

RELiEF Newsletter Issue 3

Proceedings Annual Meeting of the <u>Cluster Hub 'Production of</u> raw materials for batteries from European resources'

November 27th, 2023, Brussels, Belgium.

On Thursday, 16 November, during the 2023 edition of the <u>Raw Materials Week</u>, the twelve EU funded projects that constitute the Cluster Hub '<u>Materials for batteries</u>' gathered for their annual event in Brussels.

Co-organised by RELIEF, the event gathered nearly 100 organisations driving the production and the recycling of raw materials for battery applications from primary and secondary resources. The event brought four partners of the RELIEF consortium together: <u>EURICE</u> and <u>TechConcepts</u> as organisors, and <u>LUT</u> and the coordinator <u>ABEE</u> as participants for the dedicated sessions.

Building on the initial objective of creating an environment that could foster knowledge exchange on different approaches for the recycling and recovery for battery applications, the event focused on three major topics that depict the transversality characterising the projects: the raw materials through research and science, the roles and challenges of industry and market for raw materials, and the raw materials under the scope of sustainability, durability and social acceptance. During this annual meeting, an interactive session led by Anish Patil from <u>TechConcepts</u> and representing the RELIEF project had the objective of Mapping the European battery material recycling landscape – more details to be found below.

During the last session, RELIEF was strongly represented between the moderation led by Eurice and the active presentations and participation of LUT represented by Laura Kainiemi and ABEE through the coordinator Gabriel Hidalgo.

Their intervention demonstrated the importance of triggering new dialogues on responsible mining activities, and the joint involvement of regional, national and European authorities, academia, industry partners, and citizens in shaping these initiatives.

A big thank you to all participants for this co-creative and very constructive and inspiring meeting.



TechConcepts' Workshop Stakeholder analysis

As a member of the RELIEF project, TechConcepts B.V. focuses on maximising the project impact. Its work focuses on developing a plan to bring RELIEF innovations from lab to the market, and developing exploitation strategy for adoption of the RELIEF recovery process in battery material recovery.

The annual meeting for the cluster hub (see above) was hosted in Brussels (on 16th November 2023) along the sidelines of the European Raw Materials week and allowed the 12 partner projects to share the preliminary results of their work, address the remaining challenges and actively interact with the various stakeholders.

During the Cluster Hub Annual Meeting, TechConcepts B.V. led an interactive session for mapping the European Battery Recycling landscape. It was a hybrid event where around 40 participants were physically present while around 50 participants took part online. TechConcepts used this opportunity to sketch how different stakeholders within the EU, view the **Green Deal Industrial Plan, Net Zero Industrial Act, Critical Raw Materials Act and the European Battery Regulation 2023**.



<u>EU battery regulation</u> is part of The European Green Deal. It focuses on creating a circular economy for battery materials in Europe. In addition, it improves the safety and performance of batteries.

Mentimeter

Mentimeter was used as an online interactive session facilitation tool, while the audience were asked questions about various plans, acts, regulations to understand their perspective along the following lines.

- · Whether these laws/acts complement or contradict each other?
- Are they confusing or conducive?
- What "measures" or "incentives" are the most critical to be achieve the objectives.

Below are three (sample) figures that summarizes the audience perspective.



How would you rank the 4 pillars of the Green Deal Industrial Plan in order of RELEVANCE

The results of this interactive session will be included in a public deliverable and paper that will be published as part of the RELiEF project. All the results will be aggregated per the organization type

The new headquarters of RELiEF's coordinator ABEE

The **RELIEF project** stands at the forefront of addressing the surging demand for lithium through the recycling of lithium from secondary raw materials. RELIEF, coordinated by ABEE, aims to recover lithium from various sources. The goal? Find the best method for sustainable lithium use.

A key highlight of RELIEF is the establishment of a process demonstration for lithium recovery from secondary raw materials. This momentous demonstration will take place at the **ABEE's new headquarters in Ninove (Belgium)**, showcasing the real-world application of the advanced techniques developed through the project. ABEE's new headquarters is a hub for advanced systems and future battery tech. This state-of-the-art facility will not only serve as the nerve center for ABEE's operations but will also house update, scaled systems and cutting-edge technologies shaping the future of the battery industry.

ABEE's commitment to innovation, sustainability, and leadership in the energy and battery solutions sector is exemplified by the RELiEF project and the inauguration of its new headquarters. We invite you to join us in celebrating this milestone and anticipate our initiatives' positive impact on shaping a more sustainable future for lithium utilization.





MEET HEIKO

"RELiEF has the potential to significantly improve the lithium supply situation in Europe, which may have an impact on regulations in the areas of raw materials, battery production and recycling."

Heiko Poth Research and Innovation Manager EURICE - European Research and Project Office GmbH

www.lithium-relief.eu

Meet the partners: EURICE, Germany

Q: RELIEF is a research project with twelve partners developing new Lithium recycling technologies in a collaborative effort. What are the main challenges managing the research, innovation and intellectual property in such a project, and what is your role in this?

A: The main challenge for innovation management in almost all projects such as RELiEF is that you have multiple results that are jointly generated by multiple partners. These results constitute intellectual property (IP) whose rights (IPR) need to be clarified. How has each partner contributed to the different results and what share of ownership should be allocated to them accordingly? These things need to be negotiated and defined by the consortium as early as possible, so that all partners can effectively protect their IP/IPR and receive their fair share of the benefits from the exploitation of the project. EURICE's role is to advise, support and guide the partners in this process and to act as a neutral mediator in case of disagreement.

