Deliverable 6.2

REEsilience project video

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:	T6.2
Nature[1]	DEC
Due date	31.12.2023 (M18)
Actual Submission:	31.12.2023 (M18)
Lead organisation:	SEZ

Document Change History			
V	**Date**	**Author**	**Description**
0.1	21.12.2023	Ivo Zeller (SEZ)	Draft
0.2	22.12.2023	Patrik Schumacher (SEZ)	Final version
1.0	23.12.2023	Carlo Burkhardt (HSPF)	Submission

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

Content

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Publishable Executive Summary

Deliverable 6.2 presents a general project video of the REEsilience project that showcases the project, the challenges it addresses, its main objectives and the partners involved to promote the project and its elements in an easily understandable way, raise awareness of the REEsilience project, inform about the grander scale, and create engagement with relevant target groups.

This Deliverable concisely summarises the video's creation, organisation, and content, featuring screenshots of various scenes and a written transcript of the voice-over.

Steinbeis (task lead) planned the video and collaborated with a professional video production company to realise it. The REEsilience video leverages the project's branding and communication materials, including the logo, website, and newsletter, to enhance its recognisability and alignment with its visual identity.

The video will be uploaded on the REEsilience YouTube channel and listed on the website:

https://www.youtube.com/channel/UCV62StW26L4JOnldf_jRsgg

1 Introduction

The REEsilience project video aims to inform and promote the entire project to a broad audience. The video will be published on the REEsilience website, our social media channels, in the following newsletter and among the networks of the project partners. As a standard means of communication, it will raise awareness among the stakeholder community and the wider public and convey research non-technically. Thus, it targets audiences beyond the project's community, who could be interested in knowing more about the REEsilience benefits for everyday life and the proposed solutions to fundamental societal challenges such as waste reduction, reusability, environment protection and sustainability in the economy.

Furthermore, the REEsilience video will be integrated into the communication toolkit, providing an engaging medium with the most comprehensive range of society to raise awareness about the importance of critical raw materials and the related challenges that REEsilience addresses. It informs about the benefits and solutions provided by the project and the associated EU funding for citizens in the EU and globally. Moreover, it contributes 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.

The main reason for using video as a medium for disseminating information is that it is a powerful and versatile tool to effectively communicate with your target audience, convey messages more vividly, and achieve broader outreach. Also, the goal is to create a highly engaging video that captures the viewer's attention effectively, making it easier to convey complex or essential information and reach a broader audience and potential project stakeholders.

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2 Work implemented and results

Chapter 2 presents the implementation of REEsilience's project video by presenting screenshots and the applied voice-over text.

2.1 REEsilience video imagery

With the assistance of the professional video editing company Comeback Unternehmensfilm GmbH, SEZ visualised the REEsilience project's challenges and its means to overcome them. The video includes:

- Project information
- Partner representation
- Acknowledgement of the European funding
- Video material support from the Max-Planck Institute for Eisenforschung GmbH and the XRAY-LAB Management GmbH

