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European Collaboration in Ocean Cores Science: roots, highlights, off-springs and vision.

Jean Pierre Henriet (1), Gilbert Camoin (2), Gert J. De Lange (3), and Shane Murphy (4)

(1) Renard Centre of Marine Geology, Ghent University, Belgium (jeanpierre.henriet@ugent.be), (2) CEREGE UMR 6635 CNRS, Aix-en-Provence, France (gcamoin@cerege.fr), (3) Geosciences, Utrecht University, The Netherlands (gdelange@geo.uu.nl), (4) LESC, European Science Foundation, Strasbourg, France (euromarc@esf.org)

July 4th, 1947, exactly 75 years after the legendary cruise of H.M.S. Challenger and at a time when ocean science seemed to definitively shift to the shores of Massachusetts and California, the Swedish 5-masted schooner and school-ship Albatross set sail from Göteborg for a 15-months ambitious voyage of circumnavigation of the world oceans. Staffed with cadets and scientists and headed by Hans Pettersson, the Albatross had on board a revolutionary tool: Kullenberg's piston corer, a 30m-long device which had already allowed the recovery of a 20m-long sediment core. Previously, the Meteor had recovered cores of a maximal length of 0.90m (1925), while in the thirties C.S. Piggot of the Carnegie Institution had "shot" cores up to 3m length in the North-Atlantic with a gun-like device. Sedimentological, geochemical, mineralogical, micropalaeontological analyses and radio-active dating would be carried out not only in Swedish institutes, but also in Vienna, Göttingen, Hanover, Wageningen, Ghent, Paris, London and La Jolla, in the true spirit of the data exploitation scheme which had shaped the success of the cruise of the Challenger. The stage was set for palaeo-environmental research on long sediment cores, archives of past climate and oceans.

In the mid-sixties, ocean cores science takes a giant leap with the Deep Sea Drilling Program (DSDP). 20 years after the Albatross, in the fall of 1968, the Glomar Challenger sails from Dakar for the South Atlantic to verify the hypothesis of seafloor spreading and plate tectonics. Europe would join the Ocean Drilling Program (ODP), which set sail in 1984, subsequent to the International Phase of Ocean Drilling (IPOD, 1975-1983). For the first time, the European Science Foundation moves in, providing to numerous smaller European partners a platform of participation in ODP through ECOD, the European Consortium for Ocean Drilling.

Some 50 years after the Albatross, the 'Calypso' piston corer on board of R/V Marion Dufresne would set the record of piston coring length, with an unrivaled core of over 64m length. The IMAGES programme would boost palaeoclimate research worldwide.

At the turn of the century, ECORD - an off-spring of ECOD which had left the parental house - took the lead of the Mission Specific Platform (MSP) scheme in the Integrated Ocean Drilling Program (IODP), pushing frontiers of ocean drilling to extreme environments such as the poles and coral reefs. While not directly involved in the operational aspects, ESF soon took a prominent place in the supporting science, not the least through the EUROCORES programme and research networks.

At the onset of the 21st century, while IODP and the international ocean drilling and coring community define a new strategy for post-2013 ocean coring science, Europe moves in with a new revolutionary tool, the MeBo (Meeresboden Bohrgerät), a remotely operated seabed drilling tool capable of drilling and coring from a variety of large vessels. EUROFLEETS provides new opportunities for coordinated naval operations for ocean science. And in parallel, Europe develops the plans for an ambitious drilling platform for the Arctic: Aurora Borealis.

Any lucid vision on the future of Ocean Cores Science, which plays a key role in the unraveling of the dynamics of our planet, will build upon the lessons of the past, reflect upon the strengths and weaknesses of the present, and ride upon the excitement of Europe's young generation, driver of the future.