





No. 42-2020 – THE BIOTECH INDUSTRY INTELLIGENCE REPORT

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3283 - Carbios' enzymatic PET recycling technology makes the front page of science journal Nature

This publication, co-signed by scientists at Carbios and its academic partner, Toulouse Biotechnology Institute (TBI), describes the development of a novel enzyme, which can biologically depolymerize all polyethylene terephthalate (PET) plastic waste, which can then be very efficiently recycled into new bottles. This publication emphasises the innovative nature of Carbios' proprietary process to transform plastic waste into new bottles. The development of this novel enzyme also paves the way for the recycling of PET fibres.

Publication: An engineered PET depolymerase to break down and recycle plastic bottles. Journal: Nature. DOI: 10.1038/s41586-020-2149-4.

More information: Press release En savoir plus : Communiqué de presse de Carbios, France TV Info.fr, Mediaterre.org, La Dépêche.fr, Metéo Média.com, Journal de l'Environnement.net, Libération.fr, Environnement Magazine.fr, Formule Verte.com

3284 - A new way to break down PET.

A team of researchers at the Qingdao Institute of Bioenergy and Bioprocess Technology (QIBEBT) of the Chinese Academy of Sciences have genetically engineered a thermophilic bacteria called *Clostridium thermocellum* and developed a system that can convert around two-thirds of a PET sample into soluble monomers at a temperature of 60°C in 14 days. According to the Chinese researchers, this microorganism can also break down cellulosic fibres and could be used to recycle textile waste containing both cellulose and polyester.

Publication: Thermophilic whole-cell degradation of polyethylene terephthalate using engineered *Clostridium thermocellum*. Journal: Microbial Biotechnology. DOI: 10.1111/1751-7915.1358.

More information: <u>Press release</u> En savoir plus : <u>People Daily.com.cn</u>, <u>Mode In Textile.fr</u>

2. BIOMASS & BIOMOLECULES

3. RESEARCH PROJECTS & PROGRAMMES

Calls for proposals

3285 - IBISBA: The fourth call for proposals is launched

Open until 3 July 2020 at 5 pm (Brussels time), this fourth call for proposals is part of the transnational access programme (IBISBA-TNA). It is only open to researchers in the academic sphere and industry or public sector research centres, working either in the European Union Member States, or in associated countries or, to a lesser degree, third countries. They must be involved in developing or creating new knowledge, products, processes, methods and systems, as well as project management. Candidates can choose from five categories (Design, Build, Test, Learn, Process) and request up to three services to facilitate their work in the following fields: synthetic biology; genetics, biochemistry; bioinformatics, biomedical; food production; energy; environmental remediation and

biotechnology. Projects that reflect IBISBA's objectives and meet the technical, scientific and ethical requirements will be given access to subsidised services and receive a contribution towards travel and accommodation costs.

Recap: TWB is primarily proposing services linked to its Microbial Strain Engineering (construction, screening, evolution) and Bioprocesses (fermentation, analytics) platforms.

More information: <u>Ibisba.eu</u>, <u>Toulouse White Biotechnology.com</u> En savoir plus : <u>Toulouse White Biotechnology.com</u>

3286 - Creation of the French Tech Seed-recognised AgriO label for agri/agro start-ups looking for investors.

Buoyed by its successful application to the call for expressions of interest launched by Bpifrance and its recognition as a French Tech Seed business introducer in February 2020, the AgriO <u>consortium</u> is offering a new certification process to innovative start-ups looking for investors. Awarded by experts in the agricultural, agri-industrial and agrifood sectors to start-ups with high potential, the AgriO label is the finishing touch to a bespoke support package provided by specialised structures (incubators, accelerators, competitiveness clusters, etc.) that have pooled their expertise. The following are members of the AgriO consortium: INRAE (involving TWB, MGP and CVT AllEnvi) and its knowledge transfer subsidiary INRAE Transfert; AgroParisTech and its contract research company AgroParisTech Innovation; Institut Agro via its internal school Montpellier SupAgro; Agronov; Vitagora; IAR; and Agri Sud-Ouest Innovation. This joint initiative aims to increase the volume as well as the quality of proposed startups, with structured, professional support across the entire value chain, and to open up access to new sources of funding. The AgriO label, which will have weight with public and private investors, will above all mean the start-ups in question are eligible for up to €250k in the form of convertible bonds from the French Tech Seed fund through co-funding.

The upcoming dates for submission of applications are 28 June and 22 September 2020.

<u>Info:</u> Bpifrance recognised this consortium further to the call for expressions of interest, announced by Prime Minister Edouard Philippe on 21 June 2018, in the French Tech Seed investment fund, which was awarded €400m from the French State's PIA investment programme. Run by Bpifrance, the purpose of this fund is to support technology start-ups in the post-maturity phase, in particular deep tech start-ups under three years old.

En savoir plus : Communiqué de presse, Toulouse White Biotechnology.com

3287 - Launch of the third ERA CoBioTech international call for proposals: bio-based products, technologies and processes.

This joint call involves nine funding bodies in nine countries (France (ANR), Belgium (SPW-DGO6), Estonia (ETAg), Germany (SMWK), Norway (RCN), Russia (FASIE), Slovenia (MIZS), Spain (AEI) and Turkey (TUBITAK)). Its goal is to contribute to the "bio-based replacement of products, technologies and processes" by focusing on sustainability throughout the entire value chain. The proposals submitted must be multidisciplinary and include at least two of the following scientific approaches:

- Synthetic biology;
- Systems biology;
- Use of bioinformatics tools to identify and use metabolic pathways;

• Any biotechnological approach (possibly in combination with chemical approaches).

The application deadline is 30 June 2020.

More information: <u>ANR.fr</u> En savoir plus : <u>ANR.fr</u>

Project launches

3288 - The BBI JU launches 22 projects to support the green recovery in Europe.

The Bio-Based Industries Joint Undertaking (BBI JU), a legal structure created through a public-private partnership (PPP) between Europe and the Biobased Industries Consortium (BIC), signed grant agreements with the projects

chosen to receive funding under the 2019 <u>call</u> for proposals. The 22 successful projects will receive financial support worth €106m and are expected to help improve the biobased production chain, reduce costs and propose sustainable and affordable products for consumers. The successful projects will also work on developing innovative biobased products and plastic recycling solutions.

More information: BBI Europe.eu

3289 - Launch of the European Plastics Pact

With 70 signatories – including 14 EU Member States, almost 40 businesses and two NGOs – the purpose of this public-private initiative is to create a European plastics economy that is genuinely circular, by preventing plastic waste and bringing together all the parties involved in the value chain. The Pact has four ambitious strategic objectives:

- Design all plastic packaging and single-use plastic products to be reusable where possible, and, in all cases, to be recyclable by 2025;
- Reduce the use of virgin plastic by at least 20% (by weight) and the use of plastic in plastic packaging and products by at least 10% by 2025 compared to figures for 2017;
- Increase recycling capacities by at least 25% by 2025;
- Incorporate at least 30% recycled plastic into new single-use packaging and products by 2025.

The Pact also welcomes the European Commission as an observer. Participation is voluntary, but each year the signatories have to produce a progress report. They must attend an annual meeting and working groups, so a shared vision of a circular economy for plastic can be implemented. The Pact is in effect until 1 June 2026 but may be extended.

More information: <u>European Plastics Pact.org</u>, <u>Carbios's press release</u> En savoir plus : <u>Communiqué de presse</u>, <u>Communiqué de presse de Carbios</u>, <u>Le Figaro.fr</u>, <u>Actu</u> <u>Environnement.com</u>, <u>Process Alimentaire.com</u>, <u>Plastiques & Caoutchoucs Magazine.com</u>, <u>Techniques de</u> <u>I'Ingénieur.fr</u>

3290 - Signature of a manifesto for the development of a biocontrol network.

