Overview

The geology of the UK has shaped landscapes, natural habitats, towns and cities and provided essential energy, non-energy metallic and non-metallic mineral resources. Clay has been extracted to make bricks and roof tiles. Stone has been quarried to construct magnificent buildings. Minerals supply energy and the raw materials for manufacturing and construction. Our industrial revolution relied upon our mineral wealth and helped put the “Great” in Great Britain. Minerals and mineral products still constitute the largest material flow in our economy. They are fundamental to our current and future prosperity because they contribute to all of our industries as well as the maintenance of our essential national infrastructure.

Fortunately, we still have abundant and diverse mineral resources and a healthy and productive industry that is committed to supplying both indigenous demand and valuable export markets. Maintaining supply depends on securing planning permissions and suitable trade agreements. Problems are looming because reserves are not being replenished fast enough and some major extraction permissions will be coming to an end in the near future. Options for new sites are increasingly constrained by environmental designations. Unlike other forms of development, minerals can only be ‘dug where they lie’. Timely replacement is needed but the lead times for securing new permissions are usually protracted, partly because some mineral planning documents are not being kept up-to-date. The industry believes that there is an urgent need for a UK Minerals Strategy to ensure medium and long-term demand is supplied to support economic growth and delivery of the Government’s emerging UK Industrial Strategy and the National Infrastructure Delivery Plan.

The proposed strategy

- Ensure an adequate and steady supply of UK minerals to meet demand
- Encourage trade and export of UK minerals and reduce risks from international insecurity of supply
- Safeguard both mineral resources and crucial transport infrastructure
- Mitigate impacts of extraction, processing and transportation
- Develop better information for policy formation
- Maintain an up-to-date plan-led system
- Ensure health & safety remains a top priority
- Provide good quality career opportunities and meet skills needs
- Improve public understanding of the need for minerals
- Encourage innovation, research and development in the minerals sector
- Cut and improve ‘red tape’ particularly in relation to planning and permitting
In 2014, a Government response in England to a Select Committee Report on the Extractive Industries Sector encouraged industry to develop a strategy (Appendix A). Two reports have helped in this regard.

The UK Minerals Forum (UKMF) looked at the history of UK Mineral Extraction and also looked forward in its report ‘The Future of our Minerals’, published in November 2014. The key recommendations recognised the need for:

- A national long-term vision and strategy for UK minerals supply as an integral part of Britain’s future industrial strategy
- Concerted action to help policymakers understand the importance of minerals supply to the UK economy and society
- Effective review and monitoring by all parties of progress in delivering an agreed minerals strategy, and responding to emerging events to keep it on track
- Continued collaboration between Government and industry to deliver the vision in any Minerals Strategy that might be developed
- Boost the resilience of the UK minerals industry.

The CBIMG published ‘The UK Mineral Extraction Industry’ in February 2016, which quantified the economic contribution of the industry. These two reports provide useful information for the preparation of a UK Minerals Strategy.

Memberships of the CBIMG and UKMF are listed at the end of this document.

### Significance of minerals

The quality of life and economic success of the United Kingdom depends on a healthy environment and our diverse landscapes as well as the sustainable provision of water, food, energy, non-energy minerals. In volume/tonnage terms minerals and mineral products constitute the largest material flow in the economy, accounting for about 16% of the total. Non-energy mineral extraction is the major part. Annual consumption is typically around 210 mtpa and approximately 5 Billion tonnes every 25 years, i.e. each generation. Even so, extraction has a small “footprint” of under 0.5% of land area. In contrast, around 33% of UK land mass has some form of restriction on uses.

### Economic significance of the UK minerals industry (see Appendix B)

- **210mt** UK Mineral Extraction
- **£15Bn** Turnover of mineral extraction
- **£68Bn** Turnover of mineral products manufacture
- **£5Bn** Gross Value Added (GVA) of mineral extraction
- **£22Bn** GVA of mineral products manufacture
- **£209Bn** GVA of ‘first use’ markets
- **£235Bn** Total GVA of mineral extraction, product manufacture and first use markets
- **16%** Share of the UK total economy directly attributable to minerals
- **34,000** People directly employed in mineral extraction
- **4.3m** Jobs supported throughout the “downstream” supply chain

