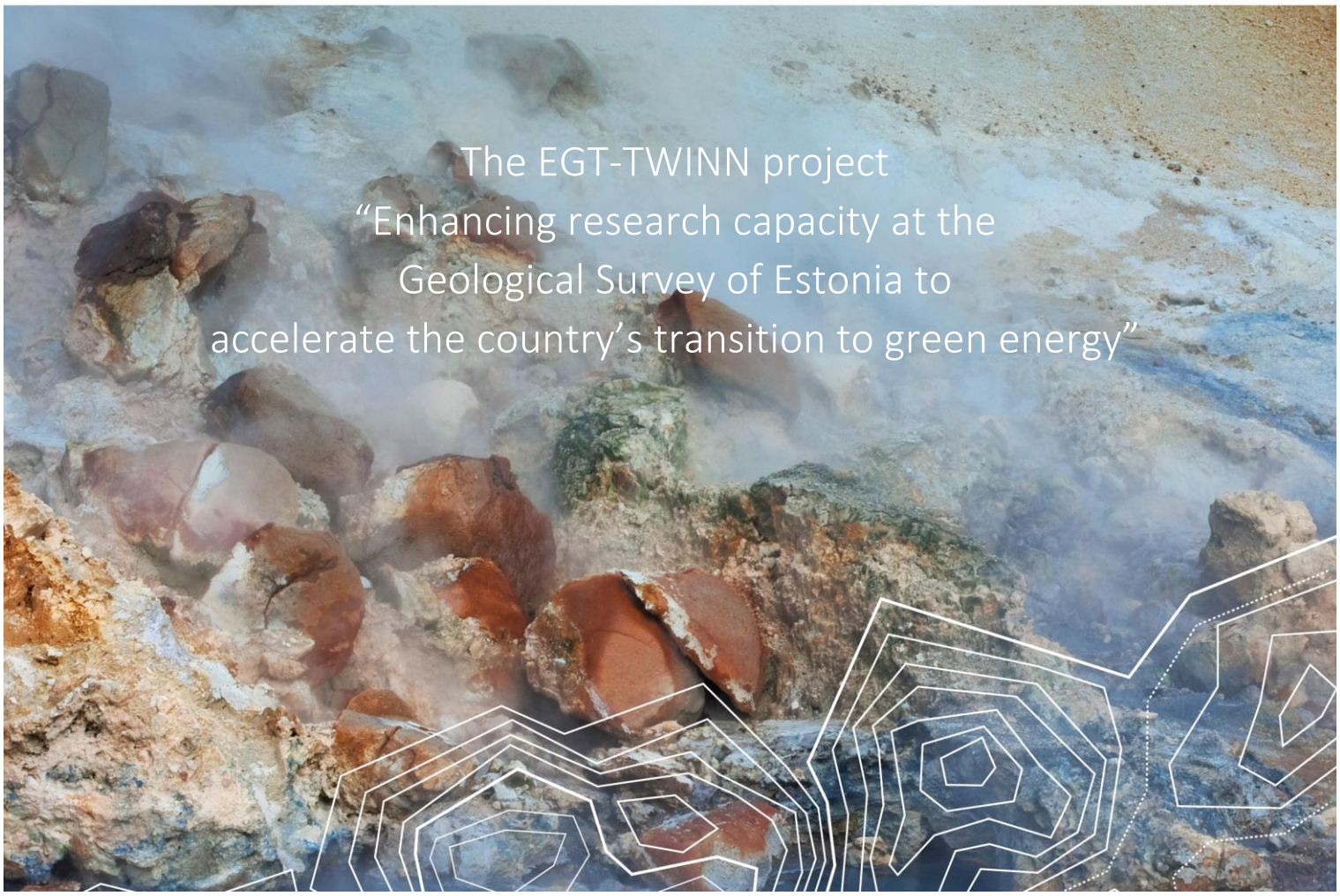

Deliverable 5.3

REPORT ON CLUSTERING EVENTS AND ATTENDANCE IN CONFERENCES

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Disclaimers

- Views and opinions expressed in this deliverable are those of the author(s) only and do not necessarily reflect those of the European Union or the European Research Executive Agency (REA). Neither the European Union nor the granting authority can be held responsible.
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List of Acronyms

Abbreviation	Description
EGT	Geological Survey of Estonia
GTK	Geological Survey of Finland
BGS	British Geological Survey
UKRI	UK Research and Innovation
GEUS	Geological Survey of Denmark and Greenland
UOULU	University of Oulu Mining School
KPI	Key Performance Indicator
WP	Work Package
D	Deliverable
EGEOS	Estonian Geological Society
ETAG	Estonian Research Council
NGWM	Nordic Geological Winter Meeting

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EGU	European Geosciences Union
UGC	Urban Geochemistry Conference
CRM	Critical Raw Materials
OECD	Organisation for Economic Co-operation and Development
SLO	Social Licence to Operate

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EXECUTIVE SUMMARY

This deliverable summarises the dissemination, networking, and clustering activities carried out under Work Package 5 (WP5) of the EGT-TWINN project during 2023–2025. While dissemination is not the central focus of this report, we considered it important to include related aspects, as they provide valuable insights into the project's networking activities. Throughout the implementation period, EGT-TWINN successfully positioned the Geological Survey of Estonia (EGT) and its partners as visible contributors to the European geoscience and critical raw materials research community.

In total, **nineteen conferences** were recorded with EGT-TWINN participation, including **four international conferences organised** directly by the project and **two co-organised** with European partners. These six clustering events attracted **over 850 unique participants in total**, combining onsite and online audiences. The remaining **thirteen international meetings** involved project presentations, posters, and attendance across Europe and beyond, cumulatively reaching audiences of more than **40 000 participants**.

EGT-TWINN researchers delivered **32 oral** and **13 poster presentations**, enhancing the project's scientific visibility and supporting new collaboration links. The dedicated **project website** (https://egt-twinn.voog.com) received **7 756 visits from 5 041 unique visitors** and published **51 news or blog posts**, while the **LinkedIn profile** grew to **733 followers** across more than **40 countries**. Continuous cross-linking with the main EGT website and inclusion in the **EGT Yearbooks 2023 and 2024** further ensured long-term institutional visibility.

Together, these activities have strengthened EGT's integration into European research networks, expanded cooperation with partner geological surveys, and laid a durable foundation for post-project collaboration and capacity growth.