Through the <u>Cérès</u> Club, more than 50 farmers, agricultural cooperatives, scientists, businesses in the agronomy sector, deputies and senators signed a "Manifesto for the emergence of the biostimulation and biocontrol product network needed by farmers, the environment and future generations". This initiative should make it possible to collectively promote the development of new sustainable solutions to fertilise and manage soil, plants and crops. It should also enable farmers to quickly begin using these new biosolutions. To achieve its aims, the signatories want to focus on building on existing green solutions rather than ideological battles and polarized arguments about agricultural inputs. They believe it is important to follow "a more nuanced, sensible, inclusive and tangible path, which is collectively promoted by the various stakeholders (politicians, farmers, the media, economists and the community)".

En savoir plus : Formule Verte.com

Ongoing projects

3291 - AFTER-BIOCHEM (Anaerobic Fermentation & EsteRification of BIOmass for producing fine CHEMicals) project.

Afyren, a French biotechnology company which designed a breakthrough innovation in green chemistry, has brought together 12 key stakeholders in the bioeconomy to work on an innovative European project that aims to improve the exploitation of certain co-products and turn them into new biostreams to create new sustainable value chains from renewable non-food feedstocks. The goal is to market a wide range of new products with high added value for various markets such as fragrances and flavourings, beauty and hygiene, animal feed and human nutrition,

pharmaceuticals, and speciality chemicals. AFTER-BIOCHEM is also expected to lead to the development of the first biorefinery of its type at the Carling-Saint-Avold platform (France).

This project is backed by the European Commission and the Bio-Based Industries Joint Undertaking (BBI-JU), a public-private partnership, which will give it a grant of €20m.

More information: <u>Press release</u> En savoir plus : <u>Communiqué de presse</u>, <u>Formule Verte.com</u>, <u>Info Chimie.fr</u>

3292 - AGIR Programme: Deinove passes the second milestone and receives €1.5m from Bpifrance.

The French biotechnology company Deinove announced that it had passed the second milestone (EC2) of the AGIR (antibiotics against resistant infectious germs) programme. The EC2 had several components:

- Significant expansion of the bacterial strain collection: more than 2,000 additional strains have been added through targeted partnerships and harvesting;
- Analysis of antimicrobial activities: 2,000 strains have been screened; 500 active extracts have been identified;
- Hit identification and detection: analysis of the most promising extracts has led to the detection of around 30 hits. Characterisation has identified potential new bioactive molecules, previously unknown. Work is underway to optimise production of these molecules.
- Validation of the tools developed: the techniques for strain screening and the identification and purification of the active entities have been optimised for increased speed, sensitivity and efficiency.

Under the terms of the collaborative research programme selected in 2017 by the French State's PIA investment programme, the results obtained meant Deinove could pass the second milestone of the AGIR programme and receive €1.5m from Bpifrance in repayable advances and subsidies.

More information: <u>Press release</u> En savoir plus : <u>Communiqué de presse</u>, <u>Formule Verte.com</u>

3293 - CHAPLIN XL project: Avantium receives €500,000.

The renewable chemistry specialist announced that it had received €500,000 in funding from the CHAPLIN XL project, which aims to reduce CO² emissions from road construction. One of the proposed solutions involves using lignin as a substitute for fossil-based bitumen in asphalt. The funding, paid by the Netherlands Enterprise Agency, means the project partners can use the <u>Dawn</u>[™] technology developed by Avantium, which converts non-food plant-based feedstock into industrial sugars and lignin. The lignin-based asphalt will be used on four test roads in the Netherlands over the course of this year.

More information: <u>Press release</u> En savoir plus : <u>Formule Verte.com</u>

3294 - SylFeed project: what are the effects of Arbiom's SylPro® alternative protein on climate change?

According to the results of the life cycle analysis performed by Norwegian company Ostfoldforskning, which specialises in assessing the environmental performance of materials, fuels and animal feed, <u>SylPro®</u> has the lowest impact on climate change when compared to other protein sources, such as fish meal and soya protein concentrate.

Recap: SylPro® is produced using a lignocellulosic fractionation and fermentation technology.

More information: Food Ingredients First.com En savoir plus : Formule Verte.com

3295 - New publication on the properties of Amoéba's *Willaertia magna C2c maky* amoeba as a biocide and biocontrol agent.

Amoéba, which produces biological biocides and a biocontrol product, announced the publication of a scientific article on research conducted together with the Institut Hospitalo-Universitaire Méditerranée Infection (a research

foundation) in Marseille (Bouches-Du-Rhône). The research focused on the transcriptome and proteome of this amoeba when grown at high throughput in a bioreactor in order to fill in gaps in knowledge by identifying which genes are actually expressed during production of the amoeba. This work provides information on the development and metabolism of the amoeba produced on an industrial scale by Amoéba. The study confirms two major discoveries that had been suggested by the analysis of the *Willaertia magna C2c maky* genome. First, the amoeba does indeed produce a wide range of enzymes involved in the metabolism of secondary metabolites with antimicrobial activity and proteins associated with defence mechanisms against other microorganisms. Second, these molecules are well expressed under the particular conditions of bioreactor production. These results support the efficacy of this amoeba as a natural biocide in cooling tower water and as a biocontrol agent as an alternative to pesticides in agriculture. Finally, an in-depth analysis of the energy metabolism provides leads for the optimisation of cultivation conditions and therefore the production yield of the amoeba.

Next steps: Study the non-protein products generated by this amoeba while testing certain hypotheses to optimise its industrial production.

Publication: Insight into the Lifestyle of Amoeba Willaertia magna during Bioreactor Growth Using Transcriptomics and Proteomics. Journal: Microorganisms. DOI: 10.3390/microorganisms8050771.

More information: <u>Press release</u> En savoir plus : <u>Communiqué de presse</u>, <u>Enviscope.com</u>, <u>TradingSat.com</u>, <u>Boursier.com</u>

3296 - Fresh investment in a German research centre that studies mixed microbial communities and their application.

In collaboration with Wageningen University & Research and the Delft University of Technology, the Dutch Research Council (NWO) will invest €24.8m in the research facility <u>UNLOCK</u>, created to study mixed microbial communities and their application. This facility, which will also investigate sub-areas of research, comprises equipment and human resources. The NWO agreement will provide €14.5m in funding for the next ten years, while €10m are earmarked for the Wageningen contribution.

More information: Press release

Microalgae

3297 - A new high-precision photobioreactor technology for microalgae production.

Developed by Israeli start-up Yemoja, which specialises in marine-origin ingredients, this photobioreactor can be used to grow several species of microalgae at the same time. These species can produce compounds of specific interest, such as fucoxanthins, polysaccharides, enzymes and xanthophylls. This technology, which maintains complete control over the temperature, pH, light and CO² emissions, guarantees compositional homogeneity, scalability, and contamination proofing of microalgae. Yemoja's goal is to "boost the entire microalgae value chain with new varieties and yields, and bring them to the mainstream of high-end nutraceutical food and cosmeceutical spheres with additional formulations in the pipeline".

More information: <u>Press release</u>, <u>The Spoon.tech</u>, <u>Biofuels Digest.com</u> En savoir plus : <u>Formule Verte.com</u>

3298 - Afyren

The French producer of biobased components via fermentation received the 'Efficient Solution' label from the Solar Impulse Foundation. The Foundation, which is hoping to identify 1,000 economically viable and environmentally friendly solutions, has already awarded its label to 378 businesses, 298 of which are French.

