



FLASH NEWS

No. 52-2022 – THE BIOTECH INDUSTRY INTELLIGENCE REPORT

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1. EQUIPMENT & TECHNOLOGY

Processes

3983 - BioImpulse project: what role will CRITT Bio-Industries play?

As part of the project, whose aim is to replace formaldehyde-based resins/glues across several markets, CRITT Bio-Industries is exploiting its dual expertise in fermentation and purification to get a molecule of interest to include in the composition of a new SVHC*-free adhesive resin (*SVHC: Substances of Very High Concern). Together with the Chemical Engineering Laboratory (LGC) in Toulouse, a mixed INP Toulouse / UPS / CNRS research unit, CRITT Bio-Industries should develop processes to purify the target molecule. To achieve this, a team of five people has been put in charge of:

- selecting unit operations and determining their sequences on laboratory mini-pilots,
- validating this sequence on pre-industrial pilots to get data for industrial pre-scaling,
- producing batches of purified molecules of interest for formulation tests on the new adhesive resin.

En savoir plus : BioImpulse.fr

3984 - Discovery of a new direct, sustainable production method for monoethylene glycol (MEG), a key component in polyethylene terephthalate (PET) production.

A consortium between LanzaTech, the New Zealand company specialised in carbon recycling by biotechnological means; and the Danone group, has developed a technology using a patented bacterium to transform carbon emissions from steelworks or biomass from gasified waste directly into MEG by fermentation. The new process avoids the multiple processing stages required to convert ethanol to ethylene, then to ethylene oxide, then to MEG. It also simplifies the MEG supply chain. The efficiency of this new technology has been proven at scale in the laboratory, and the presence of MEG confirmed by two external laboratories. For Dr Jennifer Holmgren, LanzaTech CEO: *"This is a technological breakthrough which could have significant impact, with applications in multiple sectors, including packaging and textiles!"*

Next step: continue to develop the technology for scale-up to industrial level.

More information: [Press release](#)

2. APPLICATIONS & MARKETS

Food and feed

3985 - Afyren

The producer of molecules of interest by fermentation has announced the signature of a new multi-year structuring contract with an unnamed European player in animal nutrition, for the supply of an organic acid from its Afyren Neoxy plant. Thanks to its proven antimicrobial property, Afyren's biobased acid will enable its customer to expand its nutrition offerings for a wide variety of animal species. The customer will benefit from a short and reliable supply chain, and a product with a reduced carbon footprint, produced using sustainable renewable resources and without palm oil. The customer will also be able to meet requirements for GMO-free solutions in Europe. This multi-year

contract also enables Afyren Neoxy to secure an additional part of the production of its plant and to capitalise on its diversified range of acids produced on a single industrial line.

More information: [Press release](#)
En savoir plus : [Communiqué de presse](#), [L'Usine Nouvelle.com](#)

3986 - EnginZyme & Tetra Pak

The Swedish biotechnology [company](#) that patented a cell-free biomanufacturing platform, and the Swiss-Swedish group specialising in the design of food processing and packaging solutions, have announced that they have teamed up to develop enzymatic processes to bring sustainable and economically sound solutions to the food and beverage industry. Their joint effort should help them find new ways to improve food and beverage production by, for example, turning food waste into valuable ingredients. As a first project, the two partners are looking to see whether EnginZyme's technology might effectively transform acid whey, a by-product from the manufacture of dairy foods like Greek yoghurt or cream cheese, into valuable ingredients that can go into healthy food products. Through their work they aim to demonstrate the potential of this technology to reduce waste streams and generate revenue from by-products.

More information: [Press release](#)

3987 - Novozymes & AgroFresh

The Danish specialist in enzymes and the [company](#) specialising in post-harvest freshness solutions have announced a strategic collaboration partnership with the aim of developing and commercialising biological solutions for controlling fungal pathogens in fruit, vegetables and flowers after they are harvested. These future solutions, to be commercialised by Agrofresh, can be used by producers, retailers and even consumers. They should help reduce food loss and waste as well as help improve the quality of the food system as a whole.

More information: [Press release](#)

Biocontrol/Biostimulation

3988 - Micropep Technologies

The Toulouse-based biotech company, which develops biological inputs using micropeptides (small natural proteins for adjusting the intrinsic capabilities of plants, from germination to reproduction), has announced that it has raised €8.75 million in Series A funding. The operation was led by American private equity firm [Fall Line Capital](#), with the participation of existing investors: [Supernova Invest](#), [Sofinnova Partners](#), [FMC Ventures](#) and [Irdi Capital Investissement](#). The new funds will help it boost its R&D in France and the US, and begin the first stage towards commercialising future solutions. Micropep Technologies thus plans to launch its first fungicides in the US in 2025 and in Europe in 2027.

