

IRISH GEOSCIENCE NETWORK ORGANISATION REPORTS for 2025

**Hybrid Meeting held
25th March 2026 at 5:30pm
at IGI, 63 Merrion Square, Dublin 2
and on Zoom**

Report compiled by IGI



Members of the Irish Geoscience Network (IGN)

- Trinity College Dublin, Department of Geology (TCD)
 - University College Dublin, School of Earth Sciences (UCD)
 - University College Cork (UCC)
 - University of Galway: Earth and Ocean Sciences (EOS, UG)
 - Geological Survey Ireland (GSI)
 - Geological Society – Northern Ireland Branch (GeoSocNI)
 - Geological Survey of Northern Ireland (GSNI)
 - Irish Association of Economic Geologists (IAEG)
 - Geotechnical Society of Ireland
 - Irish Geological Association (IGA)
 - Institute of Geologists of Ireland (IGI)
 - International Association of Hydrogeologists Irish Group (IAH)
 - National Museum of Ireland (NMI)
 - Royal Irish Academy (RIA), Geosciences and Geographical Sciences Committee
 - Irish UNESCO Global Geoparks
 - Geoscience Ireland (GI)
 - Irish Mining and Quarrying Society (IMQS)
 - Irish Quaternary Association (IQUA)
 - Petroleum Infrastructure Programme (PIP)
 - Open University Geological Society Irish Branch (OUGS)
 - Ulster Museum
 - Dublin Institute of Advanced Studies (DIAS)
 - Department of Climate, Energy and the Environment: Geoscience Regulation Office
 - Department of Climate, Energy and the Environment: Geoscience Policy Section
 - Irish Brownfield Network (IBN)
 - Research Ireland Centre for Applied Geosciences (iCRAG)
 - Geomorphological Association of Ireland (GAI, formerly IGGy)
 - European Association of Geoscientists and Engineers (EAGE)
 - Irish Association of Women in Geoscience
 - Speleological Union of Ireland
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- Soil Science Society of Ireland
- Geothermal Association of Ireland (GAI)
- Get into Geoscience Ireland

Contributors to this report

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2025 - An overview of activities by the Institute of Geologists of Ireland (IGI)

The Institute of Geologists of Ireland (IGI) was established in 1999 with the mission of promoting and advancing the science of geology and its professional application in all disciplines, especially the geosciences and to facilitate the exchange of information and ideas. The IGI is a registered charity and is run by its members on a voluntary basis. There is a rotating board who is supported by an executive secretary and the organisation relies on the energy and generosity of our membership who give of their time to maintain and develop the IGI and our strategic goals.

The IGI was established and is maintained with the support of our sponsoring bodies, the Irish Association for Economic Geology (IAEG), the Irish Mining & Quarrying Society (IMQS), Geophysical Association of Ireland (GAI), Geotechnical Society of Ireland (GSI), and the International Association of Hydrogeologists (Irish Group, IAH). The IGI has Mutual Recognition Agreements (MRA) with many of the largest geoscience organisations across the world and is part of the European Federation of Geologists through which it can award the EurGeol title.

IGI Members are required to uphold, develop and maintain the highest professional standards in the practise of their profession. To this end all members must undertake CPD recording for approval on an annual basis. IGI maintain a number of specialist registers for geoscientists who specialise in specific assessments including Contaminated Land/Unregulated Waste and Pyrite/Deleterious Substances.

IGI is represented on a number of advisory groups by members including; National Standards Authority of Ireland, Royal Irish Academy, Geothermal Policy Advisory Group, Minerals Policy Advisory Group, GSNI Science Advisory Committee, Pan European Reserves and Resources Reporting Committee amongst others.

The IGI currently has 423 (as of end of February) members across a number of membership categories. Professional membership of the IGI is open to all practising geoscientists who meet the required standards of qualification and experience. For information on how to apply, please visit www.igi.ie.

IGI Activities since the last IGN meeting, March 2025

Annual General Meeting 2025

The IGI 2025 AGM was held on 24th June as a hybrid meeting, in-person at 63 Merrion Square and virtually via Zoom. 14 people attended in-person and enjoyed a social reception afterwards. A further 12 or so members attended via Zoom.

Energy Geoscience Webinars

IGI 's Energy Geoscience Working Group hosted a series of lunchtime webinars between October and November 2025.

The online seminar series focused on the energy transition. This four-part lunchtime webinar series spotlighted key areas of energy geoscience, and featured expert speakers from academia, government agencies, and industry. Attendees gained an understanding of how geoscience supports Ireland's energy security and sustainability, and insights into cutting-edge research and industry developments

The topics were aimed at early- to mid-career geoscientists, engineers and planners and included:

- "Seafloor mapping in support of offshore renewable energy development" – Dr Aaron Lim, University College Cork
- "Geothermal energy in Ireland - recent developments and future plans" – Dr Sarah Blake, Geological Survey Ireland
- "Renewable Resources to Hydrogen: storage and end-use" - Keith Byrne, Aspen Energy
- "GeoStorIE. Update on the assessment of Ireland's offshore geostorage potential" – Dr Kara English, Dr Pablo Rodriguez Salgado, Dr Gustavo Martins, University College Dublin

Online attendance during the webinar series was approximately between 30 and 40 per webinar.

Geotechnical Soil & Rock Logging Course

IGI facilitated another popular "Geotechnical Soil & Rock Logging" course. This valuable and essential training was held twice, each course over two days, in June 2025. 16 people attended the course on the 9th and 10th June, while 10 people attended on the 11th and 12th June. The training was facilitated by Julian Lovell of Equipe Group, with the support of Causeway Geotech, and took place at CityNorth Hotel, Gormanstown, Co. Meath.

Consultation Responses

During the last year the IGI maintained its public profile on a number of fronts, in line with the 2019-2024 strategy. We responded to a number of issues concerning geoscience in Ireland through the year via public consultations or direct representations.

These included:

- Whole of Government Circular Economy Strategy 2026-2028 – The IGI welcomed the inclusion of the Critical Raw Materials Act in the Strategy and highlighted current constraints in the recycling of metals and the growing potential for application of circular concepts to the extractive industries.
- Louth County Development Plan - The IGI emphasized that any plans to expand housing and modernise existing infrastructure will require substantial volumes of materials and suggested that a first step for County Councils is to understand what mineral resources may be present within their borders. Establishing resource availability - both minerals and aggregates - can help prevent future land-use conflicts and streamline the planning and permitting process. The GSI resources and the IGI's factsheets were highlighted as sources of information. The Chief Executive's recommendation on review of submissions was "to recognise the importance of raw materials in facilitating economic growth and development and that the suitability for any extractive developments will be assessed against a range of environmental criteria" and "to engage with the IGI and the Geological Survey of Ireland in identifying Louth's critical raw materials in line with the adoption of the CRMA 2024".
- Meath County Development Plan - A similar submission to the Louth CDP was made to Meath but also included recognition of Tara Mines. The Chief Executive acknowledged "the importance of safeguarding mineral and aggregate resources from inappropriate development that could sterilise future extraction" and the "Council looks forward to further engagement with the GSI on future stages of the CDP process".

Pan-European Reserves and Resources Reporting Committee (PERC)

The IGI is a founding member of PERC and holds three committee places at a European level. Job Langbroek, Emma Brosnan and Ally O'Brien served as the IGI representatives on PERC during 2025. Additionally, John Clifford is one of the four PERC trustees and David Dingemans is the coordinator of the Standard Update Sub-Committee. Edmund Sides is now Deputy Chair of CRIRSCO. This highlights the fact that through its membership of PERC, the IGI can have an influence on the evolution of minerals reporting standards and good practice at an international level.

The PERC AGM will be held in Dublin in early June 2026. PERC and IGI are running a Training Event, comprising presentations in the morning (hybrid) and an in-person workshop in the afternoon. It will be held at Department of Climate, Energy and the Environment, Tom Johnson House, Haddington Road, Dublin 4, D04 K7X4 and many thanks to the DCEE for hosting. Details are on the PERC website [PERC | PAN-EUROPEAN RESERVES & RESOURCES REPORTING COMMITTEE](#) and please follow PERC and IGI on LinkedIn for more updates.

The PERC AGM will be held at the same venue on the 5th June and is for PERC committee members only.

European Federation of Geologists (EFG)

The European Federation of Geologists is a non-governmental organisation that was established in 1980 and includes 27 national association members representing over 45,000 geoscientists across Europe and two associated members – the American Institute of Professional Geologists (AIPG) and Geoscientists Canada. EFG is a professional organisation whose main aims are to contribute to a safer and more sustainable use of the natural environment, to protect and inform the public and to promote a more responsible exploitation of natural resources. EFG's members are National Associations (NAs), whose principal objectives are based on similar aims. The guidelines to achieve these aims are the promotion of excellence in the application of geology and the creation of public awareness of the importance of geoscience for society.

The EFG Council meets twice a year with a Winter Council meeting held in November/December in Brussels and a Summer Council meeting held in May/June in one of the member countries. The executive authority of the Council is enacted by the Board, which is appointed for a two-year term and comprises a President, Vice-President, General Secretary, Treasurer and External Relations Officer. The Board meets four to six times a year, mostly in Brussels, with the day-to-day business of EFG maintained within the Board by email.

The EFG Spring Council meeting took place in Naples in May 2025 and was attended by IGI EFG Representatives Paul McDermott and Pól Ó Seasnáin. Items of interest from the meeting included:

- preparation for the 5th International Professional Geology Conference (IPGC) in Zaragoza in November 2025 <https://www.5th-ipgc.com/>,
- appointment of Executive Director and External Relations officer of EFG,
- diversification of income streams in response to emerging budgetary picture,
- progressing professional recognition status with the EU's DG Employment (which will involve developing a harmonised competency framework),
- representation at COP29 in Baku and upcoming COP30 in Brazil,
- development of the EFG's online training Academy with CPD accreditation
- supporting EU research projects in the geoscience area e.g. Novel CO2 based electrothermal energy and geological storage system <https://ceegsproject.eu/>.

Paul and Pól also represented IGI at the EFG Council meeting in Zaragoza in November 2025 which was held jointly with the 5th IPGC and items of interest from the meeting included

- presentations by associate members from Canada, South Africa and U.S.,
- EFG application numbers and marketing of EFG title,
- advocacy events in European Parliament,
- approval of Macedonian Geological Society as a new National Association and new contacts with associations in Azerbaijan, Armenia and Moldova,
- updates to the EFG Regulations and involvement in EU funded projects

Pól will attend the Spring Council Meeting in May 2026 in Milos, Greece.

The IGI Committees & Working Groups:

IGI Validation Committee: The Validation Committee continued to be very busy throughout 2025 and early 2026 with continued growth in membership applications. Since the last IGI meeting in March 2025, the committee has interviewed 32 candidates for professional membership, and approved 31 new professional members (PGeo).

15 Members-in-Training (MIT) were approved along with 4 new Student members admitted to IGI since March 2025. 2026 is shaping up to be another busy year with applications currently being processed for 10 PGeo applicants, 7 MIT applicants and 1 Student applicant and more expected in July.

Contaminated Land Committee: This working group was set up to deal with matters arising in relation to Contaminated Land which would have an impact on our members in line with the overall IGI Strategy. They are also responsible for the maintenance and review of the IGI's Register of Professionally Qualified Geoscientists / Competent Persons (in respect of environmental risk assessment for regulated and unregulated waste disposal and contaminated land).

Environmental Impact Assessment Reporting Working Group: A working group was set up in 2019, following on from a call to the IGI membership for volunteers. It includes members from public service and industry, with a range of experience across the areas of the guidance. The existing IGI guidance needs updating, to reflect changes in the environmental impact assessment procedures and reporting, arising from an amendment to the EU EIA Directive (EU Directive 2011/92/EU and its subsequent amending Directive 2014/52/EU) in so far as they apply to the soils, geology and water elements of the environment.

Minerals Information Working Group: The IGI convened a Minerals Information Working Group in early 2020. The group has the following objectives:

- a) To address the growing trend of misinformation about mining and exploration on the island of Ireland;
- b) To provide factual information on mining and exploration on the island of Ireland to all stakeholders, including the media, various interest groups and the general public.

There are now 14 members, including IGI Board Treasurer Emer Blackwell (chair) and IGI Board Member Pól Ó Seasnáin. The group is predominantly composed of geologists working in or retired from the minerals industry, or associated fields.

MIWG met regularly during 2025 to discuss matters relating to the minerals industry, particularly how minerals may impact/be impacted by national and local policy. The MIWG made contributions to the IGI submissions to the Whole of Government Circular Economy Strategy and the Louth and Meath County Development Plans. The MIWG intends to continue to make representations on the other upcoming County Development Plans as they open for submissions.

Energy Geoscientists Working Group: the Energy Geoscientists Working Group aims to raise awareness of the geoscientist's roles in the energy sector; and to support geoscientists and petroleum geologists so that their skills and experience can be applied to achieving a Just Energy Transition for Ireland. The group is made up of 14 members (both IGI members and non-members) who work in the fields of consultancy, renewables (hydro-, solar, wind and geothermal), environmental protection, exploration, research, policy and academia. Members are based in Ireland, the UK and the USA. The broad range of skills provides a rich wealth of knowledge in energy geoscience. The group has met regularly over the last year, continuing work on its agreed Terms of Reference. This has included submission of material for consultations and running an energy-related webinar series in October and November 2025 (as outlined above).

The group also has a member on the Geothermal Energy Advisory Group which advises on geothermal policy development in Ireland

The IGI Energy Factsheets can be found here [Energy Geoscientists Working Group – The Institute of Geologists of Ireland \(igi.ie\)](https://www.igi.ie/energy-geoscientists-working-group)

Equity, Diversity and Inclusion Committee: the Equity, Diversity and Inclusion (EDI) Committee has the objective of promoting and increasing equity, diversity and inclusion among IGI members and in the broader geoscience profession. These objectives are strategic objectives of the IGI for the period 2019-2024 and beyond. There are 8 members on the EDI committee and they meet regularly throughout the year. The current initiatives include maintaining a partnership with the Irish Centre for Diversity (ICFD) and to retain our Investors in Diversity Bronze Award via the ICFD Investors in Diversity programme; ongoing support for the iCrag EDIG project; developing a Fieldwork Code of Conduct; provision of supports (e.g. mentoring, financial, information, advocacy) for geoscientists or those looking to study geoscience from marginalised, disadvantaged or underrepresented groups and raising awareness of EDI issues.

The IGI "Investors in Diversity Bronze Award" was issued by the Irish Centre for Diversity (ICFD)" - [Investors In Diversity Bronze - Irish Centre for Diversity](https://www.icfd.ie/investors-in-diversity-bronze). The award is the first in three stages of Investors in Diversity. It provides the IGI with a framework to put in place a strong foundation to embed D&I into wider organisational systems. In addition to being a starting point for those that are beginning their Diversity and Inclusion (D&I) journey, this best-practice model provides a roadmap that builds on existing initiatives to ensure the organisation is equipped for the journey of becoming more Equitable and Inclusive.

As part of the assessment and award processes the ICFD undertook a review of IGI's policies including the Code of Ethics, Membership Guidelines and procedures. Additionally, the IGI board and various committee members have undertaken Inclusive Leadership training provided by the ICFD and are due to undertake some refresher training in April.

Heads of Geoscience Group (HOGGs) The IGI continues to facilitate collaboration in the geoscience community, through convening the Heads of Geoscience Groups forum to make sure that the geoscience community in Ireland is connected and working together.

The IGI acknowledges the continued support of our sponsoring bodies, the Irish Mining & Quarrying Society (IMQS), Geophysical Association of Ireland (GAI), Geotechnical Society of Ireland (GSI), Irish Association for Economic Geology (IAEG) and the International Association of Hydrogeologists (Irish Group, IAH).

EurGeol Yvonne O'Connell PGeo

IGI Vice-President



IRISH ASSOCIATION FOR ECONOMIC GEOLOGY

Each year the Irish Association for Economic Geology organises a series of lectures, conferences, and short courses aimed at industry professionals, academia and students. Its membership comprises geoscientists working in Ireland and internationally. 2025 was a busy year for the IAEG, with six lectures, two conferences and one short course. During 2025 the IAEG deepened its collaboration with other Irish organisations, and combined with the Irish Mining & Quarrying Society to host a half-day conference in September.

2025 Programme

Event	Date	Location	Title
<i>Lecture Series</i>	25 th March	Virtual via Google Meet	PhD Student Seminar
<i>Lecture Series</i>	1 st April	Virtual via Google Meet	David Hall Fund Student Lectures
<i>Lecture Series</i>	25 th June	Virtual via Google Meet	The impact of Copper Mineralogy on Recovery – Elly Shaw
<i>Lecture Series</i>	27 th August	Virtual via Google Meet	The Sherlock Lens: Looking for base metals in the Iberian Pyrite Belt – Filipa Luz
<i>Lecture Series</i>	14 th October	Virtual Via Google Meet	Geology and Exploration of the Kalahari Copperbelt, Botswana – Mpho Keeditse
<i>Annual Conference</i>	15 th -16 th September	Hillgrove Hotel, Monaghan	Copper – The Green Metal
<i>Conference</i>	16 th September	The Park Hotel, Mullingar	IAEG/IMQS: Ireland's Natural Resources: Signs of Revival and Change
<i>Student Logging Course</i>	18 th October	Lisheen Corestore, County Tipperary	Student Logging Course – led by Aiden Lavelle
<i>AGM and talk</i>	25 th November	Virtual via GoogleMeet	The Mining Cycle of Cononish Gold Mine – Rachael Paul

The IAEG Lecture Series will continue this year, starting with a PhD Seminar presented by Victoria Susin, Jack Beckwith and Philippe Mongeau on the 4th of February. On the 2nd of March members were updated on the David Hall fund bursary recipients student mapping projects. The lecture series

will continue with an Early Careers Talk to be presented by Ron Voordouw of Equity Exploration on the 24th of March.

The IAEG has also been collaborating with the Joly Geological Society of Trinity College Dublin and plans to organise an early careers and networking in person talk in Trinity at the end of March.

The 2026 Annual Conference will have a theme of Precious Metals, and is to be held on the 21st and 22nd of May in the Tower Hotel, Waterford City.

“The David Hall Mineral Exploration Fund”, which was established in 2024, has raised over €15,000 to date. In 2025 grants were issued to Theertha Rajesh and Natalie Cole, in order to fund their fieldwork in Northern Spain.

All updates to the planned programmes will be communicated directly to members and posted on the IAEG website – www.iaeg.ie.

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UCD School of Earth Sciences

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In 2025, the UCD School of Earth Sciences continued to operate from dispersed locations across the O'Brien Centre for Science while awaiting completion of Phase III of the Science Centre redevelopment, which will deliver new laboratory and teaching facilities in 2026. Despite these temporary arrangements, the School has continued to strengthen its research infrastructure. A recent SFI Infrastructure award enabled the acquisition of a Multi-Sensor Core Logging (MSCL) system for advanced core characterisation. This system supports research on both sediment and rock cores and complements existing facilities, including the petrophysical laboratory and the Itrax XRF core scanner.

The School continues to host iCrag, whose second phase runs until the end of 2026. In 2025, Professor Sarah Gleeson joined the School through a Research Ireland Professorship as the new Director of iCrag and Full Professor in Sustainability Geoscience, supported by the HEA Senior Academic Leadership Initiative (SALI). Her research focuses on the genesis of sedimentary rock-hosted mineral deposits, Ni–Co laterite ore deposits, aqueous fluid processes, and water–rock interactions in crustal environments. She will lead a major new research programme, further strengthening the School's growing international reputation as a centre for economic geology and critical mineral exploration. Professor Gleeson succeeds Professor Murray Hitzman, who retired in 2025 after providing outstanding leadership and transformative change to iCrag since 2018.

The School also marked the retirements of Dr Conrad Childs and Dr Maeve Boland, both of whom made significant and valued contributions over many years. Professor Peter Haughton completed his term as Head of School, with Dr Kara English assuming the role in 2025.

