



REE4EU: Integrated High Temperature Electrolysis (HTE) and Ion Liquid Extraction (ILE) for a Strong and Independent European Rare Earth Elements Supply Chain

Project type: Innovation action

Start date of project: 01/10/2015 Duration: 48 months

D 9.3 Dissemination, Communication and Exploitation Campaigns Report

WP n° and title	WP9 - Market analysis, Exploitation and Dissemination
Responsible Author(s)	PNO-I
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Version	Final



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D.9.3 Dissemination, Communication and Exploitation Campaign report Dissemination level: PUBLIC



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1 Executive Summary

This document reports on the dissemination and communication activities planned and implemented for creating awareness about the REE4EU initiative, and the project results. More specifically, it includes a description of the communication and dissemination strategy used to reach a wide audience, and the channels and tools that will be and have already been used to disseminate the REE4EU project objectives and results. It also summarises the main exploitation routes that have been identified so far.

The report includes the activities realized from the start of the project, and the included plan hereafter reported represented a guide to support the consortium partners to plan and carry out the dissemination activities using the right material and channels.

The plan was regularly reviewed and updated throughout the entire project lifetime, and this is the final report summarising the dissemination, communication and exploitation activities released at the end of the project.

This document is articulated around 6 objectives:

- To outline, present and purpose the dissemination, communication and exploitation plan;
- Relates to the REE4EU relevant stakeholders, to explains which methodology has been chosen in order to guarantee their successful engagement;
- To present the dissemination material that have been realized, presenting also some visual examples;
- To report the activities carried out by each consortium partner including conferences, press release, presentations and papers;
- To report the main successful exploitation activities;

2 Introduction

2.1. REE4EU Project presentation

2.1.1. The Project context

Rare earth elements (REEs) are the seventeen chemical elements lanthanides, Scandium and Yttrium. Because of their geochemical properties, REEs are typically dispersed and not often found concentrated as RE minerals in economically exploitable deposits. REEs are considered "key-enablers" of green technologies, as they are used in hybrid electric vehicles, windmills, and highly efficient electric motors. The dependence on Chinese exports makes Europe, and western countries in general, extremely dependent and vulnerable to Chinese market control. Therefore, REE are considered to be materials with the highest supply-risk.

Regaining REE from RE-containing waste streams may constitute an important RE secondary source in Europe.

A recent study, based on detailed trade data, estimates the global trade in RE-containing products in 2010 at around €1.5 trillion, or 13% of the global trade. However, only 1% of RE waste is being recovered as no adequate process is currently available. REE4EU will open-up a fully new route bringing recovery of inprocess wastes from PM manufacturing within reach.

2.1.2. The Project

The REE4EU project will develop, validate and demonstrate in two industrially relevant pilots an innovative Rare Earth Alloys (REA) production route from permanent magnets (PM) and Ni metal hydride (NiMH) battery waste. The targeted integrated solution is based on recently developed lab-proven technologies for direct high temperature electrolysis of REA production. It will be combined in the pilots with an innovative and proven Ionic Liquid Extraction or tailored hydrometallurgical pre-treatment to demonstrate dramatic



improvements in cost and environmental performance compared to state of the art technologies.

The project involves in its consortium the full value chain including (SME and large) RE metal producers, PM manufacturer, SME process engineering companies and LCA experts, large electronics and battery recycling companies, SME technology transfer, innovation specialists as well as chemical and end-user associations. Together with 4 top research institutes on high temperature electrolysis, ionic liquids and RE recycling the REE4EU consortium will prove technical and economic viability on in-process PM waste (swarf), as well as end-of-life (EoL) PM and NiMH battery waste, develop urgently required market data on EoL RE availability and a triple value-chain business case for a new European Rare Earth Alloys (REA) production sector from secondary raw material.

2.1.3. Benefits

The project will prove technical and economic viability on in-process permanent magnet waste, as well as end-of-life permanent magnets and NiMH battery waste. The targeted integrated solution will demonstrate dramatic improvements in cost and environmental performance compared to state of the art technologies. This includes avoidance of process steps, 50% energy savings, and 100% recycling of reagents as opposed to disposal of strong acid leaching agents in state of the art pretreatment steps.

Figure 1. REE4EU Concept



REE4EU will also develop urgently required market data on EoL RE availability and a triple value-chain business case for a new European secondary rare earth alloys production sector. This will create new jobs, increase Europe's independence from imports and last but not least, provide valuable raw materials for fast growing European green-technology industries such as electrical/hybrid vehicles and wind turbines.

2.2. REE4EU approach to Dissemination, update M48

In order to effectively communicate with stakeholders and to reach maximum spread of the project results, a defined dissemination methodology is needed. The REE4EU dissemination methodology is based on the following main points:

- Raising Awareness and interest for the proposed innovative solution;
- Involving the entire consortium;
- Planning activities to disseminate project results to target audiences;

Activities to ensure wide visibility and identification of the project have been planned as part of dissemination campaign. During the first months of the project the main activities of dissemination have been focused on realization of the strategy.

The plan foresees:

- Design of the REE4EU brand identity (i.e. logo);
- Realization and distribution of dissemination materials such as: website, brochures, template for project documents and power point presentation, poster, video etc.
- Planning participation in relevant events, exhibitions, workshops, specialized international meetings, etc.;
- Stakeholders analysis to build consensus around project initiatives and valorise project results;
- Launch of a media campaign existing of public relations, featured articles in magazines, e-journals, forums, mailing lists, press releases, social networks etc;
- Establishing synergies with projects to help extend the scope of dissemination results to new fields in both National and international domains;



Guarantee synergy with EU platforms;

Dissemination activities are being conducted in order to actively engage all consortium partners. The partner responsible for dissemination (PNO-I/CTECH) has continuously been working to ensure proper information dissemination to support the full communication of the project results. Partners are involved in defining, planning and implementing dissemination efforts in order to provide a structured and dynamic approach to the communication of the project results.

REE4EU has deployed different dissemination techniques through various communication channels. These techniques include:

- The professional design, production, and distribution/ promotion of REE4EU dissemination material (website, brochures, power point presentation, video, reusable illustrations etc.).
- These materials were distributed at designated conferences, workshops, or EC events attended by REE4EU partners and external stakeholders.
- The dissemination materials are distributed in electronic format by email to interested parties and it is accessible on the project management website.

All consortium partners have an important role in the diffusion of project results. Project results are demonstrated in a variety of ways, including the presentation of REE4EU at relevant events such as: conferences, exhibitions, poster sessions, workshops, communication material distribution opportunities, etc.

The search for events has started at the beginning of the project, it has been continuously deployed till the end of project. The results of the research are posted on the project website in order to promote an active participation by both partners and contacts.

Also, significant in terms of dissemination, are joint initiatives and the exchange of information with other major international players in the field, such as :

- A.SPIRE events: Sustainable Process Industry through Resource and Energy Efficiency (https://www.spire2030.eu/).
- SCRREEN: European CRM expert Network (http://scrreen.eu/).
- PROMETIA: Mineral Processing and Extractive Metallurgy for Mining and Recycling Innovation Association (http://prometia.eu/).
- Rare Earth International Association (REIA) (https://gloreia.org/).

3 Dissemination Strategy

3.1 Dissemination objectives

Dissemination, communication and exploitation activities are aimed to:

- Widespread the project results among relevant stakeholders to generate awareness and interest in the proposed solutions.
- Obtain valuable feedback on intermediate project results so that new ideas can emerge to enhance the impact of the project.
- Set up engagement strategies with relevant stakeholders for the potential exploitation of technologies and knowledge generated during the project.

The plan provides an overview on the dissemination strategy, by focusing on the following main themes:

- The main results to be disseminated throughout the project.
- The dissemination channels and instruments to be used.
- The major stakeholders and targets groups to focus on.
- The main dissemination strategies actions implemented so far for each partner, The REE4EU events.

The project encouraged the maximum publicity for its activities and the greatest possible involvement of external actors in its discussions.



This plan also includes the first results of the Dissemination Activities as well as the report updated at the end of the project (M48).

3.2 Project stakeholders and target group

The main identified target groups that were constantly addressed, coherently with the stakeholder analysis, are the Innovators, Investors and Business Drivers in the global REE4EU supply chain, which can be classified as profit and non-profit stakeholders.

More in general the target group for the dissemination activities considered are the following:

- Companies: who are driving successful innovations in the field of critical raw materials and particularly in REE and bringing it to the market.
- Researchers: scientific community developing synergetic or complementary technologies in the topic of recovery or production of CRM and more specifically in the domain of Rare Earth Elements and Alloys), (public/private universities, research centers at national and EU level).
- Wide audience and policy makers: examples are associations with high reaching potential to regional or national stakeholders, policy makers involved in increasing Europe's resilience to the supply risk of CRM, in local jobs creation, and in developing greentechnologies relying on CRMs, etc.

4 Dissemination material and tools

4.1 Project Identity

The widespread dissemination of the project results begins with the project visibility. To achieve maximum visibility, the project needs a personality. The project identity is linked with a graphically coherent and consistent representation of the REE4EU logo on project dissemination materials and documentation.

It's necessary that every event, presentation, newsletter, deliverable, brochure, etc. make use of this image and be consistent with its style

The logo will make the project recognizable as it defines its identity for the whole duration. It's used in every document produced within the project context and in every kind of contact to the external environment.



Figure 2: REE4EU logo

4.2 Website

We describe here the REE4EU public Web Site, supported by pictures of the online site.

The Web Site, available at the URL http://www.ree4eu.eu, represents the most effective communication tool of the REE4EU project to:

inform all the stakeholders and general public about the aim and objectives of the REE4EU project;



- disseminate project's activities and initiatives;
- collect, store and distribute information
- invite external sources to interact in order to build and to facilitate business development activities. For this activity a dedicated page, REE4EU for Business has been foreseen.

The REE4EU Website is available in English and is composed the following main areas:

- Home
- About REE4EU
- Partners
- REE4EU for business
- News and Events
- Results
- Contact
- Public documents

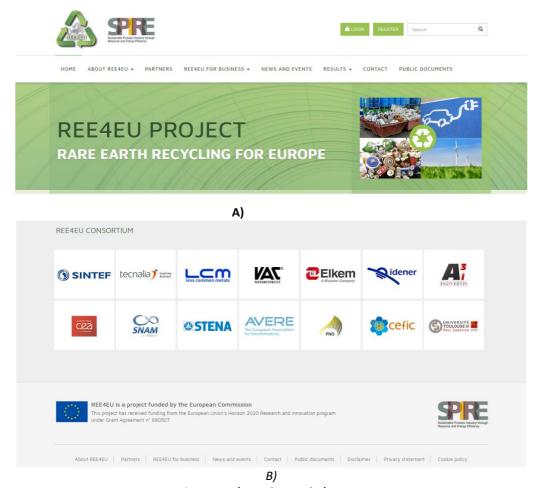


Figure 3: A) Header, and B) Footer



4.2.1 The homepage, update M48

The Home Page (FIG.4) shows all major contents available on the Website:

- The text in the page describes the aims of the project, providing a clear statement to visitors about the contents of the project;
- A project video presentation, realized by STENA, is embedded;
- A video showing the trials carried on at LCM premises, as meaningful milestone of the project, added at M30;
- A video showing the REE4EU pilot in operation, realized in the ELKEM premises, added at M37;
- Direct access to all the areas of the website are provided (HOME, ABOUT REE4EU, PARTNERS, REE4EU FOR BUSINESS, NEWS AND EVENTS, RESULTS, CONTACT);
- All the project partners logos are displayed;
- The latest news and events interesting and coherent to the project scope are posted;
- Information about the project funding are given, included the SPIRE logo;

Five green boxes have been added during the project in order to increase:

- 1. The visibility of the project newsletters (directly downloadable from the public document page)
- 2. The stakeholder analysis report (which is available after login process)
- 3. The REE4EU publication on the impact magazine, released in June 2017
- 4. The market analysis report (which is available after login process)
- 5. The Exploitation workshop organized in April 2019



Figure 4: The Homepage

In the following paragraph every area of the website will be detailed.



4.2.2 About REE4EU

This area includes:

- ✓ The context of the project, explaining that which is problem: Rare earth elements are
 typically dispersed and not often found concentrated as RE minerals in economically
 exploitable deposits. The dependence on Chinese exports makes Europe, and western
 countries in general, extremely dependent and vulnerable to Chinese market control. REE
 from RE-containing waste streams may constitute an important RE secondary source in
 Europe.
- ✓ A **description** of the project's specific objectives: The REE4EU project will demonstrate in 2 industrially relevant Pilots an innovative Rare Earth Alloys (REA) production route from permanent magnets PM and Ni metal hydride (NiMH) Battery waste. The project will be based on an innovative and proven Ionic Liquid Extraction or tailored hydrometallurgical pre-treatment.
- ✓ The benefits expected from the project: improvements in cost and environmental
 performance compared to state of the art technologies, such as avoidance of process
 steps, 50% energy savings, and
 - 100% recycling of reagents as opposed to disposal of strong acid leaching agents in state of the art pre- treatment steps.



Figure 5: About REE4EU. The Project





Figure 6: About REE4EU: Objectives

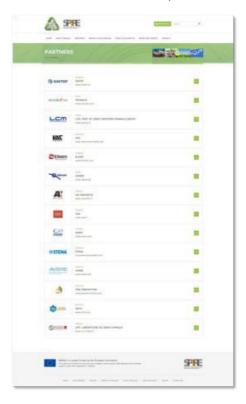


Figure 7: About REE4EU. The benefits



4.2.3 Partners

The section "PARTNERS", hosts the information of each partner of REE4EU project.



For each organisation it is included: the logo of the organisation, the full name and the website (Figure 8). A brief description of the organisation, highlighting their main competences related to the project (Figure 9).

Clicking on the symbol "+" it will possible to see the full description of the organization.

Figure 8: Partners: Partners name, logo and website

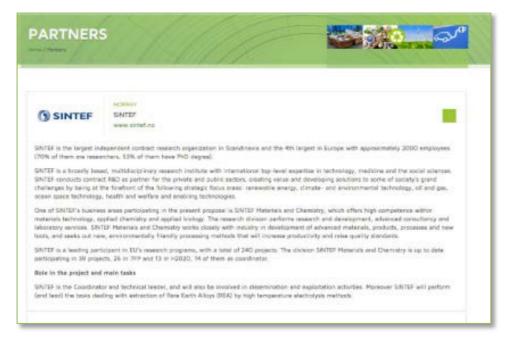


Figure 9: Partners description (example about coordinator SINTEF)



4.2.4 REE4EU for Business, update M48

This section was very important to enable the development of an integrated stakeholders value chain needed to demonstrate the economic sustainability of EoL permanent magnet and NiMH battery wastes as feedstock for an investment in a European secondary RE Alloy plant. To this end, the value chain reported in the page were updated with the stakeholders identified within the project.

The section was also updated with the creation of two new pages: the first one entitled Exploitation Activities accessible at the following link http://www.ree4eu.eu/ree4eu-for-business/, the second one dedicated to the REE4EU Exploitation workshop available at http://www.ree4eu.eu/ree4eu-for-business/ree4eu-exploitation-workshop/.

In the page Exploitation Activities, PNO-I is bringing its international consulting experience into the REE4EU consortium including extensive project and innovation management, exploitation and business planning expertise. A particular focus has been given to the REE market analysis, value chain stakeholders analysis, business planning, communication, exploitation and dissemination strategies and part of their execution, as better detailed in an ad hoc video published in this section in M37.

One of the main goals of REE4EU exploitation activities is to maximise its impact to ultimately contribute to the further implementation and scalability of the technologies developed within the project, that's why on 24th April 2019, REE4EU project held its first Exploitation Workshop "Europe's Closed-Loop Permanent Magnet Recycling Process at Pilot Scale" in Brussels. More information about the event will be provided in the paragraph 4.10.

In the dedicated page "REE4EU exploitation workshop" 3 sub-sections were included, namely:

- 1. Agenda, Speakers and Panellists of the workshop;
- 2. Presentations given in the workshop;
- 3. Photo Gallery.





Figure 10: REE4EU for business: Exploitation activities pages and the Exploitation workshop





Figure 11: REE4EU for business: sub-sections of the exploitation workshop

4.2.5 Section "News and Events"

In this page is present an archive of news related to REE4EU as well as interesting events on REE, Rare Earth Alloys (REA) Permanent Magnets (PM) and Secondary Batteries (SB), Ionic Liquid Extractionin order to create a network all through Europe with other events and organizations (the list was regularly updated with the most recent ones).





Figure 12: News and Events

4.2.6 Results, update M48

The page focusing on first year project results was created in M12. It describes the activities implemented in the first year of the project and by providing details about the ILE step (Hydrometallurgical and Ionometallurgical approach) and the HTE Step. It points out the activities aiming at process optimisation, design and engineering carried out in order to demonstrate the REE4EU process in an industrially relevant environment. Moreover, a further analysis of the status of the stakeholder analysis, dissemination & exploitation of the project results is reported.



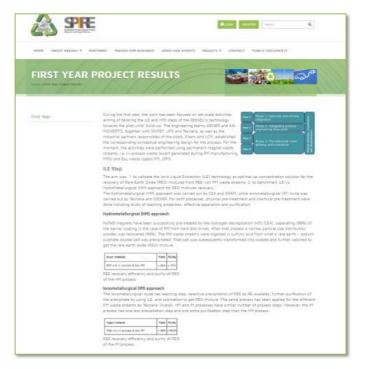


Figure 13: First year project results

As anticipated in the D9.2a Dissemination, communication and exploitation plans, a further section related to the most relevant results was created to update the wide public about the new results achieved after the activities performed, in the third year. It is accessible at the link http://www.ree4eu.eu/third-year-project-results/ and below a visual example is also provided.

The page focuses on the activities implemented in during the third year of the project, when the consortium finalized the engineering work related to the main pilot, which includes the basic and detail engineering of both the ionic liquid extraction (ILE) and high temperature electrolysis (HTE) units, with enough flexibility to be able to accommodate different RE-containing wastes. After the tender and purchasing phase of the equipment, the pilot was built up within dedicated facilities for rare earth alloy (REA) production at Elkem site.

The pilot tests using permanent magnet swarf, PMS (in-process waste from the permanent magnet production) were carried out successfully. Moreover, fruitful pilot tests were carried out in the existing pilot unit at LCM using PMS-waste pre-treated by a pure hydrometallurgical method. The REA obtained has been used to manufacture new magnets, which showed the same properties as those obtained from virgin material. In this way, the REE4EU project demonstrated a closed-loop recycling scheme for permanent magnets at pilot scale, using RE-containing wastes available in Europe. Furthermore, a market analysis has been carried out, where the prospective European market of secondary RE elements contained in selected End of Life products that have the potential to become viable feedstocks for RE recovery at industrial scale has been studied. The market analysis report is available at the project website. In addition to the Pre-pilot technological advances in THE, Integrated process design of the REE4EU pilot, more details were also published about the REE4EU pilot itself, the LCA as well as the Exploitation and Dissemination activities implemented.





Figure 14: Third year project results page

The Overall project results page was also created. There, it is possible to find all the main progresses and results achieved throughout the project lifetime. In addition, all the conferences, events, seminars, workshops and other type of actions implemented in the frame of the dissemination and communication strategy deployed are listed.

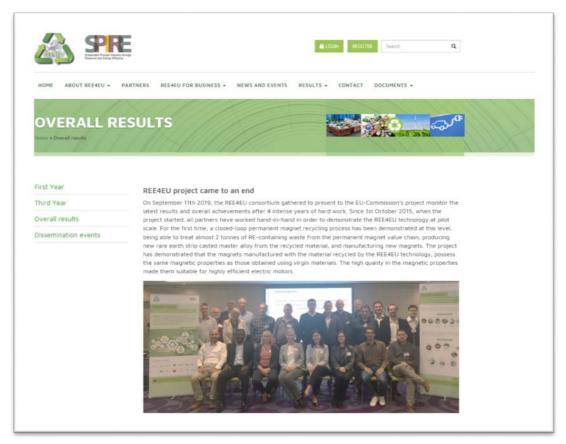


Figure 15. Overall Results page



4.2.7 Contacts

Thanks to this area it was possible to contact project partners and create a network of stakeholders interested in the REE4EU project, in particular it was possible to contact:





Figure 16: Contact (Project Coordinator, Exploitation Manager, Dissemination Manager)

4.2.8 Documents, update M48

The section "Documents" stores the relevant public project documents such as public reports, analysis, dissemination material released (brochures, videos, newsletters, presentations, publications) with an useful instrument for searching by tags.

In the sub-section "Public document", the public dissemination materials are available without any registration/login process (i.e. project newsletters, brochures, posters), meanwhile reports, analysis and studies performed in the framework of the project activities (deliverable 9.1 "Value Chains Stakeholders Analysis Report" and the deliverable 9.4 "Market Analysis Report") can be downloaded only after



registration: the partners agreed to make this distinction since the registration will allow the consortium to get in touch with relevant stakeholders operating in the REE field.

At the end of the project, and as discussed in the final meeting with the reviewer, the consortium decided to make available these reports (D.9.1 and D.9.4) without any registration process, since this feature was, specifically, previously implemented to involve key-players of the REE sector and relevant stakeholders in the framework of the exploitation activities.

In the sub-section "Public deliverables", it is possible to download the public deliverables submitted in the project lifetime to the European Commission.

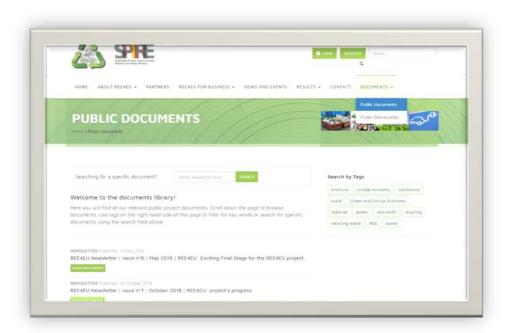


Figure 17: Documents page, with sub-sections Public document and Public Deliverables, update M48

4.3 Brochure, update M48

The first brochure is reported hereafter (Figure 18). Leaflet/ brochure where the REE4EU goals and expected results are described, the main benefits are presented and the consortium partners are listed. Dissemination material will be updated at the end of each year of the project (M12, M24, M36, M48).





A)



B)
Figure 18: Brochure. A) Front Page; and B) Back Page



The first year project results have been included in the update of the REE4EU brochure (M12), as



Figure 19: Brochure update, back page (M12).

follows:

As anticipated in the D9.2a Dissemination, communication and exploitation plans, a further brochure related to the most relevant results was created to update the wide public about the new results achieved after the activities performed. The updated brochure, released in M 36, outlined the third year project results and below a visual example is provided.



Figure 20: Brochure update, back page (M36)

4.4 Poster

A poster displaying the general information about REE4EU was elaborated. It was conceived to be a flexible tool easy to be adapted to many different contexts (events, conferences, exhibitions) and in compliance with ad hoc partners' requests.





Figure 21: Poster

4.5 Roll-up, update M48

The roll-up elaborated displays the main REE4EU information, its website URL, the partners involved and a key image connected to the project scope, in addition to the EC acknowledgment.

A new, updated version of the roll-up was also implemented in M40 and it included the closed-loop permanent magnet recycling process at pilot scale and the current scenario.







Figure 22: Roll-up, first edition and updated version

4.6 Press releases, update M48

Short press releases announcing the project progresses, updates, news, relevant participation to the main events have been periodically prepared (each 2-3 months) and widespread through the channels reported in table 1 and by using the most famous social media channels as well as the partners' websites. Analytic information about all the press releases produced in the framework of the implementation of the dissemination & communication activities are further detailed in the partners dissemination tables here attached. REE4EU was also included several times in the publication of the SPIRE newsletter, where updates dealing with REE4EU main progresses and information were released.

LEADER	TITLE OF THE NEWS	DATE	LINK
PNO/	REE4EU: first six months	MAY 2016	http://myemail.constantcontact.com/SPIRE-Newsletter-
CIAOTECH	progress meeting		2016-7.html?soid=1120321611365&aid=RYkjcibvE0E
PNO/ CIAOTECH	REE4EU project: Strategy Meeting, Trondheim	JULY 2016	http://myemail.constantcontact.com/SPIRE-Newsletter- 2016-8.html?soid=1120321611365&aid=0MbNtarkAH4
PNO/ CIAOTECH	The third newsletter of the REE4EU project	MAY 2017	http://myemail.constantcontact.com/SPIRE-Newsletter- 2017-12.html?soid=1120321611365&aid=ZiVX6Ys61wk



PNO/ CIAOTECH	The REE4EU Value chains stakeholders analysis report	NOVEMBER 2017	http://myemail.constantcontact.com/SPIRE-Newsletter- 2017-14.html?soid=1120321611365&aid=ML1SwLbiijM
PNO/ CIAOTECH	REE4EU: the project goes on!	MARCH 2018	http://conta.cc/2Dqs5IE https://www.spire2030.eu/news/press-office/newsletter
PNO/ CIAOTECH	REE4EU pilot in operation	DECEMBER 2018	https://gallery.mailchimp.com/09a76513e5f202599af40f 192/files/934288db-05df-4f2e-bb8b- b43e155607e9/Newsletter 18.pdf

Table 1: REE4EU press releases within the SPIRE newsletter

4.7 Scientific publications, update M48

Each partner contributed by submitting publications for technical literature and dedicated journals (web and print). During the course of the project, publications were foreseen in international (peer-reviewed) journals and industrial magazines. Moreover, Research Organizations created awareness of REE4EU at Research level, presenting the project findings to the engineers and scientists of the future through lectures and seminars for undergraduate and postgraduate students and academics.

Below are described the scientific publications elaborated and the patent applications presented. *Scientific Publications (Green Open Access):*

- "Perfluorocarbon Formation During Rare Earth Electrolysis", K.S. Osen, A.M. Martinez, H. Gudbrandsen, A. Støre, C. Sommerseth, O. Kjos, T.A. Aarhaug, H. Gaertner, P. Chamelot, M. Gibilaro and L. Massot, Light Metals, (2018) 1443-1448
- "PFC evolution characteristics during aluminium and rare earth electrolysis", O.S. Kjos, A. Solheim, T. Aarhaug, K.S. Osen, A.M. Martinez, C. Sommerseth, H. Gudbrandsen, A. Støre, H. Gaertner, Light Metals (2018) 1449-1455

Patent Applications:

- "Electrochemical Production of Rare Earth Alloys and Metals Comprising a Liquid Anode" PCT/EP2017/083504, priority data 21 December 2016, Applicant SINTEF TTO
- "Method for the Selective Recovery of at Least One Rare Earth Present In a Waste and Method for the Valorisation of a Waste Using the Same", S64186 FR SL-P, priority data 12 March 2018, Applicant CEA

4.8 Newsletters, update M48

Table 2 describes the project newsletters realized in the framework of the whole duration of the project. This plan was flexible, and it was adapted to the specific communication and dissemination needs of REE4EU current activities. The newsletters are available to the public in the page http://www.ree4eu.eu/public-documents/.



Newsletter number	Month	Issues of the newsletter	Date of publication
1	6	Role of the companies in REE4EU project	March 2016
2	10	Role of the research organization in REE4EU project	July 2016
3	14	Updates on the first-year project results	December 2016
4	18	Updates on partners participation to relevant events (realized and	April 2017
		planned) and a special focus on the stakeholder analysis	
5	22	News from the participating companies	August 2017
6	29	REE4EU: the project goes on!	March 2018
7	37	REE4EU: project's progress	October 2018
8	44	REE4EU: Exciting Final Stage for the REE4EU project	May 2019
9	48	Updates on the final project results	September 2019

Table 2: Newsletters published

4.9 Videos in the REE4EU website, update M48

During the project, two videos are already available into the homepage of the project's website:

- A short video was also realized, targeting a wide public audience, and explaining the achievements and the benefits of the REE4EU project. The information which becomes available in the project development phase, provides the opportunity to involve external stakeholders into the project by changing their perceived interest and attitude in the project with targeted information. The video was posted directly in the Homepage of the REE4EU website and widely disseminated through all the channels identified in table 2, it got more than 1700 views on Youtube;
- A short video showing the validation of the REE4EU's high temperature electrolysis (HTE) technology at a pilot scale is available at the home page of the website of the project. The video shows one of the trials carried out in the 1 kA electrolysis cell installed at LCM. The permanent magnet-derived rare earth oxide mixture supplied by VAC was converted to rare earth alloy ingot, which will be used to produce a new permanent magnet. The video shows several moments during the HTE cell operation, including start-up, electrolysis operation, feeding of the raw material, and tapping of the alloy product. The video was posted as important milestone in the project to illustrate to the public audience how the REE4EU project is going on. It was posted also on YouTube, LinkedIn, Twitter and Innovation Place (PNO channels). It got more that 2400 views on YouTube.
- A short video filmed in the Elkem premises, where the REE4EU project has demonstrated at a pilot scale a closed-loop permanent magnet recycling process for the first time in Europe. The REE4EU pilot has successfully treated several tons of in-process wastes and end-of-life magnets containing rare earth elements, resulting in the recovery of almost hundred kilos of rare earth alloys directly from the mixed rare earth oxides feedstock produced. The alloy was reused in the manufacturing of permanent magnet products. The video shows the REE4EU pilot plant in operation and it got more than 800 views on YouTube.
- A short video was elaborated by PNO Innovation to share its extensive experience with the REE4EU consortium in the fields of project and innovation management, exploitation and business planning expertise. A particular focus has been given to the REE market analysis, value chain stakeholders analysis, business planning,



communication, exploitation and dissemination strategies and part of their execution and implementation.



Figure 23: Videos REE4EU website

4.10 The Exploitation workshop in Brussels

One of the main goals of REE4EU exploitation, dissemination and communication activities is to maximise its impact to ultimately contribute to the further implementation and scalability of the technologies developed within the project.

On 24th April 2019, REE4EU project held its first Exploitation Workshop "Europe's Closed-Loop Permanent Magnet Recycling Process at Pilot Scale" in Brussels. The aim of the Workshop was to set out the most relevant results of the project, while connecting relevant stakeholders to discuss and compare about the market potential of the project in different countries, including US, Japan and China.

The workshop was attended by around 40 partners and stakeholders from noticeable companies and organizations. It included presentations from the Consortium, the EC, and the invited speaker Prof Okabe (University of Tokyo).

The final session consisted in a Panel Discussion with Stakeholders from Elkem (Norway), Urban Mining Company (US), DG Grow (EU), REEtec (Norway), and Prof Okabe (Tokyo). In addition, a questionnaire was distributed to the attendees to collect their feedback on the topics discussed during the event.



A flyer was also realized to invite the selected stakeholders to join the workshop and it is below reported.



