



Deliverable 6.3

REEsilience Virtual Experience Online

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	
Project Acronym:	REEsilience
Project Full Name:	Resilient and sustainable critical raw materials REE supply chains for the e-mobility and renewable energy ecosystems and strategic sectors
Grant Agreement No.:	101058598
Instrument:	Innovation Action in the European Union's Horizon Europe research programme
Start date of project:	01.07.2022
Duration:	48 months
Work Package:	WP6
Associated Task:	T6.3
Nature¹	DEC – Websites, patent filings, videos etc.
Due date	31.07.2024 (M25)
Actual Submission:	31.07.2024 (M25)
Lead organisation:	Steinbeis Europa Zentrum (SEZ)

Document Change History			
V	Date	Author	Description
1.	15.07.2024	Eva Kopf (Steinbeis Europa Zentrum)	First Draft
2.	18.07.2024	Maëva Pratlong (Steinbeis Europa Zentrum)	Revision
3.	31.07.2024	Carlo Burkhardt	Validation & Submission

Disclaimer

Funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or European Health and Digital Executive Agency (HaDEA). Neither the European Union nor the granting authority can be held responsible for them.

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

Content

Content	2
List of Figures.....	2
Executive Summary.....	3
1 Introduction.....	4
2 REEsilience Virtual Experience Materials	5
2.1 Infographic.....	5
2.2 Presentation	5
2.3 Virtual Experience	6
3 Conclusion	7

List of Figures

Figure 1: REEsilience Infographic.....	5
Figure 2: Impressions of the REEsilience Virtual Experience.....	6

Abbreviations

EC	European Commission
NGOs	Non-Governmental Organisations
WP	Work Package
VR	Virtual Reality
Nd-Fe-B	Neodymium Iron Boron
RE	Rare Earth



Executive Summary

The REEsilience virtual experience consists of a presentation, an infographic and a REEsilience-themed Virtual Reality (VR) Experience, which can be explored using virtual reality glasses. By explaining and promoting the project in a visually appealing and engaging manner, these elements serve as communication tools to address a non-expert audience including educational institutions, civil society organisations, NGOs and initiatives. The infographic and presentation have been uploaded to the [Resources section of the REEsilience website](#) and are thus publicly available.



1 Introduction

Permanent magnets based on Neodymium Iron Boron (Nd-Fe-B) are essential components of high-tech products enabling a green energy future, like e-vehicles and wind turbines. With the advancement of the green transition, magnet demand is increasing drastically -supply, however, is under threat. The EU is dependent on imports, mainly from China, and geopolitical tensions, environmental issues connected to the extraction of these raw materials, as well as the lack of a thriving European magnet industry present significant challenges.

The Horizon Europe project REEsilience aims to create new market opportunities for critical raw materials sustainably produced in Europe by developing digitised, resource-efficient and resilient Rare Earth supply chains to produce strong permanent magnets needed in the e-mobility, renewable energy and other strategic sectors.

Considering the importance of Rare Earth magnets for our daily (and future) lives, communication plays a vital role for EU projects like REEsilience dealing with such pressing challenges. In the project, communication measures aim at promoting the project and its elements in an easily understandable way and engaging and interacting with the widest range of society to raise awareness of these critical raw materials, the challenges connected to them as well as the solutions provided. The REEsilience virtual experience, including a digital information package and a REEsilience-themed VR experience, serves this purpose as an information tool for the target groups educational institutions, civil society organisations, NGOs and initiatives.

The following deliverable provides an overview of the materials created and made available on the [project website](#).

2 REEsilience Virtual Experience Materials

2.1 Infographic

The REEsilience infographic created by partner [Steinbeis Europa Zentrum](#) (Germany) serves as a means to enhance comprehension of the entire project and its context among non-expert target groups by visually representing it in a structured manner. In addition, as visuals tend to attract more attention than text, it can support to increase engagement on relevant channels.

