



Topic	H2020 – INFRAIA-2018-2020
Short Title	Eurofleets+
Title	An alliance of European marine research infrastructures to meet the evolving requirements of the research and industrial communities
Project Number	824077
Delivery Date	31.01.2022
Deliverable No	D6.4
Lead Beneficiary	Marine Institute
Dissemination Level	Public

D6.4 Ocean Classroom Established



Document information	
Document Name	Ocean Classroom Established
Document ID	Eurofleets+ D6.4 Ocean Classroom Established V1 MI
Revision	V1
Revision Date	03.01.2022
Author	Bernadette Ní Chonghaile, Niamh Flavin
Security	Public

Approvals			
	Name	Organisation	Date
Coordinator	Aodhán Fitzgerald	Marine Institute	27.01.22
Activity Coordinator	Bernadette Ní Chonghaile	Marine Institute	18.01.22
WP Leader	Andrea Caburlotto	OGS	26.01.22

History			
Revision	Date	Modification	Author

This document contains information, which is proprietary to the EUROFLEETS+ consortium. Neither this document nor the information contained herein shall be used, duplicated or communicated by any means to any third party, in whole or in parts, except with prior written consent of the EUROFLEETS+ Coordinator.

The information in this document is provided as is and no guarantee or warranty is given that the information is fit for any particular purpose. The user thereof uses the information at its sole risk and liability.

TABLE OF CONTENTS

Contents

1	Introduction	1
2	Development Methods and Results.....	2
2.1	Collection & Analysis of Resources	2
2.2	Design and Development of the Ocean Classroom Repository	2
2.3	Launch of Alumni Forum.....	3
2.4	Ship to Shore Expeditions	3
2.5	EU4Ocean Participation	3
2.6	Viewing Statistics	3
2.7	Summary	4
3	Annex 1 - List of Resources	5

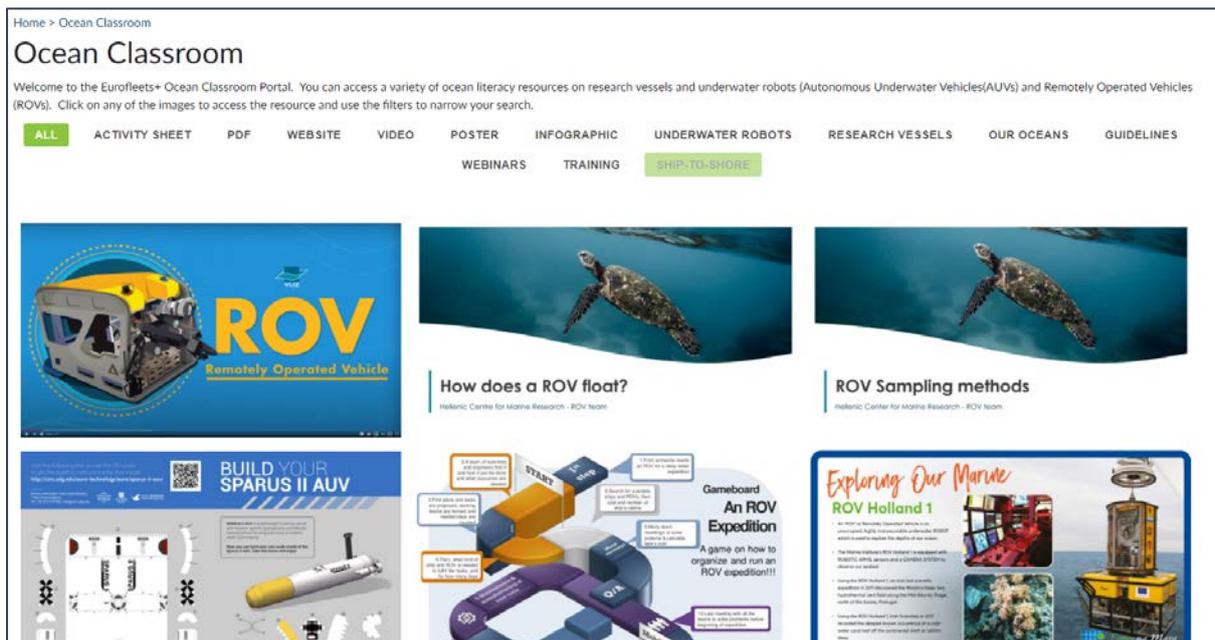
1 Introduction

The Eurofleets+ Ocean Classroom Portal, an online ocean literacy resource has been developed and was originally launched in May 2020. The dynamic portal includes a variety of innovative, multimedia, online digital resources produced for training activities. This report provides a brief overview of the concept, analysis, design, build, launch and planned maintenance and enhancement of the portal which is integrated into the project Website here: <https://www.eurofleets.eu/classroom/>

The Eurofleets+ Ocean Classroom Portal includes resources from three main areas

- Education support resources outlining the role of research vessels and ROVs in Ocean exploration including live and recorded ship to shore expeditions which can be used by teachers as interactive exercises in schools.
- Online e-learning digital resources, tools and webinars developed to support Floating Universities, Labs and Workshops for online access by early-stage researchers and professionals
- Access to the Alumni Forum, to allow Eurofleets+ training participants to engage, network and collaborate online.

