



## SHAREMED

### First Capitalisation Workshop

*Designing the future system of observing systems to assess and address threats to the Mediterranean marine ecosystem  
- State-of-the-art, needs and future direction*

*Webinar: 14-15<sup>th</sup> December, 2020*



**Sergio Martinez Navas**  
**LEITAT**

COST-EFFECTIVE SENSORS, INTEROPERABLE WITH INTERNATIONAL EXISTING  
OCEAN OBSERVING SYSTEMS, TO MEET EU POLICIES REQUIREMENTS

Project coordinator: LEITAT

Project duration: 40Months

Funding authority: FP7 The Ocean of Tomorrow 2013

Geographic extension: Europe

Other useful information: Development of sensors for innovative pollutants, interoperability with existing observing platforms.





**COMMON SENSE**

MARINE SENSORS - MARINE MONITORING



<https://commonsenseproject.eu/images/CommonSense/Media/Factsheet/COMMONSENSE FactSheet Final D10.7.pdf>

<https://commonsenseproject.eu/media/sensor-profiles>

<https://commonsenseproject.eu/images/CommonSense/Media/COMMON-SENSE-Final-Brochure-April-2017.pdf>

PLATFORM	SENSOR										
	Temperature	pH (Res.)	pCO <sub>2</sub>	pH (Volt.)	Eutrophication	Microplastics	Microplastics Analyzer	Microplastics and MISS System & Analyzer	Heavy metals	Underwater noise	MISS
OCEANIA VESSEL	✓						✓			✓	✓
MINERVA UNO VESSEL					✓	✓			✓		
LOCAL HARBOUR - ORISTANO	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
CNR ARCTIC BASE				✓	✓				✓		
HAWAII FLOATING PONTOON					✓						
RACING YACHT						✓	✓				
MOTOR BOAT										✓	

- ❑ Smart sensors for autonomous operation and smart interfaces.
- ❑ Data aggregator platform, to handle information and share to web platform
- ❑ Web platform designed using OGC standards, and interoperable with different observing systems, as well sisters projects.
- ❑ Common Sense was oriented to provide data makers instead data platforms.
  - ❑ There are gaps in data collection procedures, specially in terms of data acquisition.
- ❑ Main objective, to provide tools for data acquisition (sensors and procedures), specially for innovative pollutants. MSFD & CFP
- ❑ Lack of measures, mapping and cost.



### MERCURY LEVELS IN FISH

HIGH		MEDIUM		LOW	
Bluefish	Seabass (Shiran*)	Bass (Striped, Black)	Monkfish*	Arctic Cod	Mullet - Oyster
Crab (Blue)	Shark*	Carp	Perch (Freshwater)	Anchovies	Perch (Ocean)
Grouper*	Swordfish*	Cod (Atlantic)	Sablefish	Butterfish	Plaice - Pollock
Mackerel (King, Spanish, Gulf)	Tilapia*	Croaker (White Pacific)	Skate*	Crab (Domestic)	Salmon** (Canned, Fresh, Wild)
Marlin*	Tuna	Hallibut (Pacific, Atlantic)**	Snapper*	Crawfish/Crayfish	Sardine - Scallop*
Orange Roughy (A.S., Yellowfin, Bigeye, Blue, Common, Albatross)	Halibut (Pacific, Atlantic)**	Lobster	Tuna (Canned Chunk Light, Skipjack*)	Flounder*	Shad - Shrimp*
Salmon** (Farmed, Atlantic)	Mahi Mahi	Sea Trout		Raddock (Atlantic)*	Sole - Squid
				Hake - Herring	Tilapia - Trout
				Mackerel (R. Atlantic, Oney)	Whitefish