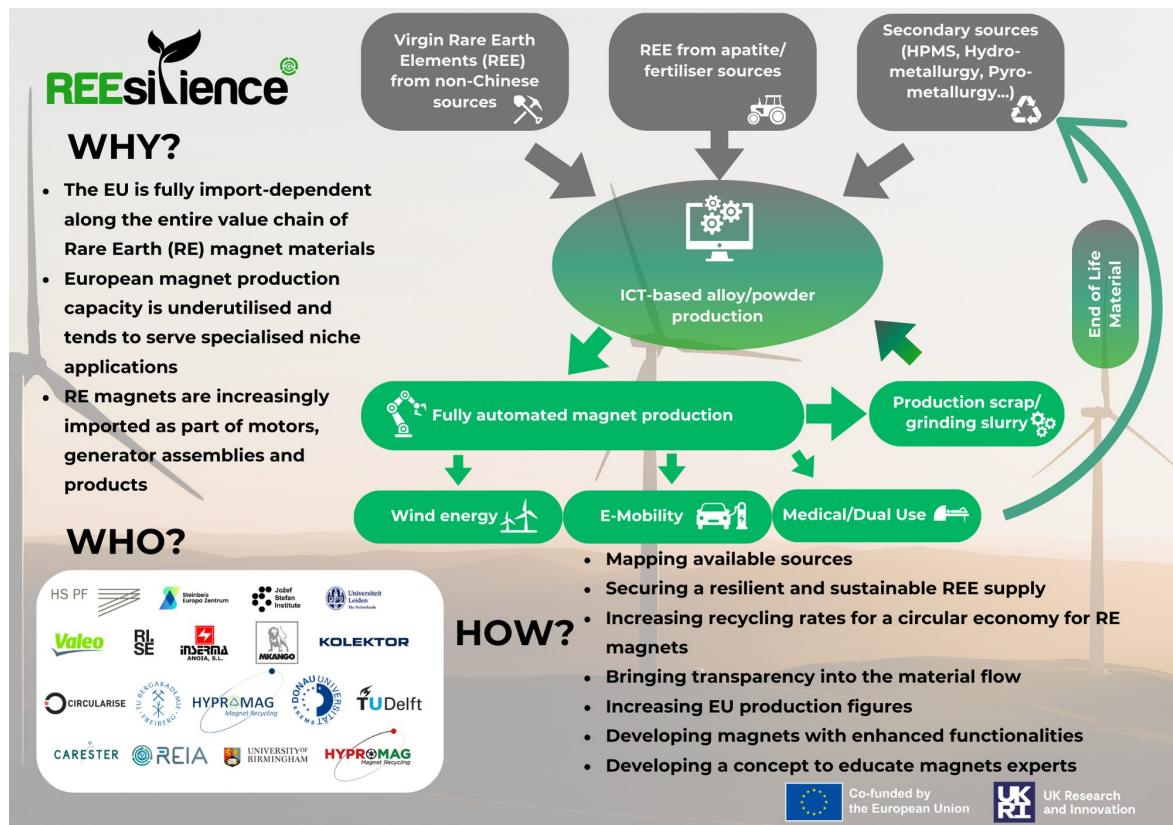


Figure 1: REEsilience Infographic

2.2 Presentation

The presentation of the digital information package created by partner Steinbeis Europa Zentrum (Germany) can be viewed [here](#). It consists of 12 slides providing information on the following topics:

- Why should we care about Rare Earth Magnets >> Issues connected to RE supply
- Rare Earth Magnets empower the devices of our future >> Examples of technological products that require RE magnets
- Europe's response >> REEsilience project data (funding, duration, project partners)
- Project main goal >> Building a resilient and more sustainable supply chain
- Project objectives >> Sustainable RE supply chains, eco-friendly products, increase secondary material usage, implement circular business models, strengthen Europe's raw materials supply, produce strong magnets for strategic sectors, connect producers and end users
- Project approach >> Infographic of the project in a nutshell



- REEsilience consortium: picture of project partners, logos, map of project partners' countries
- Impact through REEsilience: upscale recycling tech & job creation, enhance traceability for market trust, improve industry recycling standards, strengthen European magnet production, support EU's green, digital transition
- REEsilience project video
- Additional materials >> Links to publication, flyers and further resources, latest newsletter edition, upcoming events
- Contacts slide >> Email address, website, X handle, LinkedIn name

