2nd Ocean Observers Workshop
29 November – 1 December 2021

Rio San Pedro Coastal Environmental Observation Platform (POCARISA)

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POCARISA is supported by OCASO project (Interreg España-Portugal, FEDER) and by UCA educational innovation project.

OUTLINE

WHAT IS POCARISA?

WHAT DO WE DO? AND HOW DO WE DO?

RESULTS

CONCLUSIONS

WHAT IS POCARISA?

Coastal Environmental Observation Platform located on San Pedro River.

Objectives:

To transmit the importance of data collection and its transformation.

To use out of service oceanographic instruments (“ Better in the water than in the shelf ”, principle).

To bring the operational oceanography to the students and to the citizens.

To create an open database, based on SPARC policy.

SAN PEDRO RIVER

MAIN CHARACTERISTICS:

- Tidal creek belonging to the Bay of Cadiz (SW Spain) natural park.
- Average width: 120 m
- Average depth range: 3-5 m
- Tidal height range: spring tide 3,5m and neap tide 0,5 m

Images source: Google Earth

WHAT DO WE DO? AND HOW DO WE DO IT?

1. ATMOSPHERIC COMPONENT

MAIN CHARACTERISTICS:

- Temporal resolution: 1 minute
- Wind velocity, air temperature, humidity, precipitations, atmospheric pressure, radiation.

WHAT DO WE DO? AND HOW DO WE DO IT?

A. Permanent mooring:

Oceanographic instruments:

- Currentmeter
- CTD (*Conductivity, Temperature, Depth*)
- Pressure sensor
- Multiparameter sonde

Monthly mooring

WHAT DO WE DO? AND HOW DO WE DO IT?

B. Transect across tidal channel:

Dinghy →
- CTD (*Conductivity, Temperature, Depth*)
- Currentmeter

→ Weekly

23-03-2021

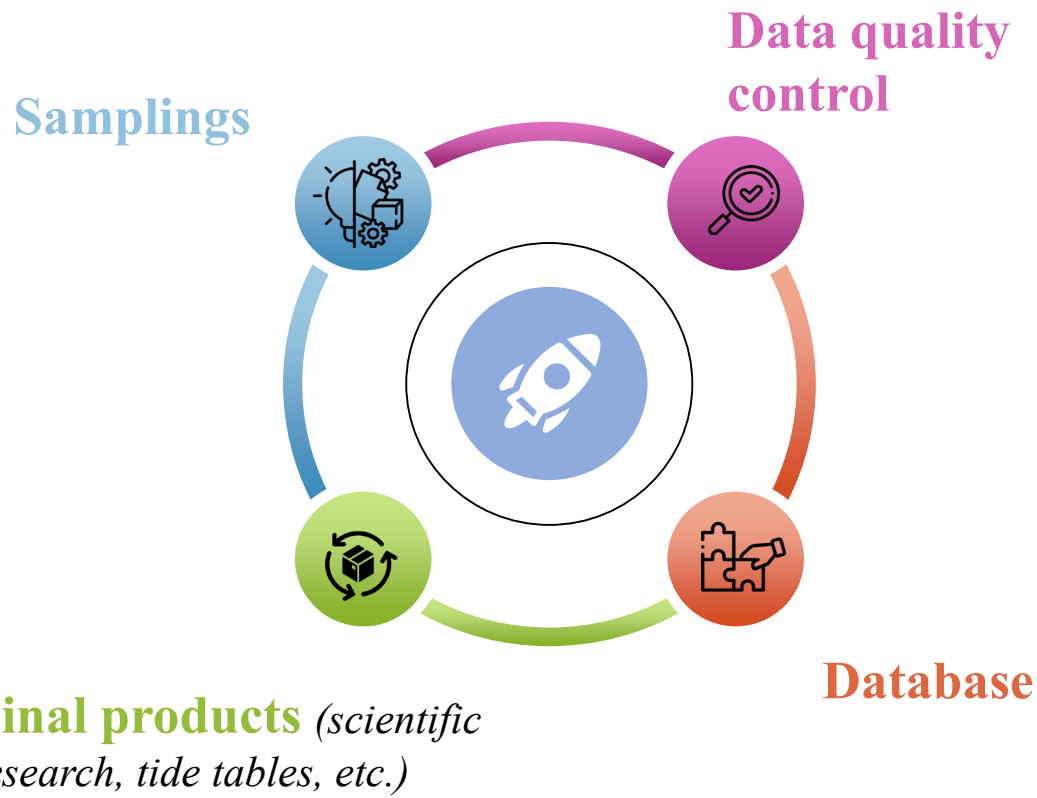
POCARISA RESULTS:

A. Natural Laboratory:
- Studies of process with different time scales (tidal dynamics, sea level rise, sunlight at the surface, atmospheric warming)

B. Oceanographic campaigns
- Design and realization oceanographic campaigns.
- Learning oceanographic instruments software's

C. Data
- Data quality control.
- Visualization.
- Data processing and analysis

D. Open database and webserver:
- Bachelor/Master theses .
- Researchers.
- local users (e. g. fishermen, sportsmen, etc).



CONCLUSIONS

1. POCARISA highlights and promotes the use of oceanographic and meteorological instruments that are out of services.
2. Offers a multidisciplinary initiative in academic, scientific, technical and social terms.
3. We obtained the collaboration of more than forty students (Bachelor, Master and PhD students) in the first year of the Project life.
4. POCARISA has been presented on some scientific congress and in some outreach activities (European Researchers' Night).
5. Open Data SPARC. Freely available data on the webserver.