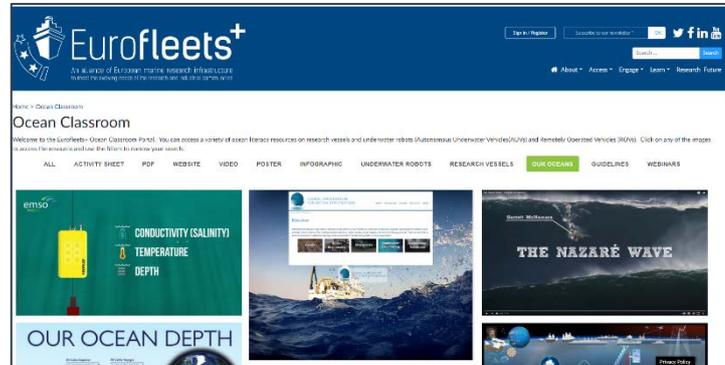
The portal is dynamic and is updated regularly with new resources when available and as they are developed by the project and its partners.



2 Development Methods and Results

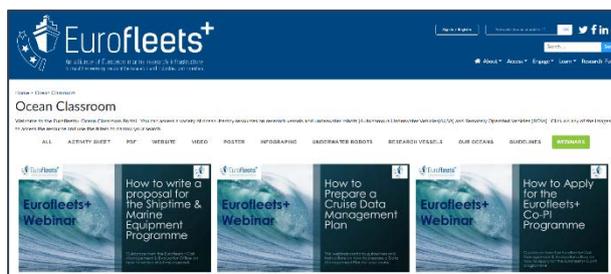
2.1 Collection & Analysis of Resources

Development of the Eurofleets+ Ocean Classroom repository commenced with a detailed desktop analysis of existing Ocean Literacy materials available through Eurofleets+ partners to assess what resources existed amongst project partners. The range and breadth of materials available is very comprehensive and has been collated to provide a key repository for informing all stakeholder categories of the role which Research vessels play in marine science. Access to materials and resources have been provided by the Marine Institute, Socib, HCMR, OGS, GFOE, VLIZ, RBINS, UDG, IPMA.



Following the collation of all assets the Marine Institute compiled an extensive database which was then analysed and grouped by theme and resource type and finally sorted by target audience. Each asset was assessed for its potential to support educators in the concept of investigating the ocean from research vessels and ROVs specifically aimed at primary and secondary schools. Additional assets have been added to the repository to convey the significant role research vessels play in ocean exploration aimed at Eurofleets+ stakeholders at all levels.

2.2 Design and Development of the Ocean Classroom Repository



A virtual meeting was held with task participants MI, OGS, EurOcean and Blue Lobster to discuss the design and layout of the portal in May 2020. During the meeting, the specification and structure was agreed. It was agreed that the initial resources would be categorised into 3 main categories; Research Vessels, Underwater Robots (to include ROVs and AUVs) and Our Oceans (to include the miscellaneous resources received relating to our Oceans).

It was agreed that users should be able to filter by category and type of resource (Information sheet, activity, video, websites etc.).

This design was then developed by the Marine Institute and Blue Lobster and implemented using a plugin on the Eurofleets+ website where users can easily explore all of the available resources using pre-defined filters. The Ocean Classroom portal was launched on the project website <https://www.eurofleets.eu/classroom/> in Month 21 of the project.

Since the initial launch of the portal, 4 further categories of resources have been added to the portal – Webinars, Guidelines, Training and Ship-to-Shore. The webinars include a number of Eurofleets+ webinars on the topics of preparing shiptime proposal applications and cruise data management

plans. Training resources include presentations from the Eurofleets+ Floating Universities and Blue Skills labs and the Guidelines category include the Dissemination Toolbox for Young Researchers & a Toolkit for Course Directors. Ship-to-Shore resources included recordings of the two Ship-to-Shore broadcasts that have taken place in the project.

