FLASH NEWS

No. 41-2020 – THE BIOTECH INDUSTRY INTELLIGENCE REPORT

CONTENTS

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1. FRACTIONATION & CONVERSION

3204 - A new process to improve lignin valorisation technology.

Metgen has developed METNIN™, a technology that combines the high solubility of lignin and an enzymatic depolymerisation treatment. This "*revolutionary lignin valorisation technology*" could be used to make polyurethane foams, or for sizing and coating applications.

More information: Press release

3205 - Novozymes launches a new yeast for ethanol production.

The Danish biotechnology company, which specialises in enzymes, announced the launch of Innova Fit, a new non-GM yeast technology designed for ethanol producers that eliminates production constraints caused by conventional and basic yeasts. This yeast, "*the most advanced available on the market*", enables producers to maximise inputs and achieve throughput and production targets, without losing ethanol yield due to common stress factors such as high temperatures. In addition, Innova enables plants to significantly increase their throughput and efficiency.

More information: Press release

2. BIOMASS & BIOMOLECULES

3206 - A new future for agricultural waste.

In Portugal, BLC3 association's Campus of Technology and Innovation is "*developing a circular economy project, which aims to use the waste from agricultural activities, such as pruning waste from olive trees, vines and other fruit trees, as well as waste from crops, to produce advanced biofuels*". Initial results have proven these biofuels to be "*similar and equivalent to fuels used in the agricultural sector*". This project could also be applied to the forestry industry.

More information: Euractiv.com
En savoir plus : Euractiv.fr

3. RESEARCH PROJECTS & PROGRAMMES

Calls for projects

3207 - Call for innovative project ideas to offer potential alternatives to phytosanitary products.

Launched by the competitiveness cluster Vegepolys Valley in the framework of the 'Contrat de Solutions' initiative [an association of agricultural partners working together to propose concrete solutions to protect crop cultivation], this call for innovative project ideas invites businesses, technical institutes, research laboratories and stakeholders in the crop production sectors to submit their ideas for potential alternatives to phytosanitary products. The cluster aims to select concrete, efficient and economically viable proposals and to support their rollout on the market. A few priority subjects are already emerging: new seed treatments, use of lighting, alternatives to chemical weed

control and soil disinfection, storage of grain and produce, the addition of adjuvants, the development of chemical mediators and insect traps, and data collection and management for the surveillance – and early diagnosis – of plant pathologies and pests.
Applications can be submitted until 15 March 2020 at aipi-vegetal.fr. Project ideas will be reviewed throughout April by a monitoring committee comprised of a representative of the 'Contrat de Solutions' association, a farmer and representatives of Vegepolys Valley, ACTA and INRAE.

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

3208 - Call for expressions of interest: structural research facilities - ESR / EquipEx+.

Launched by the French national research agency in the framework of the PIA 3 investment programme, this call for expressions of interest aims to provide the French research community with outstanding facilities so it can host experiments conducted by national as well as international researchers under the best possible working conditions and to the very highest standards. This initiative also has a part to play in the digital transformation of research and innovation by integrating state-of-the-art advancements that are essential for effective research. These facilities must be proposed by higher education and/or research establishments with priority given to facilities that can be shared by as many as possible. They must be open to all the relevant scientific communities, as well as businesses based on a pricing system that will fund the operation, modernization and – in part – renewal of these facilities.

En savoir plus : ANR.fr

3209 - Applications now open for the 14th Pierre Potier prize

Created in 2006 by the French ministry for the economy, finance and industry, and now run by the Fondation de la Maison de la Chimie and France Chimie, the aim of the Pierre Potier prize is to promote and encourage the innovative inventions of chemistry businesses that support sustainable development. Businesses that apply can also, if they wish and without any further formalities, submit their application to the Pierre Potier high school students' prize, awarded at the same time as the Pierre Potier prize. Inspired by the Goncourt des lycéens [a prestigious literary prize awarded by high school students], the Pierre Potier high school students' prize was created by the French ministry for national education and youth, the Fondation de la Maison de la Chimie, France Chimie and the young chemists' network of the Société Chimique de France. This prize, which turns the spotlight on chemistry businesses that support sustainable development, is awarded by students in years 11, 12 and 13 (ages 15 to 18) in the general, technical and vocational education streams.
Applications must be sent by email before 30 April 2020, for the attention of Pascale Bridou-Buffet: p.bridou-buffet@maisondelachimie.com.

