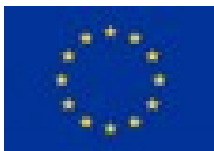




Deliverable D3.4

Capacity Building & SME Engagement Report

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## 1. Introduction – GEO-ENERGY EUROPE capacity building strategy

GEO-ENERGY EUROPE Strand 2 project came into play to build a transnational geo-energy cluster, specifically aimed at increasing the performance and competitiveness of the European SMEs members of the meta-cluster, namely of all industries concerned with the use using the subsurface for energy source to produce electricity or heat.

The first year of the GEE2 project was highly impacted by the covid-19 travelling and sanitary restrictions, and the capacity building activities based on international relations and networking were purposeless in that context. Only accumulation of key contacts and some upstream preparatoryworks for future training sessions and market visits were possible in order to achieve GEE2 objectives.

It was only in October 2021, during the World Geothermal Congress 2021 (WGC), that the first in-person international event since the covid-19 travelling restrictions took place, and it was possible for the consortium to have a concrete perspective and initiate the organisation of the capacity building activities, including the training sessions and the market visits focused on the four target countries (Canada, Chile, Costa Rica, and Kenya). Key contacts were made during the WGC, as well as the identification of foreseen geothermal congresses/conferences where it was possible to host the project *in loco* market visits.

The attendance of WGC 2021 was followed by a hybrid project meeting held in Dublin in November 2021 (the first physical meeting since the beginning of the project in September 2020), where the possibility to exchange all the information gathered with the consortium partners and to discuss the possibility to attend and use these events to promote GEE2 project and activities, and to organise the *in loco* market visits was discussed. Also, during the project meeting, the first one in person since the beginning of the project, a first action plan for the training sessions and market visits was drawn and a schedule for 2022 was presented and validated by all partners. Finally, a clear and defined horizon came into view to structure GEE2 capacity building activities.

At this point, it is also useful to recall that four specific public reports have also been submitted addressing each round of the “Training Sessions and Market Visits” per target country: Canada, Chile, Costa Rica, and Kenya (these reports are available on the [GEE2 website](#)). For this reason, the present report won’t go deeply into details of each training session and market visit. The aim of this report is more to assess the methodology specially developed for the organisation, implementation and/or attendance of GEE2 capacity building activities.

## 2. Capacity Building Strategy of Geo-Energy Europe 2

The timeline and framework used for the organisation of capacity building activities for the meta-cluster member company SMEs was published in the Capacity Building & SMEs engagement report (I) (available on the [GEE2 website](#)), and it was fully adopted over the second reporting period year of the project, mainly for the organisation of the Training Sessions and the *in loco* Market Visits. The adopted scheme and time frame is explained in the below.

