



## **EUROANDRILL Initiative**

Fabio Florindo and EuroANDRILL steering committee  
Istituto Nazionale di Geofisica e Vulcanologia (INGV) - Rome, (florindo@ingv.it)

EuroANDRILL is a new initiative to create a European network with the goal to increase future involvement of European countries in the ANDRILL [ANtarctic geological DRILLing] Programme.

Antarctica has been heavily glaciated for approximately 34 million years, but its ice sheets have fluctuated considerably and are one of the major driving forces for changes in climate throughout the Cenozoic Era. The spatial scale and temporal pattern of these fluctuations is subject to considerable debate. Understanding the response of large ice masses to climatic forcing is of vital importance because ice volume variations drive global sea level changes and also alter the capacity of ice sheets and sea-ice to act as major heat sinks/insulators. It is particularly important to assess the stability of the cryosphere in the face of rising CO<sub>2</sub> levels, as modelling of the climate shift from a warm, vegetated Antarctica to a cold, ice-covered state 34 million years ago suggests a powerful greenhouse gas influence. As Antarctica is the major driver of Earth's climate and sea level, much effort has been expended in deriving models of its behaviour. Some of these models have been successfully validated against modern conditions.

EuroANDRILL will provide a coherent, integrated platform for European leadership and involvement in the international ANDRILL programme. The coordination and networking provided by EuroANDRILL will seek to expand participation by European nations, institutions, and individual scientists in the study of the geologic history of the polar regions and their paleoclimatic significance. During the IPY, ANDRILL has been a highly visible and successful programme. This programme seeks to expand on this legacy beyond the IPY and make these contributions sustainable in the European Research Area through networking of research projects and future planning efforts, which establish Europe as a key player in future polar sediment and rock drilling.

EuroANDRILL is set up under the auspices of the European Polar Board (EPB) as a subgroup (EuroANDRILL steering committee (SC)) representing the scientific disciplines and associated technical capacities associated with polar sediment and rock core science.

<http://www.euroandrill.com/>  
<http://www.esf.org/research-areas/european-polar-board-epb/euroandrill.html>  
<http://www.andrill.org/>