Table 1. Key statistics of EGT-TWINN clustering events.

Category	Indicator	Quantitative summary
Total conferences with EGT-TWINN participation	Organised + co-organised + external	19 events (4 organised + 2 co-organised + 13 external)
EGT-TWINN organised international conferences	CRM 2024, UGC 2024, Geothermal 2025, SLO & Green Mining Concepts Conference 2025	4 events / > 500 participants
EGT-TWINN co-organised international conferences	EU SuperCluster 2023, INQUA PeriBaltic 2024	2 events / > 350 participants
Scientific contributions	Oral / poster presentations	32 oral / 13 poster
Total audience reached	Combined across all events + total conference participants	> 40 000 participants globally
Website reach	Visits / unique visitors / posts	7 756 / 5 041 / 51 posts
LinkedIn engagement	Followers / countries represented	733 followers / 40 countries
Institutional visibility	Articles in EGT Yearbooks 2023 & 2024	2 editorial articles

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1. INTRODUCTION

1.1. EGT-TWINN project context

EGT-TWINN is a **Horizon Europe twinning project** aimed at **enhancing the research capacity of the Geological Survey of Estonia (EGT) in areas critical to Estonia's green transition**. The project focuses on subsurface-related domains, including **geothermal energy**, **critical raw materials** (CRM), **3D geological modelling**, **geochemistry**, **geological data management**, and **geological mapping**.

Through close collaboration with advanced partners – the **Geological Survey of Finland** (GTK), the **Geological Survey of Denmark and Greenland** (GEUS), the **British Geological Survey** (BGS) via UK Research and Innovation (UKRI), and the **University of Oulu** (UOULU) – EGT-TWINN seeks to bring EGT's scientific expertise, practices, and international visibility closer to the level of leading Nordic and European geoscience organisations.

The project is grounded in the notion that Estonia's transition away from fossil fuels towards a climate-neutral and resource-efficient economy depends fundamentally on a modern, scientifically robust understanding of the subsurface. Reliable geological and geophysical data on crystalline basement rocks, sedimentary basins, geothermal gradients, critical raw materials and surface deposits are essential for informed decision-making and responsible long-term investment. EGT-TWINN addresses these needs by combining **technical training**, **joint research activities**, **field courses**, **large-scale international conferences** and **intensive networking** with advanced partners and EU topical projects.

Figure 1. Representatives for the EGT-TWINN partners at the kick-off event in Tallinn, January 2023. Photo © EGT 2024

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1.2. EGT-TWINN Work Package 5 objectives

Work Package 5 (WP5) focuses on communication, dissemination and exploitation. Its overall objective is to ensure that EGT-TWINN achieves broad visibility and accessibility across different audiences, ranging from the international scientific community to Estonian policymakers, industry actors, and the public.

This deliverable (D5.3) reports specifically on progress made toward the WP5 objectives to:

- **Cluster with other relevant EU-funded projects & other relevant stakeholders**, and
- **Participate in relevant international conferences** related to the project's scientific themes.

1.3. Purpose and structure of this report

D5.3 *Report on clustering events and attendance in conferences* documents the collaboration, visibility, and knowledge-exchange activities carried out during EGT-TWINN through participation in, organisation of, and contribution to scientific conferences, workshops, training courses, and public-facing events.

In Horizon Europe terminology, **clustering** refers to interactions and synergies with other EU-funded projects, international research communities, national stakeholders, and relevant professional networks.

In this context, clustering has played a central role in increasing the visibility of EGT, strengthening collaboration with advanced partners, and expanding participation in European and global geoscientific forums.

The deliverable provides:

1. **A consolidated overview of all events between January 2023 and December 2025;**
2. **Statistical analysis of participation (countries, organisations, number of attendees);**
3. **Qualitative assessment of scientific and networking outcomes;**
4. **Documentation of collaborations and new research initiatives;**
5. **Assessment of impacts relative to WP5 objectives.**

It thereby serves both as a formal report for the European Commission and as an internal strategic review demonstrating how clustering enhanced the research capacity and international visibility of the Geological Survey of Estonia.

1.4. Data sources and methodology

This deliverable is based on multiple data sources collected throughout the project implementation period. These include:

- Internal action reports for EGT-TWINN events;
- Abstract books, conference programmes and proceedings from all events involving the project;
- Project website analytics and social media communication records (LinkedIn, Facebook, homepage posts);
- Registration data, signature lists, and participation records (onsite and online);
- Press releases and media coverage;
- Scientific outputs and manuscripts arising from clustering activities;
- Documentation of emerging collaborations.

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The methodology followed a stepwise approach:

1. Compilation of all events where EGT-TWINN acted as organiser, co-organiser, or participant.
2. Categorisation of events by type.
3. Extraction of numerical data (attendees, countries, abstracts, etc.).
4. Assessment of clustering relevance and alignment with EGT-TWINN objectives.
5. Evaluation of immediate impacts (skills development, networks, collaborations).
6. Identification of longer-term outcomes (scientific papers, proposals, new research lines).
7. Synthesis of evidence into a narrative aligned with Horizon Europe reporting requirements.

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2. CLUSTERING ACTIVITIES

Clustering activities form a central element of the EGT-TWINN project's approach to strengthening research capacity, enhancing visibility, and embedding the Geological Survey of Estonia (EGT) into European and international scientific networks.

Definition of clustering in Horizon Europe

In Horizon Europe, **clustering** refers to structured interactions with other EU-funded projects, international scientific communities, professional associations, and stakeholder networks, aimed at exchanging knowledge, identifying synergies, avoiding duplication, and accelerating scientific and technological progress.

Clustering in the context of EGT-TWINN

For EGT-TWINN, clustering has been achieved through two primary pathways:

1. **Organisation of major international scientific events in Estonia**, opening EGT-TWINN to wide European and global participation; and
2. **Systematic participation in high-level conferences, workshops, symposia and training activities worldwide**.

Together, these activities ensured continuous and high-visibility representation of EGT and its advanced partners (GTK, GEUS, BGS, UOULU) within the European and global geoscience community from 2023 to 2025.

Scope and boundaries of clustering

To ensure conceptual clarity, this deliverable applies the Horizon Europe interpretation that clustering must involve **external, network-oriented collaboration** extending beyond the internal consortium. Internal capacity-building activities, such as closed technical workshops designed solely for EGT-TWINN staff, are therefore **not classified as clustering**, although they are recognised as essential to the capacity-building objectives of WP2 and WP3.

