

## PROJECT SUMMARY

# NEW UNDERSTANDING AND PREDICTION OF STORM IMPACTS ON GRAVEL BEACHES (NUPSIG)

**Funding:** Engineering and Physical Sciences Research Council

**Grant Holder:** Prof. Gerd Masselink, Prof. Paul Russell and Dr Mark Davidson

**Project Dates:** 2011 - 2014

### Scope of Work:

The NUPSIG project is a research collaboration between Plymouth University and several governmental and private partners, with the aim of helping to protect gravel coasts in the United Kingdom against storms and rising sea levels.

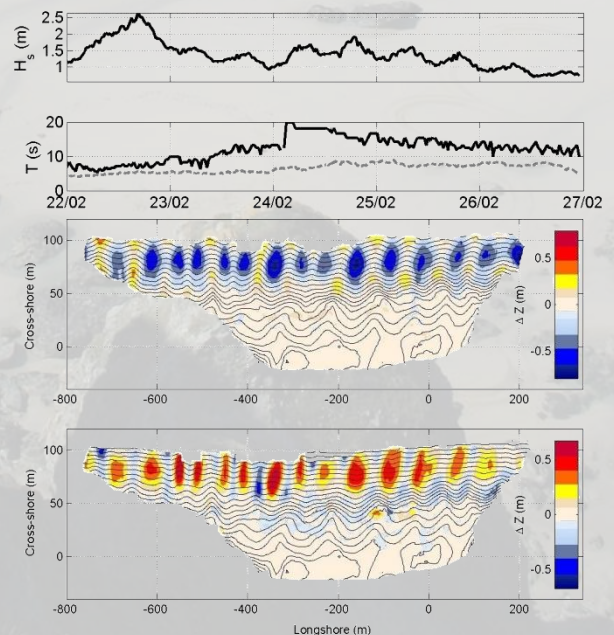
## Project Description

Gravel beaches and barriers are found all around the United Kingdom and often provide a natural sea defence to low-lying land. Under storm conditions, the combination of waves and tides may lead to elevated water levels which can cause overtopping and flooding behind the gravel barrier. This can result in loss of habitat or damage to infrastructure such as property. The aim of the NUPSIG project is to obtain new understanding of how gravel beaches are affected by storms, and to use this knowledge to develop coastal management tools to help protect the coast of the United Kingdom.



Above: Video cameras monitor Loe Bar, Cornwall (top); Storm waves break on the beach at Chesil, Dorset (bottom).

Right: Surface change at Loe Bar under large waves; blue = erosion and red = accretion highlighting rapid recovery of the cusp dominated morphology.



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