

MEDAC Meeting 12 October 2018, Rome

#### **The SEAFAIR project**

#### Simone Libralato

Istituto Nazionale di Oceanografia e di Geofisica Sperimentale – OGS (National Institute of Oceanography and Experimental Geophysics – OGS) Trieste, Italy







#### NATIONAL INSTITUTE OF OCEANOGRAPHY AND APPLIED GEOPHYSICS

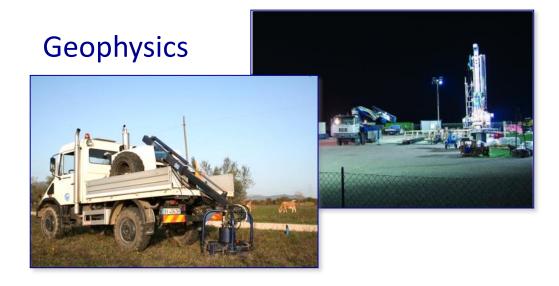
OGS is **an internationally-oriented** public research institute funded and monitored by the Italian Ministry of Education, Universities and Research (MIUR).

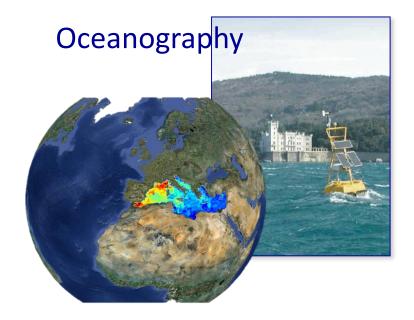
OGS' roots date back to the **School of Astronomy and Navigation** founded in Trieste by empress Maria Theresa of Austria in 1753.



ISTITUTO NAZIONALE DI OCEANOGRAFIA E DI GEOFISICA SPERIMENTALE

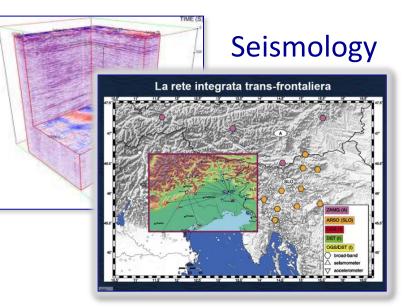
#### **Research Units**





#### Infrastructures





ISTITUTO NAZIONALE DI **O**CEANOGRAFIA E DI **G**EOFISICA **S**PERIMENTALE

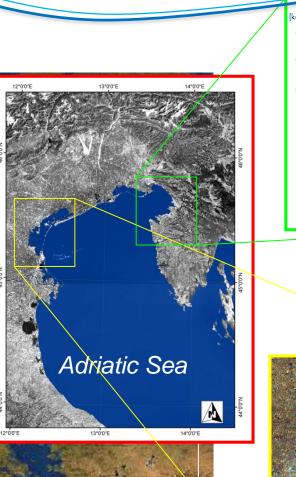


## OGS, Ecological modelling group

#### Where and why

Water quality Nutrient enrichment & Eutrophication Primary production Water pollution (oil spill) Bioaccumulation of toxicants Effects of fishing Aquaculture impacts Climate change

Trieste



Mediterranean Sea



the Gulf of Trieste

Monfalcone



2014 - 2020 Interreg V-A Italy - Croatia CBC Programme Call for proposal 2017 Standard

# Shared Ecosystem Approach to Fisheries for the Adriatic Region SEAFAIR

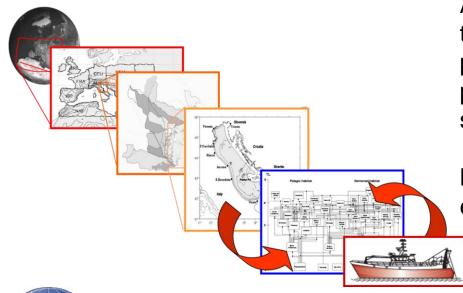
**Priority Axis 1 – "BLUE INNOVATION"** 

**Specific Objective 1.1** – "Enhance the framework conditions for innovation in the relevant sectors of the blue economy within the cooperation area"



An harmonized and optimized management, aiming at the increase of fisheries productions in a sustainable framework or at least identifying ways that assure a more economically efficient harvesting of marine resources of the Adriatic Sea .