More information: <u>Press release</u> En savoir plus : <u>Communiqué de presse</u>, <u>Formule Verte.com</u>

3299 - Amoéba

The producer of biocides and a biocontrol product announced that on 28 May 2020 it had applied for approval of the active biocontrol substance *lysat de Willaertia magna C2c Maky* to the competent Austrian body: the Austrian agency for health and food safety (Agentur fürGesundheit und Ernährungssicherheit: AGES). This biocontrol solution is intended for use as a fungicide by the agriculture industry. The application was filed in line with Amoéba's schedule. The approval procedure is expected to last between two and a half and three and a half years. The final decision can therefore be expected in 2023.

En savoir plus : Communiqué de presse

3300 - Arkema

The French chemicals group announced that it would join the World Business Council for Sustainable Development (<u>WBCSD</u>) to work in partnership with this network of over 200 businesses and accelerate the transition to a more sustainable world. By joining this coalition, Arkema hopes to provide innovative solutions that contribute to the UN's sustainable development goals and address four major issues:

- Increasing urbanisation;
- Increasing resource scarcity;
- Climate change;
- Challenges posed by new technologies.

En savoir plus : Formule Verte.com

3301 - Avantium

The Dutch specialist in renewable chemistry announced that, despite the coronavirus crisis, it was on track with its plant-based plastic – which can break down in one year in a composter or in a few years in standard outdoor conditions – and hoped to make "a major investment in its bioplastics plant in the Netherlands by the end of the year". Avantium also announced that its new plastic could be found on supermarket shelves by 2023. Although it will initially "produce 5,000 tonnes of plastic every year using sugars from corn, wheat or beets", eventually the Dutch company plans to use plant sugars from biowaste. Avantium, which already counts Coca-Cola, Danone and the brewer Carlsberg among its clients, could announce new partnerships with other businesses in the food and drink sector this summer.

More information: <u>The Guardian.com</u> En savoir plus : <u>Courrier International.com</u>, <u>La Provence.com</u>

3302 - Carbios

The French green chemistry company announced that it had signed the <u>European Plastics Pact</u> at its official launch in Brussels on 6 March 2020. This Pact bands together a network of companies, EU Member States and NGOs that want to join forces to create a genuine circular economy for plastic and enable all the parties involved in the market to meet, or even exceed, the plastic recycling targets set by the European Union. This public-private <u>coalition</u>

will primarily strive to improve product recyclability, increase the reuse and recycling of plastic products, and incorporate greater quantities of recycled materials into new plastic packaging and products.

More information: <u>Press release</u> En savoir plus : <u>Communiqué de presse</u>

Carbios and the engineering firm **TechnipFMC** announced that TechnipFMC's operating centre in Lyon would help Carbios build a plant to demonstrate its enzymatic plastics recycling process. TechnipFMC will provide consultancy, engineering, procurement and supervision services for the construction of this plant, located near Lyon. Construction is expected to start this year, with operations beginning in 2021.

More information: Press release

En savoir plus : Communiqué de presse, Emballages Magazine.com, Formule Verte.com

3303 - Corbion

The Dutch group presented its *Advance 2025* growth strategy, which should turn it into a major player in its sector. To achieve this, Corbion has reorganised itself into three business units:

- Sustainable food solutions, the aim of which is to develop natural ingredients to preserve meat, and functional components for the baking sector;
- Lactic acid and specialities, the aim of which is to capitalise on the growing market for lactic acid, lactates and lactate esters, as well as biopolymers;
- *Incubator*, the aim of which is to unlock early-stage investments to develop omega 3 made from algae for fish farming, algal proteins and lactic-based co-polymers for controlled release.

Corbion, which plans to invest between €60m and €70m per year, hopes to achieve organic sales growth of between 4 and 7%.

En savoir plus : Formule Verte.com

3304 - Deinove

The French biotechnology company announced that for the second year in a row it had asked Société Générale Factoring (SGF) for advance funding of its research tax credit receivable. Deinove received €2.1m, or 84% of the estimated receivable for 2019.

More information: <u>Press release</u> En savoir plus : <u>Communiqué de presse</u>

Deinove announced that, given the global health crisis caused by the Covid-19 pandemic, the agreement for development of a complete range of cosmetic ingredients that had been under discussion since last February with the Israeli group **Sharon Laboratories** would not be finalised. The payment of \$200k made by Sharon Laboratories to Deinove at the signature of the memorandum of understanding will however be retained by Deinove.

More information: <u>Press release</u> En savoir plus : <u>Communiqué de presse</u>, <u>Formule Verte.com</u>

3305 - Genomatica & Glenn

The American specialist in bio-engineered manufacturing announced that it had chosen Glenn, a subsidiary of Azelis, to be the exclusive distributor of its Brontide[™] natural butylene glycol in the United States. This biobased butylene glycol, produced by fermenting sugars, in partnership with the Novamont group, can be used to replace fossil-based butylene glycol in a wide range of cosmetics and personal hygiene products such as moisturisers, shampoos and shower gels.

More information: <u>Press release</u> En savoir plus : <u>Formule Verte.com</u>

3306 - Lanza Tech

The New Zealand-based company, which specialises in using biotechnology to recycle carbon, announced the creation of LanzaJet, a subsidiary dedicated to producing sustainable aviation fuel (SAF). Thanks to investments from Suncor Energy (\$15m) and Mitsui (\$10m), LanzaJet will be able to build a demonstrator capable of producing 10 million gallons (around 38 million litres) of SAF and renewable diesel each year. Entry into service is planned for 2022.

These investments, as well as the participating interest of All Nippon Airways (ANA) and the US Department of Energy (\$14m), mean LanzaTech can build an integrated biorefinery at its Freedom Pines site in Soperton (United States).

More information: <u>Press release</u> En savoir plus : <u>Formule Verte.com</u>

3307 - Lesaffre

The French specialist in fermentation announced that construction of the Lesaffre international campus in the municipalities of Marcq-en-Baroeul and Marquette-lez-Lille (France) had begun. This 23,000m² site is expected to increase Lesaffre's efficiency and provide it with access to increasingly high-performance R&D tools, as 60% of its surface area will be dedicated to research laboratories and industrial pilots, which had until now been scattered around mainland France. "*This investment illustrates Lesaffre's determination to actively exploring and developing the potential of fermentation, in particular in four fields of application: baking, and human, animal and plant healthcare and nutrition,"* said Antoine Baule, CEO of Lesaffre. Its doors are expected to open in the first semester of 2022.

En savoir plus : Communiqué de presse

3308 - METabolic EXplorer (METEX)

The industrial biochemicals company informed its shareholders that it had obtained a loan underwritten by the French State for €6.2m. METEX has 12 months to decide how long it wants to take to pay back the loan (maximum of five years). This will enable METEX to calmly continue with its activities and tackle, if need be, the financial repercussions of delays to project development caused by the health crisis. This amount boosts the liquid assets of METEX, which had already received €7.3m in February 2020 further to a fund-raising campaign.

En savoir plus : <u>Communiqué de presse</u>

3309 - Plant Advanced Technologies (PAT)

Further to advances made in the development of plant-based active ingredients obtained via microbial synthesis, the French biotechnology company announced the creation of its subsidiary Cellengo. This new company, 100% owned by PAT, will be dedicated to the production of biomolecules using natural biosynthetic pathways. Cellengo, which will have the same environmental responsibility objectives as PAT, will enable the latter to position itself in the pharmaceutical, cosmetic, nutraceutical and biopesticide markets.

