

The construction industry is a critical sector of the UK economy and natural aggregates, such as crushed rock, sand and gravel, are the most commonly used construction minerals. Demand for aggregates will continue into the future and this will primarily be met by indigenous production. However, minerals can only be worked where they occur and with increased pressure on land-use in England, it is important that mineral resources are identified and appropriately safeguarded. It is imperative to understand how these deposits are distributed not just on the surface but also underground. Existing BGS 3D geological models and particle size (grading) analyses from BGS boreholes are being combined using Gocad 3D modelling software and modern geostatistical techniques to develop models of the internal variability of sand and gravel resources. The development of such models provides valuable enhancement to existing BGS 2D mineral resource datasets. Information contained within the models will be of use to mineral planners (who have to decide which areas of mineral resource to safeguard in their planning documents) and also the minerals industry (with an eye on identifying suitable future extraction sites).