

European Scientific Diving (ESD) panel

Background

Considering the littoral and the coastal zones, and when tackling, at a European scale, the challenging issues of

- human demographic growth,
- rapid urbanization and industrial rates,
- increasing tourism, recreation and coastal zone development and degradation,
- water scarcity,
- increasing demand and over-exploitation of living and non-living resources,
- conflicting uses of the coastal environment (*e.g.* marine farming),
- uncontrolled release of contaminants or pollutants which produce chemical, biological and physical disorders in the environment,
- stormwater discharge and effluent discharge,
- erosion and sediment transport as a result of poor land management or of extreme meteorological events,
- planned in short, medium and long terms major expansion measures (traffic, ports),
- effects of global warming (*cf.* 2007' IPCC report),
- threats on underwater cultural heritage,

the need to establish observatories and efficient monitoring systems is widely recognized, in order

- to assess the effects of the pressures,
- to understand and evaluate their impact on the ecosystems,
- to understand and evaluate their impact on the society and the economy,
- to build scenarios and predict impacts to make possible the adaptation of the society and,
- to give data to policy makers and managers to protect marine coastal environment (*e.g.* Marine Protected Areas [MPA] design, Integrated Coastal Zone Management [ICZM], resource regulation, transport regulation).

Rationale

More and more sophisticated sensors equipping more and more sophisticated landers, gliders, AUV or ROV are of a tremendous help for most marine environment but not for the littoral and the nearest coastal (0 to 50-60 m depth). It is this "layer"

- where most of the biodiversity is living (and is endangered),
- which is the most sensitive to pressures,
- where the effects of the climate changes will be the greatest, and then
- which needs to be rapidly and efficiently managed,

that is mostly [the domain of the Scientific Diving \(SD\)](#), the technical capability of which is increasing and which is going deeper and longer. There is a need for a continuous development of "*intelligent* monitoring systems" which can be achieved much more efficiently and cost effectively by combining scientific skills and capabilities underwater with the above mentioned technologies. [The aim of the ESD panel](#) is networking and exchange of knowledge and best practices in the field of SD and promoting it as a research and management tool.

Objectives and tasks of the panel are

- to emphasize
 - the secure practice of SD,
 - the best methods of observation and monitoring of the littoral and coastal environment,
 - the calibration and standardization of the necessary methods and,
 - the management of the collected data,
- to gather information from each European country, to manage it, and make it available for all,

- to initiate and develop synergies, and to fill gaps with other scientific techniques through networks (e.g. OFEG, ERVO),
- to facilitate a pan-European framework that encourages sectorial best practice,
- to encourage training on specific scientific and technological issues,
- to promote links with industry¹ (e.g. sensors, real time communication for field data transfer, underwater positioning, ...),
- to promote interdisciplinary research in the marine environment (e.g. shipwrecks as artificial reefs)
- to organize workshops to prepare and to deliver a **Vision Document** which will establish SD as one tool for studying, monitoring and managing biodiversity and coastal marine environments, in the framework of science and ICZM, directed to policy makers.

Membership

Official delegate (member of national bodies dealing with SD if they exist) from each European country (experts on specialized fields may be invited to the meetings/workshops).

Modus Operandi

- 1 chairperson, 2 co-chairpersons who will coordinate the writing and editing of the Vision Document,
- maximum 3 years duration, 2 meetings per year,
- regular e-mail interaction,
- interactive web site
- published statements on current issues within the ESD rationale.

Support from the ESF Marine Board

The ESD panel will profit of the usual support offered by the Marine Board.

What we expect from being a panel of the ESF-Marine Board?

- To enhance the visibility of SD within Europe as an important scientific tool,
- To increase the efficiency of the work of the ESD Committee by being recognized as "THE" European panel for SD across Europe.
- To stimulate as much as possible national SD boards to join the ESDC in order to significantly improve the SD method for European research by joining forces.
- To provide a European platform to publish and distribute vision and strategy papers developed by the ESD panel.
- To get an OFFICIAL STATUS in order the ESDC can approach other organizations for funding.

¹ through bodies like the French "pole of competitiveness" – Pole Mer