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STATE AND PRIVATE SECTOR COLLABORATION: THE EXAMPLE OF IRELAND.

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Timeline of minerals development in Ireland

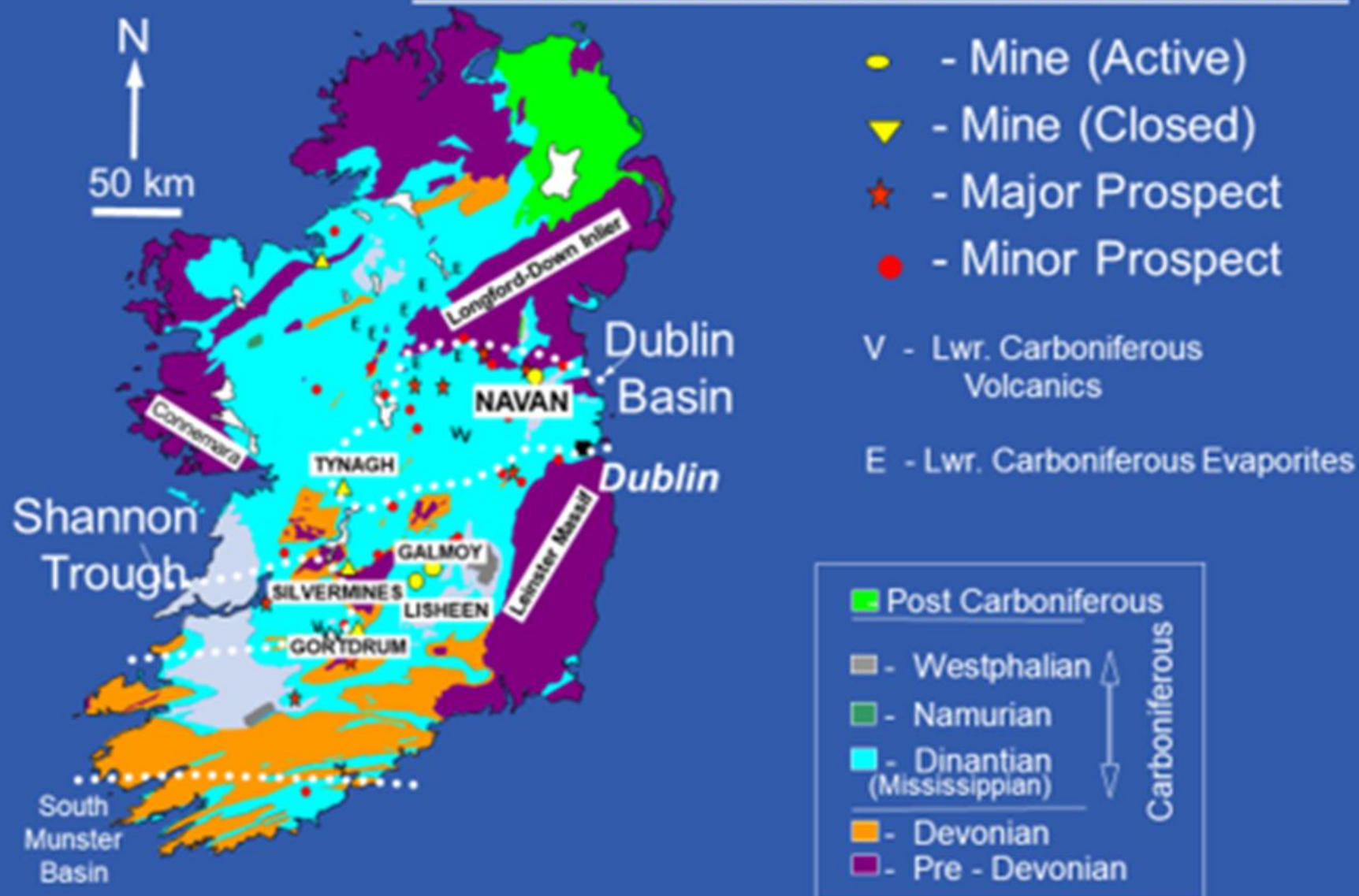
- Records of mining date back to the Bronze Age (ca 2000 B.C.) when southwest Ireland was an important copper and gold producer.
- Although iron was worked from the eastern half of Ireland during the 16th and 17th centuries, it was not until the late 18th and 19th centuries, that the Irish metal mining industry really flourished, triggered by the needs of the Industrial Revolution in Britain.
- Copper, lead-silver and other minerals, such as iron were mined along with extensive coal mining. Slate quarrying and pyrite mining also took place during this period as well as manganese and barite production in the south of the island.

- During this period, almost every county had at least one metal mine. Copper mining boomed, as did lead-silver extraction from numerous high grade, low-tonnage vein deposits.
- Fortunes were made and lost, not least during the gold rush between 1795 and 1830 at the Gold Mines River (Co. Wicklow), where an estimated 7-9,000 oz of gold were extracted from alluvial gravels.
- In 1824 the Mining Company of Ireland was formed and the Irish mining industry grew until the start of the American Civil War in the 1860s. Mineral prices collapsed and Ireland's mining industry subsequently collapsed.
- The 19th century in Ireland saw continuous copper, lead and silver output for over 70 years.

