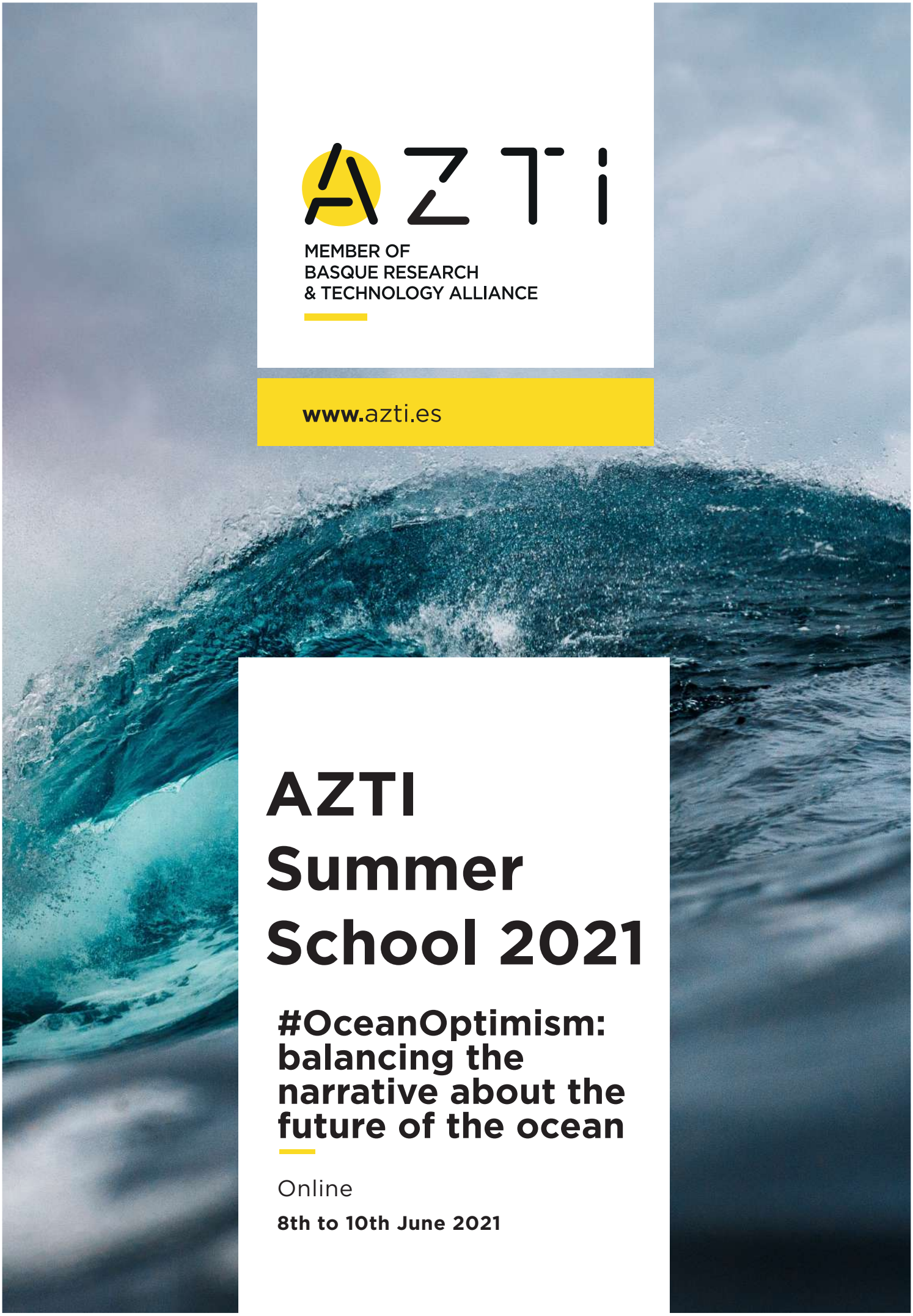

AZTI

MEMBER OF
BASQUE RESEARCH
& TECHNOLOGY ALLIANCE

www.azti.es

AZTI Summer School 2021

#OceanOptimism: balancing the narrative about the future of the ocean

Online

8th to 10th June 2021

AZTI
MEMBER OF
BASQUE RESEARCH
& TECHNOLOGY ALLIANCE

Introduction to the course

AZTI organizes annually (since 2004) an international 'Summer School' on marine research related cutting-edge topics, always trying to bridge the gap between research and policy. The course is taught by about 5-12 speakers and attended by around 40-60 students from 10-15 countries each year. Some years we have organized the school back to back with European projects, such as DEVOTES, MARS, SOPHIE, GlobalHAB, as well as other organizations (e.g. Euromarine, EEAcademy, European Environment Agency -EEA-). After the gap of 2020, due to the COVID-19 pandemics, this year 2021 the school is organized by AZTI, with the support of Frontiers in Marine Science and EEA.

For 2021, coinciding with the 17th edition of the courses, the topic proposed is "***#OceanOptimism: balancing the narrative about the future of the ocean***" This course will build on, and go beyond, the "State and Outlook of the Environment 2019" and the "Marine Messages II 2020" reports, from the European Environment Agency, as well as in the European Green Deal. We will examine how, despite the fact that our seas are facing important challenges (e.g. climate change, biodiversity loss, plastic pollution, etc.), the management measures taken in the last decades have changed the decline trends of many systems, including the reduction of eutrophication, reduction of pollution from some metals and organic compounds, recovery of ecosystems (and the associated goods and services), recovery of fishing stocks in some regional seas, increase of Marine Protected Areas, etc. In addition, for those topics that still show decline, some solutions will be discussed (e.g. EU Green Deal, UN Decade of the Oceans, UN Decade of Restoration), including the narrative that still media is producing and how media can contribute to disseminate a positive narrative for society.

The attendees will acquire knowledge in the health of marine systems, current trends, future tendencies and potential solutions to improve those systems or ecosystem components needing management decisions and media support. This summer school will benefit from the inter/transdisciplinary integration of different sciences (e.g. marine and fisheries biology, toxicology, microbiology, social sciences, etc.) necessary