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icdp news: fall 2020

icdp INTERNATIONAL CONTINENTAL SCIENTIFIC DRILLING PROGRAM

to all our icdp friends

from **Marco Bohnhoff, icdp Executive Director**

Our new ICDP Science Plan 2020-2030 for the next decade is now completed and launched to come into action. We gratefully acknowledge the members of the Science Plan Task Force and their entire writing team for their dedicated compilation of this concise scientific roadmap addressing key challenges in science and society.

The Drilling the Ivrea-Verbano zonE (DIVE) and Lake Tanganyika Drilling Project Full Proposals received approval after addenda submission. Our congratulations to the Principal Investigators of the four successful full proposals and three workshop proposals approved in 2020. From the operational perspective, COSC-2 has been drilled, cored and logged successfully in Sweden this summer, and we are looking forward to hear from the upcoming JET drilling activities in the UK.

highlighted

ICDP Science Plan 2020-2030

"Billions of Years of Earth Evolution" is the overarching motto for the brand-new Science Plan of the International Continental Scientific Drilling Program, ICDP. This Science Plan outlines the scientific challenges to be addressed by continental scientific drilling for the coming decade and bundles them in four key topics: Geodynamic Processes, Geohazards, Georesources, and Environmental Change.

Within these areas, future ICDP projects will tackle scientific questions related to important aspects of the evolution of planet Earth (thermal evolution, tectonics, magnetic field, atmosphere, oceans, and life), past climates and the effects of large impacts and mass extinctions, the formation and wise utilization of our most significant resources, and in-situ monitoring of volcanoes and fault zones. These key themes are directly linked to wider societal challenges related to clean water and sanitation, affordable and clean energy, sustainable cities and communities, mitigation of natural hazards, and climate action.

The science plan was developed in close cooperation with our offshore sibling, the International Ocean Discovery Program, IODP. Jointly with IODP, ICDP aims to boost the successful cooperation by implementing the new Land To Sea Drilling (L2S) initiative for projects that require combined onshore and offshore scientific drilling to fully address outstanding scientific challenges and operational goals.

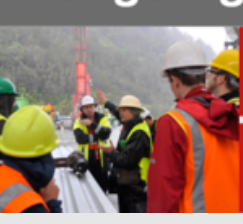
We kindly invite you to discover our Science Plan and to start brainstorming about new drilling initiatives and to spread the word on ICDP in your science networks. Download and see the Science Plan and an introductory video here.

completed

COSC-2 successfully concluded!

After 4 months, the drilling at the COSC-2 (Collisional Orogeny in the Scandinavian Caledonides) site was successfully completed on 12th August 2020. The main borehole reached down to 2,276 m, a short hole was cored to 116 m to cover the top interval. The core recovery was close to 100%. The geology held some surprises, especially regarding the level of main Caledonian décollement at only 780-825 m and the type of basement, consisting of volcanic succession with a dolerite intrusion of approx. 200 m thickness. The ICDP-OSG team performed geophysical downhole logging in cooperation with Lund University and obtained spectra of gamma radiation, sonic, oriented calliper, electrical resistivity, magnetic susceptibility, temperature, and acoustic images. We congratulate the whole COSC-2 Science Team, the on-site scientists and the drilling team who made this project happen despite all pandemia-related difficulties and restrictions.

ongoing



JET project about to start

The JET (Early Jurassic Earth System and Timescale) site construction is progressing while drilling is scheduled and about to start in the second half of October. The drill site at Prees, Cheshire Basin, UK, with a proposed coring depth of 850 m targets a thick succession of Late Triassic to Early Jurassic mudstone. The aim is to enhance understanding of major environmental changes over this important interval of Earth history, when many elements of the modern Earth System first came into being, using astrochronology, biostratigraphy, chemostratigraphy and magnetostratigraphy. We wish the JET team good luck and exciting samples of great quality.

EOS article Geothermal Wells as Research Tools

Eos reported recently about the successful ICDP workshop held at Cornell University to drill a test well to evaluate the potential of heating Cornell's campus buildings with geothermal heat from deep Paleozoic basement rocks. The meeting created already momentum and led to acquisition of drilling funds.

Stay safe, stay healthy, keep calm & drill!

your **icdp team from potsdam**