



Deliverable 5.1

Updated Plan for Dissemination, Exploitation and Communication

Dissemination level		
PU	Public — fully open (automatically posted online)	X
SEN	Sensitive — limited under the conditions of the Grant Agreement	

Cover and Control Page of Document	
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Disclaimer

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¹ **DATA** = data sets, **DEC** = Websites, patent filings, videos, etc; **DEM** = Demonstrator, pilot, prototype, **ETHICS**; **OTHER**; **R** = Document, report.



Content

Publishable Executive Summary.....	4
1 Introduction.....	5
2 DEC plan	5
2.1 Strategy	6
2.2 Goals.....	6
2.3 Channels and Tools	7
3 Target Groups	7
4 Communication and dissemination activities.....	8
4.1 Implemented activities.....	8
4.2 Planned activities	9
4.3 Dissemination events.....	12
4.4 The actualisation of potential venues for industrial and scientific publications.....	15
5 Exploitation strategy	16
5.1 Exploitation strategy	16
5.2 IPR management.....	17
5.3 Actualisation of the lists of commercially exploitable results	18
6 Conclusion	20

List of Figures

Figure 1: REESilience planned activities and scheduling for the dissemination and exploitation	5
Figure 2: Key events 2022	14
Figure 3: Key events 2023	14
Figure 4: REIA 2022 Conference.....	15
Figure 5: Exploitation Workshop roadmap	16

List of Tables

Table 1: Target Group Strategy	8
Table 2: Implemented communication activities.....	9
Table 3: List of communication activities as entered in SyGMA.....	11
Table 4: List of dissemination activities as entered in SyGMA	13
Table 5: List of potential magazines for REESilience industrial publications.....	15



Table 6: List of potential open-access journals for REEsilience scientific publications.....	16
Table 7: Rules for access rights to Background and Foreground	18
Table 8: Draft list of REEsilience exploitable results with commercial relevance.....	19

Abbreviations

CRM	Customer Relationship Management
DEC	Dissemination Exploitation Communication
EC	European Commission
EOL	End of Life
EU	European Union
GA	Grant Agreement
GDPR	General Data Protection Regulation
HaDEA	Health and Digital Executive Agency
IP	Intellectual property
IPR	Intellectual property rights
KOM	Kick-off meeting
PDEC	Plan for Dissemination, Exploitation and Communication
RE	Rare Earth
REE	Rare Earth Elements
SDG	Sustainable Development Goals
SEZ	Steinbeis Europa Zentrum
SME	Small and medium-sized enterprises
SyGMA	System for Grant Management
WP	Work Package
WPL	Work Package Leader



Publishable Executive Summary

Dissemination, exploitation and communication activities are essential to provide a reasonable basis not only to demonstrate the technical feasibility of the solutions but also to reach a greater acceptance and uptake of these solutions over the entire value chain. Also, cooperation between the partners during and after the project plays an essential role in the sustainability of the results, meaning their durable and economically viable exploitation beyond the project duration.

For this, the REEsilience partners regularly check the accuracy of their plan for the dissemination, exploitation and communication of the project's results and monitor and assess their activities under the lead of SEZ.

This document is the plan on the updated dissemination, exploitation and communication activities undertaken by all REEsilience partners until the end of the project in June 2026.

1 Introduction

This document is the M6 update of the preliminary plan for communicating, disseminating, and exploiting the project's results presented during the proposal and Grant Agreement phases. As the type of activities, schedule and target audiences are still actual, this update reports on the dissemination, exploitation and communication activities are planned until and beyond the project's end in June 2026.



Figure 1: REEsilience planned activities and scheduling for the dissemination and exploitation

Figure 1 shows the timing of the general communication, dissemination, and exploitation tasks. This provides an overview and a to-do list to follow throughout the project as it moves through the different phases. It is to be noted that several tasks are planned beyond the length of the project to increase its impact potential.

2 DEC plan

The DEC plan shows the REEsilience strategy in dissemination, exploitation and communication (Chapter 2.1), the goals of the DEC plan (Chapter 2.2) as well as the project's channels and tools (Chapter 2.3).



2.1 Strategy

The REEsilience dissemination, exploitation and communication plan is tailored to the scale of the project as key to maximising its impact. While dissemination and exploitation mainly focus on transferring REEsilience knowledge and ensuring the availability of REEsilience results for potential users/customers, communication promotes both the project and its benefits for society. With each measure, the project partners will look for synergies with related projects, initiatives and complementary programmes whenever possible. In addition, all activities will be GDPR-compliant, and GDPR (General Data Protection Regulation) awareness raising among the consortium will be conducted (The GDPR-checklist can be found in Deliverable 6.1).

In compatibility with IP management, the partners will use a set of dissemination channels and implement specific actions to support knowledge and results in transfer, capacity building and (up)skilling, community strengthening and impact amplification within the target groups (Chapter 3).