Minerals, after value adding processes, are the principal constituents of most construction products; many pharmaceutical, chemical, agricultural, automotive, oil-industry, metallurgical, electronics, aerospace, plastics, ceramic and paper products and are a fundamental part of the energy mix. They directly contribute to the UK economy by generating £235Bn in gross value added (GVA), 16% of the total economy. Construction related minerals and mineral products are essential for housing and infrastructure such as schools, roads, railways, airports and flood defences. Recycling reduces some requirements but, as this is virtually maximised, large quantities of newly dug primary minerals are still needed and will form the vast majority of future supply. Adequate and steady supply is essential to the economy and our quality of life. Sufficient mineral reserves must be secured to support development but with minimum environmental impacts. The UK has an abundant and diverse mineral base but options for indigenous extraction are increasingly constrained by environmental and social factors which can threaten long term competitiveness. Extraction can cause disturbance.
to people, wildlife and the landscape, but unlike other forms of
development, ‘minerals can only be dug where they lie’, extraction
is temporary, and sites are restored to socially and environmentally
beneficial after-uses.

It makes economic and environmental sense for essential minerals
which can be obtained from indigenous sources to be extracted to
reduce our import dependency of what should be seen as ‘strategic’
materials for our economy, improving our security of supply and
sustainability. Trade is nonetheless important for those materials not
available in the UK or where reserves are insufficient to meet demand.

But some of our mineral resources have been depleted and we do
not have indigenous sources of others and therefore some minerals
must be imported.

As world demand rises and some producer countries restrain trade,
concern about security of supply of certain important minerals
increases. Shortages and price increases would adversely affect the
UK economy and manufacturing industry.

Conversely, some relatively scarce minerals are exported. There is
current international interest in investing in the future development
of some of our less-exploited mineral resources, with potential
benefits for future trade. The forecasting of supply required by the
land-based planning system needs to take full account of minerals
from marine sources.

**Access to minerals**

Adequate access to the UK’s mineral resources is crucial for our
society and economy. An efficient system for converting demand for
minerals into permissions to extract is at the core of a more strategic
approach. Some local shortages in minerals supply, particularly for
construction aggregates, the largest component of supply, are already
evident and are likely to increase. Already, indigenous and imported
bulk minerals are being moved over greater distances, mainly by road,
adding to environmental impacts and costs to society.

The ‘licence to operate’, i.e. securing planning permission and
environmental permits, is, at present, unnecessarily slow, complex
and expensive. 5 to 15 years can elapse between the identification
of a potentially workable deposit and production, so considerable
lead-time is needed in planning for supply. Planning and permit costs
are typically between £100k and £1m per development and can be
higher for large scale projects. The cumulative impacts of regulation
can be significant and are not well understood by Government. There
is a need to ‘cut red tape’ and improve implementation particularly
with regard to planning and permitting.

While the current system ensures that high environmental standards
are maintained and that social and economic benefits are maximised,
it can be wasteful and unjustifiably expensive. For some mineral
operators, this can be an unacceptable commercial risk and
discourages investment in new proposals. The Brexit process should
provide an opportunity to review the present range of environmental
regulation based on numerous EU Directives, whilst also seeking
opportunities to reduce the present ‘gold plating’.

Over complex and repetitious approval processes also waste
regulators’ scarce resources while local communities and other third
parties can struggle to engage and consequently feel disadvantaged.
The ‘licence to operate’ i.e. securing planning permission and the public would benefit from a less
cumbersome approach that reinstates the primacy of the planning
system over other regulatory measures. Planning authorities should
be properly equipped to continue to administer the system well, as
they have done for many years, using resources diverted from other
regulatory bodies that have different responsibilities. In the case of
the energy intensive sectors of the industry, e.g. cement, lime, brick
and ceramic manufacturing, the unnecessarily high costs of permits
adds to those already faced as a result of the Climate Change Levy
and other carbon mitigation measures, such as EU ETS and UK Carbon
Price Floor.

**Need for a strategic framework**

Industry and investors need a clear, strategic, supportive and
encouraging operating environment to boost confidence, justify
investment and ensure continuity of supply. Local communities and
other key stakeholders also require clarity about potential future
working and confidence that amenity and environmental concerns
will be addressed.