Figure 24: REE4EU Exploitation Workshop flyer

The results of the workshop helped to identify the potential of the technologies developed within the REE4EU project of being introduced into the market, the main barriers and limitations to be considered, and the main actions that need to be taken to achieve the process scaling-up and its market implementation. Finally, discussions were followed-up in order to achieve the development of a commercial REE4EU unit. As reported in the updated website paragraph, workshop information are accessible at the following page http://www.ree4eu.eu/ree4eu-for-business/ree4eu-exploitation-workshop/.

4.11 REE4EU events participation in Eu and Non-Eu Countries, from M1-M48

REE4EU partners were very active in taking part in several seminars, events, workshops, conferences and other initiatives in Europe and also in Non-Eu Countries. Below is provided a list of events where the project participated in from its beginning, split in two: the first one comprises the events which took place in Europe, the second one includes initiatives organized worldwide where REE4EU presented its main results and updates. The overall actions implemented in the frame of the dissemination and



communications activities are also described in the analytical tables each partner compiled throughout the project life and hereby attached in annexes.

Description of events attended in Europe:

Type of activities	Main leader	Title	Date	Place	Type of audience	Size of audience	Countr ies addres sed	Link to the website
Confere nce	SINTEF	Presentation at the 2nd scientific seminar arranged by the PROMETIA organization	17/19 Novemb er 2015	Sevilla, Spain	Compani es, Research	90	Europe	www.prometia.eu
Confere nce	CEA	Invitation to a plenary conference	12 Februar y 2016	Midi- Minate c Greno ble - France	Compani es/Resea rch	400	Europe	
Confere nce (present ation)	ELKEM	REE4EU Pilot Project	11 May 2016	Gothe nburg, Swede n	Industry	100	Interna tional	www.circularmate rialsconference.se /speaker- presentations- 2016/
Worksh op	SINTEF	Presentation at the EURARE partner meeting	6/7 June 2016	Uppsal a	Compani es, Research organizati ons, Industrial associatio ns	40	Europe	www.eurare.eu
Congres s	PNO/CIA OTECH	12th Congress of the Interdivisional Group of Organometallic Chemistry Co.G.I.C.O.	5/8 June 2016	Genoa, Italy	Compani es/Resea rch/Orga nizations	130	Europe	http://www.scilig uria.it/COGICO 2016/EN index.ht m
Confere nce – REE4EU project presenta tion	PNO/CIA OTECH	Ree4eu project presentation at the New_InnoNet project event	9 June 2016	Brussel s, Belgiu m	Compani es/Resea rch/Orga nizations	97	Europe	http://www.newi nnonet.eu/
Confere nce – REE4EU project presenta tion	CEFIC	SusChem Stakeholder Event	16 June 2016	Brussel s, Belgiu m	Compani es/Resea rch/Orga nizations/ Industrial associatio ns/ legal authoriti es	230	Europe	http://suschem.bl ogspot.be/2016_0 6_01_archi ve.html
Confere nce	PNO/CIA OTECH	European Conference Industrial Technologies 2016	22/24 June 2016	RAI – Amster dam (The Nether land)	Compani es/Resea rch/Orga nizations	1250	Europe	http://www.indus trialtechnologi es2016.eu/



Congres s +	TECNALI A	EUCHEM Congress	3/8 July 2016	Wien, Austria	Compani es,	500	Europe	http://www.euche m2016.org/welco
Poster presenta tion					Research organizati ons, Industrial associatio ns			me/
Congres s – oral presenta tion and stand	AVERE	EUROBIKE Show	31 Aug – 4 Sep 2016	Friedri chshaf en (Germ any)	Compani es, Research organizati ons, Industrial associatio ns	46000	Europe	www.eurobike- show.com
Congres s/Confer ence	AVERE	LEVS	20/21 Septem ber 2016	Barcel ona, Spain	Compani es, Research organizati ons, Industrial associatio ns	157	Interna tional	<u>www.levs.mobi</u>
Policy worksho p	SINTEF	Presentation at the critical war materials in every day applications, scientific and industrial policy workshop	26/27 Sep 2016	Brussel s	Compani es, Research organizati ons, Industrial associatio ns	80	Europe	http://www.reeco ver.eu/w orkshop- critical-raw- materials-in- everyday- applications/
Policy worksho p *SINTEF ALSO ATTEND ED	LCM	Presentation at the critical war materials in every day applications, scientific and industrial policy workshop	26/27 Sep 2016	Brussel s, Belgiu m	Compani es, Research organizati ons, Industrial associatio ns	60	Europe	http://www.reeco ver.eu/w orkshop- critical-raw- materials-in- everyday- applications/
Critical Raw Material s Worksh op *SINTEF ALSO ATTEND ED	LCM	European Critical Raw Materials Workshop	27 Septem ber 2016	Brussel s, Belgiu m	Compani es, Research organizati ons, Industrial associatio ns	25	Europe	http://criticalraw materials.org/
Congres s	PNO/CIA OTECH	ECOMONDO – the green technologies expo	8/11 Novemb er 2016	Rimini, Italy	Compani es, Research organizati ons, Industrial associatio ns	100000	Interna tional	www.ecomondo.c om/en
Worksh op (Present ation)	ELKEM	REE4EU	24 Novemb er 2016	Kristia ndand, Norwa y	Industry	25	Norwe gian	



Confere nce	SINTEF	Poster presentation at the 6th EU-US-	29 Novemb	Brussel	Policy makers,	More than 100	World	www-ec- europa.eu
		Japan trilateral conference on critical materials	er 2016	s, Belgiu m	Compani es, Research organizati ons, Industrial associatio ns	tilali 100		europa.eu
Worksh op	SINTEF	Presentation of the project at the European Geological Survey Raw Materials Week Workshop	30 Novemb er 2016	Brussel s, Belgiu m	Compani es, Research organizati ons, Industrial associatio ns	19	Europe	http://www.eurog eosurvey s.org/
Worksh op	PNO/CIA OTECH	CPPP IMPACT WORKSHOP	17 May 2017	Brussel s, Belgiu m	Compani es/ Research organizati ons/	185: 90 scientific comm 95 industry	Europe	http://www.build up.eu/en/news/cp pp-impact- workshop-2017- report-and- presentations- available
Confere nce	SINTEF	Presentation of the project and some results at the 2nd Conference on European Rare Earths Resources (ERES 2017)	28-31 May 2017	Santori ni (Greec e)	Compani es, Research organizati ons , and Policy Makers	300 (RTO: 200, Compani es: 50, Policy Makers: 50)	Europe	http://eres2017.er esconfer ence.eu/
Confere nce, REE4EU project presenta tion	CEFIC	Suschem Stakeholder Event	7 June 2017	Brussel s, Belgiu m	Chemical companie s, national associatio ns, RTOs, universiti es, European Commissi on, SMEs	190	Europe	www.suschem.org /events/suschem- 2017-stakeholder- event
Worksh op	SINTEF	Presentation of the project at the NAMEC workshop (Nanotechnology & advanced materials for the Energy Union – Going Circular), satellite of the EuroNanoForum Conference	23 June 2017	Vallett a, Malta	Compani es, Research organizati ons, Industrial associatio ns and Policy Makers	25 (RTO: 15, Policy makers:5, Compani es: 5)	Europe	https://www.nam ec- cluster.org/single- post/2017/05/23/ NAMEC- workshop-at- EuroNanoForum- 2017- Nanotechnology- advanced- materials-for-the- Energy-Union Going-circular
Congres s	UPS	Procédé d'électrolyse en sels fondus pour la production de terres	26/29 June 2017	Bordea ux, France	French congres on	100	Europe	-



		rares métalliques à partir d'un précurseur oxyde: exemple du			electroch emi stry			
Oral	UPS	Néodyme (Nd) Pyrometallurgical Processes for reactive metal production: Nd example	11-13 July 2017	Nancy	French congress on Chemical Enginneri ng	50 researche rs	Europe	
Confere nce	PNO/CIA OTECH	Conference on Environmental Engineering and Management (ICEEM)	6-9 Septem ber 2017	Bologn a, Italy	Compani es/ Research organizati ons/	250 academia 50 industries	Europe	http://iceem.ro/
Worksh op	SINTEF	Presentation at the workshop "Telemark as an attractive place for the establishments of companies within the RE value chain" Tittle: The REE4EU project: Recovery of Rare Earths from Secondary Resources	13 Septem ber 2017	Skien, Norwa y	Industry, Investors and Governm ental organizati on	12 R&D: 2 Industry: 2 Investors: 3 Governm ental: 5	Norwa y	https://www.vig.n o/ree
Confere nce	TECNALI A	Presentation at IdeaCAMP	13-14 Septem ber 2017	Aache n	Compani es/ Research organizati ons/ Industrial associatio ns/Policy Makers	100	EU	https://eitrawmat erials.eu/events/ci rcular-crm/
Confere nce	IDENER	E-waste recycling chain event	13-14th Septem ber 2017	Aache n (Germ any)	R&D researche rs, industry	100	EU	https://eitrawmat erials.eu/events/ci rcular-crm/
Congres s + poster presenta tion	TECNALI A	Symposium I "Solutions for Critical Raw Materials Under Extreme Conditions" at the 2017 E-MRS Fall Meeting	18/21 Septem ber 2017	Warsa w, Poland	Compani es, Research organizati ons, Industrial associatio ns	300	Europe	https://www.crm- extreme.eu/WP/e vent/crm- extreme- annual- conference-2017- save-date/
Worksh op	IDENER	H2020 Business opportunities in the circular economy event	19th Septem ber	Oslo (Norw ay)	R&D researche rs, industry	100-120	EU	https://www.b2m atch.eu/h2020circ ulareconomy
Pitch event	SINTEF	Presentation of the project at the EU Process Industry	19 Septem ber 2017	Brussel s	Compani es, Research organizati ons	250 (RTO: 100, Compani es: 100, Policy	Europe	https://www.spire 2030.eu/ news/new/2017- eu- process- industry- conference



					, Industrial associatio ns and Policy Makers	makers:5 0)		
Confere nce: Oral presenta tion	TECNALI A	Ionic Liquid Based (Ionometallurgy) Industrial Applications in TECNALIA (Recycling of Critical Metals from Primary and Secondary Wastes)	18-21 Septem ber 2017	Warsa w	Compani es/ Research organizati ons/ Industrial associatio ns/Policy Makers	100		
Confere nce: Oral presenta tion	TECNALI A	Integrated High Temp (HTE) and Ionic Liquic strong and independe Elements (REE) Suppl	E Setpatetrio n I nb eEruropea	(ILME) for a	Compani es/ tlResearch organizati ons/ Industrial associatio ns/Policy Makers	100		
Worksh op, Confere nce/pitc h	IDENER + SINTEF	H2020 Business Opportunities in the Circular Economy event / SPIRE Process Industry Conference	19 Septem ber 2017	Oslo, Norwa y	R&D, researche res, industry	100 / 200-300	EU	https://www.b2m atch.eu/h2020circ ulareconomy https://www.spire 2030.eu/news/ne w/2017-eu- process-industry- conference
Confere nce	PNO/CIO TECH	2017 EU PROCESS INDUSTRY SPIRE CONFERENCE: A LOOK TO THE FUTURE	19-21 Septem ber 2017	Brussel s, Belgiu m	Compani es/ Research organizati ons/	300: 150 industry 150 scientific communi ty	Europe	https://www.spire 2030.eu/news/ne w/2017-eu- process-industry- conference
Worksh op	INOVERT IS/A3i	FILIDECHET / MATECO - Récupération des métaux précieux	23/10/2 017	Aix-en- Proven ce (Franc e)	Profess ional Waste Valoris ation	~70	France	http://www.safecl uster.com/
Participa tio n in activities organize d jointly with other H2020 projects	SINTEF	Clustering workshop organized by PLATIRUS project (GA 730224)	26 October 2017	Torino (Italy)	Research organizati o n and Industry	25 (R&D:15 Compani es: 10)	Europe	www.platirus.eu
Confere nce/ worksho p	IDENER	Raw Materials Week	6-10 Novemb e r 2017	Brussel s (Belgiu m)	R&D researche rs	200-300	EU	https://ec.europa. eu/growth/conten t/r aw-materials- week-2017_en



					, industry, policy makers			
Worksh op	PNO/CIA OTECH	Platrirus project clustering event	8 Novemb er 2017	Brussel s, Belgiu m	Compani es/Resea rch organizati ons	10 industry, 10 scientific communi ty	Europe	www.platirus.eu
Worksh op	PNO/CIA OTECH	INSPIRE Business model innovation workshop	23 Novemb er 2017	Brussel s, Belgiu m	Compani es/Resea rch organizati ons	50 industry, 50 scientific communi ty	Europe	http://www.inspir e-eu- project.eu/wp- content/uploads/ 2017/11/20171 128-press-release- INSPIRE- workshop.pdf
Trade fair / BtoB meeting s	INOVERT IS/A3i	Waste Meetings	6- 7/12/20 17	Lyon (Franc e)	Professio nal Waste Recycling , Treatmen t& Valorisati on	>500	France	http://www.waste meetings.com/fr/
Trade fair / BtoB meeting s	INOVERT IS/A3i	PCH Meetings	28- 29/12/2 017	Lyon (Franc e)	14th Industries Business Meetings	>500	France	
Trade fair / BtoB meeting s	INOVERT IS/A3i	11th Members Meeting TENERDISS	02/02/2 018	Greno ble (Franc e)	Profesion nal Waste Recycling , Treatmen t	~200	France	https://www.tenerrd
Presenta tion	AVERE	Critical Raw Materials for EVs	21-03- 2018	Brussel s		60 (estimate based on last event)	Europe an	http://criticalraw materials.org Critical Raw Materials Organisation, NGO in Brussels representing industry
Worksh op with oral presenta tion	PNO	NAMEC Workshop	29 June 2018	Brussel s	Research organizati ons and industries	50	Europe	https://www.nam ec- cluster.org/downl oad
Worksh op with oral presenta tion	PNO/CIA OTECH	SCRREEN clustering event	11 July 2018	Rome	Research organizati ons and industries	50 academia 50 industries	Italy/E urope	http://scrreen.eu/ scrreen- workshops-a- recap-of-the- expert-group- meeting-on-crms- and-circular- economy-beyond- research-and-



								updating-critical- raw-material-lists/
Confere nce	ELKEM	REE4EU: Project overview and pilot experience (Ana Maria and Kjell) PROSIN Eyde Cluster	13.08.1 8	Arenda I	Process Industry	70	Norwa y	https://prosin.no/ calendar/prosin- konferansen- 2018/
Confere nce	SINTEF and Elkem	Presentation at the Process Industry (PROSIN) Conference together with Elkem Tittle: The REE4EU project, Recycling of RE in Europe	13-14 August 2018	Arenda I, Norwa y	Research Organizat ions, Industry, Investors and Governm ental organizati on	Ca. 75 As follows: R&D: 40 Industry: 20 Investors: 5 Governm ental: 10	Norwa y	https://prosin.no/ calendar/prosin- konferansen- 2018/
Confere nce	SINTEF	Presentation at the Nature Conference "Minerals and Materials for a Sustainable Future" Tittle: Recovery of Rare Earths from Secondary Resources	Septem ber 11- 13, 2018	Trondh eim, Norwa Y	Research organizati ons and Industry	150 As follows: R&D: 100 Industry: 50	World	https://www.natu re.com/naturecon ferences/mmsf20 18/index.html
Worksh op	SINTEF	Presentation at the workshop "Telemark as an attractive place for the establishments of companies within the RE value chain" Tittle: The REE4EU project: Recovery of Rare Earths from Secondary Resources	13 Septem ber 2018	Skien, Norwa y	Industry, Investors and Governm ental organizati on	12 R&D: 2 Industry: 2 Investors: 3 Governm ental: 5	Norwa y	https://www.vig.n o/ree
Symposi um	SINTEF	Presentation at the 10 th KIFEE (Kyoto International Forum for environment and Energy). Tittle: " Urban Mining projects at SINTEF"	5-8 Oct 2018	Troms ø (Norw ay)	Compani es/ Research organizati ons	R&D: 60 Industry: 25 Governm ental: 15	Norwa y and Japan	https://www.ntnu .edu/web/kifee/ki fee-10-symposium
Poster Session in ECOMO NDO	PNO/CIA OTECH	ECOMONDO	06- 09/11/1 8	Rimini, Italy	Internati onal Organizat ions, Industries and research organizati ons, general public		Italy	https://en.ecomo ndo.com/
Presenta tion at Expert Forum	VAC	Status and challenges of the RE magnet value chain in Europe	23/24 October 2018	Darmst adt	European raw material Experts	ca. 60	All over Europe	https://eitrawmat erials.eu/events/e xpert-forum- sustainable- materials-for-



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								future-mobility-e-
								drives-magnets-
Presenta tion at Expert Forum – Sustaina ble Material s for Future Mobility: E-drives, Magnets , Batterie s, Confere	AVERE	IEA HEV Task 40 CRM4EV Critical Raw Material for Electric Vehicles	23 October 2018	Darmst adt, Germa ny	Experts, industry	80	Unkno wn, most Europe an	https://eitrawmat erials.eu/events/e xpert-forum- sustainable- materials-for- future-mobility-e- drives-magnets- batteries/
nce								
Presenta tion (worksh op)	INOVERT IS (Colin JURY)	Congrès Avnir	07 Novemb er 2018	Lille	Research /Industrie s	50	Mainly France and Belgiu m but some other Europe an countri es	https://avnir.org/F R/Congres-avniR 8.html
Presenta	AVERE	Use and recycling of	10-11-	Vienna	Experts,	30	15,	http://www.ieahe
tion at IEA HEV- TCP Executiv e meeting		REE in transport sector in Europe: focus cars	2018	, Austria	industry		Global	<u>v.org</u>
Policy	SINTEF	Presentation at the	12 Nov	Brussel	Compani	R&D: 200	Europe	http://eurawmate
worksho p/co- organize r (event co- organize d by REE4EU)		Raw Materials Week- Critical Raw Materials in our everyday life	2018	s, Belgiu m	es/ Research organizati ons/ Industrial associatio ns / Policy makers	Industry: 100 Policy markers: 200		rialsweek.eu/even ts.html
Worksh op	SINTEF	Presentation at the RESLAG workshop (turning waste into value)	14-15 Nov 2018	Vitoria (Spain)	Compani es/ Research organizati ons/ Industrial associatio ns / Policy makers	R&D: 25 Industry: 10 Governm ental: 5 Policy markers: 1	World wide	http://www.reslag .eu/news/worksh op-14th-15th-nov- 2018/
Worksh op 1 IEA HEV	AVERE	One day event on Rare Earth elements for Electric Vehicles.	15 Novemb er 2018	Brussel s, Belgiu m	experts	35	10	www.crm4ev.org and http://www.ieahe v.org/tasks/CRM4



		2						
Task 40 CRM4EV worksho p		Presentation on REE4EU by PNO						EV-critical-raw- material-for- electric-vehicles- task-40/
Oral presenta tion in the worksho p: Taskforc e 40 "Critical Raw Material s for Electric Vehicles "- CRM4EV	PNO/CIA OTECH	Development of optimised recycling processes for REEs from PMs as alternative supply route REE4EU H2020 project	16 Novemb er 2018	Brussel s	Industry/ RTOsAca demia	30	EU and Austral ia	http://www.ieahe v.org/tasks/CRM4 EV-critical-raw- material-for- electric-vehicles- task-40/
Worksh op	LCM	Towards Integrated European Rare Earth Supply Chain	Novemb er 2018	Birmin gham Univer sity	Academic s, students, business	50	UK,EU ,USA	https://www.iom3 .org/energy- materials- group/event/crea m-critical- elements-and- materials-network
Teaching Class (other type of event)	UPS M. Gibilaro	RE recycling	Novemb er 2018	Toulou se, France	2 nd year Master students	37	France	
Worksh op	LCM	Production of Metal and Alloys for RE permanebt magnets	10 Decemb er 2018	Athens	Technical experts	50	Nato memb ers	https://www.sto.n ato.int/Lists/test1 /activitydetails.as px?ID=16565
Worksh op	SINTEF	Presentation at the workshop "Telemark as an attractive place for the establishments of companies within the RE value chain"	12 Dec 2018	Porsgr unn, Norwa Y	Industry, Investors and Governm ental organizati on	R&D: 2 Industry: 4 Investors: 2 Governm ental: 4	Norwa y	https://www.vig.n o/ree
Internal info, project presenta tion	Elkem	REE4EU pilot	04.01.1 9	Elkem Kristia nsand	Elkem employee s	30	Norwa y	N/a
Policy conferen ce *CEFIC + ELKEM ATTEND ED	SINTEF	EU-Industry Days 2019 Exhibition. Booth presenting the REE4EU project after invitation from the EU-Commission to the coordinator	4-5 Feb 2019	Brussel s, Belgiu m	Compani es/ Research organizati ons/ Industrial associatio ns/ Policy makers	R&D: 500 Industry: 500 Associati ons: 500 Policy markers: 500	Europe	https://ec.europa. eu/info/policies/b usiness-and- industry/eu- industry-days- 2019/eu-industry- days-2019- exhibition_en
Event organize d by Europea	CEFIC *with SINTEF + ELKEM	EU Industry Days	Februar y 5 2019	Brussel s	Industry, RTO, Start-up,	200+	Europe	https://ec.europa. eu/info/policies/b usiness-and- industry/eu-



n Commis sion	participa ted				SME, Academia			industry-days- 2019_en
Dissemi nation EVENT	Elkem took part in the event with SINTEF	EU Industry days. Gro Eide from Elkem with Ana Maria	5-6 feb. 2019	Brussel s	Industry and politician s	R&D: 500 Industry: 500 Associati ons: 500 Policy markers: 500	Europe	https://ec.europa. eu/info/policies/b usiness-and- industry/eu- industry-days- 2019_en
DEMETE R Symposi um Other type of event	IEA HEV Task 40 CRM4EV Critical Raw Material for Electric Vehicles: cooperat ion AVERE- REE4EU	Electric Vehicle developments and raw materials impacts	6 Februar y 2019 –	Leuven , Belgiu m	experts	60	?	https://symposiu m.etn-demeter.eu
Internal Seminar	SINTEF	Presentation at the Circular Economy Priority area at SINTEF	25 Feb 2019	Trondh eim, Norwa y	Research organizati ons (SINTEF)	R&D: 30	Norwa y	https://www.sinte f.no/en/circular- economy/#/
Info to Elkem corporat e manage ment	Elkem	REE4EU pilot + video	04.03.1 9	Elkem Kristia nsand	Elkem top manage ment	6	Norwa y	n/a
Seminar	SINTEF	Presentation at the 5 th Hydrometallurgy seminar: "REE4EU-Europe's closed-loop permanent magnet recycling at pilot scale"	21-22 March 2019	Oslo (Norw ay)	Compani es/ Research organizati ons/ Industrial associatio ns / Policy makers	R&D: 40 Industry: 18	Europe	https://www.mn. uio.no/kjemi/forsk ning/grupper/milj ovitenskap/arrang ementer/hydrome tallurgi/hydromet allurgy-seminar- march2019.html

Description of events attended in Non-EU Countries:

Type of activitie	Main leader	Title	Date	Place	Type of audience	Size of audience	Countr ies addres sed	Link to the website
Worksh op – REE4EU project presenta tion	CEFIC	SusChem and European Projects presentati on	31 Oct – 02 Nov 2016	Brazil	Compani es/Resea rch/Orga nizations/ Industrial associatio ns/ legal authoriti es	100	Interna tional	



Poster	ELKEM	INFACON	25/20	Cana	Professio	450	world	http://infacon15.c
on REE4EU project CONFER ENCE	LLINEIVI	INFACON	25/28 Februar y 2018	Cape Town, South Africa	nals within ferro alloy industries , suppliers, customer s, raw material producer s etc.	450	wide	om/
Confere nce	SINTEF	Participation at the TMS Conference- Session related to RE	26 Feb – 2 March 2017	San Diego, USA	Research organizati ons/ Compani es/ Industrial associatio ns	1000	World	http://www.tms.o rg/meetin gs/annual- 17/AM17home.as px
Worksh op	SINTEF	Presentation at the KIFEE seminar	7/10 March 2017	Kyoto, Japan	Universiti es/ Research organizati ons/ Compani es/ Industrial associatio ns/ Policy makers	150	Japan- Norwa y	http://9thkifee.do shisha.ac.j p/
Worksh op	SINTEF	Presentation and Poster at the 13th Workshop on Reactive Metal Processing. Title: "Urban mining for a circular economy: Activities at SINTEF", some results of the project will be presented	16-17 March 2018	MIT, Boston , Cambri dge (US)	Research Organizat ions, Compani es	44 (R&D: 34, Compani es: 10)	World	http://www.okabe .iis.u- tokyo.ac.jp/core- to- core/rmw/RMW1 3_index.html
Confere nce	SINTEF	Presentation of results of the project at the TMS conference Session: Perfluorocarbon Generation and Emissions from Industrial Processes: PFC Generation Mechanisms from Industrial Processes Tittle: Perfluorocarbon Formation during Rare Earth Electrolysis	11-15 March 2018	Phoeni x, Arizon a (US)	Research organizati ons and companie s	50 (RTO: 25, Compani es: 20, Policy makers: 5)	World	http://www.tms.o rg/TMS20 18/Home/ http://www.progr ammaster .org/PM/PM.nsf/V iewSessio nSheets?OpenAge nt&Paren tUNID=D4E26CFB 7AF9775B 8525815C00641FC 4
Confere	SINTEF	Presentation of results of the project	11-15	Phoeni x,	Research organizati	50 (RTO: 25	World	http://www.progr ammaster



		at the TMS conference. Session: Perfluorocarbon Generation and Emissions from Industrial Processes: PFC Generation Mechanisms from Industrial Processes Tittle: PFC Evolution Characteristics during Aluminium and Rare Earth Electrolysis	March 2018	Arizon a (US)	ons and companie s	Compani es: 20, Policy makers: 5)		.org/PM/PM.nsf/V iewSessio nSheets?OpenAge nt&Paren tUNID=D4E26CFB 7AF9775B 8525815C00641FC
Confere nce	SINTEF	Invited presentation at the TMS Conference, Session: Deriving Value from Challenging Waste Streams: Recycling and Sustainability Joint Session: Urban Mining and Electronic Waste. Tittle: Urban Mining for a CircularEconomy: Activities at SINTEF	11-15 March 2018	Phoeni x, Arizon a (US)	Research organizati ons and companie s	60 (R&D 45 Compani es 15)	World	http://www.progr ammaster .org/PM/PM.nsf/V iewSessio nSheets?OpenAge nt&Paren tUNID=A82ABD05 87D7A4E0 852581940049C88 6
Meeting	AVERE	Meeting Honda about REE4EU	28/09/2 018	Tokyo, Japan	Manage ment and experts	6		
Poster presenta tion	AVERE	EVS31	30/9- 2/10/20 18	Kobe, Japan	Experts, policyma kers, industry	25 individual discussio ns		www.evs31.org



5 Dissemination channels

5.1 Social media

Channels	Link	No of users
REE4EU website	http://www.ree4eu.eu/	/
nnovation Place: CTECH/PNO-I web-portal (Europe) (news published through news and newsletter)	https://www.innovationplace.eu/	> 10,000
Ricerca&innovazione: CTECH/PNO-I web-portal (Italy) (news published through news and newsletter)	http://www.ricercaeinnovazione.it/	6,000
Facebook (By using the INNOVATION PLACE account) *Active from October 2015 to March 2018	https://www.facebook.com/innova tion.place.pno?fref=pb&hc locatio n=profile browser	200
inkedin Innovation Place group	https://www.linkedin.com/groups/ 4086674	940
inkedin company page	https://www.linkedin.com/compan y/innovation-place	290
Twitter (INNOVATION PLACE account)	@INNOVATION_PL	364
witter (CIAOTECH account)	@PNO_IT	176
CEFIC	Suschem.org and suschem.blogspot.com/	/

Table 3: Dissemination channels

In particular, the most important web dissemination channel can be represented by:

- REE4EU website
- Partner websites
- InnovationPlace is an online service supporting organisations to achieve their strategic R&D objectives through the matching and managing of R&D projects, organisations, and grants. InnovationPlace is based on the Open Innovation paradigm, with the active involvement of industry leaders, multinational organisations, high-level research centres, public bodies, and innovative SMEs all around Europe. During the last years the number of users registered in the web platform has drastically increased.
- Ricerca & Innovazione is the Italian Open Innovation platform that supports collaborative research through the successful combination of research and development projects, excellent European organizations and the most important public funding opportunities at European, national and regional level
- The world's most famous social networks: Facebook, LinkedIn and Twitter.



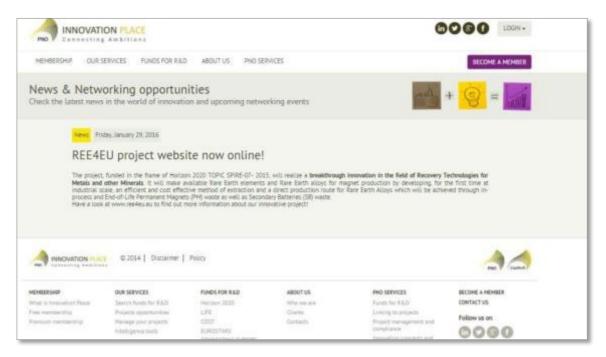


Figure 25: Innovation Place website, news section

For giving an example, In the following figures some of the posts released into the web.

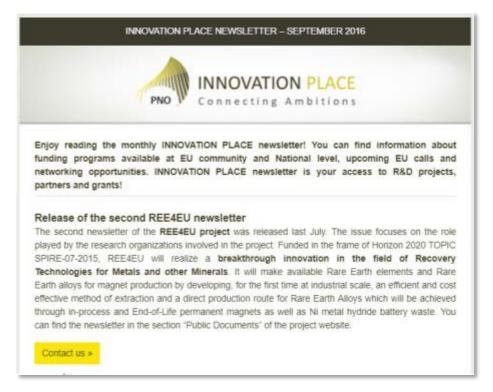


Figure 26: Innovation Place Newsletter





Figure 27: Facebook (Innovation Place account, closed on March 2018)

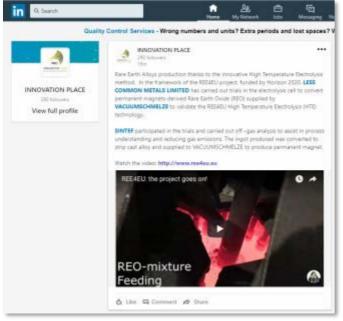


Figure 28: Linkedin page of Innovation Place with one of the REE4EU post





Figure 29: Twitter post example (Innovation Place Account)

5.2 REE4EU Dissemination Strategy

Table 4 shows the audience as target group reached from the Communication Material and the Communication Channel. Each target group has been strategically involved through appropriate communication strategy.