En savoir plus : Formule Verte.com

3310 - IAR cluster

The cluster welcomed six new members, all companies:

- <u>Purolite</u>, specialising in the manufacture of quality ion exchange, catalyst, adsorbent and specialty high-performance resins;
- Excellent, specialising in the design and production of protein-rich meat replacements;
- Psycle Research, an artificial intelligence company working to strengthen industrial processes;
- Scale, specialising in making biomaterials from fish scales;
- <u>H2 Developpement</u>, specialising in the development and implementation of green hydrogen projects;
- Guatecs, which has perfected a process to extract latex from guayule

3311 - Sulzer Chemtech

The Swiss <u>specialist</u> in separation, mixing and polymerization facilities announced the creation of a new team that would be in charge of perfecting technical and engineering solutions to develop renewable, biobased applications. Their work will focus on converting renewable feedstocks into oleo-chemical and bio-chemical products, biofuels and bio-polymers, as well as developing cutting-edge solutions for plastic recycling. Sulzer's aim is to provide advanced, fully customisable separation technologies and polymerisation solutions for companies that want to develop or produce sustainable materials.

More information: Press release

3312 - Total

The group announced its ambition to become carbon neutral (net zero emissions) by 2050, for the entirety of its global business activities, from production to the use of energy products by its clients. In a joint statement, drawn up with investors as participants in the <u>Climate Action 100+</u> initiative, Total has established three new major steps to achieve this ambition:

- Achieve net zero emissions across Total's worldwide operations by 2050 or sooner;
- Achieve net zero emissions in Europe across all Total's production and energy products used by its customers by 2050 or sooner;
- Achieve a minimum 60% reduction in the average carbon intensity of Total's energy products used worldwide by its customers by 2050 (less than 27.5 gCO2/MJ), with intermediate steps of 15% by 2030 and 35% by 2040.

More information: <u>Press release</u>, <u>Original joint statement</u> En savoir plus : <u>Communiqué de presse</u>, <u>Formule Verte.com</u>

3313 - TWB

On 1 January 2020, TWB welcomed three new partners:

- <u>Elaia</u>, a venture capital firm that mainly invests in digital and deep tech start-ups (including life sciences) and has had strong potential from the get-go.
- <u>Neomerys</u>, an applied research start-up that develops new applications using microalgae (eco-positive biofuels, pharmacological diagnostic tools, environmental technologies).
- <u>Sensient Cosmetics Technologies</u>, which produces and markets high-performance solutions in the following sectors: dyes, flavours and fragrances. Sensient is committed to the development of natural products in these areas.

More information: <u>Toulouse White Biotechnology.com</u> En savoir plus : <u>Toulouse White Biotechnology.com</u>

Licensing agreements

3314 - Axens & INA

The IFPEN group subsidiary announced that it had concluded its first licensing agreement for its Futurol technology, with the Croatian oil and gas company INA. This agreement also includes a basic engineering contract for the construction of a bioethanol production plant in Sisak (Croatia). INA hopes to produce 55,000 tonnes of ethanol (70 million litres) each year using the Futurol technology.

More information: <u>Press release</u> En savoir plus : Formule Verte.com

3315 - BASF & Red Avenue New Materials Group

The German chemicals firm and the Chinese <u>group</u> signed a joint agreement that grants the latter a license to produce and sell certified compostable aliphatic-aromatic co-polyester (PBAT). Under the terms of the agreement,

Red Avenue New Materials will build a plant in Shanghai capable of producing 60,000 tonnes of PBAT using BASF's process technology in exchange for access to raw material from the plant, which BASF will sell under the ecoflex® name. Production will begin in 2022 and will supply the biopolymers market.

More information: Press release

3316 - Cargill & Procter & Gamble (P&G)

The two American groups announced that they had begun a collaboration that draws on technology developed by P&G to convert lactic acid into bio-based acrylic acid and the bioindustrial expertise of Cargill, to propose greener alternatives in the personal care sector. Under this agreement, P&G has granted its partner an exclusive license so it can develop and extend commercialisation of this technology.

Recap: acrylic acid is used in a wide range of applications, including superabsorbent polymers in absorbent hygiene products. It is also used as a feedstock for adhesives and binders for paints.

More information: <u>Press release</u> En savoir plus : Formule Verte.com

3317 - Enzymicals AG & Syngulon

The German <u>company</u> specialising in industrial biocatalysis and the Belgian synthetic biotechnology <u>firm</u>, which develops microbial fermentation technologies for biobased products, signed a non-exclusive licensing agreement that will enable Enzymicals to use Syngulon's patented selection technology. This technology, which uses bacteriocins to control the growth of microorganisms, circumvents the need to use antibiotics and increases product yield. The system, which is 100% plasmid-based, can be used in all E. coli strains.

More information: Press release

New joint ventures

3318 - Sekisui Bio Refinery

Created by the Japanese chemicals company and the INCJ, a Japanese investment fund supervised by the minister of the economy, trade and industry, the purpose of this joint venture is to validate and commercialise the Waste-to-Chemicals technology developed jointly by Sekisui and LanzaTech. In order to carry out the technology validation steps by the end of the 2021 financial year, the partners plan to build a plant in Kuji City (Japan) which will use 20 tonnes of solid municipal waste per day to produce ethanol.

Recap: this process converts combustible waste into ethanol with the help of a microbial catalyst.

More information: <u>Press release</u> En savoir plus : <u>Formule Verte.com</u>

Product launches

3319 - Amyris

The American company announced the launch of Baby Cream to Powder, a talc-free alternative to baby powder made from 100% sugarcane-derived squalane. This new product in the <u>Pipette</u> range starts out as a cream but turns into a powder on contact with the skin, eliminating the risk of inhalation and irritation that can sometimes be caused by traditional powders.

More information: <u>Press release</u> En savoir plus : <u>Formule Verte.com</u>

3320 - Deinove

The biotechnology company announced the official commercial launch of BIOME Oleoactif®, the first cosmetic active ingredient born of its collaboration with **Hallstar France**. This exclusive active ingredient, which regulates the skin's microbiota and strengthens the skin's barrier function with a unique composition of innovative active molecules, was produced by fermentation of an extremophile microorganism in Deinove's collection and extracted using Hallstar France's patented oleo-eco-extraction process. This novel ingredient was launched in April 2020.

More information: <u>Press release</u> En savoir plus : <u>Communiqué de presse</u>

Deinove announced the official launch of Luminity®, its second 100% natural origin, sustainably produced cosmetic active ingredient derived from the fermentation of sugars. A concentrate of neurosporene – an extremely rare carotenoid – Luminity® is both an exceptional antioxidant, a cell energiser and a radiance booster. It protects against the harmful effects of blue light, in particular.

More information: <u>Press release</u> En savoir plus : <u>Communiqué de presse</u>

3321 - Minagro

The Belgian company, which develops safer, greener products and solutions for the agricultural industry, announced the launch of Sovinol® P850, a preservative that prevents the microbial contamination of agrochemical formulations. This protection system can be used to prevent the deterioration of biostimulants, liquid fertilisers and pesticides that use thickening agents, as well as raw materials and formulations for agrochemical applications. Unlike isothiazolinone, Solvino P850 has a more favourable toxicological and ecological profile, meaning higher doses can be used in more sensitive formulations, such as biostimulants that contain high quantities of amino acids. It is compatible with the most common formulants and is stable across a broad pH range (3 to 10). This preservative biodegradable and dose not change the classification of the end product if the recommended dose is used.

More information: <u>Press release</u> En savoir plus : <u>Communiqué de presse</u>, <u>Formule Verte.com</u>

3322 - Nestlé

Just a few months after the French launch of the first 75cl 100% recycled plastic (rPET) bottle, VITTEL® is keeping up the momentum with the release of the first 2l bottle made entirely of rPET, which is also 100% recyclable. The new 2l VITTEL® bottle will be available in small- to medium-sized French supermarkets from April 2020.

