



EMSO ERIC - Ocean Consortium Facility for Europe and the World

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EMSO is forging ahead through the next challenge in Earth-Ocean Science: How to co-ordinate ocean data acquisition, analysis and response across provincial, national, regional, and global scales. EMSO provides power, communications, sensors, and data infrastructure for continuous, high resolution, real-time, interactive ocean observations across a truly multi- and interdisciplinary range of research areas including biology, geology, chemistry, physics, engineering, and computer science; from polar to tropical environments, through the water column down to the abyss. 11 deep sea and 4 shallow nodes span from Arctic through the Atlantic and Mediterranean, to the Black Sea. The EMSO Preparatory Phase (FP7) project led to the Interim phase (involving 13 countries) of forming the legal entity: the EMSO European Research Infrastructure Consortium (EMSO-ERIC)-officially created by the EC in 2016. The open user community, originally developed through ESONET (European Seafloor Observatory NETWORK), follows on scientific community planning contributions of the ESONET-NoE (FP6) project. Further progress made through the FixO₃ project (FP7) also contributes to this shared infrastructure. Coordination among nodes is being strengthened through the EMSOdev project (H2020) which is producing the EMSO Generic Instrument Module (EGIM) - standardised observations of temperature, pressure, salinity, dissolved oxygen, turbidity, chlorophyll fluorescence, currents, passive acoustics, pH, pCO₂, and nutrients. Early installations are now being upgraded; in October 2015 EMSO-France deployed a second cable and junction box serving the Ligurian Sea Node in order to monitor slope stability offshore Nice; in 2016 the EMSO Azores Node receives a major upgrade that will double its observing capacity; for EMSO-Italia the Capo Passero site is being installed and the Catania site is being upgraded. EMSOLINK will continue the expansion work. EMSO is a key player in international coordination projects such as CoopEUS/Coop+, ENVRI/ENVRIplus, GOOS/EOOS - as such EMSO not only brings together countries and disciplines, but allows the pooling of resources and coordination to assemble harmonised data into a comprehensive regional ocean picture which it will then make available to researchers and stakeholders worldwide on an open and interoperable access basis.