



# OCÉAN

**amU** Ocean sciences  
institute  
Aix Marseille Université



*Forming a community*

*Training through and for research*

*Connecting disciplines*

*Strengthening partnerships*

*Acting internationally*

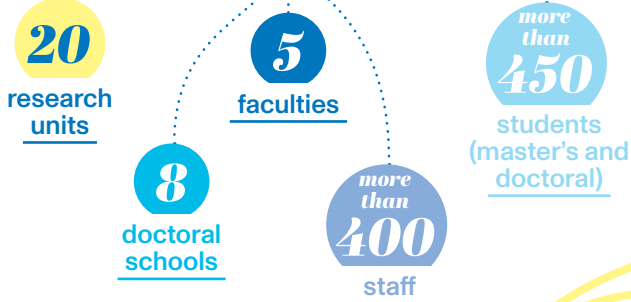


# OCÉAN

**Our aim: train a new generation of players from academia and the socio-economic world to meet the growing challenges of marine and maritime sciences.**

The Institute for ocean sciences (OCÉAN) is a multidisciplinary institute dedicated to research and training in the field of marine sciences. We combine innovative approaches to oceanography with its various components (biology, chemistry, physics), climate and digital sciences, robotics and marine engineering. These fields are enriched within the institute by other disciplines linked to marine and maritime environments, such as economics, law (public/private), history and geography, and psychology. The OCÉAN institute offers high-level training based on research, with immersion in its laboratories as well as in the partner industries of the Pôle Mer Méditerranée network, the CNRS, the IRD, the IRSN and the IFREMER.

## Forming a community



- Oceanography and climate
- Digital sciences
- Marine biotechnology
- Marine pollution and radioecology
- Marine engineering
- Blue economy

## Training through and for research

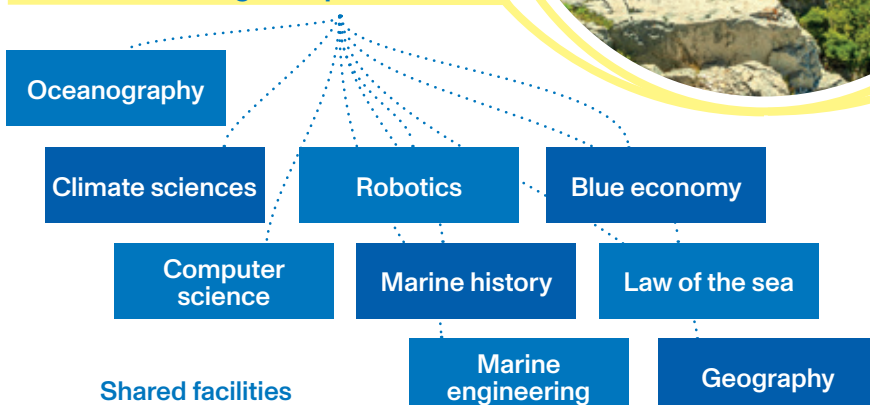
- ▶ Seasonal schools
- ▶ Thesis and master's grants
- ▶ Financial support for the introduction of new training courses incorporating research methods



## Acting internationally

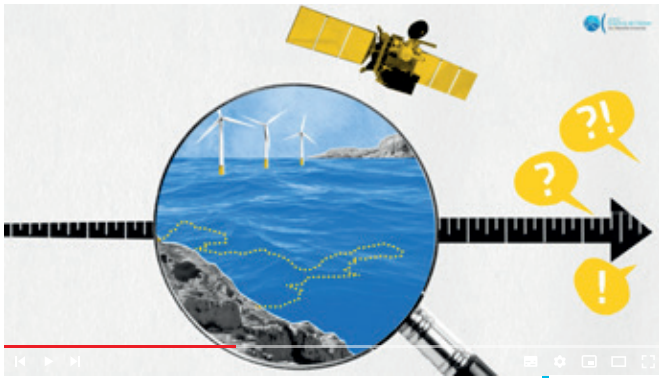
- ▶ An international seasonal school
- ▶ Cooperation with leading oceanography universities
- ▶ International training courses
- ▶ Support and joint construction of applications for European projects