Most large UK minerals companies are now foreign-owned, making
investment confidence through streamlined and simpler regulation
even more important because they face commercial risks that could
be avoided by investment in other countries.

Underpinning the emerging UK Industrial Strategy and National
Infrastructure Delivery Plan with a minerals strategy will demonstrate
that the UK is “open for minerals business” and will enable delivery
of Government’s own agenda for the built environment. It would
help Government to develop effective policies for planning and
management to achieve security of supply of minerals essential to
the UK economy and for industry to develop export plans.

The strategy will provide a benchmark for assessing implications of
the EU Raw Material Supply Initiative’s Minerals Strategy and Land
Use Policy, soon to be implemented, and strategies beyond the EU
that are relevant to future trade agreements after the UK leaves the
EU. Devolved administrations have differing approaches to mineral
planning issues but, there are significant cross boundary mineral
movements, so common strategic interests exist.
The proposed strategy

The proposed strategy sets out actions to ensure that the need for essential minerals is met primarily from indigenous resources. It considers land-based mineral extraction (including coal, which is regulated in the same way as other land-based minerals), and is also relevant to marine minerals, but excludes oil and gas (which mainly have their own separate policy and regulatory regimes). It has regard to the scale of the current industry and the contribution that it makes to the UK economy. It deals with future trends, challenges and opportunities. It will help Government, industry and others to deal with essential supply issues in good time, while minimising adverse effects. It should also help other stakeholders to engage fully in the planning system and to develop a better understanding of the industry. The overall principles are to:

- **ensure that an adequate and steady supply** of UK won minerals is permitted for extraction in the UK to meet demand for the long term through managed supply, while maximising recycling and reuse and contributing to a low-carbon and circular economy
- **encourage trade and export of UK won minerals** and reduce risks from international insecurity of supply
- **safeguard both mineral resources and crucial transport infrastructure** to ensure sustainable supplies for the foreseeable future and avoid encroachment from other types of development
- **mitigate impacts of extraction, processing and transportation** and return land to sustainable beneficial uses expeditiously
- **develop better information for policy formulation** through surveys, modelling and forecasting
- **maintain an up-to-date plan led system** and well resourced planning teams to process planning applications
- **ensure health & safety remains a top priority** and aim to achieve “Zero Harm” to the workforce, visitors and the public through careful health and safety practices
- **provide quality career opportunities and meet skills needs** for a well-educated and trained workforce and encourage people to choose to work in the industry
- **improve public understanding of the need for minerals** and of mineral working and processing through open discussion about their concerns
- **encourage innovation, research, and development** in the minerals sector and exploration for and use of resources
- **cut and improve ‘red tape’** in relation to planning and permitting

Delivering the strategy

The industry cannot ensure that objectives are achieved without engagement and understanding from others such as Government, planning authorities and regulatory agencies, environmental NGOs and the wider public to maintain a resilient supply chain for these vital materials. The UK Minerals Forum is the principal interface between the industry and many of these stakeholders and is commended as the forum for future debate and advice.

The industry is eager to facilitate discussions on delivery and best practices, initially by engaging, at “official” level with Government in England and, later, with the devolved Administrations. It believes that the UK Minerals Forum can play an important part in that process.

An indicative action plan for delivery of the proposed strategy is shown in Appendix C.

Conclusion

The nation is approaching a potentially critical time when minerals supply will be adversely affected with significant consequences for our whole industrial base if issues are not addressed now. The UK Mineral Extraction Industry commends this proposed strategy to Government and others for development and monitoring of future economic policy and use in the minerals planning process. Engagement of stakeholders with the industry will ensure that the next generation continues to benefit from sustainable management of our mineral resources so that demand can be supplied for the next generation.
Supplying Demand for the Next Generation

Appendix A: Background

For decades, the UK has had no overarching national mineral strategy, policy or plan recognising the economic importance of a steady supply of essential minerals, from domestic sources or imported.

In England, the National Planning Policy Framework (NPPF) is the only policy document recognising the significance of minerals within the framework of sustainable development.

