

# CoAStal and marine waters integrated monitoring systems for ecosystems proteCtion AnD managemEnt

# CASCADE

# Project ID: 10255941

Priority Axis: Environment and cultural heritage

Specific objective: Improve the environmental quality conditions of the sea and coastal area by use of sustainable and innovative technologies and approaches

# D2.4.5

Local events (about a total of n. 10 guided tours, n. 10 laboratories, n. 10 seminaries, n. 10 workshops, n. 5 scientific training)

PP in charge: all PPs

Report of Workshops - part 5

Final version

Public document

June, 2022



| Project acronym        | CASCADE   |
|------------------------|---|
| Project ID number      | 10255941  |
| Project title          | CoAStal and marine waters integrated monitoring systems for<br>ecosystems protection AnD managemEnt |
| Priority axis          | 3 - Environment and cultural heritage   |
| Specific objective     | 3.2 - Contribute to protect and restore biodiversity  |
| Strategic theme        | 3.2.1 - Marine environment  |
| Word Package<br>number | WP2   |
| Word Package title     | Communication activities  |
| Activity number        | Activity 2.4  |
| Activity title         | Events, Training and Workshops  |
| Partner in charge      | All PPs   |
| Partners involved      | All PPs   |

P



# CoAStal and marine waters integrated monitoring systems for ecosystems proteCtion AnD managemEnt CASCADE

Priority Axis: Environment and cultural heritage Specific objective: Improve the environmental quality conditions of the sea and coastal area by use of sustainable and innovative technologies and approaches

# Event follow up report January-June 2023 – PP5 IUAV



| Work Package: | Indicate if:   |
|---------------|--|
|               | 2. Communication activities  |
| Activity      | 2.4 – Events, Training and Workshops   |
| Deliverable:  | D2.4.5 - Local events (guided tours, laboratories, workshops, scientific training, etc.) |

| Project Partner:                                       | PP5 IUAV University   |
|--|---|
| Name of event:   | MSP Challenge – engaging through planning games   |
| Date:  | 17/05/2023  |
| Event type:  | Workshop - Organized event  |
| Event venue:   | In presence   |
| Short description of the event:                        | IUAV team organized a board game simulation of the maritime uses spatial<br>planning process based on enhance the management of the Tegnùe di Chioggia<br>and, in parallel, guarantee blue growth economy. The event was open to<br>graduated international students of IUAV University.  |
| Speakers speeches,<br>brief summary and<br>conclusion: | <ul> <li>Iuav team (D. Brigolin, D. Maragno, F. Musco, F. Carella, F. Soffietti), on May 17th, presented to the Master students in Urban and Spatial Planning the MSP Challenge Board Simulation Game. It is a serious game developed and designed in 2011 by the Ministry of Infrastructure and the Environment in the Netherlands and the University of Breda.</li> <li>The game has two different purposes: if the attendees are real MSP stakeholders, the game helps to facilitate the dialogue among them, better explore specific interests and push them to find a certain spatial agreement. If the attendees are students, the game aims to increase students' awareness of MSP among maritime stakeholders by providing a basic level of understanding of the complex national and cross-border MSP process in an absorbing manner.</li> <li>In both cases stakeholder engagement in MSP is essential but complex because of the great number and diversity of maritime stakeholders and the unfamiliarity of some of these stakeholders with MSP.</li> <li>The session was designed and prepared by facilitators in a way able to convey the ecological implication of multi-stressors and the relevance of biodiversity protection, core elements of the studies carried out in the CASCADE project.</li> <li>The mainly focus of the student scenarios was to manage the tourism activities, coastal and maritime, the fishing activity, and, at the same time, guarantee protection of areas of high biological value.</li> <li>Step by step, the students discover rich geo, marine data, and sectoral information; they came to understand how the maritime economy influences the marine environment and through a role-play, they could experience the strategic behaviour of decision-makers and stakeholders.</li> <li>During the final debriefing session, the students answers and feedbacks shown understanding of main gears of integrated marine management. Students participate in active and passionate way, confirming the educational value</li> </ul> |



