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Multi parametric Time series acquired in the EMSO pan- European Research Infrastructure – a powerful asset fostering the European Research Area

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EMSO is a distributed infrastructure dedicated to the long-term, real-time monitoring of environmental processes in the oceans, covering ocean dynamics, géohazards, and marine ecosystems functioning. To achieve these goals, EMSO operates a network of high-technology platforms deployed from the surface to the seafloor based on multiparametric observation. EMSO develops dedicated data services and products providing valuable insights of climate change on the ocean processes, human activity on ocean sounds and natural hazards and early warnings capability. This abstract focuses on the advanced work that has been achieved in marine biodiversity based on automated imaging recognition and citizen science. A range of deep-sea time series of EOVs such as pressure, temperature and biogeochemical variables (O₂, ...), algorithm dedicated to environmental variables using the distributed acoustic sensing technology, providing invaluable spatial information on deep sea dynamics, seismologic data allowing the capability early warnings but also derived variables such as temperature, ocean sounds.