What clustering includes within EGT-TWINN

Clustering documented in this chapter includes:

- Participation in high-level international scientific conferences;
- Synergies with Horizon Europe, ERA-NET, COST, Interreg and other EU-funded initiatives;
- Project-related international dissemination and media visibility;
- Scientific outputs generated through inter-institutional collaboration;
- Follow-up networks, project ideas and proposals inspired by these interactions.

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Clustering portfolio structure

The clustering portfolio is presented in the following categories:

1. International conferences organised by EGT-TWINN
2. International conferences co-organised with EGT-TWINN partners
3. Scientific contributions and participation in external international conferences
4. Synergies with other EU-funded projects and initiatives
5. Additional visibility generated beyond project-organised events

Each category is described in detail in the following sub-chapters (3.1–3.5), supported by participation statistics and short analyses of their contribution to clustering impacts.

2.1. EGT-TWINN organised international conferences

During the implementation period from 2023 to 2025, EGT-TWINN organised four major international conferences in Estonia, each designed to serve as a platform for scientific exchange, visibility, and inter-institutional collaboration. These events were fully open to external participants and collectively attracted several hundred researchers, policymakers, industry representatives, and practitioners from Europe and beyond.

The four conferences were:

1. Conference on the **Urban Geochemical Baseline Survey in Estonia** (Tallinn, 2024)
2. Conference on the **Exploration and Exploitation of Critical Raw Materials**: Focus on Northern Europe (Tallinn, 2024)
3. EGT-TWINN **Geothermal Energy** Conference (Tallinn, 2025)
4. Conference on **Social Licence to Explore & Social Licence to Operate** and Green Mining Concepts (Tallinn, 2025)

Together, these events significantly strengthened the cross-border visibility of the Geological Survey of Estonia, positioned Estonia as a convening hub for Nordic–Baltic geoscience dialogue, and directly advanced the core objectives of WP3 and WP5 by enabling large-scale clustering with European research communities.

Conference on the Urban Geochemical Baseline Survey in Estonia (#UGC2024)

The **Urban Geochemistry Conference**, organised by EGT-TWINN in Tallinn on **10 September 2024** (Fig. 2), focused on emerging geochemical challenges in urban environments, including soil contamination, anthropogenic element dispersion and their implications for public health and spatial planning. Designed as a targeted knowledge-exchange platform, the event brought together geological surveys, universities, municipal authorities and private-sector specialists to discuss methodological advances and applied case studies from Estonia, Finland and the United Kingdom.

EGT-TWINN coordinated the full scientific programme, managed organisational logistics and contributed several oral presentations illustrating Estonia's growing capabilities in urban geochemical mapping and environmental monitoring. Through thematic sessions and cross-disciplinary discussion, the event underscored the importance of integrating geochemical datasets into planning processes and highlighted opportunities for harmonising sampling strategies and analytical workflows across different national contexts.

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Participants emphasised the value of the conference's focused scope, which balanced scientific insights with practical perspectives from environmental agencies and city authorities. The mix of academic, governmental and applied viewpoints created an effective environment for identifying future collaboration opportunities.

In terms of clustering impact, the Urban Geochemistry Conference significantly enhanced cross-border cooperation between EGT, GTK and BGS geochemists, initiated methodological dialogue on harmonising urban geochemical mapping approaches, and strengthened EGT's role in the Nordic–Baltic urban environmental research community. The event also supported emerging cooperation in soil–health studies and contributed to raising EGT's visibility among both scientific and policy audiences.

Table 2. Basic information for the Conference on the Urban Geochemical Baseline Survey in Estonia.

Category	Information
Date	10 September 2024
Location	Tallinn, Estonia (Hestia Hotel Europa)
Format	Onsite, single-day scientific conference
Organiser	EGT under EGT-TWINN WP3
Official website	https://egt-twinn.voog.com/conferences/urban-geochemistry-conference-2024
Participation statistics	**30 participants** from **Estonia, Finland and the United Kingdom**
Institutional participation	Geological Survey of Estonia (EGT); University of Tartu; Tallinn University; Tallinn University of Technology (TalTech); National Institute of Chemical Physics and Biophysics; City of Helsinki; Geological Survey of Finland (GTK); British Geological Survey (BGS); Private sector organisations (Steiger, Pinnaseuuringud OÜ, Maves OÜ)
Communication and dissemination	Multiple posts on the EGT-TWINN website; LinkedIn announcements (invitation, reminders, event start); Facebook outreach; Event-specific visual identity (banners, logo layouts, roll-ups); EU and EGT-TWINN branding integrated into all materials
Clustering relevance and outcomes	Strengthened cross-border cooperation between EGT, GTK and BGS geochemists; Initiated methodological dialogue on harmonising urban geochemical mapping; Enhanced science–policy exchange with Estonia's Ministry of Climate; Increased visibility in the Nordic–Baltic geochemical community; Supported future collaboration potential in soil–health research and national baseline development

Figure 2. Hans Orru (University of Tartu) presenting a talk at the Urban Geochemistry conference. Photo © EGT 2024

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Conference on the Exploration and Exploitation of Critical Raw Materials: Focus on Northern Europe

The Critical Raw Materials Conference, organised by EGT-TWINN in Tallinn on 7–8 October 2024, was one of the flagship clustering events of the project (Fig. 3). Building on Estonia's national interest in advancing CRM research, the conference brought together a broad and diverse community to address exploration techniques, resource assessment, ESG considerations and emerging technological innovations relevant to Northern Europe.

The two-day programme included scientific presentations, keynote lectures, policy perspectives and dedicated discussion sessions covering both geological and socio-environmental dimensions of CRM development. The strong representation from leading Nordic geological surveys (GTK, GEUS, Geological Survey of Sweden), the BGS, universities across the Baltic region, and industry specialists created a comprehensive analytical environment that bridged research, governance and applied practice.

The event was jointly organised by EGT and the other project partners, with EGT playing a central role in implementing on-site organisation, coordinating communication activities and hosting an extended poster session. A key feature was the post-conference **excursion** to the **Arbavere Research Centre**, which provided hands-on exposure to Estonian phosphorite exploration methodologies and drill core examination. This field component added significant practical value, reinforcing the link between scientific presentations and real-world exploration settings.