2.3 Launch of Alumni Forum

The Alumni Forum was developed and launched to coincide with the beginning of the Floating University course at the end of M13. The Alumni Forum accessed through the Eurofleets+ website provides an exclusive space to Eurofleets alumni to engage, network and collaborate. <https://www.eurofleets.eu/forums/forum/alumni-forum/>

Created by Blue Lobster and moderated by the Marine Institute it is incorporated into the Eurofleets+ website and provides a space for the participants to introduce themselves prior to meeting for the first time on their respective course. It will also act as a tool to measure the impact of the Eurofleets+ training courses on their skills and careers progression by means of follow-on questionnaires and feedback.

2.4 Ship to Shore Expeditions

Two Ship-to-Shore Expeditions have taken place to date in the project. The first on the Eurofleets+ funded cruise BENCHMARK onboard the G.O. Sars utilising the ROV Aegir and the second ship-to-shore live event took place on the RV Socib during the GRASSMAP cruise. Both events were recorded and are available to view in the Ocean Classroom portal.



The BENCHMARK cruise broadcast includes live ROV footage recorded 200 metres below the surface while scientists describe and discuss the various life forms on the seabed including cold water corals, sponges and much more. During the GRASSMAP Ship-to-Shore expedition we can see various autonomous systems being deployed while the PI Dr Miguel Massot Campos describes the ongoing activities and his research project.

2.5 EU4Ocean Participation

Eurofleets+ became members of the European Ocean Coalition (EU4Ocean) platform in May 2021. The platform is supported by the European Commission and aims to connect diverse organisations, projects and people that contribute to ocean literacy and the sustainable management of the ocean. Eurofleets+ are members of the EU4Ocean Climate and Ocean Working Group and have contributed to various initiatives and workshops since joining. Eurofleets+ has also disseminated information regarding EU4Ocean initiatives and events which have taken place since joining.

2.6 Viewing Statistics

The Oceans Classroom webpage was viewed 1,282 times since it was launched in December 2020. The average time on the page is 4:24 minutes. This is high and an indication that the content is of interest to users (Source: Google Analytics, accessed 14/01/2022).

The number of downloads from the portal is not monitored but viewing statistics are available for the webinars available via YouTube with some examples below:

Resource	Number of Views
How to Write a Cruise Data Management Plan	142
How to Apply for the Co-Principle Investigator (Co-PI Programme	61
How to write a proposal for the SEA Programme	92
How an Underwater Robot works (VLIZ)	43

2.7 Summary

The Ocean Classroom currently holds 68 resources (see Annex 1 for full list) and the portal will continue to be maintained and developed for the duration of the Eurofleets+ project. New resources will be added to the portal as they become available. Additional related resources will be shared by project partners as they are developed by their organisations and uploaded to the portal. Materials will be developed for upcoming project training activities and shared via the Ocean classroom which will ensure an even richer resource for marine scientists, members of the public and school teachers.

3 Annex 1 - List of Resources

Theme	Resource Type	Title	Credit/Copyright	
Our Oceans	Educational Poster	How Deep is our Ocean?	Marine Institute, Ireland	
	Educational Infographic	500 years of Ocean Change	VLIZ, Belgium	
	Activity Sheet PDF	Microplastics: small but deadly	Giulia Realdon	
	Activity Sheet PDF	Microplastics: Going Fishing?	Giulia Realdon	
	PDF	Exploring current flows through straits	Giulia Realdon	
	<i>Additional Resources – links to external websites</i>			
	Website	Medcllc Ocean Literacy resources	Medcllc Project – ICTS SOCIB and Obra Social “la Caixa”	
	Website	Explorers Education Programme	Marine Institute, Ireland	
	Website/Video	How we Explore the Deep	Global Foundation for Ocean Exploration	
	Website	Helping our Marine Environment	Seachange Project	
	Website	Microplastics & Marine Environment	Giulia Realdon	
Research Vessels	Infographic	RV SOCIB	Medcllc Project	
	PDF	RV Colouring Page	Medcllc Project	
	Video	RV SOCIB	Medcllc Project	
	Video Link	Prehistoric drowned landscapes in the Belgian North Sea	VLIZ	
	Youtube video	RV Belgica	RBINS	
	Link to external website	Celtic Explorer Virtual Tour	Marine Institute	
	PDF Factsheet	Discover the RV Celtic Explorer	Marine Institute	
	PDF Colouring Sheet	Celtic Explorer Colouring	Marine Institute	