Today, Ireland is internationally renowned as a major zinc-lead mining province.

- Over the last 40 years a string of significant base metal discoveries have been made, including the giant ore deposit at Navan (>70Mt). Zinc-lead ores were also exploited from two other underground operations in south-central Ireland: Lisheen and Galmoy. The combined output from these mines, made Ireland the largest zinc producer in Europe and the second largest producer of lead.
- In addition to metal mining, Ireland has a rich heritage of industrial mineral and coal extraction. Both gypsum and brick shale are currently worked from open pit operations in Co. Cavan, whilst dolomite and fireclay are exploited from two sites in Co. Kilkenny.
- Other industrial minerals previously extracted in Ireland include barite, dimension stone, phosphate, silica sand and slate. During the early 1980s, the Ballynoe barite deposit was amongst the top 5 producers in the world. Coal was worked in Ireland as recently as the early 1990s, although it was most extensively worked in the 19th century.
- The large demand for road and building construction aggregates in Ireland supports a thriving quarrying industry. Today crushed rock and sand and gravel are exploited from in excess of 400 sites across Ireland.

Geological Map of Ireland Showing Carboniferous Carbonate-Hosted Orebodies

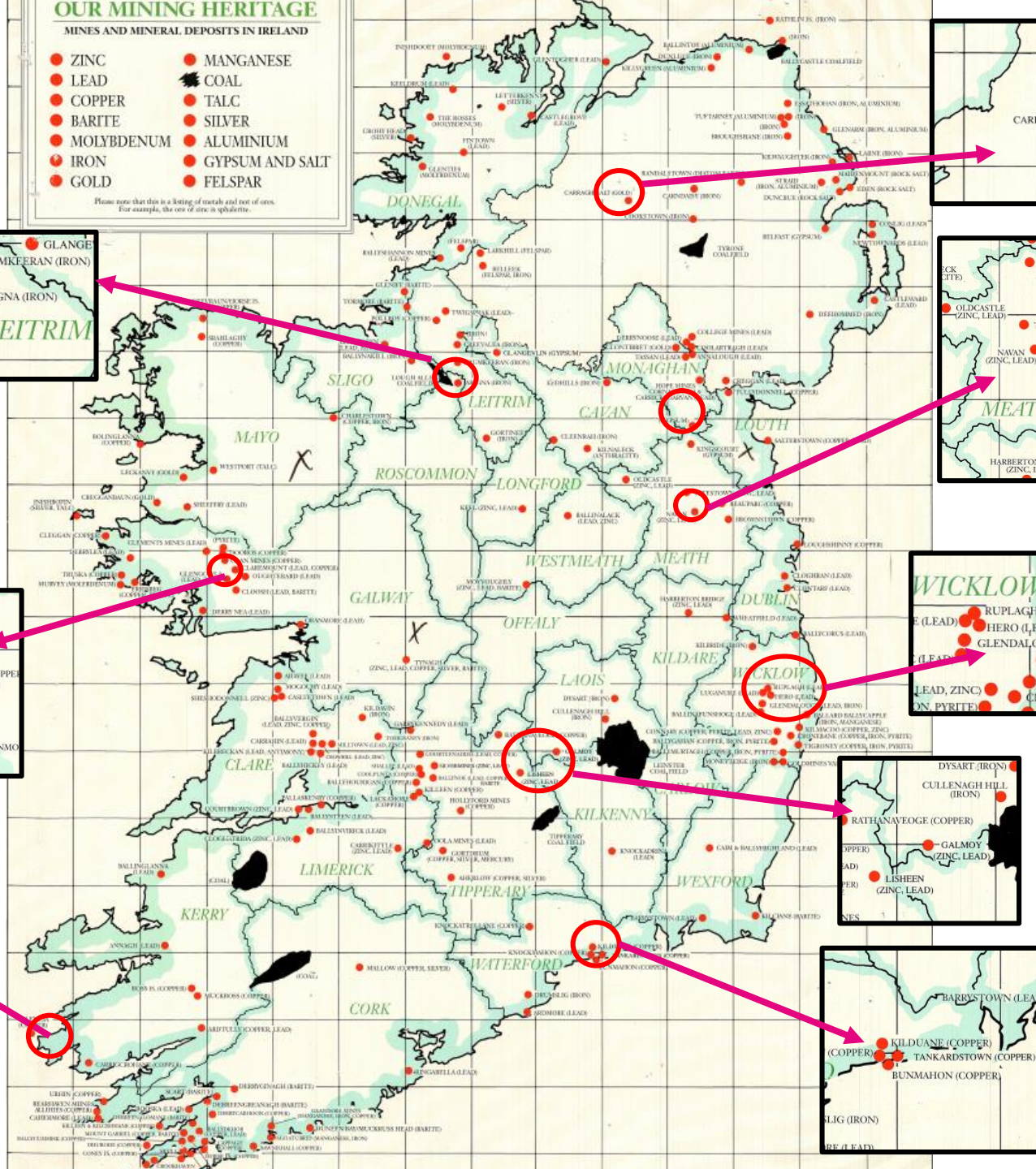
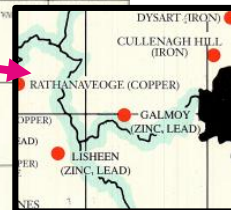
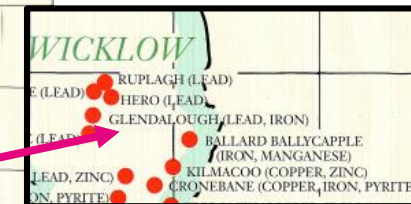
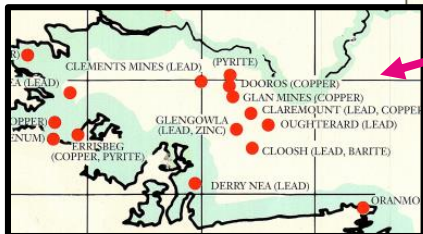
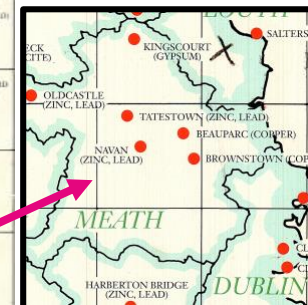


