

Interactive Landscape Lab - Augmented Reality (Mixed Reality) for participatory land use design

Convenors:

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Figure: AR visualization of the Holographic Landscape. Changes to KPIs are visible in the bar graph, and land uses are changed by selecting and placing a 'pin' in the Interactive Landscape.

We give an introduction into the use of Augmented Reality (AR) to facilitate stakeholder agreement in highly polarised landscapes. Stakeholders come together in a catchment challenge, to work collectively using a modelled AR landscape. The model calculates landscape level key performance indicators (KPIs) that are visually presented as they increase or decrease. This process provides quantifiable KPIs so that more informed in depth discussions between stakeholders can occur in a DEED learning cycle. The current situation of landscape system is Described, and then Explained using the KPIs. Changes to land uses are made and potential alternative landscape configurations are Explored and finally selected and Designed. Trade-offs and synergies between KPIs used in the redesign can revolve around improving natural, social, economic capitals, however also focus on nutrition sensitive landscapes.

We also demonstrate the web-based Monitoring and Impact Assessment Dashboard for monitoring and impact assessment of these KPIs over time using remote sensing data technologies.

Together, these two tools facilitate planning, decision making, monitoring and impact assessment of

Sustainable Land Management Plans (SLMPs) The Dashboard then tracks these KPIs throughout the implementation, benchmarked against the baseline projection and the projected SLMP.

Session format:

Through a catchment challenge, using an AR landscape, stakeholders, interact with the landscape through holo-lenses. Each aims to improve landscape level indicators by changing land uses. The audience (teams representing the stakeholders) views a projection of the landscape from the holo-lenses and give instructions to their representatives. Changes to indicators are calculated and can be tracked and evaluated over successive rounds of interaction.

Maximum number of participants: 36