

# **The northern way -- how the North can become the world's foremost nuclear base**

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Commissioned by the Dalton Nuclear Institute, the country's leading academic nuclear research capability, the report highlights the opportunity for the Government to invest in the vast potential of the region to meet the demands of the UK's nuclear new build and use this as a springboard for providing goods and services to the £300bn global nuclear sector.

The report, recently completed for the Northern Way Development Agency, provides a comprehensive assessment of how Northern England, with its established nuclear excellence in heavy component manufacturing, consultancy and maintenance services, operation and world-class research and development, is ideally placed to capitalise on civil nuclear new build.

Already a world-leading centre for the nuclear [supply chain](#) with more than 50% of the UK's nuclear workforce, the North also contains the UK's full fuel cycle capability, uranium conversion and enrichment, fuel fabrication, generation, spent fuel reprocessing, waste treatment and storage and decommissioning.

The global market for new nuclear build is estimated at more than £800bn over the next 20 to 30 years. The UK new nuclear build programme is estimated at £40bn, with the demand potential to support the rebalancing of the UK economy.

The report claims investment in the North of England would create at

least 10,000 new jobs and secure many others in manufacturing and other professional services at a time when there are cut backs in other sectors. Many of the skills in sectors such as aerospace and oil and gas could complement the nuclear skills already available and pump billions of pounds into the UK economy.

Headlines from the report include:

- Business opportunities in the UK from civil nuclear new build are high.
- Many new job opportunities in the building, manufacturing and service sectors are possible with the right leadership and investment.
- Northern England has substantial nuclear capability and is well positioned to realise the opportunities.
- Government needs to adopt a policy that will realise an effective supply chain within the next 18 months and should mobilise agencies and trade bodies to coordinate action across UK industry.

The existing world supply chains of the very largest components, such as pressure vessels, lack resilience, with supply concentrated across two main players – France and Japan. With the right level of investment this presents an opportunity for the UK, the report claims.

The report argues that strategic leadership and coordination are both needed to exploit the commercial opportunities and calls for a 'Nuclear Cluster' to be formed in the North in the same way that has proved successful in developing collaborative networks of companies in the process industries and in aerospace .

As the study coincided with the Fukushima nuclear accident in Japan in

March, the authors felt it was important to incorporate the key findings from the catastrophic event to show how they may impinge upon this global nuclear renaissance and hence the potential impact they may have with respect to the UK's own nuclear build programme.

Despite the repercussions from Fukushima, the nuclear new-build renaissance continues in countries such as China, India and the UK with 60 reactors under construction, 155 planned and a further 338 proposed.

Nuclear energy is being backed in many countries to provide low carbon energy solutions, energy independence, security of supply and protection against price volatility from fossil fuels.

The report claims it represents a significant business opportunity, but the lack of any UK new reactor build over the last two decades means the nuclear absorptive capability is not as strong as it used to be.

The authors argue that the UK nuclear supply chain needs to be developed within the next 18 months, so that companies are in a position to compete and win business at the start of the UK new build programme.

Professor Peter Storey said: "The UK Government and nuclear industry are faced with a choice – to do nothing and possibly watch the UK nuclear supply chain lose business and economic growth opportunities to overseas- based firms, or to develop a national policy to coordinate the development of UK nuclear supply chain and position UK based businesses for economic growth in the UK and overseas markets.

"This report makes it clear that commercial opportunities do exist. With a national policy that is coordinated with the nuclear industry, these opportunities can be realised."

Provided by University of Manchester

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