Moreover, the DEC strategy guarantees maximum direct/indirect exploitation and supports enhanced market opportunities and manufacturing capacities in Europe by defining consortium IP and protection as necessary, resulting pathways, and business and industrialisation strategies. At the same time, the DEC plan showcases how to support swift knowledge and results from transfer and ensure uptake within the targeted groups by generating strong awareness of and accessibility to the project results and achievements, especially for SMEs.

2.2 Goals

The primary goal of the REEsilience DEC plan is to ensure the relevance of the measures to maximise the project impacts by regularly monitoring and assessing them.

To achieve the primary goal, REEsilience aims to help project partners and targeted stakeholders to maximise their impact in common areas and foster spillover effects in their communities, contributing to European scientific and industrial leadership in the project areas. This will be achieved by looking for synergies for every REEsilience dissemination/exploitation measure, laying the foundation for future cooperation and discussing needs, requirements and actions for standardisation and policy.

Regarding communication, REEsilience aims to promote the project and its elements in an easily understandable way. Moreover, REEsilience aims to engage and interact with the broadest range of society to raise awareness about the importance of critical raw materials (CRM), the related challenges REEsilience addresses and the possible benefits and solutions the project and EU funding provide for EU citizens.

REEsilience will convey critical messages to achieve better results through cooperation between organisations based in different countries; showing scientific excellence paving the way towards more sustainability in the CRM sector; contributing to the competitiveness of the EU, job preservation and creation; and helping to meet environmental and societal challenges, with focus on the project's impact on everyday life.



Complementary to the project's dissemination and exploitation, communication measures will contribute to society's greater acceptance of and trust in sustainable CRM production and more resilient and sustainable supply chains for RE materials, magnets and related strategic applications in Europe.

2.3 Channels and Tools

Communication tools and channels which are being used by REEsilience are:

- Website (<https://reesilience.eu/>)
- LinkedIn (<https://www.linkedin.com/company/reesilience/>)
- Twitter (<https://twitter.com/REEsilience1>)
- Newsletter (<http://eepurl.com/h58RBL>)
- Press Releases (<https://reesilience.eu/eu-project-reesilience-kicking-off/>)
- Roll-up Banner
- Flyer
- YouTube (not active yet)

More information about the project identity and the listed communication tools and channels can be found in Deliverable 6.1.

3 Target Groups

In compatibility with IP management, the partners will use a set of dissemination channels and implement specific actions to support knowledge and results transfer, capacity building and (up)skilling, as well as community strengthening and impact amplification within the target groups.

The strategy for each target group of the project is listed in Table 1 below:

Target Groups	Strategy
Industry & Research	At least 5 open access peer-reviewed scientific publications in Open Research Europe and journals, e.g. Sustainable Metallurgy; Industrial Ecology; Alloys and Compounds... To be continued beyond the project.
Industry & Research, Media	At least 3 articles in industrial magazines , e.g. MagNews; PIM International; Recycling International; Drives and Controls; Powder Metallurgy Review...
Industry & Research, Investors, Policy	At least 5 factsheets on the added value of REEsilience solutions and uptake opportunities (available beyond project on Zenodo).

Industry & Research, Investors, Projects/Initiatives, Policy, Standardisation, Media	At least 50 active participations in exhibitions, conferences, workshops, industrial events e.g. InterMag; EuroPM; Circular Materials; Power Electronics, Machines & Drives... with at least 40 materials. To be continued beyond project.
Focus Industry & Research, but open to all groups	REEsilience main dissemination event possibly in the frame of a bigger event / as joint event with related projects, with min 100 participants.
Focus Industry & Research, but open to all groups (1-18)	A series of at least 4 online lectures publicly accessible and free about, e.g. resilient and sustainable RE supply, value chains digitalisation and transparency. Component manufacturers, Students
Component manufacturers, Students	At least 2 Design4Recycling challenges for RE magnet containing components in such a way that the recovery of materials at the end of the product's lifetime is facilitated. Might be continued beyond project.
Projects/Initiatives	Clustering with related projects and initiatives at national, European, international level to discuss cross-fertilisation, use synergies and implement at least 2 joint activities.
Clusters, assoc. & platforms, Civil organisations	At least 10 multipliers briefings face to face or at events to discuss REEsilience advantages and opportunities and look for synergies. To be continued beyond project.
Industry & Research, Projects, Investors, Policy, Standard., Influencers	At least 2 digital roundtables with at least 1 REEsilience and 3 external panellists each to discuss needs and possible future actions on, e.g. sustainable and resilient supply of critical raw materials (CRM) in Europe, CRM supply chain transparency.

Table 1: Target Group Strategy

4 Communication and dissemination activities

Chapter 4 shows the already implemented communication and dissemination activities by REEsilience until M6 (Chapter 4.1) and planned activities after M6 (Chapter 4.2).

