

The Business and Trade Sub-Committee on Economic Security, Arms and Export Controls: Critical Minerals

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BGS Summary of organisation / expertise

The British Geological Survey (BGS) is a public sector organisation and the UK's premier centre for earth science data, information and expertise. BGS is a component body of the Natural Environment Research Council (NERC), which is part of UK Research and Innovation (UKRI). It has an annual income of about [£68 million](#), approximately half of which comes from the UK government's Science Budget, with the remainder coming from external commissioned research, and employs about [620 staff](#).

We are the UK's principal provider of objective and authoritative geoscientific information and knowledge for wealth creation, sustainable use of natural resources, reducing risk and living with the impacts of environmental change. Our responsibilities include advising the UK government on all aspects of geosciences, as well as providing impartial geological advice to industry, academia and the public. Our knowledge is based on decades of corporate experience in the collection, collation, databasing, statistical evaluation, mapping and interpretation of geological and environmental data.

Please find here our submission of evidence on the following questions on the domestic supply chain

What are the primary barriers to expanding domestic UK extraction?

1. Advancement towards private sector investment and critical mineral production is uneven across the country. To deliver the 2025 UK Critical Minerals Strategy and support domestic production the UK needs to level up the data availability and augment precompetitive data where large but principally historic data sets already exist. High quality geological understanding remains the foundation of long-term sector resilience. There are also opportunities to examine and reappraise the regulations that can create investment barriers. Furthermore, the so-called social license to operate, or the Environmental, Social and Governance (ESG) aspects of projects, are a vital consideration in the exploration and mining sector. These points are examined in more detail below:
2. There is an uneven distribution of high-resolution geophysical and geochemical fundamental data sets across the UK. Northern Ireland (Tellus project 2004-2007) and South-west England (Tellus SW 2010-2013) both have recent geophysical and geochemical surveys. These data are used by exploration and mining companies to make informed decisions about where to explore, and eventually, where to drill. Drill holes are a significant investment for a company and having reliable data that can be used to interpret the subsurface reduces the geological risk of drilling without intercepting targets. The availability of precompetitive geological information is crucial to incentivise and de-risk investment in mineral exploration. After an initial investment of £6 million to fund the Tellus programme in Northern Ireland (2004-2007), exploration companies that licensed the data invested more than £30 million in mineral exploration in Northern Ireland between 2007 and 2012. Mineral exploration licensing in the region when from 17% to 70% coverage of the land

mass. The main reason there wasn't more investment at this time was due to the financial crash in 2008 which coincided with the end of the Tellus programme. Investment in some projects has remained ongoing, such as Omagh and Curraghinalt. Evidence from the [UK](#), and other jurisdictions globally including [Australia](#), [Brazil](#) and [Europe](#) shows that baseline geological data de-risks and promotes investment in the minerals sector, and supports socioeconomic development and other objectives.