En savoir plus : Communiqué de presse

Fundraising

3323 - Amyris

The American industrial biotechnology company announced that it had raised \$200m (around €176m) from institutional investors. This private investment in public equity (PIPE) will enable the company to continue with its general corporate operations and repay approximately \$61m in debts. Amyris therefore hope to lower its total indebtedness to approximately \$162m.

More information: <u>Press release</u> En savoir plus : <u>Formule Verte.com</u>

3324 - Deinove

On 17 June 2020, the French biotechnology company announced the issue of a third tranche of *obligations* convertibles en actions nouvelles (OCAs: convertible bonds) under an agreement concluded on 9 July 2019 with

the European Select Growth Opportunities Fund (the Investor) relating to financing through the issue of OCAs for a maximum nominal amount of \in 15m, with a 6.5% face discount upon conversion into shares, not bearing interest and with no stock subscription warrants attached, over a maximum of 24 months. This third tranche is made up of 150 OCAs, each with a nominal value of \in 10,000, representing an overall amount of \in 1.5m, fully paid up by the Investor on this day, under the terms of the contract signed on 9 July 2019. This operation will enable Deinove to:

- finance working capital requirements;
- continue the development and commercialisation of natural active ingredients for the cosmetics industry;
- continue the Phase II clinical trial in the United States of DNV3837, its most advanced antibiotic candidate for the treatment of severe gastrointestinal infections caused by Clostridiodes difficile;
- discover the first antibiotic leads with its integrated and automated high-content screening platform.

More information: <u>Press release</u> En savoir plus : <u>Communiqué de presse</u>

On 2 April 2020, Deinove announced the issue of the second tranche of OCAs under an agreement concluded on 9 July 2019 with the European Select Growth Opportunities Fund relating to financing through the issue of OCAs for a maximum nominal amount of \in 15m, with a 6.5% face discount upon conversion into shares, not bearing interest and with no stock subscription warrants attached, over a maximum period of 24 months. This second tranche is made up of 100 OCAs each with a nominal value of \in 10,000, representing an overall amount of \in 1m, fully paid up by the Investor.

More information: <u>Press release</u> En savoir plus :<u>Communiqué de presse</u>

3325 - Lactips

The French company, which makes biodegradable and hydrosoluble bioplastics, announced that it had carried out a capital increase of €13m with Société de Projet Industrie (SPI), Bpifrance's investment fund, and Diamond Edge Ventures (DEV), the innovation investment fund of Mitsubishi Chemical Holdings Corporation (MCHC). This operation will enable it to:

- Carry out R&D to develop new applications for its thermoplastic pellets;
- Accelerate its industrialisation phase to meet future demand, in particular with a plant in Saint-Etienne (Loire, France) that will open its doors in 2021;
- Access new mass markets (food, construction, single-use plastics, for example) in France and abroad.

More information: Press release

En savoir plus : <u>Communiqué de presse</u>, <u>L'Usine Nouvelle.com</u>, <u>Le Figaro.fr</u>, <u>La gazette du laboratoire.fr</u>, <u>Formule Verte.com</u>

3326 - RWDC Industries

The biotechnology <u>company</u>, which develops innovative and profitable solutions for biopolymer materials (primarily PHA) announced that it had completed a two-step series-B funding round for \$133m. These funds, raised from <u>Vickers Venture Partners</u>, <u>Flint Hills Resources</u>, <u>CPV/CAP Pensionskasse Coop</u>, <u>International SA</u> and existing investors Eversource Retirement Plan Master Trust and WI Harper Group, will go towards R&D and increasing its production capacity with the opening of a new production facility in Athens (United States).

More information: <u>Press release</u> En savoir plus : <u>News Chastin.com</u>

New investments

3327 - Clariant

The Swiss chemicals company announced that it would invest in its sites in Tarragona (Spain) and in Mount Holly (United States) to increase production of its Hostapon SCI range of biobased surfactants made from isethionates for the hygiene market. The group is expecting the additional capacity to be available in the first quarter of 2021.

More information: <u>Press release</u> En savoir plus : <u>Formule Verte.com</u>

3328 - Conagen & Sumitomo Chemical

In order to develop innovative products and processes using Conagen's synthetic biology research, the Japanese chemicals company Sumitomo Chemical has decided to invest \$30m (€27.7m) in the American biotech firm.

Recap: Conagen has perfected enzymatic bioconversion and fermentation technology, and developed products for various sectors such as food, pharmaceuticals and renewable energies.

More information: <u>Press release</u> En savoir plus : <u>Formule Verte.com</u>

New partnerships

3329 - Amoéba

The producer of a biological biocide and a biocontrol product to protect plants announced that it had signed material transfer agreements (MTAs) with eight candidates. Under these research partnerships, Amoéba will provide experimental products (in various formulations) containing the amoeba lysate *Willaertia magna C2c Maky*. In return, the eight agrochemical groups will finance and carry out their own tests in the field, across Europe, to assess the performance of these products with regard to preventing various crop diseases. At the end of this test period, which extends from spring to early autumn 2020, the candidates will send Amoéba their results. If the tests are conclusive, fresh negotiations will take place between Amoéba and the various parties to establish any milestone payments and the foundations of their future commercial relations. Three or four partners will be chosen to move to the next phase of product development and commercialisation.

En savoir plus : <u>Communiqué de presse 1</u>, <u>CP contrat avec Bayer</u>, <u>CP contrat avec Syngenta</u>, <u>CP contrat avec</u> <u>Evergreen Garden Care</u>, <u>CP contrat avec Philagro France et Nichino Europe</u>, <u>CP contrat avec BASF</u>, <u>CP contrat avec Certis Europe</u>, <u>CP contrat avec Stahler Suisse</u>, <u>Formule Verte.com</u>

3330 - Clariant & Floreon-Transforming Packaging Limited

The two partners announced they had started working together to extend the applications of high-performance biopolymers to other markets. Through their partnership they hope to integrate the advantages of Clairant's additives into Floreon's patented materials solutions to offer low-carbon-footprint alternatives to their future customers. The two groups hope to move into the rigid and flexible packaging, electrical & electronic equipment, hygiene products, consumer goods, and automotive markets.

More information: <u>Press release</u> En savoir plus : <u>Zone Bourse.com</u>

3331 - Engie

The French energy group announced that it had signed an agreement to supply biomethane to **Heathrow Airport** (United Kingdom). This agreement, which runs until March 2022, concerns the replacement of the natural gas that

supplies the terminals with a green gas wholly derived from the anaerobic digestion of various raw materials, all produced in the United Kingdom.

More information: <u>Press release</u> En savoir plus : <u>Formule Verte.com</u>

Engie and Mirova announced that they were strengthening their strategic partnership in the biogas sector with the acquisition by the MIROVA-EUROFIDEME 4 fund of a 50% stake in Dana Gaz, which has nine methanation units in operation (seven biomethane production plants with an installed capacity of 15.5MW and two co-generation plants with an installed capacity of 2MW), designed and built by Engie. This transaction is the first step in a long-term partnership, working towards broadening the Dana Gaz asset portfolio.

More information: <u>Press release</u> En savoir plus : <u>Communiqué de presse</u>

3332 - Enerkem & Nova Chemicals

Enerkem, a specialist in the production of biofuels from waste materials, and the Canadian <u>petrochemicals</u> firm signed a joint development agreement to develop new technologies to turn municipal waste that is difficult to recycle (plastics, household waste and discarded construction materials) into ethylene on a commercial scale.

