CIESM Congress Session: Marine Tectonics, Geodynamics Moderator: Sebastian Krastel, Inst. of Geosciences, CAU, Kiel, Germany

Moderator's Synthesis

This session was attended by about 30 scientists. The six presentations, covered a wide variety of topics from shallow to deep targets, were followed by a general discussion aimed at identifying major knowledge gaps. There were no presentations on the western Mediterranean Sea.

The flash presentations in the Mediterranean region and that there are plenty of knowledge gaps due to the complexity of the Mediterranean region. The presentations clearly showed the need for local studies for understanding the broader picture. Thus the presentations discussing local features in the Aegean Sea showed that this area is not an extensional regime but controlled by transtension and in part by transpression. In addition, features can only be understood when conducting multiscale investigations, i.e. both shallow investigations including morphometric data as well as deep –penetrating data are essential for understanding the geodynamic setting.

More specific questions brought up during the discussion were

- i) One of the most complex areas in the Mediterranean Sea is the region between north Africa and Sicily. This is a poorly investigated area and needs more attention.
- ii) The Messinian Salt is a unique feature in the Mediterranean Sea. It is a complex task to differentiate between regional tectonics and salt tectonics (e.g. formation of the Mediterranean Ridge). In addition, the effect of salt on subduction can be studied in the Mediterranean Region.
- iii) Several earthquakes in the Mediterranean region cannot be linked to known faults.