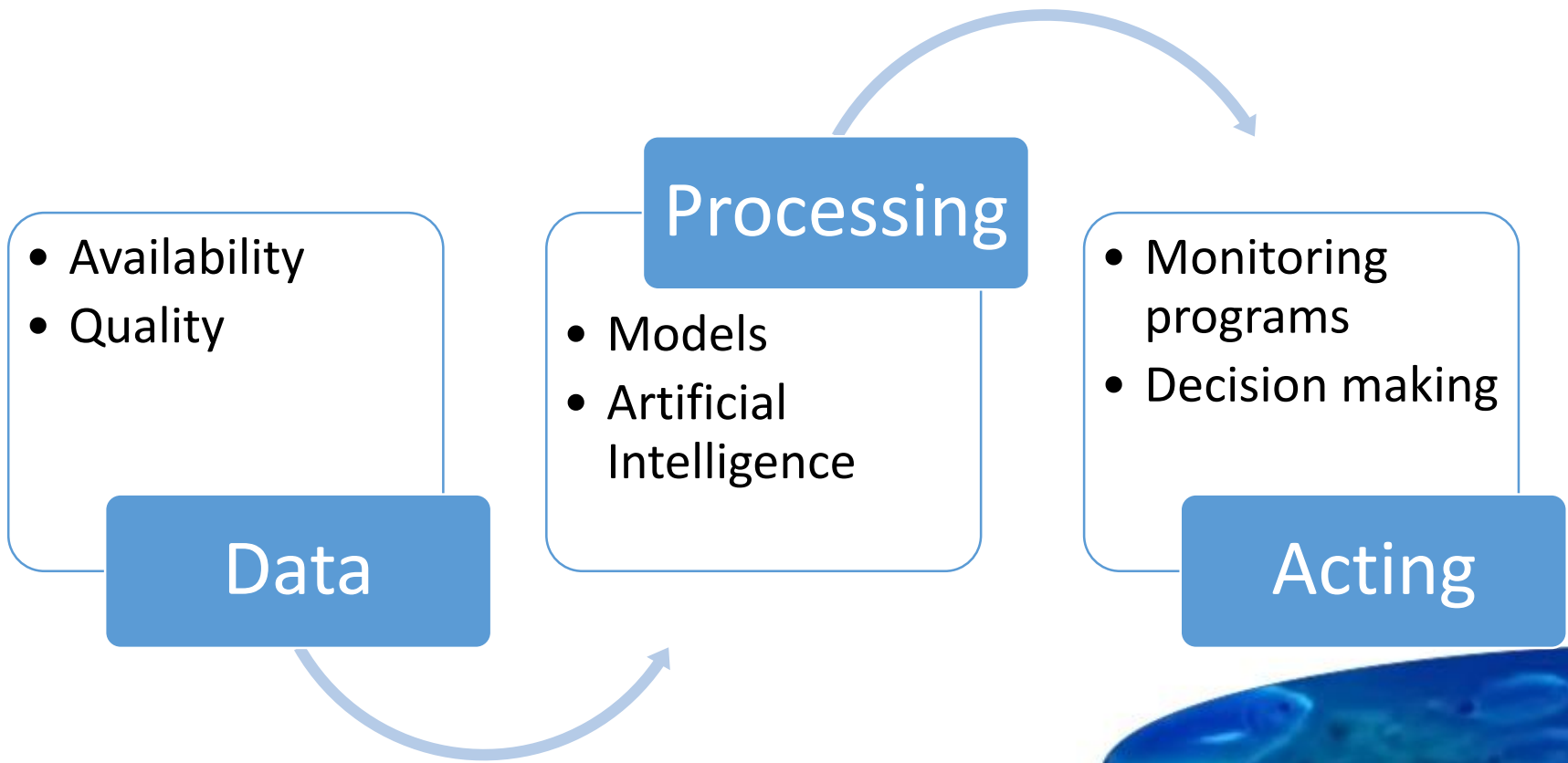
\*Overfished \*\*May Contain PCBs

Data from: nrcr.org

**WORD FOR 2018:**  
**Environmental baddy**  
**'microplastic' word of the year**

**Ocean acidification**

**Noise pollution**





We need more sensors systems and we need to make them more reliable and trustly

There are different platforms for similar objectives

Digitalization starts with data, if we have data gaps, or not enough data quality, monitoring, decision making, models and services can fail.

**BAD DATA**

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**WORSTS DECISIONS**