



## Development of Regional Joint Master Program in Maritime Environmental Protection and Management - MEP&M -

### Overview of MSc programs in field of MEP&M at EU HEIs (WP1)

### Presentation of the Msc. MARRES genesis and program

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March 30, 2021

Virtual meeting via Zoom application

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Project no. 619239-EPP-1-2020-1-ME-EPPKA2-CBHE-JP



# **MSc. MARRES**

Science, Conservation & Valorization of Marine Resources

UNIVERSITÉ **CÔTE D'AZUR**



**MSc. MARRES**

science | conservation | valorization of marine resources

## Program directors



**Christophe  
Mocquet**



**Paola  
Furla**

## Board members & course coordinators



**Steve  
Comeau**



**Yan  
Grasselli**



**Jean Christophe  
Martin**



**Mohamed  
Mehiri**



**Eric  
Rottinger**

## UCA Laboratories



**#Ecology  
#Conservation**



**#Ecophysiology  
#Ecotoxicology  
#Biomedical**



**#Biotechnology  
#Chemistry**



**#Law of the Sea**



**#Economy  
#Management**

# ACADEMIC TEAM



SKI RESORTS

ITALIA

MONACO

NICE

SOPHIA ANTIPOLIS

ANTIBES

CANNES

CORSICA

ST TROPEZ

TOULON

ESTEREL

Highway + Train

5km



# OBJECTIVES

UNIVERSITÉ CÔTE D'AZUR



MSc. **MARRES**

science | conservation | valorization of marine resources

**OCEAN**

**SOCIETY**



**OBJECTIVES**



# OPEN EMPLOYABILITY



RESEARCH



CONSERVATION



CONSULTANCY

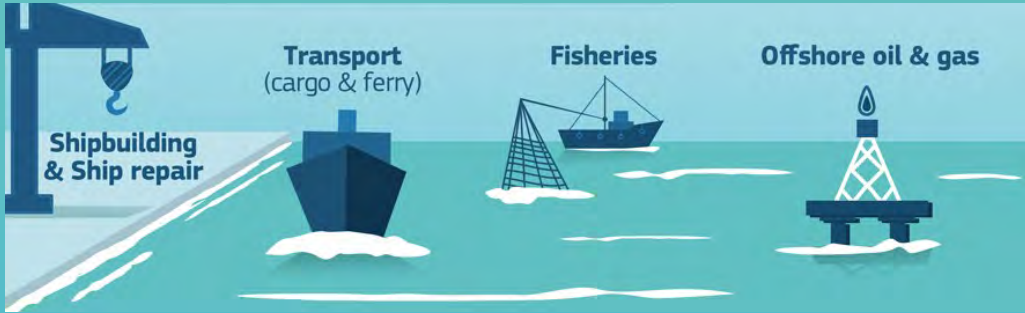


ENTREPRENEURSHIP

## OBJECTIVES



# BLUE GROWTH



BEFORE

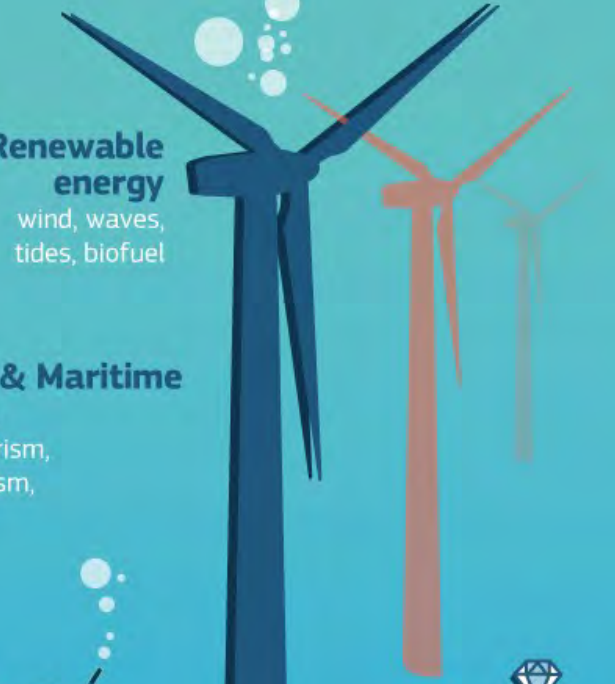


# OBJECTIVES

 **Biotechnology**  
medicines,  
industrial enzymes



 **Renewable energy**  
wind, waves,  
tides, biofuel



 **Coastal & Maritime Tourism**  
coastal tourism,  
cruise tourism,  
yachting

 **Aquaculture**  
farming of fish,  
shellfish, marine plants

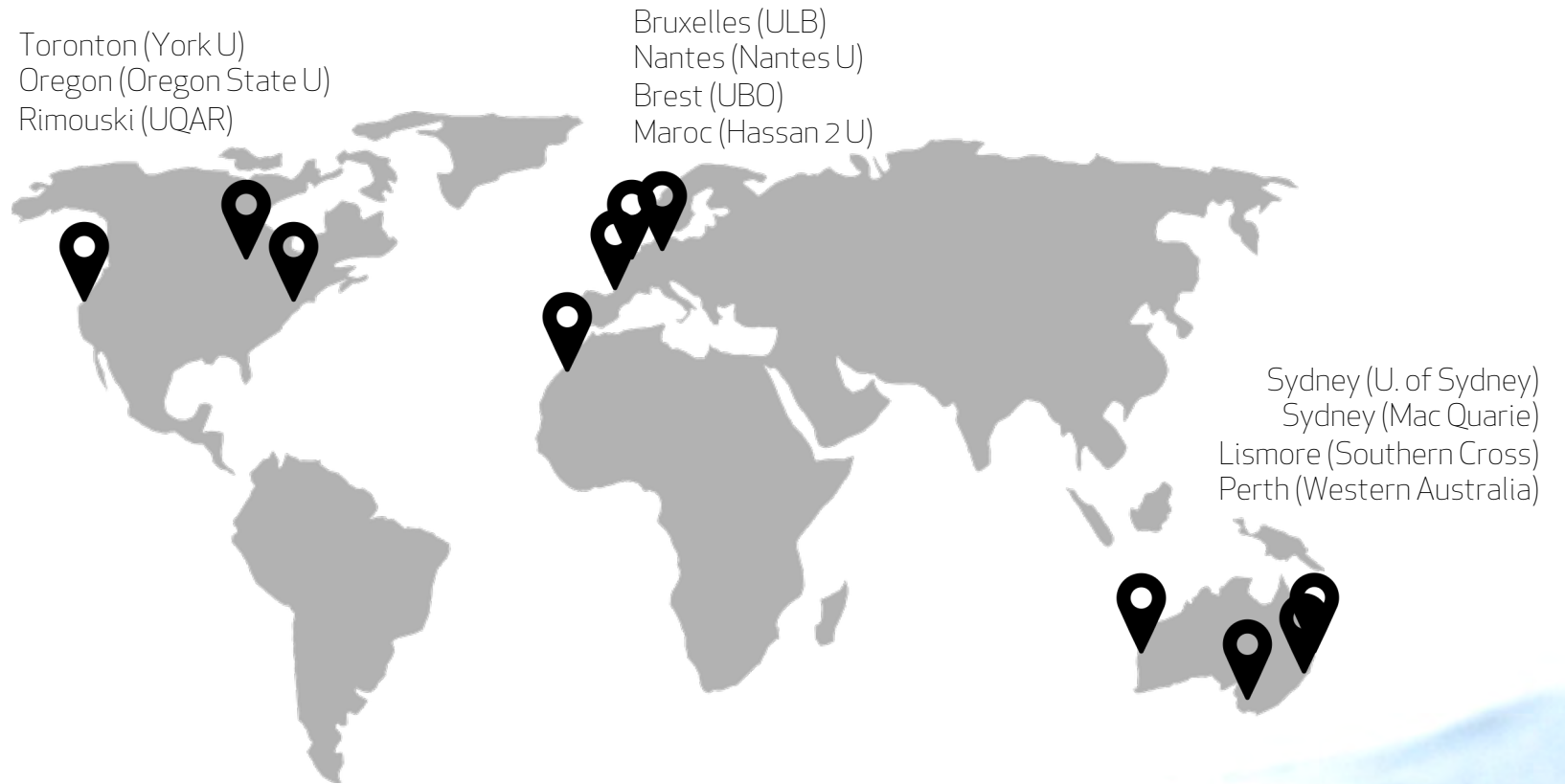


