



## Barrnon prepares for growth

Innovative Cumbria-based engineer Barrnon used F4N to prepare for rapid growth as it moves from the fishing industry into nuclear decommissioning.

Barrnon was founded in 2007 by experienced engineer Andy Barr to provide high-quality scallop dredging equipment to the UK fishing fleet. The firm expanded its services from its base in Appleby, but hadn't considered nuclear until one day in 2014 when Barr received a call from the Hunterston Magnox site. Could Barrnon's dredging kit be used to clear radioactive sludge from a nuclear waste pond?

**"Rather than just put the phone down, Andy had the vision to think about it for a while,"** recalls Steve Thompson, business development manager at Barrnon. **"He found a potential solution, and the Hunterston team liked the look of it."**

Barrnon had limited resources to devote to the project, but was able to secure funding from Innovate UK and Innovus. The firm has also used Innovate UK's Knowledge Transfer Partnership (KTP) scheme to recruit a graduate engineer to develop control systems for its nuclear tools.

Barrnon built a prototype dredger, and the Magnox team brought a selection of simulated sludges down to Appleby for tests. **"They had a wide array of sludges, everything from very fluid material to very coarse gravel,"** Thompson says. **"Andy's creation managed to pull the lot. We sent three units up to Hunterston, and they completed the job. The nuclear industry then pricked their ears up and thought this works – there's huge sludge problems all over the world, and this could well be the answer we were looking for."**

The unusual move from fishing into nuclear grabbed people's attention, and Barrnon won the London Business School's first Alexander Fleming Serendipity Award in 2016. The team were asked to apply their creativity to other decommissioning challenges, and came up with a series of innovative products which are now being trialled by potential customers worldwide.

If any one of its products enters full service, Barrnon will need to rapidly expand operations to meet demand. As a five-man operation producing fishing kit from a rough-and-ready workshop, the team realised that they would need to change the way they operate.

**"Our engineering standards were based on fishing industry needs, which were pretty basic,"** Thompson says. **"When we moved into nuclear, we realised that if we were going to be taken seriously, we had to raise our standards dramatically."**

Thomson led work to achieve ISO 9001 quality management and 14001 environmental management standards, and was pointed towards Fit For Nuclear by a contact at NNL. **"They said if the nuclear industry is going to take you seriously, you have to speak to people like F4N and get your site in order,"** he says. **"We tried very hard to take that advice on."**

Barrnon began its F4N journey in early 2016. Thompson worked closely with industrial advisor John Olver to overhaul operations to meet nuclear expectations.



**“F4N gave us hands-on experience from people who spend all their time going out to factories and seeing what’s needed for nuclear.”**

The F4N journey involved addressing areas such as staff training, including welder certification; record-keeping and project management; ordering and storekeeping; and transforming the workshop to introduce new comprehensive toolkits with shadowboards, whiteboards to detail work in progress, and separate areas for fishing and nuclear jobs.

“John was great – he did a gap analysis which was about as big as the Encyclopedia Britannica,” Thompson says. “It took a long time and wasn’t easy because you have to change your attitudes as well. Changing attitudes was difficult, but everybody could see the future in it.”

Both F4N and the ISO standards are designed for larger organisations, but the Barrnon team realised that they had to create a framework for rapid growth. The two processes proved complementary, with F4N providing industry focus to the general business improvements of ISO.

“ISO helped a lot, but F4N gave us more business direction,” Thompson notes. “If you want ISO to work, you’ve got to have people with industry experience who can make it work. F4N gave us that hands-on experience from people who spend all their time going out to factories and seeing what’s needed for nuclear. We wouldn’t be in this position without F4N.”

Barrnon is now aiming to achieve a £10 million turnover and tier two status in the nuclear supply chain within five years. The firm is planning to invest in a bespoke facility near Penrith and preparing for a recruitment drive – but is waiting for the

first major order from the current trials, which Thompson expects by 2018.

“As well as the advice from F4N, there’s all the technology development going on at the Nuclear AMRC,” Thompson notes. “We haven’t used that much yet, but we have every intention to avail ourselves.”

[www.barrnon.com](http://www.barrnon.com)  
March 2017

**Fit For Nuclear (F4N)** helps UK manufacturers get ready to bid for work in the civil nuclear supply chain.

**F4N**  
Fit For Nuclear

F4N was developed by the Nuclear AMRC and its leading industrial partners, and has been extensively developed and expanded to meet industry demand. The service lets UK manufacturers measure their operations against the standards required to supply the nuclear industry, and take the necessary steps to close any gaps.


Over 600 companies have completed the online F4N assessment, with most receiving ongoing support and development from the F4N team of nuclear specialists and experienced industrial advisors.

Begin your F4N journey: [namrc.co.uk/services/f4n](http://namrc.co.uk/services/f4n)



**NUCLEAR AMRC**

To find out how the Nuclear AMRC can help your business:

 [namrc.co.uk](http://namrc.co.uk)

 [enquiries@namrc.co.uk](mailto:enquiries@namrc.co.uk)

 0114 222 9900

**Nuclear AMRC**, University of Sheffield, Advanced Manufacturing Park, Brunel Way, Rotherham, S60 5WG

Supported by the  
 Regional Growth Fund

 **EUROPEAN UNION**  
Investing in Your Future  
European Regional  
Development Fund 2007-13

**CATAPULT**  
High Value Manufacturing

 The  
University  
Of  
Sheffield.

**MANCHESTER**  
1824  
The University of Manchester  
Dalton Nuclear Institute