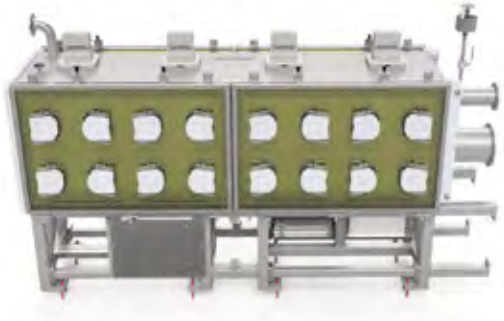
An example of both scenarios occurs in the field of nuclear medicine for the production of radioisotopes for diagnostics and therapy in cancer treatment. In the case of nuclear medicine production, the operators must be protected, while the product inside the glovebox must be manufactured in a sterile environment. Gloveboxes and containment systems are used throughout the nuclear and pharmaceutical industry.

NNL programme of work

The UK Space Agency and National Nuclear Laboratory (NNL) are to collaborate on the world's first space battery powered by Americium-241.

NNL's work, commissioned and funded by the UK Space Agency, will be delivered in a new £19 million laboratory in Cumbria equipped with next-generation equipment and technology. It will deliver a sovereign supply of fuel for space batteries in the context of a global shortage, enabling the UK and its partners to pursue new space science and exploration missions. Atomic space batteries, also known as Radioisotope Power Systems (RPSs), release heat as the radioactivity within them decays.

The heat can be used directly to prevent spacecraft from freezing and it can be converted into electricity to power onboard systems. The batteries go on working for decades, without need for maintenance over the many years in which a spacecraft could be travelling.



Design render of Special Nuclear Materials Glovebox

SEAMLESS DESIGN SOLUTIONS

Powerful partnerships

One way we strive to deliver seamless design solutions for our customers is through our evolving supply chain. Recently, we focused on developing relationships with suppliers we trust, giving us exclusive access to their products and services so we can continue delivering high quality projects. Below are two of our partnerships we look forward to continuing to work with in 2025.

Jacomex

Jacomex is a French SME, which was established in 1945, pioneering the Glovebox and Containment Industry in Europe. Thanks to its long experience, Jacomex is able to put all its expertise to the service of high-stake projects for the industry.

Jacomex provides custom glovebox systems and their associated ancillary equipment, such as regulating and safety valves specifically developed for nuclear applications, to meet our customers specific needs and requirements.

LaCalhene

Cyclife Aquila Nuclear is the sole UK distributor for LaCalhene products in the nuclear and nuclear medicines market. LaCalhene has been supplying remote manipulators and transfer systems for the protection of the operator, against alpha particles and gamma radiation since the 1960s.

CAN colleagues interacting with Jacomex demonstration glovebox

New partnerships?

We're always looking for opportunities to establish new partnerships, if you are interested, please contact: sales@cyclifeaquila.com

STAFF SPOTLIGHT:

An interview with our Scientific Officer, Amin Choudhury

From radiopharmacy beginnings to innovation leadership, Amin shares his journey, insights on nuclear medicine's future, and the exciting advancements shaping the industry in the UK.

"My role focuses on various objectives, the most important is our strategy and innovation as industry thought leaders. It's such an exciting and varied role – I really enjoy it."

Amin Choudhury
Scientific Officer

Hi Amin, can you tell us about yourself?

Hello, I'm looking forward to this interview! Well, I joined CAN in May 2024. They were looking for someone from within the nuclear medicine industry. I started my career as a Radiopharmacy Technician with Alliance Medical Radiopharmacy.

I was trained in the manufacturing of 18FDG and other 18F products which were Cyclotron generated. Alliance was great and kick started my passion for the industry, I developed rounded experience of cyclotron engineering, radiation protection and risk assessments, and Quality Management Systems.

I then moved to Curium, to be part of a unique experience in opening a brand new GMP Radiopharmacy to manufacture 18F and 68Ga products.

It was there that I gained experience in supply chain and project management. I then joined STERIS AST, who use different modalities to irradiate medical devices, one of them being Cobalt-60, the strongest isotope used in the medical industry. And here I am now!

It sounds like you've had a really varied career! What is your role at Cyclife Aquila Nuclear?

