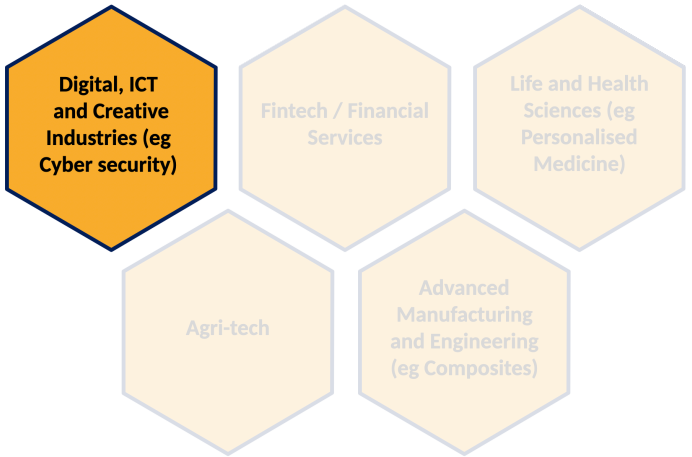


Sources	Engineering and Technology	Date	June 2020		
Potential scale of impact ★★★★		Certainty of outcome ★★★★	Impact horizon H1H2H3		
<p>Immersive audio-visual environments have the potential to replace the green screen used to reduce the cost of building sets and to avoid sending crew to faraway locations. Technologists, however, are now turning to large-screen LED displays and augmented reality (AR), which is likely to replace, or at least alter, the use of the green screen.</p> <p>But the technology has opportunities beyond the creative production environment.</p> <p>SmartStage, a system built by audio-visual company White Light, is an immersive video environment which allows presenters and viewers to see and interact with the content around them. The technology was conceived to facilitate sports analysis in the live broadcast industry, but it has become quickly apparent to White Light that it can be used as a viable alternative to green screen presentation, especially for outside broadcast.</p> <p>While in lockdown, the company has been focusing on ways to help its clients improve on working at home, with its installations and systems design teams deploying remote-working solutions. Camera tracking systems feed the positional data and field of view of the camera into the disguise media servers, allowing content to be generated in real-time to the perspective of the camera. Content for the LED walls, 360° set extension and any AR foreground objects are created and tracked as one synchronised, gen-locked system. A physical LED video environment is created to display the content for the presenter and audience, using specialist LED panels designed as the result of extensive R&amp;D. This environment can be standalone or integrated as part of a studio set.</p> <p>According to White Light, using these real-time rendering engines means that content and resolution are “completely scalable” as nothing needs pre-rendering.</p> <p>London based White Light is currently working with the University of Michigan’s business school (Michigan Ross) to create an immersive virtual classroom solution for a new online Masters in Business Administration programme. Andy Hook, White Light’s technical solutions director, says, “The conversations we’ve been having with Michigan Ross are the daily conversations we’ve been having with broadcasters and various other people who are bringing all of these remote participants into calls, and trying to make them look better on camera.”</p>					



**BEYOND  
THE GREEN SCREEN**

Large-screen LED displays  
and AR create  
opportunities beyond  
production  
environments