Several new faculty members joined during the review period. Dr Alan Seltzer was appointed Assistant Professor, specialising in hydrogeology and gases in groundwater, and is leading initiatives to broaden the research scope of the National Centre for Isotope Geochemistry. Dr Vincent Roche joined with expertise in structural geology. Dr Anya Crocker brings specialisation in paleoclimatology, and Dr Pablo Rodriguez-Salgado joined as Assistant Professor of Sedimentology. The School also welcomed Research Ireland Pathway Fellow Edith Kubik, who is leading research on planetary formation. The School also hired two new technical officers, Dr Maurice Brodbeck and Guilherme Bettencourt.

The School continues to expand and evolve its teaching portfolio. Alongside the established MSc in Subsurface Geomodelling, a new MSc in Engineering and Environmental Geoscience will launch in 2026. Undergraduate offerings are being refined to reflect developments in the discipline, including the introduction of new modules in Earth systems science. The School is also progressing toward accreditation of its BSc in Earth Sciences programme.

Field-based learning remains a cornerstone of the curriculum, complemented by strong training in digital, spatial, and mapping skills. Recent fourth-year projects have included fieldwork in Greece and Spain, reflecting the School's commitment to providing high-quality, internationally engaged training experiences.

Beyond its core programmes, the School contributes significantly to the UCD BSc in Sustainability. This includes delivery of a first-year core module, provision of elective options, an exit pathway into the Earth Sciences degree programme, and coordination of an interdisciplinary capstone module addressing real-world challenges. School staff also supervise BSc Sustainability capstone projects.



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Earth and Ocean Sciences (EOS) had a very successful year. September 2025 marked the largest intake of first year students into the EOS denominated degree programme (GY314) in several years (20 students). The discipline ascribes the growth in numbers to a successful recruitment and outreach campaign that culminated in an Earth and Ocean Sciences “meet and greet” event during March 2025, when interested senior cycle students were invited to engage directly with EOS staff, students and a number of our recent graduates. In addition, Earth and Ocean Sciences launched an explainer film for the degree programme which is available on YouTube.

The number of graduates remained steady, with 22 students conferred with BSc (Hons) degrees in Earth and Ocean Sciences in late October 2025. Two of the graduating class were awarded specific honours. Mr Andrew Rynne was the recipient of the William King Medal - which is awarded to a graduating student who has made an outstanding contribution to EOS during their time in the university. Mr Joshua Louet-Feisser was awarded the Barbara Glynn Medal for outstanding field work performance.

In addition to delivering our specialised degree programme, the discipline continues to provide teaching support to programmes across the School of Natural Sciences, the College and the University more generally, with significant input into the Marine Science and Environmental Science degree programmes.

Research within EOS is organised around several major scientific themes related to Earth systems, geological processes and resources, environmental sustainability, climate change and ocean-atmosphere Interactions. A defining characteristic of EOS research in 2025 is the strong emphasis on international and interdisciplinary collaboration through partnerships with European research networks, national agencies, and interdisciplinary collaborators.

In 2025 there were 20 postgraduate students and 7 post-doctoral researchers/research fellows in Earth and Ocean Sciences. These researchers were funded through diverse streams including IRC, iCRAG, Research Ireland, Teagasc, Marine Institute, and the EPA.

As ever, field work is a key activity across EOS teaching and research. EOS staff and students partook in numerous research cruises during 2025, collecting data on ocean circulation, temperature, salinity, and biological activity in remote marine regions. The journey of EOS PhD researcher, Isuri Weerasinghe was for example covered in detail in the May edition of Cois Coiribe (the university's alumni magazine).

<https://impact.universityofgalway.ie/articles/into-the-deep-searching-the-ocean-for-climate-solutions/>

In terms of specific EOS research activity, the Research Ireland, UK Government, and National Science Foundation (US) funded SAPHIRE project based in Letterunshin in Co Sligo (Dr Tiernan Henry and Prof Peter Croot) and focused on water resource resilience associated with blanket bog was completed in May 2025. The HY-RES research group, led by Dr Eve Daly, continues their involvement with multi-stakeholder EU projects REWET (Assessing impact of national peat soil rewetting scheme) and D=TECT (Assessing new technologies to improve estimates of carbon emission factors from grassland).

EOS continues to build a national profile with staff and students featured widely across diverse news media during 2025. For example, Dr Jake Ciborowski was interviewed on RTE's Drivetime to discuss US interest in Energy Critical Minerals in Ukraine, while Dr Liam Morrison contributed to an Irish Independent report on microplastics, addressing their increasing presence in the environment, the potential risks they pose to human health and the steps we can take to reduce our exposure.

iCRAG activities in 2025

The iCRAG Research Ireland Centre for Applied Geosciences collaborates with partners in industry and government to create solutions for a sustainable society in the areas of Earth System Change, Earth Resources, and Earth Science in Society. The Centre currently numbers 150 researchers from eleven Irish institutions and is hosted at University College Dublin (UCD). The Centre's work is underpinned by cross-cutting expertise and technology in geochemistry, geodata, geomodelling, geophysics, and geosensing, along with extensive engagement programming. Together, iCRAG's researchers, industry partners and community partners work together to deliver economic, societal, environmental and cultural impact for Ireland.

Research leadership and major announcements

In 2025, the appointment of Professor Sarah A. Gleeson as Director of iCRAG, Research Ireland Professor, and Full Professor in Sustainability Geoscience at the School of Earth Sciences, UCD was announced.

Professor Gleeson leads a €4.5 million research programme, Metals for a Green Ireland: Developing Innovative Mineral Systems and Exploration Tools. The programme has now commenced, with several key research positions already filled and additional positions to be advertised. The project aims to develop new mineral systems models and exploration tools to support responsible resource discovery. A key output will be openly available geoscience datasets integrating geological, geochemical, geophysical and remote sensing information that can support mineral exploration as well as applications in agriculture and environmental monitoring. Recently, Professor Gleeson was appointed as one of twelve experts to Ireland's first [National Science Advice Forum](#), contributing geoscience expertise to national discussions on key priorities including climate change resilience and adaptation.

Advancing European critical raw materials research

This year also marked the successful completion of the EU Horizon VECTOR project, in which iCRAG played a central role. VECTOR explored how Europe can secure critical raw materials in ways that are technically robust while also socially and environmentally responsible.

iCRAG researchers contributed frameworks that integrate mineral systems knowledge with environmental considerations and community perspectives, supporting responsible exploration and policy development for the green and digital transitions.

The project also produced several innovative public engagement outputs. [GreenDealz](#), a public engagement toolkit developed by iCRAG researchers, was trialled at major festivals and proved effective in improving public awareness of mineral resources, sustainability and responsible sourcing. Building on the success of the GreenDealz toolkit, [GreenDealz Digital](#) was developed and launched last year online as a free resource. Through this interactive platform, players of all knowledge levels can learn about critical raw materials and their relevance to society through an immersive supermarket-style experience, where they shop for the raw materials needed to build different technologies. The documentary ["100](#)

[Perceptions: Raw Materials](#)”, featuring iCrag researcher Dr Geertje Schuitema (UCD), received an Outstanding Excellence Award at the Nature Without Borders International Film Festival and has been viewed more than 12,000 times worldwide.

Conferences and workshops

During 2025, iCrag researchers participated in major international conferences including AME Roundup in Vancouver, PDAC in Toronto, the Society of Economic Geologists (SEG) Annual Meeting in Brisbane, and the EGU General Assembly in Vienna. These events provided valuable opportunities to share research findings, strengthen links with industry partners, and build international collaborations.

iCrag researchers also played leading roles in organising scientific meetings. Last February, iCrag hosted the Rathdowney Trend Technical Workshop, bringing together researchers from academia, industry and government to discuss new research and exploration insights in this important metallogenic district.

International collaboration was further strengthened through events such as the Society of Economic Geologists Student Symposium on Central African Copperbelt Geology, led by Professor Murray Hitzman (UCD) in Kitwe, Zambia in June 2025.

In November 2025, iCrag researchers co-organised a national geothermal workshop in collaboration with the Geological Survey Ireland, bringing together researchers, industry representatives and government stakeholders to explore the role of geothermal energy in Ireland’s low-carbon energy future. The workshop highlighted emerging research, opportunities and challenges associated with geothermal energy development in Ireland and strengthened collaboration across the Irish geoscience community.

Scientific excellence

Recent scientific advances from iCrag researchers and alumni span mineral systems research, subsurface imaging and geophysical characterisation.

Research led by Dr Aileen Doran and colleagues provided new insights into [metal sources, fluid mixing and sulphur isotope recycling in Irish-type Zn-Pb deposits](#). Work by Dr Helen Twigg and Professor Murray Hitzman established a new lithostratigraphic framework for the Kalindi-Kipushi area of the Central African Copperbelt, advancing understanding of one of the world’s major metallogenic provinces.

Complementary work by Dr Prithwjit Chakraborti and collaborators developed integrated geophysical-petrophysical [workflows that significantly improve bedrock characterisation in the Limerick Basin](#). In addition, research by Dr Juergen Lang and colleagues presented a [new model for the timing and structural setting of vein-hosted copper mineralisation in southwest Ireland](#).

Also in late 2025, Dr Geertje Schuitema, Dr Fergus McAuliffe and Dr Tomas Buitendijk [published a paper outlining how the arts, humanities and social sciences](#) can strengthen geoenergy research, presenting a roadmap for interdisciplinary research linking geoenergy technologies with societal and policy perspectives.

Advances in remote sensing and artificial intelligence also contributed to iCrag’s research portfolio. The AI2Peat project, co-led by Dr Eoghan Holohan (UCD), developed PeatSense, a national-scale platform that uses satellite imagery, artificial intelligence and field data to map peatland condition and carbon storage potential. The project was recognised as one of the first winners of the Research Ireland National Challenge Fund in 2025.

Engaging and inspiring

In 2025, the [Get into Geoscience](#) programme, led by iCrag, was awarded more than €234,000 through the Research Ireland Discover Programme, co-funded by the Department of Education, to expand geoscience education and engagement across Ireland. The funding has supported the development of new initiatives including an expanded Transition Year (TY) programme, a national art competition, and an online geoscience careers portal designed to inspire the next generation of Earth scientists.

A key element of the programme is the Get into Geoscience Transition Year module, where students work directly with geoscientists to investigate real-world geoscience challenges through collaborative research projects. Recent projects have explored topics such as geothermal energy, including how geothermal heat could be used to power schools and support Ireland's energy transition. Through workshops, school visits and project-based learning, students develop research questions, conduct investigations and present their findings creatively, helping to demonstrate how geoscience can address climate, energy and environmental challenges.

iCrag marked the 30th anniversary of Science Week 2025 in October with a nationwide programme of activities highlighting the connections between geoscience, climate and everyday life. Researchers delivered school workshops, public lectures and creative events across Ireland, including activities at the Louth Science Festival, Cork's Marina Market and Aillwee Cave.

iCrag-supported research also reached new audiences through media and creative engagement. Professor Jennifer McElwain, Trinity College Dublin, discussed Earth's deep past and climate change on [The Blindboy Podcast](#), bringing geoscience research to a broad public audience.

Societal perspectives and responsible resource development

iCrag researchers continue to work on interdisciplinary projects that explore the societal dimensions of resource development and environmental change. Projects such as MESSAGE and ENACT examine community perspectives on marine sediment carbon storage, offshore renewable energy and coastal change, helping to inform responsible decision-making on Ireland's energy and resource future.

Looking ahead, iCrag will host the fourth ReSToRE International Summer School in June 2026 at UCD. [ReSToRE](#) (Researching Social Theories, Resources, and Environment) is an interdisciplinary summer school examining key issues at the nexus of the social sciences, humanities, and natural and physical sciences. The Summer School series continues to serve as a catalyst for developing future global leaders in sustainability, offering exceptional educational and professional opportunities by bringing together early-career geoscientists, social scientists and environmentalists to collaborate on real-world Earth challenges. The theme for the 2026 Summer School is "*Delivering Sustainability to the Global Community*." The programme has already attracted a large number of applications, reflecting the strong international interest in interdisciplinary training focused on sustainability and the responsible development of Earth's resources.

Compiled by Aoife Brady.



Get into Geoscience – 2025-26

Get into Geoscience is an educational initiative that aims to introduce second-level students, and their teachers, to the geosciences, demonstrating their relevance and importance to both daily life and future careers. The programme is overseen by the Education and Public Engagement team of the Research Ireland Centre for Applied Geosciences.

Get into Geoscience was delighted to be awarded **€234,000 from the Research Ireland Discover Programme, co-funded by the Department of Education**. This funding has supported significant growth within the programme. We would also like to thank our collaborators within the Institute of Geoscientists of Ireland, Geological Survey Ireland, the Irish Association for Women in Geosciences, the Geological Society of London and our colleagues at UCD for their continued support.

Our expanded programme includes several strands, outlined below.

Transition Year Programme

Running in between March and May, and September and December 2025, the Get into Geoscience Transition Year Programme has seen over 20 classes and 1000 students engage with geoscientists to create their own geoscience research projects. The projects were co-created between the geoscientists and the students and were presented in poster format at universities around the country. The programme focused on the themes of 'Earth's past as the key to Earth's Future' and 'Geothermal Energy'. We would like to thank the many geoscience researchers and industry professionals that supported the Transition Year Programme this year. From engaging with the students, we can see that the programme is:

- Increasing their knowledge of careers in geoscience
- Increasing their confidence in using the scientific method
- Increasing the visibility of geoscience in the subjects they study at school
- Positively impacting their understanding of the links between geoscience and their daily lives

A full impact report is being prepared for this programme, if you are interested in seeing the results, please let us know.

Career Talks

Get into Geoscience has been delivering an average of two career talks per week during the school term. These talks take place in schools across the country, and during university visit days. **If you are a geoscientist interested in sharing your career experiences with secondary school students, we would love to hear from you.**

Teacher CPD

The *Geoscience for Leaving Certificate Teachers* online CPD course has been running successfully for the past five years, in collaboration with iCrag and Geological Survey Ireland. Through this course, teachers work with geoscientists to co-create curriculum-based teaching resources. This initiative has now been incorporated into the *Get into Geoscience* programme and is run annually as six evening sessions from September to December. **If you would like to get involved, please get in touch.**

Teacher-Scientist Community of Practice

Get into Geoscience was delighted to partner with the UCD School of Education to run a Community of Practice with students of the Professional Masters of Education. This community explored ways to support the teaching of the new Climate Action and Sustainable Development leaving certificate subject. It identified Junior Cycle as a key point of intervention and developed a suite of resources for science teachers, with a particular focus on the interdisciplinary nature of geoscience. The resources will be made available online soon and have already been trialled in 12 schools.

National Geoscience Art Competition

In parallel with iCrag's artist in residence programme, a new National Geoscience Art Competition will be launched as part of the expanded Get into Geoscience programme. It is expected that this will run in the autumn of 2026.

Career Paths Portal

We are very close to finishing development of a Career Paths Portal aimed at bridging the gap between secondary schools, university courses, and geoscience career opportunities in Ireland. Thank you to everyone that responded to our survey and shared their career journeys. We were overwhelmed with responses and have included as many contributions as possible on the new website. We are now finalising design adjustments, and hope to launch the website very soon. We encourage you to share the new website widely with your colleagues once it is launched.

Final note

We welcome further support for the programme in any capacity and would be delighted to discuss opportunities to get involved in shaping the future of geoscience education and inspiring the next generation of geoscientists.

Current funding will end in December 2026, and we are actively exploring ways to ensure the programme's long-term sustainability.

2025 CHAPTER REPORT



Each national chapter is required by [IAH Rule 8.5](#) to provide an annual report on its activities. This helps us to report the Association's activities and is published on the IAH website. It is also expected that, under the terms of the chapter's constitution or rules, the national committee will make an annual report to members in their country.

1. ABOUT YOU

Your name	Rebecca Ní Chonchubhair
Email address	secretary@iah-ireland.org
Role/responsibility held in chapter	Secretary

2. YOUR CHAPTER'S INFORMATION

Is your chapter's information correct on IAH's website: https://iah.org/groups/national-chapters Please tell us of any changes now and each time a new committee is chosen.	The roll of secretary has been taken up by Rebecca Ní Chonchubhair
Does your chapter have its own website? If so, please confirm the URL. If you do have a website, who is responsible for its management? Please provide contact details.	www.iah-ireland.org Charlotte Bennet publicity@iah-ireland.org
Would you be interested in IAH hosting your chapter's website/providing support? As an example, see https://germany.iah.org/ .	No.
Does your chapter have an elected committee? If yes, how often are elections held and how are they managed e.g. postal/email vote/at meetings?	Yes. Elections are held once a year at an annual general meeting. Elected positions are typically held for four years.

3. LOCAL MEMBERSHIP

How are local membership status and trends? e.g. stable, declining, increasing.	Declining from 2021 (139) to 2024 (123) but showed an increase in 2025 (143 as of 20 th October).
What are your challenges to recruitment? e.g. volunteer time/limitation, IAH fee rates, competition from other societies, language, etc.	Unknown.

4. YOUR CHAPTER'S ACTIVITIES IN 2025

<p>Did your chapter hold an annual meeting (AGM-style)? If so, please advise:</p> <ul style="list-style-type: none"> • Date and place of meeting • Approximate number attending 	<p>Our AGM was held on the 28th October 2025 over Teams. Approx. 17 people attended.</p>
<p>Did your chapter hold other events e.g. technical and scientific meetings, seminars, conferences, field visits, training events?</p> <ul style="list-style-type: none"> • If you have already reported these to the IAH Secretariat, only summary information is required. • If not, these please provide a summary of dates, location, number of participants, topics, etc. and how successful you felt each event was. • Do you have photos we can use? • Are your events open to IAH non-members? • Did you hold events in partnership with others e.g. a national society, company, institution? 	<p>Annual Conference – <i>Groundwater & Geotechnics</i>. 15th – 16th April 2025 at the Tullamore Court Hotel. Approx. 150 people attended.</p> <p>Training Course – A 1-day water well drilling workshop was held on the 15th January 2025. Over 100 attended the event.</p> <p>Two in-person TDMs were held in 2025. The first was held on the 16th of September and the 2nd held on the 17th of November. The annual Burdon Lecture has been rescheduled to the annual conference in April 2026.</p> <p>Our Annual Field Trip was held on 18th – 19th October 2025. 40 people attended with the trip going to counties Mayo and Galway.</p> <p>All our events are open to non-IAH members.</p> <p>We typically have two joint-TDMs a year with the Geotechnical Society of Ireland, and the Geothermal Association of Ireland. However, these events weren't run in 2025.</p>

5. YOUR CHAPTER'S PLANS

<p>Do you have any activities or tasks planned for 2026? If yes, please provide brief details, including if your plans are limited because of e.g. lack of funds or local interest/volunteer support to help</p>	<p>Our Annual Conference in Ireland on the 14th -15th April 2026 will be held in person in Tullamore, Co. Offaly. The topic will be <i>Groundwater 2-35: Building Resilience for the Next Decade</i>".</p> <p>A training course is planned for the 14th January titled Groundwater, Hydrology and Climate change to be held in person at Beggars Bush, Dublin.</p>
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	<p>Our Annual Field Trip in Ireland will be held in Autumn. It is an in-person, 2-day event. Details to be confirmed.</p> <p>TDMs are held monthly with a mixture of online and in-person. The first hybrid event is planned for the 3rd of February.</p>
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Trinity College Dublin

Coláiste na Tríonóide, Baile Átha Cliath

The University of Dublin

Geology, School of Natural Sciences

Discipline of Geology, School of Natural Sciences

IGN Report, 19th March 2026

The Discipline of Geology in the School of Natural Sciences at Trinity College, The University of Dublin has continued to strengthen and make new staff appointments that will secure its position over the coming years. A brief summary of events over the past twelve months is as follows:

- At the end of the Academic Year 2024-25 the Discipline of Geology was sad to say goodbye to two retiring, long-standing members of Academic Staff; Prof Patrick Wyse Jackson and Prof Catherine Coxon. Both have made major contributions to research and teaching within the Discipline and they will be greatly missed.
- In January 2025, because of the impending retirements, two new Assistant Professor positions in the broad fields of Palaeontology and Hydrogeology/Crustal Fluid Flow were advertised. Shortlisting and interviews were held during May 2025 and we are delighted to welcome our new appointments; Dr Emma Dunne and Dr Alex Cabral to the two respective posts. Both started full-time at the beginning of the Academic Year (AY) 2025-26. Emma will also be Chair of the Geology Collections Committee to ensure that this unique research and teaching resource is secured and developed for the future.
- In addition to these two replacement posts, the Discipline of Geology/School of Natural Sciences in conjunction with the new AIB E3 Climate Hub has also currently advertised for a new Assistant Professorship position in Earth System Modelling, to reflect the increasing demand for complex systems modelling of Earth processes and use of AI. Shortlisting and interviews will take place towards the end of May 2026, with a view to the new member of Staff being in position to begin for AY2026-27.
- The new Learning Foundry building, E3LF, is completed and currently nearing the end of its commissioning process. The new dedicated dry and wet labs for teaching throughout the School of Natural Sciences are being stocked with equipment ready for the start of AY2026-27.
- One of the most significant developments in the Geoscience Undergraduate programme within the Discipline has been the restructuring of an old benefactions grant, known as the Iveagh Fund, originally established by the former Chair of Mineralogy, Prof John Joly in the early 20th Century, for use in support of geological field work. With the increasing costs of field teaching logistics and price of equipment it has become increasingly difficult for students to afford this vital part of the Undergraduate degree. The Iveagh has now re-stocked the Discipline of Geology with field equipment, so that every student can now borrow what they need, from hand lenses to hammers, and it is also being applied to start subsidizing residential field courses to again bring down immediate costs for students. Together this should ensure that field geology remains a core component of the Geoscience experience for every student.