Target group	Communication material	Communication channel
COMPANIES	REE4EU website News/newsletter Press release REE4EU electronic brochure REE4EU paper brochure	Emails and phone calls Exchange of links about related projects/Industrial Journals/magazines Invitation to REE4EU events Industrial workshops REE4EU website and partner's websites Social network: LinkedIn, twitter Partners communication channel: Innovation Place, Ricerca & Innovazione,
RESEARCHERS	Communication in international conferences (oral/written) Posters Scientific papers News/newsletter REE4EU electronic brochure REE4EU paper brochure	International conferences Scientific journals REE4EU website and Partner's website Social network: LinkedIn, twitter Partners communication channel: Innovation Place, Ricerca & Innovazione, Invitation to REE4EU events
WIDE AUDIENCE AND POLICY MAKERS	News/newsletter REE4EU articles REE4EU brochure	REE4EU Website Popular Journals/magazines Invitation to REE4EU events Social network: LinkedIn, twitter, Facebook Attendance to networking and policy workshops

Table 4: Dissemination strategy for Target Groups



5.3 Results achieved in the framework of the Dissemination Activities

In the following two tables, the main figures of results achieved by the whole consortium are summarized.

In particular, the tables describe the type and number of activities performed, as well as the audience reached from M31-M48.

The analytic list of individual partner tables, displaying all the information related to the dissemination actions implemented for the period M0-M18, are contained in the ANNEX 1, at the end of this document.

The analytic list of individual partner tables, displaying all the information related to the dissemination actions implemented for the period M19-M30, are contained in the ANNEX 2, at the end of this document



Specify the number of Dissemination and Communication activities linked to the project for each of the following categories	Organisation of a Workshop	Exhibition	Flyer	Social Media	project website	Participation to a Conference	Participation to a Workshop	Participation to an Event other than a Conference or a Workshop	Video/Film	Participation in activities organized jointly with other H2020 projects	Other
TOTAL 31-36			100	18	10	3	3	1			17
TOTAL 37-42		2	700	24	20	1	10	3	2	1	32
TOTAL 43-48	1	1	50	9	17	1	1	3			7
totale 31-48	1	3	850	51	47	5	14	7	2	1	56

Table 5: Estimated number of persons reached in the context of all dissemination activities

Specify the estimated number of persons reached, in the context of all dissemination	Scientific Community (Higher Education, Research)	Industry	Civil Society	General Public	Policy Makers	Investors	Customers	Other
TOTAL 31-36	1235	565	75	800	110	100	50	90
TOTAL 37-42	10648	13970	10	14237	743	2		530
TOTAL 43-48	3158	1123	75	300	117	0		0
totale 31-48	15041	15658	160	15337	970	102	50	620

Table 6: Number of Dissemination and Communication activities linked to the project for each of the following categories





In the following pages and as explained, the individual partners tables focusing on the activities performed will be shown.

They describe the initiatives implemented in the framework of the REE4EU dissemination actions from **M18 to M30**, and future plans the partners are going to implement.

6 List of events and other actions in the frame work of the dissemination

6.1 Partner dissemination

Partners are requested to maintain an active participation within the dissemination strategy. Proactive and balanced levels of participation will have profound effects throughout the whole project, and will guarantee that the dissemination techniques are applied to the fullest possible extent.

During the project PNO, supported by CTECH, are leading all the dissemination activities. Dissemination Tables will be distributed to each partner in order to collect and monitor dissemination progress. Each table summarizes the dissemination activities that have been attended during the project.

In the next chapter the contribution collected from each partner are presented.

6.2 Individual Partners Dissemination Table

The tables below report the dissemination activities achieved at partner's level during the period from M30 to M42, i.e., 1st April 2018 up to 30th September 2019. The detailed dissemination activities corresponding to M1 to M18 were already reported in the first periodic report, and included again at the end of this document (see Section 8, Annex I). The dissemination activities corresponding to M30 to M42 were reported in section 9, Annex II.



6.2.1 DISSEMINATION ACTIVITIES IMPLEMENTED FROM M30 TO M36



Description of events attended: workshop, conference, training, trade fair exhibition.

Type of activities	Main leader	Title	Date	Place	Type of audience	Size of audience	Countries addressed	Link to the website
Conference	SINTEF	Presentation at the Nature Conference "Minerals and Materials for a Sustainable Future" Tittle: Recovery of Rare Earths from Secondary Resources	September 11-13, 2018	Trondheim, Norway	Research organizations and Industry	150 As follows: R&D: 100 Industry: 50	World	https://www.nature.com/naturec onferences/mmsf2018/index.html
Conference	SINTEF and Elkem	Presentation at the Process Industry (PROSIN) Conference together with Elkem Tittle: The REE4EU project, Recycling of RE in Europe	13-14 August 2018	Arendal, Norway	Research Organizations, Industry, Investors and Governmental organization	Ca. 75 As follows: R&D: 40 Industry: 20 Investors: 5 Governmental: 10	Norway	https://prosin.no/calendar/prosin-konferansen-2018/
Workshop	SINTEF	Presentation at the workshop "Telemark as an attractive place for the establishments of companies within the RE value chain" Tittle: The REE4EU project: Recovery of Rare Earths from Secondary Resources	13 September 2018	Skien, Norway	Industry, Investors and Governmental organization	12 R&D: 2 Industry: 2 Investors: 3 Governmental: 5	Norway	https://www.vig.no/ree
Symposium	SINTEF	Presentation at the 10 th KIFEE (Kyoto International Forum for environment and Energy). Tittle: " Urban Mining projects at SINTEF"	5-8 Oct 2018	Tromsø (Norway)	Companies/ Research organizations	R&D: 60 Industry: 25 Governmental: 15	Norway and Japan	https://www.ntnu.edu/web/kifee/ kifee-10-symposium



Policy workshop/co- organizer (event co- organized by REE4EU)	SINTEF	Presentation at the Raw Materials Week-Critical Raw Materials in our everyday life	12 Nov 2018	Brussels, Belgium	Companies/ Research organizations/ Industrial associations / Policy makers	R&D: 200 Industry: 100 Policy markers: 200	Europe	http://eurawmaterialsweek.eu/ev ents.html
Workshop	SINTEF	Presentation at the RESLAG workshop (turning waste into value)	14-15 Nov 2018	Vitoria (Spain)	Companies/ Research organizations/ Industrial associations / Policy makers	R&D: 25 Industry: 10 Governmental: 5 Policy markers: 1	Worldwide	http://www.reslag.eu/news/works hop-14th-15th-nov-2018/
Workshop	SINTEF	Presentation at the workshop "Telemark as an attractive place for the establishments of companies within the RE value chain"	12 Dec 2018	Porsgrunn, Norway	Industry, Investors and Governmental organization	R&D: 2 Industry: 4 Investors: 2 Governmental: 4	Norway	https://www.vig.no/ree
Policy conference	SINTEF	EU-Industry Days 2019 Exhibition. Booth presenting the REE4EU project after invitation from the EU-Commission to the coordinator	4-5 Feb 2019	Brussels, Belgium	Companies/ Research organizations/ Industrial associations / Policy makers	R&D: 500 Industry: 500 Associations: 500 Policy markers: 500	Europe	https://ec.europa.eu/info/policies /business-and-industry/eu- industry-days-2019/eu-industry- days-2019-exhibition_en
Internal Seminar	SINTEF	Presentation at the Circular Economy Priority area at SINTEF	25 Feb 2019	Trondheim, Norway	Research organizations (SINTEF)	R&D: 30	Norway	https://www.sintef.no/en/circular -economy/#/
Seminar	SINTEF	Presentation at the 5 th Hydrometallurgy seminar: "REE4EU-Europe's closed-loop permanent magnet recycling at pilot scale"	21-22 March 2019	Oslo (Norway)	Companies/ Research organizations/ Industrial associations / Policy makers	R&D: 40 Industry: 18	Europe	https://www.mn.uio.no/kjemi/for skning/grupper/miljovitenskap/arr angementer/hydrometallurgi/hydr ometallurgy-seminar- march2019.html

Description of other dissemination activities (press releases, news, nonscientific publications, etc.):

Type of	Main	Title	Date	Place	Type of audience	Size of audience	Countries	Link to the website
activitie	leader						addresse	
s							d	



Video	SINTEF , Elkem, AVERE	REE4EU Project video	To be released	N/A	N/A	N/A	N/A	N/A
LinkedIn post	SINTEF	REE4EU- HTE pilot in operatio n	Septembe r 2018	LinkedIn	Companies/ Research organizations/ Industrial associations/Polic y makers	1258	World	https://www.linkedin.com/in/ana-maria-martinez- 18b25493/detail/recent-activity/
Video	SINTEF	REE4EU pilot in operatio n	October 2018-up to now	Youtube/REE4E U home page	All public	2447 total views (500+50+1258+63 9 Visits)	Worldwid e	www.ree4eu.no
LinkIn post	SINTEF	REE4EU in the EU- Industry Days	Feb 2019	LinkedIn	Companies/ Research organizations/ Industrial associations/Polic y makers	835	Worldwid e	https://www.linkedin.com/feed/update/urn:li:activity:649902272102285 3121

Specify the number of Dissemination and Communication activities linked to the project for each of the following categories

DISSEMINATION ACTIVITIES	N°
Flyer	100
Social Media	1
Participation to a Conference	2
Participation to a Workshop	1
Video/Film	1
	0
Pitch Event	1

AUDIENCE	N°
Scientific Community (Higher Education, Research)	1000
Industry	200



Civil Society	5
Policy Makers	100
Investors	100
Other	90



Description of events attended: workshop, conference, training, trade fair exhibition.

Type of activities	Main leader	Title	Date	Place	Type of audience	Size of audience	Countries addressed	Link to the website
Presentation at Expert Forum	Dr. Matthias Katter, Vacuumschmel ze	Status and challenges of the RE magnet value chain in Europe	23./24. Oct. 2018	Darmstadt	European raw material Experts	ca. 60	All over Europe	https://eitrawmaterials.eu/eve nts/expert-forum-sustainable- materials-for-future-mobility- e-drives-magnets-batteries/

Description of other dissemination activities (press releases, news, nonscientific publications, etc.):

Type of activities	Main leader	Title	Date	Place	Type of audience	Size of audience	Countries addressed	Link to the website
News	Vacuumschmelze	Accession to EIT KIC Raw Materials as project partner	22. Aug. 2018	Hanau/Berlin	Members of the KIC Raw Materials	about 120 companies and institutions	all over Europe	www.eitrawmaterials.eu

Specify the number of Dissemination and Communication activities linked to the project for each of the following categories

DISSEMINATION ACTIVITIES	N°
Participation to an Event other than a Conference or a Workshop	1
Other	1

AUDIENCE	N°
Scientific Community (Higher Education, Research)	60
Industry	120







Description of events attended: workshop, conference, training, trade fair exhibition.

Type of activities	Main leader	Title	Date	Place	Type of audience	Size of audience	Countries addressed	Link to the website
Conference	ELKEM	REE4EU: Project overview and pilot experience (Ana Maria and Kjell) PROSIN Eyde Cluster	13.08.18	Arendal	Process Industry	70	Norway	https://prosin.no/calendar/prosin-konferansen-2018/

Description of other dissemination activities (press releases, news, nonscientific publications, etc.):

Type of activities	Main leader	Title	Date	Place	Type of audience	Size of audience	Countries addressed	Link to the website
Presentation and tour in the Pilot. REE4EU was mentioned	Elkem	Visit by the Prime minister of Norway	13.06.18	Elkem Pilot and Future Materials Catapult centre	Politicians	10	N	n/a
Presentation and tour in the Pilot. REE4EU was mentioned	Elkem	Visit by the minister of commerce and industry	07.08.18	Elkem Pilot and Future Materials Catapult centre	Politicians	10	N	n/a

Specify the number of Dissemination and Communication activities linked to the project for each of the following categories

DISSEMINATION ACTIVITIES	N°
Participation to a Conference	1
Other	2

AUDIENCE	N°
Industry	70
Policy Makers	10



Description of other dissemination activities (press releases, news, nonscientific publications, etc.):

Type of activities	Ma	lain leader	Title	Date	Place	Type of audience	Size of audience	Countries addressed	Link to the website
News a website	at IDE	PENER	IDENER attends REE4EU review meeting in Kristiansand	29 Jun 2018	IDENER website	Public audience		All	https://www.idener.es/?p=2918
News at website	IDE	PENER	REE4EU consotium meets in HANAU to share the last updates on the projectBrussels	20 Apr 2018	Idener website	Public audience		All	https://www.idener.es/?p=2922

Specify the number of Dissemination and Communication activities linked to the project for each of the following categories

DISSEMINATION ACTIVITIES	N°
Other	2

Specify the estimated number of persons reached, in the context of all dissemination and communication activities, in each of the following categories

AUDIENCE	N°
General Public	400

A3 INOVERTIS

Description of other dissemination activities (press releases, news, nonscientific publications, etc.):

Type of activiti es	Main leader	Title	Dat e	Place	Type of audience	Size of audienc e	Countrie s address ed	Link to the website
News	Inovertis/ A3i	Projet REE4EU : ACV du recyclage des	25/0 4	Linkedin/ Twitter	Companies/Researc h organizations/Indust	445	Woldwid e but Europe	https://www.linkedin.com/feed/update/urn:li:activity:6394906142 446809088



		terres rares des aimants permanents et des batteries. Nous étions à Hanau dans les locaux de @Vaccumschme lze le 17 avril dernier avec les partenaires projet pour présenter nos travaux.			rial clusters		mostly	https://twitter.com/inovertis/status/989139644091654144
News	Inovertis/A 3i	Projet REE4EU – ACV du recyclage des terres rares	25/0 4	Website	Companies/Researc h organizations/Indust rial clusters	>250	Woldwid e but Europe mostly	http://www.inovertis.fr/actualites/30-projet-ree4eu-acv-du-recyclage-desterres-rares.htm
News	Inovertis/A 3i	Projet REE4EU – avancement de l'étude ACV et technico- économique	22/0 6	Website	Companies/Researc h organizations/Indust rial clusters	>250	Woldwid e but Europe mostly	http://www.inovertis.fr/actualites/32-projet-ree4eu-avancement-de-letude-acv-et-technico-economique.htm
News	Inovertis/A 3i	Inovertis has presented the first results of the economic performance of the rare earth recycling during the second review meeting of the #REE4EU European Project in Kristiansand (Norway). A constructive team work for very	25/0 6	Linkedin	Companies/Researc h organizations/Indust rial clusters	693	Woldwid e but Europe mostly	https://www.linkedin.com/feed/update/urn:li:activity:6416929335 088947200



		encouraging results, showing					
		that future is					
		building today					
News	Inovertis/A	Des résultats	25/0	Linkedin/Twit	Companies/Researc	Woldwid	https://www.linkedin.com/feed/update/urn:li:activity:6417016263
i i i i i i i i i i i i i i i i i i i	3i	économiques	6	ter	h	e but	939284992
	-	très	_		organizations/Indust	Europe	<u> </u>
		encourageants			rial clusters	mostly	https://twitter.com/inovertis/status/1013717079231483905
		pour le					neepsily enterent minutes as parameters and a second secon
		recyclage des					
		terres rares					
		grâce aux					
		technologies					
		développées					
		dans le cadre					
		du projet					
		hashtag#REE4					
		EU que j'ai eu					
		le plaisir de					
		présenter à					
		Kristiansand					
		(Norvège)					
		pour cette					
		seconde					
		réunion avec					
		le chargé de					
		projet europe.					
		Un travail					
		collaboratif qui					
		montre qu'en					
		associant nos					
		expertises					
		nous pouvons					
		construire un					
		futur plus					
		durable.					



Specify the number of Dissemination and Communication activities linked to the project for each of the following categories

DISSEMINATION ACTIVITIES	N°
Social Media	5

Specify the estimated number of persons reached, in the context of all dissemination and communication activities, in each of the following categories

AUDIENCE	N°
Scientific Community (Higher Education, Research)	50
Civil Society	70
General Public	350
Customers	50



Description of events attended: workshop, conference, training, trade fair exhibition.

Type of activities	Main leader	Title	Date	Place	Type of audience	Size of audience	Countries addressed	Link to the website
Meeting	AVERE	Meeting Honda about REE4EU	28/09/2018	Tokyo, Japan	Management and experts	6		
Poster presentation	AVERE	EVS31	30/9- 2/10/2018	Kobe, Japan	Experts, policymakers, industry	25 individual discussions		www.evs31.org

Scientific publications (This field is only for peer reviewed articles)

Type of scientific publication	Title of the scientific publication	DOI	ISSN or eSSN	Authors	Title of the journal or equivalent	Number, date	Publisher	Place of publication	Year of publication	Relevant pages	Public & private participation	Peer- review	Is/Will open access provided to this
													publication



Article in	Relevance	tba	tba	Bert	The	Accepted	MDPI	Internet	2019	[YES]	[NO]	YES
Proceedings book	of Rare			Witkamp	World	but not	St. Alban-	<u>WEVJ</u>		[NO]		
	Earths				Electric	yet	Anlage 66,					
	recycling				Vehicle	published	4052 Basel,					
	from				Journal		Switzerland					
	Permanent											
	Magnets											

Specify the number of Dissemination and Communication activities linked to the project for each of the following categories

DISSEMINATION ACTIVITIES	N°
Participation to a Conference	1
Participation to an Event other than a Conference or a Workshop	1
	(Honda)

Specify the estimated number of persons reached, in the context of all dissemination and communication activities, in each of the following categories

AUDIENCE	N°
Scientific Community (Higher Education, Research)	15
Industry	14
Policy Makers	2



Description of dissemination events attended or planned:

Type of activities	Main leader	Title	Date	Place	Type of audience	Size of audience	Countries addressed	Link to the website
Workshop with oral presentation	PNO/CIAOTE CH	SCRREEN clustering event	11 July 2018	Rome	Research organizations and industries	50 academia 50 industries	Italy/Europe	http://scrreen.eu/scrreen-workshops-a- recap-of-the-expert-group-meeting-on- crms-and-circular-economy-beyond- research-and-updating-critical-raw- material-lists/



Workshop	PNO	NAMEC Workshop	29 June 2018	Brussels	Research organizations	50	Europe	https://www.namec-
with oral					and industries			cluster.org/download
presentation								

Description of other dissemination activities (press releases, news, nonscientific publications, etc.) realized or planned:

Type of	Main leader	Title	Date	Place	Type of	Size of	Countries addressed	Link to the website
activities					audience	audience		
Tweet on Twitter - Ciaotech	PNO/CIAOTECH	È disponibile un nuovo video del progetto #REE4EU finanziato da #H2020 cui viene mostrata la	12/4/18	Twitter	Companies/ Research organizations/ Industrial associations	179	Italy	https://twitter.com/PNO_IT/status/9843665215 13316352
Tweet on Twitter – Innovation Place	PNO/CIAOTECH	Have a look at the new #REE4EU project video where Rare Earth Alloys production is shown thanks to trials carried out	12/4/18	Twitter IP Account	Companies/ Research organizations/ Industrial associations	371	Europe	https://twitter.com/INNOVATION_PL/status/98 4367199543615488
Post on Linkedin Innovation Place	PNO/CIAOTECH	Have a look at the new video.	12/4/18	Linkedin IP Account	Companies/ Research organizations/ Industrial associations	330	Europe	https://www.linkedin.com/feed/update/urn:li:activity:6390131794565427200
Post on Linkedin Innovation Place	PNO/CIAOTECH	On April 17, 2018, the REE4EU partners were hosted by VACUUMSCHMELZ E GmbH & Co. KG, in Hanau, for their M30 Progress Meeting.	12/4/18	Linkedin IP Account	Companies/ Research organizations/ Industrial associations		Europe	https://www.linkedin.com/feed/update/urn:li:a ctivity:6400591575646236672
News on Innovation Place	PNO/CIAOTECH	REE4EU partner meeting in Hanau	4/5/18	IP PNO European portal	Companies/ Research organizations/ Industrial associations	>10.000	Europe	https://www.innovationplace.eu/news/ree4eu- partner-meeting-in-hanau



News on Ricerca e Innovazion e website	PNO/CIAOTECH	Meeting del progetto REE4EU in Germania	8/5/18	PNO Web portal in Italy	Companies/ Research organizations/ Industrial associations	> 6000	Italy	https://www.ricercaeinnovazione.it/news/meeting-del-progetto-ree4eu-in-germania
News on Ciaotech website	PNO/CIAOTECH	Meeting del progetto REE4EU in Germania	8/5/18	CiaoTech website	Companies/ Research organizations/ Industrial associations		Italy	https://www.pnoconsultants.com/it/news/meet ing-del-progetto-ree4eu-in-germania/
News on website	PNO/CIAOTECH	REE4EU partner meeting in Hanau	10/5/18	REE4EU webportal	Companies/ Research organizations/ Industrial associations		Europe	http://www.ree4eu.eu/news-and- events/ree4eu-partner-meeting-hanau/
News on Newsletter IP	PNO/CIAOTECH	REE4EU partner meeting in Hanau	9/5/18	Innovation Place Newsletter	Companies/ Research organizations/ Industrial associations	>10.000	Europe	
News on newsletter R&I	PNO/CIAOTECH	Meeting del progetto REE4EU in Germania	9/5/18	Ricerca e Innovazione Newsletter	Companies/ Research organizations/ Industrial associations	>6.000	Italy	
Tweet on Twitter - Ciaotech	PNO/CIAOTECH	Il 17 aprile i partners di REE4EU ospiti ad Hanau di VACUUMSCHMELZ E – produttore.	10/5/18	Twitter	Companies/ Research organizations/ Industrial associations	179	Italy	https://twitter.com/PNO_IT/status/9948235463 99535104
Tweet on Twitter – Innovation Place	PNO/CIAOTECH	On April 17, REE4EU partners were hosted by VACUUMSCHMELZ E - a leading global manufacturer of advance.	10/5/18	Twitter IP Account	Companies/ Research organizations/ Industrial associations	371	Europe	https://twitter.com/INNOVATION PL/status/99 4821298936274945



				u .				
3 posts on REE4EU WEBSITE	PNO/CIAOTECH	Events monthly update, 3 posts	11/5/201 8	REE4EU WEBPORTA L	Companies/ Research organizations/ Industrial associations		Europe	http://www.ree4eu.eu/news-and- events/page/2/
News on website	PNO/CIAOTECH	Second Review Meeting in Norway, 20-21 June 2018	4/7/18	Innovation Place website	Companies/ Research organizations/ Industrial associations	>10.000	Europe	https://www.innovationplace.eu/news/second-review-meeting-in-norway-20-21-june-2018
News on Ricerca e Innovazion e website	PNO/CIAOTECH	Secondo review meeting per il progetto REE4EU – 20-21 giugno 2018	4/7/2018	PNO Web portal in Italy	Companies/ Research organizations/ Industrial associations	> 6000	Italy	https://www.ricercaeinnovazione.it/news/secondo-review-meeting-per-il-progetto-ree4eu-%E2%80%93-20-21-giugno-2018
News on newsletter	PNO/CIAOTECH	Second Review Meeting in Norway, 20-21 June 2018	4/7/18	Innovation Place newsletter	Companies/ Research organizations/ Industrial associations	>10.000	Europe	
News on newsletter	PNO/CIAOTECH	Secondo review meeting per il progetto REE4EU – 20-21 giugno 2018	4/7/2018	PNO in Italy, Ricerca e Innovazione Newsletter	Companies/ Research organizations/ Industrial associations	> 6000	Italy	
News on website	PNO/CIAOTECH	Second review meeting in Norway	3/7/2018	Ree4eu website	Companies/ Research organizations/ Industrial associations		Europe	http://www.ree4eu.eu/news-and- events/second-review-meeting-norway-20-21- june-2018/
7 Posts on REE4EU webportal	PNO/CIAOTECH	Events monthly updates	9/7/2018	Ree4eu website	Companies/ Research organizations/ Industrial associations		Europe	http://www.ree4eu.eu/news-and-events/
Tweet on Twitter	PNO/CIAOTECH	The 2nd review meeting of the #REE4EU project took place in June	12/7/201 8	Twitter PNO IT	Companies/ Research organizations/		Europe	https://twitter.com/PNO_IT/status/1017646255 764312069



		in Kristiansand (Norway) hosted by @Elkem_ASA The participants had the opportunity to visit the pilot units and to review the results obtained during the trials the http://bit.ly/ree4e u-02 #H2020 @EU_H2020			Industrial associations		
Tweet on Twitter	PNO/CIAOTECH	The 2nd review meeting of the #REE4EU project took place in June in Kristiansand (Norway) hosted by @Elkem_ASA The participants had the opportunity to visit the pilot units and to review the results obtained during the trials Http://bit.ly/ree4e u-02 #H2020 @EU_H2020	12/7/201 8	Twitter Innovation Place Account	Companies/ Research organizations/ Industrial associations	Europe	https://twitter.com/INNOVATION_PL/status/10 17645972833423361
Post on Linkedin	PNO/CIAOTECH	The 2nd review meeting of the #REE4EU project took place in June in Kristiansand (Norway) hosted by @Elkem_ASA The participants	12/7/201 8	Linkedin Innovation Place Account	Companies/ Research organizations/ Industrial associations	Europe	https://www.linkedin.com/feed/update/urn:li:a ctivity:6423415287684571136/



		had the opportunity to visit the pilot units and to review the results obtained during the trials L http://bit.ly/ree4e u-02 #H2020 @EU_H2020					
SPIRE Newsletter	PNO/CIAOTECH	REE4EU: SECOND REVIEW MEETING IN NORWAY, 20-21 JUNE 2018	14 /09/2018	SPIRE NEWSLETTE R	Companies/ Research organizations/ Industrial associations	Europe	https://myemail.constantcontact.com/SPIRE- Newsletter-2018- 17.html?soid=1120321611365&aid=SV9fxJI26pl
Tweet on Twitter	PNO/CIAOTECH	Congrats @sintef @Elkem_ASA @PnoEurope and the whole #REE4EU consortium! The REE4EU's high temperature electrolysis (HTE) pilot unit is successfully in continuous operation. A great step forward for the industrial production of rare earth alloys — http://www.ree4e u.eu	17 /09/2018	Innovation Place account	Companies/ Research organizations/ Industrial associations	Europe	https://twitter.com/INNOVATION PL/status/10 41924777471078400
Post on linkedin	PNO/CIAOTECH	Congratulations to SINTEF, Elkem ASA, PNO Consultants - Europe and the whole	17/9/18	IP linkedin company page	Companies/ Research organizations/ Industrial associations	Europe	https://www.linkedin.com/feed/update/urn:li:a ctivity:6446607267839111168



		hashtag#REE4EU consortium!						
Tweet on twitter	PNO/CIAOTECH	Congratulazioni a @sintef @Elkem_ASA @PnoEurope e a tutto il consorzio #REE4EU Dopo tre anni di lavoro, l'impianto pilota di high temperature electrolysis (HTE) è in funzione. Un deciso passo in avanti nella produzione industriale di terre rare → http://www.ree4e u.eu	17/9/18	Twitter CIAOTECH PNO IT	Companies/ Research organizations/ Industrial associations		Europe	https://twitter.com/PNO_IT/status/1041924490 643615744
Post on website	PNO /CIAOTECH	REE4EU parteciperà ad ECOMONDO 2018	03-10-18	Ricerca & Innovazione website	International Organizations, Industries and research organizations, general public	>6.000	Italy	https://www.ricercaeinnovazione.it/news/i-nostri-progetti-karma2020-biopen-demeter-ree4eu-e-indus3es-ad-ecomondo-2018
Post on newsletter	PNO /CIAOTECH	REE4EU parteciperà ad ECOMONDO 2018	03-10-18	Ricerca & Innovazione newsletter	International Organizations, Industries and research organizations, general public	>6.000	Italy	
Post on website	CIAOTECH	REE4EU will join ECOMONDO 2018	03-10-18	Innovation Place website	International Organizations, Industries and research organizations, general public	>10.000	Europe	https://www.innovationplace.eu/news/karma20 20-biopen-demeter-ree4eu-and-indus3es-will- join-ecomondo-2018

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Post on newsletter	CIAOTECH PNO/CIAOTECH	REE4EU will join ECOMONDO 2018 #SaveTheDate	03-10-18	Innovation Place newsletter PNO IT	International Organizations, Industries and research organizations, general public Companies/	>10.000	Europe Europe	https://twitter.com/PNO_IT/status/1050638737
Twitter		@ECOMONDO Principale #Expo del Euro- Mediterraneo dedicato a #Green & #CircularEconomy a Rimini dal 6 al 9 novembre. Saremo presenti con stands e speech dei principali progetti #KaRMA2020 @BIOPEN_Project #DEMETER #REE4EU #Indus3Es Registrati: (link: http://www.ecom ondo.com) ecomondo.com	18	account /CIAOTECH	Research organizations/ Industrial associations			<u>699266560</u>
Tweet on Twitter	PNO/CIAOTECH	#SaveTheDate @ECOMONDO - the leading Euro- Mediterranean green and #CircularEconomy #Expo - in Rimini (Italy) from 6th to 9th November. Our projects	12/10/20 18	IP twitter account	Companies/ Research organizations/ Industrial associations		Europe	https://twitter.com/INNOVATION PL/status/10 50635782967312384



		#KaRMA2020 @BIOPEN Project #DEMETER #REE4EU #Indus3Es will attend with stands and speeches. Register now: https://en.ecomon do.com					
Post on Linkedin	CIAOTECH/PNO	#ECOMONDO is the leading Euro- Mediterranean area green and #circulareconomy expo and it will take place in Rimini (Italy) from 6th to 9th November	12/10/20 18	IP linekdin company page	Companies/ Research organizations/ Industrial associations	Europe	https://www.linkedin.com/feed/update/urn:li:a ctivity:6456406897384833024

Specify the number of Dissemination and Communication activities linked to the project for each of the following categories

DISSEMINATION ACTIVITIES	N°
Organisation of a Workshop	1
Social Media	12
Website	10
Other	12

AUDIENCE	N°
Scientific Community (Higher Education, Research)	50
Industry	50
Innovation place and Ricerca & Innovazione databases already included in the audience reached in the last periods,	
therefore counted once	



6.2.2 Summary of the activities implemented from M30 – to M36

Specify the number of Dissemination and Communication activities linked to the project for each of the following categories	Organis ation of a Confer ence	Organis ation of a Works hop	Press release	Non- scien tific and non- peer- revie wed publi catio n (pop ularis ed publi catio n)	Exhibi tion	Fly er	Trai ning	Soc ial Me dia	proj ect web site	Commun ication Campaig n (e.g. Radio, TV) (e.g. Radio, TV)	Particip ation to a Confer ence	Particip ation to a Works hop	Particip ation to an Event other than a Confer ence or a Works hop	Video /Film	Broke rage Event	Pit ch Ev ent	Tra de Fai r	Particip ation in activiti es organiz ed jointly with other H2020 project s	Ot her
SINTEF						100		1			2	1							
VAC													1						1
ELKEM											1								2
IDENER																			2
INOVERTIS								5											
AVERE																			
PNO								12	10			2							12
TOTAL						100		18	10		3	3	1						17

Table 7: Number of Dissemination and Communication activities linked to the project for each of the following categories



Specify the estimated number of persons reached, in the context of all dissemination	Scientific Community (Higher Education, Research)	Industry	Civil Society	General Public	Policy Makers	Media	Investors	Customers	Other
SINTEF	1000	200	5		100		100		90
VAC	60	120							
ELKEM		70			10				
IDENER				400					
INOVERTIS	50		70	350				50	
AVERE									
PNO	75	75	100	100					
TOTAL	1185	465	175	850	110		100	50	90

Table 8: Estimated number of persons reached in the context of the dissemination activities

6.3 DISSEMINATION ACTIVITIES IMPLEMENTED FROM M37 TO M42



Description of events attended: workshop, conference, training, trade fair exhibition.