3. Subsurface governance is a significant challenge to driving forward domestic extraction, particularly for critical minerals. With the exception of oil, gas, coal, gold and silver, the state [does not own mineral rights in GB](#). Generally, minerals are held in private ownership and, where available, information on mineral rights is held by the Land Registry together with details of land-surface ownership. In Northern Ireland all minerals (with some exceptions) vest in the Department for the Economy (DfE). A licencing system for exploration is in place, managed by the DfE. Over 90% of Northern Ireland has had coverage by an exploration licence at some point since the [Mineral Development Act \(Northern Ireland\) 1969](#) was brought into effect (made possible because of the vesting of minerals). In the rest of the UK, however, the system relies on individual companies seeking information from historic records and putting in place individual agreements with mineral right owners. This is time consuming and, in many cases, highly complex (e.g. [Great Wheal Vor, Cornwall](#), where it took 5 years to untangle the different mineral rights holders), and therefore a risk for investors.
4. Environment, Social and Governance (ESG) issues are a key foundation to getting any exploration and mining project off the ground. There is a much higher level of expectation from communities for companies both to be involved in a positive way with the community and to recognise that the priorities of the community are likely to be much more local than those of the company. When this relationship breaks down, for whatever reason, this can have serious repercussions for the viability of the project. A clear example of this is that of the [Curraghinalt](#) project in Co. Tyrone, Northern Ireland, which has had [significant investment thus far and an anticipated £3.5bn+ total spend over the lifetime of the project](#), and has an estimated long life span of 20-25 years, with an estimated 1,000 jobs, both direct and indirect expected. [There are also predicted tax revenues of >£2bn, and a >£7bn contribution \(GVA\) to the Northern Irish economy](#). This project is now 9 years post initial planning application and still not approved following [tens of thousands of opposition letters to the planning authority at the outset](#), organised by a very dedicated [local opposition group](#). There is also a [local group](#) who supports development of the mine. Where community relations are well managed and developed, exploration can oftentimes be low impact and have a positive effect, e.g. [Cornwall Resources used sustainable noise suppression \(haybales\) to mitigate noise pollution, resulting in zero formal complaints](#) despite drilling taking place close to residential areas. There are also numerous examples of increased [employment of local residents](#) at exploration and development sites and [opportunities for geosciences students](#) and graduates.
5. Long lead-in times for permitting can, in some cases, be a barrier for progressing exploration and mining activities. In GB for example, this includes initial permission to drill applications, where permission is obtained from the local Mineral Planning Authority (MPA) and the associated environmental permitting is obtained from the Environment Agency (EA), to planning permission for infrastructure and environmental permitting of

project operations (e.g. [Tungsten West environmental permitting for the reopening of the mine took two years](#)).

6. Other things that are considered barriers to development include commodity price volatility, often exploration funding is available when commodity prices are high, but this can dry up when prices drop, impacting the longer-term viability of projects. A further, major, consideration is the energy costs, where [high prices](#), price volatility and price increases have [impacts on high energy consuming sectors such as mining](#).

What further action is needed to accelerate domestic production?

Funding

7. Ring fencing of meaningful investment in fundamental geological data collection is a clear way to show intent of support for the sector.

Engagement

8. Outreach and education need to be front and centre of any strategy for an increase in domestic mine production. This will help mitigate any potential future [challenges from environmental groups](#) and [affected communities](#). Areas with living memory of mineral extraction are more likely to have positive associations with the sector (e.g. recent extraction in South-west England where the last mine closed in the 1990s), but if areas where there is no recent history of mineral interest start appearing in the press and social media with no preparation of the local (or national) hearts and minds then opportunities may become hindered.

How should the Government target its support to domestic firms? Should it prioritise particular minerals, regions, or parts of the supply chain?

9. Apart from Northern Ireland, where the Tellus project resulted in a peak license coverage over 70% of the land, and South-west England which has a very long history of mining and significant recent exploration, again as a result of funding of precompetitive data collection (Tellus SW), the rest of the UK is underexplored for minerals. This presents opportunities to expand the regions of interest beyond those already major hubs for exploration and mining activity. A 2023 BGS report identified the [potential for a wide range of critical minerals](#) across the UK, but many of these areas do not have the same level of geological data available. We would recommend that any support should focus on levelling up the data resolution and availability across the country, but this could take a prioritised approach, identifying regions where the most value could be obtained from collecting new data.
10. Although there are certain commodities that have more advanced projects associated, e.g. Dalradian (gold, silver, copper), Tungsten West (tungsten, tin) and Anglo-American (polyhalite) and examples of those with active exploration (listed alphabetically and not an extensive list of all active exploration in the UK), Aberdeen Minerals (nickel, copper, cobalt),

Anglesey Mining (zinc, copper, lead, silver, gold), Cornish Lithium (lithium), Cornish Metals (tin), Cornwall Resources (tungsten, copper, tin), Galantas Gold Corporation (gold, copper, zinc), Karelian Diamond Resources (nickel, copper platinum group elements), Northern Lithium (lithium), Peak Minerals (nickel, copper), Weardale Lithium (lithium), the potential for other commodities in areas that are underexplored remains.