- Geology TCD was also host to several International conferences in the past year. For instance, in September 2025, it hosted the Geotechnologists/Geo-materials Symposium and again the Volcanic and Magmatic Studies Group (VMSG) took place at TCD in January 2026.

The appointment of new Academic Staff to replace retirees, the addition of a new Assistant Professorship in Earth System Modelling, plus the E3 Learning Foundry coming on-line, all make for a positive outlook for the Discipline of Geology at TCD over the next few years.



Dr Chris Nicholas

Head of Geology

National Museum of Ireland – Natural History Division (Geology Section): Report covering 2025/2026 for Irish Geological Network

By Dr Patrick Roycroft (Curator of Geology)

Natural History Museum on Merrion Street. Possibly the most publicly visible feature of the Natural History Division of the National Museum of Ireland (NMI) is the continued closure of the Natural History Museum building on Merrion Street for refurbishment. This is a major capital project. All (bar two) the ~10,000 display items have now been decanted to various NMI storage sites where they are undergoing documentation, research, conservation (using the museum's own conservators and contract specialist conservators from Wales), and photography. Additional temporary staff have been hired for this. The historic display cases themselves are also being conserved. Whereas some layout changes to the building will be inevitable, we aim to keep, as far as is practicable, the feel and ambience of a Victorian 'museum of a museum'. Decisions on what to put back, and what new specimens to display, are underway. Essential refurbishment works on the building itself are in the advanced planning stages. When finished, the museum will be in great shape for its next 150 years.

! Radioactive specimens and our national and international legal obligations. Under legislative instruments that apply to Ireland on both a national and international level, the museum – as an institution that holds radioactive specimens (mainly, but not exclusively, geology specimens) – must fully document, safely store, and report to the EPA, all its radioactive items. This reporting is a legal requirement for *all* institutions or organisations that hold any radioactive materials over defined background levels. The museum has hired a new staff member to work across all museum divisions, a part of whose job is to get this major, compulsory, project underway. The museum is working with radiation consultants and the EPA. As a priority, geology items are being addressed first. **Note for IGN members:** All organizations (including consultancies) that hold geological material are legally obligated to determine if they hold radioactive items (which requires, as a first step, an assessment of their complete collections): for the NMI, this has been, and will be, a significant use of resources. Radioactive materials cannot currently be disposed of abroad, thus, documentation and storage must be on an ongoing 'forever' basis, which must be factored in to an organization's operations. The museum is willing to informally discuss this matter with any organisation; formal advice, however, must be sought from the EPA and from a registered radiation consultant.

Acquisitions. The largest collection acquired during 2015 was the muscovite slice collection from Roycroft's 1995 PhD, comprising approx. 1,200 mica flakes from a wide variety of muscovite-bearing rocks [igneous (majority from the Leinster Granite), metamorphic, sedimentary, and hydrothermal]. These were catalogued and databased over 3 months by a team of 3 people from Registration, guided by Roycroft. We also acquired several minerals new to Ireland (from Co. Cork) courtesy of UK-based mineralogist and chemist Stephen Moreton. The museum is always interested in acquiring PhD collections, including any material used as a basis for publications (including for illustrations), especially type fossils and minerals.

The Dead Zoo Lab Display at the Riding School in Collins' Barracks. A major part of the division's work during the first 8 months of 2025 was getting the Dead Zoo Lab ready for public opening. This is a display at Collins' Barracks of some core items from the Natural History Museum (a.k.a. 'Dead Zoo'), such as the

giant Irish deer and ‘Spotticus’ the giraffe, mixed with a variety of items that have rarely or never been displayed before. The idea is to have a natural history museum presence in Dublin while the main Merrion Street museum remains closed and for curators to experiment with displays to see how the public reacts, thereby gaining data on what will work when the main museum re-opens. From the geology perspective, there is a display case of hitherto unseen (and very beautiful) zoned muscovites, plus giant Irish deer, a dodo skeleton, and a variety of fossils to complement modern animal groups on display. Of significance is a chance to view a substantial part of the museum’s world-class collection of 19thC Blaschka glass animal models. There is currently a natural history-themed art piece (‘Only Time Will Tell’ by Dr Brendan Earley), and geology is also included in two cases devoted to items from three groups within the Irish Community Archive Network (including Ballyknockan granite quarry history).

Visiting Researchers and Artists. The geology collections are an ongoing source of research and inspiration for a variety of projects, both academic and artistic. We had, for example, researchers looking at the teeth, skulls, and antlers of giant Irish deer (the NMI has the largest such collection in the world); studying our Kiltorcan plant fossils (we hold the largest such collection in the world); and assessing the fossil collections for possible palaeo-environmental research. Artists considered the links between local stone and local history; between economic minerals and manmade landscape; the mystical aspects of cotterite; and the potential to place a miniature book about the Brasky meteorite into a weather balloon and send it into the upper stratosphere off Kerry [Which sadly never happened!].

Intra-museum collaborations. Roycroft worked with colleagues from many of the museum’s other divisions. Most commonly, with the Irish Antiquities Division (i.e., archaeology) on identifying the types of stone from which an artefact is made. Roycroft also worked with the Photography and Archive divisions on lantern slides (dating ~1890 to ~1955) donated from the UCD School of Earth Sciences: these turned out to be from UCD’s first three professors of geology: Grenville Cole, Henry Seymore, and James Brindley. Work with the Conservation Division included assessing the many types of specimen labels associated with geological items, and identifying pyrite disease.

Publications and media. The geology collections are actively used for scientific research and every year publications are produced that used them. Palaeontology remains dominant, but minerals new to Ireland from Glandore (Co. Cork), and which have been deposited with the museum, featured in 2025. Roycroft published a few articles/reviews and appeared on television (documentary and news), in newspapers, in blogs, and in YouTube videos, variously in relation to the following aspects of museum activities: the Dead Zoo Lab, the Brasky meteorite, cotterite (and the new find by Ben O’Driscoll), and in relation to artists’ projects.

The NMI library. Too few people are aware that the NMI has a substantial library, including a large geology section, and that it is available to use. New books are being acquired all the time; currently, for reasons of cost, journal subscriptions are mostly limited to those with a significant Irish interest.



Irish Quaternary Association Update for 2025

IQUA held its two meetings – the Spring Meeting and the Autumn Symposium – in person in 2025. A Field Meeting to County Cavan was also held in the autumn.

Spring Meeting & AGM

The IQUA Spring Meeting and AGM 2025 were held at Mary Immaculate College, Limerick, on 29 March 2025, organised by Catherine Dalton (Mary Immaculate College). Nine speakers spanning the full spectrum of careers stages gave presentations on diverse topics with global geographical scope, illustrating the impressive diversity of Irish Quaternary Studies. The Best Postgraduate Student Presentation was awarded to Xyza Vasily Dela Peña (UCC), and the Eileen Reilly Postgraduate Research Prize went to Paulo Rodríguez Cáceres.

The AGM was conducted following the Spring Meeting. The Treasurer reported a small decrease in membership to 92 in 2024. Long-standing Committee members Catherine Dalton and Sam Roberson stepped down from their positions but no other changes were made. The membership approved a motion to discontinue IQUA's X account in protest to the actions of X's CEO. Members were asked to consider potential nominations for an Irish site to be put forward as an IUGS Geological Heritage Site.

Field Meeting

A field meeting to Co. Cavan, led by Ryan Smazal, Jasper Knight and Gill Plunkett, took place on 5–7 September. Beginning with a meet-and-greet introductory session on the Friday evening, and a visit to Belturbet's Mammoth sculpture, the group went on to visit a range of field sites on the Saturday and Sunday, illustrating excellent examples of a karst landscape, a range of glacial landforms (some of which had not previously been reported), and a rich prehistoric and medieval heritage. A vivid account of the trip can be found in IQUA's Spring Newsletter 2026. The meeting was very generously supported by a grant from Cuilcagh Lakelands Geopark.

Autumn Symposium

The IQUA Autumn Symposium 2025 was held in the Tom Johnson House, Beggar's Bush, Dublin, on 5 December on the theme of 'Ireland's Evolving Landscape', organised by Sam Kelley and Mark Coughlan (both UCD). The meeting saw the launch of the Julie Fossitt Distinguished Speaker series, an initiative following a generous bequest by the late Julie Fossitt. Our first Distinguished Speaker was Andrew Cooper (UU) who gave a captivating talk on "Lower-than-present shorelines on the continental shelf: preservation potential and utility". The meeting featured a number of flash talks by postgraduate students, which was widely acclaimed a successful venture.

The meeting concluded with the announcement of a series of IQUA Awards. The Bill Watts ¹⁴Chrono Award was awarded to Samuel Barber (QUB) and Felix Butschek (UCX). The IQUA Research Award went

to Felix Butschek (UCC). The Valerie Hall Award for Best ECR Publication was awarded to Helen Essell (Queen's University Belfast).

Outlook for 2026

IQUA's Spring Meeting and AGM will be held in University of Galway, on 28 March, organised by Adrienne Foreman and Gordon Bromley. As always, the Spring Meeting is aimed especially, but not exclusively, at postgraduates and other early career researchers, providing an opportunity to present emerging research in a supportive environment and to network with fellow Quaternary researchers in Ireland.

Our Field Meeting will take place in August/September to Co. Cork. Planning is currently being led by Michelle McKeown and Robin Lewando. Further details will be announced in the coming months.

Due to ongoing issues with equipment, IQUA's second Early Career Researcher Workshop—the use of XRF core—has been further delayed. Contingency plans to host the meeting in Cork or Galway have similarly been foiled by delays due to equipment issues. The Committee will consider an alternative theme with a view to running a workshop before autumn.

We are presently seeking expressions of interested from Members for a theme for the Autumn Symposium (end November). This will be raised at the forthcoming AGM.

The following is a brief report on the activities of the IMQS since our last meeting. 2025 was another busy year for our society. Our annual events included:

- The annual IMQS fieldtrip which took place on Friday the 30th May 2025 to Valentia Slate in Co. Kerry. Valentia Slate Quarry is the oldest quarry in production in Ireland and the most westerly quarry in Europe.
- The annual Dinner Dance took place on the 15th of November in the Hodson Bay Spa Hotel Co. Roscommon.
- Our annual review was published in Autumn 2025 with the theme, Unlocking Ireland's Investment Potential.



Quarry Ground awareness and Supervision Training

Early in 2025 the HSA ran a two-week quarry safety inspection campaign focusing on key hazards when working with excavations, tips and lagoons. The campaign highlighted the lack of available training for supervisors on Quarry Ground awareness. To fill the gap Lisheen Technical and Mining Services LTMS in association with the IMQS developed an MPQC accredited course. "Quarry Ground awareness and Supervision Training" This course is now available to the Extractive Industry in Ireland.

The positive aspects of metals and human health Presentation

In February of 2025 former winner of the IMQS Bursary award Eamonn Grennan presented to the IMQS members at our AGM. Its subject 'The positive aspects of metals and human health', made for an enlightening and entertaining presentation.

Representations

The IMQS has many members who actively promote the society in various groups and events including.

- European Federation of Explosives Engineers (EFEE)
- Prospectors and Developers Association of Canada (PDAC)
- Geoscience Ireland
- Quarry Skills Certification Scheme meetings (QSCS)
- Quarry Safety Partnership (QSP)
- Mineral Products Association Northern Ireland (MPANI)
- Institute of Quarrying Northern Ireland (IOQNI)
- Irish Concrete Federation (ICF)

IAEG–IMQS Conference

A significant highlight of the year was the joint IAEG–IMQS Conference, "Ireland's Natural Resources: Signs of Revival and Change,".

The half-day event attracted a wide range of attendees from industry, academia and government, reflecting the renewed interest and investment in Ireland's natural resource and extractive sectors. The conference featured insightful presentations on exploration, quarrying, sustainability, and innovation, followed by a networking lunch that provided valuable opportunities for discussion and collaboration.

Minco Exploration Challenge

Geoscience students in Irish universities were invited to take part in the Minco Exploration Challenge in collaboration with Minco Exploration Plc with additional support from the Geological Survey of Ireland (GSI), Institute of Geologists of Ireland (IGI), Irish Association for Economic Geology (IAEG), and the Irish Mining & Quarrying Society (IMQS). This challenge simulates a real-world mineral exploration project using authentic industry datasets. Participating students will gain practical experience working with industry-grade data and workflows; develop teamwork, project management, and technical communication skills; receive visibility with professionals from Minco Exploration and our supporting organisations

Our LinkedIn page has over 2,400 followers with an average of 10 new followers per week. We were very active on our other social media platforms throughout 2025. The IMQS hopes to be as equally active in 2026. This concludes my report.

Ruairi O'Connor – President IMQS.



Geothermal Association of Ireland. 2025-2026

Report to Irish Geoscience Network - March 2026

Membership & AGM

- Membership has remained steady, but low, at the association throughout 2025.
- 2026 will a new drive to increase corporate membership to facilitate growth in resources and improve the impact and reach of the association
- The latest committee meeting was held online on the 15th of January 2026. The vision and strategy for the association were agreed and priorities set for 2026.
- To improve the running of the association several sub-committees have been created (Policy & Engagement, Communications & Events, and Membership & Operations. Volunteers are actively been sought to fill roles on these sub-committees (those interested should contact policy@geothermalassociation.ie)

Website & Social Media

- The GAI website is currently being updated to resolve back-end issues and reflect updated messaging
- LinkedIn is the main social media platform for the association – we have grown to nearly 1700 followers which reflects the general increase in interest in geothermal we are seeing in Ireland

Publications

- Quarterly newsletters on the association’s activities were discontinued in 2025 due to resourcing issues but it is hoped to relaunch them in 2026.

News & Activities

- In November the GEMINI project and GAI organised a successful in-person event “Opportunities Geothermal Energy: What’s coming on the Island of Ireland” at Engineers Ireland in Dublin. This featured an update on where geothermal is going in Ireland along with a discussion between Kevin O’Sullivan of the Irish Times and Sanjeev Kumar of EGEC on the overall upward trajectory of Geothermal.
- In partnership with Queens University Belfast, Geological Survey of Northern Ireland, Department for Economy, and Geological Survey Ireland, GAI has helped in the delivery of an online webinar series of geothermal energy topics. The talks have provided local and global updates from projects, reviews of different technological solutions and policy initiatives.
- GAI has provided input to consultation on the SEAI led Decarbonised Electricity System Study (DESS) which includes an assessment of geothermal electricity generation.
- GAI participated on the ETIP-RHC National Roundtable on Renewable Heating and Cooling in November

- GAI is actively participating in the Geothermal Energy Advisory Group set up by the Geological Survey of Northern Ireland and Department for Economy. The working is focussed on developing a roadmap for the development of geothermal energy resources in Northern Ireland through consultation with government, public, academia and industry stakeholders.
- GAI has been actively contributing to EGEC EU Geothermal Strategy development.

Irish Geological Association's Report for Irish Geoscience Network Meeting Wednesday 25th March 2026



Cumann Geolaíochta na hÉireann (Established, 1959)

Our Contact Details:

Email: info@geology.ie or president@geology.ie

Website: <https://geology.ie/>

Facebook: <https://m.facebook.com/IrishGeoAssoc>

Instagram: <https://www.instagram.com/irishgeological/>

Introduction:

For 67 years, the Irish Geological Association (IGA) has been the all-island outreach organisation, established with the primary goal of sharing geological knowledge through excursions, lectures and workshops. We also collaborate with regional, national and international geological groups, universities, state bodies and NGOs to provide events for festivals, libraries, Heritage Week and Science Week.

Membership of IGA in 2025-2026 continues to grow, with an almost equal balance between academic researchers, students and those with an interest in geology.

We maintain membership fees at a low cost to keep IGA as accessible as possible to all. **Current Membership Fees: Student €5; Individual Membership €20; Family Membership €30. Details on our website, geology.ie**

We also have a number of organisations supporting the IGA as Sustaining Members and we are grateful to all for their support.

Awards:

Each year, IGA awards student prizes at the Irish Geological Research Meeting for best talks (in memory of the late Barry Long (GSI) and best poster presentations.

IGA also co-judge and award the Annual George V. Du Noyer Photographic Awards in collaboration with the Geological Survey Ireland.

Completed 2025 Programme

(Recorded lectures can be accessed by IGA Members on our website)

IGA is most grateful to our auditor and to each of our Éireann meeting lecturers, excursion leaders, event partners, host venues and landowners who contributed so much throughout the year, as well as to our own Council members and the wider IGA membership who have given so generously of their time and resources. Thanks also to IGI who award CPD credits for many IGA events.

DATE	EVENT	LEADER
5th February 2025	Lecture: "Minerals of Ireland - New Techniques and New Discoveries"	Dr. Richard Unitt (UCC)
28 February - 2nd March 2025	IGA @ Irish Geological Research Meeting Student Prizes and Keynote Lecture "Critical Rare Earths"	Prof. Frances Wall (Camborne School of Mines)
19th March 2025	Lecture: "Seismic Land Data and Whale Song"	Dr. Martin Mollhoff (DIAS) @ TCD
22nd March 2025	Excursion: Summit of Bray Head and Exhibition: Mine Lands at Mermaid Art Centre, Bray, Co. Wicklow	Dr. Bill Sheppard/Judy Carrol Deeley
26th March 2025	Evening Excursion: UCD Geochemistry Laboratory	Prof. Frank McDermott (UCD)
6-13th April 2025	Overseas Excursion: Sardinia & San Pietro Island	Dr. Graham Andrews & Dr. Sarah Brown (Carraig Nua Geoscience)
23rd April 2025	IGA Annual General Meeting	DIAS
2-3 August 2025	IGA/BGS Weekend Excursion: Scrabo, Strangford, Carrickfergus, Hazelbank	Dr. Mark Cooper (GSNI)
15th - 23rd August 2025	Heritage Week 2025 - IGA Events in Cos. Wicklow, Carlow, Wexford	Nick Coy, Maria Cullen, Howard Fox
6th September 2025	Day Excursion: Lambay, Postponed due to bad weather	TBA in 2026
20th September 2025	Day Excursion: Annual Peter Lewis Memorial Gold Panning, at Bohernabreena	Gordon Poole et al.

