The COSS-TT and the Ocean Decade

COSS-TT co-chairs:
Villy Kourafalou (Univ. of Miami, USA) and Pierre De Mey (LEGOS, France)

- Major contribution to the Decade:

  Contributing to the CoastPredict initiative (proposal as a UN Decade Program) ([https://www.coastpredict.org/](https://www.coastpredict.org/))

CoastPredict has evolved over several months:

- initial Steering Group (6 people, incl. COSS-TT co-chairs) to a Steering Committee (50 people, >30 countries, incl. COSS-TT and OP), advisory group (incl. OP), management group, ECOPs – executive SC being formed
- open consultation period
- writing groups (incl. COSS-TT co-chairs)
- > 20 Projects
CoastPredict - Integrated Global Coastal Ocean Observing and Forecasting

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Theme: A predicted global coastal ocean where society understands and can respond to changing ocean conditions  

Synergistic Partners: OceanPredict, GOOS, Ocean Visions, EquiSea, Ocean Best Practice System, IODE, CEOS/BluePlanet/COAST,...
The basic concept of a Global Coastal Ocean has been defined about a decade ago in five Volumes of The Sea (Vol. 10 to 14, Harvard Univ. Press)

TRANSFORMATIVE: Coastpredict will re-define the “coastal ocean”

PROPOSED STARTING DEFINITION:

the coastal ocean - that area, extending inshore from the estuarine mouths to river catchments affected by saltwater, to the urban settlements on the one side and on the other side to the offshore, from the surf zone to the continental shelf and slope where waters of continental origins meet open ocean currents.
CoastPredict Main Decade OUTCOMES

1. Integrated knowledge of the global coastal ocean from events to climate;
2. Integration of coastal and open ocean observing and modelling systems;
3. Improved, multidisciplinary and extended range predictive capabilities for the coastal zone;
4. Innovative and sustainable applications for coastal solutions/services.
CoastPredict collaboration with GOOS

developing #OceanDecade programme proposals

Connecting to many local stakeholder communities as providers and users of ocean observations, deepening engagement and participation in GOOS

*lead developers: Molly Powers and Kim Currie*

Working across networks and platforms to actively design the system needed to deliver an integrated, responsive, and sustained observing system for climate, forecasts and early warnings, and ocean health

*lead developers: David Legler and Sabrina Speich*

Integrated observations, forecasting and technology to deliver essential information in coastal applications

*lead developers: Nadia Pinardi, Villy Kourafalou, Joaquin Tintoré*

coastpredict.org

contact point: decade@goosocean.org
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Current Task Team priorities & activities vs. Decade challenges

1. Science and expertise to enable and support the development of R/COFS and applications (challenge 8: digital ocean; challenge 6: coastal hazards; other indirectly)
2. Seamless integration between R/COFS and LOFS via downscaling (challenge 8)
3. Coastal ocean observing system and integration with models (challenge 7)
   - Started with coastal altimetry, in coll. with CAW (P. Cipollini)

Links with Decade programmes or projects

- All activities probably fit within OceanPredict’s “a Predicted Ocean with Impact” programme
- (Almost?) all activities would fit within CoastPredict -- TBD
  - TT/OP-specific: integration w/ large-scale systems; verification & quality; more?
- Activity 3 fits with OSEval project (Y. Fujii)

Open the discussion with TT on above points + possible evolutions

- By mail within a week
- Virtual meetings in spring and fall 2021