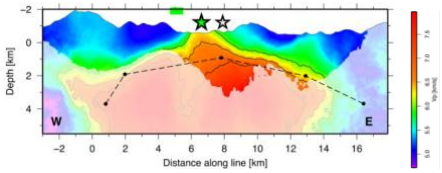
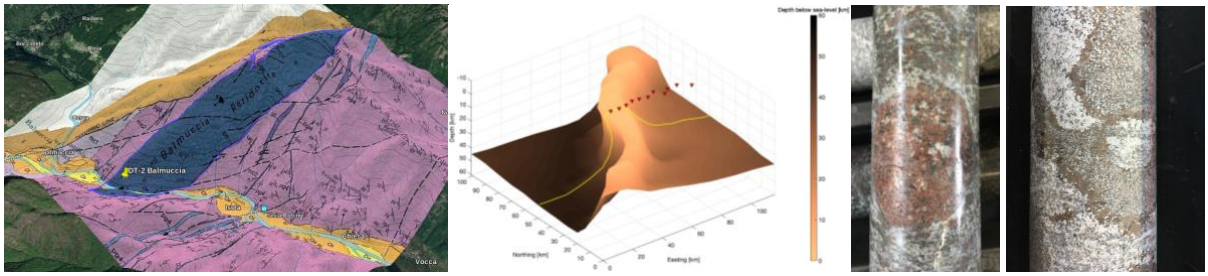


DIVE 2: Drilling the continental crust–mantle transition zone

An ICDP ONLINE Workshop, 10th of July 2025, 14h-17h (CEST)

After successful completion of ICDP Expedition 5071-1 (DIVE 1), we are pleased to announce an online workshop to bring together members of the Earth Sciences community to initiate scientific discussions on goals and strategies for a full drilling proposal of DIVE 2.

DIVE 2 targets the ***continental Moho transition zone***, a major boundary of the Earth's interior, being the geophysical divide/connector between crust and mantle, and many related themes. The drilling target of DIVE 2 is in Val Sesia (N-Italy) where a major geophysical anomaly is within reach (1±1 km b.s.l.) for deep continental scientific drilling.



Geological map Balmuccia peridotite, Val Sesia / Ivrea Geophysical body model from gravimetry / Drill cores from DIVE 1

The following scientific objectives will guide the workshop discussion:

- Architecture of the continental 'Moho' vs. the crust–mantle boundary
  How different are they (petrology – rock physics – geophysics)
  How thick is the transition zone

- Fluid-–rock interaction
  Initial serpentinization, hydrogen production in pristine mantle rocks
  Carbonation along a major fault

- Life in the subsurface of continental peridotites
  Groundwater flow and gases
  Fractures and microbiology

The **Agenda** of the workshop will include (total 3h):

- Overview of DIVE, initial results DIVE 1, site surveys for DIVE 2
- Discussions to distill major scientific goals and *in situ* investigations for preparing a full drilling proposal for DIVE 2
- Discussion on project management, scientific collaborations, logistics, funding and permitting, timeline

Scientists interested to participate in the workshop should send an email to othmar.muntener@unil.ch by July 6th to get a ZOOM link for the meeting. Early career researchers are especially encouraged to participate – it is your chance to be actively involved in preparing a full drilling proposal to ICDP.