

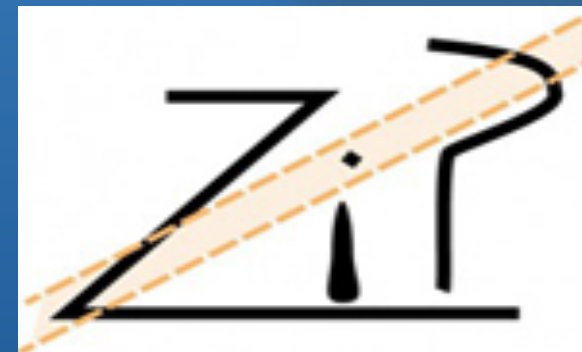
Subduction zones play a key role in our daily life: half of the world's population lives nearby one of them, in areas affected by earthquakes, tsunamis, volcanic eruptions. These phenomena are controlled by processes at subduction zone inter-plate boundaries, where stresses and energy release together with fluid-mediated mass transfer interact on temporal scales in the order of  $10^{-4}$  to  $10^6$  years.

**Lack of knowledge of this plate interface call for a new ZIP program.**



The ZIP project is collaborative program involving 12 leading Universities and Research Centers and 9 Industrial partners. It is a challenge for a new generation of geoscientists. The network provides them with broad, high-end scientific expertise, up-to-date laboratory facilities and a solid cross-disciplinary basis.

Private sector involvement provides the fellows with the opportunity to experience the organization and work of large industries, and increases employability of the 14 fellows



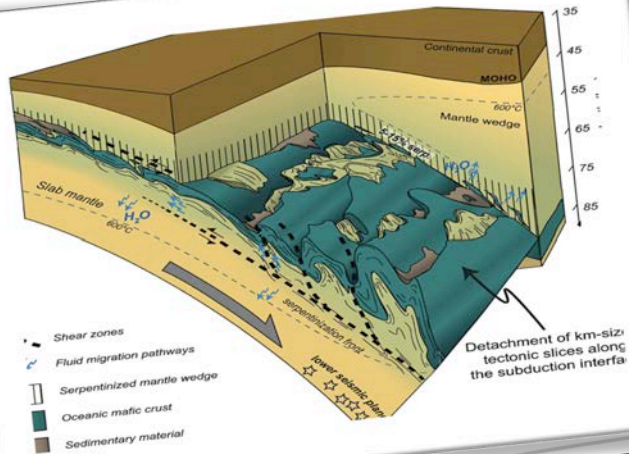
## Zip – Zooming In between Plates

<http://www.zip.eu>

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# Scientific aims

Three ZIP research work packages (WP1-2-3) are process-oriented and aim reaching the following overarching goals: **(WP1)** determine the plate interface dimensions, geometry and physical properties; **(WP2)** model time-integrated material fluxes; **(WP3)** constrain how rock rheologies control seismicity, mega-earthquake nucleation and rupture propagation.



## Training

ZIP will train 12 early-stage researchers (ESRs) and 2 experienced researchers (ERs). Our training work packages aim to:

- Enhance the career perspectives of researcher fellows,
- Train and broaden their research skills with an interdisciplinary and intersectoral approach,
- Develop their communication and management skills
- Develop a new workforce for European research on a crucial target for risk-assessment.

ZIP will provide specific innovative multidisciplinary training by the ZIP Starters and Consolidator.

Zip Starter 1 Cruise

Zip starter 2 alps

Consolidator Antofagasta

These are integrated with specific workshops on (1) numerical geodynamic modelling, (2) detailed tectonics v. trace element chronometry, (3) geochemical determination of fluid pathways v. fluid flow in numerical models

