# Scientific drilling infrastructure: improved access and progress in digital archiving of samples and data

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The Italian scientific community can access scientific drilling and coring data mainly through the participation in two long lived international programs that are part of the Piano Nazionale Infrastructure di Ricerca (PNIR 2021-2027): The International Ocean Drilling Programme (IODP3 and its precursors), through the European Consortium for Ocean Research Drilling (ECORD), and the International Scientific Continental Drilling Program (ICDP).

ITINERIS has boosted the access of Italian researchers (among which many early career researchers) to both the ECORD and the ICDP infrastructures. This has resulted in increasing the national participation in terms of proposal writing, participation in drilling expeditions/projects, initiatives to use legacy samples/data, and training activities. Italy has become the fourth contributor in ECORD after Germany, UK, and France.

All samples and data produced by the two companion drill programs are archived through a Mobile Drilling Information System (mDIS) developed by ICDP and adopted by ECORD. Since the earliest expeditions, all data are openly accessible by the global scientific community following a 1-year moratorium period for ocean drilling. ITINERIS has addressed two urgent needs that are of relevance for the Italian scientific community: 1) Identification of vintage samples from earlier studies, which produced a wealth of scientific data, and remained uncatalogued in various storage facilities across Italian universities and research centres 2) collection of shallow coring records acquired onshore and offshore, also through the present Italian research vessels Gaia Blu and Laura Bassi, which lack an equally effective data archiving system.

In Italy, ITINERIS has promoted the archiving of thousands of existing sub-samples and data in the disciplines of biostratigraphy, structural geology, sedimentology, petrology, borehole geophysics, and paleomagnetism, and it has promoted the development of an ITINERIS version of mDIS that should be adopted for a nationally managed archive of terrestrial and marine core and drilling data.

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