



# Improving SAR Altimeter processing over the coastal zone and inland waters - the ESA HYDROCOASTAL project.

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## BACKGROUND

The junction between the coastal zone and inland waters is a boundary between

- Different science domains (hydrology and oceanography),
- Different satellite measurement regimes.
- Region of high variability in small spatial and temporal scales.

HYDROCOASTAL aims to enhance understanding of:

- interactions at this boundary,
- the small-scale processes that govern these interactions,
- exchanges with the ocean and the impact on regional sea-level changes.

## The HYDROCOASTAL Project :

is funded by the ESA Science for Society Programme.  
Feb 2020 – August 2022

1. Scientific Review & Requirements Consolidation (Feb-July 2020)
  - State of the art review of SAR and SARin altimeter data processing for coastal zone and inland waters.
2. Implementation and Validation (July 2020 – October 2021)
  - Implement new SAR, SARin altimeter processing algorithms to generate 2-year test data set
  - Evaluate performance of the candidate algorithms
  - Generate “global” coastal zone and river discharge data sets
3. Impact Assessment (October 2021 – May 2022)
  - Products assessed through a series of case studies
4. Outreach and Road Map (August 2022)