National Planning Policy Framework (England) Chapter 13 ‘Facilitating the sustainable use of minerals’ (Para. 142):

‘Minerals are essential to support sustainable economic growth and our quality of life. It is therefore important that there is a sufficient supply of material to provide the infrastructure, buildings, energy and goods that the country needs. However, since minerals are a finite natural resource and can only be worked where they are found, it is important to make best use of them to secure their long-term conservation.’

In Scotland, Scottish Planning Policy 4 “Planning for Minerals”, a landbank policy is applied to the provision of aggregates because of their importance to the construction industry. It is stated that ‘Mineral working provides employment in rural areas, bringing associated economic benefits, supplying local needs and minimising long distance haulage. The city regions consume the greatest volumes of minerals and planning authorities for all market areas should maintain a minimum 10-year supply of construction aggregates to ensure continuity of supply, subject to other planning considerations.’ This, however, is dependent on there being accurate and up to date data – an area that Scottish Government acknowledges is problematic, and which has resulted in an independent review being commissioned. The findings have yet to be published.

Section 2 of SPP4 also states that ‘The availability of minerals is essential to support economic development and prosperity. The minerals industry provides raw materials for construction, manufacturing, agriculture and other specialist sectors. The Executive recognises the strategic importance of the construction industry to the economy and the need for minerals to serve it. The construction of new buildings and supporting infrastructure all depend to varying degrees on a continuing and steady supply of construction aggregates. The industry is a significant employer in Scotland, providing important direct employment opportunities for 3000 people, many in rural areas.’

Planning Policy Wales defines the land use policy for Wales which is to be taken into account when preparing development plans.

Chapter 14, Planning Policy Wales (Nov 2016):

‘14.1.2 It is likely that society needs, and will continue to need for the foreseeable future, a wide range of minerals. The essential role of mineral planning authorities in relation to mineral working is to ensure that a proper balance is struck between that fundamental requirement, the need to ensure a prudent use of finite resources, and the protection of existing amenity and the environment.

Planning Policy Wales is supplemented by topic-based Minerals Technical Advice Notes (MTANs). MTAN1 (March 2004) provides guidance on the mechanism for delivering the policy for aggregates by mineral planning authorities and the aggregates industry.

7. The overarching objective in planning for aggregates provision therefore is to ensure supply is managed in a sustainable way so that the best balance between environmental, economic and social considerations is struck, while making sure that the environmental and amenity impacts of any necessary extraction are kept to a level that avoids causing demonstrable harm to interests of acknowledged importance.’

Select committee investigation into the Extractive Industries sector

A House of Commons Business Innovation and Skills Select Committee examined the Extractive Industries Sector in 2014. The Government response in England declined to set out measures to directly support the UK Mineral Extraction Industry, beyond the existing NPPF, but did encourage industry to prepare a strategy.

House of Commons Select Committee for the Department of Business Innovation and Skills Select Committee report of an investigation into the ‘Extractive Industries Sector’ (November 2014):

‘The Government has expressed support for the enlargement of the UK’s domestic extractive sector. However, it is unclear how the Government intends to promote the growth of this sector. We recommend that the Department publishes a domestic extractives plan setting out the extent and range of its support—both structural and financial—and how it intends to realise that ambition. We welcome the Minister’s offer to meet with industry and deal with roadblocks. We further recommend that the Government sets out in its response the best mechanism for taking this forward.’


‘There is a variety of work underway as part of the industrial strategy. This includes work on procurement, access to finance, technologies, skills and sectors as well as reforms to the planning process. We recognise the importance of mineral products in supply chains and these are covered by existing sectoral strategies, particularly in construction. As part of industrial strategy, it is important that businesses within each sector come together to identify long-term priorities for the sector as a whole. We understand that the Minerals Products Association is developing a strategy for the sector and look forward to discussing the priorities with them. We believe these represent a coordinated approach to supporting growth in the UK’s extractive industries.’
Appendix B - Key economic data (Source: The UK Mineral Extraction Industry, CBI, 2016)

Key Facts

- **210mt**
  - UK mineral extraction
- **£15bn**
  - Turnover of mineral extraction
- **£68bn**
  - Turnover of mineral products manufacture
- **£5bn**
  - Gross value added of mineral extraction
- **£22bn**
  - Gross value added of mineral products manufacture
- **£209bn**
  - Gross value added of “first use” markets
- **£235bn**
  - Total gross value added generated by minerals, including mineral extraction, products manufacture and “first use” markets
- **16%**
  - Share of the UK total economy directly attributable to minerals
- **34,000**
  - People employed directly in mineral extraction
- **4.3m**
  - Jobs supported through the supply chain