4.1 Implemented activities

REEsilience uses multiple state-of-the-art tools and channels to address and involve all target groups (Table 1), while some measures focus on specific groups. For example, a public website as the first and most important source of information for most European citizens.

Social media accounts, such as LinkedIn and Twitter, are being used to build and regularly interact with a community and stimulate its engagement.

A flyer was created, presenting efficiently essential information that supports a quick understanding of the project and its goals and is a good reminder once meetings/discussions/events end.

One electronic newsletter was sent out to inform about the project kick-off and already happen taken activities within the project.

A summary of the communication channels and tools established is shown in Table 2.

30 communication/dissemination activities mostly carried out in the first six months are already listed in SyGMA (System for Grant Management) (see Table 3 and Table 4).

What	WHO	Activity (14.12.2022)
Website (launched 04.10.2022)	SEZ	Information text about the project, related projects and project partners. 5 added news articles 13 added events
LinkedIn (launched 01.07.2022)	SEZ	35 posts
Twitter (launched 01.07.2022)	SEZ	36 posts
Newsletter (First newsletter 03.11.2022)	SEZ	1 newsletter sent
Press Release (First press release 04.08.2022)	SEZ	1 press release sent about KOM
Roll-up (since 04.10.2022)	SEZ	1 design, 2 examples
Flyer (since 13.11.2022)	SEZ	2 pages

Table 2: Implemented communication activities

4.2 Planned activities

All planned communication activities until the end of the project:

- At least 4 more electronic newsletters
- At least 3 more press releases, replicated in at least 12 press releases in the consortium languages
- A general project video
- 'self-made' videos of partners showing their work
- A digital information package with materials such as an infographic, a presentation, links to the project videos, materials and virtual experience.



- Cooperation with at least 2 influencers in the field of, e.g. science communication or sustainability
- Dedicated engagement activities, e.g. experiments or hands-on classes and workshops during open days at the premises of project partners or public event