More information: [Linkedin.com](#)
En savoir plus : [L'Usine Nouvelle.com](#), [Les Echos.fr](#), [La Tribune.fr](#)

Chemistry & materials

3989 - Amyris

The American biotechnology company has announced that its fermentation plant in Barra Bonita (Brazil), which entered into service in April, has begun industrial-scale production. The site has the distinctive feature of being made up of five precision fermentation "mini-factories". They are also capable of concurrently producing all 13 of

Amyris' molecules currently in the market as well as future bio-fermented products. The plant is also able to produce natural vanillin, Reb M (a natural sugarcane-based sweetener), squalane, squalene, hemisqualene and patchouli. It is currently operating at full capacity until the end of 2023.

Info: Following its service rollout, Amyris now claims to be the leading manufacturer of chemical products derived from genetically modified micro-organisms on an industrial scale.

More information: [Press release](#)
En savoir plus : L'Usine Nouvelle.com

3990 - Association Chimie Du Végétal (ACDV)

The association that unites plant-based chemistry players and works towards structuring this industrial network has announced that Bernard Chaud has been elected its new Chairman, replacing François Monnet. With a degree from Ecole Polytechnique then Ecole Nationale du Génie Rural, des Eaux et des Forêts (national school of rural engineering, water resources and forestry), Bernard Chaud is, since 2015, Director of Industrial Strategies at Global Bioenergies and Chairman of IBN-One, a 50-50 subsidiary of Global Bioenergies and Cristal Union. Before joining Global Bioenergies, he was Head of Unit for biomass, bioproducts and bioenergies at the Ministry of Agriculture, then Director of biofuel products within the Tereos group, before occupying the post of CSR Director. Bernard Chaud wishes to pursue economic growth among the plant-based chemistry network, especially at European level.

En savoir plus : [Communiqué de presse](#), L'Usine Nouvelle.com

3991 - Avantium & Carlsberg

The Dutch renewable chemistry specialist and the Danish brewer have signed a conditional supply agreement in which Carlsberg has committed to buy PEF (polyethylene furanoate) resin produced in Avantium's flagship plant (currently being built in the Netherlands and due to enter into operation in 2024). Carlsberg plans to use the resin for various packaging, in particular for the production of 8000 Fibre Bottle samples, a fully recyclable beer bottle containing an inner layer of PEF. The bottles will then be tested among consumers in eight European countries (Denmark, Sweden, Norway, Finland, UK, Poland, Germany and France).

More information: [Press release](#)
En savoir plus : L'Usine Nouvelle.com, Bière Actuelle.fr

3992 - Carbios

The French specialist in enzymatic recycling of plastic and textile polymers has announced that it has signed an agreement with **On**, **Patagonia**, **PUMA** and **Salomon** with a view to develop solutions to make their products more recyclable and circular. The aim of the two-year agreement is to speed up the launch of Carbios' unique biorecycling technology. Five partners will also carry out research into how products can be recycled, assess the development of used polyester clothing collection solutions, and test sorting and processing solutions. It will also help to consolidate recycling data "from fibre to fibre", as well as on circularity models.

More information: [Press release](#)
En savoir plus : [Communiqué de presse](#), Les Echos.fr

Carbios has announced the appointment of Isabelle Parize and Juan de Pablo to their Board of Directors. An MBA graduate from Ecole Supérieure de Commerce de Paris, since August 2021, Isabelle Parize has held the role of Chairman of the Supervisory Board of Delsey Paris, a French baggage and travel accessories company, after having been its Chief Executive Officer. Prior to that, she was Chief Executive Officer of Douglas Holding S.A., the European leader in fragrance and cosmetics retail, and served as Chief Executive Officer at Nocibé, a French fragrance and cosmetics retail company. Isabelle Parize is a Board member of Air France-KLM S.A. and of Coty, specialised in beauty products and fragrance creation, both publicly listed companies.

Juan de Pablo obtained a doctorate in chemical engineering from the University of California, Berkeley, in 1990, and conducted post-doctoral research at the Swiss Federal Institute of Technology in Zurich, Switzerland. He is a Professor in Molecular Engineering at Pritzker School, Executive Vice President for Science, Innovation, National Laboratories and Global Initiatives at the University of Chicago, and Senior Scientist at Argonne National Laboratory. Much of Juan de Pablo's work is dedicated to understanding and designing new materials and he is a leader of simulations of polymeric materials. Juan de Pablo holds over 20 patents and is the author or co-author of more than 600 publications.

Carbios also announced the ratification of the appointment of Philippe Pouletty as Chairman and member of the Board of Directors.

More information: [Press release](#)
En savoir plus : [Communiqué de presse](#)

The French company has announced the appointment of Lionel Arras, Industrial Development Director, and Mathieu Berthoud, Sourcing and Public Affairs Director, to its Executive Committee. Lionel Arras joined Carbios' teams in 2021 to support the industrial growth of PET enzymatic recycling technology as Industrial Development Director. An engineer who graduated from ENSIC Nancy and holds an MBA from the Lyon School of Management, Lionel Arras has more than 25 years of experience in the field of process engineering and the chemical industry. At Carbios, he now heads a team of around 50 people mobilised around three major divisions:

- the industrial demonstration plant, inaugurated last September in Clermont-Ferrand,
- technological development,
- the first Reference Unit project, installed on the Indorama Ventures site in Longlaville, Meurthe-et-Moselle, France.