This can be achieved going beyond single species and single gear approaches, and at the same time moving beyond boundaries.



Application of a transboundary and transdisciplinary approach that integrates physical, biochemical and biological processes with fisheries and its socioeconomic drivers

Moving toward a real application of the ecosystem approach to fisheries



### **General Objectives**

Enhancing transnational capacity and cooperation in the field of an ecosystem approach to fisheries in the Adriatic region by **exchanging knowledge and sharing good practices** among partners. The best way to reach sustainability, in fact, is to **ensure stakeholders' participation in the process that requires time, trust, transparency and efficient steering**.



These efforts are embedded in **a spatially explicit management platform** that will allow to share expertise, create a common pool of knowledge, boost the operational application of the ecosystem approach to fisheries, enhance the competence in complex system dynamics, foster a consensus on the state of the environment and fisheries in the region.

The collective development of the integrated platform will enhance partners' expertise on an approach seldom carried out in the Mediterranean Sea.



# Shared Ecosystem Approach to Fisheries for the Adriatic Region SEAFAIR

2014 - 2020 Interreg V-A Italy - Croatia CBC Programme Call for proposal 2017 Standard

Leading partner: OGS Scientific Responsible: Simone Libralato Duration: 26 months Starting: January 2019 end February 2021 Total budget: 2.060.00,00 Euro





