

have indicated desires to raise capital and resources independently to incorporate stereoscopic units within a network and include; the Centre for Creative Technology at De Montfort University, archaeological researchers at the University of Southampton, Material Sciences and Earth Sciences at the University of Manchester.

### Use and Availability

Regular training courses, specific development consultancy and demonstration sessions are available via the Research Support Services group, at Manchester Computing. These sessions cover both the Amira and the AVS scientific visualization software tools, as well as on the practical use of the VIPL and the ESNW Passive Centre facilities.

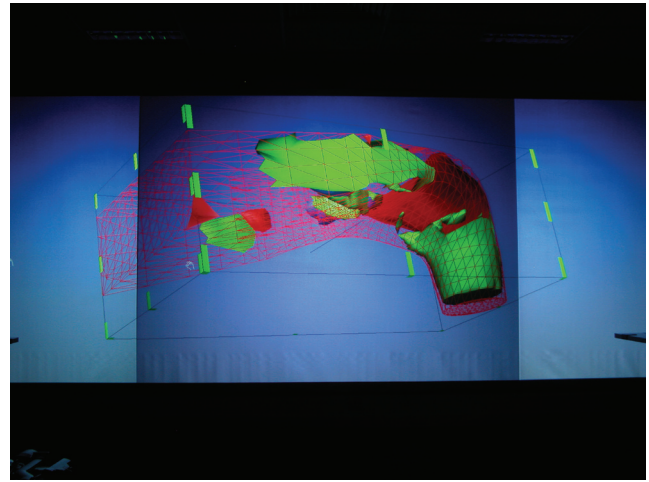


Figure 3: ESNW Passive Stereo Facility.

## The Celebration of UK Engineering Research and Innovation

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Last November an international review of UK engineering research was conducted. The exercise was organised by EPSRC in partnership with The Royal Academy of Engineering (<http://ire2004.org.uk>). This was the latest in a series of reviews of engineering held by EPSRC and the year of planning and preparation that made it possible has been shown to be worthwhile, see the reviewers' report <http://www.epsrc.ac.uk/ResearchFunding/Programmes/Engineering/ReviewsAndConsultations/InternationalReviewReport.htm>.

The review was conducted by an international panel of 26 experts and lasted one week. During this time subsets of the panel visited forty academic sites across the country. The showcase of the review was an exhibition which allowed the panel to see the breadth of research from universities not visited. CSAR participated at this exhibition with Mike Pettipher, Joanna Leng and Lee Margetts demonstrating engineering related work.

The exhibition was a large, unique, one day event held at Excel in the London Docklands. Over 200 groups contributed and were divided into 12 integrated themes. CSAR was part of the Underpinning Technologies theme. For some time the CSAR team have been working with Professor Ian Smith to develop parallel numerical libraries for engineers. The results of these libraries

were analysed and validated through a visualization system that allowed users to directly manipulate and explore the data. The group used a portable virtual reality system to display these visualization images at the exhibition. The system had a large, bright screen and used stereo projection so that when a visitor stood in front of the system they felt immersed in the scene.

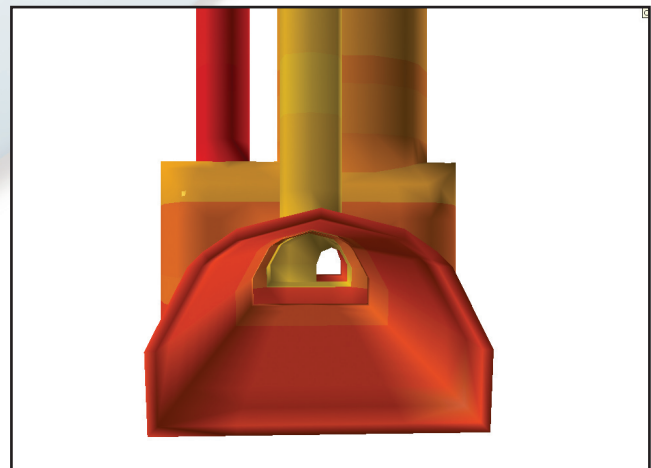


Figure 1: This is the start of the journey through the CERN tunnel.

Many of the visitors particularly enjoyed flying through the CERN tunnel. The stereo effect made many duck to avoid the "walls" of the tunnel.