

## Reachback case study: Computer-aided engineering improvements

## **KEY DETAILS & DRIVERS**

Computer-aided engineering (CAE) tools and processes, also known as 21<sup>st</sup> century tools, is the use of computer software to simulate performance in order to improve product designs or assist in the resolution of engineering problems. This includes simulation, validation and optimization of products, processes, and manufacturing tools.

These technologies are producing transformational improvements in the quality of design, management of risk, earlier insights into performance and potential problems. They also reduce the time and cost of engineering design activity.

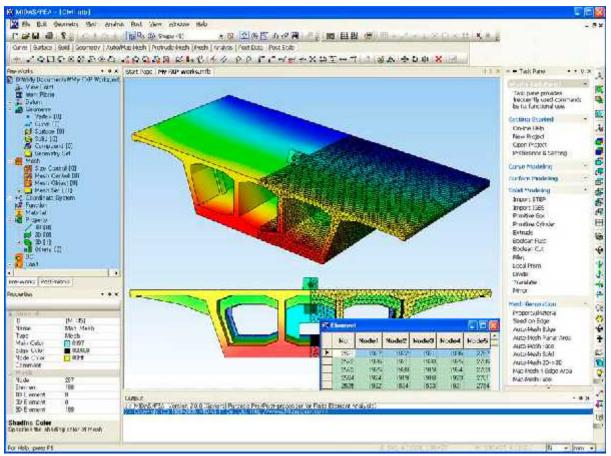
A CAE improvements study and project are being undertaken to enable Sellafield Ltd to make more use of these techniques. The aim is to enhance and accelerate project delivery and improve the quality of design deliverables.

The DSA has supported the study through the placement of key individuals in the integrated project team including a subject matter expert in CAE integration.

The team reached back into DSA partner organisations to draw on knowledge and experience of how modern tools, for example Building Information Management (BIM), are implemented in other fields.

## WHAT IS THE BENEFIT?

The adoption of modern CAE tools in a well-established project and programme delivery organisation can be challenging as can interpretation of guidance and regulations. Reachback into the DSA partners' experience from other sectors has allowed Sellafield to more effectively implement modern CAE tools to enhance design processes and improve the quality of deliverables. DSA subject matter experts also passed on their knowledge about interpreting guidance and regulations.



CAE software for concrete structures

## WHAT NEXT?

This experience and support will ensure Sellafield Ltd is able to transform into a digitally enabled business which has implemented BIM methodologies to boost efficiency as well as meeting the UK government's BIM Level 2 mandate.

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