OUR MINING HERITAGE

MINES AND MINERAL DEPOSITS IN IRELAND

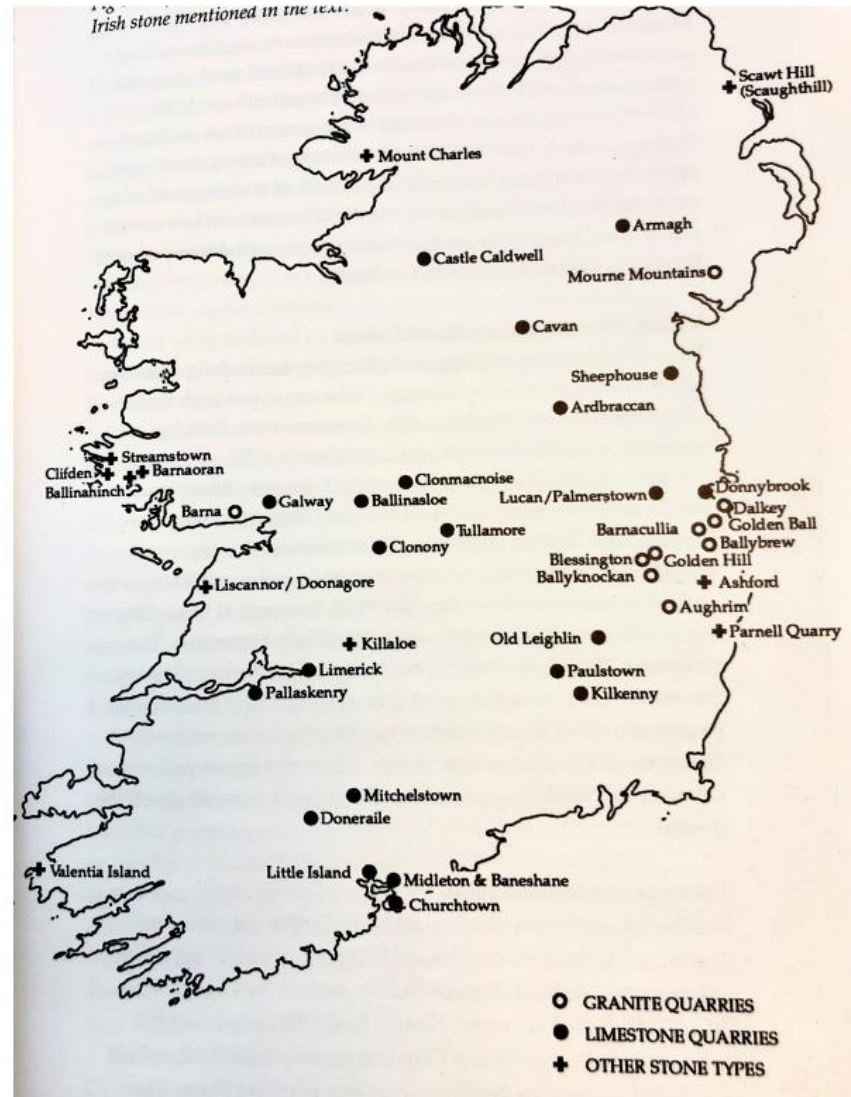
- ZINC
- LEAD
- COPPER
- BARITE
- MOLYBDENUM
- IRON
- GOLD
- MANGANESE
- COAL
- TALC
- SILVER
- ALUMINIUM
- GYPSUM AND SALT
- FELSPAR

Please note that this is a listing of metals and not of ores.
For example, the ore of zinc is sphalerite.

