

## Vivid Sydney 2014, e|MERGence

### Executive Summary

Vivid Sydney is an annual festival of light, music and ideas where art, technology and commerce intersect, held in May - June each year in the Sydney CBD and surrounding areas. The event attracts more than one and a half million visitors over 18 days.

The Buchan Group, an Australian-based international design practice, created the innovative interactive sculpture installation e|MERGence in 2014.

e|MERGence was a 3D sculpted head rising from Martin Place that visitors could interact with in real time, creating a vision of sound, colour and lights. Optoma projectors were chosen to create the projection component of the installation and facilitate the visual interaction with visitors.

### Challenges

The Buchan Group created a 1.8 metre tall expanded polystyrene three dimensional face and head with reinforced internal framework. The form was digitally fabricated to accommodate 360° mapped projection technology.

Projectors were arrayed around the outdoor sculpture connecting to a central interaction point, with video capture of each visitor's face and expressions being reprocessed and mapped live onto the sculpture.



### Solution

Three Optoma EH501 DLP 1080p Full HD Professional Projectors were set as an array around the sculpture site to create the central projection point.

There were two different locations where people could stand in front of the sculpture. Their facial images were captured then incorporated into the sculpture. When a subject was detected, video image was integrated with the sculpture via software technology and mapped as an image.



### Results

The installation gave visitors to the Vivid Festival a unique view of themselves, creating a vision of lights, sound and colour that changed throughout the event. Visitors were able to become part of the art with their image appearing via the Optoma projectors on the semi-submerged head sculpture.

When unattended the sculpture was programmed to display custom designs and messages that had been pre-programmed by The Buchan Group design team.