En savoir plus : France Chimie.fr, Formule Verte.com

Project launches

3210 - The CNRS launches a new scientific expertise service for businesses.

As part of its mission to transfer research results to social and economic circles, the French national centre for scientific research (CNRS) now provides a free service that puts SMEs, start-ups and local authorities in touch with a scientist or scientists who can solve the problems they are having finding specific skills and stepping up their R&D. Following an analysis of requirements expressed on the website trouverunexpert.cnrs.fr, the dedicated team will provide support for the company making the request through the relevant departments of the CNRS: from engineering to chemistry, with an emphasis on physics and the environment, but also on human and social sciences. This service should also encourage innovative partnerships with SMEs.

En savoir plus : Communiqué de presse, L'Usine Nouvelle.com

3211 - A new centre of excellence dedicated to synthetic biology is to be created in Australia.

The Australian Research Council (ARC), the body responsible for research funding in Australia, is expected to invest $35m over the next seven years, starting this year, to create a new ARC centre of excellence in synthetic biology at Macquarie University. This centre will combine engineering and molecular biology to design and construct innovative biological systems that can convert biomass from agriculture or waste streams to biofuel, biodegradable pesticides, bioplastics and other high-value chemicals. In addition, the centre will train the next generation of synthetic biologists in the challenges facing the industry. This future centre of excellence should be able to count on the material and/or financial support of six Australian universities and 25 university and industrial partners from America, Asia and New Zealand.

Recap: Macquarie University is the Australian leader in synthetic biology and its work on the international Yeast 2.0 project, in collaboration with the NSW Department of Industry, meant it could join the Synthetic Biology BioFoundry Network.

More information: Press release
En savoir plus : Diplomatie.gouv.fr

3212 - Plans to build a technical and collaborative platform to validate processes used to treat natural feedstocks.

Launched by the French group Tournaire, which specialises in packaging and extraction equipment for the perfume and flavourings sector, this testing centre will bring together, under one roof, all the natural feedstock transformation processes: distillation, molecular distillation, rectification, extraction, subcritical extraction, solvent-free, CO_2, ultrasound and microwave extraction, etc. The platform has been designed to genuinely accelerate research, and the testing centre will make it possible to carry out semi-industrial tests: optimisation and validation of processes, the performance of R&D operations and, through specific, made-to-measure pilot studies, anticipation (prior to publication of new regulations) of industrialisation solutions for processes adapted to the demands of natural feedstocks. This platform, intended for all manufacturers of flavourings and perfumes, both large groups and SMEs and especially new arrivals, required an investment of €1m. Its inauguration is planned for July 2020 in Grasse (Alpes-Maritimes, France).
Tournaire also announced the creation of a branch dedicated to the design and production of equipment, Tournaire Équipement SAS, which "*will simplify the way it finances its growth and speed up the creation of new key partnerships*".

En savoir plus : Communiqué de presse, Les Echos.fr, Formule Verte.com

3213 - The Green-Map project: developing a circular economy within the disposable medical device industry.

This international project, coordinated by the West Pomeranian University of Technology (Poland), aims to develop new biodegradable and bio-based polymers that can be used in medical device packaging, as well for disposable medical devices/components. The project's main innovative aspects include:

- the use of bio-based monomers (vegetable oil), representing added value to biodiesel refining;
- a green chemistry approach, using enzymes and alternative, low-impact catalysts;
- polymer systems (copolymers and/or blends) with highly tuneable properties (mechanical, optical, barrier and hemocompatibility).

Green-Map is a consortium of seven participants from five European countries and is partnered with Ohio State University (United States). This project, which began on 1 January 2020 and will last three years, has a budget of €1,232,800 of which €1,168,400 funded by the European Union in the scope of the Horizon 2020 programme.

More information: Cordis.europa.eu

3214 - The HerbiScan Project: discovering and developing new plant-based herbicides that respect the environment.

Run by the French biotechnology company Plant Advanced Technologies (PAT), in association with INRAE and the French research institute for perfume, medicinal and aromatic plants (ITEPMAI), the main aims of this project are to:

- discover new molecules with herbicidal activity from extracts of plant origin;
- characterize the herbicidal activity of these molecules (efficacy and selectivity) on greenhouse-grown weeds;
- determine the toxicological profiles of these new molecules in order to retain those with a favourable profile only;
- validate by field trials on crops the herbicidal effects previously observed for molecules shown to be toxicologically safe.