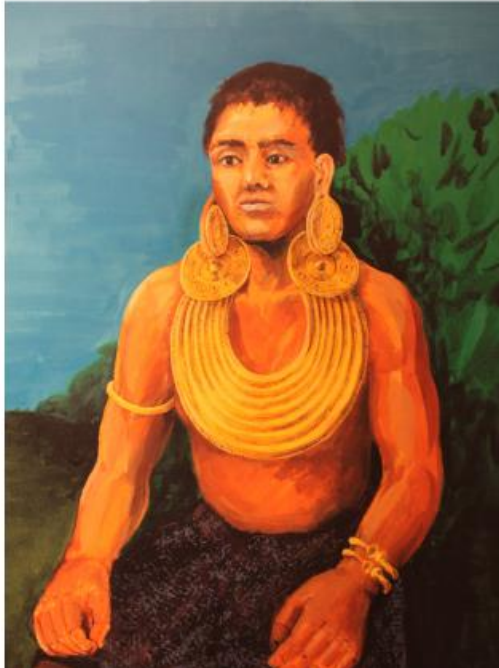


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Major Quarries Past and Present



During the early Bronze Age (approximately 2400-1500 B.C.) Irish mines were a valuable source of copper, while alluvial gold was used for some of the numerous gold ornaments of this period.

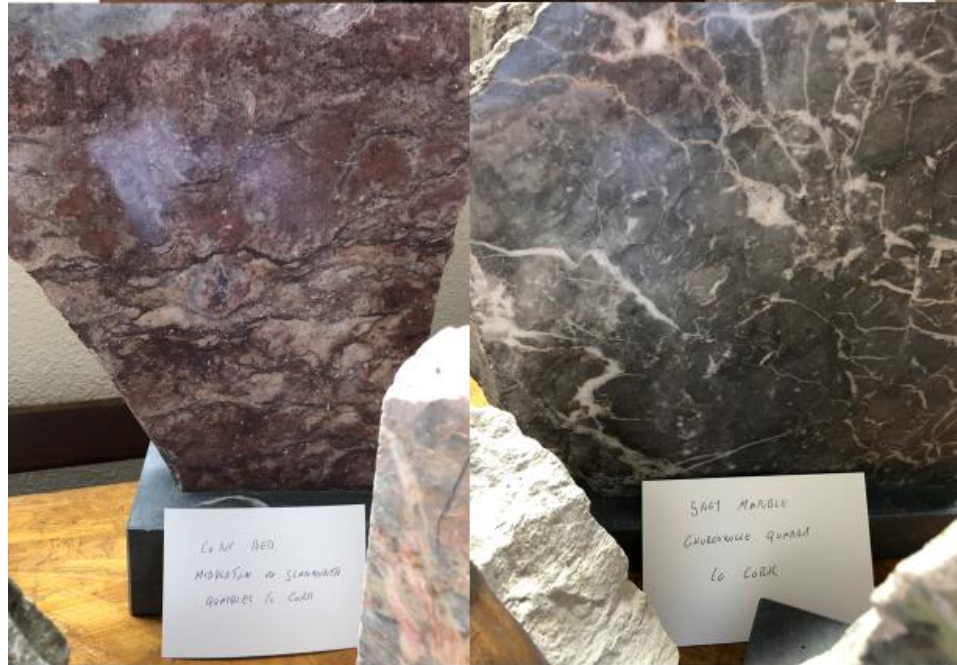


8th – 12th Century Artifacts

Gold jewellery and other ornaments when Ireland was a major centre of gold mining.




Irish Marble (Actually limestone, except Connemara Marble)