Communication Activity Name	Description	Who? Target audience	How? Communication channel	Outcome	Status
Presentation and panel discussions (HSPF)	2022-11-20: Kongress BW, Forum „Kritische Seltene Erden“, Karls	Industry, business partners	Event (conference, meeting, workshop, internet debate, round table, group discussion, etc.)	80 attendees, raising awareness and distributing project	Delivered
Presentation (HSPF)	2022-11-07: Visit of state secretary Splett (state of Baden-Württem	Regional authorities	Event (conference, meeting, workshop, internet debate, round table, group discussion, etc.)	10 attendees, raising awareness at political stakeholder	Delivered
Panel Discussion (HSPF)	2022-11-15: SecREEs final conference, EU RawMaterials Week Br	Industry, business partners	Event (conference, meeting, workshop, internet debate, round table, group discussion, etc.)	100 attendees, raising awareness and distributing proje	Delivered
Panel Discussion (HSPF)	2022-11-09: REIA conference, Hanau, Panel discussion with other i	Industry, business partners	Event (conference, meeting, workshop, internet debate, round table, group discussion, etc.)	160 attendees, raising awareness and distributing proje	Delivered
Presentation (HSPF)	2022-09-20: Verband der deutschen Automobilindustrie (VDA)-Arb	Industry, business partners	Event (conference, meeting, workshop, internet debate, round table, group discussion, etc.)	18 attendees, distributing project results to target gro	Delivered
Panel Discussion (HSPF)	2022-11-23: Bürgersalon Wien: Elektromobilität in der Sackgasse,	Citizens	Event (conference, meeting, workshop, internet debate, round table, group discussion, etc.)	120 attendees, raising awareness and distributing proje	Delivered
Media Article (REIA)	2022-08-31: The project information shared via publication, https	Industry, business partners	Media article	Global stakeholders	Delivered
Conference (REIA)	2022-10-05: REIA Annual Conference 2022	Industry, business partners	Event (conference, meeting, workshop, internet debate, round table, group discussion, etc.)	200 plus audience.	Delivered
Newsletter (REIA)	2022: The project information shared thorough REIA news letters	Industry, business partners	Newsletter	2500 subscribers and social media outreaches	Ongoing
Conference (REIA)	2023-06: REIA Annual Conference June 2023	Industry, business partners	Event (conference, meeting, workshop, internet debate, round table, group discussion, etc.)	200 plus participants	Delivered
Press Release (TUBAF)	2022-07-06: Press Release on TUBAF and INEMET website, Pforzhei	Industry, business partners	Press release	Public communication and multiplication of the import	Delivered
Final cell design and commissioning (TUBAF)	2023-04-01: Final cell design and commissioning M9-M12: Until M1	Research communities	Other	Beginning of the scientific experiments at TUBAF. Upda	Delivered
News/Updates on Social Media (TUBAF)	2023-02-01: M7-M18, Freiberg, TUBAF: Important news and update	Research communities	Social media	Public communication of scientific outcomes. Multiplic	Delivered
Newspaper article Leidsch Dagblad (ULEI)	2022-08-31: Article in Leidsch Dagblad (local newspaper Leiden) h	Citizens	Media article	Increasing general awareness for magnet recycling amc	Delivered
First press release KOM (SEZ)	Issue of the first press release after the kick-off meeting Translate	Citizens	Press release	Shared by 10 partners to ~10.000 recipients	Delivered
BNR Nieuwsradio Interview (ULEI)	2022-08-29: Interview with René Kleijn for BNR Nieuwsradio (majc	Citizens	Interview	Increasing general awareness for magnet recycling amc	Delivered
Interview Uni Leiden Website/Newsletter (ULEI)	2022-08-25: Interview Kleijn for Uni Leiden website. https://www	Research communities	Interview	Broad outreach to create general awareness about mag	Delivered
Industry magazine article Afval Online (ULEI)	2022-08-31: Article on Afval Online (‘Waste Online’) https://afval	Industry, business partners	Media article	Awareness among industry partners	Delivered
Industry magazine article OV (PU Transport) (ULEI)	2022-09-08: Article in OV Magazine about sustainable resources fo	Industry, business partners	Media article	Awareness among industry partners	Delivered
Article on NOS news app (major Dutch news) (ULEI)	2022-10-28: Article on supply of resources for Electric Vehicles an	Citizens	Media article	Increasing general awareness among citizens, NOS new	Delivered
Communication Activity Name	Description	Who? Target audience	How? Communication channel	Outcome	Status
Interview with Dutch news TV program (ULEI)	2022-11-14: Interview with René Kleijn on resilient supply chain o	Citizens	Interview	Increasing general awareness among citizens, administ	Delivered
Interview innovation magazine by Evonik (ULEI)	2022-11-01: https://elements.evonik.com/opinion-and-debate/us	Industry, business partners	Interview	Awareness among industry partners	Delivered
Article in NRC (major Dutch newspaper) (ULEI)	2022-10-21: Article on magnet recycling in NRC. https://www.nrc.	Citizens	Media article	Increasing general awareness among citizens, NRC has	Delivered
Article in Volkskrant (Dutch newspaper) (ULEI)	2022-10-22: Article on resources in mobile phones in Volkskrant. h	Citizens	Media article	Increasing general awareness among citizens, Volkskrant	Delivered
Finnish newspaper article (ULEI)	2022-09-08: Article in Helsingin Sanomat on urban mining, https://	Citizens	Media article	Increasing general awareness among citizens	Delivered
Panel discussion (HMG)	2022-10-20: Kongress BW ‘Resource efficiency and circular econo	Civil society	Event (conference, meeting, workshop, internet debate, round table, group discussion, etc.)	Raising civil society awareness on critical rare earths. \	Delivered
Exhibitor (HMG)	2022-11-30: https://www.zulieferertag-bw.de/, Esslingen-German	Industry, business partners	Exhibition	Direct dialogue with car manufacturers and suppliers	Delivered
Public event (JSI)	2022-10-14: https://www.zeos.si/dogodki/5-mednarodni-dan-e-o	Citizens	Event (conference, meeting, workshop, internet debate, round table, group discussion, etc.)	Estimated no. of visitors 3000	Delivered
Interview on Slovenian national TV (JSI)	2022-10-14: https://365.rtvlo.si/arhiv/panorama/174906747 RTV	Citizens	Interview	Estimated no. of viewers 20.000	Delivered
Public event (JSI)	2022-09-26: https://www.nocmoc.eu/ Jozef Stefan Institute, Pres	Civil society	Event (conference, meeting, workshop, internet debate, round table, group discussion, etc.)	Estimated no. of visitors 500	Delivered
Exhibitor (HMG)	2023-04-17: https://www.hannovermesse.de/de/fuer-aussteller/a	Industry, business partners	Exhibition	Direct dialogue with national and international decisio	Ongoing
Social media post (JSI)	2022-11-17: https://nano.ijs.si/ Facebook, Nanostructure Mater	Research communities	Social media	Estimated no. of viewers 200	Delivered
Social media post (JSI)	2022-11-17: https://www.facebook.com/NanoIJS Facebook, Nano	Citizens	Social media	Estimated no. of viewers 200	Delivered
British Computing Society Documentary (UOB & HML)	2022-11-23: Recouping Critical Mineral from E-Waste: UOB & HyPr	Innovators	Media article	Raise awareness	Delivered
UK Critical Minerals Strategy (UOB & HML)	2022-07-01: Resilience for the Future: The UK's critical minerals s	National authorities	Print materials (brochure, leaflet, posters, stickers, banners, etc.)	Raise awareness	Delivered
Web publication (HNS)	2022-08-15: https://anoia.inserma.com/en/eu-project-reesilience	Industry, business partners	Website	300 visits ?	Delivered
IO3 Towards Net-Zero Series (UOB & HML)	2022-09-01: Material Change: Resourcing Net Zero: UOB & HyPr	Innovators	Video	Raise warness	Delivered
BBC Midlands Today (UOB & HML)	2022-09-01: BBC news article following up on the development of	Citizens	Media article	Raise awareness	Delivered
Project webpage (RISE)	2023-02-01: REESilience project webpage on RISE's website www.i	Research communities	Website	Raise awareness	Ongoing
REIA 2022 (UOB & HML)	2022-10-05: REIA 2022 Annual Conference, Hanau, Frankfurt UOB i	Research communities	Event (conference, meeting, workshop, internet debate, round table, group discussion, etc.)	200 participants	Delivered
Website Article (DUK)	2022-07-01: WEBSITE (https://www.donau-uni.ac.at/en/university	Research communities	Website	Raise awareness of the project	Delivered
Newsletter (REIA)	2023: The project information shared thorough REIA news letters	Industry, business partners	Newsletter	2500 subscribers and social media outreaches	Ongoing

