Coordinating OBS Parks in Europe

W. Crawford (1), A. Brisbourne (2), G. D’Anna (3), E.R. Flüh (4), A. Galve (5), D. Grandorge (6), N. Harmon (7), T. Henstock (7), F. Klingelhöfer (8), G. Mangano (3), L. Matias (9), C. Peirce (10), V. Sallares (11), M. Schmidt-Aursch (12), F. Tilmann (13), and P. Voss (14)


Within Europe there are more than 380 Ocean Bottom Seismometers (OBS) distributed across 10 instrument parks in 6 countries. At least 120 of these OBS are wideband or broadband, over 260 can be deployed for at least 6 months at a time and 140 for at least one year. New parks are planned in two other European countries, which should add over 70 OBSs to this “fleet”. However, these parks are under the control of individual countries or universities and hence to date this has made it difficult to organize large-scale experiments, especially for seismologists without marine experience.

There has recently been an initiative to coordinate the use of these distributed instruments and their data products, to encourage large-scale experiments, possibly with onshore and offshore components, by seismologists who have not necessarily used OBSs before. The ongoing or planned developments include: Helping scientists with marine-specific formalities such as ship requests; clearer explanations of the noise floors of OBS instrumentation; improved clarity of instrument pricing and availability; standardized data output formats and data validation; and archiving in established seismological data centers. These efforts should allow improved experiment design in scientifically interesting regions with an offshore component and an easier, clearer way to organize large-scale, multi-country experiments.

We will present details of this initiative to help organize large-scale experiments, the particularities of OBS sensors and marine deployments, the available instrumentation and new developments.