

# COASTS Project

## Testing our waters: building coastal climate change resilience.

Noosa has a long history of weather extremes such as storms, bushfires, cyclones and floods.

Climate change is already increasing the frequency and intensity of these extreme events. In our coastal environment, sea-level rise is expected to increase coastal erosion, storm tides and daylight flood events.

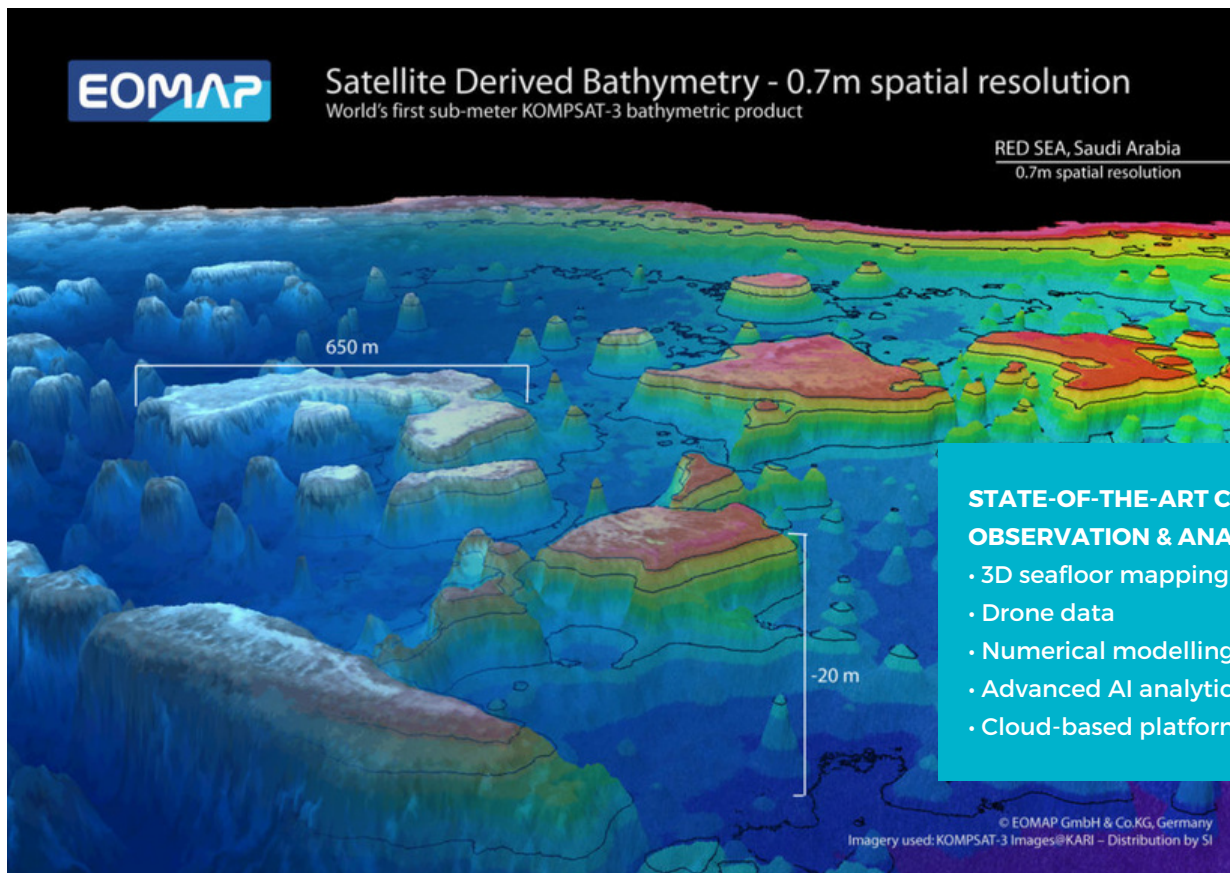
Accurate, robust and consistent coastline mapping is critical for characterising and managing coastal change. Noosa Council has partnered with UniSC, University of Queensland, and advanced remote sensing specialist EOMAP on the Coastal Change Observation and Analytics (multi-) Scale, (multi-) Technology System (COASTS) Project to provide an innovative source of data for monitoring changes in our coastline.



### KEY AIMS

The COASTS project aims to integrate coastal data collected across a suite of platforms, ancillary environmental datasets and numerical models (see Breakout Box) to create an operational coastal change monitoring and hazards early warning system that will facilitate coastal adaptation to climate change and build resilience to coastal hazards.

Overall, the Project aims to assess the viability of this state-of-the-art system that will inform erosion management, disaster preparedness, and the effects of future management responses to climate change.



## BENEFITS

The COASTS Project will provide a cost-effective, fit-for-purpose technological solution underpinned by advanced remote sensing technologies, analytics and modelling in order to support operational coastal management and decision making. This ultimately helps increase the resilience of coastal communities to climate change and sea level rise.

The spatial information and predictive modelling available through the portal will benefit a number of other stakeholders, ranging from coastal businesses, environmental consultancies, and government agencies, to research organisations and community groups.

The Project takes advantage of a research partnership with the University of Sunshine Coast to utilise its expertise in coastal change, drones and in-field instrumentation; the University of Queensland for the development of hydrodynamic predictive models; and EOMAP which specialises in quantitative environmental information from satellites.

The Coastal Change Observation and Analytics (multi-) Scale, (multi-) Technology System (COASTS) Project acknowledges the important partnership between UniSC, UQ, industry partner EOMAP and Noosa Council. The work is supported by the SmartSat CRC, whose activities are funded by the Australian Government's CRC Program, and the Queensland Government, via the Department of State Development, Infrastructure, Local Government and Planning.

## UNIVERSITY OF THE SUNSHINE COAST AND NOOSA COUNCIL MOU

In addition to the research partnership, the MoU between Noosa Council and UniSC was a key enabler for establishing this collaboration. As the MoU is a contract for engagement between the two organisations, it facilitated the funding mechanism by providing the flexibility needed to comply with the procurement requirements mandated under the Local Government Act.



Image: [www.eomap.com](http://www.eomap.com)

For more information about the University of Sunshine Coast and Noosa Council MoU, please visit [MoU](#).  
For more information about this project, visit [Earth Observation Hub](#)