Estimated turnover of UK non-energy minerals and coal (2013) (Source: ONS, ABS, MPA)

Minerals production in the UK (2013) (Source: BGS)

<table>
<thead>
<tr>
<th>Category</th>
<th>Million tonnes</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Non-energy</strong></td>
<td></td>
</tr>
<tr>
<td>Construction minerals</td>
<td>172.2</td>
</tr>
<tr>
<td>Including</td>
<td></td>
</tr>
<tr>
<td>Limestone, dolomite &amp; chalk</td>
<td>40.5</td>
</tr>
<tr>
<td>(construction uses)</td>
<td></td>
</tr>
<tr>
<td>Sandstone</td>
<td>11.5</td>
</tr>
<tr>
<td>Sand &amp; gravel - Land-won</td>
<td>43.4</td>
</tr>
<tr>
<td>Sand &amp; gravel - Marine</td>
<td>14.6</td>
</tr>
<tr>
<td>Slate</td>
<td>0.9</td>
</tr>
<tr>
<td>Gypsum</td>
<td>1.2</td>
</tr>
<tr>
<td>Fireclay</td>
<td>0.1</td>
</tr>
<tr>
<td>Clay &amp; shale</td>
<td>6.5</td>
</tr>
<tr>
<td><strong>Industrial minerals</strong></td>
<td>24.6</td>
</tr>
<tr>
<td>Including</td>
<td></td>
</tr>
<tr>
<td>Limestone, dolomite &amp; chalk</td>
<td>10.3</td>
</tr>
<tr>
<td>(industrial &amp; agricultural uses)</td>
<td></td>
</tr>
<tr>
<td>Silica (industrial sand)</td>
<td>4.0</td>
</tr>
<tr>
<td>China clay (kaolin)</td>
<td>1.1</td>
</tr>
<tr>
<td>Salt</td>
<td>6.6</td>
</tr>
<tr>
<td>Potassium compounds (potash)</td>
<td>0.9</td>
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<tr>
<td>Ball clay</td>
<td>0.7</td>
</tr>
<tr>
<td>Peat</td>
<td>1.0</td>
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<tr>
<td>Other industrial minerals(1)</td>
<td>0.1</td>
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<tr>
<td><strong>Metals</strong></td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Including</td>
<td></td>
</tr>
<tr>
<td>Iron ore</td>
<td>0.0</td>
</tr>
<tr>
<td>Tungsten</td>
<td>0.0</td>
</tr>
<tr>
<td>Tin</td>
<td>0.0</td>
</tr>
<tr>
<td>Gold</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Silver</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Zinc</td>
<td>0.0</td>
</tr>
<tr>
<td>Copper</td>
<td>0.0</td>
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<tr>
<td>Lead</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td><strong>Energy</strong></td>
<td>90.0</td>
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<tr>
<td>Including</td>
<td></td>
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<tr>
<td>Oil(2)</td>
<td>40.6</td>
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<tr>
<td>Gas</td>
<td>36.5</td>
</tr>
<tr>
<td>Coal</td>
<td>12.8</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>286.9</td>
</tr>
</tbody>
</table>

(1) Includes Fuller’s earth (bentonite), barytes, fluorspar, talc, calcspat, chert & flint, china stone (feldspar), phosphorus.
(2) Includes crude oil onshore and offshore, and condensates.
The UK Mineral Extraction Industry

Estimated turnover of UK non-energy minerals:

- £209bn
- £22bn
- £68bn

Although oil and gas may be the most valuable minerals, the following are key facts:

- **People employed directly in mineral extraction:**
  - 3,000

- **Attributable to minerals:**
  - Manufacturing
  - Agriculture
  - Wholesale & retail trade
  - Transport
  - Finance
  - Information & communication
  - **First use markets:**
    - Electricity
    - Gas
    - Water supply
    - **Insured & engineering**
    - Other services

