



# INSTITUTE OF GEOLOGISTS HIGHLIGHTS CRITICAL ROLE OF MINING FOR A SUSTAINABLE FUTURE

## IGI launches educational resources to support learning

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The Institute of Geologists of Ireland (IGI) wants to ensure that members of the public have access to facts on the critical role of mineral exploration and mining to our sustainable future. The IGI, the accrediting body for professional geoscientists on the island of Ireland, has launched a new science-led series of factsheets designed to raise awareness of the role of mineral exploration and mining in meeting Ireland's future societal, economic and environmental needs.

Available as a free resource from [www.igi.ie](http://www.igi.ie) the series aims to support learning and help inform the public conversation, including among communities, environmental interest groups, public representatives, and anyone with an interest in Ireland's green energy future.

The information, produced by the Minerals Information Working Group of the IGI, comprising expert mineral exploration, mining and environmental geologists on the island of Ireland, also aims to address some of the misinformation, or outdated perceptions in relation to the industry and its practices, which are subject to rigorous safety

and environmental standards and regulation. In this context, IGI cautions that persistent misinformation in relation to exploration activities could eventually affect the industry's ability to support society's transition to a greener economy.

### Renewable Energy reliance on Minerals

The European Green Deal recognises the importance of ensuring supply of both primary (mined) and secondary (recycled) materials necessary for the transition to green technology. However, raw materials are lost in part or in full at various stages in the circular economy cycle. This means significant challenges still exist when it comes to realising a more circular economy without continued primary metal production.

With decarbonisation at the core of the green economy and climate action, the switch from fossil fuels means moving to renewable options such as wind energy, solar energy, geothermal energy and battery storage. However, society's awareness is perceived as low that all of these processes are reliant on using a wide variety of metals and minerals. IGI highlights Europe's 75% import dependence for almost all metals and up to 100% for some critical minerals. As consumption increases, more mineral exploration will be required to help meet future demands.

The context for this is multifaceted; mineral production in Europe is already lagging behind the

rest of the world, and declining (down 19% between 2000 and 2018) yet demand for minerals and metals has reached an all-time high, driven by population increase, advances in modern technologies and the move towards a low-carbon economy.

### Ireland attractive for exploration, investment & careers

Ireland is a major international source of zinc, ranking fourth in Europe for zinc production. The Republic of Ireland and Northern Ireland are consistently ranked highly in terms of Investment Attractiveness (Fraser Institute, 2021) for mineral exploration, currently 2nd and 6th in Europe respectively.

Ireland can offer more. Strong potential exists to further explore for zinc, in addition to other known metals critical to the green economy which are also found on the island including silver, gold, copper, lead, lithium, barytes, antimony, cobalt, Platinum Group Elements and Rare Earth Elements.

Like the energy sector itself, the profession is also evolving, and Irish geologists have a frontline role to play in the green energy transition. Geologists are adapting to work in green energy technologies such as geothermal energy, carbon capture and energy storage. In doing so they are bringing their significant wealth of knowledge and skills to these technologies and are helping drive the change to a more sustainable future.

**John Barry** of the IGI said:

*"Renewable energy to mitigate climate warming is not possible without metals. Mineral exploration and mining are essential to ensure supply of these metals. The link between mining and our civilisation can be traced back as far as the Stone Age. Ironically, over time, the critical role of mining has become less recognised in an increasingly technological world. A world which is increasingly reliant on these critical metals."*

*"IGI is encouraging people to find out about mineral exploration and mining, which are highly regulated in both the Republic of Ireland and Northern Ireland. A growing demand for consumer technology and essential infrastructure relies on new supplies of metals and minerals. IGI's new factsheets highlight the link in practical examples for the public."*

*"The availability of data-led, scientific information from IGI represents an important step in countering misconceptions and misinformation, so that the geologists' work to identify and develop Ireland's future mineral resources is understood and acknowledged by all."*

### Notes to Editors:

- **Independent research** shows direct expenditure on mineral exploration in Ireland averages about €26m per year, while metal mining annually contributes approximately €550m directly to the economy as well as a further €230m in gross added value. (Source: Indecon Report – An Economic review of the Irish Geoscience Sector, November 2017).
- The **Republic of Ireland**, at present, only has two operational underground mines, Tara Mines zinc-lead mine in Navan, Co. Meath and the Drummond Gypsum Mine in Co. Monaghan. Tara Mines has been in operation for over 40 years and is the largest zinc mine in Europe.
- **Northern Ireland** currently has one active underground mine operated by Irish Salt Mining and Exploration, mining salt at Kilroot in Co. Antrim since 1965.
- **Recently closed zinc-lead mines** at Galmoy in Co. Kilkenny and Lisheen in Co. Tipperary provide excellent examples of the effective management and winding down of operational mines while having a positive impact on their surrounding areas. Over the course of its 16 years of operation the Lisheen mine added €1.3 billion in gross value to the Irish economy, while creating 350 direct jobs. A wind farm which powered the mine in its latter years and the whole town of Thurles has been added to and continues to supply enough electricity to fully power 70,000 homes or nearly the city of Galway.

### About IGI

The Institute of Geologists of Ireland (IGI) was founded in 1999 to promote and advance the science of geology and its professional application in Ireland; and to ensure that its members uphold, develop and maintain the highest professional standards through professional accreditation. The IGI is an all-island body representing 316 members across the mineral exploration, mining, hydrogeology, environmental, energy and geotechnical disciplines. [www.igi.ie](http://www.igi.ie)