In terms of impact, the event was widely regarded as a landmark CRM meeting in the Baltic region. It strengthened working ties between EGT and its Nordic partners, enhanced Estonia's visibility as an emerging contributor to CRM-focused geoscience and stimulated several follow-up discussions on joint research opportunities. The large and interdisciplinary audience enhanced knowledge transfer across scientific, governmental, and industrial sectors, directly contributing to EGT-TWINN's objective of expanding EGT's international research footprint. The field trip fostered future collaboration on sampling strategies, CRM databases, and cross-border exploration concepts.

Table3. Basic information for the Conference on the Exploration and Exploitation of Critical Raw Materials.

Category	Information
Dates	7–8 October 2024 (Conference) 9 October 2024 (Field Excursion)
Location	Tallinn, Estonia (Hestia Hotel Europa) and Arbavere Research Centre (excursion)
Format	Two-day hybrid international scientific conference + field excursion
Organiser	EGT, GTK, GEUS, BGS, UOULU under EGT-TWINN WP3
Official website	https://www.tilmeld.dk/crmtallinnconference2024/
Participation statistics	155 participants (onsite and online) from multiple European countries
Institutional participation	EGT; GTK; GEUS; BGS; UOULU, Universities from Estonia, Latvia, Lithuania and Finland; Industry representatives from exploration and mining companies; environmental organisations; government stakeholders.
Communication and dissemination	EGT-TWINN project website coverage; multiple LinkedIn posts; Facebook outreach; press release; high-visibility banners and roll-ups; EU and EGT-TWINN branding; conference programme and abstracts disseminated via project channels.
Clustering relevance and outcomes	Strengthened Nordic–Baltic cooperation on CRM exploration; Increased visibility of EGT's CRM expertise; Enabled harmonisation discussions on exploration and geochemical workflows; Fostered cross-sectoral dialogue (science–policy–industry); Supported development of future CRM-related project ideas and joint research; Field excursion created practical, long-term connections with advanced partners.

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Figure 3. Critical Raw Materials Conference 2024 underway at Hestia Hotel Europa, Tallinn. Photo © EGT 2024

Geothermal and District Heating Conference "Geothermal Opportunities for the Baltics"

The **Geothermal and District Heating Conference 2025**, held on **10–12 June 2025** in Tallinn (Fig. 4), was one of the largest and most impactful events organised under EGT-TWINN. The conference, titled *"Geothermal Opportunities for the Baltics"*, brought together leading experts in geothermal exploration, district heating, low enthalpy geoenergy systems, and subsurface engineering from across Northern and Western Europe. Its focus on **both sedimentary and crystalline geothermal systems** positioned Estonia as an emerging regional hub for geothermal knowledge and innovation.

Organised by the EGT under WP3, and **co-organised with GEUS, BGS, GTK and UOULU**, the event served as a cornerstone for advancing scientific exchange on geothermal technologies. The conference programme included **over 25 invited speakers** and five thematic sessions, covering crystalline and sedimentary geothermal systems, the Baltic regional potential, technological solutions for district heating, and the environmental and policy dimensions of geoenergy development.

With **100 onsite participants and 50 online attendees**, the event built directly on the success of the earlier EGT-TWINN Critical Raw Materials conference and significantly expanded EGT's visibility within the European geothermal community. Delegates represented the United Kingdom, the Netherlands, Denmark, Sweden, Finland, Estonia, Latvia and Lithuania, enabling a broad cross-Baltic and Nordic dialogue. Presentations showcased state-of-the-art approaches in reservoir characterisation, fault-controlled heat transfer, hydrogeology, 3D modelling, monitoring solutions and district heating integration.

A highlight of the event was the **12 June excursion** to the **Arbavere Research Centre** and the **Roosna-Alliku geothermal pilot**, Estonia's first deep geothermal borehole system linked to a municipal district heating network. During the excursion, participants examined Ediacaran siliciclastic rocks at Arbavere (considered a promising ATES reservoir) and visited five 500-m deep closed-loop borehole heat exchangers in Roosna-Alliku. The site visit demonstrated the progress of Estonia's geothermal pilot infrastructure and was widely regarded as one of the most influential learning components of the conference.

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The event generated considerable scientific and policy interest, strengthened cross-border collaboration within the Nordic geothermal community, and contributed to the public visibility of geothermal adoption in Estonia, complemented by national media coverage (e.g., a BNS report explicitly linking the Roosna-Alliku pilot to EGT-TWINN). It also catalysed new discussions with municipalities, academic partners and energy companies about future geothermal feasibility studies, technology transfer, and geological modelling cooperation.

Table 4. Basic information for the Geothermal and District Heating Conference 2025.

Category	Information
Dates	10–11 June 2025 (conference), 12 June 2025 (excursion)
Location	Tallinn, Estonia (Hestia Hotel Europa), Arbavere Research Centre, and Roosna-Alliku geothermal pilot site
Format	Two-day hybrid international conference + one-day field excursion
Organiser	EGT, GEUS, BGS, GTK, UOULU under EGT-TWINN WP3
Official website	https://www.geothermal-tallinn.com/
Participation statistics	~100 onsite participants; ~50 online participants; speakers and attendees from the UK, Netherlands, Denmark, Sweden, Finland, Estonia, Latvia, Lithuania
Programme scope	25+ invited speakers; sessions on crystalline geothermal systems, sedimentary geothermal systems, Baltic geothermal potential, district heating solutions, environmental and policy aspects
Excursion	Arbavere core viewing (Ediacaran siliciclastics/ATES potential); Roosna-Alliku 5 × 500 m deep boreholes with fibre-optic monitored closed-loop BHEs
Communication and dissemination	Project website updates; LinkedIn and Facebook announcements; event branding; EU and EGT-TWINN visual identity; BNS media coverage referencing EGT-TWINN
Clustering relevance and outcomes	Strengthened Nordic–Baltic geothermal cooperation; enhanced visibility of Estonia's geothermal capability; intensive exchange on modelling, monitoring and reservoir characterisation; new collaboration interests with municipalities and companies; expanded network across the Baltic energy sector

Figure 4. Participants at the Geothermal and District Heating Conference, Hestia Hotel Europa, Tallinn. Photo © EGT 2024

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Conference on Social Licence to Operate (SLO) & Green Mining Concepts

The **International Conference on Social Licence to Operate (SLO) and Green Mining Concepts**, held on **16 September 2025** in Tallinn (Fig. 6), was one of the most strategically significant communication and networking events organised within EGT-TWINN. Building directly on insights from global best practices and Nordic expertise, the conference provided an unprecedented platform in Estonia for multi-sector dialogue on responsible mineral exploration, societal expectations, environmental governance, and community engagement.

