



Activity Report 2024 – Task Forces / Coordination Committees

Project Title:

Project No.:

PI(s):

1. Highlights of recent ILP Task Force work/results

The key highlight is the organisation of the 18th Workshop of the International Lithosphere Program Task Force VI Sedimentary Basins, hosted by Institute of Geological Sciences, Jagiellonian University of Krakow, Poland, in collaboration with the Polish Geological Society, Institute of Geological Sciences, Polish Academy of Sciences, Institute of Geological Sciences, Jagiellonian University, Polish Geological Institute and the Institute of Geophysics, Polish Academy of Sciences, between 7-11 October 2024 with 90 participants. Details are available at <https://ilp-krakow2024.pl>. The workshop was a success, mobilizing key academia and industry participants both from Central Europe and from other international participation. The workshop included two full days of excellent scientific presentations and one exceptional geological fieldtrip to the Wieliczke salt mine and the Carpathians foredeep.

The Task Force has initiated a new special volume for Global and Planetary Change: “Understanding the coupled evolution of orogens, sedimentary basins and their fluid-rock interactions”, dedicated to the International Lithosphere Program Task Force VI Sedimentary Basins meetings 2023 in Abu Dhabi and 2024 in Krakow, Poland in collaboration and as a joint venture with ILP Topo-Europe. A preliminary list of 30 high scientific contributions have been received so far and the special issue will be setup in the coming months.

2. Presence at international meetings/workshops (this year)

All efforts were dedicated to the 2024 18th Workshop of the International Lithosphere Program Task Force VI Sedimentary Basins in Krakow, Poland.

3. Important publications of ILP Task Force members (max. five)

Nader, F.H., Matenco, L.C., Haq, B.U., 2024. Conceptualizing fluid-rock interaction diagenetic models with focus on tectonic settings. *Earth-Sci. Rev.* 258, 104951. <https://doi.org/10.1016/j.earscirev.2024.104951>

Arts, J.P.B., Niemeijer, A.R., Drury, M.R., Willingshofer, E., Matenco, L.C., 2024. The frictional strength and stability of spatially heterogeneous fault gouges. *Earth Planet. Sci. Lett.* 628, 118586. <https://doi.org/10.1016/j.epsl.2024.118586>

Nader, F.H., van Unen, M., Darnault, R., Rudkiewicz, J.L., Matenco, L., 2023.

Coupled kinematic and thermal modelling of collisional orogens: Implications for

subsurface geo-resources assessment in the external Dinarides. *Global Planet. Change* 223, 104090. <https://doi.org/10.1016/j.gloplacha.2023.104090>

Nader, F.H., Matenco, L., Armitage, J.J., 2023. Understanding the coupled evolution of orogens, sedimentary basins and their fluid-rock interactions. *Global Planet. Change* 230, 104272. <https://doi.org/10.1016/j.gloplacha.2023.104272>

Matenco, L., Beekman, F., 2023. Integrating the geological database of the subsurface of the Netherlands, for efficient visualization and interpretation. EPOS-NL data publication, Yoda Repository, Utrecht university. <https://doi.org/10.24416/UU01-7M15N6>

4. New contacts (this year)

- Setup of new collaborations as a result of the ILP Krakow Workshop with many academia and industry organisations in Central Europe.
- Continuation of the large-scale international collaboration focussed on the East Mediterranean basins (Levant Basin, offshore Egypt). Academic groups: University of Utrecht, IFP Energies nouvelles, RWTH Aachen University, University of Cyprus, University of Thessaloniki (Greece), University of Lebanon, Sorbonnes University (France), Imperial College, London (UK); Cairo Univeristy (Egypt). Industrial groups: Total, Noble Energy, Cyprus Hydrocarbon Company, Eni, Shell, ExxonMobil, Equinor; Governmental groups: Cyprus Energy Service (Gov. Cyprus), Geological Survey Department of Cyprus, Lebanon Petroleum Administration (Ministry of Energy), Lebanese National Council for Scientific Research (L-NCSR).
- Continuation of the collaboration with ILP Topo-Europe and the Topo-Transylvania collaborative network.

5. Usage of ILP funding (this year)

The entire ILP funding (2024) has been dedicated for the organization of 2024 18th Workshop of the International Lithosphere Program Task Force VI Sedimentary Basins in Krakow, Poland, between 7-11 October 2024. The funding has been used entirely for the activities of the workshop.

6. Activities planned for 2025

A new special volume for *Global and Planetary Change*: “Understanding the coupled evolution of orogens, sedimentary basins and their fluid-rock interactions”, dedicated to the International Lithosphere Program Task Force VI Sedimentary Basins meetings 2023 in Abu Dhabi and 2024 in Krakow, Poland in collaboration and as a joint venture with ILP Topo-Europe.

Organization of the 19th Workshop of the International Lithosphere Program Task Force VI Sedimentary Basins that will take place in Riyadh, Saudi Arabia between 1-5 December 2025, organized by Poland in fall 2024 (dates to be confirmed soon), organized by Mohammed Saleh as a joint venture between research institutes, academia and the subsurface exploration industry.

Appendixes:

Participants to the 7-11 October 2024 18th Workshop of the International Lithosphere Program Task Force VI Sedimentary Basins in Krakow, Poland.



Participants to the 7 October 2024 Excursion geological fieldtrip to the Wieliczke salt mine and the Carpathians foredeep.