- **Minerals production in the UK (2013):**
  - Coal
  - Limestone, dolomite & chalk
  - Clay & shale
  - China & ball clay
  - Igneous rock
  - Salt
  - Other minerals (1)

- **GVA generated by minerals at various stages of the supply chain (2013):**
  - First use markets (2)
    - £5bn
  - Minerals extraction (3)
    - £2bn
  - Products manufacture (2)
    - £33bn
  - Rest of the economy
    - £1,283bn

Notes:

- (1) Includes gold, silver, other non-ferrous metals, gypsum & anhydrite and miscellaneous minerals.
- (2) Includes cement production.
- (3) Includes production of “enabling” mineral products, e.g. cement, paper etc.
- (4) First use markets for mineral or mineral products, including construction.
Productivity by industry, £ per employee (2013) (Source: ABS, ONS, LFS, MPA)

<table>
<thead>
<tr>
<th>Industry</th>
<th>Productivity (£ per employee)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Real estate</td>
<td>£525,318</td>
</tr>
<tr>
<td>Mining &amp; quarrying (inc oil &amp; gas)</td>
<td>£218,133</td>
</tr>
<tr>
<td>Mining &amp; quarrying (exc oil &amp; gas)</td>
<td>£133,256</td>
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<tr>
<td>Electricity, gas, steam &amp; air conditioning</td>
<td>£122,340</td>
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<tr>
<td>Financial &amp; insurance</td>
<td>£107,596</td>
</tr>
<tr>
<td>Information &amp; communication</td>
<td>£81,616</td>
</tr>
<tr>
<td>Water, sewerage, waste</td>
<td>£80,749</td>
</tr>
<tr>
<td>Mineral extraction &amp; products manufacture(1)</td>
<td>£62,114</td>
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<tr>
<td>Professional, scientific &amp; technical services</td>
<td>£55,244</td>
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<tr>
<td>Administrative &amp; support services</td>
<td>£52,097</td>
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<td>UK Economy (A-S)</td>
<td>£51,390</td>
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<tr>
<td>Manufacturing</td>
<td>£50,447</td>
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<tr>
<td>Transport &amp; storage</td>
<td>£42,988</td>
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<tr>
<td>Construction</td>
<td>£42,871</td>
</tr>
<tr>
<td>Wholesale &amp; retail trade</td>
<td>£42,771</td>
</tr>
<tr>
<td>Public administration &amp; defence</td>
<td>£41,545</td>
</tr>
<tr>
<td>Other service activities</td>
<td>£39,978</td>
</tr>
<tr>
<td>Agriculture, forestry &amp; fishing</td>
<td>£33,440</td>
</tr>
<tr>
<td>Education</td>
<td>£32,883</td>
</tr>
<tr>
<td>Arts, entertainment &amp; recreation</td>
<td>£31,618</td>
</tr>
<tr>
<td>Accommodation &amp; food service</td>
<td>£28,195</td>
</tr>
<tr>
<td>Human health &amp; social work</td>
<td>£26,425</td>
</tr>
</tbody>
</table>

(1) This is not an official ONS Standard Industrial Classification but represents the minerals industry as defined in this publication.

GVA and employment generated by the minerals industry relative to the total UK economy (2013) (Source: ABS, ONS, LFS, MPA)

UK balance of trade in minerals and mineral-based products (Source: BGS)

- Coin other than gold
- Manufacture of metals
- Non-ferrous metals
- Iron & steel
- Non-metallic mineral products
- Miscellaneous chemical products
- Manufactured fertilisers
- Inorganic chemicals
- Organic chemicals
- Coal, coke & briquettes
- Metal ores & scrap
- Crude minerals & fertilisers

Net importer and net exporter

£m

2001 2007 2013

Supplying Demand for the Next Generation
### Appendix C - Indicative action plan for delivery of the proposed strategy