Q: What strategy is the RELiEF consortium pursuing to manage the IP/IPR generated in the project?

A: Collaborative projects like RELiEF are complex and require considerable effort from the partners. To make this effort worthwhile, it is necessary for them to pursue their specific interests in the project and achieve their individual goals. Depending on the type of institution, these interests and goals can range from commercialisation of new products, to scientific publications, to the creation of new standards or regulations. The intellectual property generated in the project, which is important for the partners to achieve their goals, needs to be protected, for example through patenting. Sometimes the interests of the partners conflict, for example when the academic partner wants to publish new results, but a commercial partner wants to protect them to maintain a competitive advantage in their industry. In addition, RELiEF is funded by the European Union through the Horizon Europe programme. The aim of such publicly funded projects is to maximise the impact for all stakeholders, not just the consortium partners, in order to make the best use of taxpayers' money. This implies that research results are shared as early and openly as possible, so that the scientific community, the general public, industry, etc. can also benefit from them. Therefore, the basic IPR strategy in such a project is always "protect as much as necessary and disseminate as much as possible".

Q: What tools are employed by the partners in order to implement this IP/IPR management strategy?

A: Several tools are available. First, internal coordination between partners is important, e.g. to avoid publication of results that other partners consider sensitive. This requires early and transparent communication via a fast and efficient internal communication platform. Then, for IP that needs to be protected, the usual IP protection tools are used: patenting, registering trademarks or designs, keeping trade secrets, and so on. When it comes to disseminating the IP, the consortium chooses the appropriate tools depending on the stakeholders it is addressing. **On all these issues, EURICE acts as a partner to ensure effective and continuous internal communication and the selection of appropriate protection and dissemination tools.**

Q: Can you tell us a bit more about dissemination in RELiEF?

A: RELIEF has quite a diverse group of stakeholders. First and foremost, of course, there is the battery and recycling industry. Then RELIEF is developing some very innovative chemical processes that are also of interest to academic institutions and research organisations. We also have government and regulatory bodies as important dissemination targets, as RELIEF has the potential to significantly improve the lithium supply situation in Europe, which may have an impact on regulations in the areas of raw materials, battery production and recycling. Of course, there is also the interest of the general public in such important issues as lithium supply, which affects the daily lives of European citizens who use lithium battery technologies in everything from mobile phones

to electric vehicles. They have a right to know what is being done with their taxes and how they will benefit from such projects.

Q: I assume you need to address these different groups in different ways?

A: Of course. Through different channels and with different messages. The general public is more likely to enjoy watching a Youtube video about the project that does not require you to be an expert to understand it but tells you clearly what it is good for, while academia want a "proper "scientific publication talking about experimental setups, numerical results and so on. The industry on the other hand wants a clear presentation of how their business can profit from the project. So, you need to create all these different materials and make sure they arrive in the hands where they belong. In **RELIEF, we have two dedicated partners, TechConcepts and EURICE, that are specialised in identifying, contacting and involving stakeholders in a strategic, targeted way.** I believe the consortium benefits greatly from this.

Q: Once the interest of the stakeholders has been gained and they are involved, is then everything on track and we can be sure to see the results of RELiEF in application soon?

A: It is not that simple. It is a long way from the level of laboratory equipment typically achieved in research projects such as RELiEF to an industrial process. RELiEF will produce a demonstrator for the new, innovative lithium separation processes at a scale that will provide a convincing, reliable proof of concept. Adapting to the real working environment, achieving industrial performance parameters, ensuring long-term sustainability, up-scaling to serial or even mass production - these steps on the road from idea to market are often more difficult and challenging than the initial development in the laboratory, and can take several years and require much higher funding than the original project. It is very important to be aware of this and to prepare for the future while the project is still running. In RELIEF, we are very proactive in developing the necessary strategies and working with partners to develop concrete and specific plans for the translation of our innovative technologies from the laboratory to industry.

Q: So, you have to think bigger than just the project itself.

A: Always. At Eurice, we think in terms of **innovation ecosystems**. These ecosystems are basically partnerships and infrastructures established in a specific technological or scientific field that provide a habitat and resources for new ideas, which are then nurtured from the first concept to the final application in industry and society. Energy storage is such an ecosystem, and battery technologies, including raw materials and recycling, are part of it. **RELiEF makes an important contribution to this ecosystem by developing new recycling technologies to demonstrator level**, but it does not stand alone, it is one building block in this larger field and needs to interact with the other

blocks. One aspect of this interaction is RELiEF's participation in the "Cluster Hub for the production of raw materials for batteries from European resources". This is a collaboration of projects working to secure battery raw materials from European sources to achieve raw material independence, thereby strengthening Europe's economy, environmental health and resilience. RELiEF is one of 13 projects in this cluster, so there is a lot of potential for exchange and cross-fertilisation. These interactions could also lead to very beneficial collaborations in the future development of RELiEF's recycling technologies beyond the life of the project.



Eurice - European Research and Project Office GmbH

Heinrich-Hertz Allee 1, 66386, St. Ingbert

This Newsletter was send to: {{contact.EMAIL}} You are receiving this email because you subscribed to the RELiEF newsletter

<u>Unsubscribe</u>



Funded by the European Union