IGA Programme for 2026:

DATE	EVENT	LEADER
29th January 2026	Mark Cunningham Memorial and George Victor Du Noyer Photographic Awards, co-presented with GSI at DCEE, Haddington Road, Dublin	Koen Verbruggen (GSI)
27th February - 1st March 2026	Irish Geological Research Meeting (IGRM), UCC with IGA Prizegiving for Student Talks and Posters with IGA Keynote Evening Lecture by Dr. Susanne Schwenger (Open University) on "The NASA Curiosity Rover at Gale Crater, Mars: 13 years and counting"	
March-September 2026	EXHIBITION: IMMA, Kilmainham, Dublin "Fisherwoman, Fisherwoman" - featuring the work of our late friend, longstanding IGA Member, artist and Saoí of Aosdána, Camille Souter	
11 - 12th April 2026	WEEKEND EXCURSION with Belfast Geologists' Society to Carlingford and Slieve Gullion	Frankie Butler (Uni. of Cambridge), Dr. James Shaw & Dr. Mark Cooper (both of GSNI)
Mid-Late April 2026	IGA AGM	
20 - 28th May 2026	IGA/BGS OVERSEAS EXCURSION: Southern Iceland and Heimaey	Dr. Graham Andrews (Seequent)
5-7 June 2026	IGA WEEKEND EXCURSION: Allihies Mine and West Cork	Dr. Pat Meere & Dr. Richard Unitt (Both at UCC)
Early July 2026	IGA WEEKEND EXCURSION: Connemara	TBA
TBA in July 2026	IGA DAY EXCURSION: The Visual Arts at the Royal Hibernian Academy	Dr. William (Bill) Sheppard (LIAMIN)
9th August 2026	IGA DAY EXCURSION: Lambay Island, Co. Dublin	Dr. Brian McConnell (Retd. GSI) and Dr. Stephen Newton (Birdwatch Ireland)
15 - 23rd August 2026	HERITAGE WEEK: Theme "Heritage at Risk". IGA Events	
12th September 2026	IGA DAY EXCURSION: Killiney Hill, South Dublin	Prof. John Walsh & Dr. Sam Kelley (Both at UCD)
Sep-26	IGA DAY EXCURSION: Peter Lewis Memorial Gold Panning Day	
Nov-26	SCIENCE WEEK: IGA EVENT	
Dec-26	IGA LECTURE: TBA	
Dec-26	IGA Members' Night	



Sardinia excursion in April 2025 with Dr. Graham Andrews pointing out features in the stunning Miocene rhyolitic rocks of SW Sardinia



Joint Irish Geological Association-Belfast Geologists' Society with leader Dr. Mark Cooper examining outcrops of the Triassic Sherwood Sandstone Group along the foreshore of Strangford Lough, August 2025



Geotechnical Society of Ireland

The Geotechnical Society of Ireland has hosted two events in the 2025-26 season:

- On 21st of October 2025, the Geotechnical society co-hosted a hybrid evening lecture by Killian Coughlan and Alexander Camerena of Menard Ireland on *'Menard's recent ground improvement experience in Ireland with focus on EPH controls geotechnical solution in Cork City'* at Engineers Ireland, Clyde Road. The lecture presented detailed case histories of ground improvement techniques implemented on various soft ground sites in Ireland, including results of enhanced settlement performance achieved using Controlled Modulus Columns (CMCs) on a site in Cork.
- On the 17th of February 2026, the Society held their Spring seminar entitled *'Building Dublin from the Ground Up: Characterising Dublin's Soils and Bedrock'* at Engineers Ireland, Clyde Road. The seminar theme was linked to upcoming major underground infrastructure projects such as Metrolink and DART Underground. Speakers included Megan Nugent (WSP), Marie Fleming (Arup), Mike Long (UCD), Ronan Travers (Arup), Chris Menkiti (Geotechnical Consulting Group) and Kevin Flynn (TCD) on topics such as characterisation of ground conditions for Metrolink, properties of Dublin Boulder Clay and Calp Limestone, sampling and in-situ investigation techniques, engineering applications and retaining walls. The event was extremely popular, with over 130 people attending in-person and numerous watching online.

The Society does not propose to host any further events in the 2025/26 season, which will close with the Society's AGM on April 21st next.



Report from the Irish UNESCO Global Geoparks Committee (Irish Global Geoparks Network) – 2025

The Irish UNESCO Global Geoparks Committee (IUGGC) operates on an all-island basis to allow for networking and exchange of knowledge from all those involved and interested in UNESCO Global Geoparks across the island. The IUGGC also acts as the Irish Global Geoparks Network.

Chair: Clare Glanville (clare.glanville@dcee.gov.ie)
Geological Survey Ireland

1.0 Members:

Clare Glanville (Chair) – Geological Survey Ireland
Kirstin Lemon (Vice-Chair) – Geological Survey of Northern Ireland
Grainne O’Connor – Cuilcagh Lakelands UNESCO Global Geopark
Martina O’Neill – Cuilcagh Lakelands UNESCO Global Geopark
Carol Gleeson – Burren & Cliffs of Moher UNESCO Global Geopark
Eamon Doyle – Burren & Cliffs of Moher UNESCO Global Geopark
Robbie Galvin – Copper Coast UNESCO Global Geopark
Richard Unitt – Copper Coast UNESCO Global Geopark
Sarah Gatley – Copper Coast UNESCO Global Geopark
Darren Rice – Mourne Gullion Strangford UNESCO Global Geopark
Michelle Boyle – Mourne Gullion Strangford UNESCO Global Geopark

2.0 Aspiring UNESCO Geoparks

2.1 Active UGGp applications:

- Joyce Country and Western Lakes aUGGp deferred application progress report was submitted to UNESCO in August 2025. This was successful and was approved for designation as a UNESCO Global Geopark (UGGp). This decision is expected to be ratified by the UNESCO Executive Board in April 2026. The IUGGC offered support to Joyce Country and Western Lakes aUGGp in relation to their evaluation via several online meetings and sharing of information.

2.2 Interested territories:

- Antrim Northern Ireland

2.3 UGGp revalidations:

- No revalidations in 2025

2.4 UGGp Evaluations (Aspiring Geoparks)

None

3.0 Committee Activities


- The IUGGC held four committee meetings in 2025 which took place in January, May, June and November. Items discussed were updates of progress from each of the UGGps and relevant information from both Geological Survey Ireland and the Geological Survey of Northern Ireland. Other items on the agenda included information from the Open-Ended Working Group (OEWG) on the Review of the Statutes and Operational Guidelines for UNESCO Global Geoparks (Clare Glanville was nominated by the National Commission to represent Ireland and Kirstin Lemon represented the UK). In parallel, the Vice Chair contributes to the GGN Taskforce on the development of the GGN Strategic Plan and several committee members, continue to attend and contribute to the EGN working group on updating governance procedures. The GGN strategic plan and implementation was covered in several meetings during the year.
- Following guidance issued by the GGN Executive Board on the operational rules of National Fora the IUGGC changed its name to the Irish Geopark Network Committee (IGNC). This needs to be formalised by an update to our ToR
- The UGGps on the island of Ireland were represented at the 11th International Conference on UNESCO Global Geoparks hosted by Kütralkura UNESCO Global Geopark, Chile by the Chair and Vice Chair of the committee. The conference took place from 8th to 12th September 2025.
 - The decision to approve Joyce Country and Western Lakes Geopark application and progress report was made at this event during the UNESCO Global Geoparks Council Meeting.
 - During the Global Geopark Network Advisory Committee meeting held at the same event saw the election of Clare Glanville as the Vice Chair.
- The IUGGC/IGNC organises an annual Irish Geoparks Forum to allow for networking and engagement amongst all those interested in UGGps on the island of Ireland. This was hosted by Burren and Cliffs of Moher UGGp on the 26th & 27th November. The theme of the forum was Natural Capital and was supported by three guest speakers and a number of stakeholders as well as local politicians and community groups from around the country. We were privileged to host Agathe Hutchinson, Attaché for UNESCO at the Permanent Representation of Ireland in Paris. Agathe was our visitor and a guest speaker. Each geopark gave updates of their work and activities during the year.



**Irish UNESCO Global Geoparks Network
Annual Public Forum**

NATURAL CAPITAL UNPACKAGED – HOW UNESCO GLOBAL GEOPARKS CAN PLAY A ROLE.

 **Wednesday 26 November, 10am – 5pm**
Updates from Irish UNESCO Global Geoparks, and guest speakers from Department of Climate, Energy & the Environment, Trinity College Dublin, Natural Capital Ireland and University of Galway.

 **Thursday 27 November, 9.30am – 4.30pm**
Field excursion to key Geopark Sites and businesses with a focus on geoheritage and natural capital.

 **Be There**
Burren Cliffs of Moher, UNESCO Global Geopark: Hotel Doolin, Doolin, Co. Clare 26 & 27 November 2025
www.burrengeopark.ie



The event will be opened by:

- Cllr Paul Murphy, Cathaoirleach of Clare County Council
- Agathe Hutchinson, Attaché for UNESCO at the Permanent Representation of Ireland in Paris
- Dr. Koen Verbruggen, Director of Geological Survey Ireland
- Dr. Marie Cowan, Director Geological Survey Northern Ireland

Guest Speakers:



Dr. Catherine Farrell, CIEEM
Assistant Professor at Trinity Business School, Trinity College Dublin
'An introduction Natural Capital approaches.'



Professor Stephen Hynes
Professor of Economics, J.E. Cairnes School of Business & Economics, University of Galway
'An Irish perspective of Marine natural capital accounting.'



Matthew Hornsby
Department of Climate, Energy & the Environment
'Natural Capital as an environmental policy tool and can Geoparks contribute?'



Book now

Call Hotel Doolin at +353 65 7074111 or email reservations@hoteldoolin.ie to book your attendance at the conference, accommodation, gala dinner and your place on the Geopark Field Excursion.

**For more details
visit our website:**

burrengeopark.ie
[/irishgeoparksconference2025](https://irishgeoparksconference2025)





Acadamh Ríoga na hÉireann Royal Irish Academy

Royal Irish Academy Geography & Geosciences Committee

2025 update and 2026 outlook

2025 activities and achievements

- **Events**

As reported last year, the inaugural **RIA/Geological Survey Ireland Geoscience Lecture** took place in January 2025. Professor Chris Jackson spoke to the theme 'Geoscience Solutions for the Climate Crisis'. <https://www.ria.ie/2025/01/24/inaugural-geological-survey-ireland-geoscience-lecture/>

An evening panel event looking at **Geography and Geosciences in the School Curriculum** took place at the RIA on 19 November 2025. This event was co-organised by RIA G&G Committee, Geographical Society of Ireland, and Association of Geography Teachers of Ireland and sponsored by the Geographical Society of Ireland. The keynote lecture can be watched here: <https://www.ria.ie/2025/12/09/geography-and-geosciences-in-the-school-curriculum-keynote-lecture/>

G & G Committee member Merav Amir represented the Committee at the RIA's 'Borders and Boundaries' conference working group. The conference is planned to take place in June 2026.

Other matters

The Geography and Geosciences committee acts as the national adhering organisation for the **International Union of Geodesy and Geophysics (IUGG)**. The Chair of the National Committee is vacant. The RIA will be evaluating whether it should maintain membership.

The RIA opened an invitation to apply for acceptance to the new Committee, which will first meet in Autumn of 2026. The deadline for expressions of interest was 13 February 2026. <https://www.ria.ie/2025/12/16/call-for-applications-for-ria-multidisciplinary-committees/>

2026 achievements and plans

The start of the year was marked by the second **RIA/Geological Survey Ireland Geoscience Lecture**. Doctor Karen Hanghøj, Director of British Geological Survey, presented on the theme 'Geoscience Solutions for Net Zero.' This lecture was organised through the partnership between RIA and Geological Survey Ireland that will deliver a series of annual Geoscience Lectures that aim to raise awareness of geosciences and their relevance to society's needs and challenges. It is available to watch here: <https://youtu.be/yh9mffTZai8>

A **proposed initiative for 2026 and beyond** currently under preparation by the Geography & Geosciences Committee for presentation to the RIA Academic Board is:

- Recurring annual event to take place during Geography Awareness Week.
- This year, GAW is 18-22 November, and an evening panel event addressing “Ireland’s place in a changing Europe’ is proposed. The proposed event will be partnered by the Geographical Society of Ireland.

A **proposed initiative for 2027** may be:

- Re-establishing the Parliamentary Pairing

(N.B. these events are at *proposal/pre-proposal stage* and will only proceed if sanctioned by the RIA Academic Board.)

Committee membership

The Committee members began their 4-year terms in 2022. The committee chair is Professor Kath Browne MRIA (UCD).

The committee’s membership represents academia, industry and government agencies. The Committee members are:

Susan Hegarty (DCU), Paul Holloway (UCC), Frank McDermott MRIA (UCD), Taly Hunter Williams (Geological Survey Ireland), Mark Cooper (Geological Survey Northern Ireland), Tiernan Henry (U of G), Francis Fahey (U of G), John Murray (U of G), Chaosheng Zhang (U of G), Eve Daly (U of G), Cian O’Hora (IMS Ltd), Peter Mooney (Maynooth), David Chew (TCD), Quentin Crowley (TCD), Paul Hynds (TUD), Merav Amir (QUB), Derek Jackson MRIA (U Ulster).

The committee’s term concludes this summer, when a newly-elected membership will commence.

See website <https://www.ria.ie/work/multidisciplinary-work/geography-and-geosciences-3/> and social media channels for further updates.

The Open University Geological Society Ireland Branch

Branch Officer Report – March 2026

Summary of OUGS Ireland events for 2025 and planned events for 2026

There was not a lot of activity in 2025. The only group event was to visit to visit Ulster Museum Belfast to look at the rock and fossil collection including an informal presentation of the meteorite samples by Dr. Mike Simms a curator of the museum.

Many of our members listened to various lectures across the country via zoom presented by our associate Geological Associations in Ireland.

The OUGS Ireland is planning visits to the Kilkenny museum and surrounding areas, Rathlin Island and the Marble Arch caves in Fermanagh this year.

Tom McGoldrick

Branch Officer

Geomorphology Association of Ireland Autumn 2025

Welcome to the Autumn 2025 edition of the GAI newsletter.

In this edition we have snapshots of interesting research activity from our geomorphology community, and announce the 2026 GAI Annual Workshop! We hope you enjoy this issue, and thank you to all our contributors.

Please share with any interested folk and encourage them to join the GAI, more information can be found at our website: <https://www.irishgeomorphology.ie/>

Did you know?

Save the date! GAI Annual Workshop 2026

Save the date of April 24th 2026 for the next GAI Annual Workshop to be held at University College Cork. Details will be forthcoming. We hope to see you all there!

2026 Membership fees due January 31st

Members are reminded that fees for the 2026 calendar year are due by 31 January 2026. At this time, the listserv and newsletter emailing lists will be updated to current paying members and registered undergraduates. Undergraduates must re-register for the new calendar year.

Please ensure your membership is up to date. Fees/registration can be arranged via the website: <https://www.irishgeomorphology.ie/membership>

Job Opportunity at AtkinsRealis

AtkinsRealis are recruiting for a Lead Hydromorphologist/Geomorphologist. You can find out more here: <https://careers.atkinsrealis.com/en/jobs/lead-hydromorphologist-geomorphologist-r-138884>

New information series: Geomorphology Sites of Ireland

The GAI is developing a new information series to introduce some of the fascinating geomorphology sites across Ireland. Prof. Robert Devoy and Dr Peter Glanville authored the first of this series about the Cork Harbour region, introducing the Late Cenozoic Geomorphology of the Munster Basin. They explain why this site is of geomorphological interest, outline key geological features, and celebrate the longstanding scientific research tradition that seeks to unravel the mysteries of this very special Irish location. Visit the page here: <https://www.irishgeomorphology.ie/resources/geomorphology-sites>

Members are welcome to create a similar article to help build the library of Irish geomorphological sites - please email the Committee to discuss.

Recent news and events

Maria Cooper (TCD Geography) presented with prestigious Global Undergraduate Award

As part of its annual global summit event in Dublin, the Global Undergraduate Awards (GUA), the world's leading academic awards programme for undergraduate research, awarded 25 global winners with the prestigious Thomas Clarkson Gold Medal, including Maria Cooper from TCD Geography. Maria won the global award for her submission in the Earth & Environmental Sciences category. Following an extensive judging process by 500 academics, the winners were selected from over 2,400 submissions spanning 348 universities in 99 countries across 25 categories. Congratulations Maria!

2025 GAI Bursary awardees

Earlier this year, Prof. Richard A. Marston very generously made a donation to the GAI for the purpose of three bursaries. After a competitive process, these were awarded by the GAI to well-deserving PhD students:

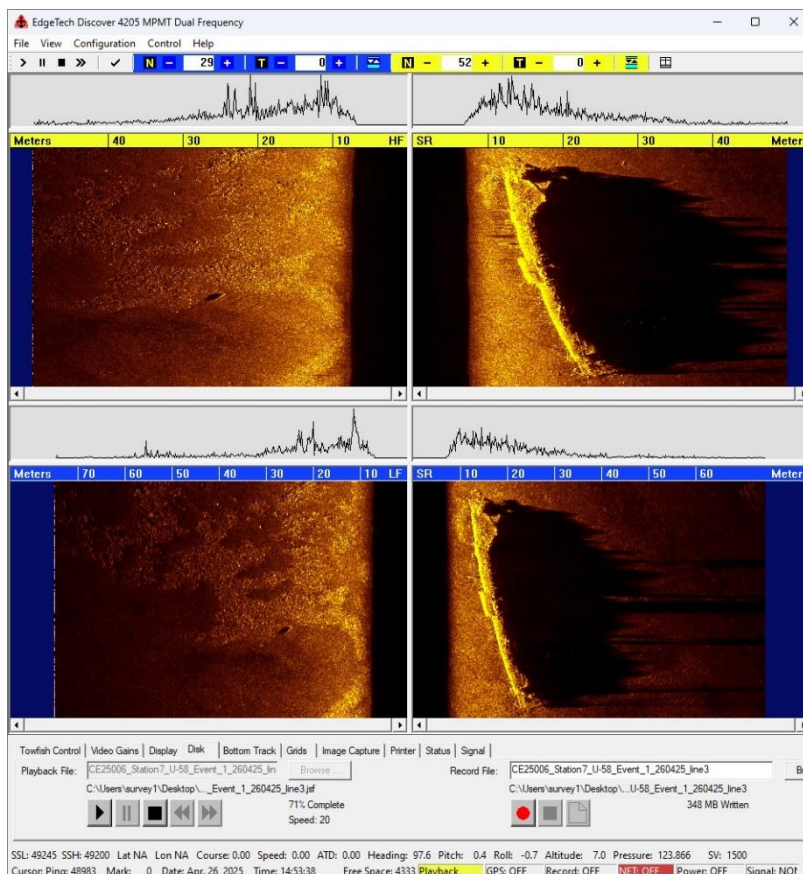
- Kevin Walsh, PhD candidate from the Department of Geography at University College Cork.
- Haram Riaz, PhD candidate from Atlantic Technological University Sligo.
- Alice Watts, PhD candidate from the School of Natural Sciences at Trinity College Dublin.

Congratulations awardees! Keep reading for an update on some of their research.

Research updates

Exploring the Deep: CE25006 Expedition Update, by Dr Aaron Lim, (UCC)

Between April 24th and May 4th, our team aboard the RV Celtic Explorer and the Holland 1 ROV set out to investigate some of Ireland's most intriguing underwater features in deep water coral reefs and pollution derived from shipwrecks. The wrecks included U-58, HMS Alyssum, and SS Miami while the cold-water coral reefs were between 700 and 900 m water depth in the Belgica Mound Province, NE Atlantic. Using multibeam sonar, magnetometry, and side-scan imaging, we mapped the wrecks before deploying the ROV for detailed photogrammetric surveys. Highlights included confirming HMS Alyssum's identity, documenting unexploded ordnance on U-58, and capturing high-resolution imagery of coral habitats across Piddington, Lucy, and Mila mounds. In total, we collected over 40 hours of HD video, providing a unique dataset into deep-sea biodiversity and cultural heritage.



U 58 images via side scan sonar
(Credit: A. Lim)



HMS Alyssum name plate
(Credit: A. Lim)

Why does this matter?

