

Orano develops its electric vehicle battery recycling project

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The Orano group, a specialist in the nuclear cycle and the processing of strategic materials, is continuing to develop its project for the recycling of Lithium-ion electric vehicle batteries, joining forces with French and international partners.

Following on from the launch of the REsolutiON¹ electric vehicle battery recycling project in 2019, in July 2022 Orano signed a new Research & Development (R&D) partnership agreement with several laboratories, universities and international industrial partners within the framework of the RESPECT consortium. This project, coordinated by Orano, aims to strengthen expertise in techniques and the value chain for the recycling of electric vehicle batteries at European level. It has received 9 million euros of funding from the Horizon Europe research and innovation program, with additional support from the United Kingdom and Switzerland.

A second international partnership agreement was signed by Orano last May, under which the group joined forces with 18 partners from 7 countries as part of the BATRAW consortium, to develop new processes and technologies in the recovery of metals of interest (lithium, cobalt, nickel, manganese) contained in electric vehicle batteries. This project receives financial support from the European Commission which has allocated over 10 million euros of subsidies for its development. The project will be based in particular on the industrial pilot put together by Orano at its new facilities at the Center for Innovation in Extractive Metallurgy (*Centre d'Innovation en Métallurgie Extractive – CIME*) on its Bessines-sur-Gartempe site in the Limousin, to conduct tests on the hydrometallurgy process, which allows the purification and recovery of materials of interest contained in the batteries to be improved.

The recycling of electric car batteries is an important way of protecting the environment as it limits the impact on natural resources. It also boosts French and European autonomy in the procurement of strategic materials.

Didier David, Project director for Battery Recycling at Orano, said: *"European demand for electric vehicles and thus for Lithium-ion batteries is set to grow to in excess of 500 GWh between now and 2028, or 1,000 GWh in 2030. Yet, resources are not infinite and the access to critical metals is already a strategic challenge. Orano, with its experience in the recycling of recoverable materials, intends to contribute to the circular*

¹ REsolutiON embraces the Recyvabat R&D program to develop an innovative low-carbon battery recycling process with a high rate of recovery. Orano, CEA Liten, Paprec, MTB Manufacturing and Saft have formed a partnership to work on the program. Recyvabat is financed within the framework of the France Relance plan, and receives an additional subsidy from the Nouvelle-Aquitaine region.

About Orano

As a recognized international operator in the field of nuclear materials, Orano delivers solutions to address present and future global energy and health challenges. Its expertise and mastery of cutting-edge technologies enable Orano to offer its customers high value-added products and services throughout the entire fuel cycle. Every day, the Orano group's 17,000 employees draw on their skills, unwavering dedication to safety and constant quest for innovation, with the commitment to develop know-how in the transformation and control of nuclear materials, for the climate and for a healthy and resource-efficient world, now and tomorrow.

Orano, giving nuclear energy its full value.

economy of the electric battery cycle and the security of supply of its customers in the future".

[Click here to learn more about the recycling of electric vehicle batteries.](#)