



Creating and analyzing the seismotectonic model of Hungary

SEISMOTECTONIC MAP OF HUNGARY

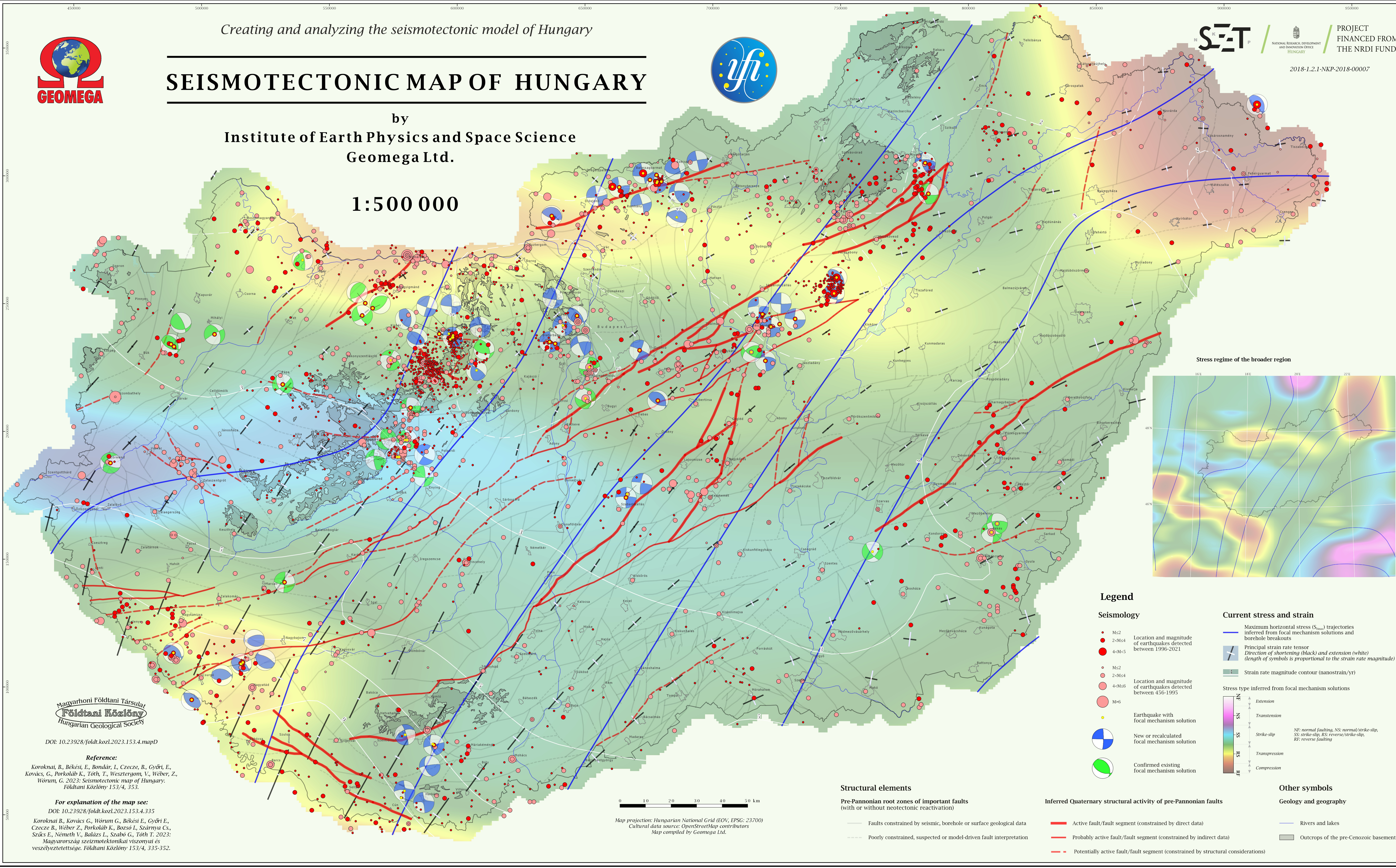
by
Institute of Earth Physics and Space Science
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1:500 000