Shipwrecks are part of our cultural heritage but today, they can pose environmental risks through corroding fuel tanks and unexploded ordnance, while also serving as artificial reefs that support marine life. Understanding their condition helps inform national risk assessments and conservation strategies. Similarly, cold-water coral mounds are vital biodiversity hotspots and long-term climate archives. By monitoring their structure and species composition, we gain insights into ecosystem resilience and environmental change. This expedition brings together geomorphology, ecology, and marine archaeology to tackle questions that matter for both science and society.



Coral
framework
in the
Belgica
Mound
Province
SAC at 900
m water
depth
(Credit: A.
Lim)

TU Delft Climate Institute 2025 Summer School, by GAI bursary recipient Kevin Walsh (UCC)

Earlier this year, I was kindly awarded a €300 bursary by the GAI, supported by Professor Emeritus Richard A. Marston from Kansas State University. I used this funding to attend the TU Delft Climate Institute 2025 Summer School, *“Sea-level Change: Evidence, Challenges and Policy”*, held in late August in Delft, the Netherlands.

This week-long course contained a series of lectures which covered numerous topics related to sea-level change; including the underlying processes; observational techniques; and modelling of future scenarios. Particular attention was paid to the role of the Antarctic Ice sheet on global sea-levels, as well as emerging research on the potential collapse of the Atlantic Meridional Overturning Circulation (AMOC). Demonstrations and practical exercises illustrated the use of remote sensing techniques for derivation of altimetry, ocean currents, sea surface anomalies, and surge events.

A field trip to the Sand Motor – a large sand nourishment and coastal protection project off the coast of Delft – showcased the ambitious engineering and nature-based solutions currently being deployed in the Netherlands.

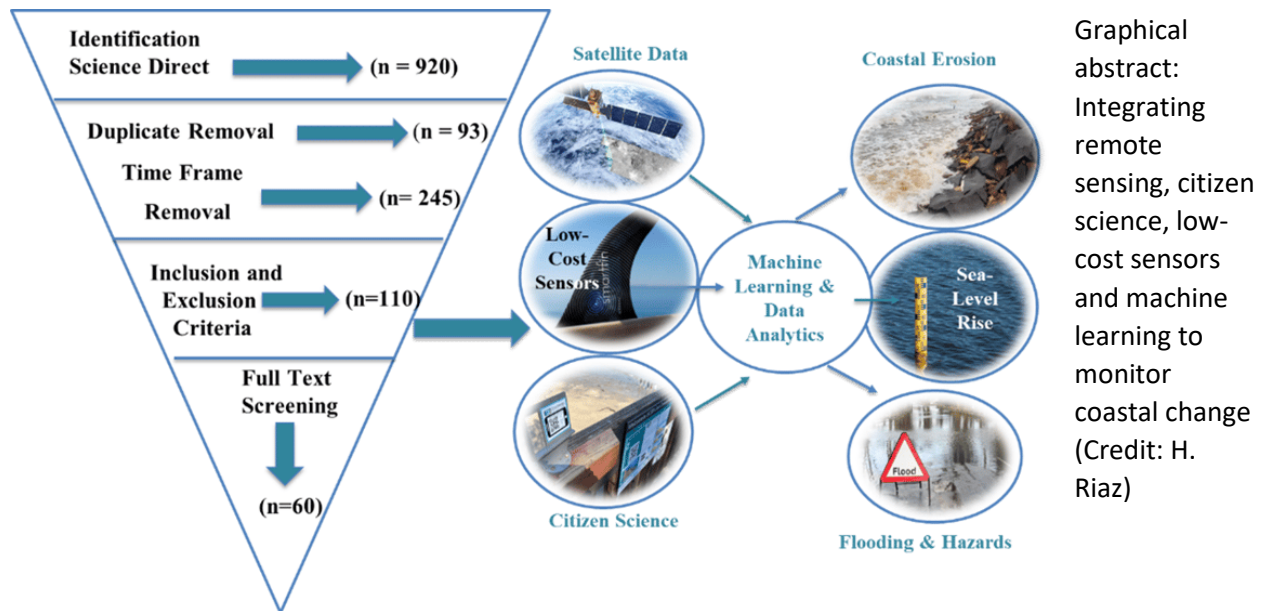
Overall, I found the week extremely valuable, not only for the excellent lectures from experts in the field, but also for meeting fellow researchers from across the world. As a physical geographer, I was something of an outlier – the majority of the attendees were focusing on climate modelling. However, as an “end user” of the outputs of such models, the course significantly strengthened my understanding of how these results are produced.

My main take away was that, although the evidence for human induced climate change leading to sea-level rise is incredibly robust, a lot of uncertainty remains regarding how fast it may accelerate and what the potential outcomes may be. In a low-lying nation such as the Netherlands, the threat of rising sea levels is particularly acute, and the innovative approaches being implemented there offer valuable lessons for coastal countries like Ireland.



Summer School Attendees visit to the Sand Motor, South Holland, the Netherlands (Credit: K. Walsh).

From Satellites to Smartphones: Monitoring our Changing Shores, by GAI bursary recipient Haram Riaz (ATU)



I have spent the last year exploring how cutting-edge technology and community efforts can help protect our coastlines. My PhD research in environmental science focuses on coastal erosion and shoreline changes, and how we can monitor these threats better using a mix of remote sensing satellites, machine learning models, low-cost sensors, and citizen science. In practical terms, this means blending data from space (satellite images of shifting sands and rising seas) with on-the-ground inputs from ordinary people. I recently completed a systematic review paper of over 60 academic papers to explore a question close to my heart: Can low-cost, accessible technologies help us monitor our coastlines? The answer is a resounding yes. By combining satellite remote sensing, drones, low-cost sensors, and even observations from citizen scientists on the beach, we can monitor coastal erosion and shoreline changes more comprehensively and in real time than traditional expensive methods. Satellites provide big-picture images of shoreline movement, while drones and sensors capture local details on the ground. Projects like CoastSnap turn casual beach photos into valuable data for science. Seeing these tools work together has been inspiring. It shows how innovative, low-cost approaches can complement each other to keep an eye on our changing shores.

This review is just the beginning of a larger journey. It lays the groundwork for my upcoming research, where I'll dive deeper into harnessing citizen science data, especially crowdsourced CoastSnap beach photos (a global initiative that has shown volunteer snapshots can be nearly as accurate as GPS surveys), to map and monitor shoreline change in even greater detail. It's exciting to think that every day, people with smartphones and simple gadgets can play a part in coastal monitoring. By blending high-tech satellite views with on-the-ground community input, we are making coastal science more accessible, and I believe this collaborative spirit will ultimately help protect the beaches and communities we all cherish.

Member news

We are delighted to welcome two new members to the GAI!

Dr Shauna Creane (UCC)



Hi, my name is Dr. Shauna Creane, and I am a Lecturer in Physical Geography in University College Cork (UCC). I hold a BSc (Hons) in Geoscience and a PhD in Civil and Environmental Engineering. I am the co-Director of UCC's PGCert in Metocean for Offshore Wind and a Principal Investigator in the UCC Sustainability Institute.

My research primarily focusses on the interaction between meteorological, oceanographic, sediment transport, and morphodynamic processes over different time spans, to answer complex research questions that aims to support the sustainable use of marine resources during the energy transition. A combination of offshore site investigation and numerical modelling is often used to address these questions.

As a Chartered Marine Geoscientist, I have over six years of experience working with an offshore wind consultancy and with government bodies to aid the sustainable use of our marine space.

To contact Shauna: SCreane@ucc.ie

Dr Bernard Essel (DCU)



I am Dr Bernard Essel, a Postdoctoral Researcher on the STRATA Project, which is a two-year funded project by Geological Survey Ireland that aims to advance the understanding of rock-coast cliff erosion around Ireland. My background is in photogrammetry, remote sensing, and geocomputation, and I specialise in applying satellite, airborne, and UAV data to monitor environmental change. More broadly, I employ remote-sensing techniques for coastal management, environmental protection and environmental modelling. I am always keen to connect with others working at the intersection of geomorphology, climate change and geospatial technologies.

Within STRATA, we are quantifying cliff-erosion rates and patterns using advanced analytical approaches, including PS-InSAR deformation mapping, repeat high-resolution UAV surveys for DEM generation, and wave modelling analysis via SWAN. Our work seeks to identify the key drivers of cliff erosion and support long-term strategies for managing coastal hazards.

To contact Bernard: bernard.essel@dcu.ie

Recent publications

Here are some examples of recent publications from GAI members. We'd love to showcase your work so if you have a publication to add to the next edition, please email us at iGeomorphology@gmail.com

Brennan, C., Summers, G., de Oliveira, L.M.C., Lim, A, Enhanced angular range analysis: a novel object-based image analysis approach for seafloor characterisation. *Mar Geophys Res* **46**, 12 (2025). <https://doi.org/10.1007/s11001-025-09574-7>

Egon, A., Farrell, E., Iglesias, G., Nash, S. Measurement and Modelling of Beach Response to Storm Waves: A Case Study of Brandon Bay, Ireland. *Coasts* **5** (3), 32 (2025). <https://doi.org/10.3390/coasts5030032>

Sherman, D.J., Bae, J., Ellis, J.T., Swann, C., Parteli, E.J.R., Farrell, E., Li, B., Araújo, A.D., de Carvalho, A.M., Sherman, D.L. & Zhang, P. 2025, "Aeolian Saltation Flux Profiles: Comparison of Representation and Measurement Methods", *Geosciences (Basel)*, vol. 15, no. 8, pp. 323. <https://doi.org/10.3390/geosciences15080323>

Fun from the field!

Applied geomorphology in action

JBA Consulting's Dr Kate de Smeth and Ellie Smith conducted a walkover of the Sixmilewater catchment in Northern Ireland last month. This project seeks to understand fluvial sediment supply dynamics and how these relate to sediment accumulation and proposed management strategies at the mouth with Lough Neagh.



Active erosion in the upper catchment (Credit: K. deSmeth)

Making friends with the locals! (Credit: K. deSmeth)



Hunting for equipment

Prof. Mary Bourke and Dr Kate de Smeth (TCD) searching for weather-beaten and overgrown equipment at their research site at the Dawn of Hope landslide in Co. Leitrim - great success!



Locating the data logger at one of the flumes
(Credit: M.Bourke)

Get in touch

To join the GAI or contribute to the newsletter please contact the GAI committee:

igeomorphology@gmail.com

We welcome submissions for all sections of the newsletter, including job advertisements and grant and conference announcements. Don't forget you can also email the GAI community any time using the listserv, or by emailing us to send out on your behalf. We'd love to hear from you!

Best wishes to everyone and stay snug this winter, 'til next time!

Kate de Smeth (Newsletter Editor), on behalf of the GAI Committee.

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DIAS

Institiúid Ard-Léinn | Dublin Institute for
Bhaile Átha Cliath | Advanced Studies

The DIAS Geophysics section experienced a dynamic year marked by significant events. Our team of researchers actively participated in both remote and in-person conferences, delivering presentations, posters, talks, and seminars across various platforms such as IGRM2025, EGU2025, UCD School of Earth Sciences Seminar Series, IASPEI/IAGA, iCRAG@10, UC Berkeley, CA, USA, Volcano MT Monitoring Workshop, 4D Dynamic Earth Final Review Meeting, Seismological Students' Workshop, Computational Earth Workshop, DIAS Research Forum, iCRAG-GSI Geothermal Research Workshop, UK-Ireland Array Meeting, Samhain agus Science 2025, GeoTwins kick-off Meeting, National Oceanography Centre, Geothermal Research Workshop, Swiss Seismological Service & ETH Zurich, HEAnet25 National Conference, 4D-Earth ESA Meeting, Living Planet Symposium.

DIAS Geophysics welcomed one new PhD student, while postdoctoral researchers have begun work on projects including HEKLA, IMAGFib, SmartScape, GeoTwins, and GEMINI, iCRAG, and GSI. Additionally, 2025 marked the successful completion of Regina Maass & Eleanor Dunn's vivas. Leon Berry-Walsh successfully completed his Master's.

Throughout the year, DIAS was actively involved in terrestrial and marine fieldwork, deploying temporary research networks in the Celtic Sea, Iceland, Italy, Maderia and various locations across Ireland and Northern Ireland. This work utilised DIAS's marine, magnetotelluric (MT), and seismic infrastructure and equipment pools.

The Irish National Seismic Network (INSN), a collaboration between DIAS and GSI, had a busy year, reporting several seismic events, including a M8.8 earthquake that occurred in Kamchatka, Russia, on July 29, 2025, which was among the top ten largest earthquakes ever recorded. The largest magnitude earthquake reported in and around Ireland was a M2.2 in the Celtic Sea on July 26.

Throughout this year a network of nine extra stations has also been deployed by the INSN in Northern Donegal to study the seismicity in this region in more detail, allowing an additional 19 small earthquakes to be detected and located. Additionally, a new permanent INSN station, installed in a 14m deep borehole in Co. Leitrim, began streaming data in February 2025.

The INSN was also in the news in August, when vibrations from the Oasis concerts in Croke Park, Dublin were detected by INSN stations as far away as Wexford and Tipperary.

QuakeShake, a DIAS-GSI collaboration organized multiple outreach events, including its second Public Annual Meeting in the Copper Coast Geopark, Co. Waterford on 17 June 2025. QuakeShake gave a five-minute online presentation at the ETHZ meeting about schools earthquake programmes on 29 January 2025. The QuakeShake programme was presented as part of DIAS Geophysics "Earthquakes and Other Geohazards" Culture Night, hosted on 19 September 2025 at 5 Merrion Square. QuakeShake also began iCRAG's Geoscience for Leaving Certificate Teachers course in early September 2025.

Both INSN and QuakeShake collaborated with Geological Survey Ireland (GSI) in organizing the BT Young Scientist & Technology Exhibition (BTYSE) held at the RDS in January 2025.

Ongoing international collaborations with researchers in University of Kiel, University of Iceland, Icelandic Meteorological Organisation, Ludwig Maximilian University of Munich, University of Bergen, Cambridge University, University of Edinburgh, GFZ Potsdam, iFremer, European Space Agency, University of Birmingham, Instituto Geofísico, Charles University, TU Delft, Universidad Complutense de Madrid, ETH and many others. Current large scale collaborative projects include iCrag2, EU IMPROVE, DIG, EU SPIN, IGUANA (DIAS, University of Edinburgh, Instituto Geofísico in Quito), DEEP, ESA 4D Earth, POROCLIM, MOD3LTherm, GEMINI, GeoTwins and HEKLA, as well as ongoing individual level interdisciplinary work with our research partners around the world.

It was also a productive year for publications, with a total of 21 articles published in a diverse range of prestigious journals. These included The Geophysical Journal International, Space Weather, The Journal of the Acoustical Society of America, Journal of Studies of Earth's Deep Interior, Nature Geoscience, International Journal of Science Education, Geoscience Communication, Gondwana Research, Journal of Volcanology and Geothermal Research, Earth and Planetary Science Letters, Sci Rep, Surveys in Geophysics, ESS Open Archive, Journal of Marine Science and Engineering, and Earth and Planetary Science Letters.

2025 was also a busy year for workshops, outreach events and public engagement. DIAS hosted our Statutory Public Lecture in 10 Burlington Road on 30 January where Dr. Gerard McCarthy from Maynooth University presented 'When the Ocean Changes Course: The Threat of an Atlantic Meridional Overturning Circulation (AMOC) Collapse'.

Eleanor Dunn (SPIN Project) worked on a collaborative event with University College Dublin's Symphony Orchestra on an event called "Seismic". This took place on 3 April 2025 in Whitefriar Street Church, Dublin.

DIAS hosted Culture Night on Friday 19 September in 5 Merrion Square, with presentations on QuakeShake and a visit to the INSN room as well as a live set-up of seismic and marine equipment. The event was attended by over 180 people.

Researchers also represented DIAS at the Dublin Magma Group's Culture Night "Lava Land", hosted in Trinity College Dublin.

On November 4, Dr. Duygu Kiyani and Dr. Paddy Smith participated in an event called "Magma in Motion" as part of DIAS' Samhain agus Science festival. This was in collaboration with Dublin Magma Group and hosted in Trinity College Dublin.

Soil Science Society of Ireland



Activity Summary 2025

Upcoming Activities 2026

The Soil Science Society of Ireland is an all-Ireland body for professionals and students working in the discipline of soil science. The society actively promotes research, knowledge transfer and sustainable management of soils in Ireland through scientific meetings, fieldtrips, and discussion forums.

For example, 2025 activities included:

- 25 June 2025: Summer Field Meeting, Teagasc Crops and Technology Open Day, Teagasc Oak Park, Carlow.
- 5 Dec 2025: 2025 Annual Conference World Soil Day: Our Living Soil, UCD.

Upcoming activities in 2026 will include:

- Thu 14 May 2026: Field visit to the National Agricultural Sustainability Research and Innovation Centre, Johnstown Castle, Wexford.

You can find more information and how to join at:

<https://www.ucd.ie/sssi/>



Soil Science Society of Ireland
Cumann Eolaíocht Ithreach na hÉireann

[Home](#) [About SSSI](#)

The Soil Science Society of Ireland is an all-Ireland body for professionals and students working in the discipline of soil science. The society actively promotes research, knowledge transfer and sustainable management of soils in Ireland through scientific meetings, fieldtrips, and discussion forums.





**UCD
Earth
Institute**

Soil Science Society of Ireland



Register your interest
<https://tinyurl.com/vafcf2x7>

Our Living Soil

A Conference in Celebration of World Soil Day 2025

When and Where ?

**Friday 5th December 2025
University College Dublin
The Village Auditorium**

Project talks by :

Funded by:





**An Roinn Aeráide,
Fuinnimh agus Comhshaoil**
Department of Climate,
Energy and the Environment

Geoscience Regulation Office

IGN Briefing Note

11 March 2026

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Geoscience Regulation Office (GSRO)

The GSRO oversees the regulation of the designated geoscience activities, minerals, mining, and petroleum, that come within the remit of the Department of Climate, Energy and the Environment (DCEE) in a transparent, sustainable, and robust manner that protects the public interest. Our main functions are to:

- Manage all mineral prospecting licences (210) and State Mining Facilities (14), progress all licences / leases applications, ensure compliance with licence / lease conditions and exercise enforcement, as required.
- Manage all existing petroleum exploration authorisations (11), including petroleum leases (2), ensure compliance with authorisation conditions and exercise enforcement, as required.
- Geothermal (once legislation and regulations are in place)

Non geoscience activities which are currently under the GSRO remit:

- Kimberley Process (import / export of rough diamonds)
- Conflict Minerals regulation (imports of tin, tantalum, tungsten and gold-3TG)

GSRO Information Hub

The GSRO provides publicly accessible mineral exploration information and data covering over 24 years of exploration activity for 2000 prospecting licence areas free of charge.

The [GSRO Information Hub](#) is a 'one-stop-shop' for sourcing regulatory information through a fresh tile-based interface and easily navigable pages.

The [GSRO Information Hub](#) provides information on geoscience areas under GSRO's remit through:

- embedded web maps and dashboards,
- a collection of links for GSRO-related pages/documents on gov.ie and other technical/geoscientific documents that cannot be hosted on gov.ie,
- links to resources on public engagement, other agencies, and relevant policy / legislation.



GSRO MEAS

To continue the streamlining of the prospecting licencing system, the GSRO has replaced its numerous forms with one consolidated form. The new form is titled the [GSRO Prospecting Licence Mandatory End-of-Phase Activities Submittal \(MEAS\)](#) and came into effect on 1 January 2026.

The new form includes auto populated features, based on certain inputs, and is designed to facilitate PL holders in meeting their reporting obligations by streamlining the process and amalgamating certain requirements into one place. This is aimed at simplifying Licensees' reporting obligations. A version of this form will be updated each quarter to include latest Prospecting Licence information to facilitate form auto-population. A [guidance document](#) is provided to aid in the completion of the MEAS form.

