

# Deep crustal structure in SE Poland — new seismic project

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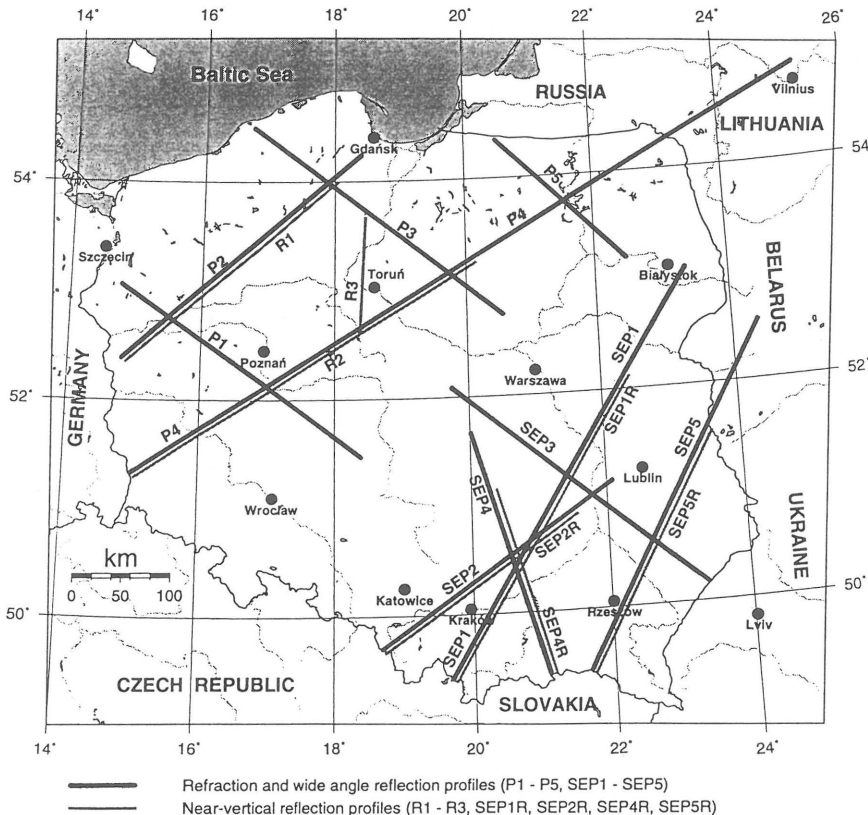
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One of the major tectonic problems in Europe concerns the south-western margin of the East European Platform. In general, this margin assumed to be the Tornquist–Teisseyre

Zone (TTZ), running across Europe approximately from north-west to south-east. The Polish segment of TTZ is a part of the Trans European Suture Zone (TESZ), a first-order geotectonic unit, stretching from the Black Sea to the British Islands. Determination of deep crustal structure of the contact zone between the Precambrian Platform, the Palaeozoic Platform and Carpathian Mts was the main aim of the deep seismic sounding (DSS) programme in SE Poland in 1965–1982. In the study area the crustal thickness varies, being 48 km within the Precambrian Platform, about 55 km in the TTZ, about 45 km in the Holy Cross Mts and 30–35 km in the Palaeozoic Platform. In the region of the Carpathian Foredeep, it is about 40 km.

In the framework of the new programme of deep geological investigations in Poland, closely connected with EURO-PROBE Project, there are proposed for the SE Poland and Carpathian Mts new DSS refraction and wide angle reflection profiles SEP1, SEP2, SEP3, SEP4, SEP5, and near vertical reflection profiles SEP1R, SEP2R, SEP4R and SEP5R. The profiles proposed for SE Poland are shown in figure together with the POLONAISE97 Project profiles (P1–P5) which were done in May 1997. In SE Poland, the proposed profiles intersect well known tectonic units and tectonic lines, e.g., the margin of the Precambrian Platform, Holy Cross Fault, Małopolska Massif, Grójec Fault, Kraków–Lubliniec tectonic zone, Upper Silesian Massif and Carpathian Foredeep. The proposed program ought to be correlated with PANCARDI Program in the Carpathian Mts and Pannonian Basin.



Ryc. 1. Association for deep geological investigations of Poland (ADGIP)