Mathieu Berthoud joined Carbios as Sourcing and Public Affairs Director on 1 June 2022. With more than 30 years of experience, including 10 years at Rhodia (now Solvay) and more than 20 years at Suez, in various commercial development or subsidiary management positions, he was most recently Technical and Performance Director for the Group's recycling and recovery activities. A university-trained scientist, he also holds an MBA from HEC Paris. At Carbios, he will be responsible for securing the supply of PET waste for the future reference plant in Longlaville and the other industrial sites that will follow. He will also manage the Company's public affairs.

More information: [Press release](#)
En savoir plus : [Communiqué de presse](#)

3993 - CJ BIO & NatureWorks

The [subsidiary](#) of South Korean company [CJ CheilJedang](#) and leading producer of polyhydroxyalkanoate (PHA), and the American company specialising in Polylactic Acid (PLA) production, have announced the signature of a letter of intent (LOI) to develop next-generation, high-performance biopolymers based on CJ BIO's PHACT® PHA technology (for producing amorphous PHA) and NatureWorks' Ingeo™ biomaterials technology (used to produce PLA). The agreement establishes a strategic alignment between the two companies, who are also working toward a Master Collaboration Agreement (MCA). The aim of the partnership is to replace fossil fuel-based plastics in applications ranging from compostable food packaging to personal care. Initial development and collaboration are showing very promising results when using CJ BIO's amorphous PHA in combination with Ingeo™ biopolymer. Indeed, the combination of the two materials leads to improvements in mechanical properties, such as toughness, while maintaining transparency. It also allows adjustment in the biodegradability of PLA and can potentially lead to a home compostable product.

More information: [Press release](#)
En savoir plus : [L'Usine Nouvelle.com](#)

3994 - DSM

The Dutch chemicals company has announced a merger with Swiss group Firmenich, leader in flavours and aromas, to become a "major supplier of food ingredients and beauty and wellness products." The new firm will be made up of four divisions:

- Perfumery & Beauty (€3.3 billion in revenue),
- Food & Beverage / Taste & Beyond (€2.7 billion in revenue),
- Health, Nutrition & Care (€2.2 billion in revenue),
- Animal Nutrition & Health (€3.3 billion in revenue).

The two groups, who hold over 16,000 patents in their respective sectors and possess 15 R&D centres throughout the world, are expecting annual organic sales growth in the 5 to 7% range. As a result of this merger, which is due to complete in the first half of 2023, DSM shareholders will own in aggregate 65.5% of DSM-Firmenich and the various shareholders of Firmenich will own in aggregate 34.5%.

In addition, in order to focus on producing sustainable nutrition and beauty products, DSM has announced the sale of its engineering materials division to private equity firm Advent International and German chemicals company Lanxess for €3.85 billion. The two new owners intend to combine DSM's activities in the field of engineering materials with those of Lanxess in high-performance materials in the framework of a shared enterprise, in which Advent will hold a 60% stake and Lanxess 40%. In creating a joint venture, the partners are pursuing an ambition to become the market leaders in specialist materials.

More information: [Press release](#)

En savoir plus : [L'Usine Nouvelle.com](#), [L'Usine Nouvelle.com](#), [Les Echos.fr](#), [L'Usine Nouvelle.com](#)

3995 - Genomatica & Unilever

The American biotechnology company and the group specialising in fast-moving consumer goods have announced that they have created a company that aims to develop alternatives to palm oil- or fossil-based cleaning ingredients, using biotechnology. To achieve this, Genomatica will use its patented biotechnology platform, which will be scaled up to produce the ingredients. The two partners have also announced a \$120 million (€114 million) investment in the initiative, and are counting on the participation of other strategic investors who should join the project subsequently.

These biobased alternatives will then be used in cleaning and personal care products.

More information: [Press release](#)

En savoir plus : [L'Usine Nouvelle.com](#), [La Tribune.fr](#)

3996 - Michelin

Having produced race tyres containing 46% sustainable materials last year, the French manufacturer has managed to increase this content to 53%. To achieve this, they used natural rubber and recycled carbon black from end-of-life tyres, orange and lemon rind, pine resin, sunflower oil, and steel from recycled scrap metal. The new tyres were set to equip the new fully electric Porsche 718 Cayman GT4 ePerformance at the Goodwood Festival of Speed (June 23-26).

Recap: In keeping with its "Michelin In Motion" policy, Michelin plans to make all its tyres exclusively from biobased and recycled materials by 2050.