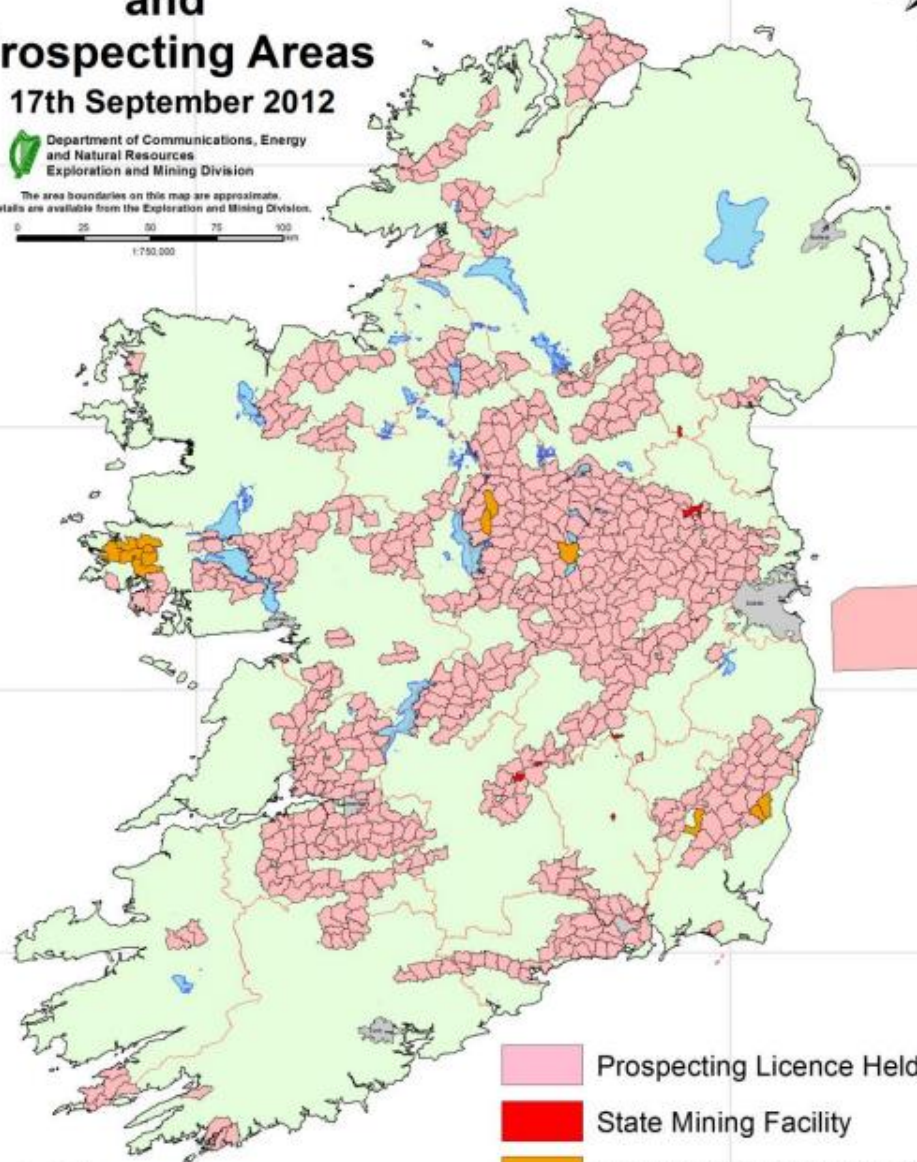
State Mining and Prospecting Areas




17th September 2012

 Department of Communications, Energy
and Natural Resources
Exploration and Mining Division

The area boundaries on this map are approximate.
Details are available from the Exploration and Mining Division.

0 25 50 75 100
1:750,000



-  Prospecting Licence Held
-  State Mining Facility
-  Licence Offered / Unavailable

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Source: Department of Communications, Energy and Natural Resources



An Bille Forbartha Mianraí, 2015
Minerals Development Bill 2015

Mar a tionscnaíodh

As initiated



Number 23 of 2017

MINERALS DEVELOPMENT ACT 2017

The **Minerals Development Act 2017** is a significant piece of legislation in Ireland that consolidates six earlier pieces of legislation dating from 1940 to 2006. It provides a clear regulatory and fiscal framework for the exploration, mining, and closure of mines in Ireland. The Act includes provisions on:

- The vesting of minerals in the Minister
- Prospecting and mining rights and duties
- The granting and renewal of prospecting and retention licenses
- Environmental practices and public interest considerations
- Liability for damage caused by prospecting activities

This Act is considered a key component in maintaining Ireland's high standing as an attractive destination for mineral-related investment.

Regulation of prospecting and mining: It set out the framework for the exploration and development of minerals in Ireland.

Vesting of exclusive rights: The bill proposed the statutory vesting of the exclusive right to work minerals in the Minister for Communications, Climate Action and Environment, subject to compensation.

Compulsory acquisition of rights: It allowed for the compulsory acquisition of other rights necessary for the efficient development of minerals, again subject to compensation.

Rents and royalties: The bill outlined the payment of rents and royalties to the State from the extraction of minerals.

Rehabilitation plans: It included provisions for the preparation and implementation of rehabilitation plans for abandoned mine sites.

During the proposal and discussion stages of Ireland's **Minerals Development Bill**, there was some opposition and debate.

- Concerns typically centered around environmental impacts, land rights, and the regulatory framework.
- For instance, debates in the Oireachtas (the Irish legislature) included discussions on the wording of the bill, with suggestions to change certain terms to strengthen the obligations of the parties involved.
- There were also broader discussions about the implications of the bill for Ireland's carbon trajectory and the associated long-term costs.

The bill's provisions were broad and enabling, with the intention that they would be brought into effect by regulations that could evolve and adapt as necessary. This approach allows for flexibility but can also lead to concerns about the potential for future regulatory changes that might not align with the initial intentions of the legislation.

It's not uncommon for such bills to face scrutiny and opposition, as they have to balance economic development with environmental protection and social responsibility.

Stakeholder engagement

Stakeholders played a significant role in shaping Ireland's **Minerals Development Bill**. The process involved:

- **Regulatory impact assessment:** This was conducted for the bill to understand its implications and gather feedback.
- **Public consultation:** The government engaged in a consultation process to gather input from various stakeholders, including industry representatives, environmental groups, and the public.
- **Advisory groups:** An advisory group on mineral exploration and mining was established to provide expert advice and recommendations.
- **Policy evaluation:** The Department responsible for the bill reviewed and evaluated its policy regularly to ensure that it reflected the stakeholders' concerns and the evolving needs of the sector.

These mechanisms ensured that the bill was developed with a broad range of perspectives in mind, aiming to create a modern regulatory regime that balanced economic development with environmental sustainability and social responsibility.