The event gathered **74 onsite participants** from **nine countries**—Estonia, Finland, the United Kingdom, Denmark, Sweden, Norway, Belgium, Lithuania and France—representing geological surveys, universities, NGOs, government ministries, industry, and international organisations. With **90 total registrations**, the conference demonstrated exceptionally strong interest across the Baltic and Nordic region.

The scientific programme combined conceptual frameworks, academic analyses, governance approaches, NGO perspectives and industry case studies. Keynotes by **Toni Eerola (GTK)**, **Erki Peegel (EGT)**, **Leena Suopajärvi (University of Lapland)**, **Greg Poelzer (Luleå University of Technology)** and **Pamela Lesser (University of Lapland)** framed SLO and SLE as essential components of modern exploration strategies. Presentations from Finnish NGOs, Nordic universities, and private-sector representatives added contrasting viewpoints, creating a balanced and interdisciplinary debate.

The afternoon poster session enabled early-career scientists and project representatives to showcase ongoing Horizon Europe-related work, including governance case studies, stakeholder engagement models, and exploration communication practices. The programme concluded with a screening of the documentary *"The European Lithium Paradox"*, which explores Europe's dependence on lithium and the challenges of securing sustainable supply chains. It prompted lively discussion on societal narratives around critical minerals. The documentary is a collaborative production between the KU Leuven Institute for Sustainable Metals and Minerals (SIM²) and Belgian filmmaking company Storyrunner—supported by the Horizon Europe LITHOS and EXCEED projects.

The conference attracted substantial online attention through a coordinated multi-channel communication campaign (project homepage, LinkedIn, Facebook) and served as a cornerstone for EGT-TWINN's international visibility. It reinforced EGT's role as a facilitator of dialogue on mineral resources governance and laid the foundation for long-term cooperation between Nordic, Baltic and UK partners.

Table 5. Basic information for the Conference on Social Licence to Operate & Green Mining Concepts.

Category	Information
Dates	16 September 2025 (preceded by a workshop on 15 September 2025)
Location	Tallinn, Estonia (Hestia Hotel Europa)
Format	Onsite international scientific conference
Organiser	EGT, GTK, GEUS under EGT-TWINN WP3
Official website	https://www.slo-tallinn.com/
Participation statistics	74 onsite (90 registered) from Estonia, Finland, UK, Denmark, Sweden, Norway, Belgium, Lithuania, France
Institutional participation	EGT; GTK; GEUS; BGS; University of Lapland; University of Eastern Finland; University of Luleå, University of Tartu; Tallinn University of Technology; Estonian Parliament; Ministry of Climate; Estonian Green Movement; The Finnish Association for Nature Conservation, International Raw Materials Observatory; LGI Sustainable Innovation, multiple exploration companies (Latitude 66 Cobalt, Anglo American, UP Catalyst, Shogenergy, Zero Terrain, Steiger, GeoPool Oy, etc.)

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Program Highlights	Keynotes on SLO/SLE principles, governance, NGO perspectives, industry case studies; poster session; documentary screening; high-level discussions on societal acceptance and governance of mineral exploration
Communication and dissemination	Extensive LinkedIn introduction series; project homepage blog posts; Facebook outreach; event-branded visuals; EU and EGT-TWINN identity; pre- and post-event communication (photos, speaker highlights, registration calls)
Clustering relevance and outcomes	Strengthened Nordic–Baltic cooperation on community engagement and mining governance; enhanced exchanges with NGOs and government actors; new dialogue channels opened between universities, industry and public authorities; boosted visibility for EGT in SLO/SLE research; foundation created for long-term regional cooperation on responsible mineral resource development

Figure 5. Opening speech by Yoko Alender (Estonian Parliament) at the SLO Conference, Tallinn. Photo © EGT 2024

2.2. Co-organised international conferences

During the implementation period from 2023 to 2025, EGT-TWINN also contributed to a series of international conferences organised by external institutions, where the project acted as a co-organiser, session contributor, invited expert, or strategic collaborator. These events were not led by EGT, but EGT-TWINN held an active role in delivering scientific inputs and strengthening its position within pan-European geoscience networks. Participation in these co-organised conferences significantly broadened the project's clustering reach by connecting EGT to established research communities, Horizon Europe networks and cross-border geological initiatives.

The two most relevant co-organised events within this category were:

1. EU SuperCluster Lapland Geoconference (2023)
2. PeriBaltic Conference / PeriBaltic Working Group Meeting (2024)

Each event is presented below in a harmonised format, outlining its main characteristics, participation details and clustering outcomes.

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EU SuperCluster Lapland Geoconference (Rovaniemi, Finland, 2023)

The EU SuperCluster Lapland Geoconference, held on 30–31 October 2023 in Rovaniemi, Finland, represented one of the earliest and most strategically important clustering engagements of the EGT-TWINN project. Twenty-three EU-funded projects focused on raw materials (EIS, AGEMERA, CIRAN, CRM-geothermal, EGT-TWINN, ENICON, EXCEED, GoldenEye, GREENPEG, m4mining, MaDiTraCe, MinExTarget, mine.io, MultiMiner, NetHelix, ROBOMINERS, S34I, SEEMS DEEP, ScaVanger, SEMACRET, START, TRIDENT and VECTOR), in collaboration with the University of Queensland (Australia), joined forces to organise this 1.5-day clustering event. A cross-project event of this magnitude has hardly ever been arranged before. The conference's aim was to foster discussions and facilitate the exchange of ideas pertaining to the current technological challenges and key topics within the raw materials sector.

EGT-TWINN contributed to both the organisational framework and the scientific programme, including oral presentations delivered by EGT experts. Participation strengthened EGT's visibility among EU-level stakeholders and facilitated early networking with GTK and UOULU partners, paving the way for deeper collaboration throughout the project's subsequent activities.

The conference gathered over 120 representatives from exploration companies, the mining industry, geological surveys, universities, EU agencies, and policy-oriented organisations, providing an ideal setting for knowledge exchange and alignment with wider European CRM initiatives. For the EGT, the event acted as an entry point into the broader European CRM and minerals community, amplifying Estonia's presence in EU geoscience networks.

Table 6. Basic information for the EU SuperCluster Lapland Geoconference.