## Connecting disciplines



## Strengthening partnerships

- ▶ CNRS
- ▶ University of Toulon
- ▶ Centrale Méditerranée School
- ▶ IFREMER
- ▶ Marseille maritime port authority
- ▶ Network of Marine Universities (RUM)
- ▶ European Ocean Research and Education Alliance (EOREA)



Watch the institute's animated film



The institute presents the careers of  
the future in the maritime sector



## Meet our executive office



Deputy research director:  
Virginie Sanial



Director:  
Richard Sempéré



Deputy training director:  
François Sabatier



Deputy director for  
interdisciplinarity:  
Anne-Sophie Tribot



Project manager:  
Sarah Thomas



Deputy director for the  
socio-economic world:  
Loïc Roulette

Discover the entire governance team:  
<http://url.univ-amu.fr/institut-ocean-gouvernance>

## Focus on

### Our "IMMERSION" teaching platform project

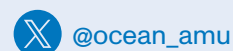
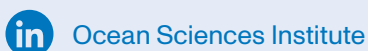
The IMMERSION platform project, bringing together the OCÉAN and ARKAIA institutes, has been selected as part of a call for projects by the Aix-Marseille Excellence Initiative (AAP TRIPS A\*Midex). This platform brings together digital telescience and virtual reality tools for ocean research and training. It draws on the infrastructure and expertise of the École Centrale Méditerranée, IFREMER and the French Ministry of Culture's Department of Subaquatic and Underwater Archaeological Research (Drassm). The aim of this project is to provide students on OCÉAN and ARKAIA courses with digital training tools. The "IMMERSION" platform will be installed on the École Centrale Méditerranée site and connected to the IFREMER transmitter system site at La Seyne-sur-Mer.

## Contact

Director: Richard Sempéré  
Project manager: Sarah Thomas

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# Training at OCÉAN

**amU** Ocean sciences  
institute  
Aix Marseille Université

*Training for, through and in research,  
with continuity from master's to doctorate level*

Training for, through and in research,  
with continuity from master's to doctorate level

## Our ecosystem

More than  
**250**

master's  
students

**5**

amU  
faculties

► Pythéas Institute -  
Observatory for the  
sciences of the universe  
(OSU Pythéas)

► Faculty of arts,  
letters, languages and  
humanities (ALLSH)

► Faculty of sciences (FS)

► Faculty of law and  
political science (FDSP)

► Faculty of economics  
and management (FEG)

+

► University of Toulon

+

► Centrale Méditerranée  
School

**200**

PhD students

**8**

amU  
doctoral schools

► Legal and political sciences (ED 67)

► Marseille mathematics and computer  
sciences (ED 184)

► Chemical sciences (ED 250)

► Environmental sciences (ED 251)

► Physics and science of matter  
(ED 352)

► Engineering sciences (ED 353)

► Spaces, cultures, societies (ED 355)

► Economic and management science  
(ED 372)

+

► Sea and sciences (ED 548 - Toulon)

► Mediterranean societies and human  
sciences (ED 509 - Toulon)

**15**

key master's

► Marine sciences

► BEE (Biodiversity, ecology and  
evolution)

► Business law

► International and European law

► GAED (Geography, planning,  
environment and development)

► Environmental Management

► History, civilisations, heritage

► Mechanical engineering

► Science and Technology in  
Complex Systems Engineering

► STPE (Earth and Planetary  
Sciences, Environment)

► IMEO (Marine and Offshore Wind  
Engineering)

**1**

interdisciplinary  
doctoral  
programme

Consult all master's  
degree specialisations:



Toulon

► Marine sciences

► Public law

► Development economics

► Chemistry and materials sciences

► Complex systems engineering

## Our key actions

► Annual seasonal schools with theoretical and practical  
sessions. A thematic approach, for example to marine  
protected areas or plastics in the marine environment.

