

ATLAS ELEKTRONIK – a sound decision

The ATLAS ELEKTRONIK Group, located in Bremen, stands for maritime and naval solutions above and below the ocean surface. The company holds a leading position in all fields of maritime high technology. ATLAS is a leading provider of Sonar Technology and Unmanned Vehicles. It also provides the whole range of maritime technology, from command & control systems including radio & communication systems for submarines, surface combatants and mine warfare systems ranging to heavyweight torpedoes, coastal protection systems and in-service support.

Being one of the main sponsors of the OCEANS '09, the company is proud to support two further special sessions:

### **Session 1**

#### **“Advanced Active Sonar Signal Processing”**

Methods for expanding the fundamental limitations of conventional sonar systems by advanced signal processing have reached considerable maturity during the last two decades. Examples are synthetic aperture, multi beam/multi aspect processing and tomography. The scope of this special session is to highlight some of the crucial issues for practical implementation from a theoretical viewpoint. Recognised experts on the mentioned fields are invited to make a contribution.

### **Session 2**

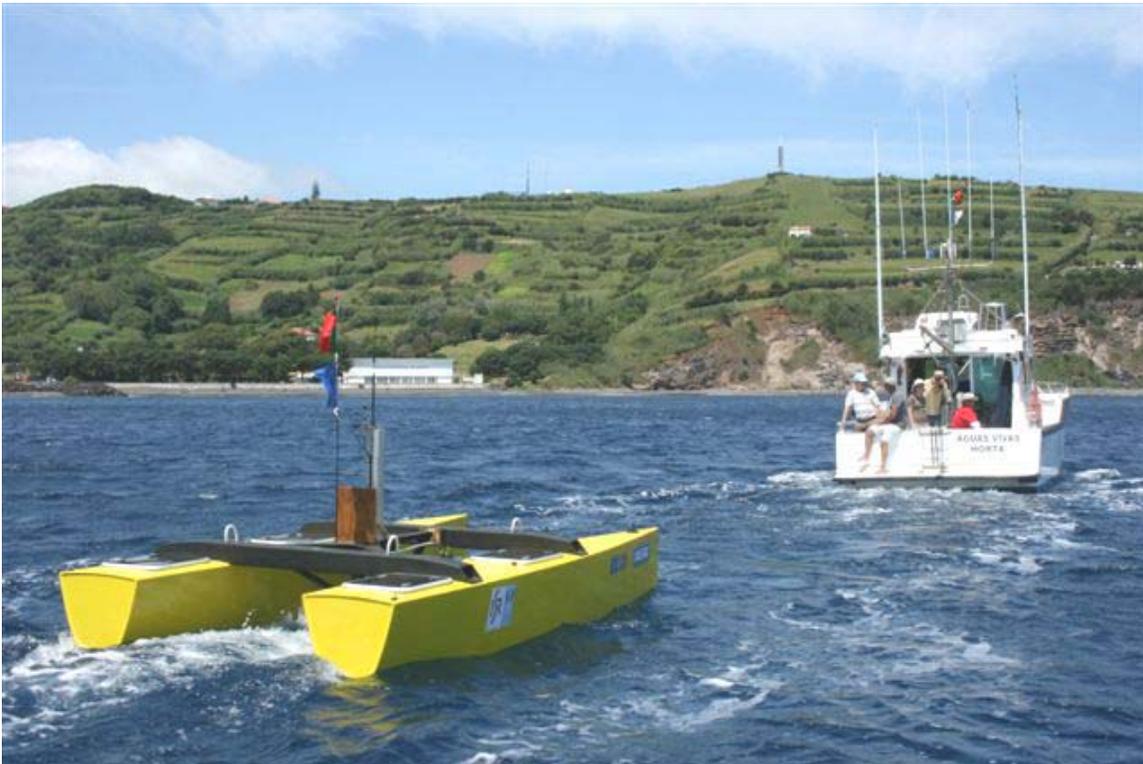
#### **“GREX: Coordination and control of cooperating heterogeneous unmanned systems in uncertain environments”**



Currently the employment of Unmanned Marine Vehicles (UMVs) is under rapid development. In near future vehicles will cooperate in a team in order to fulfil a

common goal in an optimized manner. In this context a group of leading European autonomous robots manufacturers, researchers, and users set up a collaborative R&D initiative called 'GREX', co-funded by the by the European Commission. The project started in June 2006 and will end in September 2009, see also [www.grex-project.eu](http://www.grex-project.eu).

The main goal of the project is to achieve a first level of coordination, validated in a series of sea trials. It witnesses the development of theoretical methods and practical tools for multiple vehicle cooperation, bridging the gap between concept and practice. Now, 'GREX' has nearly reached its finalisation and the bulk of theoretical research and some testing has been completed. Although the final trials are scheduled for coming October this session will summarize important results achieved so far.



The Catamaran DelfimX (ISR/IST, Portugal) and the Research Vessel Águas Vivas (IMAR, Portugal) performing an automatic “follow the leader” maneuver in the area of the Azores.