Table 3: List of communication activities as entered in SyGMA



4.3 Dissemination events

The following Table 4 presents a full list of dissemination activities mostly conducted in the first 6 months of the project.

Additional key events and highlights are presented further down.

Dissemination Activity Name	What? Type of dissemination activity	Who? Target audience Reached	Why? Description of the objective(s) with reference to a specific project output (max 200 characters)	Status of the dissemination activity
Presentations at academic conferences (ULEI)	Conferences	Research communities, Industry, business partners, Innovators	2023: Increased awareness among conference participants, contributing to research in	Delivered
Round Table on Materials Criticality (ULEI)	Conferences	Research communities, Industry, business partners, Innovators	2023-02-15: Increased awareness among conference participants, contributing to rese	Delivered
European Commission Raw Materials Week (ULEI)	Conferences	Research communities, EU institutions, Industry, business partners, National authorities, Innovators, Civil society	2022-11-14: Awareness among parties interested in raw materials. Two keynote speech	Delivered
ESEIA Conference (JSI)	Conferences	Research communities, Industry, business partners, National authorities, Local authorities, Innovators, Regional authorities, International organisation (UN body, OECD, etc.), Investors	2023-11-02: JSI had a lecture: Permanent magnets for a sustainable future.	Delivered
SURE2022 Summer School (JSI)	Education and training events	Research communities, EU institutions, Industry, business partners, National authorities, Local authorities, Innovators, Regional authorities, International organisation (UN body, OECD, etc.), Investors	2022-07-11: JSI had a lecture: Permanent magnets recycling and (re)processing for a s	Delivered
REIA Annual Conference 2023 (REIA)	Conferences	Research communities, Industry, business partners, Innovators, International organisation (UN body, OECD, etc.), Investors	2023: The REIA conference is an annual event for the REE stakeholders across the valu	Delivered
REPM2023 (UOB)	Conferences	Research communities, EU institutions, Industry, business partners, National authorities, Local authorities, Innovators, Regional authorities, International organisation (UN body, OECD, etc.), Investors	2023-09-03: Workshop on RE & Future Permanent Magnets & Their Applications, 3-7 Se	Delivered
AIM (UOB)	Conferences	Research communities, EU institutions, Industry, business partners, National authorities, Local authorities, Innovators, Regional authorities, International organisation (UN body, OECD, etc.), Investors	2023-01-15: IEEE Advances in Magnetics, 15th - 18th January 2023 Allan Walton for UOB	Delivered
NICER (UOB)	Conferences	Research communities, EU institutions, Industry, business partners, National authorities, Local authorities, Innovators, Regional authorities, International organisation (UN body, OECD, etc.), Investors	2023-05: Co-organiser: NICER Showcase, May 2023, UOB will be involved with the host	Delivered
Challenge for Youth (DUK)	Education and training events	Citizens	2022-07-13: 20 people involved. Bring project's topic to the youth.	Delivered
Presentation (DUK)	Conferences	Research communities	2023-05-15: INTERMAG2023, Sendai: Conference presentation.	Delivered

REIA Conference (SEZ)	Conferences	Research communities, Industry, business partners, Innovators, International organisation (UN body, OECD, etc.), Investors	2022-10-05: Speaking and exhibition to raise awareness of the project and the topics I	Delivered
REIA Annual Conference 2022 (REIA)	Conferences	Research communities, Industry, business partners, Innovators, International organisation (UN body, OECD, etc.), Investors	2022-10-05: The REIA conference is an annual event for the REE stakeholders across t	Delivered
IRTC conference (REIA)	Conferences	Research communities, Industry, business partners, Innovators, International organisation (UN body, OECD, etc.), Investors	2023-02-15: The conference expects 300 plus participants across academic and indust	Delivered

Table 4: List of dissemination activities as entered in SyGMa



REEsilience is taking part in many events to present REEsilience. In Figure 2 and Figure 3, key events are displayed with contributions by REEsilience for disseminating the project.