EUROPEAN UNION



Istituto Nazionale di Oceanografia e di Geofisica Sperimentale



Acronym COASTENERGY INVESTINFISH SmArtFish	code       ERGY     10045844       FISH     10042901	O Lead applicant name IRENA - ISTRIAN REGIONAL ENERGY AGENCY LTD. T21 – TECHNOLOGY TRANSFER AND INNOVATION S.C.A R.L.	Strategic 63 64	OUTCOMES Q Operational 34 31	50 18	Total Score 115	Total budget €1.827.670,00	RANKING LIS BUDGET ERDF €1.553.519,50	Cumulative ERDF € 1.553.519,50	P" CALLS FOR PROPOSALS - PRIORITY AXIS 1 MC DECISION Selection and financing decision
COASTENERGY	Application code       ERGY     10045844       FISH     10042901	Lead applicant name IRENA - ISTRIAN REGIONAL ENERGY AGENCY LTD. T2I – TECHNOLOGY TRANSFER AND	63	Operational 34	50 18	Total Score		ERDF	ERDF	Selection and financing decision
COASTENERGY	Ym code ERGY 10045844 FISH 10042901	IRENA - ISTRIAN REGIONAL ENERGY AGENCY LTD. T2I – TECHNOLOGY TRANSFER AND	63	34	18				ERDF	
INVESTINFISH	FISH 10042901	ENERGY AGENCY LTD.				115	€ 1.827.670,00	€ 1.553.519,50	€ 1.553.519,50	Financed under condition
			64	31						Finances under condition
SmArtFish	ish 10045781				15	110	€ 1.498.440,00	€ 1.273.674,00	€ 2.827.193,50	Financed under condition
		VENETO REGION	61	31	18	110	€ 3.254.230,50	€ 2.766.095,92	€ 5.593.289,42	Financed under condition
AdriAquaNet	Net 10045161	UNIVERSITY OF UDINE	57	32	18	107	€ 3.224.009,59	€ 2.740.408,13	€ 8.333.697,55	Financed under condition
ADRIREEF	EF 10045901	MUNICIPALITY OF RAVENNA	56	32	18	106	€ 2.814.830,00	€ 2.392.605,50	€ 10.726.303,05	Financed under condition
SEAFAIR	IR 10046951	OGS (NATIONAL INSTITUTE OF OCEANOGRAPHY AND EXPERIMENTAL GEOPHYSICS)	58	30	14	102	€ 2.060.000,00	€ 1.751.000,00	€ 12.477.303,05	Financed under condition
PRIZEFISH	SH 10043583	ALMA MATER STUDIORUM - UNIVERSITY OF BOLOGNA	57	29	15	101	€ 3.178.030,00	€ 2.701.325,50	€ 15.178.628,55	Financed under condition
	10044562	VENETO REGION'S AGENCY FOR THE INNOVATION IN THE PRIMARY SECTOR - VENETO AGRICOLTURA	54	30	15	99	€ 1.744.467,00	€ 1.482.796,94	€ 16.661.425,49	Financed under condition
	PRIZEFI	PRIZEFISH 10043583	SEAFAIR     10046951     OCEANOGRAPHY AND EXPERIMENTAL GEOPHYSICS)       PRIZEFISH     10043583     ALMA MATER STUDIORUM - UNIVERSITY OF BOLOGNA       ITACA     10044562     VENETO REGION'S AGENCY FOR THE INNOVATION IN THE PRIMARY	SEAFAIR     10046951     OCEANOGRAPHY AND EXPERIMENTAL GEOPHYSICS)     58       PRIZEFISH     10043583     ALMA MATER STUDIORUM - UNIVERSITY OF BOLOGNA     57       ITACA     10044562     VENETO REGION'S AGENCY FOR THE INNOVATION IN THE PRIMARY     54	SEAFAIR     10046951     OCEANOGRAPHY AND EXPERIMENTAL GEOPHYSICS)     58     30       PRIZEFISH     10043583     ALMA MATER STUDIORUM - UNIVERSITY OF BOLOGNA     57     29       ITACA     10044562     VENETO REGION'S AGENCY FOR THE INNOVATION IN THE PRIMARY     54     30	SEAFAIR 10046951 OCEANOGRAPHY AND EXPERIMENTAL GEOPHYSICS) 58 30 14   PRIZEFISH 10043583 ALMA MATER STUDIORUM - UNIVERSITY OF BOLOGNA 57 29 15   ITACA 10044562 VENETO REGION'S AGENCY FOR THE INNOVATION IN THE PRIMARY 54 30 15	SEAFAIR 10046951 OCEANOGRAPHY AND EXPERIMENTAL GEOPHYSICS) 58 30 14 102   PRIZEFISH 10043583 ALMA MATER STUDIORUM - UNIVERSITY OF BOLOGNA 57 29 15 101   ITACA 10044562 VENETO REGION'S AGENCY FOR THE INNOVATION IN THE PRIMARY 54 30 15 99	SEAFAIR     10046951     OCEANOGRAPHY AND EXPERIMENTAL GEOPHYSICS)     58     30     14     102     € 2.060.000,00       PRIZEFISH     10043583     ALMA MATER STUDIORUM - UNIVERSITY OF BOLOGNA     57     29     15     101     € 3.178.030,00       ITACA     10044562     VENETO REGION'S AGENCY FOR THE INNOVATION IN THE PRIMARY     54     30     15     99     € 1.744.467,00	SEAFAIR     10046951     OCEANOGRAPHY AND EXPERIMENTAL GEOPHYSICS)     58     30     14     102     € 2.060.000,00     € 1.751.000,00       PRIZEFISH     10043583     ALMA MATER STUDIORUM - UNIVERSITY OF BOLOGNA     57     29     15     101     € 3.178.030,00     € 2.701.325,50       ITACA     10044562     VENETO REGION'S AGENCY FOR THE INNOVATION IN THE PRIMARY     54     30     15     99     € 1.744.467,00     € 1.482.796,94	SEAFAIR     10046951     OCEANOGRAPHY AND EXPERIMENTAL GEOPHYSICS)     58     30     14     102     € 2.060.000,00     € 1.751.000,00     € 12.477.303,05       PRIZEFISH     10043583     ALMA MATER STUDIORUM - UNIVERSITY OF BOLOGNA     57     29     15     101     € 3.178.030,00     € 2.701.325,50     € 15.178.628,55       ITACA     10044562     VENETO REGION'S AGENCY FOR THE INNOVATION IN THE PRIMARY     54     30     15     99     € 1.744.467,00     € 1.482.796,94     € 16.661.425,49

