

Paris, Thursday June 11st 2020

AFYREN and the AFTER-BIOCHEM European consortium obtain a funding of 20 million euros for the industrial production of new bio-based products

Highlights

- €20 million european grant of private-public partnership "Bio Based Industry Joint Undertaking"
- Construction of first flagship biorefinery confirmed through its affiliate AFYREN NEOXY
- 50+ direct jobs in Northeast France and up to 200 indirect jobs expected

AFYREN, a French biotech company which designed a breakthrough innovation in green chemistry to help preserve the planet, has successfully gathered 12 key bioeconomy players around a new European project to develop **the first of its kind flagship biorefinery in France.** AFTER-BIOCHEM (Anaerobic Fermentation & EsteRification of BIOmass for producing fine CHEMicals) aims to create innovative and more sustainable value chains from non-food biomass feedstock, by producing multiple high added-value products. **The project is supported by the European Commission and the Bio Based Industry** Joint Undertaking (BBI-JU) who will fund 20 M€ in this project.

"As a French start-up, we are very proud to lead the present European consortium and to have succeeded in gathering such renowned partners, representing altogether more than 30 billion euros global sales, says Nicolas SORDET, CEO of AFYREN. "Together, we are willing to contribute to **the development of a sustainable European model of biorefinery**, relying on low-carbon emission and circular bioeconomy principles. AFTER-BIOCHEM will enable us to experiment, validate and replicate such innovative model thus contributing to transform industrial practices. We warmly thank all our partners alongside the BBI-JU for their confidence."

Context and objectives

The AFTER-BIOCHEM project is a unique opportunity to turn current bio-byproducts into new biostreams. The project core technology, based on **10 years of R&D at AFYREN**, can turn agricultural processing by-products into high added value molecules by using its all-in-one cutting edge fermentation process coupled with separation and transformation steps. It is a **non-GMO**, environment friendly and zero waste process.

The 4-year project will aim to create innovative and more sustainable value chains from nonfood biomass feedstock, by producing multiple high added-value products. Applications will target various markets such as fragrances & flavorings, personal care, food & feed, pharmaceuticals, and industrial chemicals. As we can see in the flavors and fragrances sector, the construction of sustainable and local supply chains, with very good traceability, is indeed a major issue.

Furthermore, AFTER-BIOCHEM will not only allow a recovery of the co-products of the sugar beet value chain (farmers and industry) recently faced with important economic challenges but will contribute more broadly to the **development of a strong bioeconomy sector in Europe.**

Finally, the project will also implement a "**zero waste**" strategy thanks to an optimized production process and the use of co-products in the form of fertilizers.

Implementation

The project will build an all-in-one and **first of its kind flagship biorefinery** within the chemical platform sited at Carling-Saint-Avold (in the region GrandEst, France). AFTER-BIOCHEM's operational coordination and plant management will rely on AFYREN NEOXY, AFYREN affiliate company, co-invested with SPI fund from Bpifrance.

Jean SAINT-DONAT, CEO of AFYREN NEOXY, overseeing the overall operations, highlighted : "AFTER-BIOCHEM enables us to accelerate the implementation of the AFYREN NEOXY plant, which is a big first step towards European industrial replications for the growing market of biobased products. The combination of our partners expertise will accelerate the industrial validation, diversify our feedstock supply and broaden the variety of manufactured products. All this to offer competitive and sustainable solutions to our future customers".

Impacts

AFTER-BIOCHEM's approach will **increase economic and environmental sustainability of sugar beet**, a key European crop, by valorizing all its by-products into high-added-value products. The plant installation within the chemical platform sited at Carling Saint-Avold (Northeast France) **foresees 50+ direct jobs and up to 200 indirect jobs** in manufacturing & construction/engineering sectors. Additionally, the consortium will study the replicability of the project and extend the project results to additional biomasses.

Last but not least, AFTER-BIOCHEM's integrated approach expects **significant reduction of CO₂ emission**, compared to traditional fossil-based carboxylic acid production.

Thus, AFTER-BIOCHEM and all its partners will strongly contribute to the structuration of a sustainable bioeconomy value chain in Europe.

Philippe MENGAL, Executive Director of the BBI-JU, stated "We are thrilled to add AFTER-BIOCHEM to the BBI JU flagship project portfolio. The project will make it possible to create a broad range of biobased products that are **perfect alternatives to existing petrochemical offers**. While supporting the EU's Circular Economy action plan, AFTER-BIOCHEM will also create several hundred direct and indirect jobs in Europe. In addition, using such a widely available by-product from sugar beet industry is the beginning of a new era where circularity is the guiding principle for industrial operations.

Today is an exciting day for all of us. I wish the best of success to AFTER-BIOCHEM partners for the kick-off of such an ambitious and promising project not only for France but also for the rest of our continent."

Partners

AFTER-BIOCHEM brings together at different stages of the value chain teams of 3 SMEs, 8 large companies and 1 innovation cluster from 5 European countries. Among them are:

- AFYREN NEOXY Coordinateur (<u>https://afyren.com/</u>)
- CELANESE EUROPE BV (https://www.celanese.com/)
- FIRMENICH SA (<u>https://www.firmenich.com/</u>)
- IAR, the French Bioeconomy Cluster (https://www.iar-pole.com/)
- KEMIN EUROPE NV (https://www.kemin.com/)
- OMYA INTERNATIONAL AG (<u>https://www.omya.com/</u>),
- PNO CONSULTANTS (https://www.pnoconsultants.com/fr/)
- SPHERA (<u>https://sphera.com/</u>)
- SÜDZUCKER AG (https://www.suedzucker.de/en)
- SUEZ (https://www.suez.com/fr/)
- TECHNIP FMP (<u>https://www.technipfmc.com/)</u>...

About AFYREN

AFYREN meets a growing need among businesses and industries to reduce the use of petroleumbased products in their production lines. It can be achieved by producing biomolecules derived from non-food biomass, largely used in the sectors of cosmetics, flavours and fragrances, human and animal nutrition and fine chemicals. This production of renewable carbon, within a circular economy, is achieved through worldwide patented fermentation technology resulting from 10 years of research. Founded in 2012 and managed by Nicolas SORDET and Jérémy PESSIOT, AFYREN has 20 employees at its locations in Lyon and Clermont-Ferrand. AFYREN won the 2030 Worldwide Innovation Challenge in the category "Plant protein and plant chemistry" and was named ambassador for French Tech – Green chemistry at COP21. AFYREN is supported in its development by the Auvergne-Rhône-Alpes and Grand-Est regions, and by Bpifrance, and the European Investment Bank. AFYREN was selected in French Tech program FT120 in January 2020.

In 2018, AFYREN embarked on the realization of its industrial project with the creation of a Joint Venture with the Spi fund from Bpifrance: AFYREN NEOXY. AFYREN NEOXY is dedicated to the first industrial production of AFYREN natural organic acids at the future factory in Carling. afyren.com

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About BBI-JU

AFTER-BIOCHEM is financed with 20 million euros from the Bio-Based Industries Joint Undertaking (BBI-JU) under the grant agreement No 887432. BBI-JU is the a public-private partnership between the European Union (H2020 program) and the Bio-based Industries Consortium (BIC), an organization that connects large and small / medium enterprises, research institutions, universities and public and private bodies at European level involved in the development of the circular bio-economy.

<u>bbi-europe.eu</u> <u>H2020</u>





Biobased Industries Consortium