	YouTube Video	Explore Ireland's deep sea corals	Bébhinn Anders, NUIG
	Infographic	RV Mário Ruivo	IPMA
	<i>Additional Resources – links to external websites</i>		
	Video – external link (6.18 mins)	OGS Explora Antarctica Expedition	OGS
	Video – Youtube link (21.27 mins)	PAIS (Past Antarctic Ice Sheet)	OGS
	Website	Exploration tools in Marine Research	NOAA
Underwater Robots	Website/Video	What is an ROV?	Global Foundation for Ocean Exploration
	Video Link to external website (1.27mins)	ROV Genesis, the underwater robot of Flanders Marine Institute	VLIZ
	PDF	How does a ROV float	HCMR
	PDF	ROV Sampling Methods	HCMR
	PPT Timed	How to Organize an ROV Expedition	HCMR
	PDF	ROV Holland 1 Fact Sheet	Marine Institute
	Website	What is an AUV?	Global Foundation for Global Exploration
	PDF	Build your own AUV!	University of Girona
	Website	Interactive Games App	Medclit/SOCIB
	Video	How does a Glider work?	SOCIB
	PDF	Glider Activity Colouring sheet	Medclit Project
	PDF	Exploring our Oceans using Argo Floats	Marine Institute
	Video	ROV deployment & recovery	HCMR
	PDF	ROV Types	HCMR
	PDF	ROV System Parts	HCMR

	PPT Video	How to organize an ROV Expedition	HCMR
	Website	Interested in Being an Ocean Explorer?	GFOE
	Video	A day in the office – with an ROV team	HCMR
	Video File	HCMR ROV Footage RED SEA 2011	HCMR
Ship-to-Shore	Youtube Video	GRASSMAP Ship to Shore Broadcast - https://www.youtube.com/watch?v=jalo1P1NFzQ&t=345s	Eurofleets+
	Youtube video	Benchmark Ship to Shore Broadcast - https://www.youtube.com/watch?v=5AyD-KKJ2Js	Eurofleets+
Guidelines to Shiptime Applicants	PDF presentation	The Eurofleets+ Co-PI Programme Application Procedure	Eurofleets+
	PDF presentation	The Eurofleets+ Co-PI Programme - Potential Cruises & Evaluation Criteria	Eurofleets+
	PDF presentation	How to write a proposal for the SEA Programme – Survey Design & Planning, Training & Dissemination	Eurofleets+
	PDF presentation	How to write a proposal for the Shiptime & Marine Equipment Programme	Eurofleets+
	PDF presentation	How to Prepare a Cruise Data Management Plan	Eurofleets+
Webinars	YouTube Video	How to Apply for the Co-PI Programme	Eurofleets+
	YouTube Video	How to write a proposal for the SEA Programme	Eurofleets+

	YouTube Video	How to Prepare a Cruise Data Management Plan (DMP) Webinar	Eurofleets+
Guidelines	PDF Document	Dissemination Toolbox for Young Researchers	Eurofleets+
	PDF Document	Research Vessels Training Toolkit for Course Directors	Eurofleets+
Training - RV Mario Ruivo Floating University	PDF Presentation	State and sustainable use of the ocean biological resources: the case of the Nephrops norvegicus (Norway lobster)'	Eurofleets+
	PDF Presentation	State and sustainable use of the ocean biological resources: the case of the Nephrops norvegicus (Norway lobster)'	Eurofleets+
	PDF Presentation	State and sustainable use of the ocean biological resources: the case of the Nephrops norvegicus (Norway lobster)'	Eurofleets+
	PDF Presentation	State and sustainable use of the ocean biological resources: the case of the Nephrops norvegicus (Norway lobster)'	Eurofleets+
	PDF Presentation	State and sustainable use of the ocean biological resources: the case of the Nephrops norvegicus (Norway lobster)'	Eurofleets+
	PDF Presentation	State and sustainable use of the ocean biological resources: the case of the Nephrops norvegicus (Norway lobster)'	Eurofleets+
	PDF Presentation	State and sustainable use of the ocean biological resources: the case of the Nephrops norvegicus (Norway lobster)'	Eurofleets+
Training University - RV Oceania Floating	PDF Presentation	"Use bio-optical parameters as convenient tool to study marine biogeochemical processes"	Eurofleets+
	PDF Presentation	"Use bio-optical parameters as convenient tool to study marine biogeochemical processes"	Eurofleets+
	PDF Presentation	"Use bio-optical parameters as convenient tool to study marine biogeochemical processes"	Eurofleets+
	PDF Presentation	"Use bio-optical parameters as convenient tool to study marine biogeochemical processes"	Eurofleets+

	PDF Presentation	“Use bio-optical parameters as convenient tool to study marine biogeochemical processes”	Eurofleets+
	PDF Presentation	“Use bio-optical parameters as convenient tool to study marine biogeochemical processes”	Eurofleets+
	PDF Presentation	“Use bio-optical parameters as convenient tool to study marine biogeochemical processes”	Eurofleets+
Training Blue Skills Lab	PDF presentation	Eurofleets+ AUV Workshop - University of Gothenburg	Eurofleets+