 **Mineral resources**  
gravel, sand,  
zinc, cobalt,  
copper

# GENESIS

## EARLY STEPS

### **MARKET STUDY** **on 12 master programs** in science & management of marine related subjects

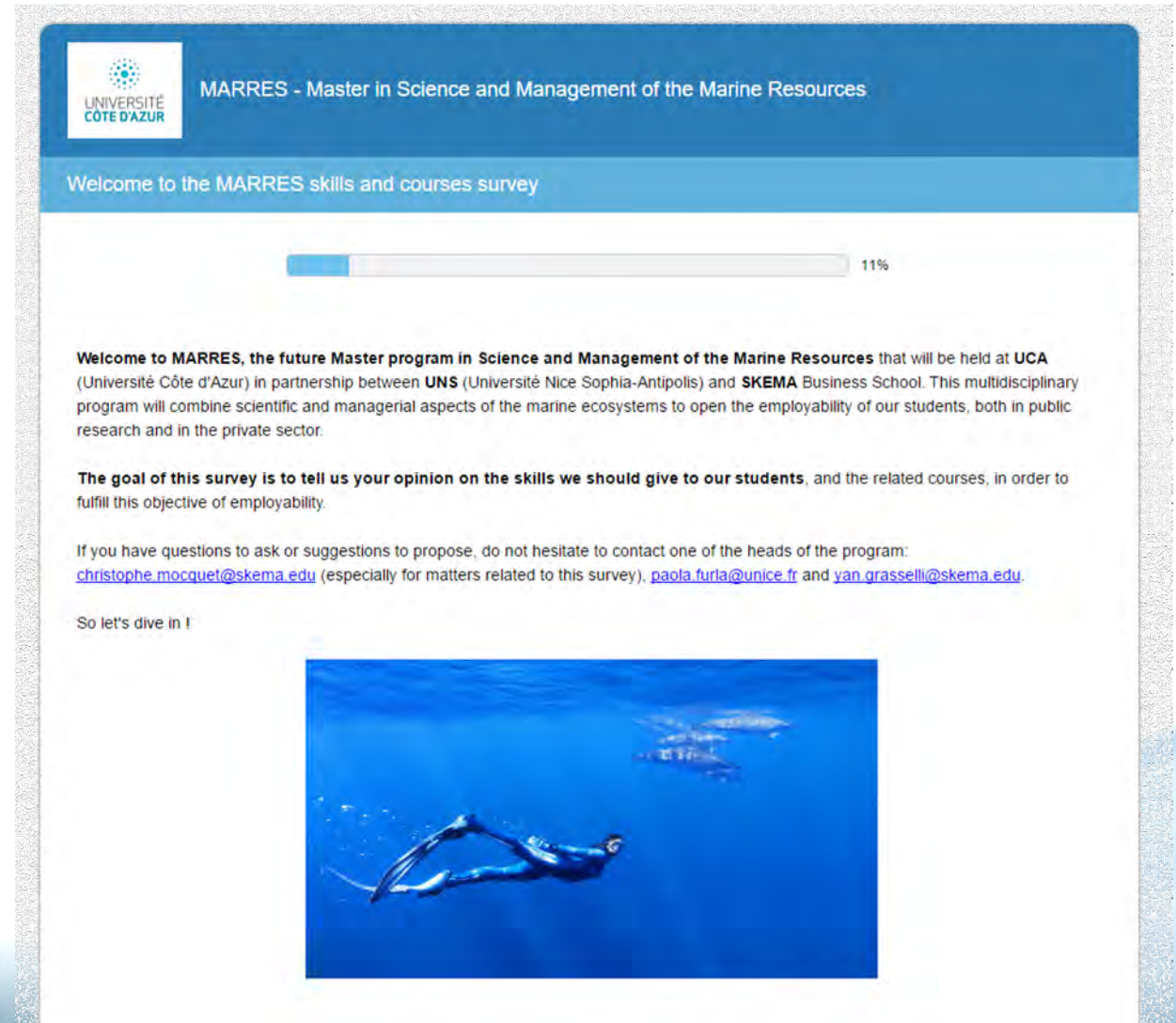


# GENESIS

## EARLY STEPS

### PUBLIC SURVEY

on academics, possible future employers or colleagues, previous students



The screenshot shows the introduction page of a survey for the MARRES Master program. At the top left is the logo of Université Côte d'Azur. The header text reads "MARRES - Master in Science and Management of the Marine Resources". Below the header, a blue bar contains the text "Welcome to the MARRES skills and courses survey". A progress bar indicates that 11% of the survey has been completed. The main text welcomes participants to MARRES, a future Master program at UCA (Université Côte d'Azur) in partnership with UNS (Université Nice Sophia-Antipolis) and SKEMA Business School. It states that the program will combine scientific and managerial aspects of marine ecosystems to improve employability. The goal of the survey is to gather opinions on skills and courses for students. Contact information for the heads of the program is provided: [christophe.mocquet@skema.edu](mailto:christophe.mocquet@skema.edu), [paola.furla@unice.fr](mailto:paola.furla@unice.fr), and [yan.grasselli@skema.edu](mailto:yan.grasselli@skema.edu). The page concludes with "So let's dive in !" and a photograph of a scuba diver underwater.



# GENESIS

## UN OCEAN CONFERENCE

### THE UN OCEAN CONFERENCE

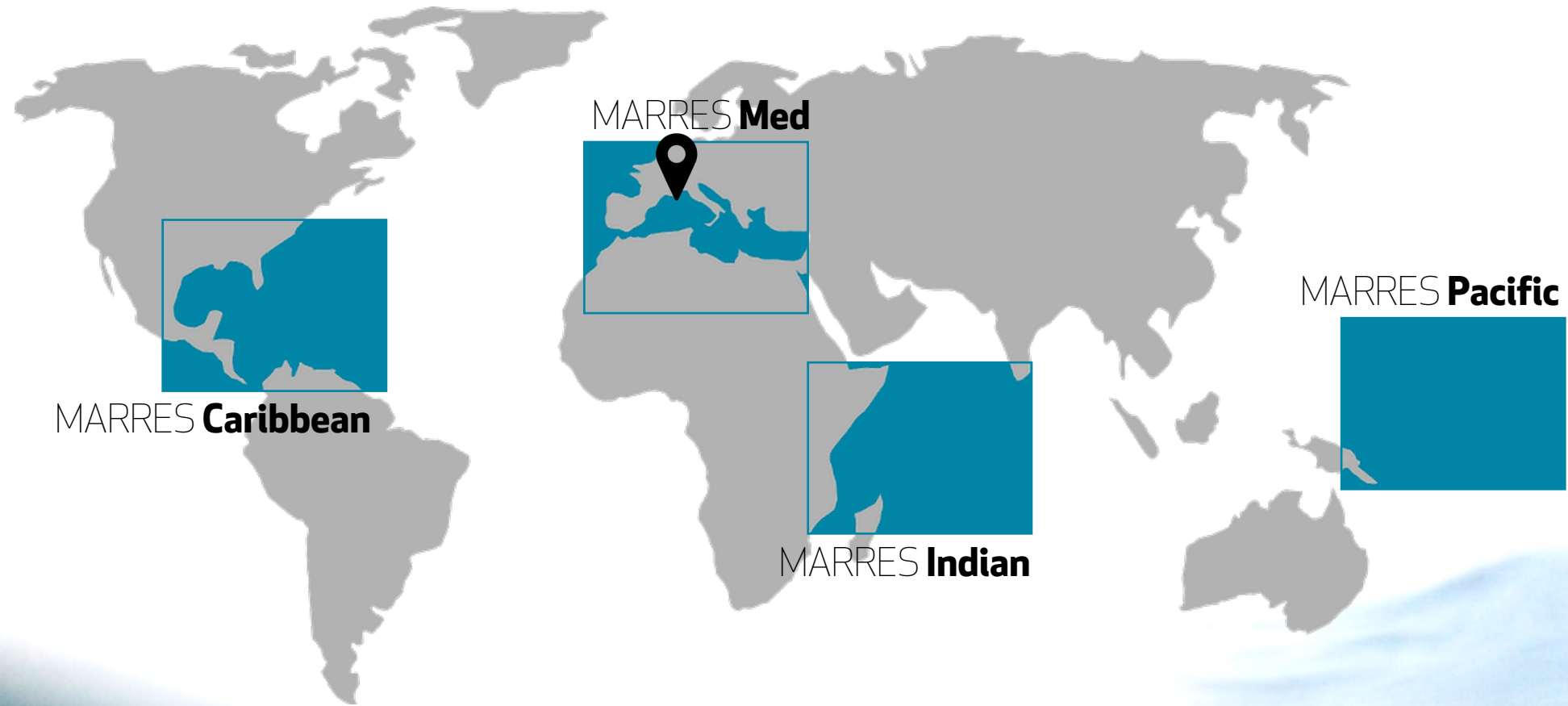
New York 2017

- High-level United Nations Conference to Support the Implementation of Sustainable Development Goal 14
  - Conserve and sustainably use the oceans, seas and marine resources for sustainable development
- 3 types of events
  - Plenary, Dialogues, Side-events