to understand the response of our seas to human activities and pressures, but also their recovery when adequate management decisions are taken and the necessary knowledge by society of this progress, with the support of media. This course will explore this through different topics, particularly emphasizing communication, citizens engagement and co-creation with diverse stakeholder communities. The main objective of the school is to give an overview on the challenges that oceans are facing, the positive trends we can see in many locations, due to policies and management, and opportunities presented by scientific and technological solutions for impacted seas.

As an outcome of this course (in addition to the presentations, which will be freely available after the school), the professors participating in the course will prepare an open access position paper on this topic, to be submitted to Frontiers in Marine Science. This will be a cross-cutting review. This position paper will have an impact on another key audience, i.e. research funders, marine policy makers, and managers. In addition to such impact, it is expected that students participating in this summer school will implement the knowledge gained through this summer school in their professional careers.

MEMBER OF
BASQUE RESEARCH
& TECHNOLOGY ALLIANCE

Contents of the course

/ June 8th 2021

Looking for the situation: the bad and the good

- ***9:30-9:45 Introduction to the course***
  Angel Borja, AZTI, Spain
  Brief overview of the courses organized until now and the objectives behind them, with an introduction to the course in 2021.

- ***9:45-10:30 Status of the Environment in Europe and Marine Messages: new transitions under the European Green Deal***
  Ana Tejedor, European Environment Agency, Denmark

- ***10:30-11:00 Coffee Break***

- ***11:00-11:45 Building for the future of marine science and management - the main messages based on the UN World Oceans Assessment II and the International Decade of the Oceans***
  Michael Elliott, University of Hull, UK
  This session will describe the main aims of the UN Decade 2021-2030 and show how the initiatives will link with national, European, regional (as the Regional Seas Conventions) and International/Global initiatives. It will demonstrate suggestions for practical work and show the challenges ahead for each country, not least the funding and logistical constraints. It will indicate some of the conclusions from the 2nd World Oceans Assessments and show how much progress has been made since the previous WOA.

