

Unless traditional building materials change, the demand for sand and gravel in the UK will always be strong and essential for economic growth. **Tom Bide** looks at how we make mineral resource maps.

From iron to aggregates

One hundred and seventy-five years ago the supply of iron ore and coal were vital to maintain growth during the latter stages of the Industrial Revolution and the need for these minerals contributed to the founding of the British Geological Survey.

Understanding the UK's mineral resources is still a priority for the BGS. However, unlike back in 1835, increasing pressures on land as a result of population growth and development are threatening security of supply for minerals in the long term. Ensuring a steady and adequate supply of minerals is becoming an increasing priority for local and national government. As minerals can only be worked where they are found, accurate mapping is required for minerals planners.

We provide mineral resource maps and digital data for England, Wales and for the central belt of Scotland. This dataset provides spatial information on mineral resources for use by national, regional and local government, industry and the public.

Our mineral resources dataset is built around our 1:50 000 scale digital geological maps, known as DigMapGB. Each geological unit from DigMapGB is considered for its resource potential. The criteria used to define mineral resources include the physical and chemical suitability of a geological unit for use in economic applications and the presence of active quarries or an historical industry. Sources of information used to determine mineral resource potential include desk studies, gathering information from existing literature,

drawing heavily on other existing BGS datasets plus stakeholder consultation with planners and industry. The information produced is made available via an online geographical information system, available free to the public on the MineralsUK website. Paper maps and accompanying reports are also published.

The mineral resource maps and data assist decision-makers by showing the location and extent of mineral resources throughout the UK. This work provides a comprehensive, relevant and accessible

information base, enabling planning authorities to make the best and most sustainable use of mineral resources. The data and maps will also facilitate mineral safeguarding so that unnecessary conflict with other land use and sterilisation of resources can be avoided. By promoting increased awareness of mineral resource locations and their extent, we can help better manage their security for future generations.

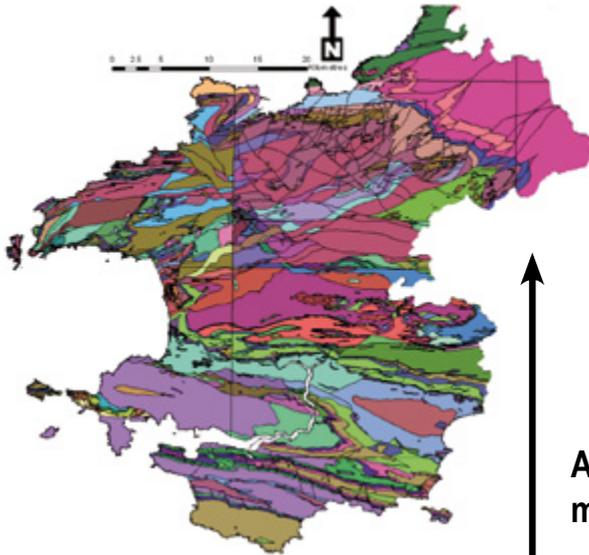
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Cutting granite roadstone, Kemnay Quarries. Aberdeenshire, 1939.



The transition from DiGMapGB-50 (BGS 1:50 000 scale digital geological maps) to mineral resource information for Pembrokeshire, in south-west Wales. DiGMapGB can be seen opposite and the resource map below. On the resource map in the north the brown-red areas are igneous rocks suitable for aggregate, and the dark grey represents slate resources; in the south, the pink areas are coal and the light blue and green areas are limestone and sandstone respectively, suitable for aggregate use.

All lithologies are considered and the decision-making process is recorded in a spreadsheet

