

ACOUSTICS2008/2998

Real-time acoustic monitoring of the deep-ocean environment

Michel Andre^a, Mike Van Der Schaar^a, A. Mas^a, A. Roma^a, J.v. Castell^a, Maria Morell^a, M. Solè^a, J.f. Rolin^b and Roland Person^b

^aLaboratori d'Aplicacions Bioacústiques (Universitat Politècnica de Catalunya), avda. Rambla Exposició s/n, 08800 Vilanova i la Geltrú, Spain

^bIFREMER, Centre de Brest, BP 70, 29280 Plouzane, France

ESONET is a European Network of Excellence (NoE) associating 50 partners (research centres, universities, industrials and SMEs) from 14 countries: France, Germany, Italy, UK, Spain, Portugal, Greece, Belgium, Ireland, the Netherlands, Norway, Sweden, Bulgaria and Turkey. More than 300 scientists and engineers will participate to its activities. The aim of the ESONET NoE is the lasting integration of European research on deep-sea multidisciplinary observatories. ESONET is particularly sensitive on the effects of noise on marine organisms. Because our knowledge is still quite limited, ESONET is developing a Demonstration Mission, called LIDO, *Listening to the Deep-Ocean Environment*, a research program that will help establishing a scientific base to allow 1) the real-time automatic identification and classification of non biological and biological sounds, 2) the monitoring of marine organisms and population dynamics, 3) the assessment and control of the long term effects of anthropogenic sources on marine organisms, 4) the education of the public, end-users and the administration, and 5) the approval of ethical guidelines and procedures. This latter point constitutes a major criterion to award the ESONET LABEL to the observatories. This paper presents the data management architecture and the RT analysis processes that will be carried out at the observatories.