# GENESIS

UN OCEAN CONFERENCE



MARRES **Caribbean**

MARRES **Med**

MARRES **Indian**

MARRES **Pacific**

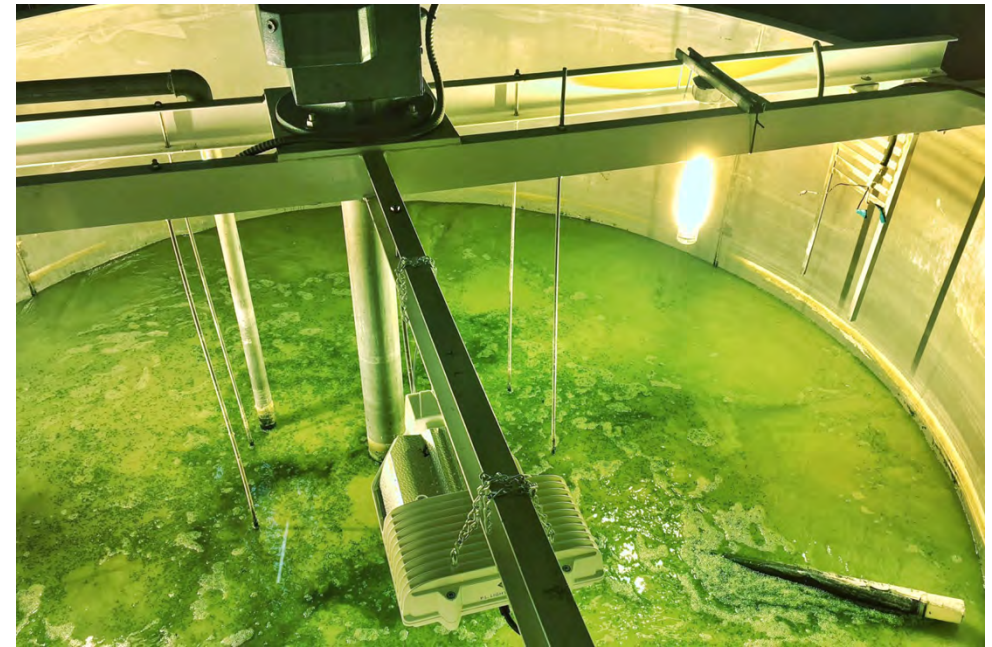


**MARRES** MSc.  
science | conservation | valorization  
of marine resources

### BLUE MARINE BUSINESS CONVENTION

Rimouski 2017

- Skills gap between university programs & industry needs
- Business opportunities in the Ocean
  - Algae & Aquaculture
  - 3rd generation biofuel
  - Marine cosmeceuticals & pharmaceuticals
  - Marine ingredients in our food
  - How to finance blue economy



# CAHIER DES CHARGES



## BASIS

KNOWLEDGE < **SKILLS**  
INNOVATIVE TEACHING

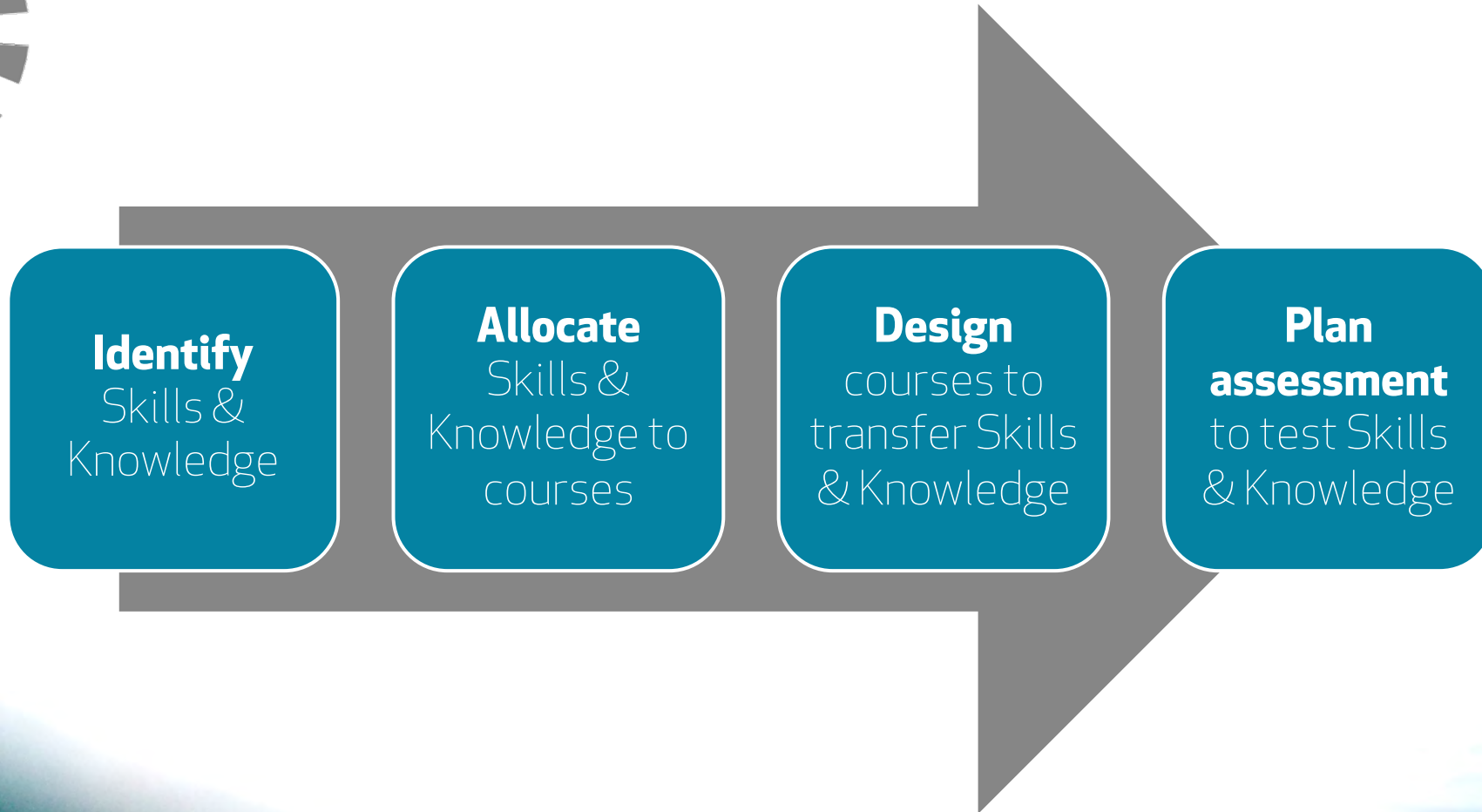
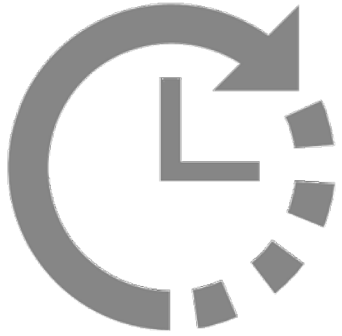