More information: <u>Press release</u> En savoir plus : <u>Communiqué de presse</u>, <u>Formule Verte.com</u>

3333 - Evonik & Beiersdorf

German chemicals firm Evonik and skincare specialist Beiersdorf entered into a research partnership to develop sustainable raw materials for healthcare products from carbon dioxide (CO_2). To reach this goal, the partners primarily plan to use artificial photosynthesis to turn CO_2 and water into molecules of interest with high added value, using bacteria and solar power. The Germany federal ministry of education and research (BMBF) has contributed \notin 1m to this research partnership.

More information: <u>Press release</u> En savoir plus : <u>Formule Verte.com</u>

3334 - METEX NØØVISTA & Alinova

METEX NØØVISTA, the industrial subsidiary of METabolic EXplorer, and <u>ALINOVA</u>, a Brittany-based joint venture between AxiHolding and AXEREAL, a leading animal feed group and an expert in the formulation of functional ingredients of natural origin for animal nutrition, announced an exclusive agreement for the marketing in France of the first 100% bio-based butyric acid for animal nutrition, made in France.

More information: <u>Press release</u>, <u>Press release</u> En savoir plus : <u>Communiqué de presse</u>, <u>Emballages Magazine.com</u>, <u>Formule Verte.com</u>

3335 - Neste & Covestro

The Finnish biofuels manufacturer and the German specialist in polymers announced that they had entered into a strategic partnership in Europe to promote the use of sustainable raw materials to produce plastic. To achieve their goal, the two partners intend to replace the thousands of tonnes of fossil-based raw materials used to make polycarbonates (which are used, for example, in car headlamps, LED lights, electronic and medical devices and automotive glazing) with the biofuels produced by Neste.

More information: <u>Press release</u> En savoir plus : <u>Formule Verte.com</u>

3336 - Op de Beeck Materials & Treatment & TripleW Ltd.

The Op de Beeck Materials & Treatment group, which specialises in processing organic waste, and <u>TripleW Ltd.</u>, which turns food waste into PLA, announced the launch of a partnership to convert organic waste into biobased plastic. TripleW will therefore be able to use large volumes of organic waste at the Op de Beeck M&T group's processing site located in the port of Antwerp to apply its patented processes on an industrial scale.

More information: Press release

Participating interests

3337 - Lesaffre

As part of its strategy to expand into the Chinese market, the French group, which specialises in the yeast and fermentation field, announced that it had acquired a majority stake in Biohymn Biotechnology, a Chinese company specialising in the production of yeast and yeast extracts. This operation cements Lesaffre's decision to strengthen its presence in the Chinese market and move closer to its clients, not only in the baking field but also in the food flavour and pleasure, animal health and nutrition, and nutrients for biotechnologies fields.

More information: <u>Press release</u> En savoir plus : <u>Communiqué de presse</u>, <u>Formule Verte.com</u>

Takeovers

3338 - Givaudan & Alderys

The Swiss specialist in fragrances and flavours announced its intention to purchase French company Alderys, which develops bio-engineering solutions for the chemistry, cosmetics and nutrition markets. According to Maurizio Volpi, President of Givaudan's Fragrances division, "the acquisition of Alderys aligns with our long-term strategy for Active Beauty and, more specifically, their expertise in biotechnology fully complements our Fragrance and Active Beauty businesses. It will allow us to expand our portfolio of natural and biobased products, thanks to their strong research and development bio-engineering platform". The terms of the deal have not been disclosed. The acquisition is expected to be finalised in the second quarter of 2020.

More information: <u>Press release</u> En savoir plus : <u>Formule Verte.com</u>

Activity reports

3339 - Gevo

The revenue of the American manufacturer of renewable isobutanol for the first quarter of 2020 stood at \$3.8m (compared with \$6.4m in the first quarter of 2019). Gross loss was \$4.3m (compared with a gross loss of \$2.6m for the same period in 2019). At the end of March, the American company had cash and cash equivalents of \$9.3m (compared with \$16.3m at the close of the fourth quarter of 2019). At the same time as it presented its financial results, Gevo also announced that its biobased jet fuel production unit in Luverne (United States), which was where operations were suspended on 31 March in response to the economic crisis brought about by the Covid-19 epidemic, would remain closed until the second quarter of 2021. In the meantime, Gevo will continue to produce renewable isooctane and jet fuel at the plant in Silsbee (United States).

More information: <u>Press release</u> En savoir plus : Formule Verte.com

3340 - METabolic EXplorer (METEX)

As expected, in the first quarter of 2020 METEX recorded a consolidated turnover of €12.5k, identical to that of the first quarter of 2019. The group's indebtedness stood at €7.4m (compared with €7.7m at 31 December 2019). The cash at hand net of debt stood at €18.9m (similar to that at 31 December 2019). The company had a consolidated gross cash position of €26.4m (compared with €26.6m at 31 December 2019). In the first quarter of 2020, METEX successfully increased its capital by €7.3m inclusive of the issue premium. This capital increase was limited to qualified investors, and will be used exclusively to accelerate the industrialisation of the processes developed at the ALTANØØVTM platform. In light of its business model and its commitment to plans to build an industrial plant, the Group noted that at 31 March, the health crisis had only had a marginal impact on its cash position and that at this stage, the impact of the crisis on the Group's activities and its forecast for 2020 had not yet been quantified.

En savoir plus : Communiqué de presse

Annual results

3341 - Carbios

For the 2019 financial year, the operating revenue of Carbios stood at $\in 1,450$ k (compared with $\in 1,083$ k at the close of 2018), while operating expenses amounted to $\in 5,986$ k, 51% of which was dedicated to Research & Development (compared with $\in 5,323$ k at the close of 2018). The operating loss stood at $\in 4,535$ k ($\in 4,240$ k at the close of 2018) and the net loss at $\in 3,749$ k ($\in 3,110$ at the close of 2018), after accounting for a $\in 800$ k research tax credit. Carbios' equity stood at $\in 22,005$ k ($\in 12,038$ k at the close of 2018). This can mainly be explained by the capital increase of $\in 14,486$ carried out in June 2019. At 31 December 2019, Carbios had a cash position of $\in 15.9$ m ($\in 5.149$ m at the close of 2018) enabling it to pursue current developments beyond the next 12 months. On the occasion of the publication of its annual financial results, Carbios looked back on the 2019 financial year and post-closure highlights.

More information: <u>Press release</u> En savoir plus : <u>Communiqué de presse</u>

3342 - Deinove

At 31 December 2019, the group's net loss amounted to €10.2m (compared with €8.7m at the close of 2018). This loss was mainly due to the progress of the clinical programme for the treatment of gastrointestinal infections. The company implemented a funding scheme through the issue of *obligations convertibles en actions nouvelles* (OCAs: convertible bonds) for a maximum of €15m, the second tranche of which, in early April, immediately bolstered the cash situation by €1m. At 31 December 2019, the cash position stood at €1.1m (€3.9m at the close of 2018). Deinove had a cash balance of €3m at 31 March 2020, further to partial pre-financing of a research tax credit of €2.1m and a payment of €1.5m from Bpifrance when it reached the second milestone of the AGIR programme. On the occasion of the publication of its 2019 results, Deinove looked back on a year that saw the achievement of significant milestones in the Antibiotics programmes and the Cosmetics activities.