Based on stakeholder feedback, specific changes were made to the Bill during its legislative process. These changes included:

- **Regulatory impact assessment:** The bill underwent a regulatory impact assessment, which likely influenced its development and the inclusion of certain provisions.
- **Legal amendments:** Amendments were proposed to address legal anomalies, such as those related to the **Continental Shelf Act 1968**. This was to ensure that the bill was consistent with existing laws and addressed any issues identified during the drafting process.
- **Consultation requirements:** The bill included provisions for the Minister for Communications, Climate Action and Environment to consult with other relevant ministers, such as the Minister for Transport, Tourism and Sport, particularly concerning safety allocations before granting consent under the bill.

These changes reflect the government's response to the inputs from various stakeholders, aiming to create a comprehensive and effective framework for mineral development in Ireland. The bill's provisions were broad and enabling, with the intention that they would be brought into effect by regulations that could evolve and adapt as necessary. This approach allowed for flexibility and ensured that the legislation could be updated in response to future needs and feedback.

26 Jul 2017

Minerals Development Act 2017

6 Jul 2017

As passed by Dáil Éireann

Minerals Development Bill 2015

17 May 2017

As amended in Committee/Select
Committee (Dáil Eireann)

Minerals Development Bill 2015

9 Jul 2015

As initiated

Minerals Development Bill 2015

Results from this Act.

As a mining jurisdiction, Ireland has consistently been highly placed in the Fraser Institute Annual Survey of Mining Companies. The country's attractiveness as a destination for mining sector investment is enhanced by a number of factors, including modern mining and environmental legislation, an educated and skilled work force, experienced regulators, stable democratic government and EU membership.

The Investment Attractiveness Index takes both mineral and policy perception into consideration

An overall Investment Attractiveness Index is constructed by combining the Best Practices Mineral Potential index, which rates regions based on their geologic attractiveness, and the Policy Perception Index, a composite index that measures the effects of government policy on attitudes toward exploration investment. While it is useful to measure the attractiveness of a jurisdiction based on policy factors such as onerous regulations, taxation levels, the quality of infrastructure, and the other policy related questions that respondents answered, the Policy Perception Index alone does not recognize the fact that investment decisions are often sizably based on the pure mineral potential of a jurisdiction. Indeed, as discussed below, respondents consistently indicate that approximately 40 percent of their investment decision is determined by policy factors.

The top

The top jurisdiction in the world for investment based on the Investment Attractiveness Index is Finland, which moved up from 5th place in 2016. Saskatchewan experienced a slight drop in its score

fraserinstitute.org

Policy Perception Index: A “report card” to governments on the attractiveness of their mining policies

While geologic and economic considerations are important factors in mineral exploration, a region’s policy climate is also an important investment consideration. The Policy Perception Index (PPI), is a composite index that measures the overall policy attractiveness of the 91 jurisdictions in the survey. The index is composed of survey responses to policy factors that affect investment decisions. Policy factors examined include uncertainty concerning the administration of current regulations, environmental regulations, regulatory duplication, the legal system and taxation regime, uncertainty concerning protected areas and disputed land claims, infrastructure, socioeconomic and community development conditions, trade barriers, political stability, labor regulations, quality of the geological database, security, and labor and skills availability.

