# iCRAG SFI Research Centre for Applied Geosciences

iCRAG SFI Research Centre for Applied Geoscience is Ireland's national geoscience research centre supported by Science Foundation Ireland, the European Regional Development Fund, Geological Survey Ireland and industry partners.

Our mission is to transform Irish geoscience by driving research and discovery, delivering economic and societal benefit, and advancing public understanding.

iCRAG's multidisciplinary research transcends industry and academic boundaries to address key research challenges in the fields of energy security, raw materials supply, groundwater protection, safeguarding the geomarine environment and protection from the Earth's hazards.



The centre has €26 million in funding supporting 150 researchers.

# **Research Areas**

- > Raw materials mineral/aggregate geoscience
- > Marine marine geoscience
- > Groundwater hydrogeology/hydrology
- > Energy Security petroleum geoscience
- > Geohazards protection from Earth's hazards
- Geochemistry, geophysics, 3D geological modelling, public perception and understanding of geosciences







NUI Galway









A World Leading SFI Research Centre



IRISH CENTRE FOR RESEARCH IN APPLIED GEOSCIENCES

# **Research Programmes**

iCRAG integrates a team of internationally leading researchers and both large and small scale industry partners to conduct research which will help in the discovery and harnessing of Ireland's natural resources. These include world-class Zn-Pb mineral deposits, untapped hydrocarbon resources in challenging NE Atlantic deep water environments, and important and environmentally sensitive seabed and groundwater resources.

# **Facilities**

- A comprehensive suite of analytical and modelling resources
- > Platform facilities in geophysics, geochemistry and 3D modelling

# Industry and Commercialisation

The technology developed by iCRAG takes the form of soft-knowledge, data, methods, protocols, policy documents and software. This technology helps companies discover and develop natural resources for their mutual benefit, and the benefit of Ireland. As an SFI Research Centre, iCRAG encompasses the broad community of Irish geoscience researchers and engages with industry partners from diverse geoscience-related sectors, including hydrocarbons, marine, minerals and groundwater.

# **Industry and State Policy partners include:**

- **APEX Geoservices** >
- Arup (Ireland)
- **AWN Consulting** >
- Boliden >
- > **BP** Exploration Operating Company Ltd
- > BRG

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- > Cairn Energy Plc
  - Chevron North Sea Limited
- **Compass Informatics** >
- > **Designer Group**
- ENI Ireland BV >
- Equinor >

ExxonMobil E&P Ireland (Offshore) Ltd

(Holdings) Plc

Europa Oil and Gas

- > Fehily Timoney & Company
- > FLI Group
- > GDG

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- > Geoscience Ireland
- Geoserv
  - Group Eleven Mining & Exploration Ltd
- Geological Survey
- of Ireland Homebond

- > **IE Consulting** IGSL
- > > International Lithium Corp.
- > Intersocial Consulting
- Irish Drilling >
- JB Barry & Partners >
- > Lagan Asphalt Group
- LTMS >
- Lundin Mining >
- > Meehan Drilling
- > Mincon Group PLC
- > **Murphy Surveys** 
  - Nicholas O'Dwyer

- > Pavement Management Services
- > Petroleum Affairs Division
- PIPCo RSG >
- **PW Mining** >
- > PW Nigeria
- > OME

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- Repsol Exploración SA
- > Roadstone
- > **Rubicon Heritage**
- > Shell E&P Ireland Ltd
  - SLR
  - Sosina Exploration Ltd

- SRK Consulting
- SSE Renewables
- > Teck Ireland >

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- **Techworks Marine** >
- **Tobin Consulting** > Transport
- Infrastructure Ireland > Trevali Mining Corp.
- > Tullow Oil Plc
- Verde Environmental Group
- Woodside Energy > (Ireland) Pty Ltd

# **Education and Public Engagement:**

Modern societies and economies are underpinned by applied geosciences. The provision of secure sources of energy, clean water and raw materials, all of which are crucial for economic and societal functioning, are directly reliant on applied geosciences. iCRAG is dedicated to developing the next generation of geologists, engineers and scientists through our education and public engagement programme. The programme enhances two-way conversation between iCRAG researchers and identified publics. The public perception and understanding of geoscience research platform in iCRAG informs our public engagement activities.

The objectives of iCRAG's education and public engagement programme are:

- Empower the Irish publics to make informed decisions about the Earth's resources and > changing climate.
- Enhance public understanding of Earth's resources and earth system change. >
- Engage the publics such that our research is influenced by, and shared with, the publics > for mutual learning.

# **Key Contacts**

**Prof Murray W. Hitzman** Centre Director

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Murray W. Hitzman is Director of iCRAG and a Science Foundation Ireland Research Professor. Murray has B.A. degrees in geology and anthropology from Dartmouth College (1976), an M.S. in geology from University of Washington (1978), and a Ph.D. in geology from Stanford University (1983). He was awarded the SEG Silver Medal in 1999, the Daniel C. Jackling Award by Society of Mining, Metallurgy, and Exploration and the Des Pretorius Award by the Geological Society of South Africa in 2015, and the Haddon Forrester King Medal by the Australian Academy of Sciences in 2016.

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Science Foundation Ireland For what's next

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