More information: [Press release](#)

En savoir plus : [Communiqué de presse](#)

3997 - Modern Synthesis

The British [start-up](#), which developed a technology using bacteria to transform sugar from agricultural waste into nanocellulose, has raised \$4.1 million (€3.9 million) in seed funding. The investors are: [AgFunder](#), [Collaborative Fund](#), [Acequia Capital](#), [Petri Bio](#), [Ponderosa Ventures](#), [Possible Ventures](#), [IMO Ventures](#), Taihill Venture, [Parley for the Oceans](#), [Climate Capital Collective](#) and former Jimmy Choo CEO Pierre Denis. Most of the new capital will go towards building a pilot facility in London. The planned site will house an R&D laboratory, as well as sampling and pilot production capabilities. It is on track to being operational by the third quarter of 2022. Modern Synthesis will also put aside a portion of the fund for recruiting new talent.

Modern Synthesis has already used the technology to make a shoe, and is confident it can create other types of objects.

More information: [AgFunder News.com](https://www.agfunder.com)
En savoir plus : [L'Usine Nouvelle.com](https://www.usine-nouvelle.com)

3998 - Origin Materials & Kuraray

The American start-up specialising in carbon-negative materials, and the specialist chemicals [company](#) have announced the signature of a strategic partnership to commercialise advanced carbon negative materials for diverse polymer applications. As part of the strategic partnership, Kuraray signed a capacity reservation agreement with Origin Materials to purchase sustainable intermediate chemicals (chloromethylfurfural, furfural, levulinic acid, etc.). These will be used in the large-scale synthesis of many polymers, including PTA, PET and polyamide.

More information: [Press release](#)
En savoir plus : [L'Usine Nouvelle.com](https://www.usine-nouvelle.com)

3999 - PILI

The company specialising in producing dyes and pigments through fermentation has announced that it has developed an indigo dye for textiles at industrial scale, and that the “*first few hundred pairs of jeans*” produced with its dye should be on sale this year. Pili also stated that it had customers in the European, Asian, Middle-Eastern and American markets. Boosted by these advances, it plans to start building a pilot plant in the Lyon area, France, this summer, roll out a demonstrator plant in 2023, then build a factory in France in 2024. On the finance front, the company plans to finalise a new fundraising round of €15 million by the end of the year. The new funds, combined with various aid received from the France Relance plan, the French National Research Agency, or a triennial European project focused on biobased inks, should amount to around €30 million in total.

In terms of its plans, and once it has industrialised pigments for ink, paint and plastic in 2023, Pili aims to develop textile dyes for synthetic and cellulosic fibres such as cotton, linen or hemp. It also aims to broaden out into materials, food ingredients and cosmetics. Finally, Pili also intends to add three new people to its team.

En savoir plus : [Les Echos.fr](https://www.lesechos.fr), [Paris Match.com](https://www.parismatch.com)

Pili has received €400,000 for the Waste2BioComp project within the framework of the [Horizon Europe](#) programme. This collaborative project bringing together 12 European partners (France, Germany, Italy, Portugal, Spain) aims to transform organic waste into sustainable and biobased components for the textile, packaging and footwear industries. Demonstrating the relevance of these processes on a pilot scale will pave the way for large-scale industrialisation with a significant impact on reducing the use of fossil materials and CO₂ emissions in many value chains with high environmental footprints. Thanks to this European funding, Pili is strengthening its ecosystem of application partners, particularly in inks and textile printing.

More information: [Press release](#)
En savoir plus : [Communiqué de presse](#), [L'Usine Nouvelle.com](https://www.usine-nouvelle.com)

4000 - Shellworks

The British [company](#), which uses bacteria found in soil and marine environments to create alternative compostable vegan packaging for beauty brands, has announced that it has raised \$6.2 million (€5.9 million) in seed funding. The fundraising was led by venture capital company [LocalGlobe](#) with the participation of [Founder Collective](#), [True Global](#), [BoxGroup](#), [Divergent Capital](#) and private individuals Deepali Nangia ([Alma Angels](#) founder), Julien Callede ([Made](#) co-founder), Bryan Meehan (former [Blue Bottle Coffee](#) CEO) and Grant Aarons ([FabricNano](#) co-founder and CEO). The new funds will help it finance its technological development and invest in the commercialisation of its products.

Though Shellworks is currently focused on the beauty industry, it is studying other potential applications, especially in packaging for personal care and cleaning products.

More information: [Sustainable Packaging News.com](https://www.sustainablepackagingnews.com)

4001 - Launch of the WhiteCycle project dedicated to recycling plastic waste.

Coordinated by French tyre maker Michelin, the main goal of this European project is to develop a circular solution for transforming complex PET plastic textile waste (tyres, pipes or multi-layer clothing) into valuable products. As a consortium, WhiteCycle is made up of a mix of 16 public and private European organisations from five different states (France, Spain, Germany, Norway and Turkey). The partners will work on new necessary processes all along the industrial value chain:

- Innovative sorting technologies to get a significant increase in the PET plastic content of complex waste streams and thus process them more easily,
- Preparation of the recovered PET plastic content, followed by a revolutionary enzymatic recycling process to sustainably break it down into pure monomers,
- Repolymerisation of the recycled monomers into a new plastic similar to virgin plastic,
- Manufacturing and quality controlling new products made from the recycled plastic materials.

