



# PROTECTING YOUR COASTLINES



Tailored products that enable cost-efficient coastal planning.

## BASELINE

- Sentinel-2 only.
- Co-registration is conducted BUT imagery not provided.
- All available waterlines.
- Datum related shorelines.

## PRECISION

- Sentinel-2 & LANDSAT
- BASELINE +
- Co-registered imagery.
- Annual coastal strip classification map based on year of clients choosing.

## PRECISION +

- Sentinel-2 & LANDSAT
- PRECISION +
- Datum shorelines supported by auxiliary data.
- Annual coastal strip classification maps.

Coastal Erosion presents a **pressing and increasing management problem with irreconcilable social and economic implications.**

• **Erosion** is a natural process, amplified by **climate change**, that also **varies due to season and human development.**

• Mapping coastline change using satellite observations enables a **nationwide perspective to monitor the effect of these changes over multiple timescales.**



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# OPTIMISE COASTAL PLANNING DECISIONS

- ✓ COST EFFECTIVE
- ✓ SUITABLE FOR REMOTE & INACCESSIBLE AREAS
- ✓ APPLICABLE EVERYWHERE

## EO PRODUCTS AT SCALE

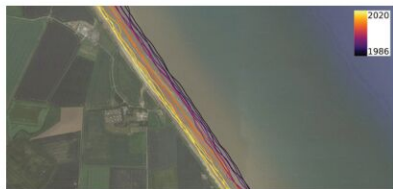
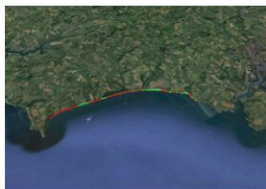


**Coastal retreat** can vary dramatically through the seasons and will be exacerbated by **climate change**.

Thus, analysing a range of spatial and temporal scales is the only option for a comprehensive **understanding of coastlines experiencing long term change** and also identifies the complex patterns of seasonal gain and loss. This knowledge will guide **effective coastal protection management**.



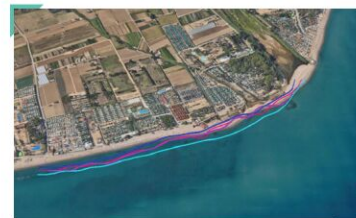
1. At a national scale, hotspots of coastal change can be identified.
2. Regional differences can be visualised to assess rapidly retreating parts of the coastline.
3. An annual shoreline product shows how the average location of the shoreline changes through time. This can demonstrate whether shoreline change is seasonal or part of a long term trend.
4. Annual shorelines are compiled to establish an erosion rate.



### WATERLINES

The waterline processor automatically determines the extent of the **land-sea boundary from a satellite image**.

These waterlines are then projected **using auxiliary data to provide a datum-based shoreline**.



### SHORELINE TIME-SERIES

Continuous shorelines can be mapped over decades using the Sentinel satellite data. Coastal change **associated with seasonal variation, storm events and long-term trends** can then be determined.

### LAND USE ASSESSMENT

Land use maps help in the **characterisation of risk for coastal management**. The landward boundary of the littoral zone is delimited through three main coastal areas: **the backshore, the buffer zone and the beach**.



✓ QUALITY ASSURED

✓ PRODUCT VALIDATED

✓ SPEED OF DELIVERY