More information: <u>Press release</u> En savoir plus : <u>Communiqué de presse</u>, <u>Rapport financier annuel</u>, <u>Formule Verte.com</u>

3343 - Fermentalg

The turnover of the French microalgae specialist at 31 December 2019 was \in 1.9m (compared with \in 0.1m at the close of 2018). The company's earnings before interest and taxes, before payments in shares and non-current assets, was negative, at - \in 7.9m (- \in 5.7m in 2018). Fermentalg explained that "the difference [was] due to the weaker capitalization of development expenses (\in 2.6m in 2019 compared with \in 4.5m in 2018), which did not affect the cash position, because of the commercial maturity of the DHA Origins range". Although the projects Fermentalg is working on show strong potential, it made the decision, given the current crisis and economic uncertainty, to retroactively depreciate the value of certain assets recorded on the balance sheet at 31 December 2019. Such asset depreciation, which does not affect the cash situation, generated non-current operational expenditure (\in 5.1m)

and a tax expense (\in 3.2m). In light of these elements, the accounting valuation of the share incentive plans (\in 0.7m) and financial expenses (\in 0.4m), the net loss stood at \in 17.4m (\in 8.1m at the close of 2018). At 31 December 2019, the gross cash position stood at \in 8.0m (\in 12.5m at the close of 2018).

En savoir plus : Formule Verte.com, Boursorama.com

3344 - Global Bioenergies

The French industrial biotechnology company announced a net loss of €12.7m for the 2019 financial year (compared with a loss of €14.3 in 2017 and €13.6 in 2019). Samuel Dubruque, Chief Financial Officer of Global Bioenergies, said: "From a budgetary point of view, we have worked in 2019 to reduce expenses, which is reflected in the results published today by the improvement of the net income. The objective for 2020 is to achieve even higher operating income while reducing our expenses to the minimum necessary to reach our goal: the emergence of the first commercial unit of our process. In 2020, we will continue to improve this net income, with the main objective of shifting the company from R&D to industry and commerce." At 31 December 2019, the gross cash position was €16.6m.

Together with the publication of its annual results, Global Energies also announced that Ms Corinne Granger would replace Crédit Mutuel Innovation (formerly CM-CIC Innovation) on the Board of Directors. Her co-optation will be submitted for ratification at the next general meeting.

More information: <u>Press release</u> En savoir plus : <u>Communiqué de presse</u>

3345 - METabolic EXplorer (METEX)

At 31 December 2019, METEX reported turnover of €350k (compared with €3.3m at the close of 2018). Given its strategic development plan, which focuses mainly on the industrialisation and commercialisation of 1,3 propanediol (PDO) and butyric acid (BA), as well as expansion of its product portfolio with its new technology platform ALTANØØV, METEX explained that its turnover was not, at this stage, an appropriate indicator of its activity. At 31 December 2019, the Group's operational expenses were stable at €10.4m (€10.2m at the end of 2018). This amount includes the operational expenses of its subsidiary METEX NØØVISTA, which stood at €0.7 for 2019 (€0.4m in 2018). The company's overall net loss for the financial year was €8.4m (€6.3m at the close of 2018). At 31 December 2019, the group had a consolidated gross cash position of €26.6m (€35.2m at the close of 2018). The consolidated cash position net of debt, under IFRS standards, thus amounted to €18.9m (€28.5m at the close of 2018).

At the publication of its accounts, METEX looked back on a financial year marked by its industrial and commercial transformation.

More information: <u>Press release</u> En savoir plus : Communiqué de presse, Formule Verte.com

3346 - TWB

TWB announced turnover of €8.4m (of which €2.7m in grants) for 2019. It conducted a total of 53 R&D projects throughout the year, including 39 new projects. In terms of staff numbers, 82 people work for TWB (an increase of 20% on 2018), and 40 people work for the start-ups hosted on its premises (an increase of 100% on 2018). In terms of achievements, this year was "*outstanding*" with, of particular note:

- The signature of industrial R&D contracts worth almost €10m (an increase of 20% on 2018), the highest annual increase since the creation of TWB;
- The launch of major joint industrial projects, in particular the BioImpulse project, led by Resicare/Michelin;
- European funding for the IBISBA (European infrastructure of biotechnology infrastructures facilities) project, coordinated by INRAE;
- Hosting of a sixth start-up, BioC3, on the TWB premises.

At the close of 2019, TWB had amassed €39m in industrial contracts, practically doubling its initial objective.

The consortium, which now has 52 public and private partners, including 36 manufacturers, obtained additional funding from the French State of \in 7m (operations) for 2020-2025.

More information: Press release

En savoir plus : <u>Communiqué de presse</u>, <u>Rapport d'activités 2019</u>, <u>Le Journal des Entreprises.com</u>, <u>Formule</u> <u>Verte.com</u>

Human resources

3347 - Afyren

As the producer of biobased molecules of interest via fermentation prepared to begin construction of its first plant in the Grand-Est region (France), it announced the recruitment of three new managers:

- Joachim Merziger, as Chief Commercial Officer (CCO). He is responsible for Business Development (Marketing and Sales) and commercialisation of the production of Afyren Neoxy (Carling Saint-Avold).
- Ivana Champier as Afyren Neoxy Project Director, in charge of the company's industrial project and construction of the plant in Carling (Grand Est).
- Caroline Petigny as Afyren's CSR, Communications and Public Affairs Director. Her job involves supporting the company's development by building a structured CSR vision in keeping with the company's DNA and history, which will then be applied to internal and external processes.

More information: <u>Press release</u> En savoir plus : <u>Communiqué de presse</u>, <u>Formule Verte.com</u>

3348 - Agri Sud-Ouest Innovation

The French competitiveness cluster announced the appointment of Laurent Augier to the position of General Manager further to Vincent Costes' departure for personal reasons.

Laurent Augier has a PhD in the development of agricultural resources. After a career focused on academic research and industry in France and abroad, he joined the cluster in 2012 as a Project Manager and had been the Scientific Manager of the cluster since 2016.

En savoir plus : Communiqué de presse

3349 - Deinove

The biotechnology company announced the appointment of Alexis Rideau as Chief Executive Officer as of 1 May 2020. Holder of a PhD in molecular and cellular biology (University of Cambridge, England), a European Magistère in genetics and an MSc in cellular and molecular genetics (Paris Diderot University and Sorbonne University) and an MBA in International Management (ESCP Europe), Alexis Rideau was responsible for developing industrial relations and coordinating the strategic partnership team at Bioaster before joining Deinove.

He also held various positions in companies operating in the technology and healthcare fields, including support to entrepreneurs, sector analysis and fundraising (Library House Ltd, Bionest Partners and Glaizer Group) and directly in the field, in the conquest of new industrial markets (MorphoSys AG and Bio-Rad Laboratories).

More information: <u>Press release</u> En savoir plus : Communiqué de presse, Formule Verte.com

3350 - European Bioplastics

The association, which represents the bioplastic industry in Europe, announced the appointment of Joanna Dupont-Inglis as head of European public affairs from 1 June 2020. Holder of a degree in Environmental Science and European Studies from the University of Sussex, she began her career at the European Commission's Directorate General for the Environment. She went on to join EuropaBio before chairing the European Bioeconomy Stakeholders Panel. She also served for several years as a board member for Suschem.

More information: <u>Press release</u> En savoir plus : <u>Formule Verte.com</u>

MARKETS

In France

3351 - The bioethanol sector wants to be included in the French Government's automotive sector recovery plan.

The AGPB (French association of wheat farmers), the AGPM (French association of maize farmers), the CGB (French union of beet farmers) and the SNPAA (French association of alcohol producers) announced that they were disappointed not to have been included in the automotive sector recovery plan presented by President Emmanuel Macron. The trade unions of the French bioethanol sector also noted with regret that "*car manufacturers are not being sufficiently encouraged to develop E85 flex-fuel versions*". They want the government to acknowledge the advantages of this biofuel more widely and to encourage its use through a series of measures:

- Grant a conversion bonus of €200 to low-income households which have a State-approved E82 conversion box installed in a petrol vehicle,
- Reduce the tax on company cars for new vehicles equipped with an E85 flex-fuel engine, with emissions less than or equal to 120g of CO², by applying a 40% discount on emissions,
- Give flex-fuel vehicles a 'Crit'Air 1' air quality certificate.