Category	Information
Dates	30–31 October 2023
Location	Rovaniemi, Finland
Format	Onsite, 1,5-day international conference
Organiser	EU projects: EIS, AGEMERA, CIRAN, CRM-geothermal, EGT-TWINN, ENICON, EXCEED, GoldenEye, GREENPEG, m4mining, MaDiTraCe, MinExTarget, mine.io, MultiMiner, NetHelix, ROBOMINERS, S34I, SEEMS DEEP, ScaVanger, SEMACRET, START, TRIDENT and VECTOR, University of Queensland (Australia).
EGT-TWINN role	Co-organiser; oral presentation
Official website	The Challenges of Mineral Raw Materials Are Solved Together – EU SuperCluster Geoconference | GTK
Participation statistics	120+ participants from multiple EU Member States, Nordic and Arctic regions, Australia, and Canada
Institutional participation	Geological surveys, universities, EU-level organisations, industry and exploration companies, regional development actors
Clustering relevance and outcomes	Strengthened linkages with GTK and UOULU; enhanced integration into EU CRM networks; increased visibility for EGT's analytical capabilities; early discussions for future joint proposals and mapping initiatives; improved alignment with European CRM strategic frameworks

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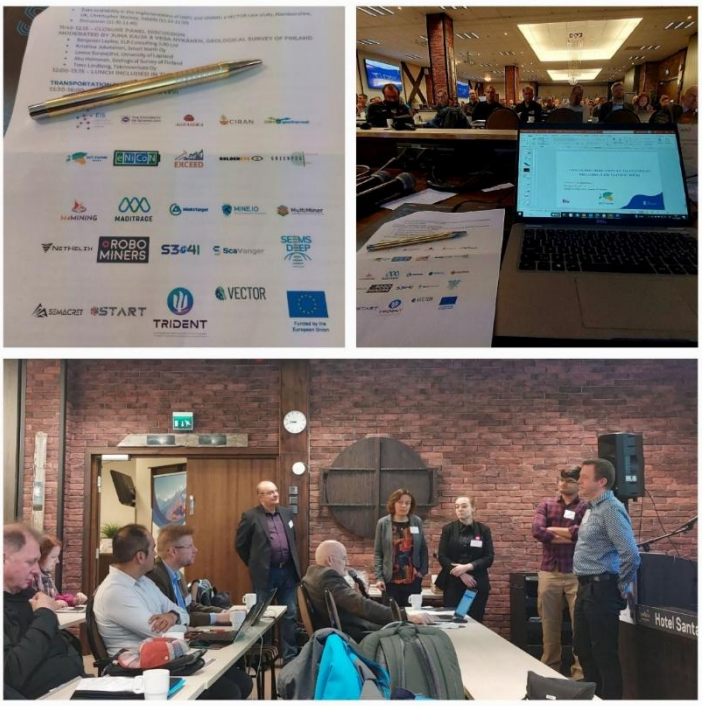

Figure 6. Collage from the EU SuperCluster Lapland Geoconference. Photo © EGT 2024

INQUA Peribaltic Working Group International Field Symposium

The INQUA Peribaltic Working Group International Field Symposium, held from 25 to 30 August 2024 in Pärnu, Estonia, brought together an international community of Quaternary scientists, geomorphologists, sedimentologists, and stratigraphers from across the Baltic Sea region and Europe. As a co-organiser, EGT-TWINN played a significant role in preparing the event, including designing the field route, coordinating logistics, providing scientific content support, and preparing background materials.

EGT-TWINN researchers served as field guides during multi-day excursions, presenting key Quaternary features of western Estonia, including glacial landforms, postglacial sediment sequences, coastal dynamics, and stratigraphic sections. The conference programme also included oral and poster presentations by EGT-TWINN participants, highlighting new research findings in glacial geology, sediment provenance and surface mapping methodologies.

The event substantially strengthened Baltic–Nordic cooperation. It fostered renewed collaboration between Estonian, Latvian and Lithuanian geological institutions and facilitated contacts with INQUA-affiliated researchers from Nordic and Central European countries. The symposium increased international awareness of Estonia's Quaternary research potential and positioned EGT more firmly within global Quaternary science networks.

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Table 7. Basic information for the INQUA PeriBaltic Symposium.

Category	Information
Dates	25–30 August 2024
Location	Pärnu and western Estonia (multi-day field-based symposium)
Format	On-site scientific symposium with extensive field excursions
Organisers	INQUA Peribaltic Working Group; Geological Survey of Estonia (EGT); University of Tartu; international partners
EGT-TWINN role	Co-organiser; field guiding; oral and poster contributions
Official website	The 2024 conference site is archived as of 20.11.2025 (https://inqua-peribaltic.ut.ee/)
Participation statistics	60+ participants from Baltic States, Nordic countries, Central Europe, the UK and North America
Institutional participation	INQUA researchers, universities (Baltic and Nordic), national geological surveys, international research groups
Clustering relevance and outcomes	Reinforced Peribaltic collaboration networks; increased international visibility of Estonian Quaternary research; new contacts for joint glacial geology and sediment provenance studies; improved integration of EGT into INQUA community and future working groups

Figure 7. View of the INQUA Peribaltic conference room during the scientific sessions. Photo © EGT 2024

2.3. Scientific contributions and participation in international conferences

Conference participation constituted a core pillar of EGT-TWINN's dissemination, networking and capacity-building activities throughout 2023–2025. The project maintained a strong presence in both European and global scientific forums, ensuring that EGT's research outputs, methodological advances and emerging competencies were visible to a wide range of scientific audiences. Attendance at high-level meetings created continuous opportunities for knowledge exchange, benchmarking with advanced partners, and establishing new contacts for future collaboration.

Across the reporting period, partners represented the project at **nineteen conferences and scientific events** held in **thirteen locations** across Europe and beyond (see Table 8 below for summary). These events spanned all major thematic areas addressed by EGT-TWINN — including Quaternary geology, applied geochemistry, geothermal research, 3D geological modelling, geophysics, and critical raw materials — and collectively provided a coherent platform for sharing results and engaging with the international community.

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Figure 8. A collage of photos from various conference participations. Photo © EGT 2024

In total, the consortium delivered **thirty-two oral presentations** and **thirteen poster presentations**, complemented by multiple co-organising roles and session contributions. Participation involved researchers from all partner institutions, demonstrating the project's broad and interdisciplinary scope.