Key events 2022

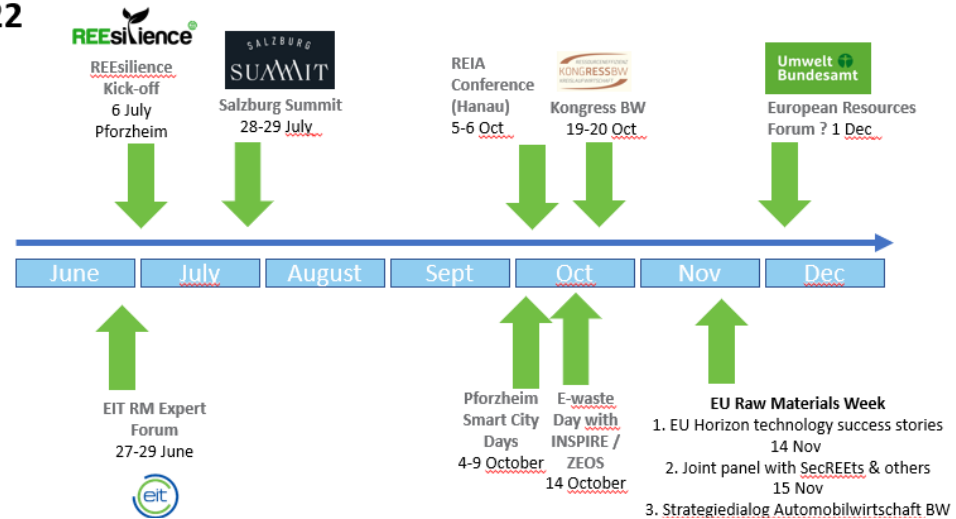


Figure 2: Key events 2022

Key events 2023

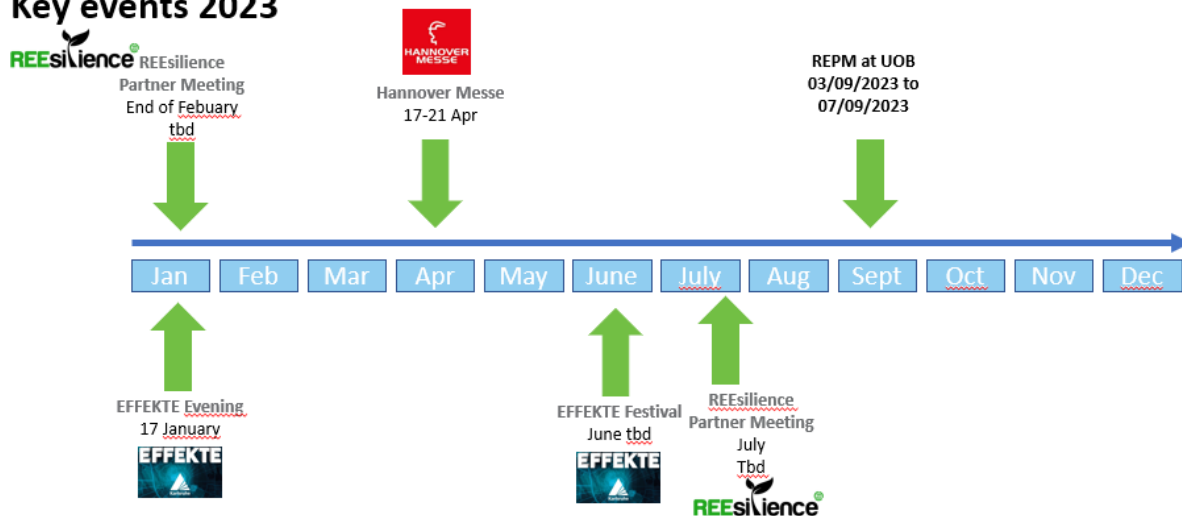


Figure 3: Key events 2023

Highlights

The highlight event of REEsilience was the REIA 2022 Annual Conference about Rare Earths for a Sustainable World between 5-6 October 2022 at Congress Park Hanau in Hanau, Germany.

REEsilience was represented by their Coordinator, Prof. Carlo Burkhardt of the Institute for Precious and Technology Metals (Pforzheim University, Germany), as well as project partners Prof. Spomenka Kobe of Jožef Stefan Institute (Slovenia) and Dr Boris Saje of Kolektor (Slovenia), during the Circular Economy Panel on 6th October at 10:00: "The bottlenecks and opportunities for an efficient recycling

loop (In Memory of Prof Rex Harris)". The panel discussed the advantages of using recycled materials from a sustainability/ESG perspective but also REEsilience and general challenges and opportunities. Figure 4 shows some insights into the event.



