EUMETSAT

OPST-8

Contributions from satellite observations

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Marine Applications

- A lot of geophysical parameters
  - Temperature, radiative fluxes, surface stress, wave height/direction, wind vector/speed, surface height, salinity, color spectrum, sea ice parameters…

- Fully operational missions and long-lived successful research missions
  - Sentinel-3 constellation, AltiKa,…

- Continuous series with long term perspective programmes into the 2050s
  - Copernicus
  - Polar and Geo programmes (Europe, US, China, …)

- "Game changer" instrumental innovations
  - SAR altimetry (Sentinel-6)
  - Swath altimetry (SWOT)…

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- Well established validation infrastructures & best practices
  - ➢ FRM development

- Better operational services (timeliness, completeness) with improved processing capabilities
  - ➢ Clouds infrastructure
  - ➢ On-board/hosting processing
  - ➢ AI/ML

- Strong international coordination
  - ➢ Scientific bilateral collaboration agreements
  - ➢ Enlarged partnership (Sentinel-6)
  - ➢ International bodies (CEOS, OSTST, GHRSST, CGMS…)
  - ➢ …

- Contribution to Mission Requirements Document, reference document for the development of a space mission
  - ➢ Expression of needs (requirements) in terms of sampling, accuracy, spatio-temporal resolution, stability...

- Results from impact studies and experience (OSEs and OSSEs)
  - ➢ To demonstrate the feasibility of assimilating a new product
  - ➢ To assess the impact of the assimilation of a new or improved product
  - ➢ …

- Specific needs in terms of product level to be assimilated
  - ➢ L1 (eg, radiances) or L2 (eg, SST) or L3 (as done for altimetry) ?

- Needs in terms of latency (Now casting /forecasting /climate projection)
  - ➢ From Near Real Time (<3h) to Climate Data Record

- Error characterization
  - ➢ Per pixel or ?

- Guidelines for harmonising data policies
  - ➢ Standards
  - ➢ Format….

- Requirements in terms of data access
  - ➢ Push vs pull data services
  - ➢ FTP/SFTP vs API
  - ➢ Data-centric approach
  - ➢ Appropriate user support and training

Thank you!

Questions are welcome:

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