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Type of	Main leader	Title	Date	Place	Type of	Size of	Countries	Link to the website
activities					audience	audience	addressed	
Symposium	SINTEF	Presentation at the 10 th KIFEE (Kyoto International Forum for environment and Energy). Tittle: " Urban Mining projects at SINTEF"	5-8 Oct 2018	Tromsø (Norway)	Companies/ Research organizations	R&D: 60 Industry: 25 Governmental: 15	Norway and Japan	https://www.ntnu.edu/web/kifee/ kifee-10-symposium



Policy workshop/co- organizer (event co- organized by REE4EU)	SINTEF	Presentation at the Raw Materials Week-Critical Raw Materials in our everyday life	12 Nov 2018	Brussels, Belgium	Companies/ Research organizations/ Industrial associations / Policy makers	R&D: 200 Industry: 100 Policy markers: 200	Europe	http://eurawmaterialsweek.eu/ev ents.html
Workshop	SINTEF	Presentation at the RESLAG workshop (turning waste into value)	14-15 Nov 2018	Vitoria (Spain)	Companies/ Research organizations/ Industrial associations / Policy makers	R&D: 25 Industry: 10 Governmental: 5 Policy markers: 1	Worldwide	http://www.reslag.eu/news/works hop-14th-15th-nov-2018/
Workshop	SINTEF	Presentation at the workshop "Telemark as an attractive place for the establishments of companies within the RE value chain"	12 Dec 2018	Porsgrunn, Norway	Industry, Investors and Governmental organization	R&D: 2 Industry: 4 Investors: 2 Governmental: 4	Norway	https://www.vig.no/ree
Policy conference	SINTEF	EU-Industry Days 2019 Exhibition. Booth presenting the REE4EU project after invitation from the EU-Commission to the coordinator	4-5 Feb 2019	Brussels, Belgium	Companies/ Research organizations/ Industrial associations / Policy makers	R&D: 500 Industry: 500 Associations: 500 Policy markers: 500	Europe	https://ec.europa.eu/info/policies /business-and-industry/eu- industry-days-2019/eu-industry- days-2019-exhibition_en
Internal Seminar	SINTEF	Presentation at the Circular Economy Priority area at SINTEF	25 Feb 2019	Trondheim, Norway	Research organizations (SINTEF)	R&D: 30	Norway	https://www.sintef.no/en/circular -economy/#/
Seminar	SINTEF	Presentation at the 5 th Hydrometallurgy seminar: "REE4EU-Europe's closed-loop permanent magnet recycling at pilot scale"	21-22 March 2019	Oslo (Norway)	Companies/ Research organizations/ Industrial associations / Policy makers	R&D: 40 Industry: 18	Europe	https://www.mn.uio.no/kjemi/for skning/grupper/miljovitenskap/arr angementer/hydrometallurgi/hydr ometallurgy-seminar- march2019.html

Description of other dissemination activities (press releases, news, nonscientific publications, etc.):

Type of activiti	Main leade	Title	Date	Place	Type of audience	Size of audience	Countries addressed	Link to the website
es	r							
Video	SINTE	REE4EU	Octobe	Youtube/REE4E	All public	2447 total views	Worldwide	www.ree4eu.no



	F	pilot in	r 2018-	U home page		(500+50+1258+639		
		operatio	up to			Visits)		
		n	now					
LinkIn	SINTE	REE4EU	Feb	LinkedIn	Companies/	835	Worldwide	https://www.linkedin.com/feed/update/urn:li:activity:6
post	F	in the	2019		Research			499022721022853121
		EU-			organizations/			
		Industry			Industrial			
		Days			associations/Polic			
					y makers			

Scientific publications (This field is only for peer reviewed articles)

Type of scientific publication	Title of the scientific publication	DOI	or eSS N	Authors	Title of the journal or equivale nt	Numb er, date	Publish er	Place of publicati on	Year of publicati on	Releva nt pages	Public & private participati on	Peer- revie w	Is/Will open access provided to this publicati on
Publication in conference proceeding/work shop	Perfluorocar bon Formation During Rare Earth Electrolysis	https://doi.org/10.1007 /978-3-319-72284- 9_188	Onlin e ISBN: 978- 3- 319- 7228 4-9	Karen Sende Osen, Ana Maria Martinez, Henrik Gudbrands en, Anne Støre, Camilla Sommerset h, Ole Kjos, Thor Anders Aarhaug, Heiko Gaertner, Pierre Chamelot,	Light Metals 2018	2018 Volume	Springer	Cham, Switzerlan d	2018	1443- 1448	NO	YES	Yes - Green OA



				Mathieu Gibilaro, Laurent Massot									
Publication in conference proceeding/work shop	PFC evolution characteristi cs during aluminium and rare earth electrolysis	https://doi.org/10.1007 /978-3-319-72284- 9_189	Onlin e ISBN: 978- 3- 319- 7228 4-9	Ole S. Kjos, Asbjørn Solheim, Thor Aarhaug, Karen Sende Osen, Ana Maria Martinez, Camilla Sommerset h, Henrik Gudbrands en, Anne Støre, Heiko Gaertner	Light Metals 2018	2018 Volume	Springer	Cham, Switzerlan d	2018	1449- 1455	NO	YES	Yes - Green OA

AUDIENCE	N°
Scientific Community (Higher Education, Research)	1397
Industry	657
General Public	2447
Policy Makers	725
Investors	2
Other	500



Description of other dissemination activities (press releases, news, nonscientific publications, etc.):



Type of activities	Main leader	Title	Date	Place	Type of audience	Size of audience	Countries addressed	Link to the website
Linkedin post	TECNALIA	REE4EU pilot in	Nov 2018	LinkedIn	Companies/ Research	More than 3000	International	https://www.linkedin.com/feed/update/urn:li:activity:6465876756585943040
post		operation	2020		organizations/	followers		

Specify the estimated number of persons reached, in the context of all dissemination and communication activities, in each of the following categories

AUDIENCE	N°
Scientific Community (Higher Education, Research)	2000
Industry	1000



Description of events attended: workshop, conference, training, trade fair exhibition.

Type of activities	Main leader	Title	Date	Place	Type of audience	Size of audience	Countries addressed	Link to the website
Workshop	lcm	Towards Integrated European Rare Earth Supply Chain	November 2018	Birmingham University	Academics, students, business	50	UK,EU ,USA	https://www.iom3.org/energy- materials-group/event/cream- critical-elements-and-materials- network
Workshop	lcm	Production of Metal and Alloys for RE permanebt magnets	10 December 2018	Athens	Technical experts	50	Nato members	https://www.sto.nato.int/Lists/tes t1/activitydetails.aspx?ID=16565

AU	DIENCE	N°
Sci	entific Community (Higher Education, Research)	100





Description of events attended: workshop, conference, training, trade fair exhibition.

Type of activities	Main leader	Title	Date	Place	Type of audience	Size of audience	Countries addressed	Link to the website
Dissemination EVENT	Elkem took part in the event with SINTEF	EU Industry days. Gro Eide from Elkem with Ana Maria	5-6 feb. 2019	Brussels	Industry and politicians	R&D: 500 Industry: 500 Associations: 500 Policy markers: 500	Europe	https://ec.europa.eu/info/policies /business-and-industry/eu- industry-days-2019_en
Internal info, project presentation	Elkem	REE4EU pilot	04.01.19	Elkem Kristiansand	Elkem employees	30	Norway	N/a
Info to Elkem corporate management	Elkem	REE4EU pilot + video	04.03.19	Elkem Kristiansand	Elkem top management	6	Norway	n/a

Description of other dissemination activities (press releases, news, nonscientific publications, etc.):

Type of activities	Main leader	Title	Date	Place	Type of audience	Size of audience	Countries addressed	Link to the website
Elkem Intranet	Elkem	REE4EU video on Elkem Intranet site	05.03.019	Elkem	Elkem employees	Potential 6500	NO, China, US, Canada, France, Spain, Iceland, South Africa, UK,	N/a
Video * The related costs are claimed by SINTEF and AVERE	ELKEM	Video pilot		ELKEM	Research org. Industries General public		Worlwide	http://www.ree4eu.eu/

AUDIENCE	N°
Industry	See comment under EU industry days
General Public	6500 (Elkem Intranett potential)



Policy Makers	EU ind. Days
Other	30



Description of other dissemination activities (press releases, news, nonscientific publications, etc.):

Type of activities	Main leader	Title	Date	Place	Type of audience	Size of audience	Countries addressed	Link to the website
News	IDENER	REE pilot in operation	13/03/2019	Web Idener	General public	250	All	https://www.idener.es/?p=3145
News	IDENER	REE launches new brochure	22/11/2018	Web Idener	General public	250	All	https://www.idener.es/?p=3058
News	IDENER	Ecomondo	22/11/2018	Web Idener	General public	250	All	https://www.idener.es/?p=3055
News	IDENER	Meeting in Viviez	22/11/2018	Web Idener	General public	250	All	https://www.idener.es/?p=3051
Post	IDENER	REE pilot in operation	13/03/2019	LinkedIn Idener	Research community	95	Spain	https://www.linkedin.com/feed/update /urn:li:activity:6511560989920632832
Post	IDENER	REE launches new brochure	22/11/2018	LinkedIn Idener	Research community	45	Spain	https://www.linkedin.com/feed/update /urn:li:activity:6471390880484986880
Post	IDENER	Ecomondo	22/11/2018	LinkedIn Idener	Research community	43	Spain	https://www.linkedin.com/feed/update /urn:li:activity:6471388648494501888
Post	IDENER	Meeting in Viviez	22/11/2018	LinkedIn Idener	Research community	54	Spain	https://www.linkedin.com/feed/update /urn:li:activity:6471387855699738624

Specify the estimated number of persons reached, in the context of all dissemination and communication activities, in each of the following categories

AUDIENCE	•	•	N°	
General Public			300	



Description of events attended: workshop, conference, training, trade fair exhibition.

Type of activities	Main leader	Title	Date	Place	Type of audience	Size of audience	Countries addressed	Link to the website
Presentation	INOVERTIS	Congrès Avnir	20191107	Lille	Research/Indust	50	Mainly France	https://avnir.org/FR/Congres-



(workshop)	(Colin JURY)		ries	and Belgium but	avniR8.html
				some other	
				European	
				countries	

Description of other dissemination activities (press releases, news, nonscientific publications, etc.):

Type of	of other disse Main	Title	Date	Place	Type of	Size of	Countries	Link to the website
		Title	Date	Place				Link to the website
activities	leader				audience	audience	addressed	
Post	Inovertis	LCA and	20181031	LinkedIn	General	167	International	
	(Colin JURY)	social analysis			public			
		of the rare						
		earth						
		recycling in						
		Europe						
News	Inovertis	Projet	20181010	Inovertis	General	Unknown	France	http://www.inovertis.fr/actualites/48-projet-ree4eu-acv-et-etude-socio-
	(Caroline	REE4EU : ACV		website	public			economique-du-recyclage-des-terres-rares.htm
	Chubilleau)	et étude						
		socio-						
		économique						
		du recyclage						
		des Terres						
		Rares						
News	Inovertis	Congrès avniR	20181108	Inovertis	General	Unknown	France	http://www.inovertis.fr/actualites/49-congres-avnir-2018-2-projets-mis-a-l-
	(Caroline	2018 - 2		website	public			honneur.htm
	Chubilleau)	projets mis à						
		l'honneur						
Post	Inovertis	LCA and	20181106	Twitter	General	112	International	https://twitter.com/inovertis/status/1059817478912704515
	(Caroline	social analysis			public			
	Chubilleau)	of the rare						
		earth						
		recycling in						
		Europe						

AUDIENCE	N°
Scientific Community (Higher Education, Research)	20
Industry	20



Civil Society	10
General Public	367



Description of events attended: workshop, conference, training, trade fair exhibition.

Type of activities	Main leader	Title	Date	Place	Type of audience	Size of audience	Countries addressed	Link to the website
Presentation at Expert Forum – Sustainable Materials for Future Mobility: E- drives, Magnets, Batteries, Conference	IEA HEV Task 40 CRM4EV Critical Raw Material for Electric Vehicles :cooperation AVERE-REE4EU	IEA HEV Task 40 CRM4EV Critical Raw Material for Electric Vehicles	23 rd October 2018	Darmstadt, Germany	Experts, industry	80	Unknown, most European	https://eitrawmaterials.eu/events /expert-forum-sustainable- materials-for-future-mobility-e- drives-magnets-batteries/
Workshop 1 IEA HEV Task 40 CRM4EV workshop	IEA HEV Task 40 CRM4EV Critical Raw Material for Electric Vehicles:coope ration AVERE- REE4EU	One day event on Rare Earth elements for Electric Vehicles. Presentation on REE4EU by PNO	November 15 th , 2018	Brussels, Belgium	experts	35	10	www.crm4ev.org and http://www.ieahev.org/tasks/CRM 4EV-critical-raw-material-for-electric-vehicles-task-40/
DEMETER Symposium	IEA HEV Task 40 CRM4EV Critical Raw Material for Electric Vehicles:coope ration AVERE- REE4EU	Electric Vehicle developments and raw materials impacts	February 6 th , 2019 –	Leuven, Belgium	experts	60	?	https://symposium.etn- demeter.eu



Specify the estimated number of persons reached, in the context of all dissemination and communication activities, in each of the following categories

AUDIENCE	N°
Scientific Community (Higher Education, Research)	79
Industry	78
Policy Makers	18





Description of dissemination events attended or planned:

Type of activities	Main leader	Title	Date	Place	Type of audience	Size of audience	Countries addressed	Link to the website
Poster Session in ECOMONDO	PNO/CIAOTE CH	ECOMONDO	06-09/11/18	Rimini, Italy	International Organizations, Industries and research organizations, general public	1300 (1000 industries, 200 research centers) 100 general public	Italy	https://en.ecomondo.com/
Oral presentation in the workshop: Taskforce 40 "Critical Raw Materials for Electric Vehicles" - CRM4EV	PNO/CIAOTE CH	Development of optimised recycling processes for REEs from PMs as alternative supply route REE4EU H2020 project	16 November 2018	Brussels	Industry/RTOsAcademia	30	EU and Australia	http://www.ieahev.org/tasks/CRM4 EV-critical-raw-material-for-electric- vehicles-task-40/

Description of other dissemination activities (press releases, news, nonscientific publications, etc.) realized or planned:

Type of activities	Main leader	Title	Date	Place	Type of audience	Size of audience	Countries addressed	Link to the website
News on website	PNO/CIAOTECH	Congratulazioni al consorzio del	2/10/18	Ricerca & Innovazione	International Organizations,	>6.000	Italy	https://www.ricercaeinnovazione.it/news/congratulazioni-al-consorzio-del-progetto-



		progetto REE4EU		website	Industries and research organizations, general public			ree4eu
News on newsletter	PNO/CIAOTECH	REE4EU parteciperà a ECOMONDO 2018	03-10-18	Ricerca & Innovazione newsletter	International Organizations, Industries and research organizations, general public	>6.000	Italy	
News on website	PNO/CIAOTECH	REE4EU will join ECOMONDO 2018	03-10-18	Innovation Place website	International Organizations, Industries and research organizations, general public	>10.000	Europe	https://www.innovationplace.eu/news/kar ma2020-biopen-demeter-ree4eu-and- indus3es-will-join-ecomondo-2018
News on newsletter	PNO/CIAOTECH	REE4EU will join ECOMONDO 2018	03-10-18	Innovation Place newsletter	International Organizations, Industries and research organizations, general public	>10.000	Europe	
News on website	PNO/CIAOTECH	KaRMA2020, BIOPEN, DEMETER, REE4EU and Indus3Es will join Ecomondo 2018	3/10/201 8	Innovation Place website	Companies/ Research organizations/ Industrial associations	>10.000	Europe	https://www.innovationplace.eu/news/kar ma2020-biopen-demeter-ree4eu-and- indus3es-will-join-ecomondo-2018
News on website	PNO/CIAOTECH	I nostri progetti KaRMA2020, BIOPEN, DEMETER, REE4EU e Indus3Es ad Ecomondo 2018	3/10/201 8	Ricerca & Innovazione website	Companies/ Research organizations/ Industrial associations	>6.000	Italy	https://www.ricercaeinnovazione.it/news/i -nostri-progetti-karma2020-biopen- demeter-ree4eu-e-indus3es-ad-ecomondo- 2018
Tweet on Twitter	PNO/CIAOTECH	#SaveTheDate @ECOMONDO Principale #Expo dell'Euro- Mediterraneo dedicato a #Green & #CircularEconomy	12/10/20 18	PNO IT account /CIAOTECH	Companies/ Research organizations/ Industrial associations		Europe	https://twitter.com/PNO_IT/status/105063 8737699266560



		a Rimini dal 6 al 9 novembre. Saremo presenti con stands e speech dei principali progetti #KaRMA2020 @BIOPEN_Project #DEMETER #REE4EU #Indus3Es Registrati: (link: http://www.ecom ondo.com) ecomondo.com					
Tweet on Twitter	PNO/CIAOTECH	#SaveTheDate @ECOMONDO - the leading Euro- Mediterranean green and #CircularEconomy #Expo - in Rimini (Italy) from 6th to 9th November. Our projects #KaRMA2020 @BIOPEN_Project #DEMETER #REE4EU #Indus3Es will attend with stands and speeches. Register now: https://en.ecomon do.com	12/10/20 18	IP twitter account	Companies/ Research organizations/ Industrial associations	Europe	https://twitter.com/INNOVATION_PL/status/1050635782967312384
Post on Linkedin	PNO/CIAOTECH	#ECOMONDO is the leading Euro- Mediterranean	12/10/20 18	IP linekdin company page	Companies/ Research organizations/	Europe	https://www.linkedin.com/feed/update/urn:li:activity:6456406897384833024



		area green and #circulareconomy expo and it will take place in Rimini (Italy) from 6th to 9th November			Industrial associations			
News on website	PNO/CIAOTECH	REE4EU will be presented at ECOMONDO 2018	29/10/18	REE4EU website	Companies/ Research organizations/ Industrial associations		Europe	http://www.ree4eu.eu/news-and- events/ree4eu-will-presented-ecomondo- 2018/
News on website	PNO/CIAOTECH	REE4EU sarà presentato ad ECOMONDO 2018	31/10/18	Ricerca & Innovazione website	Companies/ Research organizations/ Industrial associations	>6.000	Italy	https://www.ricercaeinnovazione.it/news/i -progetti-karma2020-biopen-demeter- indus3es-and-ree4eu-saranno-presentati- ad-ecomondo-2018
News on website	PNO/CIAOTECH	REE4EU project will be presented at ECOMONDO 2018	31/10/18	Innovation Place website	Companies/ Research organizations/ Industrial associations	>10.000	Europe	https://www.innovationplace.eu/news/karma2020-biopen-demeter-indus3es-and-ree4eu-projects-will-be-presented-atecomondo-2018
Tweet on Twitter	PNO/CIAOTECH	Abbraccia la rivoluzione della #circulareconomy e scopri i cinque progetti europei presentati da @PnoEurope a @Ecomondo 2018 a Rimini dal 6 al 9 novembre #KaRMA2020 @BIOPEN_Project #DEMETER #REE4EU #Indus3Es saranno presenti con stand e talk /> http://www.ecom	31/10/18	PNO/CiaoTe ch Twitter Account	Companies/ Research organizations/ Industrial associations		Europe	https://twitter.com/PNO_IT/status/105788 1213346684929



		ondo.com					
Tweet on Twitter	PNO/CIAOTECH	Join the #circulareconomy revolution and discover the 5 european projects presented by @PnoEurope at @Ecomondo 2018 in Rimini (Italy) from 6th to 9th November #KaRMA2020 @BIOPEN_Project #DEMETER #REE4EU #Indus3Es will attend with stands and speeches.	31/10/18	Innovation Place twitter account	Companies/ Research organizations/ Industrial associations	Europe	https://twitter.com/INNOVATION_PL/status/1057879450094686209
Post on Linkedin	PNO/CIAOTECH	#SaveTheDate #KaRMA2020, #BIOPEN, DEMETER project, #Indus3Es and #REE4EU projects will be presented at #ECOMONDO 2018, the leading Euro- Mediterranean area #green and #circulareconomy expo, that will take place in Rimini (Italy) from 6th to 9th November.	31/10/18	Innovation Place Linkedin Account	Companies/ Research organizations/ Industrial associations	Europe	https://www.linkedin.com/feed/update/urn:li:activity:6463653770785017856
News on website	PNO/CIAOTECH	REE4EU progress meeting in Viviez	31/10/18	REE4EU website	Companies/ Research	Europe	http://www.ree4eu.eu/news-and-



					organizations/ Industrial associations			events/ree4eu-progress-meeting-viviez/
Video	PNO/CIAOTECH	Video on market and business analysis activities for REE4EU	Novemb er 2018		general	World web	All	https://youtu.be/Pfz54nZariE
News on website	PNO/CIAOTECH	Second Annual Critical Raw Materials (CRMs) Event	5/11/18	REE4EU website	Companies/ Research organizations/ Industrial associations		Europe	http://www.ree4eu.eu/news-and- events/second-annual-critical-raw- materials-crms-event/
News on website	PNO/CIAOTECH	REE4EU pilot in operation: look at the video	5/11/18	Innovation Place website	Companies/ Research organizations/ Industrial associations	>10.000	Europe	https://www.innovationplace.eu/news/ree 4eu-pilot-in-operation-look-at-the-video
News on website	PNO/CIAOTECH	Riciclare terre rare: la sfida raggiunta in Europa dall'impianto pilota di REE4EU	5/11/18	Ricerca & Innovazione website	Companies/ Research organizations/ Industrial associations	>6.000	Italy	https://www.ricercaeinnovazione.it/news/r iciclare-terre-rare-la-sfida-raggiunta-in- europa-dallimpianto-pilota-di-ree4eu
News on website	PNO/CIAOTECH	REE4EU: meeting di progetto a Viviez	5/11/18	Ricerca & Innovazione website	Companies/ Research organizations/ Industrial associations	>6.000	Italy	https://www.ricercaeinnovazione.it/news/ree4eu-meeting-di-progetto-a-viviez
News on website	PNO/CIAOTECH	REE4EU progress meeting in Viviez	5/11/18	Innovation Place website	Companies/ Research organizations/ Industrial associations	>10.000	Europe	https://www.innovationplace.eu/news/ree 4eu-progress-meeting-in-viviez
News on website	PNO/CIAOTECH	REE4EU at the Second Annual Critical Raw Materials (CRMs) Event	9/11/18	Innovation Place website	Companies/ Research organizations/ Industrial associations	>10.000	Europe	https://www.innovationplace.eu/news/ree 4eu-at-the-second-annual-critical-raw- materials-crms-event
News on website	PNO/CIAOTECH	Second Annual Critical Raw	12/11/18	REE4EU website	Companies/ Research		Europe	http://www.ree4eu.eu/news-and- events/second-annual-critical-raw-



		Materials (CRMs) Event			organizations/ Industrial associations			materials-crms-event/
News on website	PNO/CIAOTECH	REE4EU Newsletter # 7 out now	13/11/18	Innovation Place website	Companies/ Research organizations/ Industrial associations	>10.000	Europe	https://www.innovationplace.eu/news/ree 4eu-newsletter-7-out-now
News on website	PNO/CIAOTECH	Pubblicata la settima newsletter di REE4EU	13/11/18	Ricerca & Innovazione website	Companies/ Research organizations/ Industrial associations	>6.000	Italy	https://www.ricercaeinnovazione.it/news/ pubblicata-la-settima-newsletter-di-ree4eu
News on website	PNO/CIAOTECH	REE4EU presented at ECOMONDO 2018	15/11/18	REE4EU Project website	Companies/ Research organizations/ Industrial associations		Europe	http://www.ree4eu.eu/news-and- events/ree4eu-presented-ecomondo-2018/
News on website	PNO/CIAOTECH	The REE4EU value chains stakeholders analysis and market analysis reports are available	04/12/18	Innovation Place website	Companies/ Research organizations/ Industrial associations	>10.000	Europe	https://www.innovationplace.eu/news/the -value-chains-stakeholder-analysis-and- market-analysis-reports-are-available
News on website	PNO/CIAOTECH	Disponibili la Value Chains Stakeholder Analysis e la Market Analysis sulle terre rare in Europa	05/12/18	Ricerca & Innovazione website	Companies/ Research organizations/ Industrial associations	>6.000	Italy	https://www.ricercaeinnovazione.it/news/disponibili-la-value-chains-stakeholder-analysis-e-la-market-analysis-sulle-terre-rare-in-europa
News on website	PNO/CIAOTECH	The REE4EU value chains stakeholders analysis and market analysis reports are available	05/12/18	Innovation Place website	Companies/ Research organizations/ Industrial associations	>10.000	Europe	https://www.innovationplace.eu/news/the -value-chains-stakeholder-analysis-and- market-analysis-reports-are-available
News on	PNO/CIAOTECH	Great success for	05/12/18	Innovation	Companies/	>10.000	Europe	https://www.innovationplace.eu/news/gre



website		KaRMA2020,		Place	Research			at-success-for-karma2020-biopen-demeter-
		BIOPEN, DEMETER, Indus3Es and REE4EU in ECOMONDO 2018		website	organizations/ Industrial associations			indus3es-and-ree4eu-in-ecomondo-2018
News on website	PNO/CIAOTECH	Grande successo per KaRMA2020, BIOPEN, DEMETER, Indus3Es e REE4EU ad ECOMONDO 2018	05/12/18	Ricerca & Innovazione website	Companies/ Research organizations/ Industrial associations	>6.000	Italy	https://www.ricercaeinnovazione.it/news/grande-successo-per-karma2020-biopendemeter-indus3es-e-ree4eu-ad-ecomondo-2018
News on newsletter	PNO/CIAOTECH	The REE4EU value chains stakeholders analysis and market analysis reports are available	06/12/18	Innovation Place newsletter	Companies/ Research organizations/ Industrial associations	>10.000	Europe	
News on newsletter	PNO/CIAOTECH	Great success for KaRMA2020, BIOPEN, DEMETER, Indus3Es and REE4EU in ECOMONDO 2018	06/12/18	Innovation Place newsletter	Companies/ Research organizations/ Industrial associations	>10.000	Europe	
News on newsletter	PNO/CIAOTECH	Disponibili la Value Chains Stakeholder Analysis e la Market Analysis sulle terre rare in Europa!	06/12/18	Ricerca & Innovazione newsletter	Companies/ Research organizations/ Industrial associations	>6.000	Italy	
News on newsletter	PNO/CIAOTECH	Grande successo per KaRMA2020, BIOPEN, DEMETER, Indus3Es e REE4EU ad ECOMONDO 2018	06/12/18	Ricerca & Innovazione newsletter	Companies/ Research organizations/ Industrial associations	>6.000	Italy	
News on website	PNO/CIAOTECH	REE4EU selected for the EU Industry Days 2019	12/12/18	REE4EU project website	Companies/ Research organizations/ Industrial		Europe	http://www.ree4eu.eu/news-and- events/ree4eu-selected-eu-industry-days- 2019/



					associations		
News on website	PNO/CIAOTECH	ECOTECH	12/12/18	REE4EU project website	Companies/ Research organizations/ Industrial associations	Europe	http://www.ree4eu.eu/news-and- events/ecotech/
News on website	PNO/CIAOTECH	18TH INTERNATIONAL ELECTRONICS RECYCLING CONGRESS	12/12/18	REE4EU project website	Companies/ Research organizations/ Industrial associations	Europe	http://www.ree4eu.eu/news-and- events/18th-international-electronics- recycling-congress/
News on website	PNO/CIAOTECH	WORLD RESOURCES FORUM 2019	12/12/18	REE4EU project website	Companies/ Research organizations/ Industrial associations	Europe	http://www.ree4eu.eu/news-and- events/world-resources-forum-2019/
News on website	PNO/CIAOTECH	BATTERY TECH EXPO	12/12/18	REE4EU project website	Companies/ Research organizations/ Industrial associations	Europe	http://www.ree4eu.eu/news-and- events/battery-tech-expo/
News on website	PNO/CIAOTECH	WFES – ECOWASTE	12/12/18	REE4EU project website	Companies/ Research organizations/ Industrial associations	Europe	http://www.ree4eu.eu/news-and- events/wfes-ecowaste/
News on website	PNO/CIAOTECH	Mineralogical Society of Great Britain & Ireland	12/12/18	REE4EU project website	Companies/ Research organizations/ Industrial associations	Europe	http://www.ree4eu.eu/news-and- events/mineralogical-society-great-britain- ireland/
Tweet on Twitter	PNO/CIAOTECH	La tua azienda opera nel settore delle #RareEarth Elements (REE)? Registrati al portale #REE4EU per leggere la	23/12/18	CIAOTECH/P NO Twitter account	Companies/ Research organizations/ Industrial associations	Europe	https://twitter.com/PNO_IT/status/107698 2958391742464



		#stakeholders #analysis e la #market #analysis realizzate da PNO Consultants. Guarda il video per maggiori informazioni: http://bit.ly/2AcLS w6 @PnoEurope @EU_H2020					
Tweet on Twitter	PNO/CIAOTECH	If you are a player in the #RareEarth Elements (REE) fields, you should register to the #REE4EU portal to read the #valuechains #stakeholders analysis and #market #analysis reports by PNO Consultants. Watch the video for more info: http://bit.ly/2AcLS w6 @PnoEurope @EU_H2020	23/12/18	Innovation Place Twitter account	Companies/ Research organizations/ Industrial associations	Europe	https://twitter.com/INNOVATION_PL/status/1076921069099995136
Post on Linkedin	PNO/CIAOTECH	If you are a player in the #RareEarth Elements (REE) fields, you should register to the #REE4EU portal to read the #valuechains #stakeholders analysis and #market #analysis	23/12/18	Innovation Place Linkedin Account	Companies/ Research organizations/ Industrial associations	Europe	https://www.linkedin.com/feed/update/urn:li:activity:6482750286648659968



		reports by PNO Consultants. Watch the video for more info: http://bit.ly/2AcLS w6 PNO Consultants - Europe #eu_h2020 #h2020 Elkem ASA #innovation #ree INOVERTIS TECNALIA Research & Innovation Stena Metall AB SINTEF					
Tweet on Twitter	PNO/CIAOTECH	Great success for #KaRMA2020, #BIOPEN, #DEMETER, #Indus3Es and #REE4EU at @Ecomondo 2018. Ciaotech (PNO Group) presented the main results and technical achievements of the five projects with poster sessions and oral presentations. Read the news: https://www.innov ationplace.eu/new s/great-success-for-karma2020-biopen-demeter-indus3es-and-ree4eu-in-ecomondo-2018	30/12/18	Innovation Place Twitter Account	Companies/ Research organizations/ Industrial associations	Europe	https://twitter.com/INNOVATION_PL/status/1079290600661356544



		Great success for #KaRMA2020, #BIOPEN, #DEMETER, #Indus3Es and #REE4EU at @Ecomondo 2018. Ciaotech (PNO Group) presented the main results and technical achievements of the five projects with poster sessions and oral presentations. Read the news: https://www.innov ationplace.eu/new s/great-successfor-karma2020-biopen-demeterindus3es-and-ree4eu-in-ecomondo-2018					
News on Website	PNO/CIAOTECH	REE4EU presented at the EU Industry Days 2019	14/02/19	REE4EU Project Website	Companies/ Research organizations/ Industrial associations	Europe	http://www.ree4eu.eu/news-and- events/ree4eu-presented-eu-industry-days- 2019/
7 News on Website	PNO/CIAOTECH	7 posts of events update	14/02/19	REE4EU Project Website	Companies/ Research organizations/ Industrial associations	Europe	http://www.ree4eu.eu/news-and-events/

Specify the estimated number of persons reached, in the context of all dissemination and communication activities, in each of the following categories

AUDIENCE N°





Scientific Community (Higher Education, Research)	1015
Industry	215
General Public	1246
Innovation place and Ricerca & Innovazione databases already included* in the audience reached in the last periods, therefore counted once	



Description of events attended: workshop, conference, training, trade fair exhibition.