## INTERNATIONAL

100% ENGLISH  
INTERNATIONAL STUDENTS  
REAL E-LEARNING  
ADAPTABILITY

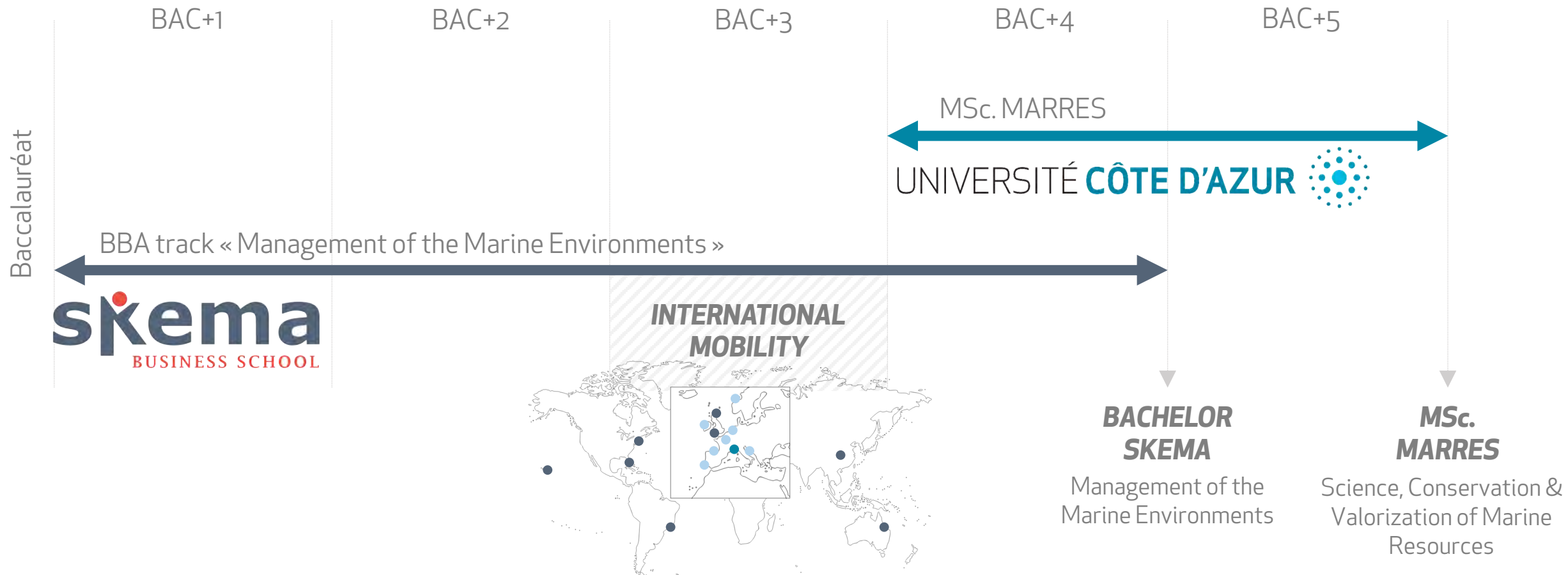


# CAHIER DES CHARGES

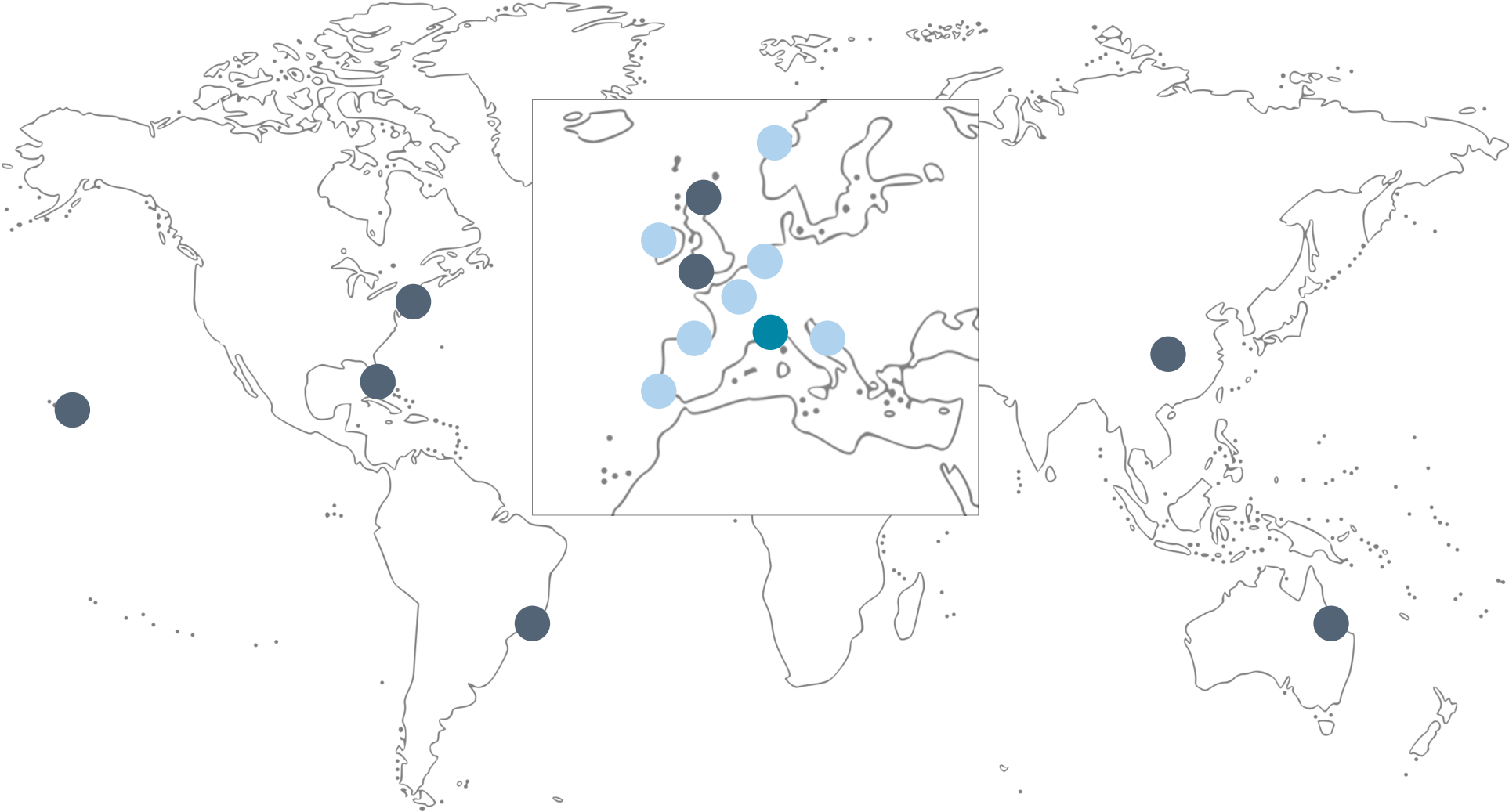




# COMBINE **SCIENCE & MANAGEMENT** OF THE **SEA** ON THE COTE D'AZUR...



# PARTNER UNIVERSITIES



# PROGRAM

UNIVERSITÉ CÔTE D'AZUR 



MSc. **MARRES**

science | conservation | valorization of marine resources

# COURSE CATALOGUE



**BIOLOGICAL  
OCEANOGRAPHY**



**ECOSYSTEM & DATA  
ANALYSIS**



**CHEMISTRY &  
BIOTECHNOLOGY**



**LAW**



**SCIENCE & SOCIETY**

# PROGRAM

# SEMESTER 1



## MARINE ECOLOGY & CONSERVATION MARECO



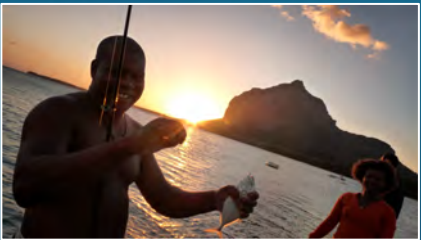
## RESPONSE OF MARINE ORGANISMS TO THE ENVIRONMENT REMOTE



## THE SCIENTIFIC ADVENTURE SCAN



## MARINE RESOURCE & ENVIRONMENTAL LAW MARCEL



## THE BLUE GROWTH BLUE



## PROJECT MANAGEMENT & COMMUNICATION TOOLBOX



# PROGRAM

# SEMESTER 2



## DEPICT MARINE BIODIVERSITY DEPICT



## NATURAL PRODUCTS VALORIZATION



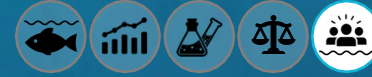
## MULTIVARIATE ANALYSIS & MODELING

MALM



## ENTREPRENEURSHIP & INNOVATION 1: BUSINESS MODELS

ENOV1



## INTERNSHIP 1 4-6 months

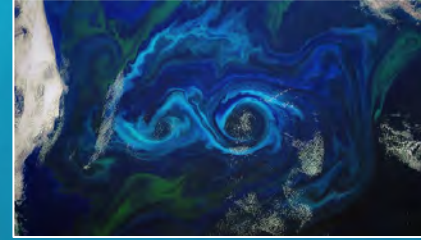
# PROGRAM



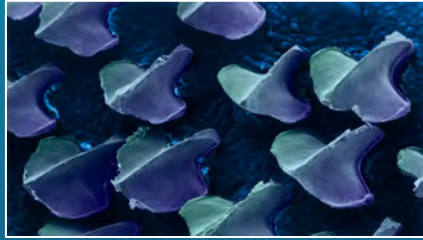
# SEMESTER 3



**FISHERIES BIOLOGY & CONSERVATION** FIREBAC



**OCEAN REMOTE SENSING FOR RESEARCH & INNOVATION** SENSE



**UNEXPECTED POTENTIAL OF MARINE RESOURCES** UNEX



**ANALYTICAL CHEMISTRY FOR BIOACTIVE MOLECULES** ACID



**ENVIRONMENTAL IMPACT & QUALITY ASSESSMENT** EQUAL



**ENTREPRENEURSHIP & INNOVATION 2: INTELLECTUAL PROPERTY** ENOV2



# PROGRAM



# IMMERSION PROJECTS

UNIVERSITÉ CÔTE D'AZUR

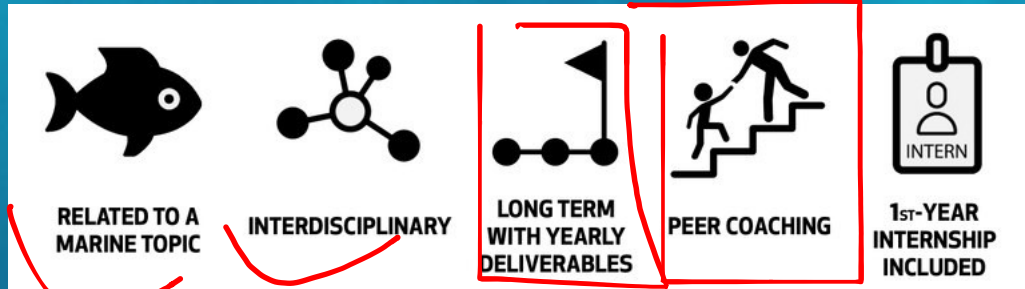


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# HOW DOES IT WORK?



## 3 phases – 12 to 15 months

- 1| **Warm-up** all Mondays from October to March (1st year), prepare internship, coached by Y2 students
- 2| **Internship** 4 to 6 months (1st year)
- 3| **Polish-up & Coach** all Mondays from September to December (2<sup>nd</sup> year), finish the work, prepare final reports deliverables, coach Y1 students

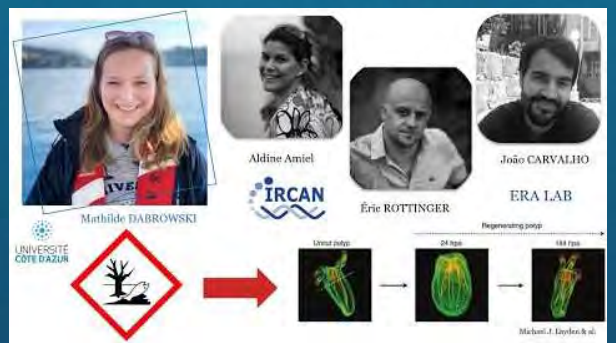
# IMMERSION PROJECTS

UNIVERSITÉ CÔTE D'AZUR



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# IMMERSION PROJECTS

## OUR IMMERSION PROJECT PARTNERS

SCIENCE



**IRCAN**  
Institute of Research  
on Cancer & Aging  
Université Côte d'Azur