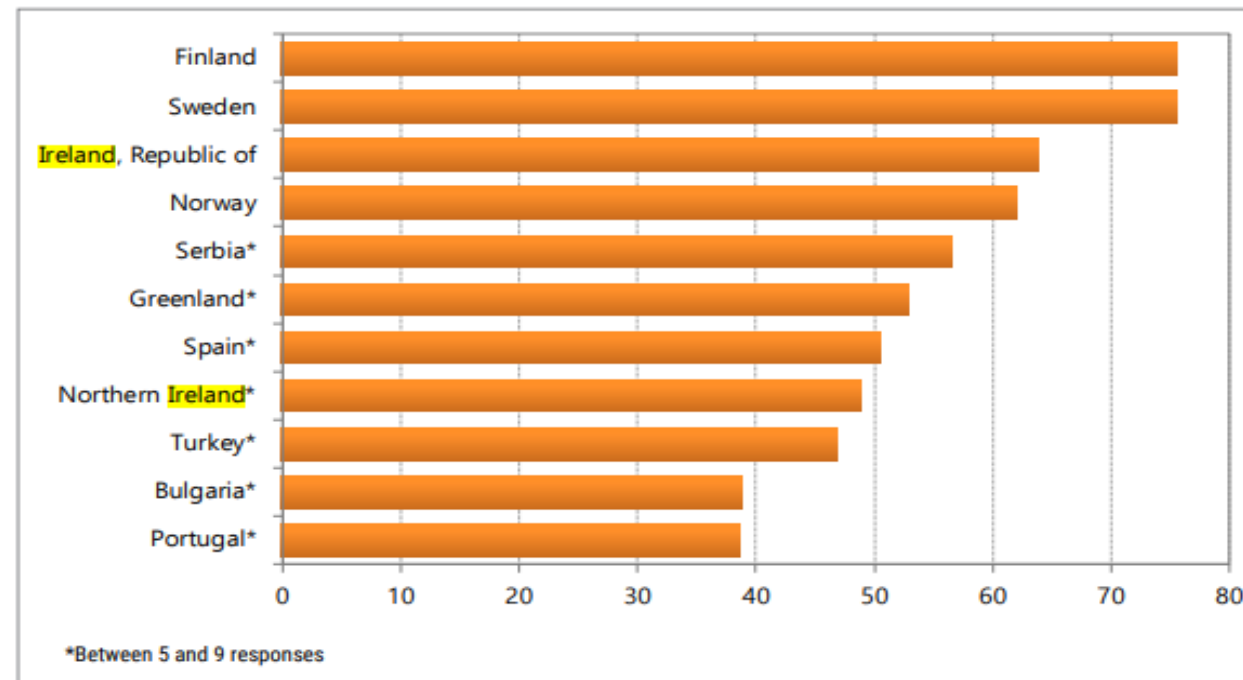
The top

For the fifth year in a row, the Republic of **Ireland** had the highest PPI score of 100. **Ireland** was followed by Finland in second, which moved up from 4th in the previous year. Along with **Ireland** and Finland the top 10 ranked jurisdictions are Saskatchewan, Sweden, Nevada, Northern **Ireland**, Michigan, Wyoming, Quebec, and Newfoundland and Labrador.

The Republic of Ireland ranks 15th (out of 86) for policy alone and 35th out of 86 on the Investment Attractiveness Index. Investors pointed to uncertainty regarding environmental regulation (48 percent of respondents), uncertainty concerning protected areas (45 percent), and regulatory duplication and inconsistencies (43 percent) as major deterrents to investment.

fraserinstitute.org

Figure 12: Investment Attractiveness Index—Europe



The table below highlights the recent trends in Ireland's output from metal concentrates (zinc and lead) as a percentage of global output and European output. Ireland also produces a significant tonnage of gypsum (approximately 300,000 tonnes in 2012).

Ireland's share of Global and European Output of Metal Concentrates from Mining Activity 2007-2012						
	2007	2008	2009	2010	2011	2012
Zinc						
Percentage Share of Global Zinc Output	3.5%	4.0%	3.4%	3.0%	2.6%	2.5%
Percentage Share of European Zinc Output	38.0%	38.0%	38.0%	32.0%	32.0%	32.0%
Lead						
Percentage Share of Global Lead Output	1.5%	1.2%	1.3%	1.0%	1.0%	1.0%
Percentage Share of European Lead Output	19.7%	16.0%	15.0%	11.0%	14.0%	13.0%
Source: Data from Department of Communications, Energy and Natural Resources (EMD) Annual Report 2011.						

Republic of Ireland

The Republic of Ireland is a jurisdiction where they do as they say, constantly, and in a transparent manner. Officials have a can-do attitude that follows the laws of the land, which is a refreshing change.

—An exploration company, Company president

This jurisdiction processes license approvals in a timely manner (normally 1–2 months) and permissions to drill can be issued within weeks. Ireland's efficient administrative processes ultimately encourage investment.

—An exploration company, Senior management

Mine Closure

The Lisheen Mine, which was an underground zinc and lead mine located in County Tipperary, Ireland, closed in 2015 after 17 years of operation. The closure process was a significant undertaking that involved:

- **Re-watering:** The mine's underground workings were flooded as part of the closure plan to ensure safety and environmental stability.
- **Tailings deposition restoration:** The tailings management facility, which covered a footprint of 70 hectares, was part of the rehabilitation efforts.



- **Equipment removal:** All mining equipment was removed from the site.
- **Sealing access:** The mine's access points were closed and sealed.

All underground equipment was removed along with potentially hazardous oils and other products. Removal of the underground pumps was carefully managed so that the majority of pumping equipment was drawn to the surface before the rise in underground water levels rendered this impossible. All surface equipment and underground was sold, with a large proportion being exported to mines abroad.

LISHEEN: PROGRESSIVE REHABILITATION *of 70ha of Mine Waste Area*



The closure received a completion certificate from the Environmental Protection Agency (EPA), signifying the successful execution of the mine closure plan.