|  | the MSP Challenge, combining economic growth of activities and ensuring protection, enhancement and preservation of areas with high environmental and ecological value. |
|--|---|
| Role of CASCADE partner in the event:          | Organizer   |
| Type of<br>audience/target<br>groups involved: | Master students of IUAV University  |

| Target groups<br>(AF Section F)  | Target groups<br>reached in<br>this event                 | Details of involved target  |
|--|---|---|
| General public   |   | -   |
| Local, regional and national public authorities  |   | -   |
| Associations   |   | -   |
| NGOs   |   | -   |
| Education and<br>training<br>organizations as well<br>as universities and<br>research institutes | International<br>Master<br>Students of<br>IUAV University | A total of 25 students attended the event with a background<br>in Architecture, Urban Planning, Political and Social Science. |



## **Annexes:**

- Poster of the event
- Pictures of the day
- Signature documents



MS IN URBAN PLANNING For transition



# MSP CHALLENGE

# Engaging through planning games

Università luav di Venezia

## 17.05.2023 Terese aula D ore 9.30

This event is organized in the framework of CASCADE project and it focuses on the simulation of planning and management strategy through the serious game MSP Challenge.

Step by step, the students come to understand how the maritime economy influences the marine environment and experience the strategic behavior of decision-makers and stakeholders.

The aim of the game is to increase the awareness of Maritime Spatial Planning (MSP) among maritime stakeholders by providing a basic level understanding of the complex national and cross border MSP process.













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# Event follow up report



| Work Package: | 2. Communication activities   |
|---------------|---|
| Activity      | 2.4 – Events, Training and Workshops  |
| Deliverable:  | 2.4.5 - Local events: organized events as defined in the AF (guided tours, laboratories, seminaries, workshops, scientific training) and external events. |

| Project Partner:                                       | PP 11 ATRAC   |
|--|---|
| Name of event:   | Raising students' awareness of the importance of the sea and the substances that pollute it   |
| Date:  | 13.04.2023.   |
| Event type:  | Workshop  |
| Event venue:   | In-presence event - J.P. Kamova 19 - the association Center for the Culture of Dialogue in Rijeka   |
| Short description of the event:                        | The event was organized for primary and secondary school students that<br>are part of the CEKADE organization in Rijeka. ATRAC delivered a<br>presentation on the importance of the sea, the pollutants that affect it,<br>and what we can do to keep it clean.   |
| Speakers speeches,<br>brief summary and<br>conclusion: | Iva Alač presented and transferred knowledge to students.<br>Through the presentation, students were given knowledge about the<br>importance of the sea and the preservation of biodiversity, invasive<br>species, the consequences of pollution of the marine environment with<br>hydrocarbons and plastic, as well as the problems that such pollution<br>causes to living organisms and how they circulate in ecosystems. The<br>participants are also familiarized with the way in which they can react in<br>case of spotting an oil spill in the sea, and what changes they can<br>introduce in their daily life in order to contribute to the preservation of<br>the marine environment. |
| Role of CASCADE partner in the event:                  | Raising awareness of the importance of the sea and its pollutants   |
| Type of<br>audience/target<br>groups involved:         | Workshop for children, pupils, and students up to 18 years of age   |



| Target groups<br>(AF Section F)  | Target groups<br>reached in<br>this event  | Details of involved target  |
|--|--|---|
| General public   | -  | -   |
| Local, regional and national public authorities  | -  | -   |
| Associations   | -  | -   |
| NGOs   | -  | -   |
| Education and<br>training<br>organizations as well<br>as universities and<br>research institutes | Primary and<br>secondary<br>school<br>students,<br>employees<br>from CEKADE<br>and ATRAC | <ul><li>12 primary and secondary students,</li><li>4 employees from CEKADE</li><li>3 employees from ATRAC</li></ul> |