Figure 4: REIA 2022 Conference

4.4 Actualisation of potential venues for industrial and scientific publications

The partners revised the lists of industrial magazines and open-access journals for REEsilience publications.

Industrial Magazines	Website
MagNews	MagNews UK Magnetics Society (ukmagsoc.org)
PIM International	Metal Injection Molding: PIM International, the industry magazine (pim-international.com)
Drives and Controls magazine	Drives & Controls - UK's leading magazine for automation, motion engineering and power transmission (drivesncontrols.com)
IET Engineering and Technology	Homepage E&T Magazine (theiet.org)
Materials and Technology	Materials and Technology (imt.si)
Recycling International	Recycling International • For the global recycling industry
Powder Metallurgy Review	Powder Metallurgy Review: The magazine for the PM industry (pm-review.com)

Table 5: List of potential magazines for REEsilience industrial publications

Scientific Journals	Type of Open Access
Clean Technologies	Gold
Environmental Science and Technology	Green and Gold
Journal of Sustainable Metallurgy	Green
Ecological Economics	Green and Gold
Journal of Industrial Ecology	Green
Journal of Alloys and Compounds	Gold
Journal of Cleaner Production	Green and Gold
Journal of Magnetism and Magnetic Materials	Gold

Table 6: List of potential open-access journals for REEsilience scientific publications

5 Exploitation strategy

Chapter 5 focuses on the exploitation strategy (Chapter 5.1), the IPR management (Chapter 5.2) and the actualisation of the lists of commercially exploitable results (Chapter 5.3).

5.1 Exploitation strategy

Cooperation between the partners during and after the project plays an essential role in the successful, sustainable, and economically viable exploitation of the results of the REEsilience project. Therefore, it is necessary to show how each partner, especially SMEs, will benefit from the results and how they can integrate them into their future products/processes.

The rules for the distribution of intellectual property rights (IPR) among the partners have been elaborated in the consortium agreement to set the first step towards exploitation. This will be the basis for the development of exploitation and business plan entailing suitable business models in work package 5. The REEsilience exploitation and business strategy include the steps described in Figure 9.

The first exploitation workshop will take place during the REEsilience partner meeting on 22nd February 2023. When the project moves closer to the final stages of technology development, the individual technologies will be more defined and partners will have worked out a way to exploit them in their individual markets and how to grant necessary access for the project to continue after its end.

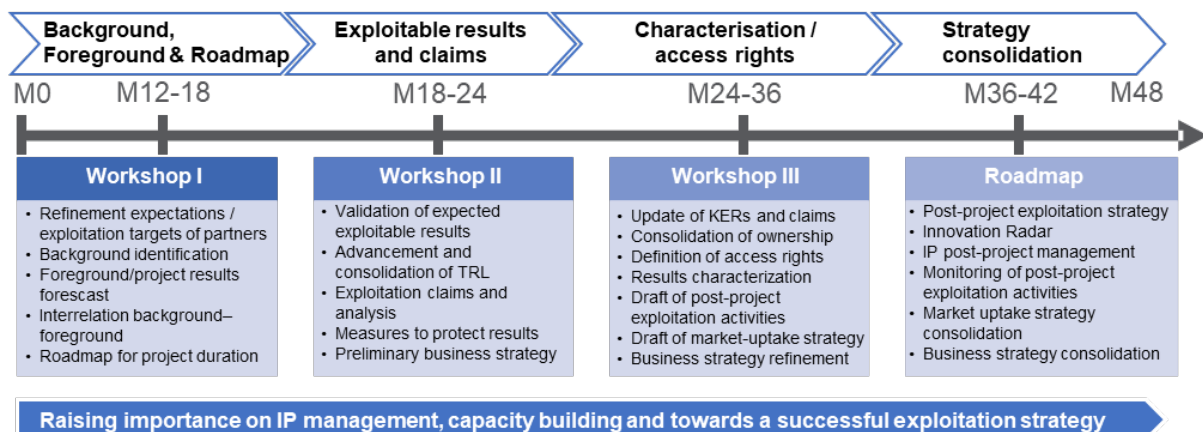


Figure 5: Exploitation Workshop roadmap

5.2 IPR management

Protection of results/management of Intellectual Property Rights (IPR). In line with the exploitation strategy, and as IP issues are crucial for such a complex, integrated project, the knowledge required for its execution (Background IP) and knowledge generated (Foreground IP) will be managed in accordance with the principles and articles of the Grant Agreement (GA) and a Consortium Agreement (CA). The CA have defined, among other issues, the rules for the following points (seen in more detail in Grant Agreement 869952, Subsection 1, Article 23a and following) and Consortium Agreement, section 9 and following