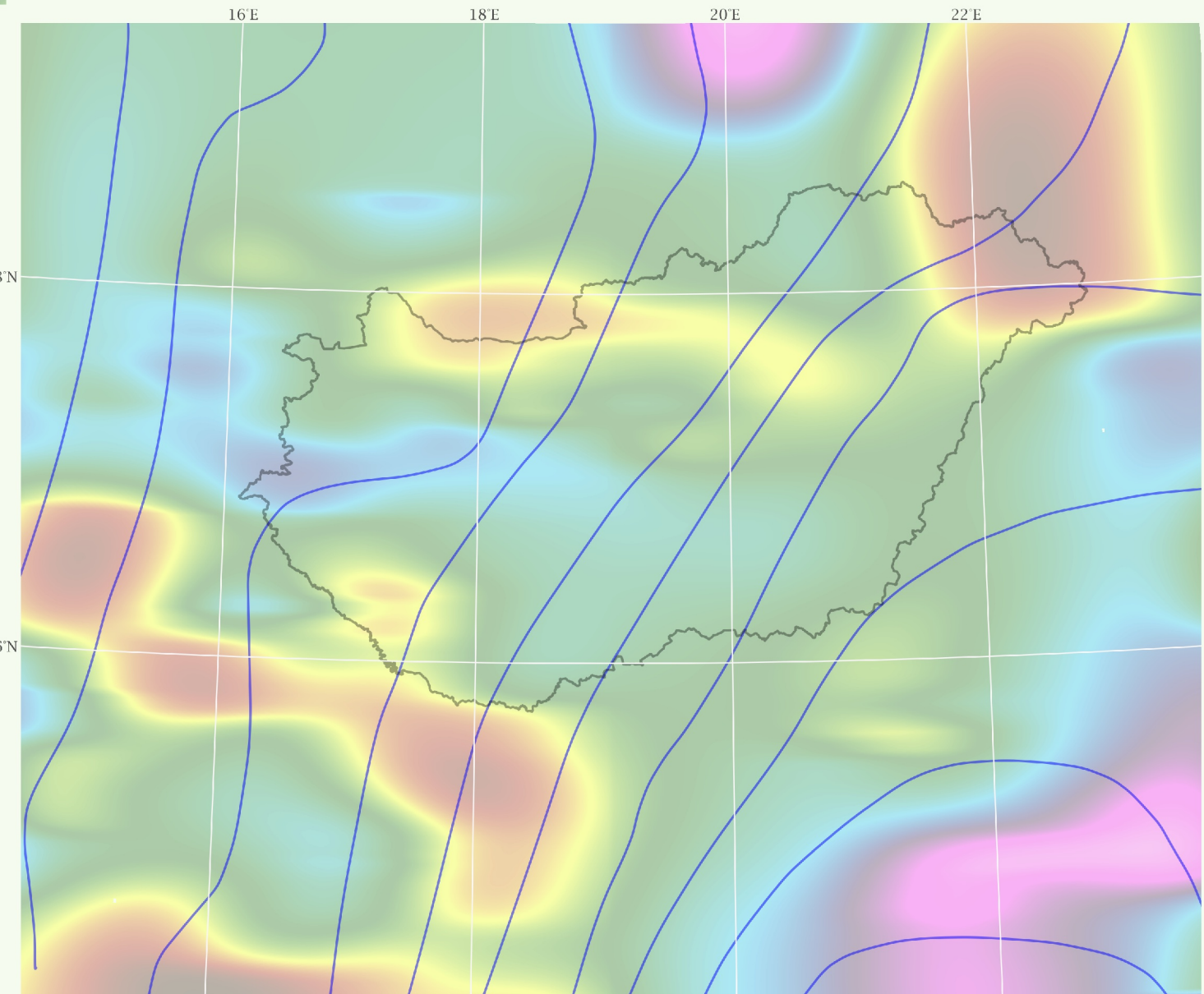


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Stress regime of the broader region



Legend

Seismology

- Location and magnitude of earthquakes detected between 1996-2021
- Location and magnitude of earthquakes detected between 156-1995
- Earthquake with focal mechanism solution
- New or recalculated focal mechanism solution
- Confirmed existing focal mechanism solution

Current stress and strain

- Maximum horizontal stress (S_{Hmax}) trajectories inferred from focal mechanism solutions and borehole breakouts
- Principal strain rate tensor
- Strain rate magnitude contour (nanotrain/yr)
- Stress type inferred from focal mechanism solutions

Structural elements

- Pre-Pannonian root zones of important faults (with or without neotectonic reactivation)
- Faults constrained by seismic, borehole or surface geological data
- Poorly constrained, suspected or model-driven fault interpretation

Inferred Quaternary structural activity of pre-Pannonian faults

- Active fault/fault segment (constrained by direct data)
- Probably active fault/fault segment (constrained by indirect data)
- Potentially active fault/fault segment (constrained by structural considerations)

Other symbols

- Geology and geography
- Rivers and lakes
- Outcrops of the pre-Cenozoic basement

0 10 20 30 40 50 km

Map projection: Hungarian National Grid (EOV, EPSG: 23700)
Cultural data source: OpenStreetMap contributors
Map compiled by Geometa Ltd.

Magyarhoni Földtani Társulat
Földtani Közlöny
Hungarian Geological Society

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Reference:

Koroknai B., Békési E., Bondár I., Czece B., Győri E., Kovács G., Porkoláb K., Tóth T., Wessztergom V., Weber Z., Wörum G. 2023: Seismotectonic map of Hungary. Földtani Közlöny 153/4, 353.

For explanation of the map see:

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Koroknai B., Kovács G., Wörum G., Békési E., Győri E., Czece B., Weber Z., Porkoláb K., Bozó L., Szárnya Cs., Szűcs E., Németh V., Balázs L., Szabó G., Tóth T. 2023: Magyarország szeizmotektonikai viszonyai és veszélyeztetettség. Földtani Közlöny 153/4, 335-352.