2.3 Virtual Experience

The REEsilience Virtual Reality Experience created by partner [INSERMA ANOIA](#) (Spain) consists of 4 virtual spaces:

1. A lobby where users learn how to use their virtual hands in the experience and from which other spaces can be entered
2. A space where a life size 3D model of the automated pilot line for the production of alloy powders of partner [University of Birmingham](#) (UK) can be explored
3. A space for a virtual representation of the fully automated pilot line for high-volume production of magnets from materials blends of partner [HyProMag](#) (Germany)
4. A space in which all project partners are represented with their logo and further promotional materials. It also contains further project information and materials such as the REEsilience video and consortium pictures

A special feature of this VR Experience is that users can interact with their virtual environment, using their hands to touch point, press, pinch and grab different elements within the virtual space.

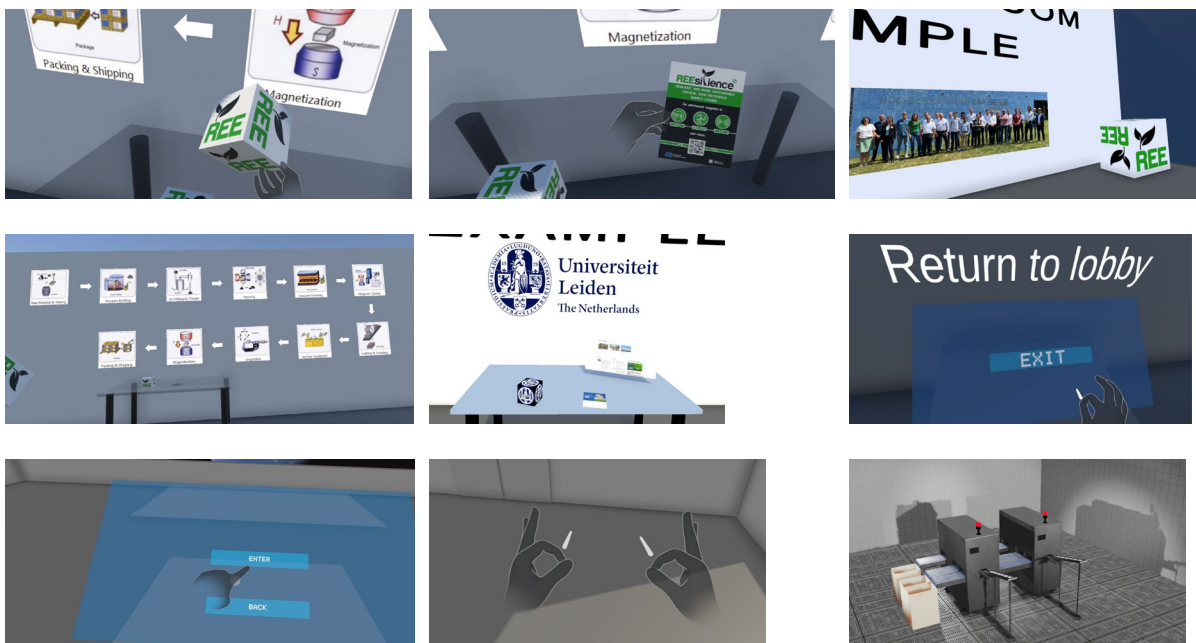


Figure 2: Impressions of the REEsilience Virtual Experience including a 3D version of the new improved HDD segregation machine at the bottom right

The VR Experience (and glasses) are available for partners to use during promotional events, such as open days, science days or similar.



3 Conclusion

In summary, the REEsilience virtual experience comprises three components: an infographic, a presentation, and a VR experience, all tailored for educational institutions, civil society organizations, NGOs, and similar initiatives. Both the presentation and the infographic are available for download from the REEsilience website, while the VR experience can be accessed using VR glasses, ideal for promotional events. These materials visually convey the project's context and processes, enhancing comprehension.