# Press release

Paris, November 25th, 2025

## A made in France plant-based activated carbon for treating micropollutants in water, the Carb'eau project, led by Groupe BORDET, SUEZ and CNRS, selected by INNOV'EAU

- **INNOV'EAU, a call for projects launched by the French government to support innovation in the water sector, has selected the Carb'eau project, led by Groupe BORDET, SUEZ and CNRS, the French national centre for scientific research.**

- **Carb'eau develops a plant-based activated carbon, made in France, to reduce the environmental footprint of a material essential for water treatment. This new technology demonstrates proven efficacy in eliminating micropollutants, while contributing to national sovereignty.**

In the face of growing health and environmental challenges, the quality of tap water and of wastewater discharged into the natural environment is becoming a major concern for citizens, public authorities, and water-sector stakeholders in France. To address these new challenges, the INNOV'EAU call for projects supports innovations in the water sector with €100 million in funding.

Activated carbon treatment is now a proven solution for producing water that complies with regulations when the resource is degraded. The Carb'eau project aims to go further by offering a densified, plant-based activated carbon produced in France to reduce its environmental footprint and contribute to national industrial sovereignty, while ensuring optimal sanitary performance for treating micropollutants in drinking water, as well as municipal and industrial wastewater:

- Groupe BORDET's densified plant-based activated carbon stands out for its effectiveness: up to 99% of micropollutants eliminated in 4 hours.

- Beyond its sanitary performance, it has a smaller carbon footprint than traditional activated carbon: 0.36 t $CO_2$e per metric ton produced, vs. 1.58 t $CO_2$e for reactivated carbon, 7.42 t $CO_2$e for mineral activated carbon, and 1.69 t $CO_2$e for coconut-based activated carbon.

- Developed from PEFC[1] certified French wood, the Carb'eau project helps structure a national supply chain, reducing France's dependence on imported activated carbon.

Coordinated by Groupe BORDET, a French company specialising in the production of plant-based charcoal, the Carb'eau project is also supported by the Jean Lamour Institute (CNRS/University of the Lorraine region), which, together with BORDET, conducts studies on the characterisation and regeneration of activated carbon; and by SUEZ, which carries out qualification tests of the activated carbon's adsorption capacity under real-world conditions at wastewater treatment plants and drinking water treatment works.

[1] Programme for the Endorsement of Forest Certification

The Carb'eau project takes part in SUEZ's innovation and research strategy, which includes more than 400 researchers and 1,300 experts across 10 research and excellence centres in France and worldwide. With 1,800 patents filed, including 37 in 2024, SUEZ develops practical solutions serving the environment and public health, while anticipating tomorrow's challenges.

**Cyril Flores, President of Groupe BORDET**: "*CARB'EAU perfectly embodies Groupe BORDET's industrial and environmental ambition: to offer a French, high-performance and sustainable solution to address the health and environmental emergency posed by water micropollutants. We are taking a further step towards sovereignty in water treatment thanks to our innovative, scientifically validated technology. On this occasion, we would like to extend our sincere thanks to all our partners — SUEZ and the CNRS — as well as the BORDET teams who have been mobilised for several years to make this vision a reality.*"

**Jérôme Bailly, Senior Vice-President Innovation of SUEZ**: "*We are very pleased to see the Carb'eau project selected by the INNOV'EAU call for projects, which recognises a strong partnership with Groupe BORDET and the CNRS, initiated in 2024, to develop a plant-based activated carbon produced in France, in order to meet the growing needs for the treatment of micropollutants in drinking water and wastewater, while protecting the environment. Delivering sustainable solutions to major environmental and societal challenges is the very essence of innovation at SUEZ. This project is a perfect illustration.*"

**Edwige Helmer-Laurent, Regional Delegate of the CNRS in the Centre-East region**: "*The partnership between the 'Bio-sourced Materials' team at the Jean Lamour Institute (CNRS/University of the Lorraine region) and Groupe BORDET has enabled major scientific advances as well as industrial applications in the field of activated carbon. Building on this foundation, this new project with the SUEZ, Carb'eau, opens up new avenues in a field with very high societal stakes.*"

**About Groupe BORDET:**

*Founded in 1860, Groupe BORDET is a leading French industrial player in the valorisation of plant-based carbon. Historically a producer of charcoal, BORDET has established itself as a pioneer of the ecological transition, developing solutions based on biochar and plant-based activated carbon derived from a patented continuous pyrolysis technology: Carboépuré®.*

*With historic roots in Bourgogne–Franche-Comté, BORDET pursues a circular-economy, decarbonisation and industrial-sovereignty approach. The Group takes concrete action to reduce CO2 emissions, replace fossil resources, and decontaminate water, air and soils, while sustainably adding value to local biomass.*

*Supported by Bpifrance and working with competitiveness clusters such as AXELERA, VITAGORA and Bioeconomy for Change, BORDET is developing an ambitious roadmap to 2030 built around four strategic pillars:*

- *Filtration and depollution of water (drinking, urban, industrial)*
- *Production of renewable bio-oils for green chemistry and sustainable fuels*
- *Purification of biogas for energy sovereignty*
- *Energy storage via activated carbons for supercapacitors*

*Building on its scientific partnerships with CNRS, INRAE, CIRAD and the Université de Lorraine, BORDET actively contributes to cutting-edge research in bio-sourced materials.*

*Ambitious yet grounded in industrial reality, Groupe BORDET intends to increase its production tenfold by 2030 and deploy its units nationally and internationally within a low-carbon model. Its objective: to accelerate the energy and environmental transition in the service of human health, local regions and the climate.*

*For more information: www.groupebordet.fr*

# Press release

**About SUEZ:**
*Faced with growing environmental challenges, SUEZ has been delivering essential services that protect and improve our quality of life for more than 160 years. SUEZ provides its customers with innovative and resilient solutions for water and waste services. With 40 000 employees across 40 countries, the Group works with customers to create value over the full lifecycle of their assets and services, and to drive their low carbon transition. In 2024, SUEZ provided drinking water for 68 million people worldwide and sanitation services for 44 million people. The Group generated 8 TWh of energy from waste and wastewater. In 2024, SUEZ has generated revenues of 9.2 billion euros.*
*For more information: www.suez.com*

**About the Jean Lamour Institute:**
*The Jean Lamour Institute is a fundamental and applied research laboratory in materials science. A joint research unit (UMR 7198) of the CNRS and the University of the Lorraine region, it is attached to the CNRS Institute of Chemistry.*
*A multi-disciplinary laboratory, it covers **materials**, **metallurgy**, **nanosciences**, **plasmas**, **surfaces** and **electronics** in response to societal challenges such as **energy**, **the environment**, **industry of the future**, **mobility**, **resource conservation and health**. Its research ranges from material design through to industrial applications.*
*Research is carried out by **25 teams** organised into **four scientific departments** and **one technological research team**. It is supported by **eight competence centres** and **three support services**.*
*The Jean Lamour Institute is based in Nancy on the Artem campus, with several teams located on other campuses in Nancy as well as in Metz and Épinal.*

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