My role focuses on various objectives, the most important is our strategy and innovation as industry thought leaders. It's such an exciting and varied role – I really enjoy it.

As part of my role, I've also had the pleasure of attending numerous events this year, showcasing the latest scientific research and exhibits displaying state-of-the-art innovations.

Amin, we'd love to know your thoughts on the future of nuclear medicines - what do you think the UK nuclear medicine market will look like in 10 years?

I hope the landscape of Nuclear Medicine in the UK is at the same competitive rate as Europe, this looks like having a variety of diagnostics and treatments available and the UK participating in the discovery of new drugs and conducting clinical trials.

We are a long way off, but there are plenty of promising initiatives gathering speed, such as the government's Project Arthur which will deliver a facility purpose built for the supply of radionuclides. CAN is a strong supporter for the development of the radionuclide industry, through initiatives such as Rad4Health UK.

Continued over page...

What do you think will be the main challenges over the coming years for the UK nuclear medicine industry?

The UK is currently uncompetitive in clinical trials, therefore the forerunner for introducing innovative medicine into the market. This is a bizarre situation, given the world-renowned universities in the UK, such as Queen Mary University London, Kings College London and University of Manchester. Who have leading scientists and cutting-edge research in the field of Nuclear Medicine, however find the regulations a difficult obstacle to overcome.

The current and upcoming radioisotopes are known as 'theranostics'. This is a development from previously using radioisotopes for diagnostic purposes, research has shown that isotopes such as 225Ac (Actinium 225) and 212Pb (Lead-212) have the capabilities to not only diagnose but to treat cancers due to the inherent short-range, yet strong activity. The problem is cost, of course, and also safety.

This is evident in our MRIP programme. Awarded by the Department of Energy Security and Net Zero (DESNZ) our project explores the requirements surrounding the installation of 212Pb generators in a hospital environment. The challenge in this solution is in the volume of starting material of 228Th required to deliver a sensible supply of 212Pb breaches the Radiation Emergency Preparedness and Public Information Regulation (REPPIR-2019). For this solution to be feasible an emergency plan must be in place in the event of an emergency. This is a huge cost to validate for the hospital environment.

Why is it crucial for the UK to invest more in its development of nuclear medicines?

We want to have control of our medical distribution, without having to rely on other countries. That is our core goal. Being self-sufficient will save lives. We will be able to run more diagnostic tests, react quicker to diagnoses and deliver more units of the critical medication needed to treat patients.

What exciting innovations do you predict will be developing over the next few years?

I predict (or wish) that there will be further investment into the current nuclear medicines infrastructure to ensure robust and diverse supply, without relying on international importation. This means having in-house specialism and manufacturing facilities on our shores.

Amin, thank you so much for your insight. Rounding our interview out, what are you most likely to be doing with your spare time?

I have a one year old son who has just learnt to walk so a lot of my time is spent chasing him around! Every Friday evening I like to play football and over the weekend my time is spent watching the games.

"We want to have control of our medical distribution, without having to rely on other countries. That is our core goal. Being self-sufficient will save lives. We will be able to run more diagnostic tests, react quicker to diagnoses and deliver more units of the critical medication needed to treat patients."

FULL POTENTIAL:

Professional Memberships at CAN

At CAN we ensure that our employees are reaching their full potential, so we invest in their professional development by offering memberships to a range of professional bodies such as APM, CIMA, CIPD, IET, IMechE and NI.

One of our Engineering Managers, Matthew Fowler, recently became a Chartered Engineer through IMechE. We asked Matt a few questions about his experience attaining his Chartership IMechE professional membership and how it has had a positive impact on his career.

Matthew Fowler,
Engineering Manager

Why is being a part of a professional membership so important and how has it helped you in your job role?

In October 2024, I became a Chartered Engineer, achieving full membership of the Institute of Mechanical Engineers (IMechE), having previously been an Associate member since 2014. Maintaining this professional membership is important to both my professional development and career aspirations for several reasons.

The IMechE provides access to the latest research, case studies, and industry best practices. As an Engineering Manager, these resources help me understand emerging trends in engineering processes, tools, and leadership approaches, allowing me to implement strategies that will increase engineering throughput, quality, and efficiency.

