

## AFTER-BIOCHEM: UPDATE AFTER 2 YEARS OF WORK

CIRCULAR BIOECONOMY | LOCAL | FLAGSHIP | AFTER-BIOCHEM PROJECT

### Plant construction finalized on time and within budget

The AFYREN NEOXY plant is a first-of-its-kind flagship biorefinery that will produce bio-based carboxylic acids from sugar beet co-products. Its industrial commissioning was announced at the end of March, and production will start in 2022.

**AFTER-BIOCHEM's partners are pleased to share key outcomes of the second year of work:**

#### Flagship commissioning

In the second half of 2020, AFYREN launched the construction of AFYREN NEOXY, its first large-scale plant, located in Carling-Saint Avold in the Grand Est region.

Today, the construction phase for this plant is nearing completion: all the equipment has been delivered and the acceptance and start-up process is underway in accordance with the planned schedule. These tests will be spread out over several weeks for a gradual commissioning of the equipment, a test phase that will prepare the launch of production.

Despite the health crisis, the AFYREN NEOXY plant construction was finalized on time and within the budget.



## Recruitment campaign

The AFTER-BIOCHEM project will create at least 60 direct jobs at the plant in Carling Saint-Avoid. In addition, it will create as many as 200 indirect jobs in the manufacturing and construction/engineering sector. So far, 55 employees have already been hired and trained for AFYREN NEOXY's operational team. Jobs are mainly in manufacturing, maintenance, quality control, supply chain, and administration.

## Business development

### Bio-based organic acids:

Several business contracts have already been signed for sales mainly in Food, Feed, and Flavors and Fragrances sectors. Today, 60% (by volume) of the organic acid output to be produced by the AFYREN NEOXY plant has already been pre-sold.

### Fertilizer:

The AFYREN NEOXY plant will not only produce bio-based organic acids, it will also produce a valuable co-product, which is used as a potassium-rich fertilizer. In May 2021, AFYREN NEOXY signed a partnership with TERRIAL for the supply of this potassium. TERRIAL, a subsidiary of AVRIL Group and SUEZ, is the French leader in organic fertilization.

## Sustainability pillars: Focus on social impact

The *Life Cycle Assessment* (LCA) aims to investigate the sustainability of the flagship biorefinery. Three sustainability pillars are used. One of those is social impact. To investigate the social impact of the project, Sphera is using social life-cycle metrics according to the *World Business Council for Sustainable Development* (WBCSD). These metrics will assess social criteria such as impact on competitiveness, territory integration and employment. It is a holistic approach following the principles of people, planet and profit.

## Project's next steps

2022 is an important year for the project, as this is the year of the plant's inauguration. For AFTER-BIOCHEM, this year marks the launch of the first-of-its-kind European flagship biorefinery that will produce bio-based carboxylic acids from sugar beet co-products.

The first batches of bio-based acids will be produced and delivered this year.

## **ABOUT AFTER-BIOCHEM**

AFTER-BIOCHEM is a unique opportunity to turn agricultural processing co-products into new product streams. The project's core technology is based on 10 years of R&D at AFYREN. The technology can turn biomass into high added-value and natural products using its all-in-one cutting-edge fermentation process based on natural micro-organisms (100% GMO-free process and products). The project will also implement a "zero waste" strategy based on an optimized production process; all the fermentation outputs are valuable products: seven organic acids and one mineral co-product that can be used respectively as ingredients and

fertilizer. The bio-based, natural compounds will have applications in various markets such as food and feed, flavours and fragrances, life sciences, material sciences and lubricants.

#### **The 12 European project partners**

**3 SMEs:** AFYREN NEOXY, PNO, SPHERA

**8 Large industries:** CELANESE, SÜDZUCKER, FIRMENICH, SUEZ, KEMIN, TECHNIP ENERGIES, OMYA, FIABILA

**1 cluster:** BIOECONOMY FOR CHANGE

**Duration: 48 months (From May 2020 to April 2024) | Total budget: € 20M | Total cost: € 33M**

AFTER-BIOCHEM received € 20M funding from the Bio-based Industries Joint Undertaking (BBI JU) under grant agreement No 887432. The JU receives support from the European Union's Horizon 2020 research and innovation program and the Bio-based Industries Consortium.

**AFTER-BIOCHEM website:** <https://after-biochem.eu/>

#### **PRESS CONTACT:**

##### **Angel GUYOT**

Communications & European Projects Officer

Bioeconomy For Change (B4C)

[a.guyot@bioeconomyforchange.eu](mailto:a.guyot@bioeconomyforchange.eu) | +33 6 27 77 97 66



The sole responsibility for the content of this publication lies with the authors. It does not necessarily reflect the opinion of the JU. The JU is not responsible for any use that may be made of the information contained therein.