- Confidentiality, secrecy, and patenting
- Publication and dissemination
- IP ownership: list of Background IP needed for the project per partner, and maintain a record of Foreground IP
- IP Use and Access Rights: police the Access Rights to foreground and Background IP within the project

The Access Rights of the project will be based on the General Conditions of the EC contract and deal with the following:

- Access Rights to pre-existing know-how (Background)
- Access Rights to knowledge resulting from the project (Foreground)
- Access Rights for third parties and Affiliates

The CA ensures fair and open access to results during the project and for exploitation. Foreground IP shall be owned by the project partner carrying out the work leading to the result. If any Foreground IP is created jointly by at least two project partners and it is not possible to distinguish between the contributions of each of the project partners, such work will be jointly owned by the contributing project partners.

Access rights conditions	Access rights on the background	Access rights on the Foreground
If needed by another participant to implement the project	A participant MUST grant access to their background	A participant MUST grant access to their results
Type of access rights granted	Royalty-free for the lifetime of the project unless otherwise agreed before accession to the grant agreement	Royalty-free

If needed by another participant to implement the project	A participant MUST grant access to their background	A participant MUST grant access to their results
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Table 7: Rules for access rights to Background and Foreground

Innovation generated during the project by a partner who wishes to apply for patent protection will be treated under the appropriate level of secrecy until such time comes and its disclosure does not affect patent applications (confidentiality agreement). Whilst publication is under the remit of individual partners, any intention to publish will be referred to all partners who could exercise a veto if, in their judgement, this could seriously affect their interests. The rules for vetoing or accepting publication are given in the CA. This is especially relevant as the project has the obligation under the Horizon Europe Work Programme to provide open access to peer-reviewed scientific/technical publications resulting from the project. In concrete terms that means that the publication of data under patenting process will be put under an embargo period before providing open access.

However, as the actual Key Exploitable Results only really take shape during the project, so does the understanding and planning for exploitable outcomes. This is being monitored and guided through a set of specific exploitation workshops. In these workshops, partners approach, understand and accommodate jointly defined decisions on how to deal with Intellectual Property. Hence, understanding the details will grow together with the project's maturity.

For additional information on IP related Kex Exploitable Results see the Innovation Radar document provided by the European Commission.

5.3 Actualisation of the lists of commercially exploitable results

Title	Description	SDG	ERMA action plan
Open-source System Dynamics model of REE value streams	Analysis of the sustainability and resilience of supply chains with constant mapping and assessment of non-Chinese primary and secondary sources.	7, 12, 14, 15	1, 2, 3, 4
Model of best-fit recycling methods	Decision-making tool to choose the recycling methods for different EOL scrap sources and recycling by-products depending on applications requirements.	7, 12, 14, 15	1, 2, 3, 4, 7, 8
REEmat holistic solution for powder blending	Composed of several modules to determine optimum mixing ratios, communicate bill of materials and material recipes along value chains.	7, 12, 14, 15	1, 2, 3, 7, 8



Automated and remote quality control system	Using Artificial Intelligence to control and identify products in process (origin, quality, dimensions ...) and abnormal situations within the process.	7, 12, 14, 15	8, 10
Reducing RE-Oxides for the material blends	Production based on enhanced equipment and new knowledge of purified oxide-reduction according to customer requirements and process standardisation.	7, 12, 14, 15	8, 10
ICT-based alloy/powder blending	Production based on enhanced equipment and new knowledge of mixing virgin and recycled material with appropriate adjustment of chemical composition.	7, 12, 14, 15	8, 10
CV Master programme	Development of a curriculum for an interdisciplinary master's programme targeting both young engineers and experienced professionals to support the resilience and sustainability of RE magnet production on the educational side.	8	9, 11
New magnet alloy	Development of RE PMs with enhanced functionalities; developing new sustainable-by-design materials through grain boundary engineering of recycled material that comprise micromagnetic optimisation.	7, 12, 14, 15	12
New methods for scrap valorisation	Development of RE PMs with enhanced functionalities; developing new sustainable-by-design materials through grain boundary engineering of recycled material that comprise micromagnetic optimisation.	7, 12, 14, 15	1, 2, 6

Table 8: Draft list of REEsilience exploitable results with commercial relevance



6 Conclusion

At M6 of the project, the REEsilience D5.1 "Updated Plan for Dissemination, Exploitation and Communication" was updated regarding past and future communication and dissemination activities and detailing the exploitation strategy and planning. In addition, the REEsilience coordinator and partners checked if both lists of commercial and scientific exploitable results were still accurate and edited the displayed information to be presented in a public deliverable. These lists will be updated, refined and further detailed in the frame of the IP and exploitation workshops organised by partner SEZ.

Further updates of the REEsilience Plan for the Exploitation and Dissemination of Results will be integrated into the periodic reporting (directly in the SyGMA tool) to the HaDEA/European Commission.