Membership of a professional organisation offers access to certifications, training programs, and workshops that help you stay current with technical skills as well as leadership capabilities. For example, the IMechE supported me through the application process to becoming Chartered, which has boosted my career and coincided with a promotion into Engineering Manager.

Lastly, being part of a community of like-minded professionals helps to foster a sense of belonging and purpose. This is particularly relevant to the current phase of my career as I am now looking to give back to the community by volunteering at events that shaped my education, such as Formula Student UK, to try and inspire the next generation.

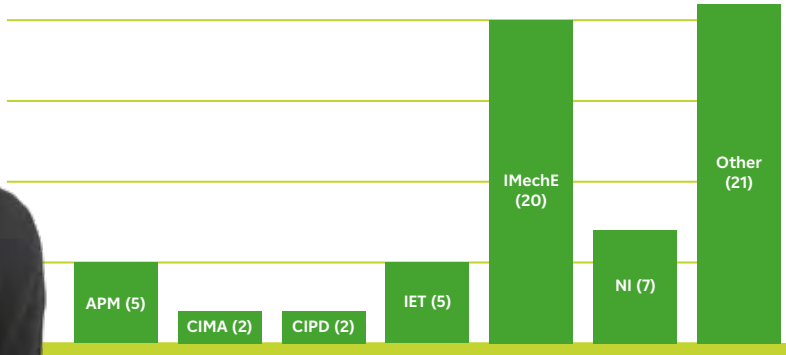
Can you tell us more about your experience of becoming a Chartered Engineer?

Becoming a Chartered Engineer is a lengthy process, there's no two ways about that!

In my experience, the key to achieving Chartered status is consistent and experienced mentorship, whether that be via a colleague or a regional IMechE outreach officer. I was incredibly lucky in the fact that I benefited from both; firstly, from the professional development scheme at Cyclife Aquila Nuclear and secondly from Steve Acott at the IMechE.

While the application process is long and the application itself is tricky to write at times, the sense of satisfaction once completed was incredible; I would highly recommend pursuing CEng/IEng/EngTech if that is something that is relevant to your career.

Number of employee memberships at CAN*



*As of December 2024

A WINNING TEAM:

Introducing the Tendering Team!

Our tendering team is an integral part of our business. They are responsible for winning new business, identifying opportunities and presenting them to internal stakeholders. They also respond to requests for information and coordinate input from engineering, sub-contract partners and internal departments to produce the most compelling bid response.

Each member of the tendering team will manage a tender, however, they work together so that the responses are comprehensive and to a high standard which provides a great opportunity to learn from each other. They are always reviewing their processes to improve ways of working and develop their strategy. The team is made up of our three Senior Proposal Engineers, Dave Collings, Daniel Pettinger, and Iain Moore.

Dave Collings has worked at CAN for six years; he shares his thoughts on his job role:

What I love is that the role requires us to exercise a wide range of skills and technical knowledge while collaborating with subject matter experts across the business. We're empowered to develop lasting relationships with our supply chain partners to create high-quality proposals. I admire that CAN invests in professional development, meaning we're fully supported in achieving career goals and progression. Perfect for someone proactive, driven and ready for a challenge!

Daniel Pettinger, Senior Proposal Engineer says:

I joined the company in January 2024 and it's been a steep learning curve since my background is in tendering automated materials handling and warehouse storage systems; so, I am in a totally different world.

I would say the best thing about joining CAN has been the people; the team have been really supportive, and everyone pulls together to reach our common goals.

On a day-to-day basis the role is quite varied, the most important part is taking ownership of the end-to-end tendering process in order to bid for new business, this requires pulling together input from a variety of different departments and internal experts, engaging with our supply chain, and no two tenders are truly alike; there are different phases to the process and because CAN designs bespoke engineering solutions across a range of nuclear sectors, our offering is always unique.

Iain Moore, Senior Proposal Engineer says:

I joined CAN in January 2024 as a Senior Proposals Engineer. This role introduced me to the nuclear industry as I have previously worked in the Rail, Defence, and Oil and Gas industries.

A key part of the role involves managing the tendering process from opportunity identification/assessment through to the proposal submission.