The partners believe the project could result in over 2 million tonnes of PET being recycled every year. It should also prevent over 1.8 million tonnes of this plastic ending up in landfill or incinerated every year, and result in a 2 million tonne reduction in CO₂ emissions.

WhiteCycle has a total budget of nearly €9.6 million, of which €7.1 million provided by the European Union through its Horizon Europe programme. Its governance structure involves a steering committee, an advisory board and a technical support committee. The project should span four years.

Info: Carbios is part of the consortium.

En savoir plus : [Communiqué de presse](#), [L'Usine Nouvelle.com](#)

4002 - Creation of the ChemBooster Alliance.

Created by [ITERG](#), the industrial technical centre specialising in the field of fatty substances and related products (fats, vegetable oils, oil co-products and minor compounds) and innovative French company [PIVERT](#), specialising in creating value from plant sources, this [alliance](#) should help meet the needs of biomass extraction, green chemistry and biotechnology industrialists. It aims to offer a unique service to customers by pooling the technological skills and platforms of the two structures in aid of a more sustainable green chemistry sector. The goal is to boost related projects and speed up the arrival of innovative products on the market, with ChemBooster helping processes to develop and scale up, from proof of concept at laboratory scale (<10 kg) to an industrial scale measurable in tonnes. The technologies on offer, from kg to tonnes, include:

- Esterification / Trans-esterification,
- Hydrogenation,
- Hydrolysis (chemical - enzymatic),
- Crystallisation / Precipitation.

In addition to these areas of chemistry expertise, ChemBooster benefits from Pivert's know-how and tools in white biotechnology, fermentation in a liquid environment, "DSP" and enzyme catalysis, as well as ITERG's primary biomass conversion skills and facilities - especially where oil extraction is concerned. ChemBooster therefore offers to accompany its clients in the human nutrition, animal feed, cosmetics and green chemistry markets in general.

More information: [Press release](#)

En savoir plus : [Communiqué de presse](#), [L'Usine Nouvelle.com](#)

Energy

4003 - Airbus & Qantas

To tackle the total lack of sustainable aviation fuel (SAF) production capacity in Australia, the European aircraft manufacturer and the Australian airline have announced their intention to invest up to \$200 million (€190 million) to set up a fund to kick-start local SAF production projects in the country. The two partners, who hope to take part in commercially viable projects, announced that it was just the first of several investments, and are calling on other investors, the government and local authorities to join in the initiative. They are also appealing to suppliers to propose new ideas that might be financed by this fund.

As a result, Qantas, which currently has to import SAF from overseas, hopes to be able to rely on local infrastructure within a few years.

More information: [Press release](#)
En savoir plus : [La Tribune.fr](#), [Air Journal.fr](#)

4004 - Global Bioenergies & Shell

The industrial biotechnology company has announced that the Anglo-Dutch oil company has ordered test samples of two derivatives of its bio-isobutene, to explore the possibility of replacing some current petroleum-based isobutene derivatives with renewable alternatives, without compromising performance. The two blends are due to be made and delivered in the coming weeks.

Recap: Isobutene is one of the main elementary building blocks in the chemical industry. Its derivatives have applications in numerous sectors, from cosmetics to fuel via fine chemistry and commodities. Every year, 15 million tonnes of isobutene are used throughout the world.

More information: [Press release](#)
En savoir plus : [Communiqué de presse](#), [L'Usine Nouvelle.com](#)

4005 - Biomethanation: new project launched in Gennevilliers.

Launched by the Paprec group, specialising in waste processing; Sigeif, the intercommunal syndicate for gas and electricity in the Île-de-France area of France; and Sycatom, mixed French syndicate for the same area, specialising in household and related waste processing and upcycling, the project aims to convert food waste to gas and agricultural fertiliser. Located at the site of the independent port of Paris in Gennevilliers, France, the future plant is set to process 50,000 tonnes of food waste per year, and produce 30,000 MWh of biomethane (to be injected into the gas distribution network) and 43,000 tonnes of fertiliser. Following a public inquiry in 2023, building work should begin in 2024, in time for service roll-out in 2025. The Paprec group has been placed in charge of building and operating the plant.

En savoir plus : [Connaissance des Energies.org](#), [Les Echos.fr](#)

Health & Cosmetics

4006 - Dynveo

The French nutraceutical [laboratory](#), specialising in the creation of natural food additives, has announced that it has raised €5 million with the support of Sofilaro, a capital investment subsidiary of Crédit Agricole, [BNP Paribas Développement](#) investment fund and [In Extenso Finance & Transmission](#). With these new funds, Dynveo intends to grow its industrial capacities to double its production capacity within three years, and to develop its production

of biobased active ingredients in the Occitanie region of France. To achieve its first goal, the laboratory should create around a hundred jobs, invest in new machines and technology, and finally build new premises, all by 2025. To achieve its second goal, Dynveo has formed a partnership with TWB. While several patents are already being filed, the laboratory hopes to achieve industrial-scale production of biobased active ingredients by 2026.