Financed under conditions!! Clearing process undergoing

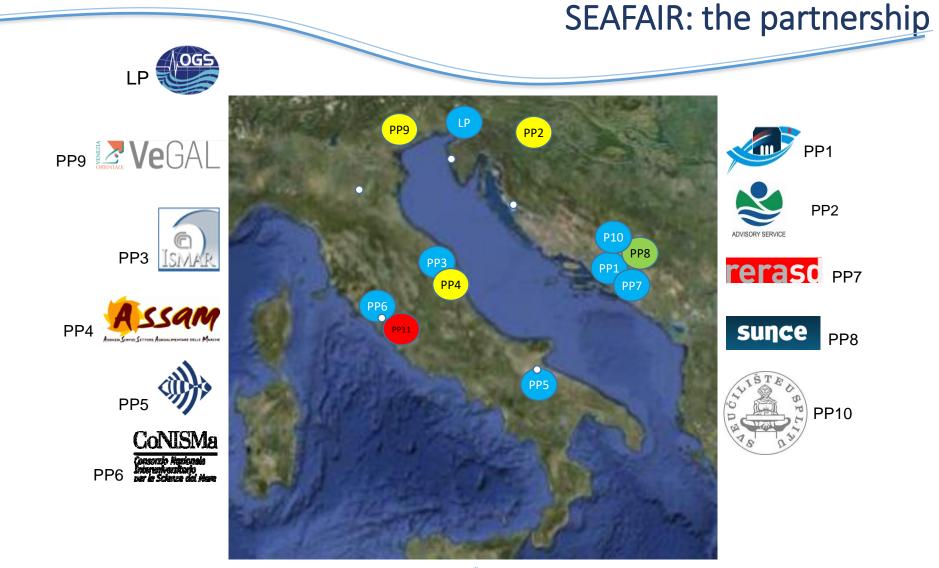


### SEAFAIR: the 12 partners

	Acronym	Project partner	Contact(s)/Participants
			Simone Libralato
			Cosimo Solidoro
LP	OGS	National Institute of Oceanography and Experimental Geophysics (Italy)	Caterina Fanara
			Barbara Merson
001	105	Institute of Ocean assession and Tickeying (Calify Creatio)	Nedo Vrgoc
PP1	IOF	Institute of Oceanography and Fisheries (Split, Croatia)	Katarina Bozanic
			Lav Bavcevic
PP2	ASC	Advisory Services Croatia (Croatia)	Danijela Miokovic
PPZ	ASC	Advisory Services Croatia (Croatia)	Kristijan Jelaković
			Damir Hajplan
			Giuseppe Scarcella (A. Santojanni, S.
PP3	CNR-ISMAR	National Research Council (Ancona, Italy)	Angelini, I. Leonori)
			Elisabetta Betulla Morello
			Uriano Meconi
PP4	ASSAM	Agenzia Servizi Settore Agro-alimentare delle Marche (Ancona, Italy)	Francesca Perretta
			Cristina Frittelloni
PP5	COISPA	COISPA Tecnologia & Ricerca - Stazione Sperimentale per lo Studio delle Risorse del Mare (Italy)	Maria Teresa Spedicato
115	COIDIA	color A rechologia a meetra stazione sperimentale per lo stadio delle morse del mare (tany)	Giuseppe Lembo
			Tommaso Russo (CONISMA-UNITOR)
		Consorzio Interuniversitario Scienze per il Mare (Italy)	Roberto Carlucci (CONISMA UNIBA)
PP6	CONISMA		Corrado Piccinetti (CONISMA-UNIBO)
110			Chiara Manfredi (CONISMA-UNIBO)
			Maddalena Laggini
			Antonio Capone
			Mihaela Tomasevic
PP7	RERA SD		Marko Mimica
			lvo Benzon
PP8	SUNCE	Association for Nature, Environment and Sustainable Development Sunce, Split (Croatia)	Zrinka Jakl
PP9	VEGAL	Agenzia di sviluppo del Veneto Orientale (Italy)	Paolo Valeri
FF9	VEGAL	Agenzia di sviluppo del Veneto Orientale (Italy)	Adriana Bozza
PP10	UNIST	University of Split (Croatia)	Svjetlana Krstulovic Sifner
PP11	MEDAC	Mediterranean Advisory Council (International-Rome)	Marzia Piron
			Rosa Caggiano
MINTO	erreg 📑		

