



PACIFIC

Passive seismic techniques for environmentally friendly and cost efficient mineral exploration

D7.2 – Report on joint events with other research projects in the first year

Grant agreement number	776622	Due date of Deliverable	31/05/2019
Start date of the project	01/06/2018	Actual submission date	29/05/2019
Duration	36 months	Lead Beneficiary	ART

Description

Report describing events organised or attended with other research projects during the first project year.

Dissemination Level

PU	Public	×
CO	Confidential, only for members of the consortium (including the Commission Services)	

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1 Executive Summary

To create synergies and optimise project results and impact, the PACIFIC project dedicates the Work Package 7 to collaboration and clustering with other research projects under the same call topic, and other relevant projects in the field funded by Horizon 2020 (H2020). PACIFIC partners thus collaborate with ongoing research initiatives in the mineral exploration area.

During the first year of the project, the collaboration took several forms, that are developed in this deliverable according to the following axes:

1. Joint activities organised with other projects in the cluster;
2. Participation in international events and conferences with other H2020 related projects;
3. Ongoing and future collaborations.

This report must be understood as the first of three reports on joint events with other research projects, that will be produced through the duration of the project: D7.2 (M12), D7.3 (M24) and D7.4 (M36). Thus, the information provided, especially in the “Ongoing and future collaborations” section, will be reviewed or updated in next reports.

2 Introduction

This report relies on the various clustering activities that took place during the first year of the PACIFIC project. The other Horizon 2020 projects identified for clustering have been reported in D7.1 “Clustering plan”. Out of the eight projects mentioned in D7.1, four were identified as particularly relevant as the clustering activities started to be implemented:

- [INFACT](#) (Innovative, Non-Invasive and Fully Acceptable Exploration Technologies)
- [Smart Exploration](#)
- [NEXT](#) (New Exploration Technologies)
- [HiTech AlkCarb](#) (New geomodels to explore deeper for High-Technology critical raw materials in Alkaline rocks and Carbonatites).

The clustering activities undertaken by PACIFIC and these projects are of various natures. On the research level, a concrete example is the realisation of a joint test carried out by PACIFIC and INFACT, that took place on one of INFACT’s site in Las Cruces, Spain, at the end of March 2019.

Clustering calls between the four projects have been set up to happen periodically, in order to keep everyone updated on the collaboration potentialities that have arisen. The projects of the cluster have also had the occasion to meet many times in international events or conferences. This allowed the projects’ partners to meet in person and discuss further collaborations.

A collaborative web space has also been set up, based on the customised Community Management Tool (CMT) for professional communities developed by ART. It enables professional social networking and online collaboration between PACIFIC and the projects identified in the clustering strategy. On this web platform are posted bookmarks, events, files or questions. [It is available here.](#)

Finally, other activities are planned for the second year of PACIFIC, such as other joint tests and the co-organisation between PACIFIC and INFACT of a winter school (M20).

All the different activities mentioned above are detailed in the following report.

3 Joint activities organised with clustering projects

3.1 Joint test between PACIFIC and INFACT in Las Cruces, Spain

Between March 27th and 29th 2019 (M10), PACIFIC deployed the ambient-noise seismic technique at the Las Cruces Mine, one of the sites studied in the INFACT project. PACIFIC collected the data and will process it to obtain a tomographic image of the ore body. The nodes were retrieved between April 29th and 30th 2019 (M11).



Figure 1: Geophone in Las Cruces, Spain. Photo: Leila Ajjabou (INFACT).



Figure 2: PACIFIC and INFACT teams at Las Cruces in March 2019. Photo: Leila Ajjabou (INFACT).

Once the measurements are done by PACIFIC, INFACT will incorporate environmental and social acceptability results as part of its comparative study on exploration technologies.

To gain visibility and to demonstrate the interest of clustering actions, PACIFIC and INFACT published two joint communications on Twitter and on their public websites, one before and one after the node deployment. PACIFIC also posted these communications on the project [ResearchGate](#) page.

- PACIFIC communications on Twitter: [before the deployment](#), [after the deployment](#).
- PACIFIC communication on the public website: [before the deployment](#), [after the deployment](#).

On the legal side, a Memorandum of Understanding was set up between the two projects. This Memorandum helped defining the scope of the cooperation, the coordination of research and the exchange of data, also with the view to legally protect the results produced by both projects.

4 Participation in international events and clustering with related H2020 projects

4.1 International events attended during the first year

PACIFIC and other mineral exploration H2020 consortia have attended many international events and conferences during the first year of the project. Some of these events led to clustering meetings between them and are listed in the table below.

Table 1: Clustering meetings with other H2020 projects at international events and conferences.