<table>
<thead>
<tr>
<th>ISSUES</th>
<th>INDUSTRY UNDERTAKES TO:</th>
<th>INDUSTRY NEEDS GOVERNMENT AND OTHER STAKEHOLDERS TO RECOGNISE THAT:</th>
</tr>
</thead>
</table>
| **SUPPLY AND DISTRIBUTION** | - Do the utmost to maintain a steady and adequate supply of minerals from indigenous sources, if planning permissions are forthcoming, while recognising that imports sometimes represent the most sustainable and economic means of meeting demand;  
- Promote the need for timely replacement of major permissions for extraction that will end or expire over the next few decades to avoid any threat to steady and adequate supply;  
- Promote opportunities for maximising the efficiency of use of all sources of supply, improving productivity of the industry, identifying and dealing with barriers to investment (including energy and labour costs), strengthening the resilience of the supply chain and increased downstream manufacturing;  
- Promote understanding of threats to international security of other minerals, particularly energy and metallic, as background to investment decisions and negotiation of trade agreements.  
- Maximise the reuse and recycling of minerals and mineral derived products, including secondary aggregates, to maximise the environmental benefits and contributing to a low-carbon and circular economy.  
- Use the most economically viable options for transporting mineral products to the point of use. | - Our diverse indigenous minerals are strategically important and their extraction, processing and use are essential to the economy and our way of life, national productivity, National Industrial Strategy and National Infrastructure Delivery Plan;  
- Suitable policies are needed for the sustainable supply of minerals to meet society’s needs by delivering sufficient planning permissions for extraction in the UK;  
- There is a need to maximise indigenous production, reduce mineral imports and maintain support for exports to counter an increasingly negative balance of trade;  
- Devolved Governments should be involved in the development of a UK strategy because of cross-boundary transport of minerals;  
- The contradiction between Government in England declining to set out measures that support the UK Mineral Extraction Industry (other than the NPPF) while encouraging the development of an industry-led strategy;  
- It is important to address risks of reduced security of supply of essential imported minerals, particularly energy and metallic, by monitoring and, perhaps, stockpiling;  
- While maximising levels of recycling and reuse, newly-extracted materials will always be the main component of supply to most sectors of UK industry;  
- Energy Intensive Industries such as cement, lime and ceramics are at risk from carbon and energy policies. |
| **TRADE**                | - Seek export opportunities for UK won minerals and mineral products.                    | - It is important to promote export opportunities for UK won minerals through trade negotiations                                                                                                                                                                                                                 |
| **SAFEGUARDING**         | - Identify mineral resources and facilities (road, rail, waterways and coastal freight facilities) that need to be safeguarded from other types of development and excessive use of conservation and heritage designations for long term security of supply; | - Effective safeguarding of potentially workable mineral resources and freight facilities from other forms of development is vital and excessive use of conservation and heritage designation should be avoided other than in exceptional circumstances;                                                                                                                                 |

