

Marine Matters

Geospatial applications & opportunities with satellite derived data

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Partnership hub 5.2: Satellite observation data-based system for improved coastal and marine management: Moving from research to services.



Centre for Geospatial Applications



EO research to operations

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Data visualisation & delivery



Assessing coastal and lake water quality





ORSECT-UK

UN SDG: 6.3 & 14.10

Assessing coastal and lake water quality





Oil Slick Detection using SAR









SPACE

AGEN







The marine monitoring dashboard



Combating IUU fishing





Combating IUU fishing





Web portal visualisation: chlorophyll



Web portal products: HABs







- Species specific classifier
- Provide risk maps and warning bulletins
- Improves producers ability to react and their food quality
- Reduce long term risk (insurance and planning)









Web portal products: Fronts





• Ocean fronts;

- Derived from physical and biological fields; or synthetic approach.
- Indicative of various
 oceanographic processes
- Often good indicator of marine biodiversity.
- Useful metric in determination of **MPAs** for pelagic species.



UN SDG: 14.10



Conclusions

Many opportunities for satellite data exploitation in:

- MSP in the coastal domain (e.g. water quality, HAB awareness)
- MPA determination (e.g fronts)
- and as part of maritime situational awareness (e.g. oil spill tracking and IUU monitoring)

"Out of the box" solutions, are not usually optimal for coastal areas (especially with regard to optical data), therefore;

- research is usually required to support product development
- regional collaborations are nearly always essential/beneficial.

Appropriate data visualisation and training support;

- are necessary steps in the delivery for any satellite application
- should be developed in tandem with user needs



Thank you

Contact me at: blo@pml.ac.uk

Or come and see us at the Plymouth Marine Laboratory booth



HIR Strate & Gal