This project received exceptional funding validated by the office of France's prime minister Édouard Philippe, in the scope of the PIA 3 investment programme run by FranceAgriMer. HerbiScan, which falls into the 'Innovative Agriculture' category, is part of a broader research programme looking into biocontrol solutions for agriculture, currently being developed at PAT.

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

3215 - Creation of the Bio4Solutions Chair to implement new solutions to reduce the use of synthetic inputs.

Launched by the French national engineering school for the food industry and agronomy (ENSAIA), part of the University of Lorraine, the purpose of this Chair is to support agroecological transition in two ways: by proposing training for professionals in the field, the school's students and those of the University of Lorraine, and by developing research initiatives in close contact with manufacturers. In particular, its role is to identify and develop biosolutions (biocontrol, biostimulation and biofertilization) to provide concrete answers to the issues facing farmers out in the field and those involved in agricultural distribution, in particular in France's Grand Est region. The Chair will be sponsored by BASF, LORraine Céréales Approvisionnement (LORCA), Plant Advanced Technologies (PAT) and Agrauxine, a branch of the Lesaffre group. It will be allocated a budget of €281,000 per year.

En savoir plus : Communiqué de presse, Agro.basf.fr, Environnement Magazine.fr

3216 - Launch of the Eiffel Gaz Vert fund to support biogas produced via methanation.

Launched on the initiative of Eiffel Investment Group, the Banque des Territoires, GRTgaz, Société Générale Assurances and ADEME Investissement, this fund aims to actively participate in the renewable gas sector in France and Europe by financing between 50 and 100 methanation units, thanks to an investment capacity stretching from a few hundred thousand euros to up to €10m per operation and via minority equity investments and other capital or quasi-capital injections. Since its launch, Eiffel Gaz Vert has received commitments of over €115m and ultimately aims to reach €200m. The European Investment Bank and ProBTP are considering participating in this fund in the near future. Its creation was applauded by Elisabeth Borne, France's minister for ecological transition.

En savoir plus : Communiqué de presse, L'EnerGeek.com, Enerzine.com, Journal de l'Environnement.net

3217 - Launch of the Green European Tech (GET) fund.

Created by fund management firms Demeter (France) and Munich Venture Partners (Germany), this venture-capital fund will focus on investing in operations to scale up European green tech businesses. It will have access to €250m, with a potential top-up of €400m by applying to the Late State Venture initiative promoted by the French government. Currently at the pre-marketing phase, the fund should enter commercialisation in March, and reach the first closing stage in six to twelve months.

More information: Press release
En savoir plus : Les Echos.fr, Formule Verte.com

Inaugurations

3218 - Inauguration of the PoPLaB (plastic polymers and biotechnologies), an enzyme engineering research centre for plastic recycling and biosynthesis.

The French green chemistry company Carbios announced a strategic alliance with INSA Toulouse though its laboratory Toulouse Biotechnology Institute (TBI), a joint research unit (INSA Toulouse, INRAE, the CNRS). With TBI, Carbios has created an internationally recognised enzyme engineering research centre for plastic recycling and biosynthesis, thus giving a new dimension to its research activities by expanding the work it can perform internally. This laboratory is the fruit of several years of successful research dedicated to discovering and optimising enzymes for the degradation and synthesis of polymers. It will enjoy cutting-edge equipment to model enzymes and understand plastic hydrolysis molecular mechanisms, and high throughput enzyme evolution platforms, as well as highly qualified researchers.
Carbios also announced that it would sponsor the Fondation de l'INSA Toulouse, "*an initiative that strengthens the bonds between the two entities*". The foundation is contributing substantially to training and international outreach for students and executives in the science field, in particular through the creation of a programme backed by the 'Biotechnologies and Environment' Chair.

More information: Press release
En savoir plus : Communiqué de presse, Formule Verte.com, France TV Info.fr

3219 - Inauguration of a fifth carbon sink.

Fermentalg and Suez announced the inauguration of a new carbon sink at the new biomethanation unit of the wastewater treatment plant at Carré de Réunion in Saint-Cyr-l'Ecole (Yvelines, France). This new sink, the goal of which will be to make use of the CO_2 produced during the biogas purification stage, should make it possible to process 5 to 10m^3 of carbon dioxide every hour. It should also enable treatment solutions to be prefigured on an industrial scale.

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

Ongoing projects

3220 - The PEFerence project: fresh funding for Avantium.