Type of activities	Main leader	Title	Date	Place	Type of audience	Size of audience	Countries addressed	Link to the website
Event organized by European	CEFIC *with SINTEF + ELKEM	EU Industry Days	February 5	Brussels	Industry, RTO, Start-up, SME, Academia	200+	Europe	https://ec.europa.eu/info/polic ies/business-and-industry/eu- industry-days-2019 en
Commission	participated				Academia			ilidusti y-days-2019_eli

Description of other dissemination activities (press releases, news, nonscientific publications, etc.):

Type of activities	Main leader	Title	Date	Place	Type of audience	Size of audience	Countries addressed	Link to the website
News	Cefic	REE4EU Pilot Plant success	11-12- 2018		Industry, academia, RTO	1500 av monthly users	Global	http://suschem.org/newsroom/ree4eu-pilot-plant-success
Blog	Cefic	REE4EU Pilot Plant success	11-12- 2018		Industry, academia, RTO	7000- 10000 monthly visitors	Global	http://suschem.blogspot.com/2018/12/ree4eu-pilot-plant- success.html
Newsletter	Cefic	REE4EU Pilot Plant success	13-12- 2018		Chemical Industry	6100	Europe	Email distribution only
Tweet	Cefic	Interesting #sustainable #chemistry projects at #EUIndustryDay #REE4EU	05-02- 2019		Industry, academia, RTO	3377 followers	Global	https://twitter.com/SusChem/status/1092737701177118720
Tweet	Cefic	A SusChem-supported	12-12-		Industry,	3377	Global	https://twitter.com/SusChem/status/1072764837770526720



		#Horizon2020 project REE4EU has successfully demonstrated a closed-loop permanent #magnet #recycling process for the first time in #Europe	2018	academia, RTO	followers		
Tweet	Cefic	Projects exhibiting at #EUIndustryDay 2019 include @CabrissProject @Bio4Products and REE4EU <- see the recent SusChem blog on this project's exciting results: https://bit.ly/2scNuBF	07-01- 2019	Industry, academia, RTO	3377 followers	Global	https://twitter.com/SusChem/status/1082224926591979523

Specify the estimated number of persons reached, in the context of all dissemination and communication activities, in each of the following categories

AUDIENCE	N°
Scientific Community (Higher Education, Research)	6000
Industry	12000
General Public	3377

Description of events attended: workshop, conference, training, trade fair exhibition.



Type of	Main leader	Title	Date	Place	Type of	Size of	Countries	Link to the website
		The state of the s						



activities					audience	audience	addressed	
Teaching	UPS	RE recycling	11/2018	Toulouse,Fr	2 nd year Master	37	France	
Class	M. Gibilaro				students			
(other type of								
event)								

AUDIENCE	N°
Scientific Community (Higher Education, Research)	37



6.3.1 Summary of the activities implemented from M37 – to M42

Specify the number of Dissemina tion and Communi cation activities linked to the project for each of the following categories	Organis ation of a Confere nce	Organis ation of a Worksh op	Press release	Non- scientifi c and non- peer- reviewe d publicat ion (popula rised publicat ion)	Exhibi tion	Fly er	Train ing	Soci al Me dia	proje ct webs ite	Communic ation Campaign (e.g. Radio, TV) (e.g. Radio, TV)	Particip ation to a Confere nce	Particip ation to a Worksh op	Particip ation to an Event other than a Confere nce or a Worksh op	Video/ Film	Broker age Event	Pitc h Eve nt	Tra de Fair	Particip ation in activitie s organize d jointly with other H2020 projects	Oth er
SINTEF					1*	200		1				5	1	1				1	
TECNALIA								1											
LCM												2							
ELKEM					1*			1											2
IDENER								4											4
INOVERTIS								4				1							
AVERE											1	1	1						
PNO					1	500		10	20			1		1					23
CEFIC					1*			3											3
UPS													1						
TOTAL					2	700		24	20		1	10	3	2				1	32

^{*}same event

Table 9. Number of Dissemination and Communication activities linked to the project for each of the following categories



Specify the estimated number of persons reached, in the context of all dissemination	Scientific Community (Higher Education, Research)	Industry	Civil Society	General Public	Policy Makers	Media	Investors	Customers	Other
SINTEF	1397	657		2447	725		2		500
TECNALIA	2000	1000							
LCM	100								
ELKEM				6500					30
IDENER				300					
INOVERTIS	20	20	10	367					
AVERE	79	78			18				
PNO	1015	215		1246					
CEFIC	6000	12000		3377					
UPS	37								
TOTAL	10648	13970	10	14237	743		2		530

Table 10: Estimated number of persons reached in the context of the dissemination activities



6.4 DISSEMINATION ACTIVITIES IMPLEMENTED FROM M43 TO M48

Description of events attended: workshop, conference, training, trade fair exhibition.



Type of activities	Main leader	Title	Date	Place	Type of audience	Size of audience	Countries addressed	Link to the website
Debate OTHER TYPE OF EVENT	SINTEF	Presentation at the Association for the Preservation of Natural Resources in Norway (Naturvernforbundet). Tema: Urban Mining and recycling. Tittle: Urban Mining— Hvilke Muligheter Finnes?	07.05.2019	Trondheim (Norway)	All public, Industry, R&D, associations; policy makers	Total: 50 Industry: 10 R&D: 20 Associations: 10 Policy makers: 10	Norway	https://naturvernforbundet.no/trondelag/kalender/miljokveld- gruver-ma-vi-ofre-naturen-for-det-gronne-skiftet-article39071- 2088.html
Exhibition	SINTEF	Booth at the "Europe Days 2019", With video of the REE4EU pilot, REE4EU value chain material obtained, roll-ups and distribution of brochures	09.05.2019	Trondheim (Norway)	All public, Industry, R&D, policy makers in EU	Total: 200 Industry: 50 R&D: 50 Policy Makers: 100	EU	https://mid-norway.no/europadagene-7-10-mai-2019-i-trondheim/

Specify the number of Dissemination and Communication activities linked to the project for each of the following categories

DISSEMINATION	N°
Exhibition (participation of the project to an exhibition event with a stand/corner)	1
Flyer (number of flyers distributed)	50
Participation to an Event other than a Conference or a Workshop	1

AUDIENCE	N°
Scientific Community (Higher Education, Research), audiences in research conferences/academia	70





Industry (audiences in exhibitions, general conferences)	60
Civil Society	10
Policy Makers (in case of dedicated workshops/conferences)	110



Description of other dissemination activities (press releases, news, nonscientific publications, etc.):

Type of activities	Main leader	Title	Date	Place	Type of audience	Size of audience	Countries addressed	Link to the website
Linkedin post	TECNALIA	Flyer of #REE4EU Exploitation Workshop	April 2019	LinkedIn	Companies/ Research organizations/	More than 4000 followers	International	https://www.linkedin.com/posts/waste- valorisation-tecnalia ree4eu-activity- 6526444634191863808-tALc
Linkedin post	TECNALIA	Project consortium picture	April 2019	LinkedIn	Companies/ Research organizations/	More than 4000 followers	International	https://www.linkedin.com/posts/waste- valorisation-tecnalia ree4eu-h2020- activity-6541571161116028928-4tG6
Linkedin post	TECNALIA	Exploitation Workshop picture	May 2019	LinkedIn	Companies/ Research organizations/	More than 4000 followers	International	https://www.linkedin.com/posts/waste- valorisation-tecnalia ree4eu-ree4eu- ree4eu-activity-6526912414485749761- ITnt
Linkedin post	TECNALIA	Results of Tecnalia within REE4EU project	July 2019	LinkedIn	Companies/ Research organizations/	More than 4000 followers	International	https://www.linkedin.com/posts/waste- valorisation-tecnalia_ree4eu-ree- batteries-activity- 6559718183220191232-X3dU

Specify the number of Dissemination and Communication activities linked to the project for each of the following categories

DISSEMINATION	N°
Social Media	4

AUDIENCE	N°
Scientific Community (Higher Education, Research)	3000
Industry (audiences in exhibitions, general conferences)	1000





Description of events attended: workshop, conference, training, trade fair exhibition.

Type of activities	Main leader	Title	Date	Place	Type of audience	Size of audience	Countries addressed	Link to the website
Conference/ Angus Special Metals	LCM	Creating a Holistic Supply Chain	04-06/2019	USA, Chicago	Industry, academics,	30-50	EU/USA/Global	
Workshop REIA	LCM	Creating a Holistic Supply Chain	25/27/06/2019	Brussels	Industry, academics,	30	EU/USA/CHINA/JAPAN	https://gloreia.org/

Specify the number of Dissemination and Communication activities linked to the project for each of the following categories

DISSEMINATION					
Participation to a Conference	1				
Participation to a Workshop	1				

AUDIENCE	N°
Scientific Community (Higher Education, Research)	30
audiences in research conferences/academia	
Industry (audiences in exhibitions, general conferences,)	30
Civil Society	5
Policy Makers (in case of dedicated workshops/conferences)	5



Elkem A Bluestar Company

Description of other dissemination activities (press releases, news, nonscientific publications, etc.):

Type of activities	Main leader	Title	Date	Place	Type of audience	Size of audience	Countries addressed	Link to the website
Visit from	Elkem	Presentation of	May 15 and June	Elkem Technology	May 15: Chairman	3+10	n/a	n/a
management and		REE4EU project	17		of the board in			
board of Bluestar		and REE4EU video			Bluestar + CTO			
and ChemChina					Bluestar			
					June 17: Chairman			
OTHER TYPE OF					of the board			
EVENT					ChemChina + CEO			
					Bluestar.			
					Elkem CEO			
					present at both			
					occasions			

Specify the number of Dissemination and Communication activities linked to the project for each of the following categories

DISSEMINATION	N°
Participation to an Event other than a Conference or a Workshop	1

AUDIENCE	N°
Industry	13





Description of other dissemination activities (press releases, news, nonscientific publications, etc.):

Type of activitie s	Main leader	Title	Date	Place	Type of audienc e	Size of audienc e	Countries addressed	Link to the website
Post	Inovertis (Marine Gaillard)	REE4EU Exploitation worshop	2019/04/2 4	LinkedIn	General public	297	Internationa I	https://www.linkedin.com/feed/update/urn:li:activity:65268131236666818 56
Post	Inovertis (Colin JURY has reposted a post from Silvia)	REE4EU Exploitation worshop	2019/05/2 8	LinkedIn	General public	206	Internationa I	https://www.linkedin.com/feed/update/urn:li:activity:65390601510250536 96/
News	Inovertis (Caroline Chubilleau)	PROJET REE4EU - Workshop "Exploitation commerciale	2019/04/2 4	Inoverti s website	General public	Unknown	France	https://www.inovertis.fr/actualites/59-projet-ree4eu-workshop-exploitation-commerciale.htm

Specify the number of Dissemination and Communication activities linked to the project for each of the following categories

DISSEMINATION	N°
Social Media	2
Other	1

AUDIENCE	N°
General Public (social media (FB, linkedin, twitter), partner corporate websites)	300



Description of dissemination events attended or planned:



Type of activities	Main leader	Title	Date	Place	Type of audience	Size of audience	Countries addressed	Link to the website
Organization of a workshop	PNO/CIAOTE CH – Ree4eu project	Exploitation Workshop "Europe's Closed-Loop Permanent Magnet Recycling Process at Pilot Scale" in Brussels	24 April 2019	Brussels	Companies/ Research organizations/ Universities/ Industrial associations	40	European Countries	http://www.ree4eu.eu/ree4eu-for- business/ree4eu-exploitation- workshop/
Meeting and Conference	PNO/CIAOTE CH	The Global Rare Earth Industry Association Conference on Rare Earths & 1st General Assembly	25-27 June 2019	Brussels	Companies/ Research organizations/ Universities/ Industrial associations	~ 100 people	European Countries	https://global-reia.org/

Description of other dissemination activities (press releases, news, nonscientific publications, etc.) realized or planned:

•		on activities (press i						
Type of	Main leader	Title	Date	Place	Type of	Size of	Countries	Link to the website
activities					audience	audience	addressed	
7 News on	PNO/CIAOTECH	7 posts of events	07/05/2	REE4EU	Companies/		Europe	http://www.ree4eu.eu/news-and-events/
Website		update	019	Project	Research			
				Website	organization			
					s/ Industrial			
					associations			
News on	PNO/CIAOTECH	Towards	07/05/2	Innovation	Companies/		Europe	https://www.innovationplace.eu/news/tow
website		commercialisation	019	Place	Research			ards-commercialisation-of-the-ree4eu-
		of the REE4EU		Website	organization			technology
		technology			s/ Industrial			
					associations			
News on	PNO/CIAOTECH	Verso la	07/05/2	Ricerca &	Companies/		Italy	https://www.ricercaeinnovazione.it/news/
website		commercializzazio	019	Innovazione	Research			verso-la-commercializzazione-della-



		ne della tecnologia REE4EU		Website	organization s/Industrial associations			tecnologia-ree4eu
News on Newsletter	PNO/CIAOTECH	Towards commercialisation of the REE4EU technology	07/05/2 019	Innovation Place Newsletter	Companies/ Research organization s/ Industrial associations	>10.000	Europe	
News on website	PNO/CIAOTECH	REE4EU Exciting Final Review Meeting in Brussels	14/05/2 019	REE4EU Project Website	Companies/ Research organization s/ Industrial associations		Europe	http://www.ree4eu.eu/news-and- events/ree4eu-exciting-final-review- meeting-in-brussels/
News on website	PNO/CIAOTECH	REE4EU Exciting Final Review Meeting in Brussels	15/05/2 019	Innovation Place Website	Companies/ Research organization s/Industrial associations	>10.000	Europe	https://www.innovationplace.eu/news/ree 4eu-exciting-final-review-meeting-in- brussels
Tweet on Twitter	PNO/CIAOTECH	Here's a pic from Brussels where, on April 23, #REE4EU consortium presented	29/5/20 19	Innovation Place Twitter Account	General public		Europe	https://twitter.com/INNOVATION PL/status/1133640394779058177
Post on Linkedin	PNO/CIAOTECH	Here's a pic from Brussels where, on April 23, #REE4EU consortium presented	27/5/20 19	Innovation Place Twitter Account	General public		Europe	https://www.linkedin.com/feed/update/urn:li:activity:6538692807710785536
Tweet on Twitter	PNO/CIAOTECH	Il 23 aprile abbiamo condiviso, a Brussels, i primi risultati di #REE4EU, tra	29/5/20 19	CiaoTech Twitter Account	General Public		Italy	https://twitter.com/PNO_IT/status/113364 1529380278272
News on Website	PNO/CIAOTECH	2 events updates	03/06/2 019	REE4EU Project Website	Companies/ Research organization s/ Industrial associations		Europe	http://www.ree4eu.eu/news-and-events/
News on	PNO/CIAOTECH	Final Review per il	03/06/2	Ricerca&Inn	Companies/	>6.000	Italy	https://www.ricercaeinnovazione.it/news/f



					1			
Website		progetto REE4EU	019	ovazione Project Website	Research organization s/ Industrial associations			inal-review-per-il-progetto-ree4eu
News on Newsletter	PNO/CIAOTECH	REE4EU Exciting Final Review Meeting in Brussels	05/06/2 019	Innovation Place Newsletter	Companies/ Research organization s/ Industrial associations	>10.000	Europe	
News on Website	PNO/CIAOTECH	6TH INTERNATIONAL CONFERENCE ON MINING, MATERIAL, AND METALLURGICAL ENGINEERING, 15- 17 August 2019 (Lisbon, Portugal)	01/07/2 019	REE4EU Project Website	Companies/ Research organization s/ Industrial associations		Europe	http://www.ree4eu.eu/news-and- events/6th-international-conference-on- mining-material-and-metallurgical- engineering-15-17-august-2019-lisbon- portugal/
News on Website	PNO/CIAOTECH	REE4EU presented at the Rare Earth International Association (REIA) launch event	01/07/2 019	REE4EU Project Website	Companies/ Research organization s/ Industrial associations		Europe	http://www.ree4eu.eu/news-and- events/ree4eu-presented-at-the-rare- earth-international-association-reia-launch- event/
News on website	PNO/CIAOTECH	IFIB 2019, 3-4 October 2019 (Naples, Italy)	2/09/20 19	REE4EU Project Website	Companies/ Research organization s/ Industrial associations		Europe	http://www.ree4eu.eu/news-and- events/ifib-2019-3-4-october-2019-naples- italy/
News on website	PNO/CIAOTECH	16th International Rare Earths Conference, 6-8 November 2019 (Honk Hong)	2/09/20 19	REE4EU Project Website	Companies/ Research organization s/ Industrial associations		Europe	http://www.ree4eu.eu/news-and- events/16th-international-rare-earths- conference-6-8-november-2019-honk- hong/
News on website	PNO/CIAOTECH	REE4EU will participate in the Expert Forum on Sustainable Materials for Future Mobility, 7- 9 October 2019	03/09/2 019	REE4EU Project Website	Companies/ Research organization s/ Industrial associations		Europe	http://www.ree4eu.eu/news-and- events/ree4eu-will-participate-in-the- expert-forum-on-sustainable-materials-for- future-mobility-7-9-october-2019-turin- italy/



		(Turin, Italy)					
News on Website	PNO/CIAOTECH	REE4EU selected to participate in the 9th EU-US-Japan Trilateral Conference on Critical Materials, 19 November 2019 (Brussels, Belgium)	03/09/2 019	REE4EU Project Website	Companies/ Research organization s/ Industrial associations	Europe	http://www.ree4eu.eu/news-and- events/ree4eu-selected-to-participate-in- the-9th-eu-us-japan-trilateral-conference- on-critical-materials-19-november-2019- brussels-belgium/
News on Website	PNO/CIAOTECH	REE4EU Final meeting	23/09/2 019	REE4EU Project Website	Companies/ Research organization s/ Industrial associations	Europe	http://www.ree4eu.eu/news-and- events/ree4eu-final-meeting/

Specify the number of Dissemination and Communication activities linked to the project for each of the following categories

DISSEMINATION	N°
Website	17
Organization of a workshop	1
Participation to an Event other than a Conference or a Workshop	1
Other	6

AUDIENCE	N°
Scientific Community (Higher Education, Research)	58
Industry	20
Civil Society	60
Policy Makers	2



6.6 Summary of the activities implemented from M43 – to M48

Specify the number of Disseminati on and Communic ation activities linked to the project for each of the following categories	Organisa tion of a Conferen ce	Organisa tion of a Worksho p	Press release	Non- scientific and non- peer- reviewed publicati on (populari sed publicati on)	ion	Fly er	Traini ng	Soci al Med ia	proje ct websi te	Communic ation Campaign (e.g. Radio, TV) (e.g. Radio, TV)	Participa tion to a Conferen ce	Participa tion to a Worksho p	Participa tion to an Event other than a Conferen ce or a Worksho p	Video/F ilm	Broker age Event	Pitc h Eve nt	Tra de Fair	Participa tion in activities organize d jointly with other H2020 projects	Oth er
SINTEF					1	50							1						
TECNALIA								4											
LCM											1	1							
ELKEM													1						
INOVERTIS								2											1
PNO		1						3	17				1						6
TOTAL		1			1	50		9	17		1	1	3						7

Table 11: Number of Dissemination and Communication activities linked to the project for each of the following categories



Specify the estimated number of persons reached, in the context of all dissemination	Scientific Community (Higher Education, Research)	Industry	Civil Society	General Public	Policy Makers	Media	Investors	Customers	Other
SINTEF	70	60	10		110				
TECNALIA	3000	1000							
LCM	30	30	5		5				
ELKEM		13							
INOVERTIS				300					
PNO	58	20	60		2				
TOTAL	3158	1123	75	300	117		0		0

Table 12: Estimated number of persons reached in the context of the dissemination activities



7 Exploitation Plan

7.1 Targeted Audience

The Plan for the Exploitation and Dissemination of Results is aimed at the following **audience** and respectively, at the fulfilment of the following **objectives** (Table 9):

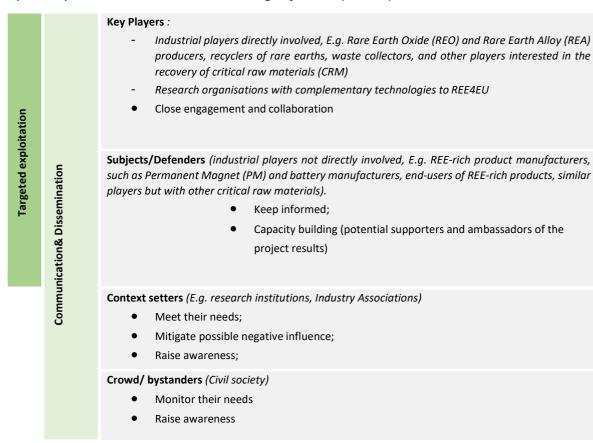


Table 13: Audiences of REE4EU's Communication, Dissemination, and Exploitation

7.2 Routes for effective exploitation of the REE4EU project

Although the exploitation activities of REE4EU are scoped around the recovery and production of REE-containing materials from End of life (EoL) products, several of the demonstrated technologies and processes can also be deployed in other domains (i.e. not directly linked to REE nor to EoL products). For instance, some of the proposed technologies enable recovery of other critical raw materials (CRM) from primary or secondary by-products. Communicating — among others - the versatility of REE4EU's technologies will maximise the impact of REE4EU's granted funding and potentially spin-off new business and scientific activities.

The exploitation routes that have been perused by the REE4EU partners aim to valorise the different REE4EU technologies and know-how, and to move them one step closer to the market. The exploitation activities are divided in the following two main routes:

- 1. Exploitation plan for the REE4EU concept ("main route")
- 2. xploitation activities that have been perused to valorise the different technologies, processes and know-how beyond the scope of REE4EU ("spin-off")

Figure 25 illustrates the different exploitation routes foreseen for REE4EU. The following sections



elaborate on the sub-tasks, achievements and planned actions of the respective routes.

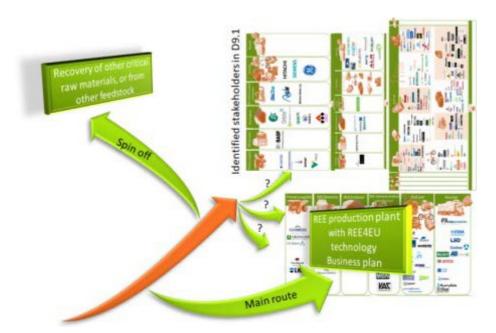


Figure 30: Illustration of the main exploitation routes of the REE4EU project

7.2.1 Exploitation activities for the REE4EU concept (main route)- with focus on the activities from M30 to M48

7.2.1.1 Exploitation Strategy for the period M30 to M48

At the beginning of 2018, an exploitation strategy aiming at creating high visibility and engagement of stakeholders in the project in the last period to elaborate concrete exploitation routes has been proposed by PNO and discussed with the consortium partners. The exploitation strategy is based on several pillars as follow (see figure 31 below):

- 1- Creating a video for the REE4EU pilot plant in operation so that stakeholders can see how REE are recovered at significant scale in Europe for the first time;
- 2- Secure presentation slots to present the Video and the main achievement of the REE4EU project in highly strategic events such as the EIT Raw materials week where the whole raw materials community will be present;
- 3- Assess the cost of the production of REE from the REE4EU pilot and projected large plant and compare it to the price of REE available on the market, so that interested stakeholders can have a better picture on the potential of the technology from business perspectives;
- 4- Organize an industrial exploitation workshop where stakeholders who have shown interest in the project will be invited, and involve them on a debate to identify the barriers that still need to be removed to bring the REE4EU technology to the market;
- 5- Follow up with interested stakeholders to discuss potential exploitation routes and ways to lower the barriers identified that prohibit commercialisation



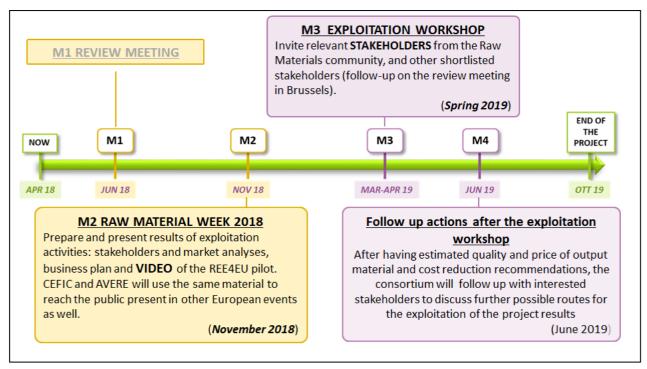


Figure 31. Final exploitation strategy and plan to be implemented between M30 and M48 to boost the visibility of the REE4EU and the engagement of stakeholders to define exploitation routes

7.2.1.2 Main results achieved following the Exploitation Strategy for the period M30 to M48

The main results achieved for the period M30 to M48 under the above discussed 5 Pillars are:

- 1- A high quality video showing the REE4EU plant in operation have been realised. The video has been realised after successfully treating tonnes of waste and the generation of hundreds kilos of REE. This fact was stressed in the video to demonstrate the high TRL level of the achievement for the first time in Europe. The video was widely disseminated via the project website and the different communication channels as described in the communication section above in order to create large awareness and interest in the project. Also another video focusing on the feedstock availability in Europe that came from the market analysis, and additionally describing the planned activities in terms of cost calculation of the produced REE was produced and also disseminated via the project website and different dissemination channels. Both videos can be found on the project websites.
- 2- PNO has arranged a presentation slot for REE4EU during the clustering activities in the raw materials week in November 2018. The coordinator of the REE4EU Ana Maria Martinez presented the REE4EU in a panel section where more than 250 attendees from the raw material community around Europe were present. The video of the REE4EU pilot was presented to the raw material community during this event. The presentation was followed by a panel discussion for about two hours where the attendees had the opportunity to ask their questions to the REE4EU coordinator and the coordinators of other projects. Additionally, the REE4EU project and Video were presented to the automotive community in November 2018 during the Task 40 workshop that was organised by AVERE. Figure 32 shows the type of stakeholders that attended the REE4EU presentation during the Task 40 workshop. Those above two activities created very high visibility for the project within the raw materials community, and formed an interesting ground for the engagement of relevant stakeholders further in the project.



op 1 (November 15/16 2018 Brussels)

Task40 Participant	Day 1	Day 2	Organisation		
Country					
Acceptable			Comment of Mexicon Australia		
Australia	1		Government of Western Australia		
Australia	1		Government of Western Australia (morning)		
Australia	1	1	Nickel Institute		
Austria	1	1	Joanneum Research		
Belgium	1	1	Umicore		
Belgium		1	PNO (REE4EU project)		
Belgium	1		DG GROW EU Commission (morning)		
Belgium		1	VUB		
Canada	1	1	Vale		
Canada	1	1	Natural Resources Canada		
France	1	1	IFP Energies nouvelles		
France	1		EIT Raw Materials		
France	1		IEA		
France	1	1	IFP Energies nouvelles		
Germany		1	EIT Raw Materials		
Germany	1	1	Nickel Institute		
Germany	1	1	e-mobil Baden-Würtenberg		
Germany	1	1	DLR		
Germany	1	1	DLR		
Italy	1		EU JRC		
Italy		1	EU JRC		
Japan	1	1	JOGMEC London Office		
Netherlands	1	1	ING Bank		
Netherlands	1	1	ING Bank		
Spain	1		European Copper Institute		
Spain		1	European Copper Institute		
Spain	1	1	Lynas		
Sweden	1	1	IVL Swedish Environmental Research Institute		
Sweden	1	1	Volvo Car Corporation		
Sweden	1	1	IVL Swedish Environmental Research Institute		
Sweden		1	Volvo CE		
UK	1	1	Anglo American		
UK	1	-	Cobalt Institute		
UK	1	1	University of Birmingham, Faraday Institution Resear		
USA	1	1	ANL Argonne National Laboratory		
USA	1	1	NREL National Renewable Energy Laboratory		
USA			WREE NATIONAL Renewable Energy Eaboratory		

Figure 32. Organisations who attended the REE4EU presentation during the second day of the Task 40 workshop organised by AVERE

3- One of the main item that industry is interested in, is to know the production cost of Rare Earth Metal Alloys (REMA) produced by the REE4EU pilot. This information is crucial for potential future investors or user of the REE4EU technology. In order to provide this information to interested stakeholders, a thorough economic assessment have been performed by the REE4EU partner Inovertis. The economic evaluation of the final REMA cost has been performed, in order to compare the influence of the REE4EU different paths and feedstocks on the cost and make a comparison to the cost of the equivalent conventional REMA production from China.