# Annexes:

- 1\_Photos of the lecture and workshop
- 2\_Presentation;
- 3\_list of the participants

# Annexe 1\_Photos of the lecture and workshop







# **Annex 2\_Presentation**





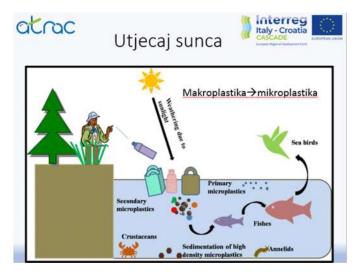


- Uzroci izlijevanja:
  - sudar brodova
  - nasukavanje brodova
  - propuštanje iz rafinerija, naftnih platformi, tijekom prerade i transporta

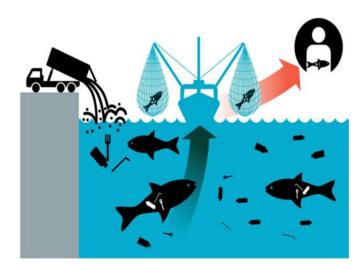




Specijalizirani ljudi za spašavanje životinja











# atrac

# C Simpatične i ne <u>simpatič</u>ne vrste

- Svaka vrsta je važna bezobzira na izgled i veličinu
- Veliki utjecaj medija (crtići i filmovi)

Simpatične vrste - pozitivne Nesimpatične vrste - negativne









· Zaštita osjetljivih i pametno korištenje stabilnih vrsta



Sve dok je more zdravo, zdravi smo i mi

Osvještavajmo obitelj i prijatelje svojim ponašanjem





| Hvala na pažnji!<br>Jadranski edukativno-istraživački centar<br>za reagiranje na iznenadna onečišćenja mora<br>J.P. Kamova 19, 51000 Rijeka<br>051/847-848 | itia<br>Itia |
|--|--------------|
| za reagiranje na iznenadna onečišćenja mora<br>J.P. Kamova 19, 51000 Rijeka  |              |
|  |              |
| 051/847 848  |              |
|  |              |
| 091/154-4100   |              |
| <u>www.atrac.hr</u>  |              |
| info@atrac.hr  |              |
|  |              |



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# Event follow up report



| Work Package: | 2. Communication activities  |
|---------------|--|
| Activity      | 2.4 – Events, Training and Workshops   |
| Deliverable:  | 2.4.5 - Local events: organized events as defined in the AF (guided tours, laboratories, seminaries, workshops, scientific training) and external events |

| Project Partner:                                       | PP 1 (CMCC)  |  |
|--|--|--|
| Name of event:   | PredictOnTime workshop   |  |
| Date:  | 11-13 May 2023   |  |
| Event type:  | Workshop<br>Organized  |  |
| <b>Event venue:</b>                                    | In presence/online   |  |
| Short description of<br>the event:                     | <ul> <li>This workshop seeked to bring together an international community of scientists to discuss and develop the key action areas of PredictOnTime:</li> <li>Improving the understanding of functioning and predicting capacity of this complex global coastal ocean where the impacts of climate change are amplified.</li> <li>Improving our understanding of the coastal area processes using a multi-disciplinary and integrated approach</li> <li>To advance the observing and prediction capacity for a better</li> </ul>   |  |
|  | <ul> <li>understanding of the coastal ocean dynamics with a focus in the short time scale events and extreme events</li> <li>Enhance coastal observing and prediction systems in underresourced countries supplying low cost, easily transferable equipment, relocatable forecasting systems as well as best practices.</li> </ul>   |  |
| Speakers speeches,<br>brief summary and<br>conclusion: | The workshop included the reports investigating coastal observing and<br>forecasting systems (development, testing, evaluating and assessing),<br>including new predictive capacities, services and products for the<br>global coastal ocean, innovative integrated observing systems and<br>forecasting systems, relocatable, easy to be deployed, cost effective<br>observing and forecasting system; natural extreme events observing<br>and predicting capacities; forecasting accuracy assessment; observing<br>systems quality control; impacts on natural and human resources<br>assessment; citizen-community science observing capacities;<br>innovative and sustainable applications for coastal solutions/services. |  |



