

**Project Title:**

Tectonic and sedimentary mass transfer within the prograding Western Carpathian orogenic wedge

**Acronym of the project:** TRANSFER

**ID of the project:** APVV-0212-12

**Duration of the project:** 01/10/2013 – 30/09/2017

**Project research organizations:****A. Co-ordination organization**

Comenius University, Faculty of Natural Sciences

Principal investigator: prof. Dušan Plašienka, DrSc.

**B. Co-operating organization:**

Earth Science Institute, Slovak Academy of Sciences (till 1.7. 2015 Geophysical Institute, SAS)

Contact person: Mgr. Jana Bučová, PhD.

Co-solver: Mgr. Jozef Madzin, PhD.,

**Project abstract:**

The research project addresses unclear points of the structure and Mesozoic-Palaeogene tectonic evolution of the Western Carpathians, which are concentrated around two narrow zones with intricate structure regarded as oceanic sutures - the Neotethyan suture between the Internal and Central, and the Pennine one between the Central and External Carpathians. The partial research topics that concerns the Neotethyan (Meliata) suture are focused on structural character of the Meliatic and Turnaic units, origin of the ophiolite and carbonate material in Jurassic tectonosedimentary breccias, as well as palaeogeographic setting, mechanisms, and time of emplacement of the Hronic and Silicic nappes. In areas around the Klippen Belt, we shall try to clarify sources of exotic conglomerates, position of the Senonian - Lower Eocene deposits in the Periklippen Zone and origin of the Belice Unit in the Považský Inovec Mts. Elucidation of these long-term problematic aspects is essential for development of a new synthetic evolutionary model of the Western Carpathians, which is the ultimate project goal. The research methods are focused on the field-based structural analysis, mapping and sample collection for analytical lithologic-sedimentologic, biostratigraphic, geochemical, geochronological and petrological investigations. New paleomagnetic investigations will be performed in co-operation with the Earth Sciences Institute of the SAS, Geophysical Division.

**Project objectives:**

The project focuses on gathering of new data about the so far unclear problematic aspects of geological structure and tectonic evolution of units occurring within the two Western Carpathian oceanic suture belts - the Pennine suture that follows the Pieniny Klippen Belt and the Neotethyan (Meliata) suture in southern zones of the orogene. The final project aim is to integrate the latest data into a new evolutionary tectonic model of the Western Carpathians for the Mesozoic and Palaeogene periods.