Contents of New MEAS Form:

TAB NAME	DESCRIPTION	PREVIOUSLY INCLUDED IN
Cover page	Explanatory cover sheet with instructions on completing the form	N/A
Licence Info and Declaration	Information on Prospecting Licence Areas (partly auto populated) and signature for submission of form; Renewal indicator, if applicable; Surrender information, if applicable.	Summary of Work Form Renewal Form Surrender Form
Statement of Qualification	Information on qualified person submitting the work reports	Statement of Qualification Form
Expenditure	Claimed expenditure for the reporting period (partly auto populated)	Summary of Work Form
Submittal Summary	Details of submitted reports and data	Submittal Summary Template
Proposed Work Programme	Outline of the work programme for next 2 years	Summary of Work Form

The Expenditure and Submittal Summary tabs mirror the structure of Section 4.1 of the [GSRO General Requirements for Work Reports and Data: Mineral Exploration Guidance Document](#). PL Holders are reminded to submit work reports and data in accordance with this document.

In addition, from 1 January 2026 the GSRO introduced an **Interim Compliance return**, with similar features to the MEAS form above. This form is designed to facilitate reporting by PL Holders who are required to report to the GSRO in respect of any interim compliance conditions placed on them. It will be issued by the GSRO to any PL holder required to meet interim compliance conditions.

Contents of New Interim Compliance Form:

TAB NAME	DESCRIPTION	PREVIOUSLY INCLUDED IN
Cover page	Explanatory cover sheet with instructions on completing the form	N/A
Licence Info and Declaration	Information on Prospecting Licence Areas and signature for submission of form	Summary of Work Form
Statement of Qualification	Information on qualified person submitting the work reports	Statement of Qualification Form
Interim Compliance Report	Provides headings and details of what is required in the report for the interim compliance period only	New
Expenditure	Claimed expenditure for the reporting period (partly auto populated)	Summary of Work Form
Submittal Sheet	Details of submitted reports and data	Submittal Summary Template

The GSRO has also developed a new **PLA Exploration Report Search application (PLAERS)**. This replaces the old PLA Search tool and provides the ability to access information on mineral exploration documents available for download for a selected PLA, licences associated with that PLA and legacy PLAs in the same area.

The PLAERS application is available at

<https://experience.arcgis.com/experience/5bcf1aecd8e242059d863fd4e0070980/>

The screenshot displays the 'GSRO Prospecting Licence Area Exploration Report Search' application. On the left, a map of Ireland shows the location of PLA 3946 in the Oyon area. The search bar contains '3946'. Below the map, it indicates 'Current PLA Status: Oyon' and provides a link to the GOLDMINE map and document archive. On the right, a 'Documents' tab is active, showing a list of reports for PLA 3946 and associated legacy PLAs. Each report entry includes a title, a date range, and a 'Download' button. The reports include exploration reports for various periods (e.g., 25/01/2013 to 24/01/2015, 25/01/2009 to 24/01/2011), block reports for multiple PLAs, review reports, and exploration work reports for specific periods (e.g., November 2006 to January 2009).

Figure 1 PLAERS search for PLA 3946 and associated reports

Prospecting Licence Competition 1st February 2026

The following Prospecting Licence Areas are available for application under equal competition in the 1 February 2026 Prospecting Licence Competition. The deadline for competition applications is **31 March 2026**.

PL Area	County	PL Area	County
1022	Mayo	3216	Kilkenny
1562	Mayo	3559	Kilkenny
2683	Monaghan	3560	Kilkenny
2872	Limerick	3709	Kilkenny
3211	Kilkenny	3774	Mayo
3215	Kilkenny	4559	Cavan

Information on the procedure and evaluation of applications is available in the [Rules Document - Mineral Exploration in Ireland – section 5.1.4.](#) Completed [application forms](#) should be submitted to gsro@decc.gov.ie.

Please use our [GSRO Information Hub](#) to view an interactive web map of the competition Prospecting Licence Areas and our [online GIS viewer](#) to check current licence area status. A **shapefile** of the [Prospecting Licence Area Status](#) as of 1 February 2026 is also available for download.

Ireland: Mining and Exploration Update

Mining

As of 31 December 2025, there were:

- 9 extant State Mining Leases
- 5 extant State Mining Licences

Summary of Current State Mining Licences and Leases

State Mining Licences

SML No.	Held by	County	Validity		Main Commodity
			From	To	
2	Boliden Tara Mines Ltd.	Meath	03.07.1998	31.05.2026	Lead and Zinc
3	Boliden Tara Mines Ltd.	Meath	03.07.1998	31.05.2026	Lead and Zinc
4	Boliden Tara Mines Ltd.	Meath	11.09.2000	31.05.2026	Lead and Zinc
5	Boliden Tara Mines Ltd.	Meath	15.01.2004	31.05.2026	Lead and Zinc
12	Boliden Tara Mines Ltd.	Meath	01.07.2021	31.05.2026	Lead and Zinc

State Mining Leases

SML No.	Held by	County	Validity		Main Commodity
			From	To	
17*	Joyce's Marble Quarries Ltd.	Galway	01.10.1933	30.09.2032	Marble and Other Minerals
23*	Fleming's Fireclays Ltd.	Laois	01.03.1935	29.02.2032	Fireclay, Coal
30*	Connemara Marble Products Ltd.	Galway	01.11.1937	31.10.2034	Marble
37	Fleming's Fireclays Ltd.	Laois	14.11.1940	13.11.2039	Fireclay, Coal and Other Minerals
79	Joyce's Marble Quarries Ltd.	Galway	01.12.1957	30.11.2056	Marble and Other Minerals
139	Irish Gypsum Ltd.	Monaghan	12.11.2002	11.11.2032	Gypsum, Anhydrite and Other Minerals
144	Boliden Tara Mines Ltd.	Meath	01.07.2021	31.05.2026	Lead and Zinc
146	Boliden Tara Mines Ltd.	Meath	01.12.2013	31.05.2026	Lead and Zinc
147	Boliden Tara Mines Ltd.	Meath	01.12.2013	31.05.2026	Lead and Zinc

* Granted under the Mines and Minerals Act, 1931 (No. 54)

Boliden Tara Mines DAC

BTM State Mining Leases and Licences (SML) were extended by 6 months by way of supplementary indenture in November 2025. The Minister has approved the renewal of the BTM SMLs for a further 20 years, up to the 30 November 2045.

Shanoon Resources Ltd

Shanoon submitted a State Mining Facilities application to the GSRO in November 2024, for the re-opening of the Galmoy zinc, lead and silver mine in Co Kilkenny. The application is still under consideration. The company has already obtained planning permission from Kilkenny and Laois County Councils and an Integrated Pollution Control Licence from the EPA.

Irish Gypsum Ltd

In early 2024, Monaghan County Council granted conditional planning permission to Saint Gobain to develop a new open-cast gypsum mine ('Knocknacran West') immediately north of the existing quarry. The decision was appealed by third parties to An Bord Pleanála. However, in January 2026 the appeal was withdrawn.

Exploration Activity

As of 31 December 2025, 28 exploration companies hold a total of 210 Prospecting Licences. The active PLAs cover approximately 11% of the surface area of the country. 20 PLAs were granted in 2025 and 113 PLAs surrendered, revoked or expired.

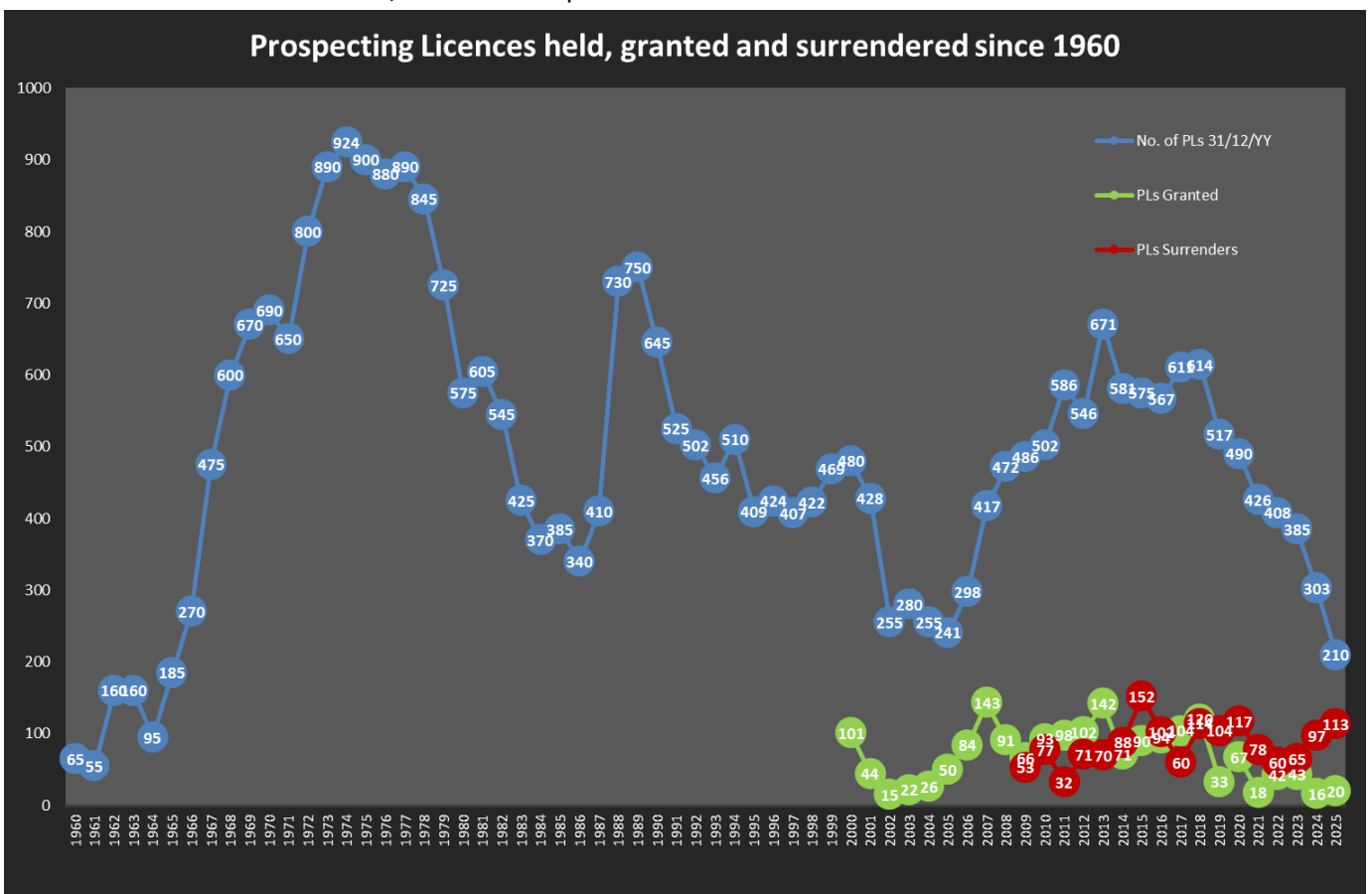


Figure 2 Prospecting Licences held, granted and surrendered from 1960 to 2025

To date in 2026 the GSRO has issued 9 new prospecting licences and has another 60 licences under application. These applicants include 5 new entrants into Ireland, coming from Ireland, Canada and Australia. Additionally, 5 licences have been surrendered in 2026.

Exploration and Mining Expenditures 2024

Based on figures provided by exploration and mining companies, exploration expenditure during the calendar year 2024 totaled €6.19 million (excluding office overheads). This is over €7.0 million lower than the 2023 figure of €13.19 million. The expenditure of €6.19 million is comprised of €6.12 million in Prospecting Licence Areas (“greenfield” exploration) and €0.07 million in areas covered by State Mining Facilities (SMF, “brownfield” exploration). Expenditure on drilling on PLs in 2024 amounted to €4.46M, which was marginally less than the equivalent figure for 2023 (€4.57M).

The expenditure in PL Areas is mainly related to base metal exploration (€5.61M), with lesser amounts being spent on gold (€0.35M) and other minerals, including lithium (€1.54M).

Prospecting Licences (PLs)				
Activity	Base Metals	Gold	Other	Total
Geology	€678,315.94	€236,559.00	€69,826.00	€984,700.94
Geochemistry	€317,026.13	€35,542.00	€45,371.00	€397,939.13
Geophysics	€99,860.94	€4,774.00	€28,599.00	€133,233.94
Airborne Surveys	€0.00	€0.00	€0.00	€0.00
Drilling	€4,430,571.99	€30,750.00	€0.00	€4,461,321.99
Trenching	€0.00	€0.00	€0.00	€0.00
Environmental Studies	€51,562.86	€449.00	€29,020.00	€81,031.86
Other Costs (Includes data acquisition, consultancies, storage costs and report writing but excludes office overheads)	€27,971.00	€33,919.00	€2,500.00	€64,390.00
Total Expenditure [PL Areas] (A)	€5,605,308.86	€341,993.00	€175,316.00	€6,122,617.86
Irish Office Overheads	€2,117,300.45	€111,045.00	€25,000.00	€2,253,345.45
Total plus Irish Office Overheads	€7,722,609.31	€453,038.00	€200,316.00	€8,375,963.31
State Mining Facilities (SMFs)				
Drilling				€29,549.00
All Other Expenditure				€40,466.00
Total Exploration Expenditure (B)				€70,015.00
Mine Development Expenditure				€2,057,763.00
Total Exploration Expenditure				
PLs + SMFs excluding office overheads (A + B)				€6,192,632.86

Drilling statistics

Preliminary figures provided by Prospecting Licence holders indicate that a total of 28,615 metres of drilling (non-mine related) was carried out during 2024, mainly for base metals (zinc, lead).

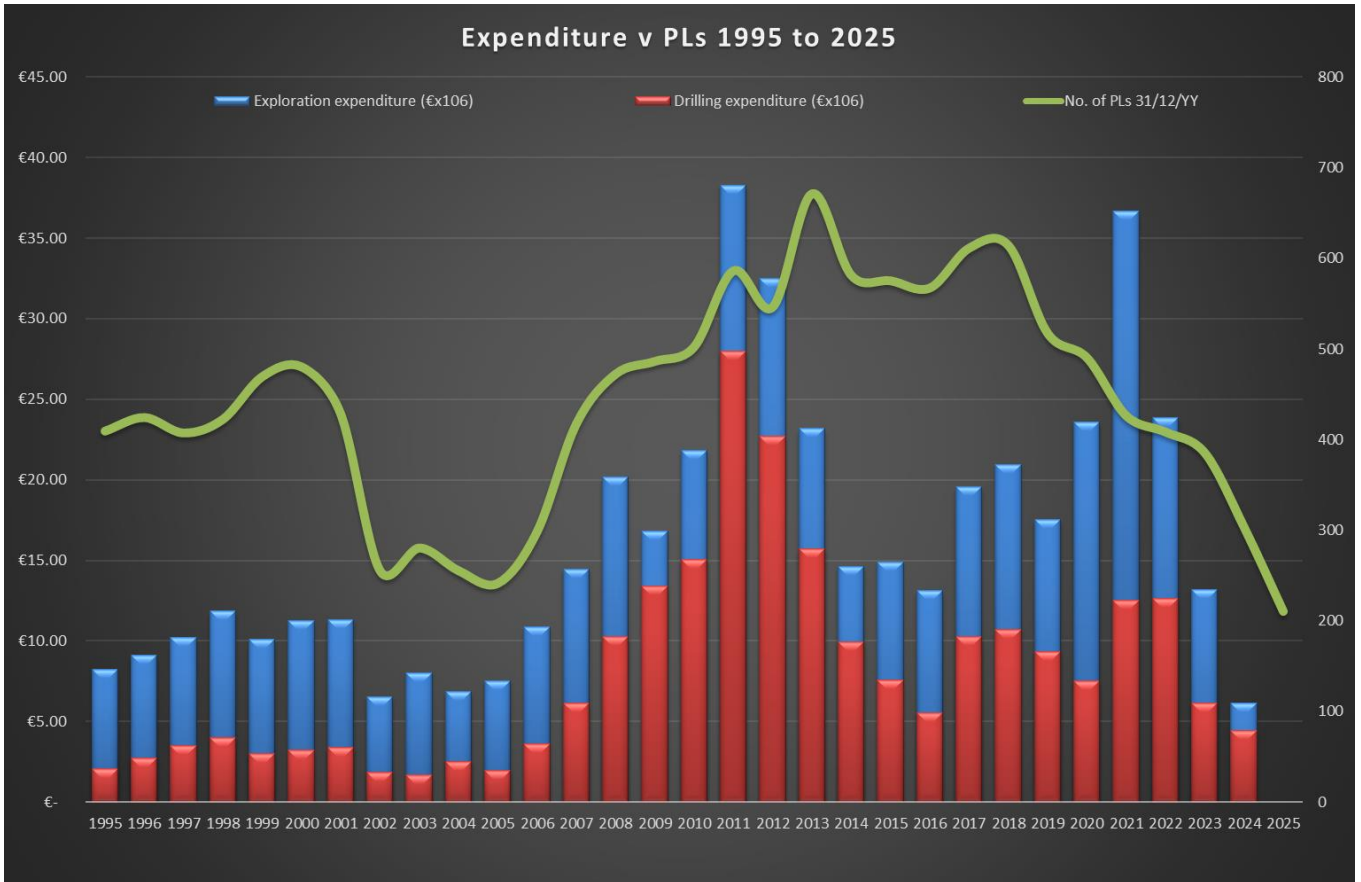


Figure 3 Prospecting Licences expenditures, including drilling, from 1995 to 2025

Petroleum Exploration and Production

The [Six Monthly Reports to the Oireachtas on Petroleum Exploration and Development in Ireland](#) sets out:

- the particulars of all current Authorisations granted by the Minister during the reporting period,
- the amount of money relating to petroleum exploration and development collected by the Minister during the reporting period, and
- other information relating to petroleum exploration and development in Ireland.

Additionally, every quarter the Department publishes an [Acreage Report of petroleum exploration & production authorisations](#), which serves as a snapshot of how the licensed acreage in the Irish offshore stands at the end of the quarter in question. A Concession Map showing the location of the active authorisations is published with the Acreage Report, see Figure 4.

As set out in 2022 Policy Statement on Petroleum Exploration and Production and the provisions of the Climate Action and Low Carbon Development (Amendment) Act 2021, Ireland has ended the issuing of new licences for the exploration and extraction of oil & gas. Holders of existing authorisations are not affected by these changes and may apply to progress their authorisations through the licensing stages towards a natural conclusion, which may include expiry, relinquishment, production or rejection. All applications relating to existing authorisations will continue to be assessed against a number of criteria in accordance with the provisions of the relevant legislation and the Licensing Terms for Offshore Oil and Gas Exploration, Development and Production.