A typical day can include liaising with customers and supply chain, identifying/assessing opportunities, planning/developing proposals, and collaborating with in-house experts to create proposals tailored to each customer and their unique requirements. I really enjoy the role as each opportunity has a different set of challenges that not only keeps things interesting but also promotes personal and professional growth.

"What I really admire is that CAN invests in our professional development, meaning we're fully supported in achieving career goals and progression. Perfect for someone proactive, driven and ready for a challenge!"

Dave Collings
Senior Proposal Engineer

FANTASTIC OPPORTUNITIES:

CAN apprenticeship programme

At CAN, we pride ourselves on our fantastic apprenticeship programme, which provides young people with a chance to work towards a career in Engineering.

The Engineering Design and Draughtsperson Apprenticeship takes a total of four years to complete. The apprenticeships begin in September with a BTEC Engineering Diploma. In the first year, the apprentices will undertake full-time training at Southampton Engineering Training Association (SETA).

Once they pass the first year, their second and third year will include a combination of learning. They will learn the Engineering Standards at SETA, carry out work-based learning at CAN and pursue further education, working towards their Higher National Certificate (HNC) and Higher National Diploma (HND) in Mechanical Engineering.

In their final year, they will complete their Engineering Standards, work-based learning at CAN and further education and then be promoted to an Assistant Mechanical Design Engineer. We aim to onboard two apprentices every year. Here's what two recently qualified apprentices have to share about their experiences.

Charlie Collings
Mechanical Design Engineer

"I completed my HNC and HND in General Engineering during my 4-year apprenticeship at CAN, working in the office for four days and a day release for one. This time spent on site allowed me to develop valuable skills and knowledge from the team whilst working on a range of projects, complementing my HNC and HND learning and development."

Fred Wood
Mechanical Design Engineer

"Cyclife Aquila Nuclear has supported my growth as an engineer throughout my time with the company. As an apprentice, I was offered many opportunities for professional development; this included a business-funded degree in mechanical engineering in which CAN supported me in studying part-time alongside my work. I'm grateful for the investment the business has made into my development."

We are incredibly proud of our apprentices and the hard work and dedication that they have shown to develop their careers. This year we have onboarded two new apprentices, Ben and Kai, who have started their journey towards a career in engineering!

Visit our apprentice page to find out more...

INVESTMENT IN OUR EMPLOYEES:

Leading the way to success

At CAN, we firmly believe that an investment in our employees is an investment in our future. This belief has been reinforced by a recent prestigious recognition of our internal Leadership and Management (L&M) training programme.

Our efforts were not only praised for their quality and impact, but also featured in a UK eBook published by Palgrave Macmillan, a leading academic publisher.

This success is a testament to the exceptional collaboration between our company and higher education institutions. Earlier this year, we teamed up with Dr Paul Joseph-Richard, an external assessor renowned for his expertise in the field of leadership development.

Through several in-depth discussions with Steve Barker, our Head of Commercial, and other L&M participants, we refined our programme to align it with best practice and innovative approaches.

The feedback and insights gathered were invaluable and our contribution was deemed worthy of inclusion in the Palgrave Macmillan publication. This recognition is not only an honour for our company, but also reflects our commitment to nurturing talent and growth in the nuclear industry.

Our L&M training programme empowers participants to strengthen their skills, take on challenges and lead with confidence. Last year, participants were actively involved in designing and implementing key initiatives that made a tangible contribution to our business success.

As 2024 came to a close, participants completed tasks that demonstrated their ability to think critically, solve complex problems and collaborate. This momentum positions us well to welcome the next group of L&M participants in 2025.

This level of recognition also underlines our commitment to creating a culture where learning and development are firmly embedded in our DNA. From structured training programmes to partnerships with academia, we are committed to providing our employees with the tools and opportunities they need to succeed.

It has also highlighted the importance of investing in employees, not only to support individual careers, but also to contribute to the wider knowledge and skills of the industry in which we operate. We are proud to contribute to strengthening the nuclear sector by building a skilled and confident workforce.

As we celebrate this milestone, we are reminded that our journey does not end here. With plans for the next intake of L&M participants and new opportunities for collaboration on the horizon, we look forward to continuing this journey of growth and innovation.