- ***11:45-12:30 #OceanOptimism: Where are the success stories in ocean conservation?***
  Nancy Knowlton, Smithsonian, USA
  While the ocean has suffered many losses and huge problems remain, important progress is being made in marine conservation. Examples include striking recoveries of once threatened species, increasing rates of protection of marine habitats, more sustainably managed fisheries and aquaculture, reductions in some forms of pollution, accelerating restoration of degraded habitats, and use of the ocean and its habitats to sequester carbon and provide clean energy. Many of these achievements have multiple benefits, including improved human well-being. A greater focus on solutions and successes will help them become the norm rather than the exception.

- ***12:30-13:00 Discussion with the professors***

MEMBER OF
BASQUE RESEARCH
& TECHNOLOGY ALLIANCE

/ June 9th 2021

Examples of good practices and recovery of systems

- ***9:30-10:15 Reduction of pollution in estuaries and coasts of the Basque Country and recovery of ecosystem services***
  Angel Borja, AZTI, Spain
  In the Basque Country (North of Spain), two monitoring networks have been started in 1989 and 1995, respectively, including different biotic and abiotic ecosystem components. These long-term series have allowed to determine how human pressures and management measures have shaped the ecological components of estuaries and coasts, showing the declining trends of contaminants and including the recovery of biodiversity value and cultural ecosystem services.

- ***10:15-11:00 Ecohydrology with Ecoengineering - opportunities for marine, coastal and estuarine remediation linked to the UN Decade of Ecological Restoration***
  Michael Elliott, University of Hull, UK
  This session will describe and illustrate the major types of ecoengineering. Firstly, Type A in which the habitat is recreated/reconstructed using a knowledge of the hydrology of an area thereby allowing recolonisation by indigenous (and even introduced) species. Secondly, Type B engineering where previously harmed species require to be enhanced or reintroduced through restocking, replanting or other measures. These will be discussed in relation to the obligations by countries for the forthcoming UN Decade 2021-2030.

- ***11:00-11:30 Coffee Break***

- ***11:30-12:15 The restoration and recovery of Scheldt estuary***
  Patrick Meire, University of Antwerp, Belgium

- ***12:15-13:00 Is the 'aquacalypse' cancelled? How science-based management enables sustainable fisheries***
  Fabian Zimmermann, Institute of Marine Research, Norway
  The public perspective on global fisheries has been shaped by a narrative of depletion and demise, inevitably resulting in collapsed fisheries and "empty seas". While historic failures and past trends may have given cause for concern, this perspective tends to ignore the progress that has been achieved in fisheries management over the past two decades. This talk will focus on the recent developments in European fisheries, highlighting how improvements in management policies have enabled the recovery of many fish stocks and resulted in increasingly sustainable fisheries. Although challenges remain, European fisheries today show that successful fisheries management is possible when science-based policies are implemented and enforced.

MEMBER OF
BASQUE RESEARCH
& TECHNOLOGY ALLIANCE

/ June 10th 2021

Looking for solutions

- ***9:30 - 10:15 From global to local: solutions to marine litter***
  Oihane Cabezas, AZTI, Spain
- ***10:15-11:00* How media can assist scientists in disseminating positive messages**
  Alex Fernández Muerza, Spain
- ***11:00 - 11:30 Coffee Break***
- ***11:30 - 12:15 Ocean Solutions for Nature and People***
  Fiorenza Micheli, Stanford Center for Ocean Solutions, USA
- ***12:15 - 13:00 Looking for solutions together***
  Discussion with all participants, -professors and attendees-, chaired by Angel Borja

Suported by

/ **Headquarters**
Txatxarramendi Ugartea z/g
E-48395 Sukarrieta - BIZKAIA (Spain)
Parque Tecnológico de Bizkaia

Astondo Bidea, Edificio 609
E-48160 Derio - BIZKAIA (Spain)

Herrera Kaia - Portualdea z/g
E-20110 Pasaia - GIPUZKOA (Spain)

/ **t.** (+34) 946 574 000
/ **m.** (+34) 657 799 446
/ **e**-mail: info@azti.es
/ www.**azti**.es