**ECOSEAS**  
Ecology & Conservation Science  
for Sustainable Seas  
Université Côte d'Azur



**CSM**  
Centre Scientifique  
de Monaco



**LOV**  
Laboratoire d'Océanographie  
de Villefranche  
CNRS, Sorbonne Université



**CRIOBE**  
Centre de Recherches Insulaires et  
Observatoire de l'Environnement  
CNRS, EPHE



**STELLA MARE**  
Université de Corse

CONSERVATION



**CORAL GUARDIAN**



**OCEANOGRAPHIC MUSEUM  
OF MONACO**  
Institut Albert 1st



**BLUE FINANCE**



**BLUE SEEDS**  
Vertigo Labs

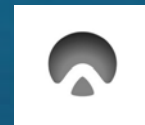
SOCIO-ECONOMICS



**SINAY**



**CREOCEAN**



**INALVE**



**LAGOSTA**

# IMMERSION PROJECTS

UNIVERSITÉ CÔTE D'AZUR



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# IMBRSea

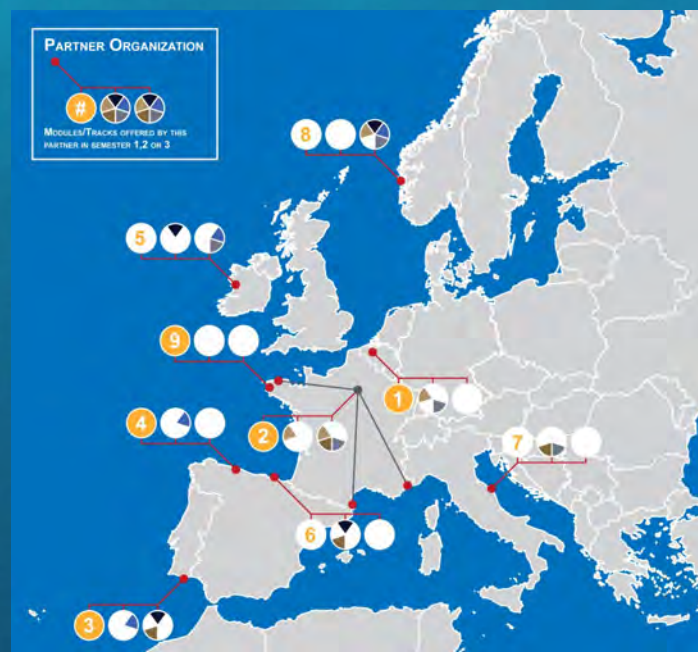
UNIVERSITÉ CÔTE D'AZUR 



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# + 11 INTERNATIONAL STUDENTS JOINING IN OCTOBER



# SOCIAL MEDIA

**MSc. Marres - Université Côte d'Azur**  
@ucamarres

Accueil  
Boutique  
À propos  
Publications  
Photos  
Vidéos  
Groupes  
Communauté  
Avis  
Créer une Page

**Publications**

**MSc. Marres - Université Côte d'Azur**, 😊 chanceux.  
3 avril · Nice · 🌐

The MARRES Life... 1 year on the Côte d'Azur!  
Science, Conservation & Valorization of Marine Resource at Université Côte d'Azur  
Join the crew on <http://app.univ-cotedazur.fr/marres>

Engage in an interdisciplinary appraisal of living ...  
As we are only uncovering the role of the ocean in our society, it's crucial bringing together scien...  
Afficher plus

Isabelle Martin Magnifique mon Falco bel avenir bon choix  
Il faut déchirer  
Ma phrase emblématique  
... Voir plus  
J'aime · Répondre · Contacter · 14 sem

Jacqueline Lepeu Super et bravo  
J'aime · Répondre · Contacter · 15 sem

**MSc. Marres - Université Côte d'Azur**  
Publié par Christophe Mocquet | 19 août, 09:26 · 🌐

Affichage : Anglais

Some IMBRSea students currently in Sweden 🇸🇪 investigate for the best umbrella/flagship species 🐟 of the region. They need your help to ask people what could be their favorite species. Please fill the survey and spread it to your (not only scientific) network!  
English: <https://tinyurl.com/umbrellaEN>  
French: <https://tinyurl.com/umbrellaFR>

Université Côte d'Azur - Campus Valrose (22,38 km)  
Nice  
Obtenir l'itinéraire  
Dessert Nice et ses alentours.  
04 93 95 45 47  
Envoyer un message  
<http://app.univ-cotedazur.fr/marres> Promouvoir le site web