The production cost of the REMA in each of the production route has been calculated including:

- > Capital expenditure for each step with a 10-years depreciation time: Sourcing/HM/ILE/HTE/Strip Casting/Final transport;
- > Operation expenditure for each step.



The base case corresponds to the implementation scale of the pilot (developed within the project), which is:

- > 70 t/year of raw PMS (50 t/year of calcined PMS);
- > 53 t/year of unsorted, magnetized and coated SPM (50 t/year of sorted, magnetized and uncoated SPM).

Figure 33 below shows the cost of REMA produced by the REE4EU pilot (left as is and right in optimised conditions such as the yield of lonic Liquide ILE operation assumed to be 90%), compared to REMA produced by conventional ways from China.

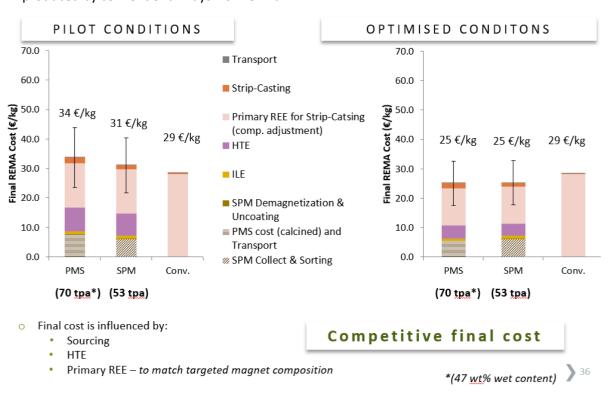


Figure 33. Comparison between the REMA cost produced by the REE4EU pilot and in China by conventional methods: Left) REE4EU Pilot conditions, Right) with optimised conditions

As can be seen in figure 33, although there are still some uncertainties about some parameters related to the production, the REE4EU technology is able to produce REMA at a competitive price compared to REMA produced by China.

Also projections have been carried out to study the influence of the economy of scale (both on CAPEX and OPEX) on the REMA optimised production cost (at industrial efficiency >200 t/year), as well as the profitability of the REE4EU technology against potential price increase of REE in the future.

The detailed cost analysis and business plan for a REE4EU production plant in EU have been summarised on deliverable D9.5 (see also 7.2.2.3 below for more details on the business plan).

- 4- Following the cost analysis, an industrial exploitation workshop was organised in Brussels on 24th April 2019. The main objectives of the workshop were:
 - Presentation of the REE4EU recovery technology and results, including the technological aspects, the environmental foot-print and preliminary economic assessment
 - Discussion on the possibilities of bringing the REE4EU technology to the market



Industry and policy makers from the EU Commission (24 in total, external from the REE4EU consortium, from EU countries, Japan, and US) accepted the invitation to participate in the workshop (on their own cost). Figure 34 shows the final agenda. The workshop included a panel discussion in order to identify the risks and barriers that need to be further removed before bringing the REE4EU technology to the market.



Figure 34. Agenda of the Exploitation Workshop held in Brussels on 24th April 2019

The feedback from the panel discussions as well as written feedback gathered in-situ, was clear: the REE4EU process has a huge potential to be introduced in the market. The participants identified barriers and limitations for that, mainly related to the collection measures and access to spent PM to ensure enough feedstock available for a production plant. Moreover, the participants gave useful recommendations to potential overcome the identified hurdles: i) incentives, regulations and tax financing to facilitate the economic competitiveness of recycled REE; ii) further automation of the process, working in continuous mode; iii) put in place collection and sorting value chains; iv) mobilize the public sector, national governments, policy makers and environmentally friendly stakeholders.



Moreover, several members of the advisory board attended the workshop and gave special written feedback and recommendations, Prof. Toru Obake from Tokyo University, the European Recycling Platform, EIT-Raw Materials, and the European Association for Electromobility (AVERE).

- 5- The consortium will still endeavour and pursuit towards commercialization of the REE4EU technology from the permanent magnets value chain, either by applying suitable schemes to the EU-Commission (e.g. FTI) to reach TRL9, or/and contacting potential investors with the results of the business analysis. For instance the REE4EU Video and main info about cost estimation of the REE produced by the REE4EU pilot project were presented at the launch of the Rare Earth Industrial association (REIA) in Brussels in July 2019. Also several follow up actions are planned even after the official end of the project such as:
 - a. it's planned to present the video of the REE4EU pilot during the US-Japan-EU REE4EU on 19th November 2020.
 - b. Follow up after the results of the application to the 1000 Solutions in case of positive evaluation
 - c. Follow up with potential interested stakeholders who will request additional info about the business analysis of the REE4EU concept after announcing the availability of cost assesment and business plan reports in the last newsletter planned at the end of M48.

7.2.1.3 REE4EU's Business Plan

Assessment of REE4EU's business case for future upscaling

Activities have translated the technological breakthroughs of REE4EU into a solid business plan with defined timeline, projected costs and revenues. The economic uncertainties have been alleviated by integrating actual performance data from the techno-economic analysis (TEA) of REE4EU's pilots. The stakeholders' and market analyses performed, have identify key stakeholders and markets and deepened the understanding of the rare earth market in Europe.

- Aim: Wider adoption of REE4EU's concept in future REE recovery process lines
- Mode of execution for defined tasks: Stage-to-gate
- Milestones: Value Chain Stakeholder Analysis, Market Analysis, Business Plan

Alloys destined for Permanent Magnets (PM) and Secondary Batteries (SB) production require very narrowly defined ratios of rare earth element composition. That makes the production of new alloys from in-process and End-of-Life wastes – which have different quantity and mixtures of REEs- a complex and risky undertaking. To date, only 1% of RE waste is being recovered as no adequate process is available. At the same time, former EU-funded projects with relevance to recovery of REEs, either do not demonstrate the extraction technologies at pilot scale or, if they do, they do not go one step further, which is the production of valuable alloys and final products.

Key selling points of REE4EU's technological approach: REE4EU demonstrates at a significant scale a fully closed-loop recycling process, from REE-containing waste material to REE-containing product. The Rare Earth Alloys (REA) were used for manufacturing new semi- finished (e.g.: Rare Earth Master Alloys - REMA)



or finished products (e.g.: PM). The project's flowsheet combines two technologies – one for REE extraction (ionic liquid extraction or ILE) and the other for production of rare earth alloys (high temperature electrolysis or HTE). HTE with the existing REA and PM production chain has been demonstrated within Less Common Metals (LCM) facilities, while ILE coupled with HTE at Elkem's facilities.

Differently to State-of-Art methods, this approach avoids energy intensive and costly separation of the individual REO from REO mixtures. This novel direct route eliminates significant number of intermediate process steps that would have been otherwise necessary to produce marketable REAs. Figure 35 illustrates REE4EU's novel REA production route, also in comparison to the steps foreseen in SoA value chains. The illustrated value chains include: (i) REA production from primary raw materials (black line); (ii) SoA recycling in-process waste via classical Hydrometallurgical route (red line); (iii) REE4EU Innovative process for two waste streams: EoL and in-process waste (green line)

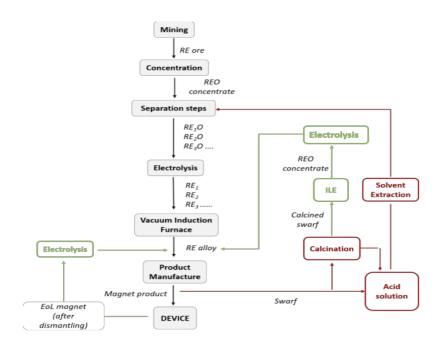


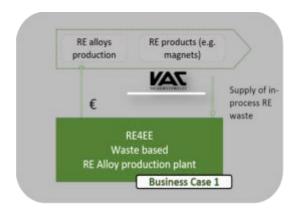
Figure 35. REE4EU's novel REA production route, also in comparison to the steps foreseen in SoA value chains

Business cases for commercial-scale REE4EU's concept: In WP9, PNO and Inovertis — elaborated a Business Plan for a future Rare Earth Recovery Plant in Europe that will make use of the REE4EU's technological concept to produce Rare Earth Metal Alloys (REMA) ready for PM manufacturers. The business plan assumed two different scenarios for the supply of feedstocks (see figure 36): (i) treatment of in-process PM production waste (swarf) (PMS), and (ii) treatment of REE-rich components extracted from REE End- of-Life products that are collected and dismantled for this purpose Spent Permanent Magnet (SPM). Overall, the Business Plan assessed the commercial viability of those two distinct business cases against the current market price of REMA produced in China by conventional ways.

As can be seen in Figure 33 the economic analysis indicated a potential benefits of the REE4EU project considering a 10-year depreciation time, +/- 20% of estimation, +/- 30% of uncertainty and fixed Nd-Dy composition for both inputs materials and produced rare earth elements master alloy. A rounded total cost of €25 per kg of product is achieved, representing €4/kg less than a conventional primary processing. Since the *REE4EU* route would still depend on primary rare earth elements to achieve some desired



product composition, this sourcing represents one of the highest costs. However, this technology implies a "diminishing effect" of a possible increase of the price by the Chinese market. An *economy of scale* perspective concludes that improving operating conditions would reach return of investments over 30% and less than 3 years of payback periods when treating from 50-1500 t/year of input material and assuming a set profit margin of competitors of 30%; even reducing that parameter would still imply positive returns. The detailed business analysis and business plan are reported in Deliverable D9.5 and are meant to provide potential investors a thorough analysis on the investment needed in terms of CAPEX and OPEX, the potential profit when scaling up the REE4EU concept to different scales, and the pay back period taking into account the risks from fluctuating parameters such as profit margin, or the availability of feedstock.



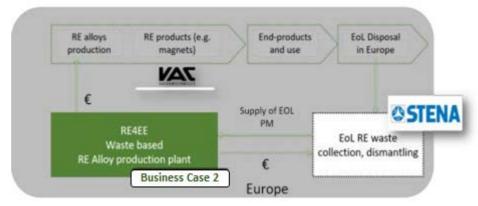


Figure 36. Business cases that have been assessed in REE4EU's business plan



7.2.2 Exploitation activities for spin-off exploitation routes

Transversal diffusion of REE4EU's technological value proposition

Activities will valorise the knowledge gained within the project to develop competences in other sectors or strengthen of existing capabilities¹.

- Aim: Knowledge transfer to interested stakeholders (also from sectors which are not directly linked to the field of Rare Earths, such as Cobolt, PGMs, Tungstun, Niobium, Tantalum mining) and effective IPR management
- Mode of execution: running throughput the project

The REE4EU concept encompasses a combination of several technologies and processes such as the lonic Liquid leaching, and the High temperature electrolysis that are in principle stand-alone technologies that can be used independently or in combination with other technologies to i) enhance the efficiency and selectivity of the process further or the quality of the final produced material, or ii) recover different materials from different feedstocks. Aware of the potential of those technologies, the partners have discussed their potential use for the recovery of other CRMs from different feedstocks, and their potential combination with other technologies.

Leveraging on the stakeholders analysis and particularly on the work of the "Innovators" in Europe who have been identified in the value chains and stakeholders analysis deliverable D9.1 (see Figure 24 in Section 1.1.1 and Table there) several academic and industrial partners have been contacted to explore potential synergies with other technologies developed by the "Innovators" in other EU funded projects.

After thorough analysis of the technologies developed by several key innovators, contacts were established with them via phone calls and email exchange where the REE4EU project and technologies were introduced and teleconferences were arranged to brainstorm about the synergy and the possible combination of technologies to enhance the selectivity and efficiency of the process, as well as to use those combined technologies to recover other CRM from different feedstocks. In a later stage face to face meetings with key stakeholders were initiated for the conceptualisation of new initiatives that resulted later on in several collaborative projects with strong industrial engagement to move the technologies forward to the market.

Additionally, further exploitation activities have been perused to valorise the different technologies, processes and know-how beyond the scope of REE4EU ("spin-off"). In fact the project resulted in several exploitable innovations. A short description of each innovation, taking into account the public character of this deliverable, are summarised below:

1 Innovation #1. One-step high temperature electrolysis process (partner SINTEF)

This Innovation developed by SINTEF provides a method of recycling rear earth alloys containing permanent magnets and/or scrap metals by using a liquid anode in an electrochemical process in one-step.

The advantage of this innovation is that the RE-containing waste material is dissolved in an alloy with a high dissolution potential for the RE, forming a multinary liquid alloy system designed to facilitate the extraction of the RE contained in the liquid system. The method has been tested using spent permanent magnet material from testing windmill stations. The refining from a liquid alloy is much more efficient than refining from a solid alloy, then the process being easier to operate than a similar refining process from solid metals.

A European Patent Application on the process was sent (applicant SINTEF TTO), EP/PCT Application

¹ Information will only be shared with a wider audience after appropriate measurements have been taken to protect the IPR of the REE4EU consortium members, or when information becomes public.



PCT/EP2017/083504, priority data 21 December 2016, tittle: "Electrochemical Production of Rare Earth Alloys and Metals Comprising a Liquid Anode". The PA is currently published and it is close to be granted, according to the feedbacks from the EPO.

The process needs further optimization, currently at TRL5.

Innovation #2. High temperature electrolysis process to produce REA from a permanent magnet waste derived REO-mix (partner SINTEF)

Within the frame of the REE4EU project, SINTEF has demonstrated and identified the parameters necessary to produce rare earth alloys (REA) using a rare earth oxide (REO) mixture derived from permanent magnet waste as raw material. The REA obtained could be successfully used in the manufacture of RE master alloy for new permanent magnets, which exhibited excellent properties to be used in special applications (high effective motors).

In state of art process, REO mixtures are separated in energy intensive and environmentally unfriendly solvent-solvent extraction methods. Each of the REO are then used in individual HTE processes to produce individual REs, which will be re-melted again in vacuum furnaces to give the REA. Thus, the HTE process optimized in REE4EU allows a significant reduction of steps, so to less energy intensive process. This has also helped in the positive economic evaluation results obtained, being the REE4EU technology highly competitive compared to Chinese market prices.

The optimization of the HTE process has also allowed stablishing the conditions for an environmental-friendly operation of the HTE cell, being demonstrated that the REE4EU process will help in reducing the environmental impact, especially the climate change impact category.

3 Innovation #3. Development of a MDO tool for the REE4EU process (Partner IDENER)

Modelling the subsystems which create the whole ILE (ionic liquid extraction) and HTE (high temperature electrolysis) process is challenging due to the novelty of most of them. In all cases, physical nature of the processes is known, and their basis have been studied before within chemical industry. As a matter of fact, operations which take part in the ILE part of the process belong to the basic operations of chemical engineering: leaching, precipitation, filtration, drying, etc. But recovery of rare earth metals opens a new path to be discovered in the chemical processes involved and the interactions of the different subsystems.

The study of the dependence of parameters related to kinetic with operational parameters is crucial in the development of the model based in mass and energy balances. Learning about the reactions which are taking place and their dependence with operational and design parameters allows us to be able to make predictions, to improve the design of the subsystems, allows a realistic scaling up of the process and it gives sense to the optimization. In this way, the use of previously contrasted semiempirical relations in the kinetic and, therefore, efficiency modelling will allow a successful behaviour of the model.

Each of the subprocesses are being modelled as a dynamic model in the sense that they evolve over time. That means that time is either included explicitly as a variable in a mathematical formula or is present indirectly. The different sub models can be defined as hybrid because the variable values evolve continuously over time, although also including integer variables that change only at discrete points in time. The results of the model are quantitative values which can be represented numerically according to a quantitatively measurable scale and, as it was said before, the model combines a partial theoretical structure with data obtained from experimental results that complete the model, so it behaves as a grey-box model.

Each of the sub models related to subprocesses are being implemented in Modelica (open software). Modelica is an object-oriented, equation-based programming language, which is oriented toward computational applications with high complexity requiring high performance. It has a software component model with constructs for creating and connecting components, thus the language is ideally suited for complex physical systems. OpenModelica provides built-in dynamic optimization of models in a more efficient and automatic solution of dynamic optimization problems. A characteristic feature of dynamic optimization problems is that the formulation is highly iterative, and constraints are required to be tuned in order to obtain an acceptable solution. It is also known that the scheme used to discretize the control and state variables often influences the properties



of the resulting solution and the choice of discretization method also affects the execution time for solving the problem. In this way, this software consists of several language elements which enable high-level formulation of dynamic optimization problems considering the mentioned characteristics. All these features suit perfectly with the objectives of the optimization part of the processes taking into consideration the characteristics of the REE4EU model which is being implemented.

4 Innovation #4. Advanced hydrometallurgical process for the recovery of REE from battery waste (Partner CEA)

The advance hydrometallurgical (HM) process developed in the REE4EU project was the subject of a Patent Application (REF: S64186 FR SL-P, 12/03/2018) entitled: "Method for the Selective Recovery of at Least One Rare Earth Present In a Waste and Method for the Valorisation of a Waste Using the Same".

Comparing the current conventional HM processes for the recycling of spent NiMH batteries, the approach developed in the REE4EU project has many advantages. The HM process allows to combine the RE leaching and the precipitation in one single step. The process used advantageously the alkaline species which are already in the NiMHB waste reducing the amount of reagents and the waste stream. The flow of waste treatment is increased up to 300 % compared to SoA methods by using an optimal solid/liquid ratio in a sulfuric acid media. Moreover, the consumption of NaOH is largely reduced and can be avoided by adjusting the S/L ratio and the amount of H_2SO_4 .



ANNEX I

LIST OF EVENTS AND OTHER ACTIONS IN THE FRAMEWORK OF THE DISSEMINATION (M0-M18)

In the following pages, all the activities implemented by the REE4EU partners in the framework of the dissemination are reported.

They refer to the period M0 – M18.



Individual Partners Dissemination Plan Table

Description of events attended:



Type of activities	Main leader	Title	Date	Place	Type of audience	Size of audience	Countries addressed	Link to the website
Workshop	SINTEF	Presentation at the EURARE partner meeting	6-7 June 2016	Uppsala	Companies/ Research organizations / Industrial associations	40 participant s	Europe	www.eurare.eu
Policy workshop	SINTEF	Presentation at the Critical Raw Materials in Every Day Applications, Scientific and Industrial Policy Workshop	26-27 september 2016	Brussels	Companies/ Research organizations / Industrial associations	80 participant s	Europe	http://www.reecover.eu/w orkshop- critical-raw- materials-in-everyday- applications/
Conference	SINTEF	Presentation at the 2 nd scientific seminar arranged by the PROMETIA organization		Sevilla, Spain	Companies/ Research	90 participant s	Europe	(www.prometia.eu).
Conference	SINTEF	Poster presentation at the 6th EU-US- Japan Trilateral	29 November	Brussels,	Policy makers/	More than 100	World	http://ec.europa.eu/growth /tools-
		Conference on Critical Materials	2016	Belgium	Companies/ Research organizations	participant s		databases/newsroom/cf/ite mdetail.cfm?item_id=9047 ⟨=en



	4	1	1		L	4	100	
					/ Industrial			
					associations			
Workshop	SINTEF	Presentation of the project	30	Brussels,	Companies/	19	Europe	http://www.eurogeosurvey
		at the European Geological	November	Belgium	Research	participant		s.org/
		Survey Raw Materials	2016		organizations	S		
		Week Workshop			/ Industrial			
					associations			
Wokshop	SINTEF	Presentation at the KIFEE	7-10 March	Kyoto,	Universities/	150	Japan-	http://9thkifee.doshisha.ac.j
		seminar	2017	Japan	Research	participant	Norway	p/
					organizations	S		
					/			
					Companies/			
					Industrial			
					associations/			
					Policy			
					makers			
Conference	SINTEF	Participation at the TMS	26	San Diego	Companies/	several	World	http://www.tms.org/meetin
		Conference-Sessions	February-2	(US)	Research	1000		gs/annual-
		related to RE	March		organizations			17/AM17home.aspx
			2017		/ Industrial			
					associations			

Description of other dissemination activities (press releases, news, nonscientific publications, etc.):

activities leader audience audience addressed	Type of	Main	Title	Date	Place	Type of	Size of	Countries	Link to the website
	activities	leader				audience	audience	addressed	



News on	SINTEF	REE4EU -	27	SINTEF	Companies/	International	http://www.sintef.no/en/projects/ree4eu-
the		Integrated	October	website	Research		integrated-high-temperature-electrolysis-
website		High	2015		organizations/		<u>ht/</u>
		Temperature					
		Electrolysis					
		and Ion					
		Liquid					
		Extraction					
		for a strong					
		and					
		independent					
		European					
		Rare Earth					
		Elements					
		Supply Chain					
News on	SINTEF	Skrap skal	17	SINTEF	Companies/	Norway (in	http://www.sintef.no/siste-nytt/skrap-skal-
the		stille	February	website	Research	Norwegian)	stille-rastoffsult/
website		råstoffsult	2017	WCDSILE		ivoi wegiaii)	stille rasionsally
wenzite		iastorisult	2017		organizations/		

Specify the number of Dissemination and Communication activities linked to the project for each of the following categories

DISSEMINATION ACTIVITY	N°
Participation to a Conference (the REE4EU project takes part in a conference with a poster/oral	3
presentation)	



Participation to a Workshop (the REE4EU project takes part in a workshop with a poster/oral presentation)	4
Participation in activities organized jointly with other H2020 projects (the REE4EU project takes part and/ or co-organises an activity with another H2020 project)	1
Other (Any other activity implemented (IP/R&I newsletters, news posted on platforms and partners corporate websites)	2

Specify the estimated number of persons reached, in the context of all dissemination and communication activities, in each of the following categories

-	
AUDIENCE	PERSONS
Scientific Community	500
Industry	350
Civil Society	350
Policy Makers	100
Media	1



Description of events attended:

Type of activities	Main leader	Title	Date	Place	Type of audience	Size of audience	Countries addressed	Link to the website
Congress, + Poster presentation			3 – 8 July 2016		Companies/ Research organizations/ Industrial associations	500	Europe	http://www.euchem2016.org/welcome/



Congress, + Poster TECNALIA	Symposium I	18 – 21	Warsaw	Companies/ Research	300	Europe	https://www.crm- extreme.eu/WP/event/crm-
presentation	"Solutions for	September	University of	organizations/ Industrial			extreme- annual-conference-2017-save-date/
	Critical Raw	2017	Technology	associations			
	Materials Under		(POLAND)				
	Extreme						
	Conditions" at						
	the 2017 E-MRS						
	Fall Meeting						

Description of other dissemination activities (press releases, news, nonscientific publications, etc.):

Type of activitie	Main leader	Title	Date	Place	Type of audience	Size of audienc e	Countries addressed	Link to the website
News on the website	TECNALI A	MATERIALS FOR ENERGY & ENVIRONMENT	16 June 2015	TECNALIA website	Companies/ Research organizations /		Internationa l	http://www.tecnalia.com/en/energy-and- environment/news/materials-for-energy-a- environment.htm
News on the website	TECNALI A	Recovery of Rare Earth Elements to assure competitivenes s	6 Octobe r 2015	TECNALIA website	Companies/ Research organizations /		Internationa l	http://www.tecnalia.com/en/energy-and- environment/news/recovery-of-rare-earth- elements-to-assure-competitiveness.htm



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				- I			
News on	TECNALI	Materials: Ionic	29	Slideshar	Companies/	Internationa	http://www.slideshare.net/jokinhidalgo/materials
the	Α	liquids in	March	e	Research	I	-ionic-liquidstecnalia2015
website		tecnalia 2015	2016		organizations		
					1		
					'		
News on	TECNALI	REE4EU Poster	27 July	Slideshar	Companies/	Internationa l	http://www.slideshare.net/jokinhidalgo/ree4eu-
the	Α	EUCHEM 2016	2016	е	Research		poster-euchem-2016-jokin-hidalgo-corrected-4
website		Jokin Hidalgo			organizations		
					, organizations		
					/		
News on	TECNALI	REE4EU	19	Slideshar	Companies/	Internationa I	https://es.slideshare.net/jokinhidalgo/ree4eu-
the	Α	brochure-first-	April	е	Research		<u>brochurefirstyearresults</u>
website		year-results	2017		organizations		
		year results	2017		/		
					/		
News on	TECNALI	REE4EU	19	Slideshar	Companies/	Internationa I	https://es.slideshare.net/jokinhidalgo/ree4eu-
the	A				Research	international	
website	^	Newsletter	April	е			newsletter-issue-n4-march-2017
		Issue n°4	2017		organizations		
		March 2017			/		

Specify the number of Dissemination and Communication activities linked to the project for each of the following categories

DISSEMINATION ACTIVITIES	N°
Participation to a Conference (the REE4EU project takes part in a conference with a poster/oral presentation)	2
Other (Any other activity implemented (IP/R&I newsletters, news posted on platforms and partners corporate websites)	4

Specify the estimated number of persons reached, in the context of all dissemination and communication activities, in each of the following categories

AUDIENCE	PERSONS
Scientific Community	480



Industry (audiences in exhibitions, general conferences, (i.e. estimated number of IP/R&I)	20
General Public (social media (FB, linkedin, twitter), partner corporate websites)	376



Description of events attended:

Type of activities	Main leader	Title	Date	Place	Type of audience	Size of audience	Countries addressed	Link to the website
Policy workshop		Critical Raw Materials in Every Day Applications, Scientific and Industrial Policy Workshop	September		Companies/ Research organizations/ Industrial associations			http://www.reecover.eu/workshop- critical- raw-materials-in-everyday- applications/
Critical raw Materials Workshop		European Critical Raw Materials Workshop	27 September 2016		Companies/ Research organizations/ Industrial associations		Europe	http://criticalrawmaterials.org/

Specify the number of Dissemination and Communication activities linked to the project for each of the following categories

<u> </u>		
DISSEMINATION ACTIVITY		N
Participation to a Workshop (the REE4EU project tak	es part in a workshop with a poster/oral	2
presentation)		

Specify the estimated number of persons reached, in the context of all dissemination and communication activities, in each of the following categories

AUDIENCE	PERSONS
Scientific Community	25
Industry	30



Civil Society	10
Policy Makers (in case of dedicated workshops/conferences)	10
Customers	5



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Description of events attended:

Type of activities	Main leader	Title	Date	Place	Type of audience	Size of audience	Countries addressed	Link to the website
Presentation CONFERENCE	Elkem	REE4EU pilot project		Gothenburg, Sweden	Industry	100		www.circularmaterialsconference.se/speaker- presentations-2016/
Presentation WORKSHOP	Eyde Cluster	REE4EU	24.11.2016	Kristiansand N	Industry	25	Norwegian	

Description of other dissemination activities (press releases, news, nonscientific publications, etc.):

Type of	Main	Title	Date	Place	Type of audience	Size of	Countries	Link to the website
activities	leader					audienc	addresse d	
						е		



News on the website	ELKEM	Elkem Technology has joined as industry partner in EU project	January 27 th , 2016	REE4EU information on Elkems Intranet sites and on Elkem.com	Companies/ Research organizations/	> 2.000	Internatio nal	https://www.elkem.com/new s/elkem-technology-industry- partner-in-eu-project/
News on Bluestar Intranett site	Bluestar (Elkem' owner)	Addressed by Bluestar CEO Michael Konig in his annual summary of main activities in Bluestar companies	January 2017	Bluestar Intranett	Bluestar employees	20.000	Internatio nal	

Specify the number of Dissemination and Communication activities linked to the project for each of the following categories:

DISSEMINATION ACTIVITIES	N
Participation to a Conference (the REE4EU project takes part in a conference with a poster/oral presentation)	1
Participation to a Workshop (the REE4EU project takes part in a workshop with a poster/oral presentation)	1
Other (Any other activity implemented (IP/R&I newsletters, news posted on platforms and partners corporate websites)	2
*See comment on Bluestar CEO highlighting REE4EU as an example of waste management projects where Elkem is partner.	