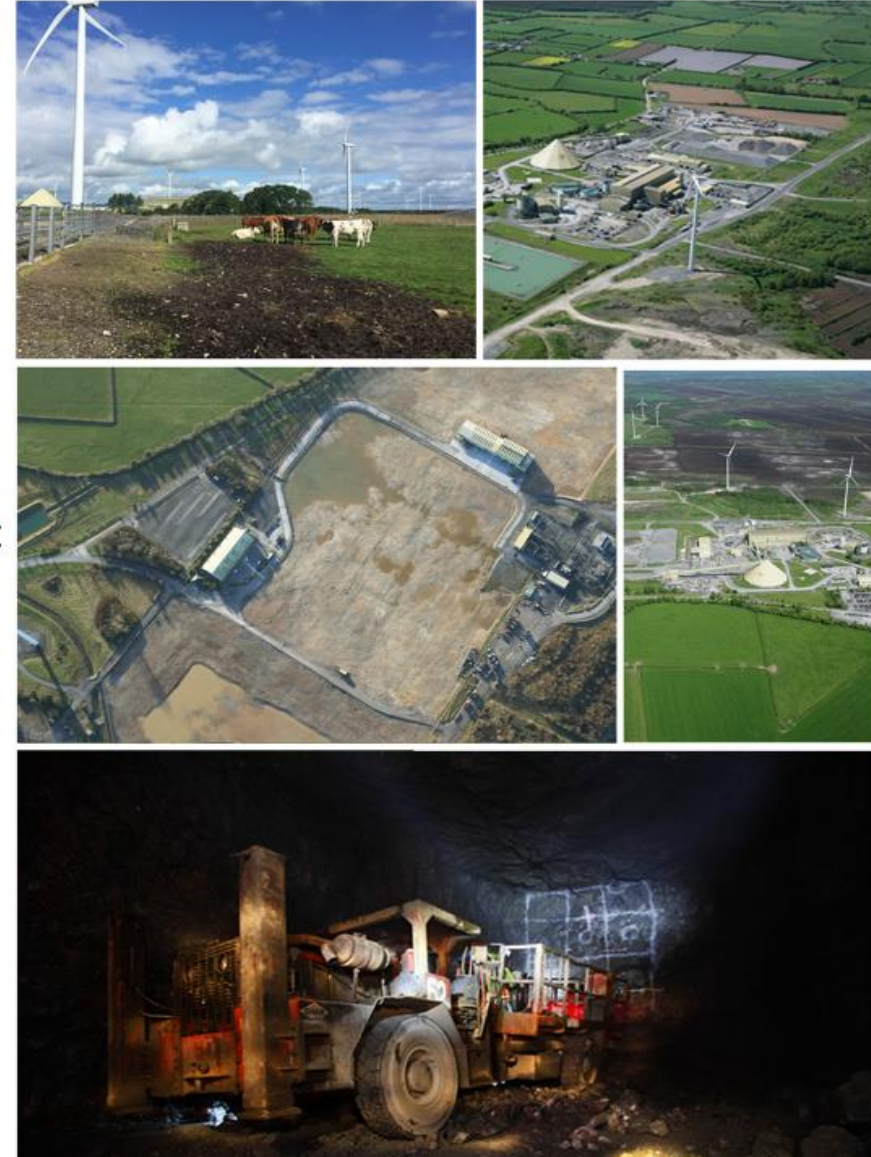
This was considered a significant achievement and a model for sustainability in the mining industry. The mine has now transitioned into aftercare, which involves monitoring and maintaining the site post-closure to ensure that it remains safe and stable.

Lisheen Lead and Zinc Mine, Co. Tipperary (Prod. 1999 – 2015)

22.4 million tonnes of ore were produced, at an average grade of 11.63% zinc, 1.96% lead and 26 ppm silver

A number of companies are now operating their business on the Lisheen site and this saw further investment in late 2017 when €4.6million in government aid was secured by the Irish Bioeconomy Foundation to convert the Lisheen administration building into a pilot plant for the bio-economy.

This will be a first for Ireland and will be a strategically important development for Ireland's burgeoning bio-economy.



The closure of the Lisheen Mine is considered to be one of the world's finest examples of environmentally sensitive mine closure and rehabilitation.

The Lisheen Mine's closure is often cited as a case study in best practices for the industry, showcasing how to operate and close a mine successfully while minimizing environmental impact and ensuring safety. It has set a precedent for mine closures globally, emphasizing the importance of responsible mining practices and aftercare plans that extend for decades post-closure.

Ireland Joins IGF as 71st Member, Commits to Sustainability in Mining

From [Department of the Environment, Climate and Communications](#)

Published on 3 March 2019

Last updated on 3 July 2020

The Government of Ireland expressed its commitment to responsible governance of the mining sector by joining the Intergovernmental Forum on Mining, Minerals, Metals and Sustainable Development (IGF). The IGF is a voluntary partnership that welcomes member states of the United Nations.

Ireland has a rich geology and a long history of mining with a proven track record in zinc and lead production. The country ranks as Europe's 3rd largest producer of zinc metal in concentrate and the 15th largest producer in the world. In addition, Ireland is Europe's 7th largest producer of lead metal in concentrate and 24th in the world. It has a very active prospecting sector with over 600 current prospecting licences and over 40 companies active in the area. In addition to lead and zinc, the country has also been identified as a source of barium, copper, gold, lithium, molybdenum, silver, as well as platinum group metals.

Ireland recognises the challenges and contribution of sustainable management of metal and mineral resources for achieving the UN Sustainable Development Goals and its mining policies reflect this recognition, for example in its development of a 'best practice' approach to mine closure.

The Irish Times

[Kevin O'Sullivan](#)

Mon Feb 26 2024 - 06:00

The Future?

Environment

Minister rejects criticism for issuing prospecting licences for lithium

Ireland must consider supplying critical raw materials if they can be mined in an environmentally-sensitive way, says Eamon Ryan



Lough Tay, Co Wicklow: prospecting licences have been issued to two applicants for lithium exploration in parts of Wicklow, Carlow and Wexford. Photograph: Nick Bradshaw

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GO RAIBH MAITH AGAT - AITÄH