Figure 1: Opening Scene

Figure 2: Project core's

Figure 3: Displaying supply chain transparency through blockchain technology

Figure 4: Showcasing the impact on Europe

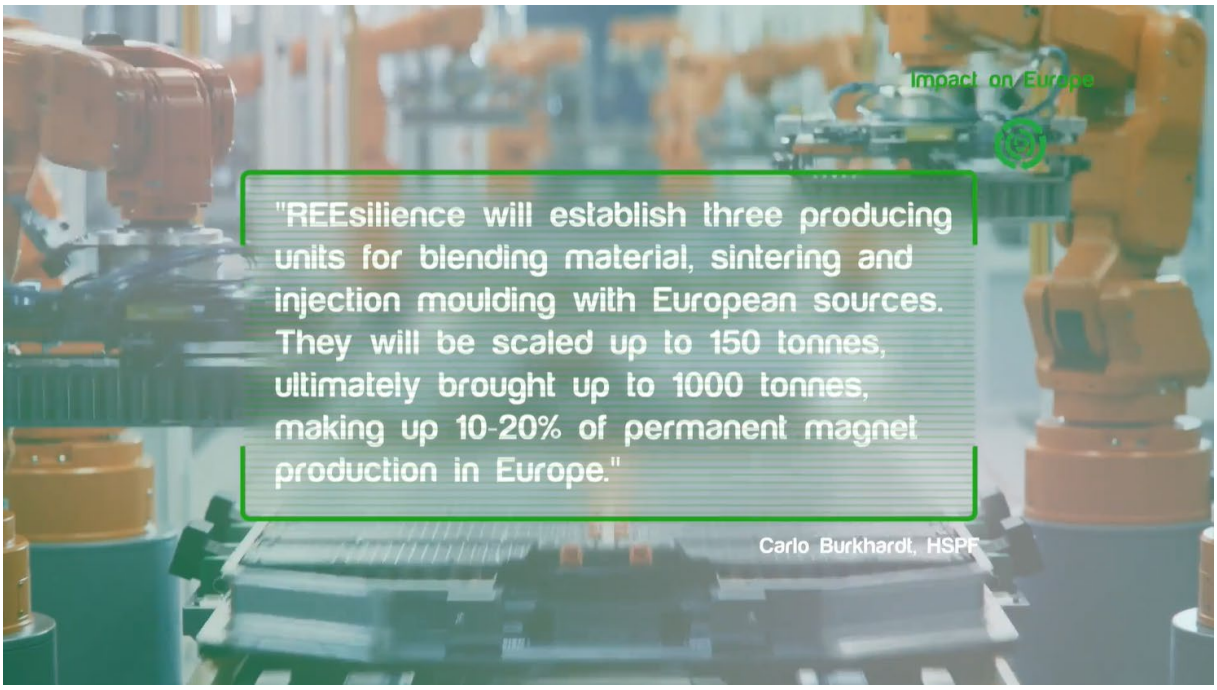

Figure 5: Quote Carlo Burkhardt

The quotes used in the video (Fig. 4 and Fig. 5) were extracted from video interviews with the partners of the REEsilience consortium conducted during the previous partner meeting on 21.09.2023 in Paris.

Figure 6: Showcasing the entire value chain for European recycling

Figure 7: Acknowledgement

2.2 Voice-over text

Renewable energy production relies heavily on permanent magnets, which in turn require Rare Earth Materials…

But where do they come from?

The current supply chain of Rare Earth Elements is intransparent regarding its environmental and social circumstances and creates strong economic dependencies.

The REEsilience project seeks to create accountability and raise Europe's self-sufficiency for Rare Earth Elements.

"Recycling is still an extremely manual process, trying to disassemble a batch of products made of mostly unknown components." (Teresa Oberhauser, Circularise)

REEsilience improves the supply chain transparency through detailed source mapping and blockchain technology.

Research on magnet structure and composition reduces the use of Rare Earth Elements while maintaining and even improving magnetic properties.

This includes investigating alternative magnetic materials and optimising the performance of existing rare earth magnets through advanced manufacturing techniques.

The goal is to create more efficient processes that yield higher-purity materials while reducing energy and chemical consumption.

The research results are integrated with the magnet production of industrial partners to meet rising demands.

Automated and remote quality control of product quality and magnetic properties enable quick insitu analysis to facilitate timely adjustments.

Equipment manufacturers provide feedback on the designed magnets and close the circle by developing designs considering easy recycling.

"REEsilience will establish three producing units for blending material, sintering and injection moulding with European sources. These will be scaled up to 150 tonnes, ultimately bringing it up to 1000 tonnes, making up 10-20% of permanent magnet production in Europe." (Carlo Burkhardt, HSPF)

To carry REEsilience's legacy an official master's course has been designed to enable the next generation of Europe's magnet experts.

The project's success will improve recyclability of materials and strengthen Europe's competitiveness in the global market for permanent magnets.

"Rare earth elements are everywhere. So it is really important to secure their supply in Europe and to do this in an environmentally friendly way." (Meike Reimann, SEZ)

The REEsilience's supply chains will be developed by 18 of Europe's industry and academic leaders.

It spans the entire value chain, from virgin materials producers, recycling specialists and supply chain analysts to magnet manufacturers, process automation developers and leading end users in the main RE magnet markets.

Get in touch on REEsilience.eu

3 Conclusion

To conclude, SEZ produced a comprehensive project video following all branding guidelines, creating a project describing an emotionally engaging and visually appealing stand-alone communication tool that will increase the project's reputation and raise awareness about the Rare Earth Element situation in Europe.

The performance of the video will be assessed in the project's periodic and final reports.