| Role of CASCADE<br>partner in the<br>event:    | Organizer                         |
|--|-----------------------------------|
| Type of<br>audience/target<br>groups involved: | Scientists, researchers, students |

| Target groups<br>(AF Section F)  | Target<br>groups<br>reached in<br>this event | Details of involved target                              |
|--|--|---|
| General public   | -  |   |
| Local, regional and<br>national public<br>authorities  | -  |   |
| Associations   | -  |   |
| NGOs   | -  |   |
| Education and<br>training<br>organizations as well<br>as universities and<br>research institutes | universities<br>and research<br>institutes   | 40 in presence + 38 online =78 (researches, scientists) |

## **Annexes:**

• Photos from events (it is preferable to have few photos where CASCADE logo is visible - on presentation, poster, roll-up, promotional materials etc),











Workshop gallery: https://predictontime.org/workshop-gallery/

• Screenshots, Invitation, Agenda, Minutes, Participation list (if available), Abstract etc.

This workshop is co-financed by the EU Interreg Italy-Croatia CBC Programme project AdriaClim and is linked to the activities of the projects STREAM and CASCADE of the same Interreg Programme.









with The Global Ocean Observing System









## First Workshop on Observing and Predicting the Global Coastal Ocean Venue: Lecce, Italy Via Marco Biagi, 5 – 73100 Lecce (LE)

# 11-13 May 2023

Join Zoom Meeting https://cmcc-it.zoom.us/j/83204691520?pwd=TmRQa3JPejI1MFdvS1JrdVBubm96UT09

> Meeting ID: 832 0469 1520 Passcode: 145493

## Type of meeting: in person and online

For more information: Giovanni giovanni.coppini@cmcc.it and Simone simone.phore@cmcc.it

## Main aim of the workshop:

- Overview status of PredictOnTime implementation and discussion on the next steps
- Refine the PredictOnTime contribution to the CoastPredict 'Global Coastal Experiment ': principles, proposed selection sites, list of outcomes, what new technologies and methodologies are required, testing of hypotheses etc.
- Overview of current initiatives and projects connected to PredictOnTime work packages and activities

# Thursday, 11 May 2023

## 09:00-11:25 Session 1: Introductions and scene setting

- 09:00-09:10 (10 min) Welcoming Remarks | Antonio Navarra, CMCC President
- 09:10-09:20 (10 min) The UN Decade CoastPredict Programme. Nadia Pinardi, Uni. Bologna
- 09:20-09:30 (10 min) The UN Decade PredictOnTime Project. Giovanni Coppini, CMCC
- 09:30-09:40 (10 min) Future Coastal Oceans Climate | Flame, Jo Hopkins, NOC
- 09:40-09:50 (10 min) UN Coastal Resilience DCC | Nadia Pinardi, Uni. Bologna
- 09:50 10:00 Discussion

10:00 - 10:20 (20 min) Guest speaker: "Aquarius: an integrated coastal hazard prediction system", Delphine Lobelle, Fugro

