



## **The NEMO Project: the Phase-1**

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The NEMO Phase-1 Project, which is now in course of realization at the Laboratori Nazionali del Sud (LNS) - INFN, aims the realization of a technological demonstrator of the km<sup>3</sup> underwater neutrino detector. The NEMO Phase-1 system will be composed by a shore station, an electro-optical submarine cable, to connect the underwater system and the shore station, and a network composed of 3 junction boxes (a main one and two secondary one) and two NEMO towers. The system will include high performance and speed transmission system and the power distribution and control system for the underwater installation. Each secondary junction boxes will be equipped with two ROV wet-mateable connectors for external users. The cable system is composed by a 25 km main electro-optical cable, split in two branches, each one 5 km long. One branch will be dedicated to the NEMO Phase-1 experiment, while the other one will host the first underwater seismic monitoring station, called SN-1, realized by the Istituto Nazionale di Geofisica e Vulcanologia (INGV). The realization of the NEMO Phase-1 project will offer the complete availability of a fully operational deep sea laboratory also to external users.