En savoir plus : Réussir.fr, Le Betteravier Français.fr, La France Agricole.fr

3352 - What does the post-Covid future hold for the plastic recycling industry?

Although the industrialists that are members of the Federec (French professional federation of recycling businesses) collectively arranged to maintain activity at 80% of normal volumes during the Covid-19 crisis, they consider themselves to be in grave economic difficulty. The collapse in orders, in particular in applications for the construction, non-food packaging and automotive sectors, coupled with the drop in the price of petrol-based plastics, which makes recycled materials less attractive, presents a serious risk to the future of their business activities. To remedy this unprecedented situation, which seems to be set to continue, they are calling for the reinforcement of measures to support the use of recycled plastics. Following on from the legal provisions created or strengthened by the French anti-waste law for a circular economy, the following incentives could be introduced:

- A bonus/penalty system, with incentives in the scope of schemes to encourage Extended Producer Responsibility (EPR), in particular the household waste EPR (Citeo), but also future EPRs for the construction industry and the commercial and industrial packaging industry.
- Compulsory use of recycled plastics in finished products, using the compulsory use of recycled PET in drinks bottles as a model.

En savoir plus : Communiqué de presse, Formule Verte.com, L'Usine Nouvelle.com, Environnement Magazine.fr

3353 - What will happen to the wine that wasn't sold during the health crisis?

In the scope of a national recovery plan for the vine-growing industry, which among other things provides for the crisis distillation of two million hectolitres of surplus wine at an average price of €70 per hectolitre, low-end Bordeaux wines and wines from the Loire, Gascony and Alsace will be turned into biofuel, industrial products for the chemicals and pharmacological sectors, or alcohol-based hand sanitiser. According to Bernard Farges, President of the CIVB

(Bordeaux wine council), "in Gironde, between 500,000 and 700,000 hectolitres of wine is expected to end up in the distilleries. This in an unprecedented amount, but it's also the first time that so much perfectly drinkable wine will be sent to the distillers."

En savoir plus : 20 Minutes.fr

Outside Europe

3354 - UNITED STATES: Sharp drop in bioethanol production.

According to a report published in April by the Energy Information Administration (EIA), bioethanol production in the United States fell by 16.4% because of the crisis caused by the Covid-19 epidemic.

En savoir plus : <u>Formule Verte.com</u>

5. ETHICS & MONITORING SOCIAL CHANGE

6. PUBLIC POLICIES & REGULATIONS

In Europe

3355 - The European Commission sticks to its guns on the European single-use plastics directive.

European Plastics Converters (EuPC) published an <u>open letter</u> in which it touted the hygiene aspects of single-use plastics during the health crisis as grounds for the postponement of the implementation of the European single-use plastics (SUP) directive for at least one year, as well as the lifting of all the planned bans. The Commission issued a flat refusal and announced that it still intended to present the final SUP guidelines at the start of summer 2020.

More information: Press release En savoir plus : Formule Verte.com, RFI.fr, Techniques de l'Ingénieur.fr, Emballages Magazine.com, Info Chimie.fr

3356 - New circular economy action plan.

The European Commission adopted a new circular economy action plan, which is one of the main ways to achieve carbon neutrality by 2050. This new action plan, which sets out measures to implement throughout the entire lifecycle of products, aims to make our economy fit for a green future, strengthen our competitiveness while protecting the environment and give new rights to consumers. Building on the work done since 2015, the new Plan focuses on design and production for a circular economy, with the aim to ensure that the resources used are kept in the EU economy for as long as possible. It sets out measures that aim to:

- Make sustainable products the norm in the EU;
- Empower consumers to make choices;
- Focus on the sectors that use the most resources and where the potential for circularity is high;
- Ensure less waste.

Businesses and stakeholders will play an important part in defining the initiatives set out in this action plan, which will include a number of legislative proposals and the revision of directives between 2020 and 2023.

More information: Press release

En savoir plus : Communiqué de presse, Euractiv.fr, Euractiv.fr, Actu Environnement.com

3357 - SPAIN: new measures to reduce the consumption of single-use plastics.

The Spanish Government adopted a draft bill on the circular economy, which provides primarily for new taxes on the production, purchase and import into the European Union of single-use packaging from the first quarter of 2021. This draft bill also aims to:

- Ban around ten single-use plastic objects (straws, tableware, cutlery and cotton buds) from July 2021;
- Ban shops from giving away non-reusable plastic packaging. Consumers will have to pay for such packaging from January 2023;
- Eliminate plastic microbeads in cosmetics and detergents;
- Force bars and restaurants to offer their customers tap water instead of bottles of mineral water.

The special tax on non-reusable packaging, which will be fixed at €0.45 per kilogram of packaging, is expected to bring the State €724m per year.

En savoir plus : Courrier International.com, Metro Time.be, Journal de l'Environnement.net

Outside Europe

3358 - UNITED STATES: new rules on the incorporation of ethanol.

In the United States, the quantity of biofuels mixed with petrol must represent around 10% of the production of crude oil in 2020, rising to 15% by 2030, and, lastly, 30% by 2050. Simultaneously, the Environmental Protection Agency (EPA) hopes to increase agricultural production by 40% and reduce its environmental impact by half by 2030.

En savoir plus : Caradisiac.com, Clubic.com

7. AWARDS & EVENTS

AWARDS

3359 - Greenspot Technologies

Greenspot Technologies, which has developed highly nutritional plant-based flours with real health benefits by processing natural co-products produced by the fruit and vegetable industry, received the *Alimentation durable et responsable* (sustainable and responsible food) award and the Grand Prix at the regional Les Inn'Ovations competition organised for the 13th Occitanie Innov event.

En savoir plus : Invest in Toulouse.fr

JULY 2020

More information: Event website

More information: Website

OCTOBER 2020

SynBioBeta. Global Synthetic Biology Summit.

1-3 October 2020. San Francisco (United States).

20-23 September 2020. Raleigh (United States).

European Forum for Industrial Biotechnology and the Bioeconomy (EFIB)

BIOKET

30 June-2 July 2020. Webinar.

24th International Symposium on Plant Lipids

07 July 2020 Webinar.

11th World Congress on Green Chemistry and Technology

9-10 July 2020. Webinar.

AUGUST 2020

6th International Conference on Chemical and Polymer Engineering (ICCPE'20)

16-18 August 2020. Webinar.

WCIB

26-27 August 2020. Webinar.

16th European Organic Chemistry Congress

SEPTEMBER 2020

5-6 October 2020. Frankfurt (Germany). Webinar.

Carnot 3BCAR Forum Recherche-Industrie

15 October. Paris (France).

10th symposium of the Association Française des Biotechnologies Végétales (AFBV)

15 October. Paris (France).

Annual Biocontrol Industry Meeting (ABIM)

19-21 October 2020. Basel (Switzerland).

iGEM 2020 Giant Jamboree

28 October-2 November 2020. Webinar.

More information: Event website

NOVEMBER 2020

World Bio Markets

2-4 November Amsterdam (Netherlands).

5th Green and Sustainable Chemistry Conference

8-11 November 2020. Dresden (Germany).

23rd International Conference on Green Chemistry and Technology

22-23 November 2020. Barcelona (Spain).

More information: Conference website

MARCH 2021

BIOKET

16-18 March 2021. Lille (France).

More information: Event website

More information: Event website

More information: Website

More information: <u>3BCAR website</u>

More information: Meeting website

More information: AFBV website

More information: Website