Shared Ecosystem Approach to Fisheries for the AdrIatic Region – SEAFAIR European Regional Development Fund EUROPEAN UNION

Italy - Croatia









WP1 (resp: OGS) Project management and coordination of activities

> WP2 (resp: IOF) Communication activities

WP3 (resp: ASC) Mapping, benchmarking, sharing and enhancing EAF capabilities

WP4 (resp: CNR) Implementation of a shared and integrated platform

WP5 (resp: MEDAC) Decision support system for the development of sustainable fisheries





The integrated platform will integrate from physics to bioeconomy of fisheries as a state of the art decision support tool.

The platform cornerstone elements are:

- i) water masses circulation and connectivity (module HYDRO) existing OGS model
- ii) biogeochemical planktonic processes and productions (module BGC) operational at OGS
- iii) distribution of main resources (module BSTAT); using scientific trawl surveys
- iv) disaggregated catches and fleet capacity changes over time (module FSTAT);
- v) spatial distribution of effort (module EFFORT); using scientific VMS/AIS
- vi) bioeconomic responses (BIOECO); use of platform BEMTOOL
- vii) food web dynamics (FWM) using Ecospace
- viii) preference modelling (trough MCDA Multicriteria Decision Analysis methods).



# Integrated platform

#### **Development and implementation**

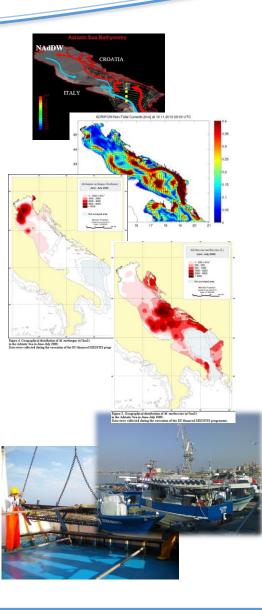
Integration of existing models and available time series (ideally 1990-2015) for all modules

Spatio-temporal validation of biological dynamics (10-20 species) and fisheries activities (VMS)

Socioeconomic activities

Evauation of key aspects (species, gears, areas) for a sustainable management

Shared development, application and evaluation of scenarios of fishing





#### WP5: use of the Decision Support Tool

WP5 (resp: MEDAC) Decision support system for the development of sustainable fisheries



This WP is dedicated to the full development of a participatory process for the definition of management scenarios that will be shaped accounting for the integrated multiple processes embedded in the tool developed in WP4.

WP5 aims at enhancing collaborative and participated definition of management pathways/actions through professional facilitation techniques and the involvement of a range of key stakeholders, particularly fishermen and NGOs, organised in a multistakeholder platform, and representatives from all partners.



## WP5: MEDAC responsabilities



Act 5.1 Planning and organising Adriatic stakeholder events

WP 5 - Decision support system for the development of sustainable fisheries (MEDAC)



Act 5.3 Implementation of scenarios of fisheries policy application in the Adriatic

Act 5.4 Best practices and guidelines emerging from SEAFAIR **First international stakeholder meeting** (February 2019; Ancona): definition of issues. **Second** international stakeholder meeting (January 2020, Venezia): quantitative representation. **Final** international stakeholder meeting (Dicember 2020, Split): evaluation of scenarios. Virtual technical workshops will be organised according to the needs.

Pilot actions will regard at least 3 subareas (Marche region; Veneto Region; Zara region): Close interactions among all the project's actors and stakeholders are foreseen also to design the pilot actions and discuss the resulting potential impact, through professional facilitation techniques. Report on the resulting scenarios of application of local management measures (November 2020)

Report on the results from the application of **scenarios for fisheries management** in the Adriatic Region (November 2020). The report will be presented in the final stakeholder's event.