Specify the estimated number of persons reached, in the context of all dissemination and communication activities, in each of the following categories

AUDIENCE	PERSONS
Scientific Community	100
Industry	125
General Public	20.000 (see above)





Description of events attended:

Type of activities	Main leader	Title	Date	Place	Type of audience	Size of audience	Countries addressed	Link to the website
Presentation/ Conference		REE4EU pilot project		Gothenburg, Sweden	Industry	100		www.circularmaterialsconference.se/speaker- presentations- 2016/

Description of other dissemination activities (press releases, news, nonscientific publications, etc.):

Type of activities	Main leader	Title	Date	Place	Type of audience	Size of audience	Countries addressed	Link to the website
News on the website	IDENER	REE4EU Environment, Multidisciplinary Design Optimization, Public - EU FP7 / H2020	October 2015	IDENER website	Companies/ Research organizations/		Internation al	http://www.idener.es/?portf olio=ree4eu
News on website	IDENER	"REE4EU" first bi- annual progress meeting	2 nd May 2016	IDENER website	Companies/ Research organizations/ Industrial		All	http://www.idener.es/?p=22 <u>62</u>



					associations		
News on website	IDENER		11st July 2016	website	Companies/ Research organizations/ Industrial associations	 All	http://www.idener.es/?p=22 80
News on website	IDENER	kick off	3th November 2015	website	Companies/ Research organizations/ Industrial associations	 All	http://www.idener.es/?p=22 05

Specify the number of Dissemination and Communication activities linked to the project for each of the following categories

DISSEMINATION ACTIVITIES	N°
Participation to a Conference (the REE4EU project takes part in a conference with a poster/oral presentation)	1
Other (Any other activity implemented (IP/R&I newsletters, news posted on platforms and partners corporate websites)	4

Specify the estimated number of persons reached, in the context of all dissemination and communication activities, in each of the following categories

AUDIENCE	PERSONS
Scientific Community	100
Industry (audiences in exhibitions, general conferences, (i.e. estimated number of IP/R&I)	15
General Public (social media (FB, linkedin, twitter), partner corporate websites)	1000 (* assuming that 1 of every 5 visitors of our
	website has seen REE4EU-related content)





Description of other dissemination activities (press releases, news, nonscientific publications, etc.):

Type of activities	Main leader	Title	Date	Place	Type of audience	Size of audienc e	Countries addresse d	Link to the website
	'		11/02/201 6		Companies/ Research organizations/ Industrial associations	1373	Europe	https://www.linkedin.com/comp any/inovertisp%C3%B4le-technologies- propres?trk=biz-companies-cym
	INOVERTIS/ A3i	Technical Meeting 2 in Spain	11/03/201 6		Companies/ Research organizations/ Industrial associations	161	Europe	https://www.linkedin.com/comp any/inovertisp%C3%B4le-technologies- propres?trk=biz-companies-cym
Post on Viadéo	INOVERTIS/ A3i	Kick-off and TM1 in Norway	11/02/201 6		Companies/ Research organizations/ Industrial associations	>200	France	http://www.viadeo.com/fr/com pany/inovertis-pole- technologies-propres



Post on Viadéo	INOVERTIS/ A3i	TM2 in Spain	11/03/201 6		Companies/ Research organizations/ Industrial associations	>200	France	http://www.viadeo.com/fr/com pany/inovertis-pole- technologies-propres
Post on Twitter	INOVERTIS/ A3i	Kick-off and TM1 in Norway	11/02/201 6	Twitter	Companies/ Research organizations/ Industrial associations	> 289	Europe	https://twitter.com/inovertis_tp
Post on Twitter	INOVERTIS/ A3i	TM2 in Spain	11/03/201 6	Twitter	Companies/ Research organizations/ Industrial associations	> 100	Europe	https://twitter.com/inovertis_tp
Press release	INOVERTIS/ A3i	"Inovertisgagne un projeteuropéend' envergure" – (Inovertis won a major european project)	27/07/201 6	Press release – EconomieDrô moise Journal (ED N°192 – Juillet/Août, P8)	CEO other subscribers (public organizations) -deposit locations chambers of commerce	- 18 181 - 692 (400) - 37 - 6	France (Rhône- Alpes)	https://www.linkedin.com/comp any/inovertisp%C3%B4le-technologies- propres/comments?topic=61639 91460552204289&type=U&scop e=10046492&stype=C&a=fX6x
Post on Twitter	INOVERTIS/ A3i	Press release	27/07/201 6	Twitter	Companies/ Research	> 100	Europe	https://twitter.com/inovertis_tp
					organizations/			



					and the second second			
					Industrial			
					associations			
Post on	INOVERTIS/	Press release	27/07/201	Viadéo	Companies/	>200	France	http://www.viadeo.com/fr/com
Viadéo	A3i		6		Research			pany/inovertis-pole-
					organizations/			technologies-propres
					Industrial			
					associations			
Post on	INOVERTIS/	Press release	27/07/201	Linked In	Companies/	161	Europe	https://www.linkedin.com/comp
Linked In	A3i		6		Research			any/inovertisp%C3%B4le-
					organizations/			technologies-propres?trk=biz-
					Industrial			companies-cym
					associations			

Specify the number of Dissemination and Communication activities linked to the projectfor each of the following categories

DISSEMINATION ACTIVITY	N
Press release	1
Social Media (posts on social media channels published including partners' websites)	9

Specify the estimated number of persons reached, in the context of all dissemination and communication activities, in each of the following categories

AUDIENCE	N°
General Public (social media (FB, linkedin, twitter), partner corporate websites)	1 500
Other (local journal)	18 000





Description of events attended:

Type of activities	Main leader	Title	Date	Place	Type of audience	Size of audience	Countries addressed	Link to the website
Conference	CEA	Invitation to a Plenary conference	12 02 2016	Midi- Minatec Grenoble – FRANCE	Companies/ Research	400	Europe	

Description of other dissemination activities (press releases, news, nonscientific publications, etc.):

Type of activities	Main leader	Title	Date	Place	Type of audience	Size of audience	Countries addressed	Link to the website
News on the website	CEA	Hydrometallurgi cal processes: a unique alternative for recovering and recycling critical	6 october 2016	Website of CEA	Companies/ Research organizations/ Industrial		Europe	http://liten.cea .fr/cea- tech/liten/en/P ages/techno%2 OTransverse/Hy
		metals			associations			droMetallicPro cesses.aspx

Specify the number of Dissemination and Communication activities linked to the project for each of the following categories

DISSEMINATION ACTIVITIES N°



Participation to a Conference (the REE4EU project takes part in a conference with a poster/oral presentation)	1
Other (Any other activity implemented (IP/R&I newsletters, news posted on platforms and partners corporate websites)	1

Specify the estimated number of persons reached, in the context of all dissemination and communication activities, in each of the following categories

AUDIENCE	PERSONS
Scientific Community	>300
Industry	>50
Civil Society	>500
Customers	>50



Description of events attended:

ſ	Type of	Main	Title	Date	Place	Audience:	Size of	Countries	Link to the website
۱	activities	leader					audience	addressed	
						number of			
						industries			
۱									



							_	
Congress, Oral presentation + stand at the event		Eurobike Show	31 august- 4 september 2016	Friedrichshafen, Germany	Companies/ Research organizations/ Industrial associations	Europe People reached related to REE4EU	(<u>www.eurobike-show.com</u>	
Congress conference	AVERE	LEVS	20 - 21 September 2016	Barcelona, Spain	Companies/ Research organizations/ Industrial associations	International, 25 countries	http://www.levs.mobi/	
Conference	AVERE	CRM Alliance	27 September 2015	Brussels, Belgium	Companies/ Industrial associations/ Policy makers	European orientation	http://criticalrawmaterials.org	

Description of other dissemination activities (press releases, news, nonscientific publications, etc.):

	Type of	Main leader	Title	Date	Place	Type of	Size of	Countries	Link to the
1	activities					audience	audience	addressed	website
1	activities					uuuiciicc	uuuiciicc	addressed	Website



news	AVERE	REE4EU project: High Temperature Electrolysis Engineering Strategy Meeting, Trondheim (20- 22 June 2016)	13 July 2016	AVERE website	Companies/ Research organizations / Industrial associations	Unknown, not monitored	Europe	http://www.av ere.org/www/i ndex.php
News	AVERE	REE4EU project: High Temperature Electrolysis Engineering Strategy Meeting, Trondheim (20- 22 June 2016)	13 July 2016	AVERE LEV-TF website	Companies/ Research organizations / Industrial associations	unknown	Europe	https://averele v.wordpress.co m/
Article	AVERE	Second REE4EU Newsletter is out	17 August 2016	AVERE LEV-TF website	Companies/ Research organizations / Industrial associations	unknown	Europe	https://averele v.wordpress.co m/
News	AVERE	Second REE4EU Newsletter is out	17 august 2016	AVERE website	Companies/ Research organizations / Industrial	Unknown, not monotored	Europe	http://www.av ere.org/www/i ndex.php



					associations			
Tweet	AVERE	Second REE4EU	17 August	Avere Twitter	Companies/	620	Europe	https://twitter.
		Newsletter is out	2016	account	Research	followers		com/AVERE_E
					organizations			U
					/ Industrial			
					associations			

Specify the number of Dissemination and Communication activities linked to the project for each of the following categories

DISSEMINATION ACTIVITIES	N°
Social Media (posts on social media channels published including partners' websites)	1
Participation to a Conference (the REE4EU project takes part in a conference with a poster/oral presentation)	3
Other (Any other activity implemented (IP/R&I newsletters, news posted on platforms and partners corporate websites,)	4



Description of dissemination events attended or planned:

Type of	Main	Title	Date	Place	Type of audience	Size of	Countries	Link to the website
activities	leader					audience	addressed	



Congress	PNO/CIAO TECH	12 th Congress of the Interdivisional Group of Organometallic Chemistry Co.G.I.C.O.	₅ th _{_8} th June 2016	Genoa, Italy	Companies/ Research organizations/	130	Europe	http://www.sciliguria.it/COGICO 2016/EN index.htm
Conference , REE4EU project presentatio n	PNO/CIAO TECH	Ree4eu project presentation at the New_InnoNet project event	9 June 2016	Brussels	Companies/ Research organizations/	97	Europe	http://www.newinnonet.eu/
Conference	PNO/CIAO TECH	European Conference Industrial Technologies		RAI Amsterda m, The Netherlan	Companies/ Research organizations/	1.250	Europe	http://www.industrialtechnologi es2016.eu/
		2016		ds				
Congress	PNO/CIAO TECH	Ecomondo – the green Technologies expo	8th to 11th of November 2016	Rimini, Italy	Companies/ Research organizations/ Industrial associations	100.000	Internation al	http://en.ecomondo.com/

Description of other dissemination activities (press releases, news, nonscientific publications, etc.) realized or planned:

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Type of	Main leader	Title	Date	Place	Type of audience	Size of	Countries	Link to the website
activities						audience	addressed	
News on newsletter	PNO/CIAOTE CH	Innovation Place Newsletter	₄ th November 2015	PNO web- portal (Europe)	Companies/ Research organizations/ Industrial associations	> 10.000	Europe	https://www.innovationp lace.eu/
Press release	PNO/CIAOTE CH	Finanzia i tuoi progetti di Ricerca e Sviluppo grazie ad Horizon 2020	December 2015	Italy	Companies	2.000	Italy	http://www.youblisher.c om/p/1294421-Fare-n- 30- Dicembre-2015/
Post on linkedin	PNO/CIAOTE CH	PNO Consultants in the Circular Economy field	8th December 2015	Linkedin	Companies/ Research organizations/ Industrial associations		Europe	
News on website	PNO/CIAOTE CH	REE4EU project website now online	January 29, 2016	PNO web- portal (Europe)	Companies/ Research organizations/ Industrial associations	> 10.000	Europe	https://www.innovationp lace.eu/news/REE4EU- project- website-now- online!



News on website	PNO/CIAOTE CH	Lanciato il sito del progetto REE4EU		PNO Web portal in Italy	Companies/ Research organizations/ Industrial associations	> 6.000	·	https://www.ricercaeinno vazione.it/news/Lanciato- il-sito- del-progetto- REE4EU!
Post on linkedin, Innovation Place group	PNO/CIAOTE CH	REE4EU project website now online	₂₉ th January 2016	Linkedin	Companies/ Research organizations/ Industrial associations	835		https://www.linkedin.co m/groups/4086674
Tweet on twitter	PNO/CIAOTE CH	REE4EU project website now online	₂₉ th January 2016	Twitter	Companies/ Research organizations/ Industrial associations	229	Europe	https://twitter.com/innov ation pl
Post on Facebook	PNO/CIAOTE CH	REE4EU project website now online	₂₉ th January 2016	Facebook	Companies/ Research organizations/ Industrial associations	200		https://www.facebook.co m/innovation.place.pno?f ref=pb&hc_location=profi le_browser



News on website	PNO/CIAOTE CH	REE4EU partners meeting –		(Europe)	Companies/ Research organizations/ Industrial associations	> 10.000	Europe	https://www.innovationp lace.eu/news/REE4EU- Partner-meeting 28-29- January,-Kristiansand- %28Norway%29
News on website	PNO/CIAOTE CH	Progetto REE4EU, incontro dei partners		Italy	Companies/ Research organizations/ Industrial associations	> 6.000	Italy	https://www.ricercaeinno vazione.it/news/Primo- meeting-di- progetto-per- REE4EU28-29-gennaio,- Kristiansand- %28Norvegia%29
Post on linkedin, Innovation Place group	PNO/CIAOTE CH	REE4EU partners meeting –	7 th March 2016		Companies/ Research organizations/ Industrial associations	835	Europe	https://www.linkedin.co m/groups/4086674
Post on linkedin, comapy page	PNO/CIAOTE CH	REE4EU partners meeting –	7 th March 2016		Companies/ Research organizations/ Industrial associations	111	Europe	https://www.linkedin.co m/company/innovation- place



Tweet on twitter	PNO/CIAOTE CH	REE4EU partners meeting –	7 th March 2016	Twitter	Companies/ Research organizations/ Industrial associations	229	Europe	https://twitter.com/innov ation_pl
Post on Facebook	PNO/CIAOTE CH	REE4EU partners meeting –	7 th March 2016	Facebook	Companies/ Research organizations/ Industrial associations	200	Europe	https://www.facebook.co m/innovation.place.pno?f ref=pb&hc location=profi le browser
News on newsletter	PNO/CIAOTE CH	Innovation Place Newsletter - REE4EU project: first six months partner meeting, Sweden (19-20 April)	5 May 2016	PNO web- portal (Europe)	Companies/ Research organizations/ Industrial associations	> 10.000	Europe	https://www.innovationp lace.eu/
SPIRE NEWSLETT ER	PNO/CIAOTE CH	REE4EU: first six months progress meeting	17 May 2016	SPIRE NEWSLETTER	Companies/ Research organizations/ Industrial associations		Europe	
Post on Google + Ciaotech	PNO/CIAOTE CH	Il progetto REE4EU partecipa alla conferenza	17 June 2016	Google + Ciaotech-	Companies/ Research organizations/	>8000	Europe	https://plus.google.com/ b/1098110770072358284 37/109811077007235828 437/posts?gmbpt=true&h l=it



Post on	PNO/CIAOTE	Industrial Technologies 2016!	17 June	Google +	Industrial associations Companies/	>6000	Europe	https://plus.google.com/
Google + Innovation Place		REE4EU project at the Industrial Technologies 2016 conference!	2016	Innovation Place	Research organizations/ Industrial associations			b/1045551285549369830 80/104555128554936983 080/posts?gmbpt=true&h l=it
Post on Facebook IP	PNO/CIAOTE CH	REE4EU project at the Industrial Technologies 2016 conference	17 June 2016	Facebook Innovation Place	Companies/ Research organizations/ Industrial associations	214	Europe	https://www.facebook.co m/innovation.place.pno/
Post on Linkedin, IP	СН	REE4EU project at the Industrial Technologies 2016 conference	17 June 2016	Linkedin, Innovation Place Group	Companies/ Research organizations/ Industrial associations	848	Europe	https://www.linkedin.co m/groups/4086674
Post on Linkedin	PNO/CIAOTE CH	REE4EU project at the Industrial Technologies 2016 conference	17 June 2016	Linkedin, Innovation Place company page	Companies/ Research organizations/ Industrial associations	120	Europe	https://www.linkedin.co m/company/2332689?trk =tyah&trkInfo=clickedVer tical%3Acompany%2Centi tyType%3AentityHistoryN ame%2CclickedEntityId% 3Acompany_company_23 32689%2Cidx%3A0



Nows on	DNO/CIAOTE CU	Conferenza Industrial	17 June	PNO CIAOTECH	Companies/ Research	>6000	Italy	http://www.pnoconsulta
News on website	PNO/CIAOTE CH	Technologies 2016: parteciperà anche il progetto REE4EU	2016	web portal	organizations/ Industrial associations	>0000	Italy	nttp://www.pnoconsulta nts.it/news/id/1881/conf erenza-industrial- technologies-2016- partecipera-anche-il- progetto-ree4eu
News on website	PNO/CIAOTE CH	REE4EU project at the Industrial Technologies 2016 conference!	17 June 2016	PNO web- portal Europe	Companies/ Research organizations/ Industrial associations	>10000	Europe	https://www.innovationp lace.eu/networking- news/REE4EU-project- at- the-Industrial- Technologies-2016- conference!
Tweet on Twitter	PNO/CIAOTE CH	REE4EU project at the Industrial Technologies 2016 conference!	17 June 2016	Twitter Innovation Place	Companies/ Research organizations/ Industrial associations	250	Europe	https://twitter.com/INNO_VATION_PL
News on Newsletter	PNO/CIAOTE CH	Progetto REE4EU: meeting per le strategie di progettazione dei reattori per l'elettrolisi ad alte temperature – Trondheim, 20-22 giugno 2016	6 July 2016	PNO Web portal in Italy	Companies/ Research organizations/ Industrial associations	> 6.000	Italy	https://www.ricercaeinno vazione.it/news/Lanciato- il-sito-del- progetto- REE4EU!
News on	PNO/CIAOTE	REE4EU project:	7 July 2016	PNO web-	Companies/	>10000	Europe	https://www.innovationp



website	СН	High Temperature Electrolysis Engineering Strategy Meeting, Trondheim (20-22		portal Europe	Research organizations/ Industrial associations			lace.eu/news/REE4EU- project:-High- Temperature-Electrolysis- Engineering- Strategy- Meeting,-Trondheim- %2820-22-June-2016%29
News on website	PNO/CIAOTE CH	Progetto REE4EU: meeting per le strategie di progettazione dei reattori per l'elettrolisi ad alte temperature – Trondheim, 20-22 giugno 2016	6 July 2016	PNO CIAOTECH web portal	Companies/ Research organizations/ Industrial associations	>6000	Italy	http://www.pnoconsulta nts.it/news/id/1900/prog etto-ree4eu- meeting-per- le-strategie-di- progettazione- dei- reattori-per-lelettrolisi- ad-alte- temperature- trondheim-20-22-giugno- 2016



News on	PNO/CIAOTE CH	Progetto REE4EU:	6 July 2016	PNO Web portal in	Companies/ Research	>6000	Italy	https://www.ricercaeinno
website	<u>'</u>	meeting per le strategie	<i>'</i>	Italy	organizations/ Industrial		'	vazione.it/news/Progetto
		di progettazione dei		·	associations			-REE4EU:-meeting-per-le- strategie-di-
		reattori per l'elettrolisi						progettazione-dei- reattori-per-
		ad alte temperature –						l%E2%80%99elettrolisi- ad-alte-
		Trondheim, 20-22						tempertature-
		giugno 2016						%E2%80%93-Trondheim,- 20-22-giugno- 2016
Tweet on	PNO / CIAOTECH	RFF4FU project:	6 July	Twitter	Companies/		Europe	https://twitter.com/INNO VATION_PL
Twitter		High Temperature			Research organizations/		- u. ope	ps,,,e,e
		Electrolysis		Innovation	Ŭ .			
		Engineering		Place	Industrial			
		Strategy Meeting,			associations			
		Trondheim (20-22						
		June 2016)						
SPIRE	PNO/CIAOTE CH		4 July 2016	SPIRE NEWSLETTER			Europe	
NEWSLETT ER 2 news		High Temperature Electrolysis			Research organizations/			
		Engineering			Industrial			
		Strategy Meeting,			associations			
		Trondheim (20-22						
		June 2016)						



News on Newsletter	PNO/CIAOTE CH	REE4EU project: High Temperature	19 July 2016	PNO web- portal	Companies/ Research	>10000	Europe	
Newsiettei		Electrolysis	2010	(Europe)	organizations/			
		Engineering			Industrial			
		Strategy Meeting -			associations			
		20-22 June,						
		Trondheim						
		Pubblicata la	7	PNO Web	Companies/	>6.000	Europe	
News on newsletter	PNO/CiaoTec h	seconda newsletter del progetto REE4EU	September 2016	portal in Italy	Research organizations/ Industrial			
					associations			
News on newsletter	PNO/Ciaotec h	Release of the second REE4EU newsletter	7 September 2016	PNO Web portal (Europe)	Companies/ Research organizations/ Industrial associations	>6000	Europe	



Post on IP Linkedin	PNO/CiaoTec h	REE4EU project - Rare Earth Recycling for Europe – second newsletter focusing on research centers and organizations involved in the project	3 October 2016	Linkedin Innovation Place	Companies/ Research organizations/ Industrial associations	872	Europe	https://www.linkedin.co m/groups/4086674/4086 674- 6188649584953225217
Tweet on IP Twitter	PNO/CiaoTec h	#REE4EU Find out more about the RTOs involved in the project by reading the second newsletter here	2016	Twitter IP	Companies/ Research organizations/ Industrial associations	258	Europe	https://twitter.com/INNO VATION PL
News on website	PNO/CIAOTE	REE4EU project meeting in	1 December	PNO web	Companies/ Research	>10000	Europe	https://www.innovationp lace.eu/news/REE4EU-
	СН	Trondheim, Norway	2016	portal Europe	organizations/ Industrial associations			project-meeting-in- Trondheim,-Norway



News on website	PNO/CIAOTE CH	Meeting del progetto REE4EU a Trondheim, Norvegia	1 December 2016	PNO Web portal in Italy	Companies/ Research organizations/ Industrial associations	>6000	Italy	https://www.ricercaeinno vazione.it/news/Meeting- del-progetto- REE4EU-a- Trondheim,-Norvegia
News on newsletter	PNO/CiaoTec h	REE4EU project meeting in Trondheim, Norway	13 December 2016	PNO web portal Europe	Companies/ Research organizations/ Industrial associations	>10000	Europe	www.innovationplace.eu
News on newsletter	PNO/CiaoTec h	Meeting del progetto REE4EU a Trondheim, Norvegia	13 December 2016	PNO Web portal in Italy	Companies/ Research organizations/ Industrial associations	>6000	Italy	https://www.ricercaeinno vazione.it/
News on newsletter	PNO/CiaoTec h	Release of the third REE4EU newsletter	11 January 2017	PNO web portal Europe	Companies/ Research organizations/ Industrial associations	>10000	Europe	www.innovationplace.eu



News on	PNO/CiaoTec h	Pubblicata la terza	12 January	PNO Web portal in	Companies/ Research	>6000	Italy	https://www.ricercaeinno
newsletter		newsletter del progetto	2017	Italy	organizations/Industrial			vazione.it/
		REE4EU			associations			
							_	
	PNO/CiaoTec h	Release of the third	12 January	PNO web portal	Companies/ Research	>10000	Europe	https://www.innovationp
website		REE4EU newsletter	2017	Europe	organizations/ Industrial			lace.eu/news/Release-of- the-
					associations			third-REE4EU- newsletter
News on	PNO/CiaoTec h	Pubblicata la terza	12 January	PNO Web portal in	Companies/ Research	>6000	Italy	https://www.ricercaeinno
website		newsletter del progetto		Italy	organizations/ Industrial		,	vazione.it/news/Pubblica ta-la-
WEDSILE		REE4EU	2017	italy	associations			terza-newsletter- del-progetto-
		REE4EU			associations			
								REE4EU

Specify the number of Dissemination and Communication activities linked to the project for each of the following categories

DISSEMINATION ACTIVITIES	N°
Press release (issued by every partner composing the project consortium)	9
Non-scientific and non-peer-reviewed	1
Exhibition (participation of the project to an exhibition event with a stand/corner)	1
Flyer (number of flyers distributed)	1500
Social Media (posts on social media channels published including partners' websites)	18
Website (posts, news, updates published on the project website)	41
Participation to a Conference (the REE4EU project takes part in a conference with a poster/oral presentation)	2



Participation to a Workshop (the REE4EU project takes part in a workshop with a poster/oral presentation)	1
Trade Fair(exhibition specifically dedicated to a targeted sector/audience)	1
Other (Any other activity implemented (IP/R&I newsletters, news posted on platforms and partners corporate websites,)	26

Specify the estimated number of persons reached, in the context of all dissemination and communication activities, in each of the following categories

AUDIENCE	PERSONS
	PERSONS
Scientific Community	4.800
Industry	15.000
Civil Society	1000
General Public	1589
Policy Makers	500



Description of events attended:

Type of activities	Main leader	Title	Date	Place	Type of audience	Size of audience	Countries addressed	Link to the website
Conferenc e, REE4EU project presentati on		SusChem Stakehold er Event	16 June 2016			230 participant s,	Europe	http://suschem.blogspot.be/2016_06_01_archi ve.html



Workshop, REE4EU project presentati on	CEFIC	SusChem and European Projects presentati on	31 October – 02 Novemb er 2016	(Brazil)	Companies / Universities / Research associations / legal authorities	100	Internation al	No link – internal conference
Workshop, REE4EU project presentati on	CEFIC	SusChem and European Projects presentati on	07 Novemb er 2016	(Brazil)	Companies / Universities / Research associations / legal authorities	150	Internation al	No link – internal conference

Description of other dissemination activities (press releases, news, nonscientific publications, etc.):

Type of activities	Main leader	Title	Date	Place	Type of audience	Size of audienc e	Countries addresse d	Link to the website
ARTICLE	CEFIC	Not published yet	MARCH 2017	IMPACT MAGAZINE	Broad audience		EUROPE	Not published yet

Specify the number of Dissemination and Communication activities linked to the project for each of the following categories

DISSEMINATION ACTIVITIES	N°
Press release (issued by every partner composing the project consortium)	1
Non-scientific and non-peer-reviewed publication (popularised publication) (non-scientific publications written by a partner of the project consortium (es, magazines)	1
Participation to a Conference (the REE4EU project takes part in a conference with a poster/oral presentation)	3

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Specify the estimated number of persons reached, in the context of all dissemination and communication activities, in each of the following categories

AUDIENCE	PERSONS					
Industry (audiences in exhibitions, general conferences, (i.e. estimated number of IP/R&I)	100					
General Public (social media (FB, linkedin, twitter), partner corporate websites)						
Policy Makers (in case of dedicated workshops/conferences)	> 100					



Description of other dissemination activities (press releases, news, nonscientific publications, etc.):

Type of activities	Main leader	Title	Date	Place	Type of audience	Size of audience	Countries addressed	Link to the website
News	STENA	Recycling project about recycling rare earth metals	13 May 2016	Metal Supply (Raw material related) website	Industrial associations	25.800	Sweden	http://www.m etal- supply.se/ar ticle/view/2 51993/okad t illgang till sallsynta m etaller#.Vz4 X701f2bw
News	STENA	Recycling project about recycling rare earth metals	10 May 2016	Bergsmannen (Raw material related)	Companies/ Research organizations/ Industrial associations	7.700	Sweden	



News	STENA	Stena medverkar till återvinning av sällsynta jordartsmetaller STENA METALL IN NEW EU PROJECT FOCUSED ON RECYCLING OFRARE EARTH METALS	17 May 2016	Aktuell hållbarhet (Sustainabil ity news magazine	Companies/ Research organizations/ Industrial associations	20.000	Sweden	http://www.akt uellhallbarhet.s e/stena- medverkar-till- atervinning-av- sallsynta- jordartsmetalle r/
News	STENA	Recycling project about recycling rare earth metals	16 May 2016	Recyclingnet website (Recycling Industry magazine)	Companies/ Research organizations/ Industrial associations	27.000	Sweden	http://www.rec yclingnet.se/ny heter/atervinni ngsprojekt-for- sallsynta- jordartsmetalle r/



News	STENA	/STENA METALL IN NEW RECYCLING PROJECT ABOUT RECYCLING OF RARE EARTH METALS	13 May 2016	Metaller och gruvor website (Raw material related)	Companies/ Research organizations/ Industrial associations	10.000	Sweden	http://www.m etallerochgruvo r.se/2016/05/st ena-metall-i- nytt- forskningsproje kt
Post	STENA	STENA METALL IN NEW RECYCLING PROJECT ABOUT RECYCLING OFRARE EARTH METALS	10 May 2016	Facebook	Companies/ Research organizations/ Industrial associations	3.000	Sweden	https://www.fa cebook.com/ur bergsgruppenG renna/
Press release	STENA	/STENA METALL IN NEW RECYCLING PROJECT ABOUT RECYCLING OF RARE EARTH METALS	13 May 2016	STENA pressroom	Companies/ Research organizations/ Industrial associations	1.800	Sweden	



Video	STENA	/STENA METALL IN NEW RECYCLING PROJECT ABOUT RECYCLING OF RARE EARTH METALS	13 May 2016	Youtube STENA channel	Companies/ Research organizations/ Industrial associations	2.400	INTERNATION AL	
Post	STENA	STENA METALL IN NEW RECYCLING PROJECT ABOUT RECYCLING OF RARE EARTH METALS	13 May 2016	Stena LinkedIn accounts in Sweden	Companies/ Research organizations/ Industrial associations	23.000 impressions 136 clicks to YouTube 93 social actions/likes 3 comments	INTERNATION AL	
Post	STENA	STENA METALL IN NEW RECYCLING PROJECT ABOUT RECYCLING OF RARE EARTH METALS	13 May 2016	Stena LinkedIn accounts in Poland	Companies/ Research organizations/ Industrial associations	1.334 impressions 6 clicks to YouTube 8 social actions/likes	PL	



post	STENA	/ STENA METALL IN NEW RECYCLING PROJECT ABOUT RECYCLING OF RARE EARTH METALS	13 May 2016	WEBsites, digital annual report etc	9.000	INTERNATION AL	Stenametall.co m
post	STENA	STENA METALL IN NEW RECYCLING PROJECT ABOUT RECYCLING OF RARE EARTH METALS	13 May	Industry magazine	4.000	Sweden	http://www.ind ustripress.se/st ena-metall-i- nytt- forskningsproje kt-om- atervinning-av- sallsynta- jordartsmetalle
POST	STENA	STENA METALL IN NEW RECYCLING PROJECT ABOUT RECYCLING OF RARE EARTH METALS	17 May 2016	Industry magazine		Sweden	https://nozakss on.wordpress.c om/2016/05/1 7/nu-skall- jordartsmetalle r-atervinnas/



POST	STENA	/ STENA METALL IN NEW RECYCLING PROJECT ABOUT RECYCLING OF RARE EARTH METALS	1 dec 2016	Industry/fin ancemagazine	20.000	Sweden	http://www.vaf inans.se/aktier/ nyheter/Stena- Metall-vill- hitta- saett-att- %C3%A5tervin na-saellsynta- jordartsmetalle r-1001565902
POST	STENA	EU study looks at recycling rare earth metals	8 June 2016	Industry magazine	38.000	International	http://www.rec yclingtodayglob al.com/article/r are-earth- metals-stena- sustainability/

Specify the number of Dissemination and Communication activities linked to the project for each of the following categories

DISSEMINATION ACTIVITIES							
Press release (issued by every partner composing the project consortium)	2						
Social media	8						
Video	1						
Other	5						

Specify the estimated number of persons reached, in the context of all dissemination and communication activities, in each of the following categories

AUDIENCE	PERSONS
General Public (social media (FB, linkedin, twitter), partner corporate websites)	189000
Customers	10.000



ANNEX II

LIST OF EVENTS AND OTHER ACTIONS IN THE FRAMEWORK OF THE DISSEMINATION (M19-M30)

In the following pages, all the activities implemented by the REE4EU partners in the framework of the dissemination are reported.

They refer to the period M19 – M30.