Several events, including the European Geosciences Union (EGU) General Assemblies in 2024 and 2025, the Nordic Geological Winter Meetings, and the International Applied Geochemistry Symposium (IAGS 2024), featured EGT representatives alongside world-leading experts in their respective fields. The project also contributed actively to the organisation of regional events, including the EU SuperCluster Lapland Geoconference, the INQUA Peribaltic Symposium, and major international conferences hosted in Tallinn.

Overall, participation in these meetings substantially increased EGT's visibility in international research networks and strengthened its scientific reputation. The combined presence of EGT-TWINN partners across this broad range of forums created lasting connections that have already translated into collaborative publications, data-sharing discussions, and future proposal planning.

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Table 8. EGT-TWINN conference participation 2023-2025.

Date	Event	Location	Representatives	Type of contribution
14.04.2023	EGEOS April Conference	Tartu, Estonia	Kairi Põldsaar (EGT)	Poster presentation
14.04.2023	1st GeoDays	Oulu, Finland	Pertti Sarala (UOULU)	Poster presentation
26.04.2023	ETAG Twinning Conference	Tartu, Estonia	Kairi Põldsaar (EGT)	Oral presentation
23–26.05.2023	6th European Meeting on 3D Geological Modelling	Copenhagen, Denmark	Participants from EGT, GEUS	Oral presentations
30–31.10.2023	EU SuperCluster Lapland Geoconference	Rovaniemi, Finland	Participants from EGT, GTK	Co-organiser; oral presentation
10–12.01.2024	NGWM 2024	Göteborg, Sweden	Siim Nirgi, Johannes Vind from EGT	Oral presentations
05.04.2024	EGEOS April Conference	Tallinn, Estonia	Kairi Põldsaar (EGT)	Poster presentation
14–19.04.2024	EGU2024	Vienna, Austria	EGT representatives: Markus Ausmeel, Martin Liira, Magdaleena Männik, Marlen Hunt, Maile Polikarpus	Poster presentations
27–29.04.2024	5th International PaleoArc Conference	Stockholm, Sweden	Pertti Sarala (UOULU)	Poster presentation
25–30.08.2024	INQUA Peribaltic Symposium	Pärnu, Estonia	Pertti Sarala (UOULU); EGT representatives: Sten Suuroja, Martin Liira, Kairi Põldsaar, Kuldev Ploom,	Co-organiser; field guiding; poster and oral presentations
09.10.2024	UGC 2024	Tallinn, Estonia	Martin Liira, Elina Kuusma, Paul Everett	Organiser; oral presentations
07–09.10.2024	CRM Conference 2024	Tallinn, Estonia	EGT, GTK, GEUS, BGS, University of Oulu presenters	Organiser; oral presentations
14–18.10.2024	30th International Applied Geochemistry Symposium (IAGS)	Adelaide, Australia	Pertti Sarala (UOULU)	Poster presentation
11.03.2025	2nd GeoDays	Oulu, Finland	Pertti Sarala and other UOULU and GTK participants	Poster presentation
08.04.2025	3D Modelling Conference	Poland	Tavo Ani (EGT)	Participation
27.04.2025	EGU2025	Vienna, Austria	Various participants from EGT-TWINN	Poster presentations
10.06.2025	Geothermal Conference 2025	Tallinn, Estonia	Various participants from EGT-TWINN	Organiser; oral and poster presentations
16.06.2025	2025 OECD Conference of Mining Regions and Cities	Rovaniemi, Finland	Pertti Sarala (UOULU)	Poster presentation
15–16.09.2025	SLO Conference and Workshop	Tallinn, Estonia	Various participants from EGT-TWINN	Organiser; oral presentations

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2.4. Synergies with other EU projects and initiatives

Throughout its implementation, EGT-TWINN maintained active connections with several European research and innovation initiatives that shared thematic or methodological proximity to its objectives. These synergies primarily emerged through clustering events, international conferences, and joint thematic sessions, where project representatives engaged with EU-funded consortia working on critical raw materials, geoscientific data integration, geoenergy, and social licence research. While not based on formal cooperation agreements, these interactions enabled valuable exchange of experience, alignment with European research priorities, and strengthened EGT's visibility within the broader EU geoscience community.

Table 9 below summarises the most relevant projects and networks that were either represented at or connected through EGT-TWINN clustering activities.

Table 9. Key contextual synergies and related European initiatives.

Acronym / Initiative	Focus area	Website / Reference
AGEMERA	Horizon Europe project on responsible mining and CRM potential	https://agemera.eu
DEXPLORE	Deep-land mineral exploration and subsurface knowledge integration	https://dexplore.eu
EIS	Horizon Europe project on Exploration Information System	https://eis-he.eu/
EIT Raw Materials	European Institute of Innovation and Technology – Raw Materials KIC	https://eitrawmaterials.eu
ETP-SMR	The European Technology Platform on Sustainable Mineral Resources	https://www.etpsmr.org/
EXCEED	Horizon Europe project on recovering critical metals and industrial minerals as by-products from hard-rock lithium deposits	https://exceed-horizon.eu/
GREENPEG	H2020 project on exploration for pegmatite-hosted deposits of rare metals	https://greenpeg.eu/
GSEU	Not-for-profit organisation representing the Geological Surveys of Europe	https://eurogeosurveys.org/
INQUA PeriBaltic Working Group	Multi-country Quaternary collaboration	https://inqua-peribaltic.ut.ee/inqua-peribaltic-working-group/
MINEYE	Horizon Europe project on Earth Observation techniques for mine life cycle monitoring	https://mineye-project.eu/
MIREU	Mining Regions in Europe – regional cooperation and social acceptance in mining	https://mireu.eu
REMIDNET	Research and Innovation Network for Raw Materials and Circular Economy	https://www.remindnet.eu/
RawMatCop Alliance	Copernicus-based raw materials exploration and monitoring network	https://rawmatcop.eitrawmaterials.eu
TAPIR (GTK platform)	Urban geochemistry data platform and cross-survey mapping collaboration	https://gtk.fi/en/project/tapir
UNDERCOVER	Horizon 2020 project on mineral exploration under cover	https://www.undercover-project.eu/

In addition to direct clustering through conferences and joint events, EGT-TWINN undertook targeted outreach to a broad range of Horizon Europe and H2020 projects operating in raw materials, subsurface exploration, and sustainable mining innovation.