The Dutch chemicals company received a Horizon 2020 grant of €25m from the Bio-Based Industries Joint Undertaking (BBI JU). This funding will enable it to "*support the establishment of an innovative value chain for 2,5-furandicarboxylic acid (FDCA) and will contribute to securing the overall financing for the flagship plant and the market introduction of FDCA and polyethylene furanoate (PEF)*".

Recap: Launched in 2017 for a duration of five years, the PEFerence project aims to build an innovative value chain for FDCA and PEF. Twelve businesses are involved.

More information: Press release
En savoir plus : Formule Verte.com

3221 - TWB receives €7m for 2020-2025.

Allocated by the French State, this operating grant will enable TWB to continue its initiatives in the industrial biotechnology industry and in particular its development internationally. This new funding – the embodiment of a model of excellence in France – will help TWB fulfil its ambition to become the European leader in industrial biotechnologies. TWB has set itself the following objectives for the next five years:

- increase value creation through the use of industrial biotechnologies;
- retain its network of partners and develop it further, especially abroad;

- propose cutting-edge technology integrated into a research continuum, corresponding to the European vision of distributed infrastructure (IBISBA project);
- explore high-stakes markets for which biotechnology manufacturers can provide competitive and 'responsible' solutions (agriculture, health, food);
- train the next generation of biotechnology engineers with its dedicated 'TWB Education' cluster.

En savoir plus : Communiqué de presse, La Dépêche.fr , Formule Verte

3222 - INRAE's bioeconomy strategy.

To develop a circular and sustainable bioeconomy at the service of France's regions, the new INRAE institute (the product of the merger of INRA and IRSTEA) has identified four questions that form the backbone of its future work:

- How can we produce and exploit greater levels of biomass given climatic constraints while preserving ecosystems and conserving resources?
- How can we optimise the transformation of diverse types of biomass?
- How can we ensure that materials are recycled in order to close the biological cycles of carbon, nitrogen and phosphorus?
- How can we predict, organise and manage different fluxes, exchanges and markets in uncertain circumstances?

The Institute, which intends to provide its knowledge, methodologies and tools to provide innovative answers and inform public decision-making, believes it will be necessary to develop techniques to acquire and analyse massive quantities of data to propose optimal, scale-appropriate answers.

En savoir plus : Communiqué de presse

3223 - Publication of the 2020 work plan and budget of the BBI JU.

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), a group of businesses, has published a document presenting its work plan for 2020. It includes details of research and innovation activities that will receive priority for calls for proposals in 2020 and its governance and operations for this year. It also presents the 2020 budget.

More information: BBI Europe.eu

3224 - Deinove: a Phase II trial to test the antibiotic DNV3837 and new industrial-scale production of Phyt-N-Resist®.

The French biotechnology company has announced the inclusion of the first patient in the Phase II trial to test the antibiotic DNV3837. This trial aims to evaluate the efficacy, innocuity and pharmacokinetics of DNV3837 in patients suffering from the gastrointestinal infection *Clostridioides difficile* (CDI). The trial will mainly be conducted in 15 centres in the United States, in two consecutive stages:

- one cohort of 10 patients suffering from moderate to severe CDI treated with DNV3837;
- one randomised cohort testing DNV3837 against the standard treatment for 30 patients suffering from severe CDI.

The final results of this study are expected at the end of this year.

Recap: *Clostridioides difficile* (CDI), which is on the WHO priority pathogens list, is one of the leading causes of nosocomial infections worldwide.

More information: Press release
En savoir plus : Communiqué de presse

Deinove announced that it had begun producing a new industrial batch of Phyt-N-Resist® – its first proprietary cosmetic ingredient – to meet the needs of its distributors and future customers.

Recap: Made by fermenting plant sugars with the extremophile bacterium *Deinococcus geothermalis*, Phyt-N-Resist® is a colourless carotenoid with clinically proven antioxidant and regenerative properties. It is the first 100% pure Phytoene with an anti-ageing effect, the action mechanism of which reveals a prime target for cell regeneration: laminin, a protein that links the different types of collagen and contributes to the adhesion of the epidermis to the dermis.

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

3225 - DMC Biotechnologies successfully produces L-alanine by fermentation at pilot scale.

The American company, which has developed a process to produce L-alanine by fermentation using sugar, announced that it had successfully produced the amino acid on a pilot scale in a $3m^3$ fermenter. DMC Biotechnologies was able to test the robustness of its process as, "*during the execution of the fermentation, a technical failure of an inlet valve resulted in a material deviation from the protocol. The DMC strain and process were not materially affected whereas most of the current bioprocesses today would have been un-recoverable*." According to Matt Lipscomb, CEO and co-founder of DMC: "*full commercialisation of L-alanine will happen later this year*."