SINTEF

Type of activities	Main leader	Title	Date	Place	Type of audience	Size of audience	Countries addressed	Link to the website
Conference	SINTEF	Presentation of the project and some results at the 2nd Conference on European Rare Earths Resources (ERES 2017)	•	Santorini (Greece)	Companies, Research organizations , and Policy Makers	300 (RTO: 200, Companies: 50, Policy Makers: 50)	Europe	http://eres2017.eresconfer ence.eu/
Workshop	SINTEF	Presentation of the project at the NAMEC workshop (Nanotechnology & advanced materials for the Energy Union – Going Circular), satellite of the EuroNanoForum Conference	23 June 2017	Valletta, Malta	Companies, Research organizations , Industrial associations and Policy Makers	25 (RTO: 15, Policy makers:5, Companies: 5)	Europe	https://www.namec- cluster.org/single- post/2017/05/23/NAMEC- workshop-at- EuroNanoForum-2017- Nanotechnology-advanced- materials-for-the-Energy- UnionGoing-circular
Pitch event	SINTEF	Presentation of the project at the EU Process Industry	19 September 2017	Brussels	Companies, Research organizations , Industrial associations and Policy Makers	250 (RTO: 100, Companies: 100, Policy makers:50)	Europe	https://www.spire2030.eu/ news/new/2017-eu- process- industry- conference



Participatio n in activities organized jointly with other H2020 projects	SINTEF	Clustering workshop. Organized by PLATIRUS project (GA 730224)	26 October 2017	Torino (Italy)	Research organizatio n and Industry	25 (R&D:15 Companies: 10)	Europe	www.platirus.eu
Conference	SINTEF	Presentation of results of the project at the TMS conference. Session: Perfluorocarbon Generation and Emissions from Industrial Processes: PFC Generation Mechanisms from Industrial Processes Tittle: Perfluorocarbon Formation during Rare Earth Electrolysis	11-15 March 2018	Phoenix, Arizona (US)	Research organizations and companies	50 (RTO: 25, Companies: 20, Policy makers: 5)	World	http://www.tms.org/TMS20 18/Home/ http://www.programmaster .org/PM/PM.nsf/ViewSessio nSheets?OpenAgent&Paren tUNID=D4E26CFB7AF9775B 8525815C00641FC4
Conference	SINTEF	Presentation of results of the project at the TMS conference. Session: Perfluorocarbon Generation and Emissions from Industrial Processes: PFC Generation Mechanisms from Industrial Processes Tittle: PFC Evolution Characteristics during Aluminium and Rare Earth Electrolysis	11-15 March 2018	Phoenix, Arizona (US)	Research organizations and companies	50 (RTO: 25 Companies: 20, Policy makers: 5)	World	http://www.programmaster .org/PM/PM.nsf/ViewSessio nSheets?OpenAgent&Paren tUNID=D4E26CFB7AF9775B 8525815C00641FC4



Conference	SINTEF	Invited presentation at the TMS Conference, Session: Deriving Value from Challenging Waste Streams: Recycling and Sustainability Joint Session: Urban Mining and Electronic Waste. Tittle: Urban Mining for a Circular Economy: Activities at SINTEF	11-15 March 2018	Phoenix, Arizona (US)	Research organizations and companies	60 (R&D 45 Companies 15)	World	http://www.programmaster .org/PM/PM.nsf/ViewSessio nSheets?OpenAgent&Paren tUNID=A82ABD0587D7A4E0 852581940049C886
Workshop	SINTEF	Presentation and Poster at the 13th Workshop on Reactive Metal Processing. Tittle: "Urban mining for a circular economy: Activities at SINTEF", some results of the project will be presented	16-17 March 2018	Boston, Cambridg e (US)	Research Organization s, Companies	(R&D: 34, Companies: 10)	World	http://www.okabe.iis.u- tokyo.ac.jp/core-to- core/rmw/RMW13_index.ht ml

Description of other dissemination activities (press releases, news, nonscientific publications, etc.):

Type of activities	Main leader	Title	Date	Place	Type of audience	Size of audience	Countries addressed	Link to the website
LinkedIn post – Slideshare	SINTE F (share d post from Tecnali a)	An independent rare earth elements supply chain. Closing the loop on recycling of rare earth elements	June 2017	Linked In	Companies / Research organizatio ns/ Industrial associations /Pol icy Makers	183	World	https://www.slideshar e.net/jokinhidalgo/clos ing- the-loop-on- recycling-of- rare-earth- elements?trk=v- feed
Twitter	SINTEF	#REE4EU project #costeffective #re-	Septem	Twitter	Companies /	More than	World	https://twitter.com/SPIRE2030/status/91012



post	extraction #poductionr essindustry (oute#SPIF	REProce	#REalloy #proc	ber 2017	Research organizatio ns/ Industrial associations /Pol icy	990	7524306391040
						Makers		

Scientific publications (This field is only for peer reviewed articles)

Type of scientific publicati on	Title of the scientific publication	IOO	NSSI	Authors	Title of the journa I	Numb er, date	Publisher	Place of publication	Year of publication	Relevant pages	Public & private participation	Peer-review	Is/Will open access provided to this publication
Publicati on in Confere nce Proceedi ng	Perfluoroca rbon Formation during Rare Earth Electrolysis	doi.org/10.1007/9 78-3-319-72284-	367-1	K.Osen; A. M. Martinez; H. Gudbrandsen; A. Store; O. Kjos; C. Sommerseth; H. Gaertner; T. A. Aarhaug; P. Chamelot; M. Gibilaro; L. Massot	Light Metal s	2018	Springer Internatio nal Publishing AG		2018	1443- 1448		YES	YES, green open access, embargo 1 year



Publicati	PFC			O. Kjos; A. Solheim; T.	Light	2018	Springer	2018	1449-	YES	YES, green
on in	Evolution	დ ი		Aarhaug; K. Osen; A. M.	Metal		Internatio		1455		open access,
Confere	Characteris	/978 189		Martinez; C.	S		nal				embargo 1
nce	tics during	.1007,	81	Sommerseth; H.			Publishing				year
Proceedi	Aluminium	284	-11	Gudbrandsen; A. Støre;			AG				
ng	and Rare	/10.	29	H.Gaertner							
	Earth	org/ 19-	23								
	Electrolysis	doi.oı -3-31	ISSN								
	, , , , , ,	ן יי ס	<u>57</u>								



Type of activities	Main leader	Title	Date	Place	Type of audience	Size of audience	Countries addressed	Link to the website
Conference	TECNALIA	Presentation at IdeaCAMP	13-14 September 2017	Aachen	Companies/ Research organizations/ Industrial associations/Policy Makers	100	EU	https://eitrawmaterials.eu/events/circular- crm/
Conference: Oral presentation	TECNALIA	Ionic Liquid Based (Ionometallurgy) Industrial Applications in TECNALIA (Recycling of Critical Metals from Primary and Secondary Wastes)	18-21 September 2017	Warsaw	Companies/ Research organizations/ Industrial associations/Policy Makers	100	worldwide	



Conference:	TECNALIA	Integrated	18-21	Warsaw	Companies/	1000	worldwide	
poster		Hig	September		Research			
presentation		h Temperature Electrolysis (HTE) and Ionic Liquid	2017		organizations/ Industrial associations/Policy			
		Extraction (ILE) for a strong and			Makers			
		independent						
		European Rare						
		Earth Element s						
		(REE) Supply Chain						



Description of other dissemination activities (press releases, news, nonscientific publications, etc.):

Type of activities	Main leader	Title	Date	Place	Type of audience	Size of audience	Countries addressed	Link to the website
Slideshare	TECNA LIA	Closing the loop on recycling of rare earth elements	June 2017	Slideshare	Companie s/ Research organizati ons/	More than 720 followers	International	https://es.slideshare.net/jokinhidalgo/closing-the-loop-on-recycling-of-rare-earth-elements
Linkedin post	TECNA LIA	REE4EU Newslette r Issue n°6 February 2018	March 2018	Linkedin	Companie s/ Research organizati ons/	More than 720 followers	International	https://www.linkedin.com/feed/update/urn:li:activity:6379 264926313181184
Slideshare	TECNA LIA	REE4EU Newslette r Issue n°6 February 2018	March 2018	Slideshare	Companie s/ Research organizati ons/	More than 720 followers	International	https://es.slideshare.net/jokinhidalgo/ree4eu-newsletter- issue- n6-february-2018





Description of events attended: workshop, conference, training, trade fair exhibition.

Type of activities	Main leader	Title	Date	Place	Type of audience	Size of audience	Countries addressed	Link to the website
Poster on REE4EU project CONFERENCE	Elkem	INFACON	Feb. 25- 28/18	Cape Town, South Africa	Professionals within ferro alloy industries, suppliers, customers, raw material producers etc.	450	World wide	http://infacon15.com/

Description of other dissemination activities (press releases, news, nonscientific publications, etc.):

Type of activities	Main leader	Title	Date	Place	Type of audience	Size of audience	Countries addressed	Link to the website
Intranett	ELKEM	"REE4EU pilot has started"	March 6th	Elkem Intranett	All employees	6000	World wide within Elkem	N/a





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Description of events attended: workshop, conference, training, trade fair exhibition.

REE4EU- GA n° 680507

Type of activities	Main leader	Title	Date	Place	Type of audience	Size of audience	Countries addressed	Link to the website
Conference	IDENER	E-waste recycling chain event	13-14th Septembe r	Aachen (German y)	R&D researchers , industry	100	EU	https://eitrawmaterials.eu/events/circul ar-crm/
Workshop	IDENER	H2020 Busness opportuniti es in the circular economy event	19th Septembe r	Oslo (Norway)	R&D researchers , industry	100-120	EU	https://www.b2match.eu/h2020circular economy
Conference/ workshop	IDENER	Raw Materials Week	6-10th Novembe r 2017	Brussels (Belgium)	R&D researchers , industry, policy makers	200-300	EU	https://ec.europa.eu/growth/content/r aw- materials-week-2017_en
Conference/Pitch	IDENER	SPIRE Process Industry Conference	19th Septembe r	Brussels (Belgium)	Relevant stakeholder s for EU Process Industry	200-300	EU	https://www.spire2030.eu/news/new/2 017-eu- process-industry-conference



Description of other dissemination activities (press releases, news, nonscientific publications, etc.):

Type of activities	Main leader	Title	Date	Place	Type of audience	Size of audienc e	Countries addresse d	Link to the website
News at website	IDENER	IDENER attends E- waste recycling chain event in Aachen (Germany)	25 Sep 2017	IDENER website	Public audience		All	http://www.idener.es/?p=249 8
News at website	IDENER	IDENER attends REE4EU Midterm meeting in Brussels	19 Sept 2017	IDENER website	Public audience		All	http://www.idener.es/?p=260 1



Description of dissemination events attended or planned:



WORKSHO P	PNO/CIAO TECH	CPPP IMPACT WORKSHOP	17 May 2017	Brussels, Belgium	Companies/ Research organizations/	185: 90 scientific comm 95 industry	Europe	http://www.buildup.eu/en/news /cppp-impact-workshop-2017- report-and-presentations- available
CONFEREN CE	PNO/CIAO TECH	Conference on Environmental Engineering and Management (ICEEM)	6-9 September 2017	Bologna, Italy	Companies/ Research organizations/	250 academia 50 industries	Europe	http://iceem.ro/
CONFEREN CE	PNO	2017 EU PROCESS INDUSTRY SPIRE CONFERENCE: A LOOK TO THE FUTURE	19-21 September	Brussels, Belgium	Companies/ Research organizations/	300: 150 industry 150 scientific community	Europe	https://www.spire2030.eu/news/new/2017-eu-process-industry-conference
Workshop	PNO	INSPIRE Business Model innovation Workshop	23 November 2017	Brussels, Belgium	Companies/ Research organizations/	Around 100: 50 industry 50 scientific community	Europe	http://www.inspire-eu- project.eu/wp- content/uploads/2017/11/20171 128-press-release-INSPIRE- workshop.pdf
Workshop	PNO	Platrirus project clustering event	08 November 2017	Brussels, Belgium	Companies/ Research organizations/	20: 10 industry 10 scientific	Europe	http://www.platirus.eu/news- and-events/platirus-m12- meeting-clustering-workshop/



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Description of other dissemination activities (press releases, news, nonscientific publications, etc.) realized or planned:

Type of activities	Main leader	Title	Date	Place	Type of audience	Size of audience	Countries addressed	Link to the website
News on website	PNO/CIAOTEC H	The Value chains stakeholders analysis report now available!	15/5/17	REE4EU webportal	Companie s/ Research organizati ons/ Industrial associatio ns	200	Europe	http://www.ree4eu.eu/news-and- events/value-chains-stakeholders- analysis-report-now-available/
News on website	PNO/CIAOTEC H	REE4EU project meeting in Liverpool (UK)	18/5/17	REE4EU webportal	Companie s/ Research organizati ons/ Industrial associatio ns	200	Europe	http://www.ree4eu.eu/news-and- events/ree4eu-project-meeting- liverpool-uk/
News on website	PNO/CIAOTEC H	REE4EU article on the IMPACT MAGAZINE	22/6/17	REE4EU webportal	Companie s/ Research organizati ons/ Industrial associatio ns	200	Europe	http://www.ree4eu.eu/news-and- events/ree4eu-article-impact- magazine/
Tweet on	PNO/CIAOTEC	Vi segnaliamo	28/7/17	Twitter	Companie	250	Italy	https://twitter.com/PNO_IT/status/890



Twitter - Ciaotech	Н	un'interessante intervista di Ana Maria Martinez di @SINTEF su #REE4EU:			s/ Research organizati ons/ Industrial associatio			<u>865697697308672</u>
Tweet on Twitter – Innovatio n Place	PNO/CIAOTEC H	Interesting article on the IMPACT MAGAZINE on the work done in the framework of #REE4EU. http://bit.ly/2tt ZYII	28/7/17	Twitter	ns Companie s/ Research organizati ons/ Industrial associatio ns	250	Europe	https://twitter.com/INNOVATION PL/s tatus/890865688809746432
Post on linkedin, Innovatio n Place group	PNO/CIAOTEC H	5th REE4EU newsletter just released	22/8/17	Linkedin	Companie s/ Research organizati ons/ Industrial associatio ns	835	Europe	https://www.linkedin.com/feed/updat e/urn:li:activity:6306466201308524544
News on website	PNO/CIAOTEC H	The fifth newsletter of the REE4EU project was released	22/8/17	PNO Web portal	Companie s/ Research organizati ons/	> 10.000	Europe	https://www.innovationplace.eu/news /5th-ree4eu-newsletter-just-released



	Industrial		

					associatio ns			
Tweet on Twitter – Innovatio n Place	PNO/CIAOTE C H	5th #REE4EU newsletter just released	24/8/17	Twitter	Companie s/ Research organizati ons/ Industrial associatio ns	250	Europe	https://twitter.com/INNOVATION_PL/s tatus/900700534277107712
Tweet on Twitter - Ciaotech	PNO/CIAOTE C H	È online la 5ª newsletter di #REE4EU,	24/8/17	Twitter	Companie s/ Research organizati ons/ Industrial associatio ns	250	Italy	https://twitter.com/PNO_IT/status/900 700528115634176
News on website	PNO/CIAOTE C H	Event's participation (ICEEM)	1/9/17	REE4EU webporta I	Companie s/ Research organizati ons/ Industrial associatio ns	200	Europe	http://www.ree4eu.eu/news-and- events/ree4eu-project-9th-iceem- edition-7-Settembre-bologna-italy/



News on website	PNO/CIAOTE C H	PNO Brokerage event at 9th ICEEM edition	1/9/17	PNO Web portal	Companie s/ Research organizati ons/ Industrial associatio ns	> 10.000	Europe	https://www.innovationplace.eu/news /pno-brokerage-event-at-9th-iceem- edition-9-Settembre-bologna-italy
Tweet on Twitter – Innovatio n Place	PNO/CIAOTE C H	On Settembre 7, #REE4EU will presented at the 9th edition of the #ICEEM.	4/9/17	Twitter	Companie s/ Research organizati ons/ Industrial associatio ns	250	Europe	https://twitter.com/INNOVATION_PL/s tatus/904653632116797440
Tweet on Twitter - Ciaotech	PNO/CIAOTE C H	Il 7 settembre il progetto #REE4EU sarà presentato nell'ambito dell'#ICEEM,	4/9/17	Twitter	Companie s/ Research organizati ons/ Industrial associatio ns	250	Italy	https://twitter.com/PNO_IT/status/904 654126772051972



Post on linkedin, Innovatio n Place group	PNO/CIAOTE C H	REE4EU project	5/9/17	Linkedin	Companie s/ Research organizati ons/ Industrial associatio ns	835	Europe	https://www.linkedin.com/feed/updat e/urn:li:activity:6311905907739500544
Post on linkedin,	PNO/CIAOTEC	REE4EU project	5/9/17	Linkedin	Companie s/	835	Europe	https://www.linkedin.com/feed/updat
Innovatio N Place group	Н	presented at the 9th edition of The International Conference ICEEM			Research organizati ons/ Industrial associatio ns			e/urn:li:activity:6310419575217356800
Tweet on Twitter – Innovatio n Place	PNO/CIAOTEC H	Only 1% of #RareEarth waste is being recovered.	8/9/17	Twitter	Companie s/ Research organizati ons/ Industrial associatio ns	250	Europe	https://twitter.com/INNOVATION_PL/s tatus/906140415237214211
Tweet on Twitter - Ciaotech	PNO/CIAOTEC H	Cosa sono le #terrerare? #REE4EU	8/9/17	Twitter	Companie s/ Research organizati ons/ Industrial	250	Italy	https://twitter.com/PNO_IT/status/906 141386151526401



					associatio ns			
News on website	PNO/CIAOTEC H	Event's participation	18/9/17	REE4EU webporta	Companie s/	200	Europe	http://www.ree4eu.eu/news-and- events/ree4eu-joined-circular-crm-
		(IdeaCamp)		•	Research organizati ons/ Industrial associatio ns			ideacamp-innovation-research-e-waste-recycling-chain-13-14-Settembre-2017-aachen-germany/
Tweet on Twitter - Ciaotech	PNO/CIAOTE C H	La metodologia di ricerca inizia con lo studio di mercato e con la #stakeholder #analysis. #REE #TerreRare #REE4EU	30/10/17	Twitter	Companie s/ Research organizati ons/ Industrial associatio ns	250	Italy	https://twitter.com/PNO_IT/status/924 925813371359233
News on website	PNO/CIAOTE C H	REE4EU Midterm meeting in Brussels	2/11/17	REE4EU webporta I	Companie s/ Research organizati ons/ Industrial associatio ns	200	Europe	http://www.ree4eu.eu/news-and- events/ree4eu-midterm-meeting- brussels/



News on website	PNO/CIAOTE C H	REE4EU's Market Analysis Report now available!	3/11/17	REE4EU webportal	Companie s/ Research organizati ons/ Industrial associatio ns	200	Europe	http://www.ree4eu.eu/news-and- events/ree4eus-market-analysis- report-now-available/
News on website	PNO/CIAOTE C H	REE4EU's Market Analysis Report now available	3/11/17	PNO Web portal	Companie s/ Research organizati ons/ Industrial associatio ns	> 10.000	Europe	https://www.innovationplace.eu/news /ree4eu's-market-analysis-report-now- available
News on Ricerca e Innovazi one website	PNO/CIAOTE C H	Progetto REE4EU: pubblicata l'analisi di mercato nel settore delle terre rare	6/11/17	PNO Web portal in Italy	Companie s/ Research organizati ons/ Industrial associatio ns	> 6.000	Italy	https://www.ricercaeinnovazione.it/ne ws/progetto-ree4eu-pubblicata- l%E2%80%99analisi-di-mercato-nel- settore-delle-terre-rare



News on Innovatio n Place website	PNO/CIAOTE C H	REE4EU's Market Analysis Report now available	6/11/17	PNO Web portal	Companie s/ Research organizati ons/ Industrial associatio ns	> 10.000	Europe	https://www.innovationplace.eu/news /ree4eu%E2%80%99s-market-analysis- report-now-available
Post on linkedin, Innovatio n Place group	PNO/CIAOTE C H	REE4EU's Market Analysis Report now available!	7/11/17	Linkedin	Companie s/ Research organizati ons/ Industrial associatio ns	835	Europe	https://www.linkedin.com/feed/updat e/urn:li:activity:6333597938060791808
Tweet on Twitter - Ciaotech	PNO/CIAOTEC H	#REE4EU: pubblicata l'analisi di mercato nel settore delle terre rare	7/11/17	Twitter	Companie s/ Research organizati ons/ Industrial associatio ns	250	Italy	https://twitter.com/PNO_IT/status/927 830817748942848



5 Post on REE4EU website	PNO/CIAOTE C H	Events updates	January 2018	REE4EU project website	Companie s/ Research organizati ons/ Industrial associatio ns		Europe	http://www.ree4eu.eu/news-and- events/
2 Post on REE4EU website	PNO/CIAOTE C H	Events update	February	REE4EU project website	Companie s/ Research organizati ons/ Industrial associatio ns		Europe	http://www.ree4eu.eu/news-and- events/
News on website	PNO/CIAOTE C H	REE4EU: pubblicata la sesta newsletter di progetto	6/03/201 8	R&I PNO Italian portal	Companie s/ Research organizati ons/ Industrial associatio ns	>6000	Italy	https://www.ricercaeinnovazione.it/ne ws/ree4eu-pubblicata-la-sesta- newsletter- di-progetto
News on	PNO/CIAOTEC	REE4EU: the	6/03/201	IP PNO European	Companie s/	>10.000	Europe	https://www.innovationplace.eu/news



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website	Н	project goes on	8	portal	Research organizati ons/ Industrial associatio ns			/ree4eu-the-project-goes-on
News on website	PNO/CIAOTEC H	REE4EU: pubblicata la sesta newsletter di progetto	4/03/201 8	R&I Italian PNO portal	Companie s/ Research organizati ons/ Industrial associatio ns	>6.000	Italy	https://www.ricercaeinnovazione.it/
News on newslett er	PNO/CIAOTEC H	REE4EU: the project goes on!	4/03/201 8	IP PNO Europe portal	Companie s/ Research organizati ons/ Industrial associatio ns	>10.000	Europe	www.innovationplace.eu
News on SPIRE newslett er	PNO / CIAOTECH	REE4EU: The Project Goes On!	14/03/20 18	SPIRE newsletter 15/18	Companie s/ Research organizati ons/ Industrial associatio ns		Europe	http://conta.cc/2Dqs5IE https://www.spire2030.eu/news/press -office/newsletter





Type of activities	Main leader	Title	Date	Place	Type of audience	Size of audience	Countries addressed	Link to the website
Conference, REE4EU project presentatio n	CEFIC	SusChem Stakeholder Event	07 June 2017	Brussels	chemical companies/ national associations, RTOs, universities, European Commission representatives, SMEs representatives	190 participants	Europe	http://suschem.org/events/suschem-2017- stakeholder-event

Description of other dissemination activities (press releases, news, nonscientific publications, etc.:

Type activities	of	Main leader	Title	Date	Place	Type of audience	Size of audienc e	Countries addresse d	Link to the website



ARTICLE	CEFIC	An independent rare heart elements supply chain. Closing the loop on recycling of rare earth elements	April 2017	IMPACT MAGAZINE	·	esearch policy ner	35500	EUROPE	http://www.ingentaco nnect.com/content/sil/ impact/2017/0000201 7/00000005/art00012
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Description of dissemination activities:

Type of activities	Main leader	Title	Date	Place	Type of audience	Size of audience	Countries addressed	Link to the website
oral	UPS	Pyrometallurgical Processes for reactive metal production: Nd example	11-13 july 2017	Nancy	French congress on Chemical Enginnering	50 researchers	France	
oral	UPS	Procédé d'électrolyse en sels fondus pour la production de terres rares métalliques à partir d'un précurseur oxyde: exemple du Néodyme (Nd)	26-29 june	Bordeaux	French congres on electrochemi stry	100 : 75 from university and 25 from industry	France	



Description of events attended: workshop, conference, training, trade fair exhibition..

activities audience audience addressed
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Worksho p	INOVERTIS/A3 i	FILIDECHET / MATECO - Récupératio n des métaux précieux	23/10/201 7	Aix-en- Provenc e (France)	Professionna I Waste Valorisation	~70	France	http://www.safecluster.com/
Trade fair / BtoB meetings	INOVERTIS/A3 i	Waste Meetings	6- 7/12/2017	Lyon (France)	Professionna I Waste Recycling, Treatment& Valorisation	>500	France	http://www.wastemeetings.com/fr /
Trade fair / BtoB meetings	INOVERTIS/A3 i	11th Members Meeting TENERDISS	02/02/201 8	Grenobl e	Professionna I Energy &Waste Treatment	~200	France	https://www.tenerrdis.fr/
Trade fair /BtoB meetings	INOVERTIS/A3 i	PCH Meetings	28- 29/12/201 7	Lyon (France)	14th Industries Business Meetings	>500	France	



Description of other dissemination activities (press releases, news, nonscientific publications, etc.):

Type of activities	Main leader	Title	Date	Place	Type of audience	Size of audience	Countries addresse d	Link to the website
Post on social network	INOVERTIS/ A3i	#REE4EU The stakeholder analysis in the framework of the project available soon	11/04/201 7	Twitter	Companies/ Research organizations/ Industrial associations	324	Europe	https://twitter.com/inovertis/s tatus/851736848183459841
Post on social network	INOVERTIS	@REE4EU – Recyclage des terres rares en EU (année 1)	11/04/201 7	Twitter	Companies/ Research organizations/ Industrial associations	740	Europe	https://twitter.com/inovertis/s tatus/851728968222953472
Post on social network	INOVERTIS	REE4EU newsletter March 2017	11/04/201 7	Linkedin	Companies/ Research organizations/ Industrial associations	>250	Europe	https://www.linkedin.com/hp/ update/625750100456090009 7
Post on social network	INOVERTIS	Projet REE4EU (H2020) – Recyclage des terres rares en EU - Résultats de l'année 1 -	11/04/201 7	Linkedin	Companies/ Research organizations/ Industrial associations	>250	Europe	https://www.linkedin.com/hp/ update/625749010426105036 8



Website	INOVERTIS	Projet REE4EU (H2020) – Recyclage des terres rares en EU - Résultats de l'année 1 -	11/04/201 7	website	Companies/ Research organizations/ Industrial associations	>250	Europe	http://www.inovertis.fr/actuali tes/22-projet-ree4eu-h2020- recyclage-des-terres-rares-en- eu.htm
Post on social network	INOVERTIS	Projet REE4EU (H2020) – Recyclage des terres rares en EU - Résultats de l'année 1 -	11/04/201 7	Scoop it	Companies/ Research organizations/ Industrial associations	>250	France	Release from website
Post on social network	INOVERTIS	Interesting article on the IMPACT MAGAZINE on the work done in the framework of #REE4EU	21/08/201 7	Twitter	Companies/ Research organizations/ Industrial associations		Europe	https://twitter.com/INNOVATI ON PL/status/8908656888097 46432
Post on social network	INOVERTIS	REE4EU: #INOVERTIS conceived and managed the conceptual and basic engineering of the ILE process In close collaboration with Elkem's	21/08/201 7	Twitter	Companies/ Research organizations/ Industrial associations	287	Europe	https://twitter.com/inovertis/s tatus/899660345836482560



	team						
Post on IN social network	NOW AVAILABLE : REE4EU NEWSLETTER No 5 JULY 2017	21/08/201 7	Linkedin	Companies/ Research organizations/ Industrial associations	>250	Europe	https://www.linkedin.com/fee d/update/urn:li:activity:630542 4777972588544



Description of events attended: workshop, conference, training, trade fair exhibition.

Type of activities	Main leader	Title	Date	Place	Audience: number of industries	Size of audience	Countries addressed	Link to the website
Presentation	AVERE	The Transition to Electric Drive	28- 02- 2018	London	60	80	Global conference	http://www.argusmedia.com/events/argus- events/europe/argus-metals-week/battery/ Argus Battery metal week
Presentation	AVERE	Critical Raw Materials for EVs	21- 03- 2018	Brussels		60 (estimate based on last event)	European	http://criticalrawmaterials.org Critical Raw Materials Organisation, NGO in Brussels representing industry
Presentation	AVERE	AVERE Projects and Status Electromobility	06- 10- 2017	Belgrade, Serbia	?	120	National, regional	http://sajam.rs/en/e-mobility-forum/ E-MOBILITY FORUM 2017, BELGRADE 06.10.2017



		2017						
Presentation	AVERE	AVERE Projects and Status Electromobility 2017	05- 10- 2017	Bucharest, Romania	?	90	National, regional	http://aver.ro/ev2017.html The 12th edition of the International Conference and Expo
Presenation at IEA HEV- TCP Executive meeting	AVERE	Use and Recycling of REE in transport sector in Europe: focus cars	10- 11- 2018	Vienna, Austria	0	30	15, Global	Show on ELECTRIC MOBILITY http://www.ieahev.org
Continuous presentation At EVS30 conference	AVERE	AVERE (participation in) Projects	09- 10- 2017 till 11- 10- 2017	Stuttgart, Germany	Unknow; 10,000 exhibition visitors		Global	http://www.messe-stuttgart.de/en/evs30

Description of other dissemination activities (press releases, news, non-scientific publications, etc.):

Type of activities	Main leader	Title	Date	Place	Type of audience	Size of audience	Countries addressed	Link to the website
Submission	AVERE	Current and future	Sept 2018	Kobe, Japan			Global	



of proposal		use of Rare Earth				
for		Metals in				
presentation		Permanent				
of REE4EU at		Magnets for				
EVS31		Electric Vehicles				
		and other vehicles				
		and the collection				
		potential for				
		recycling				
Submission	AVERE	Task Critical Raw	March 2018			
of IEA HEV	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	Materials for	77707 2010			
Task		Electric Vehicles				
proposal		(Battery metals,				
CRM4EV		REEs)				
CNIVI4E V		NEESJ				



Summary of the activities implemented from M18 – to M30

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	Organisation of a Conference	Organisation of a Workshop	Press release	Non-scientific and non-peer-reviewed publication	Exhibition	Flyer	Training	Social Media	project website	Communication Campaign	Participation to a Conference	Participation to a Workshop	Participation to an Event	Video/Film	Brokerage Event	Pitch Event	Trade Fair	Participation in activities organized jointly with other H2020 projects	Other
SINTEF								2			3	2				1		1	
TECNALIA						100		3			3								
LCM * no activities reported														1					
VAC * no activities reported																			
ELKEM					1			1			1								
IDENER						30							4						2
INOVERTIS								8				1					3		1
CEA * no activities reported																			
SNAM * no activities reported																			
STENA * no activities reported																			
AVERE					1						4	1					1		
PNO								14	14		2	3			_				10



CEFIC		1					1							
UPS							2							
TOTAL		1	2	130	28	14	16	7	4	1	1	4	1	13

Table 14: Number of Dissemination and Communication activities linked to the project for each of the following categories

	Scientific Community (Higher Education, Research)	Industry	ivil Society	General Public	Policy Makers	Media	Investors	Customers	Other
SINTEF	469	230			115				
TECNALIA	1000	40		1000					
LCM * no activities reported									
VAC * no activities reported									
ELKEM	450	6000							
IDENER	300								
INOVERTIS	60		50	300				50	
CEA * no activities reported									
SNAM * no activities reported									
STENA * no activities reported									
AVERE	140	140	50		70				
PNO	5776	11291	2000	1000					
CEFIC	19100	7100	5000	1000	3100	500			
UPS	125	25							
TOTAL	27420	24826	7100	3300	3285	500		50	0

Table 15: Estimated number of persons reached in the context of the dissemination activities