Établissement d'enseignement supérieur - Science, technologie et génie civil  
Suggérer des modifications

**Transparence de la Page** Voir plus  
Facebook vous montre des informations pour vous aider à mieux comprendre le but de cette Page. Découvrez les actions des personnes qui gèrent et publient du contenu.  
Page créée - 31 janvier 2018

Membres De L'équipe  
Christophe Mocquet

Pages aimées par cette Page >

Alexia Sailing Team



@ucamarres



To be created!  
#ucamarres



@uca\_marres

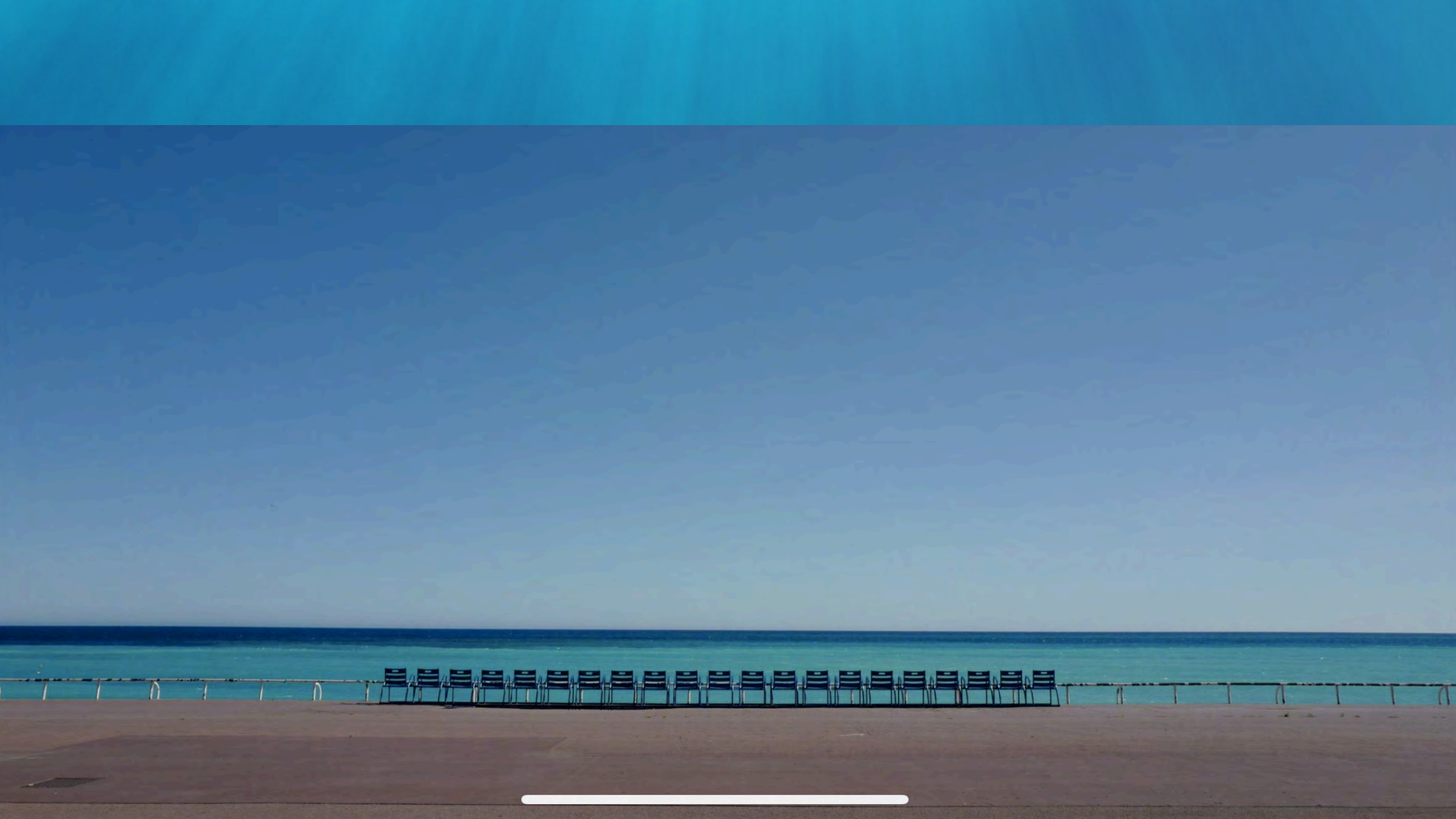


group  
MSc. MARRES



**MSc. MARRES**

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# NEXT SEMESTER?



## Short capsules

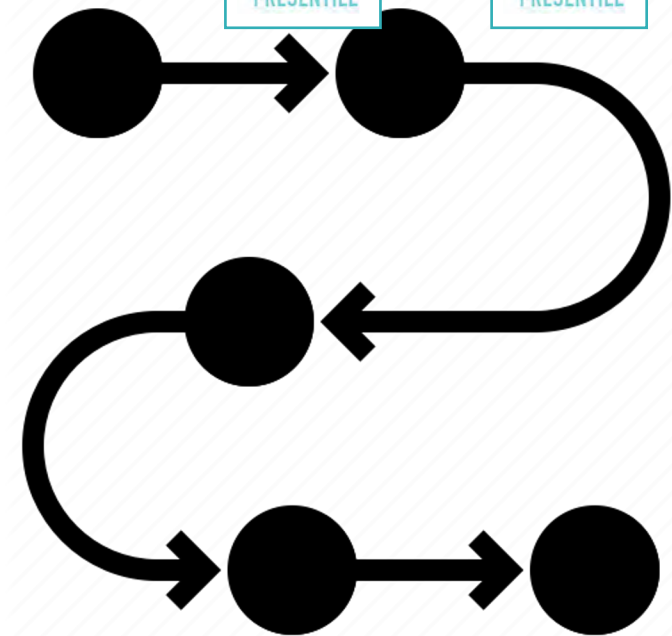
## Additional documents

Readings / exercises

## Interactivity

Regular F2F interactions

Forums...