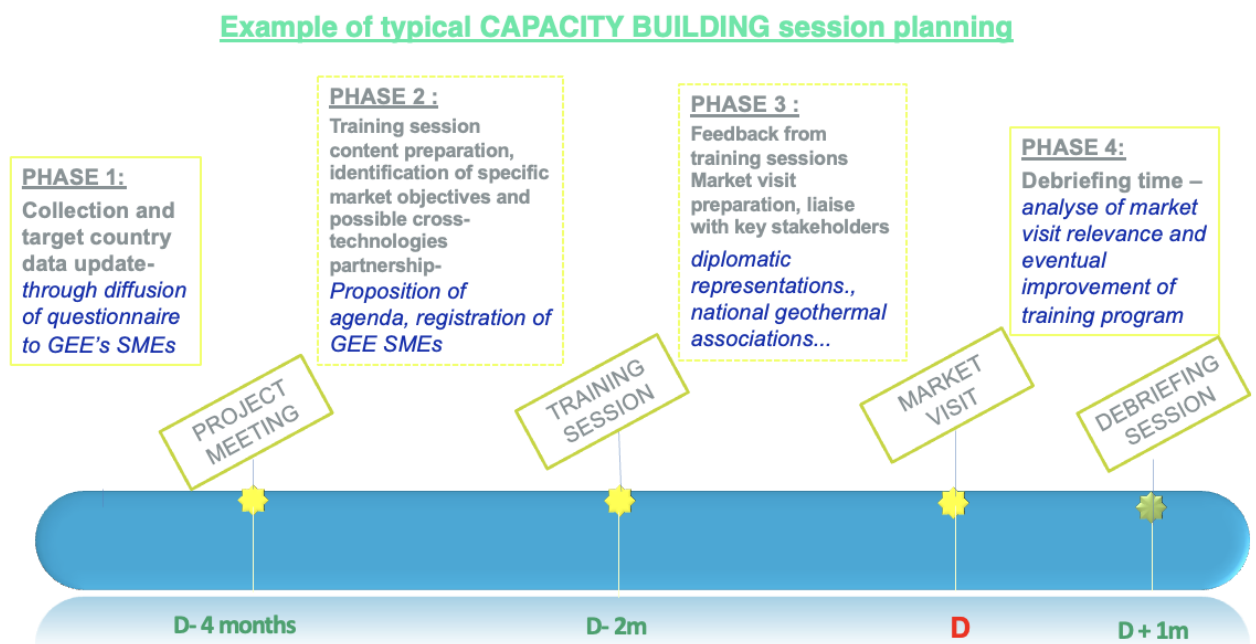


Image 1: Adopted scheme and time frame for the organisation of the GEE2 capacity building activities.

The training and capacity building activities within companies in the meta-cluster will then serve as spearhead to extension to third country markets are areas where GEO ENERGY EUROPE can provide advice and guidance.

GEO-ENERGY EUROPE		JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	if EXTENSION	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER
GEE II activities														
SMEs TRAINING SESSION				CHILE		CANADA	KENYA					Costa Rica		
MARKET VISIT				CHILE		PDAC Canada	Kenya Geothermal Congress						Costa Rica	

Image 2: 2022 capacity building planning decided and updated after the first hybrid project meeting in Dublin.

Due to the Covid-19 period and to the restrictions implemented after the official lockdown period, the organisation of the four rounds of training sessions and market visits were very time constrained, as the capacity building activities were all planned in only 10 months. Another point is that right after the Covid-19 restriction period, there was a multiplication of events and fairs that made it hard to plan the participation of the meta-cluster SMEs, which were often mobilized by several events at the same period of time. This was even more true when applied to the market visits due to the time consuming travel times to visit the target countries that are far away from Europe. In a sense, the Covid-19 consequences continued after the pandemic was considered has officially over.

Following the four stage Capacity Building Activities scheme, the next chapters will detail how concretely those tasks were managed and the lessons learnt for each of them.

### **Phase 1: Project meeting**

The monthly project meetings were fundamental to structure the actions of the capacity building strategy. As soon as the schedule on the four round of “training session and market visit” was fixed, many other aspects had to be discussed. Each consortium partner was asked to complete the list of stakeholders from the target countries who should be invited to the training session and then, eventually, kept in the loop for the organisation of the market visit.

General information about the energy mix context or any updates about the geothermal market were also shared during the monthly project meetings; such elements were useful to start identifying which SMEs of each respective Cluster could have a specific interest in the coming market visit. During the project meeting any logistical aspects and possible participation of the whole consortium in geothermal events identified as a “pretext” to organise the GEE2 market visit were also discussed; events such as Kenya Geothermal Congress in Kenya, PDAC and Global Energy Summit in Canada. It was discussed the possibility oof subscribing a booth or submitting a paper.

## Phase 2: Training session

As a reminder, the training sessions were thought as a first step to help the meta-cluster SMEs to go international and export their services. They were organised as webinars to reach more participants and allow the presence of stakeholders from the target countries.

A training session was organised as follows:

Presentation of GEE2 objectives & main actions (GSI/GI) (10 min)

A) Presentation of target country (GEODEEP) (30 minutes)

- global structure of the energy market
- geothermal market (regulation and de-risking schemes if existing, market barriers, structure of the competition, key stakeholders...)
- Use of GEE collaboration tool to approach immediately the SMES that are already on the market and that will help us collecting data on the target country

B) Presentation of the Collaborative tool (CAPES) (15 min)

«Coaching» of meta-cluster SMEs (GEODEEP + expert in geosciences and international business development) (30 minutes):

- Identification of specified know-how developed by our SMEs to fit to market country specificities
- Eventually feedback of SMEs engagement in that target country
- If needed, identification of proper expertise/competencies to develop outside the consortium, to reach key target markets, to see if the SMEs need to link with other sectors outside geothermal industry to reach properly the target country geothermal market. For example: partnership with other renewable heat actors, oil & gas industry...