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In total, information about EGT-TWINN activities and event invitations was circulated to more than **40 active EU-funded projects** and research networks. These included, among others, AfricaMaVal (BRGM, France), AIMEX (GTK, Finland), AVANTIS (KU Leuven, Belgium), CIRAN (INTRAW, Belgium), DeepBEAT (HZDR, Germany), EIS (GTK, Finland), ENICON (KU Leuven, Belgium), EXCEED (VTT, Finland), FutuRaM (WEEE Forum, Belgium), GSEU (EuroGeoSurveys, Belgium), ISLANDR (GTK, Finland), MINEARC (University of Oulu, Finland), MultiMiner (GTK, Finland), PERSEPHONE (Luleå University of Technology, Sweden), S34I (University of Porto, Portugal), UNDERCOVER (GTK, Finland) and XTRACT (TU Bergakademie Freiberg, Germany).

These outreach messages were primarily linked to the **Critical Raw Materials Conference (October 2024)** and the **Social Licence to Operate Conference (September 2025)**, with the objective of establishing synergies and inviting participation from complementary EU research initiatives. Although not all projects responded or attended, the communication reached an estimated **300 individual contact points across 15 countries**, enhancing EGT-TWINN's visibility within the European raw materials and geoscience policy community. This proactive engagement demonstrated the project's openness to collaboration, ensured alignment with wider EU research agendas, and laid the groundwork for future networking under forthcoming Horizon Europe calls.

2.5. Additional visibility beyond project events

The EGT-TWINN project maintained an active and steadily growing online presence through its dedicated website and social-media channels. The **project website** (https://egt-twinn.voog.com/) recorded **approximately 7 000 visits and 5 000 unique visitors** during 2023–2025, with the **homepage and conference pages** being the most frequently viewed. The website was **cross-linked with the Geological Survey of Estonia's (EGT) main webpage** under "Projects" and "International Cooperation," ensuring long-term accessibility. LinkedIn posts were used systematically to drive audiences to the site for news and deliverables.

In parallel, EGT-TWINN secured visibility through institutional and professional channels. Articles in the **EGT Yearbooks (2024 and 2025)** – **"EGT-TWINN starts off strong"** and **"A strong second year of the project"** – summarised progress for the Estonian geoscientific community and were distributed both in print and online (https://www.egt.ee/). Press releases were issued for every major conference, and **two received national coverage**, highlighting the **Finnish training week** and the **Roosna-Alliku geothermal pilot**. Although wider media uptake remained limited, these actions contributed to institutional visibility and demonstrated coordinated outreach with EGT's communication office.

With its **LinkedIn community of over 730 professional followers** and consistent visual branding across events and publications, EGT-TWINN established a coherent digital footprint that will remain discoverable beyond the project's duration.

The outcomes presented in this deliverable demonstrate the project's direct contribution to the European Green Deal objectives by strengthening geoscientific cooperation, sustainable resource governance, and cross-sectoral innovation capacity in Estonia and beyond.

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Table 10. Summary of EGT-TWINN visibility and outreach performance (2023–2025).

Channel / Platform	Key Achievements	Quantitative Highlights	Remarks / Notes	Impact / Reach
EGT-TWINN Website	Dedicated project site with news, events, and deliverables.	~7,000 visits, ~5,000 unique visitors	Most viewed: homepage and conference pages. Cross-linked with the EGT main website	High – served as the main information hub and reference source for stakeholders
LinkedIn	Active outreach to professional and institutional networks	730+ followers from >40 countries	Strong Nordic and European presence (GTK, GEUS, BGS, NGU, BRGM)	High – established a targeted professional network and ensured international visibility
Media and Press Releases	Announcements of project milestones and training activities	2 releases received national coverage	Finnish training week and Roosna-Alliku geothermal pilot highlighted	Low – selective national visibility, complemented by institutional channels.
EGT Yearbooks	Project progress reported in a national publication	2 feature articles (2024, 2025)	"EGT-TWINN starts off strong" and "A strong second year of the project."	Moderate – ensured national awareness and an archival record of achievements.
EGT Main Website	Continuous visibility under "Projects" and "International Cooperation."		Institutional link ensures long-term discoverability beyond project lifetime	High – guarantees long-term institutional legacy and accessibility.
Conferences & Events Visibility	Integration of project identity and outputs in EGT materials		Linked posts and photos generated significant online engagement	High – reinforced project branding and partner recognition across events.

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3. OVERALL IMPACT AND CONCLUSIONS

Between 2023 and 2025, EGT-TWINN has significantly strengthened the visibility, connectivity, and scientific credibility of the Geological Survey of Estonia within the European research landscape. Through its participation in nearly twenty international conferences, co-organisation of major clustering events, and targeted collaboration with EU-funded initiatives, the project has positioned EGT as a recognised partner in **critical raw materials** exploration, geothermal studies, **and applied geoscience**.

The project's communication and networking efforts reached a **broad international audience spanning more than 40 countries**, engaging researchers, policymakers and industry specialists through conference participation, workshops, and active online presence. The project website and LinkedIn channel became **core dissemination tools**, attracting thousands of visits and over seven hundred professional followers, while EGT Yearbook publications ensured that results were **institutionally documented and accessible in both national and international contexts**.

The combined effect of these activities lies in their **lasting institutional benefit**: stronger research partnerships, improved outreach capacity, and enhanced visibility of Estonia's geological expertise. EGT-TWINN has laid the foundation for future participation in EU research frameworks and for the sustained integration of the Geological Survey of Estonia into European knowledge networks.

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The Geological Survey of Estonia sincerely thanks all EGT-TWINN partners and collaborators for their commitment and support throughout the 2023–2025 period. The project has benefited greatly from the close cooperation with **the Geological Survey of Denmark and Greenland (GEUS), the Geological Survey of Finland (GTK), the British Geological Survey (BGS),** and **the University of Oulu (UOULU)**, whose scientific guidance and active participation were central to achieving the project's objectives.

Special recognition is extended to all experts, researchers, and communication teams who contributed to the organisation of events, preparation of training materials, and promotion of the project's activities in Estonia and abroad.

The project's success also relied on the continued support of the European Commission's Horizon Europe programme, which enabled the strengthening of Estonia's research capacity and international collaboration in the field of geosciences.

Finally, appreciation is expressed to the **EGT-TWINN coordination and communication team** for their dedication in managing, documenting, and sharing the project's progress, and to all partner institutions whose engagement ensured that the project's impact will extend well beyond its duration.