

This paper presents an outcome of a British Geological Survey digital mapping programme of the geology of the British Isles. This programme had created a methodology that provides a quantitative description of the geology of an area, which can be interrogated according to the particular objective(s) of a study. Here we seek to describe the landscape and geology in terms of the critical processes responsible for their formation, in order to provide information suitable for science and a range of end-users. The approach adopted is at a regional scale, but can be used as a model for other objectives or a steer for future, finer-scale studies. The landmass of Great Britain is divided into provinces and domains. Three provinces are identified, based on the processes responsible for the landscape evolution during the Quaternary and the nature and distribution of superficial deposits across the country. The non-glaciated Province lies beyond the known limit of glaciations in England, with the Glaciated Province within this limit. The Glaciated Province is divided into two sub-provinces: those areas that were glaciated during the Last Glaciation (MIS 2/Devensian/ $< c.30$ ka), and those with deposits and landforms relating to earlier Quaternary glaciations (pre-MIS 2/ $> c.30$ ka). The Coastal, Estuarine and Fluvial Province is independent of glaciation and is associated primarily with Holocene processes including effects of human activity. Nine domains have been differentiated, partly based on recurring assemblages of landforms and superficial deposits. The provinces and domains are described qualitatively in terms of characteristic relief, processes and stratigraphic arrangement, and quantitatively in terms of the percentages bedrock outcrop and superficial deposit cover, and the proportions of particular process-defined lithological types. The findings are discussed in terms of their significance for quantitative landscape description, processes of geological mapping, and a range of practical applications.