C) Free discussions

- Share experience
- SME's expectations
- SME's training needs: main areas where GEE SMEs require expertise

D) Conclusions and presentation of the market visit

These training sessions were originally thought to be essentially opened to GEE SMEs as an exclusive service provided under the project activities. And indeed, each GEE2 partner was committed to share the information within their members.

In retrospective, we observed that the training sessions were, from the start, the opportunity to invite key contacts and stakeholders from target countries. As a result, the training sessions

were also favourable to identify contact persons as it was the case for the Costa Rica Capacity Building activities as there were great difficulties to find the appropriate person to support the market visit with the logistics and finding a venue in San José.

In conclusion, the training sessions were a key step of the Capacity Building activities. They were really important in the “recruitment” of SMEs to attend the market visit: specific knowledge was brought to the meta-cluster SMEs that were receiving a detailed comprehension of the geothermal market and potential commercial opportunities.

### **Phase 3: Market visit**

As mentioned previously, considering the small window of opportunity to organise the market visits, the consortium also faced a multiplication of events from Spring to August 2022. A kind of natural selection was done to reach the participation of a pool of SMEs to the market visits. If the training sessions allowed for a quite flexible attendance, the mobilization of the meta-cluster SMEs to participate in market visit was more challenging than initially expected. The creation and finalisation of an attractive agenda was not always easy; best scenario was when the consortium had contact persons based in the target countries and were able to support the consortium and the organisation of the event at a distance.

Without a detailed agenda, sometimes it was hard to convince the SMEs to get on board. Only dynamism of the geothermal market was not enough to convince the SMEs to join the market visit and schedule the travelling and accommodation for an international trip that might last a minimum of three days. On the other hand, the planned incentive in GEE2 partners- budget, consisting of a specific budget to pay for the SMEs travelling costs was a very efficient tool and a massive argument to convince the SMEs to participate and attend the market visits. The table below, consolidates the numbers regarding the participation of the meta/cluster SMEs in the four different market visits:

	<b>CHILE</b>	<b>CANADA</b>	<b>KENYA</b>	<b>COSTA RICA</b>
<b>Number of GEE2 SME</b>	6	3	5	7
<b>Number of GEE2 partners</b>	2	3	4	3

#### **Phase 4: Debriefing Session**

For each of the capacity building activity in one of the target countries, debriefing time was allocated to evaluate the pertinence and the efficacy of the activity, and evaluate the level of satisfaction of GEE meta-cluster SMEs. The conclusions are summarized in each of the capacity building deliverables (available on the [GEE2 website](#)).

From a methodology point of view regarding SME's engagement, the following points were observed:

- The presence of a contact point in the country was very helpful and greatly facilitated the organisation of the market visit and with the logistics and finding of a venue for the consortium and the European's SMEs. It was the case in Chile (Jeanne VIDAL) and Kenya (Mike KARANJA);
- The organisation of the market visits jointly to a geothermal event was also a success factor. It was the case of Canada (PDAC and Global Energy Show) and of Kenya (Kenyan geothermal conference);
- When no contact point and no geothermal event were identified, the consortium had to use the services of embassy representation as it was the case in Costa Rica where the consortium got in touch with the French Chamber of Commerce and the EU representation. They contributed to put the partners responsible for the market visit organisation in contact with geothermal key actors.



### 3. Conclusions

To conclude, the consortium may question the choice of the four target countries that have served as guiding thread during all the capacity building activities in the strand 2 of GeoEnergy Europe project. It is true that they were defined following a smart process of consultation of all partner's members according to a series of criteria. However, these questionnaires took place nearly four years ago (2019) and, meanwhile the geothermal markets change a lot, Covid-19 crisis modified many aspects of said markets, specially when innovations and new trends appeared, the Covid-19 restrictions also imposed a change of focus of many of the SMEs, namely less internationalisation and higher focus on the national market. All these reasons made the partners believe that some of selected countries were not as attractive as they were four years ago.

Following the same logic, the project was mainly focusing on deep geothermal market and applications even on power generation, whereas the trend in favour of district and industrial heating and cooling uses utilising geothermal energy is becoming predominant.

The Ukraine war also accelerated these trends, due to the increase of fossil fuels prices and with the sanctions to Russian importations; a greater attention is being given to geothermal energy and sources generally and thus creating thriving markets for the meta-cluster SMEs of our ecosystem.