Association of Directors of
Environment, Economy, Planning & Transport

ADEPT President's Awards 2022

Entry form

Award category:	Category 2 – Digital Innovation/Technology
Title:	Thinking outside the Sandbox
Entrant:	Nottinghamshire County Council
Main contact name:	Sue Jaques
Email address:	Flood.team@nottscc.gov.uk
Partner/s (if applicable):	
Headline summary (150 characters, c. 20-25 words) Utilising advances in technology with a "can do - proceed until apprehended" ethos, we strive to ensure sustainable flood risk management services for future generations.	

Please note we need **at least one supporting image** per award submission.
Supporting images should be attached separately as jpg or png files.

Please paste links to any supporting video evidence here

Link 1	COP26 Information Video - Flood Risk Technology - YouTube
Link 2	

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500-word project outline (please ensure you do not exceed the word count and address all the judges' criteria – for more info see here)

Our role as Lead Local Flood Authority covers a range of tasks and duties including assisting our vulnerable residents, data collection, providing advice, guidance and support and ensuring key flood risk assets operate effectively. The impact of Climate Change has seen an increase in the number of vulnerable residents across the County necessitating a greater need to ensure our communities are resilient to flooding and our service is efficient; a challenge we have approached through embracing technology.

The Flood Risk Management team undertook a comprehensive review of our services to understand how we can better deliver local and strategic objectives for our communities. As a result, Nottinghamshire County Council (NCC) has diversified and increased its usage of technology to change the way in which Flood Risk is managed and discussed across the County.

To educate future generations about the impacts of flood risk and promote resilience, NCC has invested in an augmented reality sandbox which uses 3D visualisation to show how topography and human activity affects the flow of water within catchments. The sandbox uses a sensor and projector to map contour lines onto the sand. The sand can be remodelled in real time with rainfall projected over the surface to show how changes in the landscape reflect on flood risk downstream. The sandbox teaches geographic and hydrological concepts in a fun and interactive way and is used to discuss catchment characteristics and possible sustainable solutions such as SUDS, Natural Flood Management and land drainage. It also engages students with flood risk issues within their area, further promoting discussion, community resilience and knowledge capacity.

Education at an early stage will:

- Promote holistic thinking of flood risk issues by future generations.
- Promote careers in flood risk.
- Ensure the future sustainability of our industry.

The use of augmented reality at drop-in sessions and promotional events encourages community resilience, engagement and discussions. Using technology to complement engagement activities has proven to be successful in developing self-resilience and wider catchment awareness.

We are also using technology to increase the efficiency of our work. The use of Drones across the authority has allowed us to undertake tasks which would otherwise require a greater amount of resource to complete. A drone can survey a large area, providing significant time and financial efficiencies at a time when both are stretched. By commercialising this area of work, we are working towards becoming cost neutral within the first year of operation and providing further income for the authority in future years.

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Our use of innovation relies on our ability to think wider than our own professional and administrative boundaries. Our engagement projects will not only continue to increase the resilience of our communities and of the environment, but also challenge traditional ways of working, driving efficiencies and cost savings across the authority.

By complimenting significant advances in modern technology with an innovative “can do - proceed until apprehended” ethos, our aspiration is to ensure continued first-class sustainable flood risk management services for the future generations of Nottinghamshire.