# NEXT SEMESTER?

## The Tools

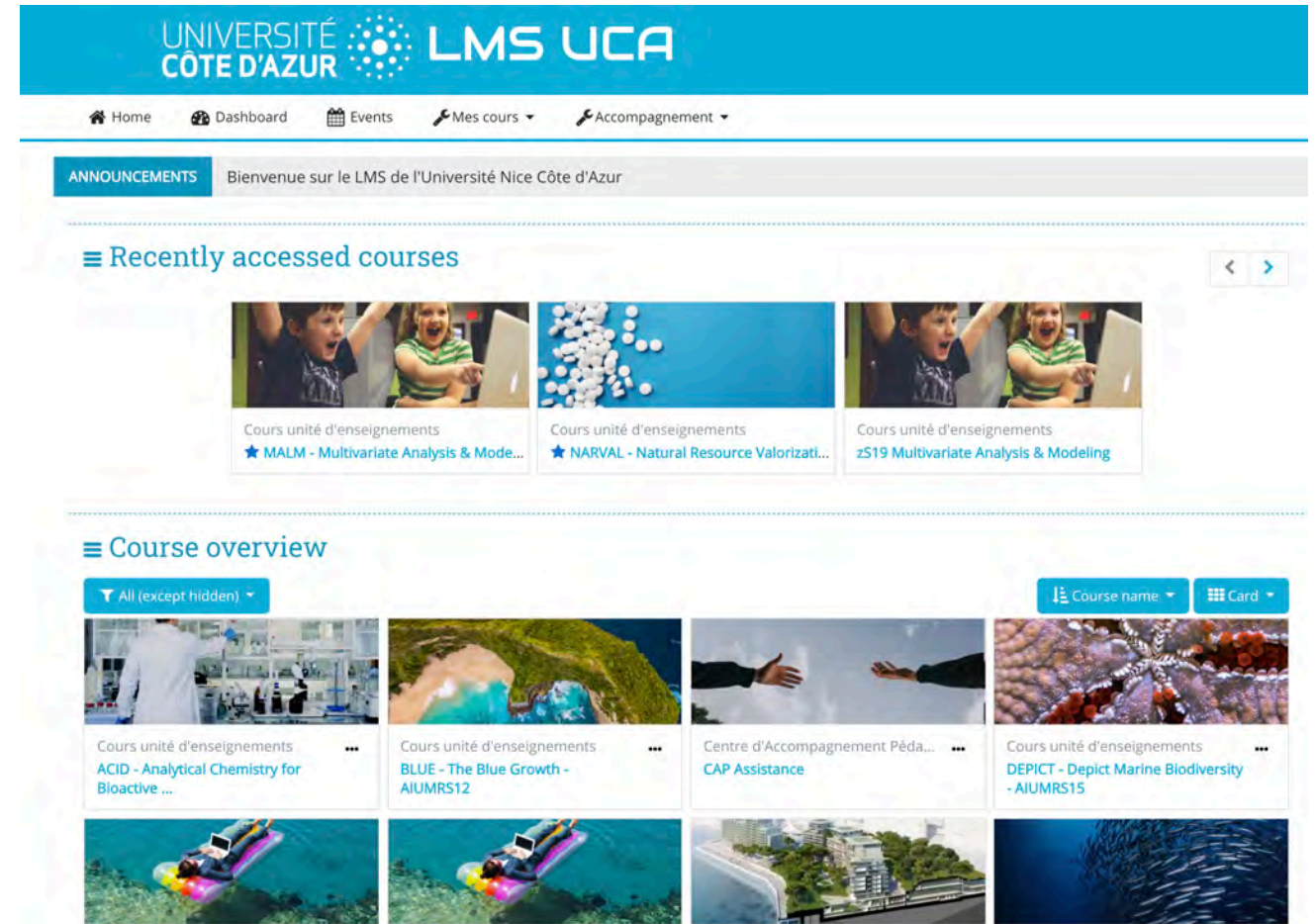
### **Moodle**

Documents, Videos

Quiz, assignments, workshops

Forum, chat

Integration of other tools (BBB,  
Panopto...)



The screenshot displays the Moodle LMS UCA interface. At the top, the header includes the University of Côte d'Azur logo and the text 'LMS UCA'. Below the header is a navigation bar with links for Home, Dashboard, Events, Mes cours, and Accompagnement. The main content area features an 'ANNOUNCEMENTS' section with a welcome message. Below this is a 'Recently accessed courses' section, which is a carousel of course cards. Each card shows a thumbnail image, the course title, and a star icon. The visible course titles are 'MALM - Multivariate Analysis & Mode...', 'NARVAL - Natural Resource Valorizati...', and 'zS19 Multivariate Analysis & Modeling'. Below the carousel is a 'Course overview' section, which is a grid of course cards. The grid has a filter dropdown set to 'All (except hidden)' and a 'Course name' dropdown. The visible course titles are 'ACID - Analytical Chemistry for Bioactive ...', 'BLUE - The Blue Growth - AIUMRS12', 'Centre d'Accompagnement Péda... CAP Assistance', and 'DEPICT - Depict Marine Biodiversity - AIUMRS15'. The grid also includes a 'Card' dropdown menu.

# NEXT SEMESTER?

## The Tools

### **Panopto**

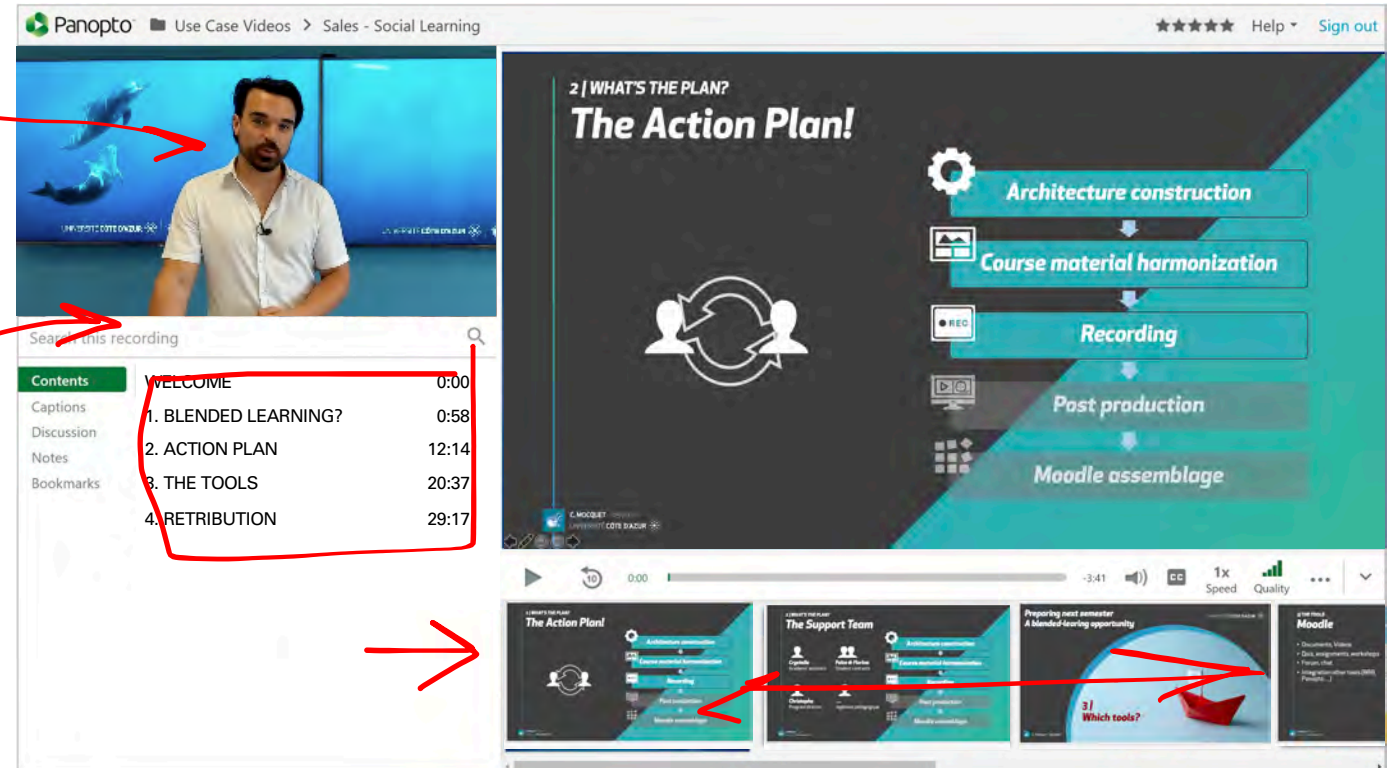
Combine video and course document

Student customizable

Chapterization

Keyword search

Analytics



The screenshot displays the Panopto interface. At the top, it shows the Panopto logo and navigation paths: 'Use Case Videos > Sales - Social Learning'. The main video player shows a presenter in front of a screen with the text '2 | WHAT'S THE PLAN? The Action Plan!'. Below the video player is a search bar labeled 'Search in this recording'. To the left of the video player is a 'Contents' table with the following items:

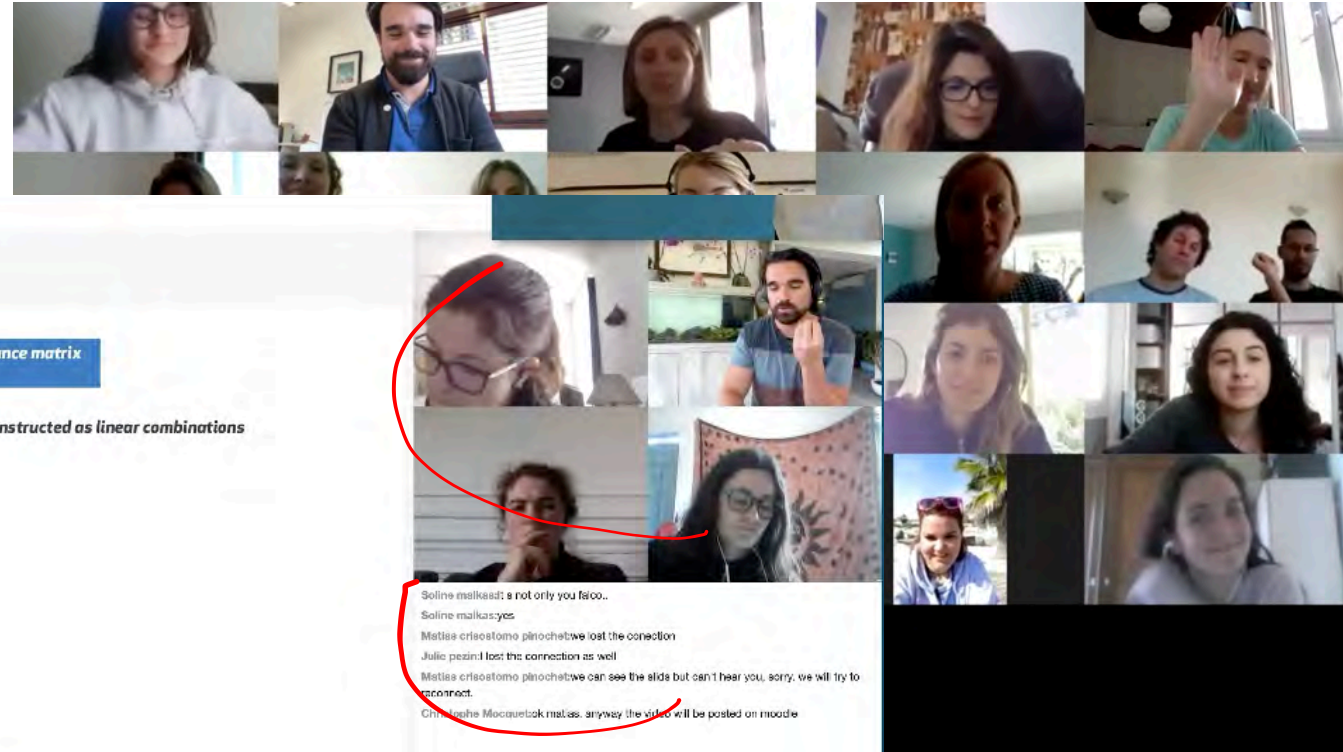
Contents	Duration
WELCOME	0:00
1. BLENDED LEARNING?	0:58
2. ACTION PLAN	12:14
3. THE TOOLS	20:37
4. RETRIBUTION	29:17

Below the video player is a video player control bar with a progress bar at 0:00, a volume icon, a closed caption icon, a speed icon set to 1x, and a quality icon. At the bottom, there is a thumbnail gallery with four thumbnails: 'The Action Plan', 'The Support Team', 'Preparing next semester A blended learning opportunity', and 'Moodle'. Red arrows point from the text on the left to the video player, the search bar, the table of contents, and the thumbnail gallery.

# NEXT SEMESTER?

## The Tools

Zoom  
Panopto



The screenshot shows a Zoom meeting interface. At the top, there is a grid of video thumbnails for participants. The main area displays a presentation slide titled "MALM chat (MARRES Y1)". The slide contains the following text:

**Step 3: Compute the eigenvectors and eigenvalues of the covariance matrix to identify the principal components**

**Remember: principal components are new dimensions that are constructed as linear combinations**

Below the text is a bar chart showing the percentage of explained variance for each of the first 10 principal components. The y-axis is labeled "Percentage of explained variance" and ranges from 0 to 40. The x-axis is labeled "Principal Components" and ranges from 1 to 10. The bars show a sharp decline in variance explained as the number of components increases, with the first component explaining approximately 40% of the variance.

Figure 1.1 Percentage of variance (information) for each Principal Component (PC)

At the bottom of the slide, there is a chat window with the following messages:


- Soline malkas: a not only you feroo...
- Soline malkas:yes
- Matias crisostomo pinochet:we lost the connection
- Julie pezini:lost the connection as well
- Matias crisostomo pinochet:we can see the slide but can't hear you, sorry, we will try to reconnect.
- Christophe Mocquetbak matias, anyway the video will be posted on moodle

Red arrows and circles highlight the text on the slide and the chat messages.


# NEXT SEMESTER?

## The Tools

### Wooclap



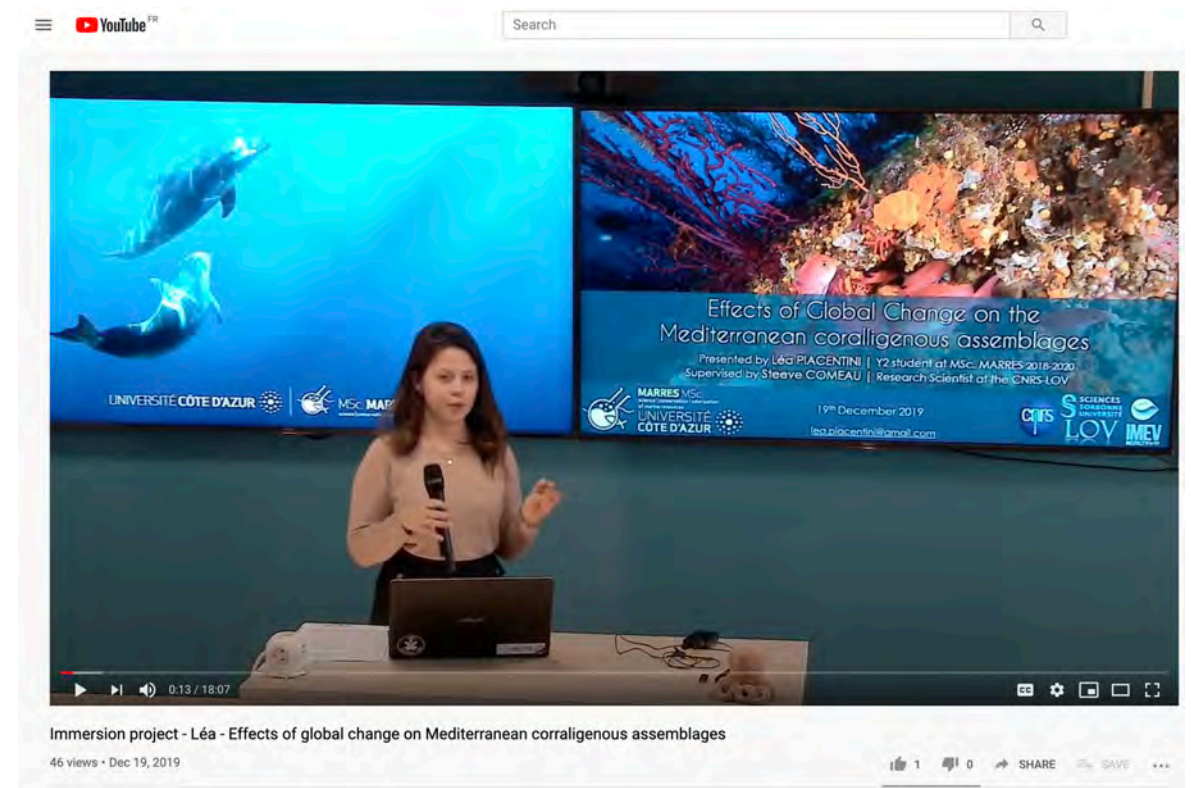
Which one of these marine films won the Palme d'Or at the Festival de Cannes?

-  Sharknado (A.C. Ferrante)
-  The Silent World (J.Y. Cousteau and L. Malle)
-  Le Grand Bleu (L. Besson)
-  Finding Nemo (Pixar)
-  The Life Aquatic with Steve Zissou (W. Anderson)

# NEXT SEMESTER?

## The Tools

### Youtube live



The screenshot shows a YouTube live stream interface. At the top, there is a search bar and the YouTube logo. The main content is a video player showing a woman presenting in front of a large screen. The screen is split into two panels. The left panel shows two dolphins swimming in clear blue water. The right panel is a presentation slide with the following text: "Effects of Global Change on the Mediterranean coralligenous assemblages", "Presented by Léa PIAGENTINI | Y2 student of MSc. MARRES 2018-2020", and "Supervised by Steeve COMEAU | Research Scientist at the CNRS-LOV". Below the slide, there are logos for "UNIVERSITÉ CÔTE D'AZUR", "MARRES MSc", "SCENES UNIVERSITÉ", "LOV", and "IMEV". The date "19th December 2019" and the email "lea.piagentini@gmail.com" are also visible. The video player controls at the bottom show a play button, a progress bar at 0:13 / 18:07, and icons for closed captions, settings, and full screen. Below the video player, the video title "Immersion project - Léa - Effects of global change on Mediterranean coralligenous assemblages" is displayed, along with "46 views • Dec 19, 2019" and interaction icons for likes (1), dislikes (0), share, save, and a menu icon.

