# Virtual Reality Engineering Showcase

## In the new digital and data driven economy, enhancing product performance and efficiency, while reducing time to market and cost requires companies to assess and embed a new range of skills, capabilities and technologies in their operations.

### Challenges

The design, development and manufacture of complex engineering products, components and processes is often expensive, complicated and time consuming. The ability to visually analyse, explore and collaboratively challenge these in advance of commissioning and physical development is extremely limited due to time, cost and productivity challenges.

### Solution

New immersive technologies such as Virtual Reality (VR) technology, are now being used within industry to blend digital representations with simulations, creating an engaging instructional design environment that can be used to virtually investigate and evaluate engineering propositions and choices. The Centre for Modelling & Simulation (CFMS) has produced a demonstration which presents how it is using commercially available VR, immersing the user inside generated experiences within its office and data centre facility. Enhancing the services offered by CFMS, it also provides the ability to visualise potential outcomes and reduce uncertainty in evolving design concepts through improved collaboration.

### Benefits

The use of VR technology facilitates a greater understanding of design, development and manufacture, removing the requirement to build costly prototypes, increasing productivity and time available. Providing a 3D view, the ability to intuitively interact with visualisations enables greater clarity and insight, allowing the users to extract more value from the simulations conducted and thereby improving the quality of the decision making process. A cost effective off the shelf solution, it enables timely and collaborative presentation of complex engineering data.

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