Report on **best practices for** developing an EAF from SEAFAIR experience (December 2020). A participatory framework based on the results of the decision support system implemented in this WP will be proposed. **Guidelines** for potential future implementation of the EAF using SEAFAIR products (February 2021)



Shared Ecosystem Approach to Fisheries for the AdrIatic Region – SEAFAIR

## MEDAC expected contributions



							201											20							2021
WP involving MEDAC		1	2	3	4	5	6	7	8 9	91	0 11	12	1	2	3	4	5	6	7	8	9	10	11	12	1 2
WP 0 - Project preparation	Do																								
WP 1 - Project management and coordination of activities	Act 1.1 Start-up activities Act 1.2 Day-to-day project management, coordination and internal communication Act 1.3 Steering and monitoring of the project implementation Act 1.4 Financial management																								Split
WP 2 - Communication activities	Act 2.1 Start-up activities including communication strategy Act 2.4 Events Act 2.5 Media relation and publications	Т	r <mark>ie</mark> ste																						
WP 3 - Mapping, benchmarking, sharing and enhancing EAF	Act 3.4 Sharing the vision and knowledge beyond partnership								Spli	t						An	con	а							
WP 4 - Implementation of a shared and integrated platform	Act 4.8 Development of an integrated platform for an Ecosystem Approach to Fisheries																								
WP 5 - Decision support system for the development of sustainable fisheries	Act 5.1 Planning and organising Adriatic stakeholder events Act 5.2 Pilot actions: identification of conflicts and possible solutions Act 5.3 Implementation of scenarios of fisheries policy application in the Adriatic Act 5.4 Best practices and guidelines emerging from SEAFAIR			An	con	a							Ve	nezi	a									Spli	it



Shared Ecosystem Approach to Fisheries for the Adriatic Region – SEAFAIR

# Budget of the project

Partner role/number	Partner name (EN)	Partner country	ERDF	National cofinancing	Budget
LP	OGS (NATIONAL INSTITUTE OF OCEANOGRAPHY AND EXPERIMENTAL GEOPHYSICS)	ITALY	€ 427.006,00	€ 75.354,00	€ 502.360,0
PP1	INSTITUTE OF OCEANOGRAPHY AND FISHERIES	CROATIA	€ 137.904,00	€ 24.336,00	€ 162.240,0
PP2	ADVISORY SERVICE PUBLIC INSTITUTION FOR ADVISORY ACTIVITIES IN AGRICULTURE, RURAL DEVELOPMENT, FISHERIES AND FOREST MANAGEMENT	CROATIA	€ 110.840,00	€ 19.560,00	€ 130.400,0
PP3	NATIONAL RESEARCH COUNCIL	ITALY	€ 130.050,00	€ 22.950,00	€ 153.000,0
PP4	ASSAM - AGENCY FOR AGROFOOD SECTOR SERVICES OF MARCHE	ITALY	€ 102.850,00	€ 18.150,00	€ 121.000,
PP5	COISPA RESEARCH & TECHNOLOGY	ITALY	€ 141.610,00	€ 24.990,00	€ 166.600,
PP6	NATIONAL INTERUNIVERSITY CONSORTIUM FOR MARINE SCIENCES	ITALY	€ 221.850,00	€ 39.150,00	€ 261.000,
PP7	PUBLIC INSTITUTION RERA SD FOR COORDINATION AND DEVELOPMENT OF SPLIT-DALMATIA COUNTY	CROATIA	€ 106.420,00	€ 18.780,00	€ 125.200,
PP8	ASSOCIATION FOR NATURE, ENVIRONMENT AND SUSTAINABLE DEVELOPMENT SUNCE	CROATIA	€ 89.250,00	€ 15.750,00	€ 105.000,
PP9	LAG EASTERN VENICE	ITALY	€ 83.300,00	€ 14.700,00	€ 98.000,
PP10	UNIVERSITY OF SPLIT	CROATIA	€ 84.150,00	€ 14.850,00	€ 99.000,
PP11	ADVISORY COUNCIL FOR THE MEDITERRANEAN	ITALY	€ 115.770,00	€ 20.430,00	€ 136.200,
Project budget -	summary		€1.751.000,00	€ 309.000,00	€ 2.060.000,



## Thank you!

# Shared Ecosystem Approach to Fisheries for the Adriatic Region SEAFAIR

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Istituto Nazionale di Oceanografia e di Geofisica Sperimentale