En savoir plus : [Communiqué de presse, Actu.fr](#), [Le Journal des Entreprises.com](#)

4007 - Global Bioenergies

The industrial biotechnology company has announced that “a number of major cosmetics players” have ordered biobased isododecane amounting to several tonnes. Marketed as Isonaturane® 12, this isododecane goes into make-up, skin care and hair care products. For L’Oréal, Global Bioenergies’ leading shareholder via the company’s BOLD (Business Opportunities for L’Oréal Development) investment fund, these first orders of Isonaturane® will contribute to support the Group’s efforts in terms of naturalness of its make-up products and are in line with the ambitious objectives of its Sustainability programme L’Oréal for the Future.

More information: [Press release](#)

En savoir plus : [Communiqué de presse, L'Usine Nouvelle.com](#)

4008 - Royal DSM

The Dutch chemicals company has announced that it has successfully produced its first samples of bio-based vitamin A. To achieve this, the group developed a strain of yeast that converts a renewable carbon source into Vitamin A. The first batches have been supplied to industrialists in cosmetics to use as an anti-ageing agent to reduce fine lines, wrinkles, blemishes and to increase collagen production. Application tests are now under way, prior to commercial-scale production and a full launch scheduled for early 2023. In addition, as an essential nutrient in the immune and digestive system, DSM has announced that it also intends to produce its biobased vitamin A for human and animal health applications.

En savoir plus : [Press release](#)

En savoir plus : [L'Usine Nouvelle.com](#)

4009 - Solvay

The Belgian chemicals company has announced the launch of Mirasoft® SL L60 and Mirasoft® SL A60, two new 100% biobased and biodegradable surfactants manufactured through a “cost-efficient” fermentation process. Based on rapeseed oil and sugar with low environmental and carbon footprint, these glycolipid biosurfactants are suitable for a broad range of applications in beauty care such as shampoos, conditioners, shower gels, face washes and creams.

Recap: By 2030, the Solvay group aims to increase the scope of sustainable solutions in its product range to 65%, to at least double the scope of products from raw materials or circular energy in its sales compared to 2018, and reduce its greenhouse gas emissions by 30%.

More information: [Press release](#)

En savoir plus : [Communiqué de presse, Premium Beauty News.com](#)

Multi-markets

4010 - Afyren

The French company, which produces seven different organic acids through fermentation (carboxylic acids C2-C6), has announced the launch of new brands for its biobased products in several markets: food and feed,

flavours and fragrances, lubricants, life sciences and material sciences. All of the solutions that Afyren will roll out in the coming weeks enable customers to market biobased products with high environmental and societal added value.

More information: [Press release](#)

En savoir plus : [Communiqué de presse](#), [L'Usine Nouvelle.com](#)

4011 - METabolic EXplorer (METEX)

Due to an “*environment of increasing uncertainty*,” the industrial biotechnology company has announced that it anticipates a reduction in sales volumes and a significant impact of raw materials costs on its Group EBITDA, leading it to consider a negative Group EBITDA and to suspend the 2022 guidance previously communicated (€350 million in revenue and an EBITDA up by 8%). METEX is subject to strong inflationary pressure, in particular with regard to the cost of agricultural raw materials and energy, against the backdrop of the conflict in Ukraine. The group also suffered shrinking demand for amino acids following a very intensive episode of avian influenza in the first months of 2022, which affected the farms of the South-West and the Vendée basin in France, as well as the production basins in Italy and Poland. At this stage, METEX has not included any government aid in its forecasts, notably from the resilience plan for companies with high electricity and gas consumption. Further information will be provided to the market at the publication of first term of 2022 results.

[Info] This new environment underscores the relevance of METEX's strategy aimed at the industrial transformation of the Amiens site towards higher value-added speciality products. Thus the PDO produced at the Carling site, although also affected by the rise in raw material prices, is not subject to an erosion of demand.

More information: [Press release](#)

En savoir plus : [Communiqué de presse](#), [L'Usine Nouvelle.com](#)

Industrial biotechnology services

4012 - TWB

For its fifth edition, TWB Start-up Day brought together nearly 200 international industrial biotechnology professionals, of which 10 speakers and 35 start-uppers/entrepreneurs from 12 countries. The "Fast track it!" competition, aimed at start-ups under eight years old in the development phase, was won by [Ambrosia Bio](#), which developed a technology platform that enables the design of new enzymes to transform industrial sugars into rare, low-calorie sugars. Ambrosia Bio offers sugar, starch and fruit juice manufacturers a way to meet consumers' expectations for sugar reduction without affecting the taste experience. Its patented enzymes have been proven to perform well under strict conditions. This start-up wins €50,000 in the form of services provided on TWB's technology platforms and communication opportunities offered by Bioeconomy For Change & Agri Sud-Ouest Innovation.

