



National Geothermal Energy Summit 2025

GEMINI Project Overview and Plans

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Target: To help reduce Greenhouse Gas Emissions associated with heat production, a goal central to EU, UK and Irish strategies to meet 2050 emissions targets.

The project brings together key actors on the island of Ireland to promote cross-border cooperation in the renewable energy sector.

The project is led by Codema, Dublin's Energy Agency, and is supported by the PEACEPLUS programme, managed by the Special EU Programmes Body (SEUPB) and endorsed by the Department of Climate, Energy and the Environment, Ireland and the Department for the Economy, Northern Ireland.



PEACEPLUS
Northern Ireland - Ireland

Co-funded by the



European Union



UK Government



Northern Ireland
Executive
www.northernireland.gov.uk



Rialtas na hÉireann
Government of Ireland





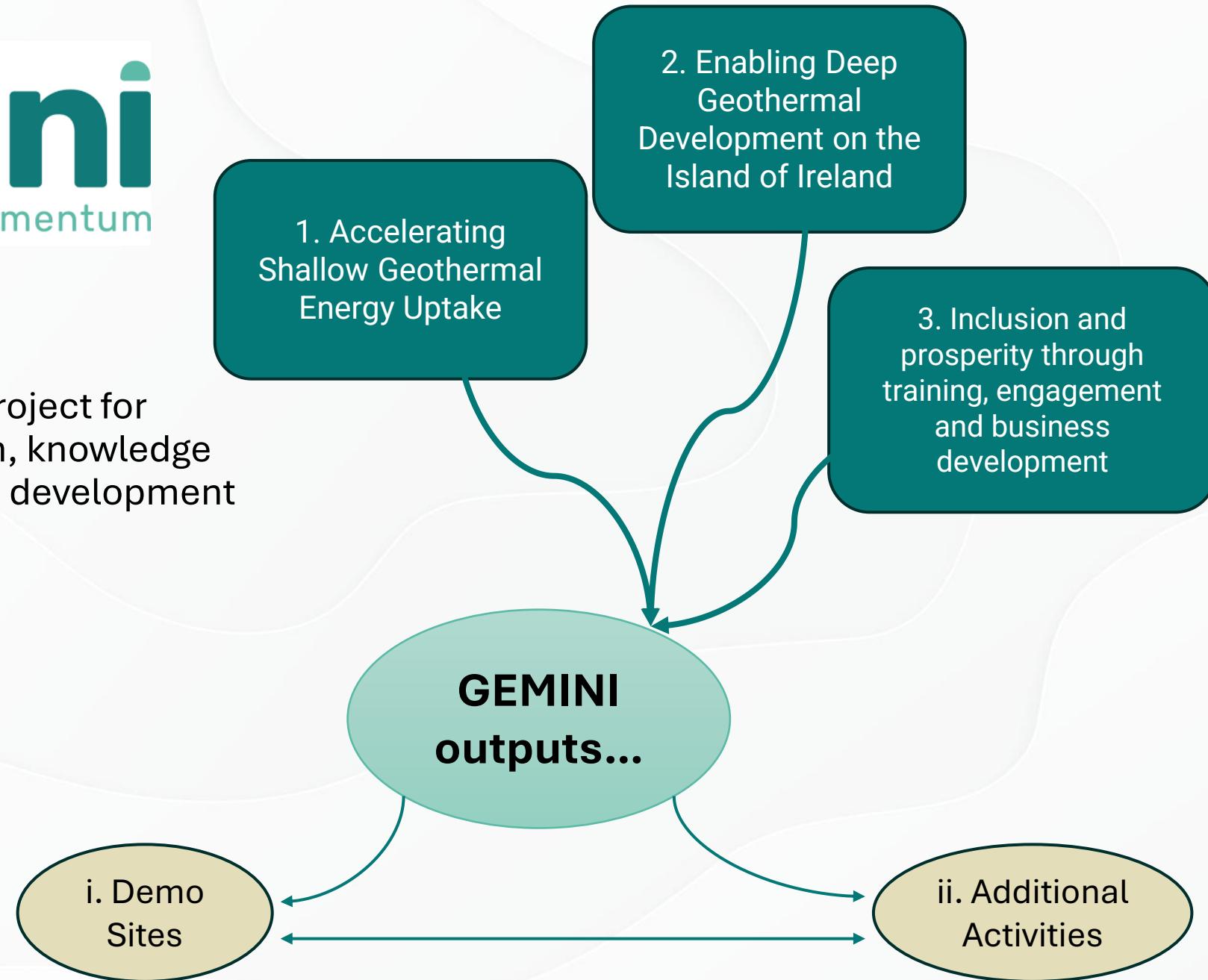
- €20/£17.3 million multi-partner project for geothermal energy demonstration, knowledge sharing and supporting economic development