| 10:20 – 10:50                             |  | Coffee break  |
|---|--|---|
| 10:50 - 11:00                             | (10 min) UN Ocean Pr                           | ediction DCC  Enrique Alvarez Fanjul, MOi [Online]  |
| 11:00 - 13:00                             | Session 2: Innovative<br>Presentations from su | coastal observing systems<br>bmitted abstracts  |
| 11:00 - 11:15                             | i) Pauline Mwangi (Or                          | al, online):<br>Assessment of impacts of shoreline change<br>on the nearshore marine environment at<br>Gazi Bay, Kenya                        |
| 11:15 - 11:20                             | ii) Hellen Kizenga (On                         | line, Poster):<br>Variability of mackerel fish catch and remotely-sensed<br>biophysical controls in the eastern Pemba Channel                 |
| 11:20 -11:35                              | iii) Juliet Hermes (Ord                        | ıl):<br>Developing a Coastal Observation Lab in a Box - COLaB   |
| 11:35 - 11:40                             | iv) Courtney Bouchar                           | d (poster):   |
|   |  | <i>Efforts to use near-real time data collection to assist in the monitoring and forecasting of the northern Gulf of Mexico hypoxic event</i> |
| 11:40-11:55                               | v) Anwesha Ghosh (or                           | al):<br>Phytoplankton community dynamics under potential ocean<br>acidification scenarios: a case study from the Indian<br>Sundarbans         |
| 11:55 - 12:00 vi) Jhon Bermudez (poster): |  | oster):   |
|   |  | Low-cost coastal observation system in vulnerable communities of the Caribbean  |
| 12:00 - 12:15                             | viii) Alban Lazar (onlir                       | ne, oral):  |
|   |  | COCAS: Coastal Ocean Observatory of Climate Change,<br>CO2 and Acidification in the Global South  |

12:15 - 12:20 ix) Peter Busumprah (online, Poster):

digitization of Ghana aquaculture sector

12:20 - 12:35 x) Zacharie Sohou (online, oral):

Seasonal and inter-annual ONSET Sea Surface Temperature variability along the northern coast of the Gulf of Guinea

12:35 - 12:40 xi) David Mwandikwa (Poster, online):

EFFECTS OF TRIGGERFISH ABUNDANCE AND HABITAT STRUCTURE ON POPULATIONS OF THE SEA URCHIN Tripneustes gratilla IN SEAGRASS MEADOWS OF KENYA

12:40 - 12:45 xii) Viviana Piermattei (poster):

*New marine technologies toward a Coastal Ocean Of Things* (COOT)

#### Round Table/ Discussion (10 min)

- 13:00- 14:00 Lunch
- 14:00-16:05 **Session 3: Innovative integrated coastal modeling capacity** *Presentations from submitted abstracts*
- 14:00 14:10 i) Shan Gao (Oral):

Validation of the operational ecosystem models and forecasts for China coastal seas

14:10 14:25 ii) Matías Dinapoli (Online, oral):

Improving the short-range forecast of storm surges in the Southern-West Atlantic Continental Shelf using 4DEnSRF data assimilation

14:25 - 14:30 iii) Pengcheng Wang (Online, Poster): The Global Deterministic storm Surge Prediction System (GDSPS) v2: Adding Baroclinicity and Sea Ice Effects

14:30 - 14:40 iv) Donata Canu (Online,oral):

*The coupled SHYFEM-BFM for scenario analysis in the regulated Venice Lagoon system* 

14:40 -14:50 v) Ivan Federico (Oral):

Storm surge model forecasting and the attenuating role of nature based solutions

14:50 - 15:05 vi) Ginevra Rosati (oral):

Developing new tools for contamination assessment and management of coastal-marine ecosystems

15:05 - 15:20 vii) Sara Morucci (online, oral): Managing the Uncertainty: 'Acqua Alta' in Venice

15:20 - 15:25 viii) Imane Joudar (Online, poster): Impact of marine submersion on the Atlantic coast case of El Jadida bay

15:25-15:30 ix) Nouhaila Erraji Chahid (online, Poster):

*Hydrodynamic Modeling of Moulay Bousselham Lagoon (Morocco): Numerical investigations* 

15:30 - 15:45 x) Stefano Querin (Oral):

*Coupled hydrodynamic-biogeochemical modeling for short-term forecasts in the northern Adriatic Sea* 

15:45 - 15:50 xi) Italo Dos Reis Lopez (Poster): DEVELOPMENT OF A COASTAL MODELLING SYSTEM FOR FLOOD PREDICTION