The "Go for it!" competition, aimed at entrepreneurs at the idea and creation stage, was won by [Dionymer](#), who developed a technology that converts organic waste into biodegradable polymer materials (polyesters) to replace petroleum-based compounds in a multitude of applications. This start-up will benefit from four days of mentoring provided by TWB and its ecosystem of industrialists and investors, and three partners of the contest: Agri Sud-Ouest Innovation, the French Tech Toulouse and ShakeUp Factory.

This year, participants were able to exchange ideas and visit the premises of TWB and CRITT Bio-Industries. The goal was to encourage collaborations and discussions between each actor of the value chain to accelerate innovation and promote synergies. Among the speakers, Rasmus Von Gottberg, Head of Development at Genomatica and David Sourdivé, Co-founder & Executive Vice President of Collectis, emphasised the need to establish partnerships to accelerate the development of products based on industrial biotechnologies.

More information: [Press release](#), [Toulouse White Biotechnology.com](#)

En savoir plus : [Communiqué de presse](#), [Toulouse White Biotechnology.com](#), [L'Usine Nouvelle.com](#), [L'Usine Nouvelle.com](#)

Investments

4013 - Wacker

The German chemicals [group](#) has announced its intention to invest a “double-digit million-Euro sum” in the construction of a Biotechnology Centre in Munich, Germany. Located at the Consortium für elektrochemische Industrie (Wacker’s corporate research facility), the future centre will include laboratory and pilot plant areas across approximately 2,000 m², spread over three floors. The research here will mainly concentrate on the manufacturing process of bio-pharmaceuticals, especially in the area of advanced medicines, as well as the fermentation-based manufacture of ingredients for foods and food supplements. The future centre will also expand the group’s research capacity, which has reached its limits due to the growth in demand and biotechnological activities. The new plant should become operational in 2024.

Info: As part of its growth strategy, Wacker plans to considerably increase its investment in the biotechnology sector over the coming years. Its Biosolutions division aims to contribute up to a billion Euro to the group’s revenues by 2030.

More information: [Press release](#)
En savoir plus : [L'Usine Nouvelle.com](#)

Cross-disciplinary reports

4014 - METabolic EXplorer (METEX)

The industrial biotechnology company has announced that it has made its sustainability report for the 2021 financial year public, and filed it on the financial markets authority site. METEX states that the publication and verification process was carried out voluntarily in view of the importance that the group places in sustainable development. The report can be viewed [here](#).

En savoir plus : [Communiqué de presse](#)

3. PUBLIC POLICIES & REGULATIONS

In France

4015 - FRANCE 2030: website dedicated to the recovery plan launched.

Launched by the French government and intended for the general public, this [website](#) was designed to be a “true exercise in openness and transparency” around the France 2030 plan. It includes a detailed presentation of the plan, its objectives and the levers actioned; sections dedicated to current affairs related to the plan, its governance, and a separate space for open financial support measures available as part of France 2030, with a filtering system by topic, project type and beneficiary type.

4016 - Publication of a decree relating to the adoption of the national strategy for reducing, reusing and recycling single-use plastic packaging (3R).

Published in the official journal on 14 April, the [decree](#) enacts the adoption of the 3R [strategy](#) and sets a first series of quantified objectives for the period 2021 to 2025:

- Tend towards a 100% reduction in “unnecessary” single-use plastic packaging reaching the market by 2025,
- Reduce single-use plastic packaging by 20% by late 2025, at least half of which by encouraging reuse.
- Tend towards 100% recycling of single-use plastic packaging by 1 January 2025, with a recycling network for all single-use plastic packaging in operation by the same date.

The 3R strategy aims to determine the priorities for action and concrete measures to introduce, be they for each individual industry or across all industries, to achieve the relevant 3R goals. It has been drawn up in consultation with the relevant industrial networks, local authorities and associations for environmental protection and consumers. A first check-point report is set for late 2023, then a final report in 2025, which should culminate in the strategy being updated accordingly.

[Info:] As part of France Relance, an ADEME-run [scheme](#) is open to financially back the drawing up of these industrial road maps until 14 October 2022 (application closing date). The scheme can cover up to 70% of eligible expenses.

More information: [Executive summary of the 3 R Strategy](#)

En savoir plus : [Ecologie.gouv.fr](https://www.ecologie.gouv.fr), [Banque des Territoires.fr](https://www.banque-des-territoires.fr), [France Urbaine.org](https://www.franceurbaine.org)

In Europe

4017 - Aviation: a new road map for the use of biofuels.