**1**

annual seasonal  
school

**30**

students per  
year

► Organisation of events to bring together academics,  
students and partners (e.g. Ocean Day 2023, 2024)

**150**

professionals  
and students

Ocean Day

**18**

speakers and  
presenters

► Thesis and master's grants

► Financial support for new courses (DESU, UE)

Jim Grisillon  
Océan intern

"The institute enabled me to prepare for a  
thesis by asking me to produce deliverables  
throughout my placement (summary, poster,  
summary slides). I have also been invited to  
various events that have enabled me to meet  
other foreign researchers specialising in  
marine social sciences."

## Our international training initiatives

International specialisations

Cooperation with leading  
oceanography universities

e.g. European Ocean Research and Education  
Alliance (EOREA)

CIVIS alliance

European civic university  
"Blended Intensive Program"

More than 10 nationalities  
among our students

International seasonal school  
7 nationalities

## Contact

Deputy training director: François Sabatier

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www.univ-amu.fr/ocean

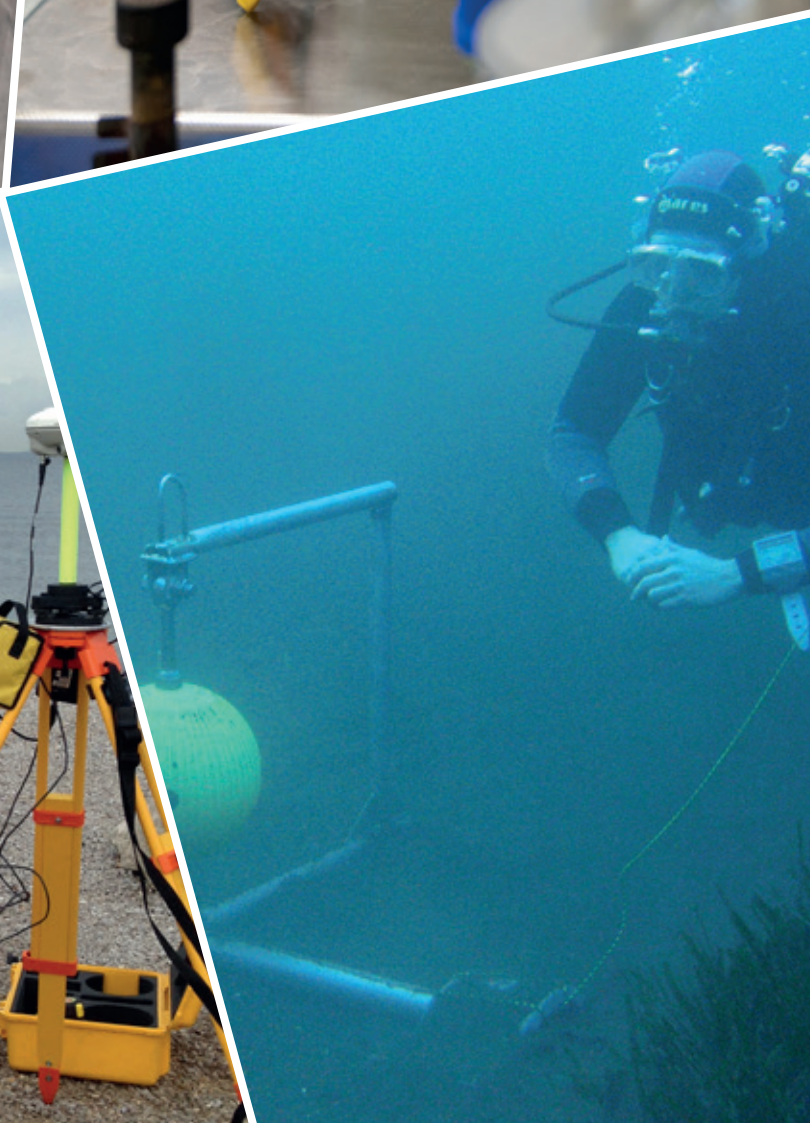




# Research at OCÉAN

**amU** Ocean sciences  
institute  
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*Bringing together the marine and maritime  
sciences strengths of the Aix-Marseille site to  
consolidate our international scientific position*



