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| **NEW FACILITY INFORMATION** | **Annex 1** |
| **GENERAL INFORMATION** |
| Owners: legal name | Consiglio Nazionale delle Ricerche (CNR)(National Research Council of Italy) |
| **REGIONAL FACILITY INFORMATION** |
| Facility name | Wester 1 Mediterranean Moored Multi-sensor Array |
| Facility code (if any) | W1M3A |
| Type of funding obtained in the last 5 years (EC, national, regional, please indicate approximate years) | EU FP7-CP-CSA-Infra: FixO3 - Fixed point Open Ocean Observatory network - 2013-2017 - Grant agreement N. 312463.IT National Flag project RITMARE – 2012-2017.IT CNR-UPGO – 2015-2018. |
| Legal name of facility operating organizations (if different from the owners) | Istituto per lo studio degli impatti Antropici e Sostenibilità in ambiente marino (CNR-IAS) |
| **OPERATING TEAM INFORMATION** |
| Regional Team Leader | Roberto Bozzano |
| Affiliation | Istituto per lo studio degli impatti Antropici e Sostenibilità in ambiente marino (CNR-IAS) |
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| Scientific coordinator  | Roberto Bozzano |
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| Data Manager | Sara Pensieri |
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| Engineering Manager | Sara Pensieri |
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| Industry and Innovation Manager | Giuseppe Magnifico |
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| **TECHNICAL INFORMATION** |
| First year of data production | 2000 | Average distance from land | 80 Km |
| **OBSERVATORY INFRASTRUCTURE # 1** |
|  | First year of operation | Geographical location name | Approximate Latitude | Approximate Longitude | Status |
| Observatory Infrastructure OI#1 (W1M3A) | 2000 | Ligurian Sea | 43° 50.0710’ N | 009° 07.0898’ E | Operational |
| **UNDERWATER OBSERVATION UNITS (OU)** | Type of Observation Unit(Seabed station, mooring, surface buoys) | Cabled/autonomous | Latitude | Longitude | depth |
| OU#1 (W1M3A) | Surface buoy | Autonomous | 43° 50.0710’ N | 009° 07.0898’ E | 1200 |
| OU#2 (Mooring) | Mooring | Autonomous | 43° 50.0710’ N | 009° 07.0898’ E | 1200 |
| **JUNCTION BOXES (JB)** |  |  | Latitude | Longitude | depth |
| JB #1 (num or code or name) |  |  |  |  |  |
| JB #2 (num or code or name) |  |  |  |  |  |
| **OPERATION STABILITY** |
| **OBSERVATORY INFRASTRUCTURE # 1** |  | Total num. of interruptions in the last 3 years | Mean duration of interruption (month) | Causes of interruption |
| OU#1 (W1M3A) |  | 2 | 4 | Failure of power supply system |
| OU#2 (Mooring) |  | - | - | - |
| JB #1 (num or code or name) |  |  |  |  |  |
| JB #2 (num or code or name) |  |  |  |  |  |

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|  | **Annex 2b** |
| **DATA ACCESS** |
| **OBSERVATORY INFRASTRUCTURE # 1** |
|  | Data transmission | Data transmission mode (real time, delayed time) |
| OU#1 (W1M3A) | Y |  | Near real-time |
| Data access | 1 – Full Online Data Access |
| *Open data access* | http://www.w1m3a.cnr.it/ |
| **OBSERVATORY INFRASTRUCTURE # 2** |
|  | Data transmission | Data transmission mode (real time, delayed time) |
| OU#2 (Mooring) |  | N | Delayed time |
| Data access | 1 – Full Online Data Access |
| *Open data access* | http://www.w1m3a.cnr.it/ |

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| **SCIENTIFIC DATA AND SERVICE DESCRIPTION** |
| **Geosphere** | Geohazards and geodynamics |
| Measured parameters |  |  |
| Services description |  |  |
| Users |  |  |
| **Biosphere** | Marine ecosystems | Water column physics and biochemistry |
| Measured parameters |  | Water temperature (0, 6, 12, 20, 28, 36 m depth) (100, 200, 300, 600 m depth since mid 2021)Water salinity (6, 20, 36 m depth) (100, 600 m depth since mid 2021)Dissolved oxygen (6 m depth)Chlorophyll-a (6 m depth)Turbidity (6 m depth)Water current (50-400 m depth – since mid-2021)pCO2 (6 m depth)pH (6 m depth – since mid 2021) |
| Services description | - | 1. Users have access to graphical representations of physical and bio-geochemical parameters of the ocean, from the surface down to the ocean interior, through the portal of the observatory, for:
	* + correlating water masses characteristics to local climatic forcing.
		+ analyzing the carbon cycle and assessing ocean acidification of the ocean.
2. Data in near real-time (OU#1) and delayed mode (OU#2) are available for download in standard format from the portal of the observatory.
3. Near real-time data are provided to the Mediterranean Operational Network for the Global Ocean Observing System (MONGOOS).
 |
| Users | - | * Copernicus Marine Environment Monitoring Service (CMEMS)
* European Marine Observation and Data Network (EMODnet)
* Scientific users can download raw (i.e., near real-time mode) data for operational purposes or quality controlled data (i.e., delayed mode) more specific and long-term analysis (i.e., validation of models, climatic analysis, etc.).
 |
| **Atmosphere & ocean** | Meteorological parameters |  |
| Measured parameters | Atmospheric pressure (6, 10 m asl)Absolute wind speed (10 m asl)Absolute wind direction (10 m asl)Relative humidity (10 m asl)Air temperature (10 m asl)Short-wave radiation (9 m asl)Long-wave radiation (9 m asl)Photosynthetically active radiation (9 m asl)Precipitation (10 m asl)Carbon dioxide (8 m asl)Water vapor (8 m asl) |  |
| Services description | 1. Users have access to graphical representations through the portal of the observatory of raw meteorological parameters or derived quantities for studies on
* heat budgets in terms of latent heat flux, sensible heat flux, net short-wave heat flux, long-wave heat flux, evaporation, wind stress.
* air-sea interaction (i.e., investigation of the atmospheric boundary layer, wind-wave coupling, air pollution transfer modelling, etc.).

2. Data in near real-time (OU#1) are available for download in standard format from the portal of the observatory.3. Near real-time data are provided to the Mediterranean Operational Network for the Global Ocean Observing System (MONGOOS). |  |
| Users | * Copernicus Marine Environment Monitoring Service (CMEMS)
* European Marine Observation and Data Network (EMODnet)
* Scientific users can freely download raw (i.e., near real-time) data for operational purposes or request quality controlled data for more specific and long-term analysis (i.e., validation of models, climatic analysis, etc.).
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| **Across science areas** | Environmental parameters (MSFD) | Common fisheries policy |
| Measured parameters | Sound pressure level (36 m depth) |  |
| Services description | Graphical representation of spectrograms (0-32 kHz) of sound pressure levels. |  |
| Users | - |  |