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European plate Moho depth map

M. Grad (1), T. Tiira (2)

(1) Institute of Geophysics, University of Warsaw, Pasteura 7, 02-093 Warsaw, Poland, (2) Institute of Seismology, University of Helsinki, Helsinki, P.O. Box 68, FIN-00014, Finland.

ESC Moho Working Group comprises: M. Behm, A.A. Belinsky, D.C. Booth, E. Brückl, R. Cassinis, R.A. Chadwick, W. Czuba, A.V. Egorkin, R.W. England, Yu.M. Erinchek, G.R. Fougler, E. Gaczyñski, A. Gosar, M. Grad, A. Guterch, E. Hegedûs, P. Hrubcová, T. Janik, W. Jokat, E.E. Karagianni, G.R. Keller, A. Kelly, K. Komminaho, T. Korja, J. Kortström, S.L. Kostyuchenko, E. Kozlovskaya, G. Laske, L. Lenkey, U. Luosto, P.K.H. Maguire, M. Majdañski, M. Malinowski, F. Marone, J. Mechie, E.D. Milshtein, G. Motuza, S. Nikolova, S. Olsson, M. Pasyanos, O.V. Petrov, V.E. Rakitov, R. Raykova, O. Ritzmann, R. Roberts, M. Sachpazi, I.A. Sanina, M.C. Schmidt-Aursch, I. Serrano, A. ©pièák, P. ęroda, F. ©umanovac, B. Taylor, T. Tiira, A.G. Vedrentsev, J. Vozár, Z. Weber, M. Wilde-Piórko, T.P. Yegorova, J. Yliniemi, B. Zelt, E.E. Zolotov.

Although many of crustal maps for the Europe exist we considered that in view of the quantity of high resolution data and models now available, particularly seismic models, it is an appropriate time to bring them together and produce new integrated map of the Moho depth for European plate. In fact this is the first digital, high resolution map of the Moho depth for European plate understand as an area from Ural Mountains in the east to mid-Atlantic ridge in the west, and Mediterranean Sea in the south to Spitsbergen and Barents Sea in Arctic in the north. The data set used in this paper to constrain Moho depth map contains together more than 250 files with data for individual seismic profiles, 3D models obtained by body and surface waves, receiver function, and maps of seismic and/or gravity data compilations. Although presented here Moho depth map is a compilation of existing and published data it has some adventages in relation to previous maps: (1) contains all recent/modern results on the

crustal stucture, mostly high quality seismic results; (2) covers much larger area then previous maps of Europe; (3) is consistent and aviable in digital form. It makes an opportunity to comment European plate Moho depth map in terms of geology and tectonics our continent.

In general three large domains within European plate crust are visible. The oldest Archean and Proterozoic crust of thickness 40-60 km, continental Variscan and Alpine crust of thickness 25-35 km, and the youngest oceanic Atlantic crust of thickness 10-20 km. Map describes the current knowledge of the overall structure of the Moho and will be available at www pages of University of Helsinki and University of Warsaw as a figure (tiff, pdf, eps and jpg formats), as well as in digital form as ASCII file with longitude, latitude and Moho depth, each 0.1 degree.