*Bringing together the marine and maritime sciences strengths of the Aix-Marseille site to consolidate our international scientific position*

## Research ecosystem

19

### research structures

#### Humanities

- ▶ Centre for economic law (CDE)
- ▶ Aix-Marseille centre for management studies and research (CERGAM)
- ▶ Comparative and European international law (DICE)
- ▶ Laboratory for social psychology (LPS)
- ▶ Time, space, language in southern Europe and the Mediterranean (TELEMMe)

#### Energy

- ▶ Institute for research into non-equilibrium phenomena (IRPHE)

#### Environment

- ▶ European centre for research and education in environmental geoscience (CEREGE)
- ▶ Study of structures, adaptation processes and changes in space (ESPACE)
- ▶ Mediterranean institute of marine and terrestrial biodiversity and ecology (IMBE)
- ▶ Laboratory of environmental chemistry (LCE)
- ▶ Mediterranean institute of oceanography (MIO)

#### Advanced science and technology

- ▶ Marseille centre for particle physics (CPPM)
- ▶ Provence institute for materials, microelectronics and nanosciences (IM2NP)
- ▶ Mediterranean institute for information and communication science (IMSIC)
- ▶ Computer science and systems laboratory (LIS)
- ▶ Mechanics and acoustics laboratory (LMA)

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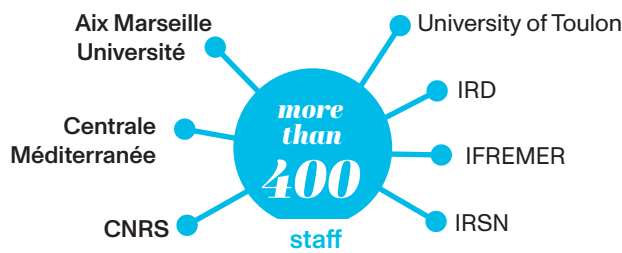
#### University of Toulon

- ▶ Polymeric materials interfaces in the marine environment (MAPIEM)
- ▶ Applied development economics laboratory (LEAD)
- ▶ Design of mechanical and robotic systems (COSMER)

*"Funding from the OCÉAN Institute has enabled us to launch the Biodiv'Innov project, an ambitious collaboration between various partners from Aix Marseille Université and OSU Pythéas. This project has led to collaboration between stakeholders to study plankton biodiversity and its evolution as a function of environmental conditions in a context of climate change."*

**Magali Lescot**

Biodiv'Innov project, awardee of OCÉAN's interdisciplinary call for projects



## Our main areas of research

- ▶ Current and past dynamics of ocean ecosystems
- ▶ The origin and impact of climate change in relation to the ocean
- ▶ Resilience to anthropogenic pressures on the ocean and coastline
- ▶ The risks and protection of coastal zones on the world ocean
- ▶ Observation systems and data for ocean sciences
- ▶ The blue economy
- ▶ Observation-based governance and marine pollution prevention

## Our key actions

- ▶ Joint construction of the European Ocean Research and Education Alliance (EOREA), with the Norwegian University of Science and Technology, comprising 14 European universities
- ▶ Support and co-construction of applications for European projects  
> example: AMU-Ifremer application to host a data/equipment centre for the future European Knowledge and Innovation Community (KIC) in water, marine and maritime sciences
- ▶ Funding and support for the selection of interdisciplinary research projects  
> 2 to 4 research projects per year
- ▶ Proposal for half-doctoral contracts to encourage external co-funding