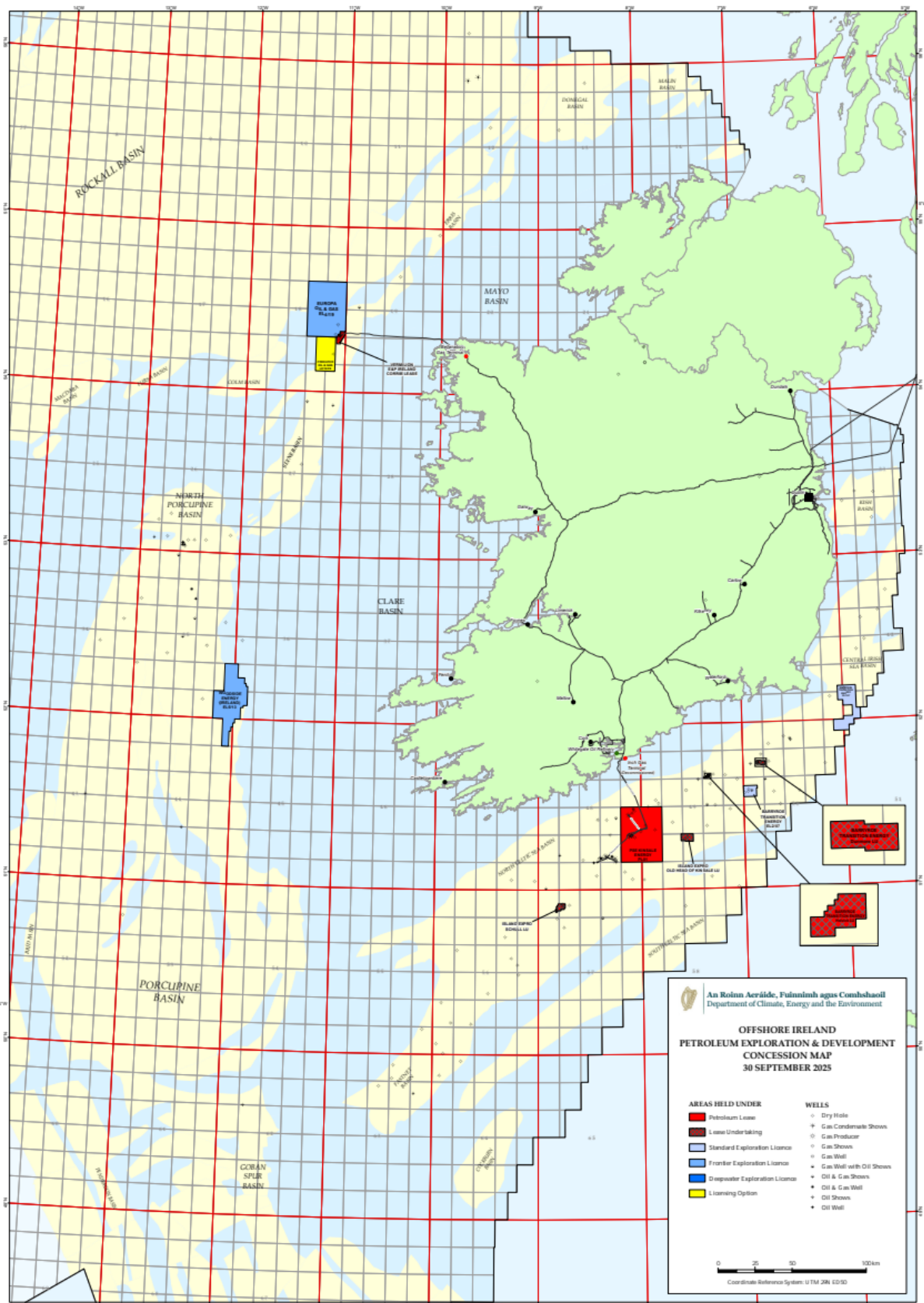


Figure 4 Offshore Ireland Petroleum Exploration & Development Concession Map 30 September 2025

*Geoscience Regulation Office
Department of Climate, Energy and the Environment*

*Tom Johnson House
Haddington Road
D04 K7X4
Ireland*

[GSRO Information Hub](#)

GRSO@decc.gov.ie

www.gov.ie/decc



IGN Update 2026 - Geoscience Policy Section

Department of Climate, Energy and the Environment

Critical Raw Materials Act

- The Geoscience Policy Section (GPS) in the Department of Climate, Energy and the Environment is leading on coordinating implementation of the Critical Raw Materials Act (CRMA), an EU regulation that came into direct effect in EU Member States including Ireland on 23 May 2024.
- The CRMA is intended to address the rapidly increasing demand for critical raw materials (CRM) and CRM supply chain vulnerabilities that place European economic, climate, digital and defence objectives at risk. Its main provisions will improve knowledge, efficiency and cooperation on CRM extraction, processing, recycling and substitution. In addition to a list of critical raw materials for the whole EU economy, the Regulation has further identified a subset of materials that are most crucial for strategic technologies, known as strategic raw materials.
- Implementation actions are underway, including the development of a working model for designated single points of contact for critical raw materials strategic projects, joint permitting processes, meetings of the Critical Raw Materials Board and its six subgroups, and calls for Strategic Projects under the Act.
- The Commission has reacted to the increased pressure being placed on the European CRM Value Chain by publishing the REsourceEU Action plan in December 2025, in order to accelerate and amplify its efforts to secure the EU'S supply of CRMs. Among the measures to meet those objectives, the Commission has proposed a draft Regulation COM (2025) 946 which provides for targeted amendments to the CRMA in order to streamline, clarify and simplify some of the rules to improve circularity and to strengthen the secondary market for critical raw materials.

Geoscience agency establishment, Geoscience Bill

- GPS conducted work in planning for a General Scheme for a new Geoscience Bill, updating current minerals development legislation, including a review of the Minerals Development Act 2017 and taking into account implications at national level of the EU CRMA which is currently under implementation. This work included consideration of any revisions needed in respect of regulatory functions for the State's mining and petroleum sectors, and any changes which might be necessitated by the proposed establishment of a new geoscience agency incorporating the functions of the Geoscience Regulatory Office and Geological Survey Ireland. As of February 2026, to focus resources on other top DCEE priorities such as the historic mine sites rehabilitation programme and implementation of the EU CRMA, work on the preparation of a General Scheme has been paused for the remainder of 2026, with a view to resuming in 2027. The Department will in the meantime keep under active review, issues which need to be considered in resuming work on the General Scheme for the Geoscience Bill.

Geothermal Energy

- To focus resources in the Geoscience Policy area in 2026 on top DCEE priorities such as the historic mine sites rehabilitation programme and implementation of the EU CRMA, detailed

work on the development of a Geothermal Energy Bill (General Scheme) has been paused in 2026 with a view to resuming in 2027.

- Geothermal energy remains a key future technology for Ireland's overall net-zero energy system, particularly for heating and cooling. Geoscience Policy Section will continue to feed into work led by the Department's energy sections to develop an overall cohesive Energy Strategy framework, and also work in relation to the Net Zero Industry Act provisions, Renewable Energy Directive (REDIII) targets for renewable energy and the implementation of the Energy Efficiency Directive, for example by feeding into the calculation of the Integrated Marginal Abatement Cost Curve (IMACC).
- This will allow the regulatory framework for geothermal energy to align with the Heat (Networks and Miscellaneous Provisions) Bill. Geoscience Policy Section will in the meantime continue to provide input to the development of that Bill, ensuring a cohesive regulatory landscape for district heating as a significant potential future market for geothermal energy.
- Geological Survey Ireland will continue its work explaining and quantifying the potential of geothermal energy, including work on the National Geothermal Database, which will help de-risk investment in geothermal energy, as well as its work with local authorities, energy agencies and partners in the SEUPB-funded GEMINI consortium, which is developing demonstrator projects, North and South.

PDAC mining convention, Toronto

From 1-4 March 2026, the Department led Ireland's delegation to the international Prospectors and Developers Association Convention (PDAC) in Toronto, the world's largest annual exploration and mining convention. Together with exhibition partners the Irish Strategic Infrastructure Fund which oversees the Irish Minerals Fund, and iCrag, the Ireland Delegation had numerous engagements with attendees, offering insights into Ireland's mineral policy and geoscience, as well as research and funding opportunities. Seán Finlay, Director, Geoscience Ireland also attended. The Delegation was pleased to host the Consul General for Ireland in Toronto, Claire Fitzgibbon, and Patrick Tobin from Enterprise Ireland to the convention to meet exhibitors and Irish companies. We also had the pleasure of a visit to the stand from Head of the European Commission's DG GROW, Kerstin Jorna, and Vice-President for Prosperity and Industrial Strategy, Commissioner Stéphane Séjourné, to discuss Ireland's role in supporting Europe's green transition and raw materials resilience.

There was a continued emphasis on raw materials diplomacy and cooperation, with the European Commission hosting a number of events to showcase and discuss Europe's united approach to improving its raw materials resilience and boosting investments in raw materials. The Ireland delegation took part in the EU Breakfast Networking panel discussion and the EU-Canada Bilateral Dialogue on Raw Materials.



The Ireland Delegation with Consul General Claire Fitzgibbon (middle) and Enterprise Ireland representative Patrick Tobin (far right)



Kerstin Jorna, Stéphane Séjourné (European Commission) and Eoin McGrath (Geological Survey Ireland) discussing Irish mining and minerals

ObSERVE Phase 2

- The ObSERVE programme was established in 2014 to greatly improve our knowledge and understanding of protected offshore species and sensitive habitats through high quality, state-of-the-art data collection across Ireland's EEZ. In 2021, phase two of the ObSERVE aerial survey programme was announced, which aimed to investigate the occurrence, distribution and abundance of key marine species, with an emphasis on whales, dolphins and porpoises (cetaceans) and seabirds. Following a series of extensive surveys across Ireland's EEZ, Minister Ossian Smyth TD and Minister of State Malcolm Noonan TD publicly launched the Observe II Aerial reports on 16 October 2024. The following reports were published:
 - 'Aerial Surveys of Cetaceans and Seabirds in Irish waters: Occurrence, distribution and abundance in 2021-2023'
 - 'The seasonal distribution and abundance of seabirds, cetaceans and other megafauna off the south and southwest Irish coast'.
- Following discussions regarding the next steps for ObSERVE, management of the programme has moved from the Geoscience Policy Section to Geological Survey Ireland. A third phase of the aerial survey programme is due to commence this year, with repeat broad-scale surveys of Ireland's EEZ, and fine-scale surveying along the Atlantic coast from Co. Kerry to Co. Donegal. A project has also been commissioned to develop a set of international standards and protocols for aerial surveying of cetaceans, seabirds and sharks.

Historic Mines

The Department is continuing its work on development of objectives and scope for a comprehensive historic mine sites rehabilitation programme. At the same time, environmental monitoring and safety works continue at priority sites Silvermines and Avoca, in collaboration with local authorities. In addition, these sites are being examined for their potential for critical raw materials, as part of implementing the CRMA Planning is also in train for Volume II of the Historic Mine Sites Inventory, which will identify the physical risks present at the sites.

Petroleum Exploration and Production Policy

- The Department published its sixth Irish Offshore Strategic Environmental Assessment (IOSEA6) in September 2023 to facilitate existing authorisation holders in being able to seek to progress their authorisations, which included a Strategic Environmental Assessment and Appropriate assessment of the Department's "*Plan for issue of Petroleum Exploration and Production Authorisations in Irish Offshore Waters for the period to 2030*".
- This Plan set out the proposed approach to the issuing of petroleum authorisations, and the consideration of the possible offshore exploration activities that could take place under petroleum authorisations. It takes into account all the policy changes that have occurred in Ireland in recent years, including the placing of the commitment to end the issuing of new licences for new exploration and extraction on a statutory basis.
- Further development work under the petroleum policy heading has been re-prioritised under Departmental policy for 2026, and it is therefore not expected that any new policies nor initiatives other than the existing policy will be progressed until further notice.



An Roinn Aeráide,
Fuinnimh agus Comhshaoil
Department of Climate,
Energy and the Environment



Geological Survey
Suirbhéireacht Gheolaíochta
Ireland | Éireann

Irish Geoscience Network: Geological Survey Ireland, 2025 update and 2026 Plans

The Geological Survey is Ireland's Geoscience organisation and is part of the Department of Climate, Energy and the Environment, (DCEE). Geological Survey Ireland's role is to provide reliable and independent geological data, information, and advice to a wide variety of customers/stakeholders, and provide policy advice, planning tools and project partnership, particularly in relation to Irish geoscience input into other Government Departments, Agencies, local authorities, and EU Programmes, as well as developing Irish geoscience research capacity and increasing jobs in the geoscience sector.

2025 was another productive year for Geological Survey Ireland, now working across four locations: Head Office in Booterstown, Operational Centre including storage, archives and labs in City West, Core Store and scanning centre in Sandyford and additional core storage and drill-operation centre in Birr, County Offaly. Geological Survey Ireland Head Office moves out of Booterstown in Q1 2026 and returns to Tom Johnston House, Beggars Bush, Dublin 4 in Q2 2026.

Programme updates.

Tellus Project.

2025 was another busy year for the Tellus programme. With a push to finalise the airborne survey Sander Geophysics Ltd (contracted to undertake the airborne survey) mobilised two aircraft with both based in Shannon. Over the summer 49,400 lkm of data were flown over the remaining survey blocks in County Clare and in the southwest over counties Kerry and Limerick. The A11 block covering Co. Clare was completed bringing national coverage to 96%. 2026 will see the remaining 17,000 lkm flow over the remaining lines in Co. Kerry

On the geochemistry front, sample prep and analysis was completed for A soils for G10, G7 and G9 along with XRF data for the G4 stream sediments and G5 soils. New data for the southeast as well as geochemical results from urban samples in Dublin were published. 2026 will see on-going sample analysis as we look to complete geochemical datasets across the country.

GSI was also delighted to sign a tri-partite agreement in conjunction with DIAS and Met Éireann in support of the Irish Magnetic Network with plans to manage and upgrade the network over the coming years.

Further information regarding the Tellus survey can be found at the project website www.tellus.ie

Marine and Coastal Unit.

INFOMAR, the national marine mapping programme, completed the ninth year of its Phase II programme, which aims to complete the mapping of all Irish waters. In 2025 total marine mapping achieved was 9,637 sq.km (gross coverage from both Geological Survey Ireland and the Marine Institute combined).

Nearshore and inner shelf mapping was undertaken by Geological Survey Ireland utilising four survey vessels and focused on the inner shelf and coastlines of counties Galway, Mayo and Donegal. Offshore mapping was undertaken by the Marine Institute in the Irish and Celtic Seas, and offshore Co. Galway using the R.V. Tom Crean.

Shipwrecks continue to be investigated and recorded as part of INFOMAR mapping, working in conjunction with the National Monuments Underwater Archaeology Unit (DHLGH). It is planned in 2026 to extend inshore survey coverage along the coasts of Clare, Mayo and Donegal, along with offshore areas on the inner Atlantic shelf and complete offshore mapping in the Irish Sea,

The Marine & Coastal Unit, in partnership with the Marine Institute, coordinated and delivered two MSc modules in Marine Remote Sensing in the University of Maynooth and University College Dublin, which are complimented by the SMART Sea programme of offshore training for students onboard the RV Tom Crean. Additionally, the Marine & Coastal Unit delivered two lectures on seafloor mapping and shipwreck surveying as part of University College Cork's Master's module on Coastal & Underwater Archaeology, in collaboration with the Underwater Archaeology Unit of the National Monuments Service (DHLGH).

The Coastal Change Assessment programme continued with the publication of further east coast datasets and ongoing support on the National Coastal Strategy of DHLGH and OPW.

Bedrock

Bedrock geology activities in 2025 included the beginning of a re-interpretation and re-mapping project of the SE region, resumption of hyperspectral acquisition, and logging and interpretation of holes drilled by the geothermal programme. The SE re-mapping project aims to incorporate legacy survey data, legacy exploration data, Tellus data, with new insight into this high-potential Copper region. This work is linked to the development of a National Exploration programme under the Critical Raw materials Act (see below under Minerals).

Hyperspectral acquisition has involved partnering with the Hellenic Survey of Geology (Greece) and Mineral Exploration to acquire data and provide interpretation in support of one of their skarn projects, and a partner project to acquire data for Conroy Gold. New projects for 2026 include a joint project with the Belgian Geological Survey and a project with iCRAG.

2025 also saw the release of CoreSpecViewer, an open-source and free hyperspectral interpretation platform developed with the support of Geological Survey Ireland.

Support for the Geothermal programme has included logging of three holes drilled in Cork, acquisition of core scans, and providing interpretation and insight based on geological logging, pXRF data, downhole geophysics and hyperspectral scanning. All of these exciting initiatives will continue throughout 2026.

Geological Heritage.

Kerry County Geological Heritage Audit was completed and will be published later this year (Q2). This means for the first time there is national coverage of geological heritage sites published county by county. Later this year Geological Survey Ireland will open a call for tenders to synthesise these data and establish a single national dataset.

We continue to support the geologists in the four UNESCO Global Geoparks. Joyce Country & Western Lakes Geopark was successful in its application for UNESCO status, and the decision will be ratified at the UNESCO council meeting in Paris in April 2026.

Six Geoheritage grants were awarded to diverse community-led projects around the country. The Geoheritage Grants supported the production and publishing of a great book on the geoheritage of the Silvermines; 'Silvermines, A Heritage of Mines and Miners', now available through Geological Survey Ireland or select book shops.

Geological Survey Ireland actively participates through the geoheritage programme in: European Geological Surveys Expert Group on Geoheritage; ProGEO Working Group on Geoconservation; the chair of the Irish Geopark Network (2022-2025); the European Geopark Network; and the vice chair of the Global Geopark Network Advisory Committee.

Geoscience for Planning.

Geological Survey Ireland supports the Department of Climate, Energy and the Environment (DCEE) in its role as a Statutory Consultee. We respond to calls for information and observations on a range of environmental assessments carried out under planning regulations. In 2025 we responded to 214 consultations by statutory response. The 'Geoscience for Planning' web pages were updated in 2025 with the most relevant information. These web pages are a resource for delivering our support in this respect and has been redesigned to be intuitive to those working in the EIAR sphere using familiar terminology. We also respond in writing where required or appropriate to requests for observations on Environmental Assessment Impact reports (EIAR) and Strategic Environmental Assessment (SEA) reports at planning and pre-planning stage. We also provide observations and geoscience data for County Development Plans, Heritage Plans, Local Area Development Plans, Visitor Experience Development Plans and many others during planning and consultation phases. All our published data are freely available to the Public.

Quaternary and Geotechnical

2025 saw the provision of assistance and evidence at a murder trial and growing awareness of Geological Survey Ireland resources and datasets across the Garda network. This year staff have received further enquiries regarding other Garda investigations.

In 2025, Quaternary geology skillsets and resources focussed on 3D geological modelling, with attendance at the 7th European Meeting on 3D Geological Modelling, preparations for hosting the TII/Arup model of Calp in Dublin city, and in-house production of a model at a pilot area near Ringsend/Dublin Port. Both will be available on Geological Survey Ireland 3D model viewer, (<https://geo3d.gsi.ie/>), in 2026.

There was increased engagement with geotechnical engineering sector through a stakeholder survey, conference presentation and discussion at seminars. In 2026, a project involving scanning of records for the National Geotechnical Borehole Database will get underway. There is ongoing contribution to EuroGeoSurveys' (EGS) Urban Geology and Earth Observation expert groups. Staff continue coordinating UGEG Task 4 'Urban Geology data and EGD1' and task 3 "Geo-communications", representing UGEG on editorial board of EGD1 and participating in the development of an Irish Space Research Strategy.

Additionally, staff actively participate in the Geological Survey Ireland Peat group and supported the 2025 IQUA Autumn Symposium. Quaternary and Geotechnical programme continue to contribute to the

Geohazard (Landslides), Outreach & Education (BTYSE), Planning and Geoheritage programmes and act as consultees on research projects and proposals

Minerals.

The principal focus of the Minerals Programme in 2025 was on the Irish Construction Materials Project, supported by the Department of Housing, Local Government and Heritage (DHLGH) and providing technical assistance in relation to deleterious aggregate materials. GSI have managed a series of research initiatives in relation to this issue, referred to as the “Mica Problem” which have shown that it is definitively the result of the presence of sulphides, specifically pyrrhotite, in the affected buildings. The research, funded mainly by DHLGH is accessible via the GSI website. Building on this collaboration two staff were recruited in 2025 (see below).

GSI have also been given responsibility to develop a national Exploration Programme under the EU Critical Raw Materials Act of 2025. While this programme remains to be resources, preliminary work has been carried out in data preparation and planning, including workshops on the prioritisation of specific areas including SE Leinster and Chalestown inlier (Copper-VMS potential), SE Leinster (Lithium) and the Munster Basin (Copper) as well as potential CRMs associated with carbonate hosted lead-zinc mineralization.

During 2025 GSI had responsibility for the Historic Mines Programme and developed a Scoping Plan for the eventual development of a comprehensive rehabilitation programme. Initial focus continues to be on ongoing environmental monitoring and essential safety works at Avoca and Silvermines, in association with the respective local authorities.

Groundwater and Geothermal Unit.

Groundwater: In 2025, work continued on two significant projects: GWClimate, and GW3D. GSI’s involvement in Lough Carra LIFE came to an official end, and work supporting DCEE’s statutory deliverables under the Recast Drinking Water Directive commenced. We also continued our work in the GSEU Work Package 4.1 on Groundwater Resources, and actively participated in the EGS Water Resources Expert Group.