Event	Projects	Clustering meeting
Raw Materials Week 12-16 Nov. 2018 Brussels, Belgium	PACIFIC, INFACT, NEXT, Smart Exploration	<ul style="list-style-type: none"> - The teams discussed interesting events during which they could organise a common session (see next table). The idea of the joint experiment between PACIFIC and INFACT emerged at this time. - The teams agreed on proposing a joint one-day event to be held at the Raw Materials Week 2019 in Brussels for mineral exploration proposal submitted on 21th March).
Prospectors & Developers Association of Canada 3-6 March 2019 Toronto, Canada	PACIFIC, INFACT, NEXT, Smart Exploration	PACIFIC discussed plans regarding their collaboration on joint test sites with both INFACT and HiTech AlkCarb.
European Geosciences Union 7-12 April 2019 Vienna, Austria	PACIFIC, INFACT	PACIFIC discussed with INFACT and Smart Exploration about the organisation of PACIFIC winter school.

4.2 Clustering activities in future international events

PACIFIC and the clustering projects plan to organise sessions within international events or conferences that will take place in the months to come. These events and sessions are listed in the table below.

Table 2: Co-organised sessions in future international events.

Event	Projects	Clustering activities
Raw Materials Week Autumn 2019 Brussels, Belgium	PACIFIC, INFACT, NEXT, Smart Exploration, HiTech AlkCarb	The projects sent a common proposal to organise a joint session about new

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		technologies in mineral exploration in Europe.
South African Geophysical Association 6-9 Oct. 2019	PACIFIC, Smart Exploration	Smart Exploration has secured a spot for a workshop and invited PACIFIC to join (<u>to be confirmed</u>). SISP will attend and has submitted an abstract in this regard.
European Geosciences Union 3-8 May 2020 Vienna, Austria	PACIFIC, INFAC, NEXT, Smart Exploration	The projects are discussing the application to organise a joint session at EGU 2020.
European Association of Geoscientists & Engineers Sept. 2020	PACIFIC, Smart Exploration	PACIFIC and Smart Exploration are discussing the organisation of a workshop before the conference.
Society of Exploration Geophysicists 2020	PACIFIC, INFAC, NEXT, Smart Exploration	The projects are discussing the application to organise a joint session at SExG 2020.

5 Ongoing and future collaborations

PACIFIC partners are working on future collaborations and clustering activities to be organised in the second year of the project.

5.1 Joint test between PACIFIC and HiTech AlkCarb in Kaiserstuhl, Germany

PACIFIC and HiTech AlkCarb partners are currently discussing a joint test where PACIFIC could deploy the passive seismic traditional technique on the Kaiserstuhl carbonatite site, which is one of the sites studied in the HiTech AlkCarb project, collect the data from the deployment and process it at Sisprobe's lab. The joint test will happen between 24th September 2019 (M16) and 24th October 2019 (M17).

The two projects are also working on a Memorandum of Understanding that has the same purposes as the one produced for the INFACT collaboration.

5.2 PACIFIC winter school, January 2020

PACIFIC, as part of its dissemination activities, plans to organise a winter school shortly after the mid-term of the project, in January 2020 (M20). The principal objectives will be to share knowledge on the passive seismic techniques between PACIFIC and other H2020 projects researchers, in particular young scientists, to facilitate the collaboration between academia and industry and to foster understanding between cross-disciplines. Another objective will be to communicate the results of the social science survey about public perception of mineral industries led by PACIFIC. An audience of 50 participants is expected. The winter school might take the form of two general days and two more focused on PACIFIC.

PACIFIC is currently discussing with INFACT project partners about their possible role in helping with the organisation of this winter school. It would take place in Sevilla, Spain. Spanish partners of INFACT might help PACIFIC with the logistics and to organise a field trip to the Rio Tinto mine, where INFACT performs work. INFACT and PACIFIC are still waiting for the authorisation of the Rio Tinto mine site. Industries and mineral companies will be invited to participate to the winter school besides academics and students.

5.3 Second joint test between PACIFIC and INFACT

If the PACIFIC budget allows, the possibility of new joint tests between PACIFIC and INFACT will be discussed. INFACT might be willing to organise a new node deployment by PACIFIC at another of their test sites in Finland.

6 Conclusion

The first year of PACIFIC project has proved to be fruitful in terms of clustering activities and collaborations. The various meetings held with the cluster projects on the phone and at international conferences led to an effective collaborative relationship between PACIFIC and HiTech AlkCarb, INFACT, NEXT and Smart Exploration.

This materialised by a joint test with INFACT, an experience that is planned to be reconducted soon with HiTech AlkCarb, and that will bring interesting results and visibility to both sides. Such a positive outcome is also expected through the collaboration between PACIFIC and INFACT in the organisation of PACIFIC winter school.

Therefore, clustering activities lead to various benefits such as scientific collaboration but also bring the possibility to maximise the projects' impact through the organisation of events and common communications.