Timeframe

- Sept 2024-2028

Target area

- All-island



(i) GEMINI Demonstration sites

The project will develop and operate four real-world demonstration installations:

- three shallow (<500 m),**
- and one deep (~2 km).**

Heat energy from the Earth will be used to power large-scale heating and cooling systems in public sector buildings: swimming pools, housing projects, utilities offices and a university campus.

The project will demonstrate the benefits of geothermal energy systems by fully engaging with communities, educational institutes and local authorities through the development and operation of these sites.

GEMINI demonstration sites

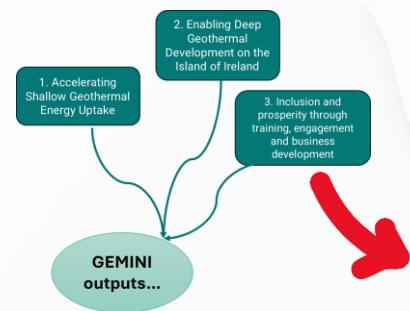


- **TU Dublin Grangegorman**
- **Sligo Regional Sports Centre**
- **Northern Ireland Water**
- **Northern Ireland Housing Executive**
- **County Antrim**

Also shown is the cross-border area of **Lough MacNean** which is the focus of community engagement activities and techno-economic feasibility studies.

(ii) GEMINI Additional activities

- **Collect and provide data** for potential future sites, to increase and improve our knowledge of the island's sub-surface and potential geothermal resources;
- Develop **free and accessible supports** for planners & policy makers;
- Promote and develop **skills and training** opportunities;
- Use knowledge gained to **inform** the development of local and national **regulation frameworks** for geothermal energy take up;
- Develop best practice for **engagement, education and communications** programmes.



1. Accelerating Shallow Geothermal Energy Uptake
2. Enabling Deep Geothermal Development on the Island of Ireland
3. Inclusion and prosperity through training, engagement and business development

Outputs include:

- Specialist workshops for policy and regulatory bodies;
- Toolkits for planners, developers and local government, including guidelines for shallow and deep geothermal energy projects;
- Techno-economic feasibility studies for heat;
- Community engagement guidelines;
- Business, education and skills development activities;
- Review of financial supports for geothermal energy on the island.

GEMINI partners

The project comprises 15 full and 8 associated partners from the research sector, local and national government, and community engagement groups both North and South of the border.

Associated partners:

Dublin City Council
South West College
Grangegorman Development Agency
Cavan County Council
Antrim and Newtownabbey Borough Council
Belfast City Council
Supporting Communities NI
Mayo Sligo Leitrim Education and Training Board



Educ. & training



Demo sites



Soc. Sci/engagement



Sligo County Council
Comhairle Chontae Shligigh

GEMINI partners

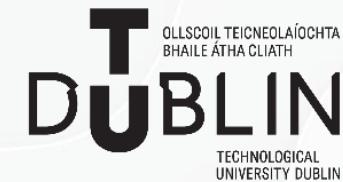
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Additional activities key to long term impact





Want to know more or
keep up to date on our activities?

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