GWClimate’s achievements in 2025 included drilling monitoring boreholes at three locations, with three further monitoring sites permitted. A groundwater forecasting workshop was held. The project team developed a prototype system for groundwater level forecasting, and historic groundwater levels at 140 sites were reconstructed using groundwater models. Plans for 2026 include: drilling groundwater monitoring boreholes at a further five monitoring sites; identifying groundwater systems vulnerable/resilient to Climate Change; assessing the impacts of climate change to future groundwater levels; releasing the redeveloped groundwater level data portal – gwlevel.ie. The project has consultancy support from MKO.

In 2025, GW3D undertook extensive karst dye tracing in Co. Roscommon, in the area north of Lough Funshinagh. The results indicate that the source protection area of at least two drinking water springs need to be expanded. Three catchment reports were delivered. Streamflow depletion modelling has been undertaken to assist EPA in abstraction licensing decisions. In 2026, GW3D will continue with groundwater resource assessments in the Shannon-Corrib river basins, including delivery of further catchment reports, and another significant dye trace. The project has consultancy support from Tobins.

An IAH fieldtrip took place in October based on the work undertaken in the Lough Carra LIFE project. The final report is drafted and will be signed off in early 2026. The project had consultancy support from Tobins.

GSI's contribution to the Recast Drinking Water Directive continued from expert input to data gathering and creation. DCEE/GSI's responsibilities under the legislation include: delineating groundwater catchment areas and collating and publishing all groundwater and surface water drinking water catchment areas by July 2027. We will continue our work with Uisce Eireann, the Group Scheme sector, and Local Authorities in 2026.

Geothermal Energy: 2025 was another bumper year. Under the National Geothermal Database (NGD) project, four boreholes were drilled at two sites in Co. Cork, and one in Co. Offaly. Two that reached just over 1000 m at Cork Airport and at Tullamore were wireline logged. Geological logging has been undertaken on all boreholes, and XRF logging is ongoing. Thermal conductivity data have been acquired on these and other cores, almost doubling the existing TC database. The project activities saw participation in the Tullamore Decarbonisation Zone launch, and the setting up of a Cork Geothermal Working Group. A 3D model of the Irish Midlands was delivered by UCD, with a 3D model of the SE in the works. The NGD project, which completed in 2025, had consultancy support from GeoServ and Associates. The maps, reports and 3D geological models produced will be published in 2026.

The PeacePlus funded GEMINI project that started in Q3 2025, which is planning to develop geothermal demonstrators on an all-island basis, got into its stride, with two ROI demonstrator projects in Sligo and Dublin progressing as part of two of four Work Packages that GSI is leading.

Research

GSI continued to support a wide range of research initiatives in 2025, including co-funded projects with SEAI and EPA, although new activity was limited due to the conclusion of the existing research management contract. In early 2025 an Impact Assessment Report on the last 10 years of GSI's research programme was published. Since 2015, GSI has supported 226 research projects with a total value of over €65million and direct investment from GSI of almost €17million, through competitive funding calls and collaborative agreements. The full report can be accessed here:

<https://www.gsi.ie/en-ie/publications/Pages/Impact-Assessment-Report.aspx>

Communications:

Public and stakeholder events in which Geological Survey Ireland participated included the National Ploughing Championships in Scraggan, Co Offaly in September 2025 as part of the Government of Ireland village.

The BT Young Scientist and Technology Exhibition took place in January 2025. Geological Survey Ireland exhibited a stand and continued to sponsor a special award for the student project which best demonstrates the use of geological data. The 2025 Geological Survey Ireland Special Award went Béibhinn O'Loughlin for the project, "Looking for tiny fossils hidden in the Burren limestone".

Professor Chris Jackson (Imperial College London & WSP) delivered the Geological Survey Ireland lecture at the Royal Irish Academy on Tuesday, 21 January 2025. The theme of the lecture was 'Geoscience

Solutions for the Climate Crisis'. This was the first lecture of the series which aims to raise awareness of geosciences and its relevance to society's needs and challenges. The lecture was followed by a panel discussion chaired by Geological Survey Ireland Director, Koen Verbruggen and gave an Irish perspective on the topic.

The Geological Survey Ireland, Department of Climate, Energy and the Environment episode of 10 Things to Know About..... was broadcast on RTÉ in November 2025. The episode was about building Ireland and looked at the materials we have and those we need for the future to meet our building needs. Siobhán Power and Eoin McGrath featured from Geological Survey Ireland and included others from across the building materials sector in Ireland.

Publications launched in 2025 and supported by Geological Survey Ireland included Professor Patrick Wyse Jackson, Trinity College Dublin, and Dr Louise Caulfield's 'The Decorative and Building Stones of Dublin'. 'Silvermines: A Heritage of Mining and Miners, Exploring the Cultural Heritage of an Irish Mining Community' edited by Greg Finnegan and Laura McSherry from Silvermines Hydro, was also published and was supported by funding as part of the Geological Survey Ireland's Geoheritage Grant Project scheme. 'Geology of Sceilg Mhichíl: A Field Guide', was published in conjunction with University College Cork's Dr Pat Meere, Professor Ken Higgs, and Dr Ronan Hennessey.

Education:

Geological Survey Ireland were delighted to work with iCrag again in 2025 on our geoscience teacher CPD course, pairing teachers and geoscience professionals together to co-create teaching resources about geoscience that are curriculum-aligned. This took place over six 1.5-hour evening sessions in Autumn 2025 and each group created a different resource which will be available in 2026 on our website.

Siobhán Power participated in the post-lecture panel discussion 'Geography and Geosciences in the School Curriculum' at the Royal Irish Academy in November 2025. The keynote lecture was delivered by Professor David Kaplan from Kent State University.

Further, we have been collaborating with a researcher, Alissa Roslan in TUD to make geology workshops geared towards trying to improve children's spatial ability (ability to visualise 3D things) which is a hugely useful skill in STEM subjects. We have delivered two workshops in primary schools as part of this project and are collaborating to make them more beneficial to improving spatial skills.

Staffing: 2025 saw no changes in permanent staffing. Three Senior Geologists hired for fixed term contracts for 4 years included Paul Stafford (GEMINI Project), Ciara Bannon, and Des Johnston (Construction Materials). Geologist Pól Ó Seasnáin joined GSI seconded from the EPA to work on the Historic Mines Project.

In October 2025, Department of Climate, Energy and the Environment (DCEE) ran a competition for appointment to the position of Geologist to fill future vacancies in the Geological Survey Ireland (GSI) and the Geoscience Regulation Office (GSRO). It is hoped to place staff from this panel in the coming year.

We continue to run a successful Graduate Geologist programme recruiting 6 graduates for 11 months each year.



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www.economy-ni.gov.uk

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GSNI Annual Report 2025

Irish Geoscience Network

Science Highlights

- 1. GEMINI Gravity Survey:** GSNI has completed a gravity survey as part of the EU-funded GEMINI geothermal project during the summer, collecting over 600 measurements across approximately 375 square kilometres in County Antrim. Base stations within the survey area were established and multiple repeat measurements at selected sites were also taken to ensure quality control. Data processing is underway, and results will be integrated with other geophysical datasets to produce a 3D model of the subsurface, allowing us to assess the area's geothermal energy potential for heating applications.
- 2. Success with PEACEPLUS funding for CMAP:** GSNI is one of 12 partners included within the PEACEPLUS Coastal Monitoring for Adaptation Planning project. PEACEPLUS is a cross-border funding Programme supported by the European Union, the Government of the United Kingdom of Great Britain and Northern Ireland, the Government of Ireland, and the Northern Ireland administration. This £10 million project, led by Ulster University, seeks to monitor a number of sites along the coast of Northern Ireland and border counties and develop ways to adapt to climate change.
- 3. Publication of AGEO book:** GSNI are named authors in four out of the 14 papers published as part of the Platform for Atlantic Geohazards Risk Management (AGEO) project, funded through the INTERREG Atlantic Area programme. This open access book shows how citizens' involvement in geohazard risks prevention can strengthen regional and national risk management systems, to demonstrate a new form of engagement between civil society and local authorities.
- 4. Launch of GeoEnergy NI documentary and education resources:** GSNI, together with the Department for the Economy (DfE) launched the documentary film about the GeoEnergy NI project as part of NI Science Festival. The film was presented by local radio celebrity Paulo Ross and was launched at the Ulster Museum to a VIP audience of prominent stakeholders, followed by a similar event for the public and one for schools. At the latter of these events, GSNI also took the opportunity to launch their new geothermal energy education resource, aimed at GCSE (Key Stage 4) pupils for Science (Physics) as a single subject or double / single award. This forms part of a series of education resources designed to ensure a clear curriculum pathway from primary school to the end of secondary / post-primary school.
- 5. Launch of OREO NI:** The Online Resource for Earth Observation in NI (OREO NI) platform was launched this quarter. GSNI was part of the EO steering group and user forum, helping to steer and guide the development of the platform and providing NI specific case studies. This newly developed web platform provides access to EO resources through a single access point for the NI public sector. This provides increased awareness of EO applications and encourages knowledge sharing and capacity building for using EO to address public sector challenges.
- 6. Giant's Causeway geoconservation on the international stage:** Research carried out with both the National Trust NI and the Building Stones team at BGS has made both international and national headlines. The issue of tourists placing coins between the joints of the

internationally important columnar basalt as resonated with a global audience and sparked important conversations about how we interact with and protect our natural heritage.

7. Peat Slide Susceptibility Map: Work is underway on the development of a regional-scale peat slide susceptibility map for Northern Ireland to be produced jointly by BGS staff from Belfast (GSNI) and Keyworth. The map is funded by the Northern Ireland Environment Agency and DfE through Service Level Agreement that already exist with BGS. Peat slide susceptibility mapping describes the relative likelihood of future peat slides and will play a vital role as a screening tool within the NI land use planning system.

8. CCS Workshop: GSNI organised a Carbon Capture and Storage (CCS) workshop to bring together representatives from GSNI, BGS, the Business Decarbonisation Team at DfE and from a number of universities across the UK and Ireland. The purpose of the workshop was to discuss the state of the art regarding CCS in NI as well as potential opportunities for the future and collaborative research.

9. Installation of abandoned mine monitoring network: The installation of a ground instability monitoring network in Carrickfergus has been completed. This was developed in conjunction with DfE and colleagues in the Shallow Geohazards Team at BGS. The network has been established to monitor ground instability in an area of abandoned salt mines over which the Belfast Gas Transmission Pipeline passes. This pipeline is the main link to deliver gas into Belfast's local distribution network and any disruption as a result of ground motion would have severe negative impacts. Analysis of ground motion will be carried out using GNSS and satellite InSAR data and reports produced on a six-monthly and annual basis.

10. Groundwater flooding Flood CDT project: GSNI has begun co-supervision of a PhD student as part of the FLOOD CDT programme with the title 'Disentangling Groundwater from fluvial flood risk across Northern Ireland's permeable flood plains'. This four-year project aims to assess how and / or if fluvial and groundwater flood events in NI can be disentangled and will derive a potential groundwater flooding map that can feed into the NI flood maps. The project is 50% funded by NERC through the FLOOD CDT programme, with the other 50% coming from the Department for Infrastructure (DfI). The outcomes of this project will address one of DfI's programme of measures within their Flood Management Plans.

11. Updated Mines Archive for NI: GSNI have been working with DfE to update what was formerly known as the Abandoned Mines Database. All abandoned mines in NI are vested with the DfE who have the strategic and legal responsibility for their monitoring and management. GSNI provides the technical support to allow DfE to fulfil this role which includes the monitoring of all 2400+ known abandoned mine workings. One of the tools that supports this work is the abandoned mines database, the original version of which was established over a decade ago and is no longer fit for purpose. The new Mines Archive for NI replaces this database and is a geospatial record of all known historic and disused mine workings across NI. It contains mapped information on old shafts, adits, and underground workings compiled from historical maps and surveys. The new and updated Mine Archive for NI is an essential tool to support public safety, land-use planning, environmental risk assessment, and research into NI's mining heritage.

Policy Highlights

1. DAERA Land Use Working Group: GSNI has participated in the Land Use Working Group (LUWG) established by the Department for Agriculture, Environment and Rural Affairs (DAERA). The task of the LUWG is to produce a report and agree recommendations that will support the future development of a land use strategy / framework for NI, supported by stakeholder engagement. This included reviewing existing government policies, strategies and plans for their impacts on land, alongside emerging pressures, to agree what outcomes are

wanted from land, consider approaches taken across the rest of the UK and Ireland, as well as the role of relevant science models in future decision making.

2. DfE Climate Change Adaptation Working Group: GSNI has been invited to participate in the newly established Climate Change Adaptation Working Group within DfE. Coordinated by the DfE Climate Change team together with the Net Zero Business Opportunities Branch, the working group provides a coordinated response to the DfE's policies and proposals within the NI Third Climate Change Adaptation Programme (NICCAP3) and provides input and advice into the development of the Northern Ireland element of the UK's Fourth Climate Change Risk Assessment (CCRA4).

3. Green Skills Action Plan: DfE published their Green Skills Action Plan with one of the key 28 actions being to explore a standalone geoscience degree in NI, something that has been absent since 2001. GSNI has been championing this for years and has taken various steps to ensure this action was included that involve providing a detailed consultation response to the NI Skills Strategy, to the Green Skills Transition Report and extensive stakeholder engagement.

4. Geohazards and infrastructure planning: GSNI has had an article published in AgendaNI highlighting the need to consider geohazards as part of infrastructure planning in Northern Ireland, something that only happens on an *ad hoc* basis. AgendaNI is NI's leading business and public policy magazine which reaches over 10,000 decision-makers and influencers in government, business and the voluntary and community sector.

5. Nutrient Action Programme: GSNI submitted a comprehensive response to the DAERA Nutrient Action Programme (NAP) for 2026 to 2029. The NAP Regulations apply to all agricultural land in NI and they aim to improve water quality and the wider environment by reducing and preventing pollution caused or induced by nutrients from agricultural sources. GSNI provided significant input from the groundwater perspective.

6. Natural Hazards Partnership: GSNI welcomed the Natural Hazards Partnership (NHP) to Belfast for their Management & Steering Group meetings. Hosted at GSNI's offices this was the first NHP meeting ever held in NI. The NHP is a UK consortium made up of government departments and agencies, trading bodies, public sector research establishments and bodies, research council institutes and charities. Coordinated by a Steering Group, the NHP brings together interdisciplinary expertise to deliver natural hazard science and advise to Governments through a coordinated approach to deliver impact science and services across the resilience community.

7. NERC 60th anniversary visit: As part of NERC's 60th anniversary events, GSNI facilitated a visit from the NERC Deputy Executive Chair and senior NERC colleagues to NI. Working with partners, GSNI facilitated meetings with Research Ireland and both Irish and NI based universities, as well as with senior civil servants from DfE, The Executive Office and DAERA. The visit showcased NI's environmental and geoscience research capabilities and partnerships on the island, and it is anticipated that an MoU may be agreed in principle between Research Ireland and NERC, and an agreement in principle to work in future partnerships with NI institutions and departments.

8. NI Geodiversity Charter: GSNI launched Northern Ireland's Geodiversity Charter 2025-2030 at the Science and Stormont event. The Geodiversity Charter is a framework for action produced by GSNI with support from the Northern Ireland Environment Agency. It updates previous charters and sets a vision and actions for geodiversity in NI from 2025 to 2030. The Geodiversity Charter aims to raise recognition of geodiversity's importance, better integrate geodiversity into policy across government, industry and communities, protect and sustainably manage geological heritage and natural resources and support sustainable development and resilience, particularly in the face of climate change.

Awards

1. Award-winning GeoEnergyNI project: The GeoEnergy NI project, led by DfE with science support by GSNI, received a CIPR Gold Award for Best Event/Event Activation, presented to Morrow Communications, for the campaign *Unearthing the heat beneath our feet*. The award recognised the launch of the GeoEnergy Discovery Centre on the steps of Parliament Buildings at Stormont, which engaged schoolchildren and coincided with the annual Science and Stormont event for professional STEM organisations and elected representatives. This marks the third award for the project; two for communications excellence and one for Sustainability Project of the Year. The GeoEnergy NI project was also awarded the 'Sustainability Project of the Year' at the Business Eye Magazine Sustainability & ESG Awards and the award for the 'Best Public Sector Campaign' at the PRCA DARE awards that celebrate the very best PR and communications across the UK.

2. Award-winning AGEO project: The AGEO (Platform for Atlantic Geohazard Risk Management) project was recognised at the European Commission's RegioStars Awards 2025 in Brussels for its innovation and impact in managing geological risks across the Atlantic region. It won the "A Green Europe" award for outstanding contribution to environmental resilience and sustainable regional development and was also honoured with the Public Choice Award, chosen by votes from citizens across Europe. GSNI were one of 14 partners in the project which developed numerous Citizens' Observatories on geohazards including one at the Giant's Causeway World Heritage Site.

3. ISO Accreditation: After a rigorous audit process, GSNI were delighted to be brought into the scope of the three ISO accreditations already achieved by BGS Keyworth. These included ISO9001:2015 (Quality Management Systems), ISO14001:2015 (Environmental Management Systems) and ISO45001:2018 (Occupational Health and Safety Management Systems).

IGN GI 2025 - Geoscience Ireland (GI)

The GI network continues to report strong job growth of 9% for 2025, with revenue growth of 5%. Over 390 net new jobs were created; these data outperform Enterprise Ireland's results for 2025. As before, some 35+% of this turnover derives from overseas operations.

Some headwinds were evident with a slowdown in Renewable Energy projects in Ireland and internationally. Current disruptions due to the Gulf conflict add further uncertainty. However, the minerals sector continues to show buoyancy with strong commodity prices and a renewed appetite for green field exploration. A Seminar on Recent Developments in Ireland was held in September last by IMQS and IAEG and was supported by GI; it outlined significant progress in several mining and exploration projects. PDAC 2026 witnessed an attendance of 27,000+ from 126 countries and a much-improved Ireland Pavilion which GI attended alongside members iCrag and GSI. Seven other GI members attended and /or exhibited.

Infrastructure Delivery is a major focus of Government as evidenced by the creation of an Infrastructure Division in DEPR and the launch of an Infrastructure Action Plan in December 2025. Simplification of approval processes by Government along with reforms of planning issues are designed to overcome barriers to delivery. Greater coordination between state agencies is also part of the Action Plan.

Collaboration between GI members continues apace with examples by LTMS and TOBIN on Mine Inspections and Nicholas O Dwyer and Hydro Survey on marine surveys. A notable innovation success story is the Zero Trip / Priority Drilling roll out in Canada and the Far East.

Representations; GI participated in the Africa Ireland Economic Forum and in the Ireland Canada Economic Forum hosted by the Department of Foreign Affairs. GI also contributed to a Panel on Infrastructure at the MacGill Summer School, while GSI and AURUM contributed to an EIB Seminar on Critical Raw Materials. GI and five of its members featured in a Business Post Supplement on Geoscience in September. Letters of support for the Dalradian Planning Application were issued.

GI continued to contribute to the Heads of Geoscience and Irish Geoscience Network Forums operated by the Institute of Geologists of Ireland and to several Chambers of Commerce including Canada, Britain and France.

GI Director Sean Finlay in his role as President of the Irish Academy of Engineering IAE has appeared at Joint Oireachtas Committees on Infrastructure and on Energy; at the British Irish Parliamentary Assembly and has also contributed to the Infrastructure Action Plan; see <https://iae.ie/>

Efforts to reactivate the Geo Drilling Apprenticeship continued.

Policy for Cluster Development in Ireland This para is almost verbatim from our 2024 Report; Policy remains poorly developed, despite a process dating from 2021 with Seminars, Reports for Grant Thornton, another Report awaited from TCI and a major TCI Conference in Dublin in October. The

absence of a coherent policy hinders the development of a cluster ecosystem which is central to successful innovation and sustainable economic growth in many other countries.

Dermot Duff

Director Geoscience Ireland

18 March 2026