*Supplying Demand for the Next Generation*
<table>
<thead>
<tr>
<th>ISSUES</th>
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| ENVIRONMENTAL IMPACTS| - Ensure that the environmental impacts of mineral extraction are mitigated to acceptable levels through the highest standards of operational working, including minimising operational use of energy, reducing emissions and the need for, and impacts of, long distance mineral transport;  
- Work closely with environmental and heritage interests to ensure that assets and landscapes of acknowledged importance are conserved appropriately and opportunities to improve knowledge of the historic environment are taken where possible;  
- Ensure that all former mineral working sites are restored as soon as possible to beneficial after-uses and have adequate provision for after-care, in consultation with stakeholders, while enhancing biodiversity, natural capital and geodiversity. | - It is necessary for stakeholders to draw the attention of industry to environmental concerns and constructively discuss practical means of dealing with these;  
- A significant proportion of mineral resources are within the UK’s National Parks and AONBs and that extraction in those areas can often be possible without detracting from the values for which those areas were designated if high quality management, restoration and after-care are undertaken, and that continuing planning permissions will need to be permitted in the public interest if there are no viable alternatives;  
- That environmental and heritage permits and schemes should be reasonable, proportionate and consistent;  
- Planning authorities, regulatory agencies and local communities should engage constructively with the industry in discussions on restoration and after-use options to maximise subsequent benefits. |
| PLANNING AND ENVIRONMENTAL REGULATION | - Co-operate fully and openly with others to ensure that forecasts and strategic plans meet society’s need for minerals and assist in strengthening the monitoring, publication and promotion of data on the economic contribution of the industry;  
- Support the Managed Aggregate Supply System as the key component of strategic planning for aggregate supply in England and promote both discussions with the Devolved Administrations and expansion to a managed approach for other minerals;  
- Support proper consideration of the three elements of sustainable development – social, economic and environmental – in planning for minerals supply;  
- Promote the need for planning decisions to have primacy over environmental permitting and improve the interface between these two aspects of regulation because planning takes account of social and economic factors as well as the environment;  
- Co-operate in the development of minerals planning documents to help ensure that an effective plan-led system is in place with full plan coverage. | - Reliable national and international data and improved monitoring, modelling supply scenarios and forecasting of future demand and trends are needed to strengthen the link between the need for minerals and industrial, development and planning policy;  
- The Managed Aggregate Supply System is the key component of strategic planning for aggregate supply in England that should be properly funded, discussed with the Devolved Administrations, and expanded to a managed approach for other minerals;  
- Making the UK planning and regulatory regimes more supportive of the economic and social aspects of mineral sustainability in policies and decision making is essential;  
- The need for planning decisions to have primacy over environmental permitting and to improve the interface between these two aspects of regulation to achieve sustainable development by cutting and improving 'red tape';  
- The central importance of the plan-led system, the urgent need to secure up-to-date mineral planning documents and the need to ensure the process is properly resourced and efficiently implemented;  
- Mineral Planning Authorities need to be adequately resourced and, in particular, staffed with planners having specialist experience and skills required for dealing with mineral matters. |
<p>| HEALTH AND SAFETY | - Continue to support achievement of ‘Zero Harm’ to employees, contractors and visitors at all industry operations through safe and healthy working environments and practices, and of the public around active and relevant disused sites. | - Care is needed to heed warnings, follow industry advice, and not enter sites without authorisation. |</p>
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| EDUCATION, SKILLS AND EMPLOYMENT | - Provide high quality jobs in minerals extraction, processing and the supply chain, especially near operational sites and in rural areas with limited employment opportunities;  
- Counter a decline in the UK minerals industry skills base by ensuring that all employees and contractors acquire and maintain practical and technical skills and competences needed to work efficiently and safely in the industry;  
- Encourage people, particularly students, to consider the minerals industry and minerals regulation as career options through improved education and training in the fields of mining engineering, quarrying, applied geosciences, mineral planning and subjects related to rehabilitation of sites and to improve links with schools, colleges and universities  
- Make representations on the need for adequate coverage of minerals issues in school and other curricula. | - The education and the skills base in the UK mineral industry need to be enhanced to demonstrate how mineral working can be successfully integrated in a densely-populated country with valuable landscapes;  
- Students should be encouraged to consider careers in the minerals industry and minerals regulation as good options through studying fields such as mining engineering, quarrying, applied geosciences, mineral planning and subjects related to rehabilitation of sites;  
- Provision should be made for adequate introductory coverage of minerals issues in school curricula particularly in the years before specialisation. |
| PUBLIC UNDERSTANDING | - Promote understanding of the need for minerals, their use in society and contribution to social development through community engagement, education and training by direct contacts and monitoring, publication and promotion of the economic and environmental contributions of UK mineral extraction.  
- Develop the mineral heritage of the UK in collaboration with relevant stakeholders to provide a national network of active and historic mineral sites for educational, heritage and research purposes;  
- Promote improved links and better understanding between the industry and local communities, schools, universities and research organisations. | - Securing better public engagement on the benefits of extracting minerals from UK resources is the best route to developing a consensus on how best to secure and safeguard supplies;  
- It is important to draw the attention of industry to opportunities to enhance educational, heritage and research value of sites;  
- It is important for stakeholders to engage constructively with the industry. |
| RESEARCH, INNOVATION AND DESIGN | - Improve the sustainability of natural mineral resources and recycled minerals through technological, operational and product research, innovation, design and development;  
- Encourage exploration for economic mineral deposits, when the economic climate permits, to strengthen the resilience of the minerals supply chain and identify new options for exploitation. | - Provision of continuing support for minerals sector research and development is important, especially on the role of new technology;  
- Provision of continuing support for mineral resource use and exploration is an important national investment. |
This consultation sets out a proposed strategy prepared on behalf of the UK Mineral Extraction Industry facilitated by the CBI Minerals Group and the Mineral Products Association.

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