## Contact

Deputy research director: Virginie Sanial

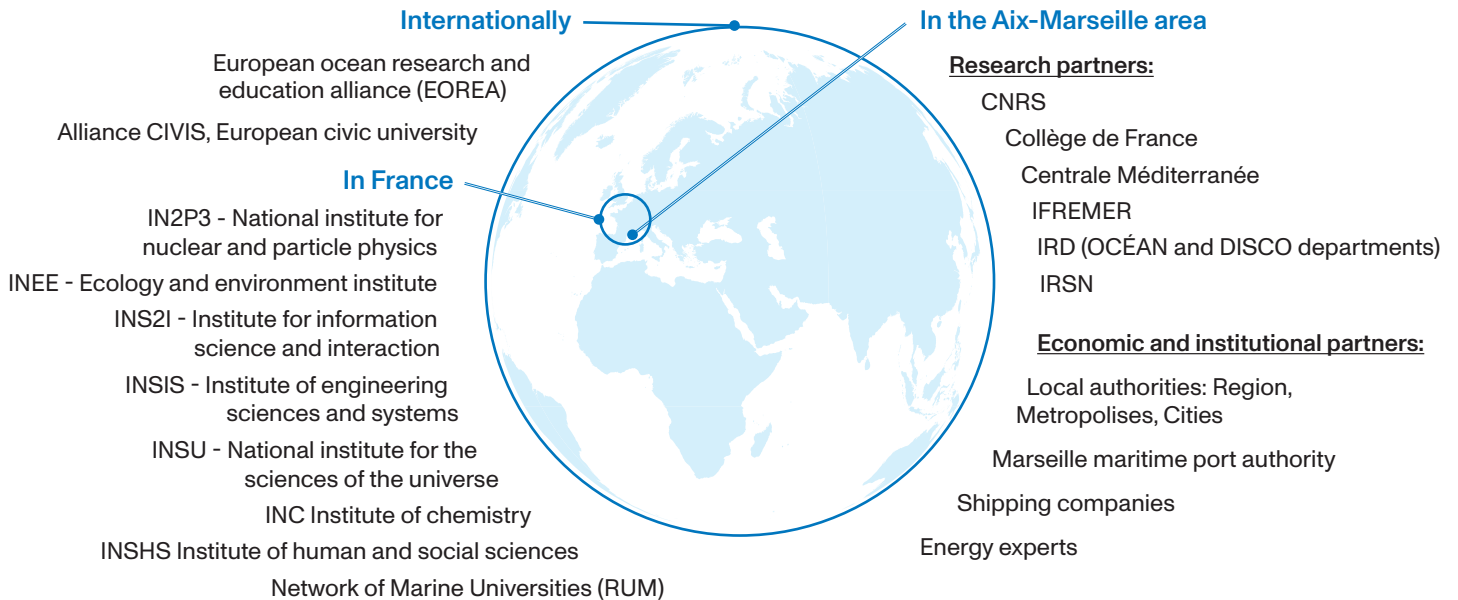
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www.univ-amu.fr/ocean



## Strengthening and developing special links with academic and institutional players and the socio-economic and cultural world

### Our key partners include



### Our key actions

**Events to bring together academics, students and partners (e.g. Ocean Day 2023, 2024)**

- Ocean Day: 150 professionals and students, 18 speakers
- Inter-university partnerships (University of Toulon, etc.)

**Joint coordination of the European Ocean Research and Education Alliance (EOREA), with the Norwegian University of Science and Technology**

- 14 European universities

**Building partnerships with European projects**

- Partner of UblueTex, a European training project
- Partner of Plastic Pirates, a European citizen science project on plastics



### Contact





*The Océan institute brings together teams  
on 8 university and scientific sites*



The Aix Marseille Université institutes are coordinated by the Amidex foundation



The Aix-Marseille Excellence Initiative, a consortium between Aix Marseille Université and 8 partners