Thank you to everyone who has helped make our L&M programme a success. Your hard work, dedication and vision are the driving forces behind this success. Here's to a bright future of learning, growth and success at CAN.

BEYOND BUSINESS:

How is nuclear new build funded?

Nuclear energy is one of the most sustainable ways of producing energy in the UK and whilst it can help secure the country's long term energy security, it also requires a huge upfront investment from the industry.

Rupert Dillow
Senior Legal Counsel

There are two main funding models for nuclear new build:

Contract for Difference (CfD) Model

Developer builds the nuclear plant and receives a guaranteed energy price (strike price). There are two significant challenges with this approach:

- The developer is not paid until construction is complete and electricity is being generated. This could be 10+ years. That all means tying up funds for a long time. In simple terms, that means a lot of interest payments on debt.
- The developer shoulders the construction risk (cost overruns and delays). In simple terms, the developer must add to its price for that risk.

The costs attributed to these challenges are shared with the consumer through the strike price.

Example:
Hinkley Point C. This funding model was the right choice for a first of its kind project like Hinkley Point C. This flagship project has paved the way for other funding models in future.

Regulated Asset Base (RAB) Model

This is a new funding model introduced to UK nuclear by the Nuclear Energy (Financing) Act 2022.

Consumers contribute to the costs of the nuclear plant build from energy bills (throughout the construction phase). Construction risks are also shared to some extent, with consumers. All this means lower funding costs and lower build costs in the long term.

Examples of infrastructure projects that have successfully used this model, include Thames Tideway Tunnel and Heathrow's Terminal 5.

The Regulated Asset Base funding model remains one of the options to fund future nuclear projects.

Cheaper financing for new nuclear is better for us all, as an industry and as consumers.

Find out more by visiting:

CYCLIFE COLLABORATION:

Part of the Cyclife Cycle

As we enter 2025 we are also moving towards the third anniversary of the acquisition of Aquila Nuclear Engineering by Cyclife.

Drew Corbett
Managing Director

It is safe to say that we were absolutely delighted to have been acquired by Cyclife, a member of the EDF family, an ambitious organisation, and one that we were already looking to collaborate with in the UK. Alongside the delight, we also felt a little anxious as to what the future may hold, primarily because we had been almost completely autonomous since our formation.

That anxiety subsided once we began life under Cyclife's ownership, in earnest, in early 2022. The transition into the group has been excellent, thanks to the support of the team at Cyclife Holdings and our fellow subsidiaries.

It has been an incredible 3 years both for Cyclife Aquila Nuclear and the wider Cyclife Group. At Cyclife Aquila Nuclear we have continued to win and deliver projects in all five of our core market sectors (Decommissioning & Waste, Science, New Build, Defence and Nuclear Medicines) including securing our largest single order in December 2023.

At the Cyclife Group level, we have continued a very ambitious trajectory, coupling a high rate of organic growth with the acquisition of organisations with a proven nuclear pedigree in France and Germany, and the creation of Cyclife Japan. Allied to this continued growth in capacity and capability, there is a clear desire for all subsidiaries to collaborate and deliver solutions which leverage group-wide skills and experience.

Here in the UK, Cyclife Aquila Nuclear are supporting Cyclife UK with a number of live projects in the Decommissioning & Waste and Defence Sectors. We have a significant pipeline of domestic opportunities which we will be looking to develop and secure together in 2025 and beyond.

Further afield, Cyclife Aquila Nuclear have been conducting several design studies to support the decommissioning effort at the Brennilis and Fessenheim sites for Cyclife Engineering, a French subsidiary, focused on their domestic Decommissioning market.

During 2024 we also began to look deeper into the wider French Nuclear Market, tendering for our first significant Hot Cell project and considering our strategy for many more.

Our Commercial team are also working in close collaboration with colleagues from Cyclife subsidiaries in Germany, Sweden, France and Japan to identify opportunities to supply bespoke plant and equipment solutions in their domestic markets and neighbouring territories. We are also supporting the UK Regional Market Unit, Cyclife UK, in identifying opportunities to deploy group wide capabilities here in the UK.