15:50 - 16:05 xii) Mahmud Hasan (oral):

Reassessment of heat budget in the Mediterranean Sea and an investigation of probability distributions of heat fluxes using Extreme Value Theory

16:05 - 16: 15

Round Table/ Discussion

- 16.15-16:45 Coffee break
- 16.45 -17:30 **Session 4: Data assimilation and machine learning in the coastal ocean** *Presentations from submitted abstracts*

16:45 - 17:00 i) Rodrigo Campos Caba (Oral):

Preliminary developments for a machine-learning downscaling and prediction system trained on long-term numerical simulations of sea levels

17:00 - 17:15 ii) Dr. Geetali Saha (Online, oral):

Prediction of SSTA HadISST dataset using machine learning techniques

#### 17:15 - 17:30 Round Table/ Discussion

17:30-19:00 Drinks reception and posters at CMCC

#### Friday, 12 May 2023

09:00 – 11:00 **Session 5: End-to-end demonstration through key applications** *Presentations from submitted abstracts* 

09:00-09:15 i) Joanna Staneva (Oral):

Predicting of Land to Ocean Continuum and What-If Scenario for nature-based solutions

09:15 - 09:30 ii) Joao Souza (oral):

An end-to-end forecast system utilizing ship-based ocean observations

09:30 - 09:45 iii) George Zodiatis (Online, oral):

Examples why operational and down-streaming forecast is useful to the key end-users in the Med-Sea

09:45-10:00 iv) Marco Marcelli (Oral):

*Renovate:* Project: ecosystem approach for compensation and mitigation actions in the coastal marine environment

10:00 - 10:15 v) Nkululeko Memela (oral):

*Operational Ocean Modelling for Improved Decision Making: a South African Perspective* 

10:15 - 10:30 vi) Edgard Cabrera (Oral): Ocean Decade Project: Integrating Coastal Hazard Early Warning Systems for the Tropical Americas and Caribbean (iCHEWS

10:30 - 10:45 vii) Begoña Pérez (Online,oral):

OSPAC: Oceanographic services of ports and cities

10:45 - 11:00 viii) Slim Gana (oral):

*Operational Oceanography for fish-farming assistance to day-today production* 

11:00 - 11:05 ix) Milica Predragovic (Poster):

Climate change effects on European marine protected areas

11:05 -11:35 Coffee break

11:35 - 11:50 x) Aldo Drago (Oral):

Connecting Space Data to Society

11:50- 12:00 xi) Augusto Sepp (Oral): Prototypes for marine pollution management

12:00 - 12:10 xi) Terhile Dominic Uchi (online, oral):

#### Coastal Resilience and Climate Change

12:10 - 12:20 xii) Magak Adel (online, oral):

COMMUNITY PERCEPTION OF THE EFFECTS OF CLIMATE CHANGE IN THE LAKE REGION, A CASE STUDY OF HOMA BAY COUNTY

12:20 - 12:35 xiii) Felix Dols (oral): EDiTO-lab: an EU Horizon project

- 12:35 13:10 Breakout group discussion and activities
- 13:10 13:30 Reporting and discussion in plenary
- 13:30- 14:30 Lunch

#### 14:30 Session 6: The CoastPredict Global Coastal

(15 min) Global Coast – The CoastPredict Global Coastal Ocean Experiment. Nadia Pinardi, Uni.Bologna, Italy [Invited speaker]

Discussion

Breakout group discussion and activities

- 16:30-17:00 Coffee break
- 17:00-18:00 Session 7: Next Steps

Reporting and discussion in plenary (continued from session 6) Parallel discussion sessions on Next Steps Formal close of meeting and remarks from PredictOnTime team

20:00 Conference Dinner (Arryvo) Via Adua, 24, 73100 Lecce LE

#### Saturday, 13 May 2023

#### 10:00-13:00 Networking and Guided Tour in Lecce City Centre