The European Union ministers for Transport have reached an agreement on the “ReFuelEU Aviation” initiative, which falls under the transport section of the “Green Deal” for Europe. Adopting this section gives member states, airports, airlines and aircraft manufacturers a road map for the use of sustainable aviation fuel (SAF). For example, under the agreement, SAF can be derived from vegetable oils (provided the feedstocks do not originate from agricultural production that might be used for food or feed) or waste oils, animal fat or converted plant produce (straw, orange peel, etc.). It may also include synthetic fuels made by combining CO₂ (extracted from the air or from high-emissions factories) with hydrogen, preferably produced by electrolysis with water, using renewable or nuclear energy.

In terms of scheduling, ministers decided that stakeholders should incorporate 2% SAF into jet fuel by 2025, 6% by 2030, 20% by 2035, 32% by 2040, 38% by 2045 and 63% by 2050.

These requirements should apply to all passenger aircraft carrying out commercial flights (with the exception of military aircraft or aircraft on humanitarian/rescue missions). They would apply to all European airports that serve over a million passengers. The agreement will now be subject to negotiations between the European Union Council (member state representatives) and the European Parliament, under the guidance of the European Commission.

En savoir plus : [Ouest France.fr](https://www.ouestfrance.fr), [Les Echos.fr](https://www.lesechos.fr)

Outside Europe

4018 - UNITED STATES: Single-use plastics banned from national parks by 2032.

The US government has announced its wish to phase out the use of single-use plastics (bottles, bags, cutlery, straws, etc.) on federal American land, including national parks, with the aim of putting a full stop to their provision or sale by 2032. Replacement products would include paper bags, biodegradable or 100% recycled materials, or glass bottles for example. To achieve these aims, United States Secretary of the Interior has issued an order aiming to “reduce the acquisition, sale and distribution of products and packaging made of single-use plastic, with the end goal of progressively eliminating single-use plastic products from ministry-run land by 2032.”

More information: [CNBC.com](https://www.cnbc.com)

En savoir plus : [L'Usine Nouvelle.com](https://www.usine-nouvelle.com)

4. EVENTS

JULY 2022

16th International Conference on Synthetic Biology and Metabolic Engineering

19-20 July 2022. Paris (France).

More information: [Website](#)

16th International Conference on Industrial Biotechnology and Synthetic Biology

19-20 July 2022. Toronto (Canada).

More information: [Website](#)

AUGUST 2022

14th Global Bioprocessing Summit

15-18 August 2022. Boston (United States).

More information: [Website](#)

ACHEMA

22-26 August 2022. Frankfurt (Germany)

More information: [Website](#)

SEPTEMBER 2022

BIO IMPACT

19-22 September 2022. Omaha (United States).

More information: [Website](#)

14th Carbohydrate Bioengineering Meeting (CBM)

25-28 September 2022. Norefjell (Norway).

More information: [Website](#)

OCTOBER 2022

NutrEvent

4-5 October 2022. Nantes (France).

More information: [Website](#)

11th symposium of the Association Française des Biotechnologies Végétales (AFBV)

11 October 2022. Paris (France).

More information: [Website](#)

Les rendez-vous Carnot

12-13 October 2022. Paris (France).

More information: [Website](#)

Cosmetic 360

12-13 October 2022. Paris (France).

More information: [Website](#)

Annual Biocontrol Industry Meeting (ABIM)

24-26 October 2022. Basel (Switzerland).

More information: [Website](#)

European Forum of Industrial Biotechnology and the Biobased economy (EFIB)

26-27 October 2022. Vilnius (Lithuania).

More information: [Website](#)

International Genetically Engineered Machine competition (iGEM)

26-28 October 2022. Paris (France).

More information: [Website](#)

16th International Conference on Biobased Materials and Composites

27-28 October 2022. Los Angeles (United States).

More information: [Website](#)

DECEMBER 2022

World Circular Economy Forum

6-8 December 2022. Kigali (Rwanda).

More information: [Website](#)

16th International Conference on Industrial Biotechnology and Synthetic Biology

9-10 December 2022. New York (United States).

More information: [Website](#)

MAY 2023

17th International Conference on Synthetic Biology and Metabolic Engineering

24-25 May 2023. Barcelona (Spain).

More information: [Website](#)

JUNE 2023

18th Conference on Renewable Resources & Biorefineries (RRB)

1-3 June 2022. Bruges (Belgium).

More information: [Website](#)

Metabolic Engineering Conference

11-15 June 2023. Singapore.

More information: [Website](#)

Plant Based Summit

13-15 June 2023. Lille (France).

More information: [Website](#)

JULY 2023

17th International Conference on Synthetic Biology and Metabolic Engineering

19-20 July 2023. Paris (France).

More information: [Website](#)

17th International Conference on Industrial Biotechnology and Synthetic Biology

19-20 July 2023. Toronto (Canada).

More information: [Website](#)

JUNE 2024

European Congress on Biotechnology

30 June-3 July 2024. Maastricht (the Netherlands).

More information: [Website](#)