Growth and Synergy are two words that we will continue to be using a great deal in 2025 and beyond, both here at Cyclife Aquila and across the Cyclife Group. We have a very strong offering to the Market and I am looking forward to realising that offering with our fellow Cyclife subsidiaries.

Cyclife EDF Group – Subsidiaries

cyclife GROUPE EDF · cyclife engineering GROUPE EDF · cyclife digital solutions GROUPE EDF · Waste2Glass A EDF VEOLIA JOINT VENTURE · GRAPHITECH

CASE STUDY:

UoS Glovebox

Back in 2021 we were awarded the contract to design, build, deliver and install a glovebox at the University of Southampton. The project also included training their staff on how to use the glovebox.

We collaborated with Cirrus Containments who provide high quality, modular isolation units, that can be customised for the needs of hospitals, pharmacies and academic institutes.

The glovebox is housed in the NNUF-EXACT facility at the National Oceanography Centre in Southampton. The National Nuclear User Facility (NNUF) is a distributed centre of excellence in nuclear science and technology so we were extremely proud to work on this project with them.

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The facility required enhanced 'in-house' capability for the handling of radioactive or chemically hazardous materials. A glovebox system represented best practice in terms of reducing the likelihood of operator exposure, thus keeping exposures as low as reasonably practicable (ALARP).

It was an exciting project that relied on CAN's nuclear containment heritage and Cirrus' knowledge of radiopharmaceutical isolators to make a strong partnership in delivering the specification requirements to the NNUF-EXACT facility.

The glovebox delivered met all requirements and included:

- EC GMP Grade A Turbulent Airflow
- ISO 10648-2 Class 2 Leak Tightness
- Negative Pressure (-250 to -500 Pa)
- 3mm Thick Bead Blasted 316L Stainless Steel Enclosure
- 12mm Clear Acrylic Window with bonded ø250mm Glove Ports
- 400 x 400 x 600mm Antechamber, Full Interlocked
- EU14 HEPA Filtering
- Fully Automatic Leak Test
- UPS Battery Backup
- Ventilation Monitoring and Failure Alarm

During the execution of the project a number of further requirements were identified resulting in additional equipment being designed, built and supplied, including:

- Air Bleed Valve Assembly (for interfacing with the Building HVAC)
- Secondary Filter System (additional protection against contamination entering the Building HVAC)
- Internal Tooling Plate and Rail System (for ergonomic handling of materials within the glovebox)

CAN's 'light touch' with the project meant that NNUF-EXACT received the most cost effective offering we could provide to meet their requirements, and we worked hard to ensure excellent communication between the three parties to enable us to deliver the project on time and to budget.

Want to read more about this project? Visit:

BEING SEEN:

2024 Events

2024 was a fantastic year of events for CAN. The team attended over twenty-three events across the UK and Europe covering various sectors such as nuclear medicine, decommissioning and waste management, new build, legal and finance, and containment.

These events are crucial in developing our knowledge and expertise in specific subject areas and staying up to date with the latest policies, procedures, and nuclear market trends.

For example, our attendance at nuclear medicine events, a relatively new sector for us, highlights our commitment to innovation, research, and development in the realm of life-saving nuclear therapeutics and diagnostics.

Earlier this year, Amin Choudhury our Scientific Officer, presented at NPL's 'Radionuclide Production in the UK' event where he shed light on the complexities involved in the local production of Lead-212 and the innovative solutions being developed to overcome these challenges. Amin's expertise in this area is a testament to the talent we have in our team, and it was gratifying to see our work recognised in such a prestigious forum.

As well as providing a learning experience, and a chance to showcase CAN's capabilities, these events offer invaluable networking opportunities with field experts and new or existing clients, encouraging our team to explore future collaborations and partnerships that drive success.

We look forward to attending these events again in 2025!

Dave Barker, Director of Strategy, recognises the importance of being a part of this sector:

"CAN serves all nuclear sectors including the ever-advancing field of nuclear medicines. At CAN we work with hospitals and research organisations throughout Europe. CAN specialises in the development of processes integrated within hot cells for new radioisotopes for diagnostics and therapy. The latest technologies include targeted alpha therapies which have the possibility of revolutionising treatment for cancer patients."


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[212Pb] Hot Cells for UK Hospitals


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