

A high-resolution DEM for the Top-Paleogene surface of the Belgian Continental Shelf

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Abstract

A 1:250.000 scale map of the surface of the Top-Paleogene for the Belgian Continental Shelf was created based on extensive analyses of older and recent geological and geophysical datasets. The Top-Paleogene is an important polygenetic unconformity that truncates older strata of the Paleogene and to a smaller extent some of Neogene age from the overlying Quaternary deposits. As such it represents the base of the latter. The represented surface has been diachronously shaped and reworked through Late Quaternary times by different geological processes (e.g., fluvial, marine, estuarine, periglacial). Additionally, the offshore surface has been attached to the landward Top-Paleogene surface and was transformed into a uniform 3D surface allowing new and better interpretations to be used for multidisciplinary scientific research (e.g. geology, archaeology, palaeogeography) and commercial applications (e.g. wind farms, aggregate extraction, dredging).