More information: Press release
En savoir plus : Formule verte.com

3226 - Identification of a new family of metalloproteins similar to enzymes that degrade cellulose in filamentous fungi.

While working on the biological activity of these proteins, which resemble enzymes called *'lytic polysaccharide monooxygenases'* (LPMOs) that are known to break down cellulose, a team of researchers directed by INRAE discovered that the function seems to have diverged towards mechanisms linked to copper homeostasis. Following the screening of various substrates, the transcriptomic and proteomic analyses of the secreted proteins revealed a protein of unknown function presenting similarities with LPMOs. Analysis of the sequence and the 3D structure of the protein showed that it was, in fact, capable of binding copper like LPMOs. It is, however, a distinct family of proteins and does not have any enzyme activity. This suggests it may have evolved towards an alternative function. This family of metalloproteins is therefore evolutionarily linked to LPMOs but the biological function appears to have diverged towards mechanisms linked to copper homeostasis, implying essential biological processes.

Publication: A fungal family of lytic polysaccharide monooxygenase-like copper proteins. Journal: Nature Chemical Biology. DOI: 10.1038/s41589-019-0438-8.

En savoir plus : Communiqué de presse

3227 - What are the environmental and economic impacts of bio-based pressure-sensitive adhesives (PSAs)?

To accompany the commercial rollout of bio-based adhesives, a team of researchers at Iowa State University (United States) published a report demonstrating that bio-based PSAs have more of a positive impact on the environment in comparison to their fossil fuel-based counterparts. The researchers focused on analysing how soya-based glycerine (a by-product of diesel production) is used as a feedstock for adhesives. They found that by producing 1kg of PSA, the global warming potential was estimated to be 3.84kg CO_2-eq. Compared with petro-glycerol, PSA produced from bio-glycerol has less of an impact on the environment (40% lower).

More information: Bio Market Insights.com

3228 - Publication of a work titled '*Chimie verte et industries agroalimentaires, vers une bioéconomie durable*'*.

Coordinated by Stéphanie Baumberger, Professor in green chemistry at the Institut Jean-Pierre Bourgin (IJPB), a member of Carnot 3BCAR, the objective of this work is to present a reasoned use of renewable feedstocks that exploits the complementary natures of the food and non-food sectors, without pitting them against each other.

These feedstocks include agricultural and forestry resources and the waste generated during processing and use. This text is aimed at chemistry, biochemistry and process engineering students, research and development engineers, teachers of engineering and master's degree courses in the field of environmental and life sciences and technologies, and researchers working for public research bodies.
**Green chemistry and the agrifood industries: working towards a sustainable bioeconomy.*

En savoir plus : Editions Lavoisier.fr

4. STRATEGIC INTELLIGENCE: BUSINESSES & MARKETS

3229 - Association Chimie Du Végétal (ACDV)

The ACDV, a plant-based chemistry association which supports and represents manufacturers that design, produce or use bio-based materials and products, announced that Carbiolice had become its 54th member.

Recap: Carbiolice has developed an enzyme process that makes plant-based plastic (PLA) 100% compostable. It is non-toxic for soils and does not leave behind any residue.

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

The most recent ACDV members' day attracted almost 80 people: representatives from the 54 member companies and stakeholders (public authorities, associations and journalists). For François Monnet, its president: "*Our sector has been making headway; the* [French] *State is giving greater consideration to our activities*." This day also gave Julien Tognola, director of industry of the French directorate-general for business, the chance to present an action plan that should boost the sector. This plan focuses on the development of industrial biotechnologies, in particular enzyme catalysis and synthetic biology. The day also provided an opportunity to draw up a list of work awaiting the ACDV in the coming months.

En savoir plus : Formule Verte.com

3230 - Amyris

The American renewable ingredients producer announced that it had successfully shipped the first cannabinoid to its partner, LAVVAN. Amyris hopes to ship a second cannabinoid in the first quarter of 2020.

More information: Press release
En savoir plus : Formule Verte.com

3231 - Avantium

The Dutch company announced that it had signed two letters of intent. The first concerns the location of its future FDCA (furandicarboxylic acid) plant at Chemie Park Delfzijl (the Netherlands) while the second, signed with the regional consortium of Groningen province, concerns funding of up to €30m for the plant. This future unit, located near Avantium's mono-ethylene glycol (MEG) demonstrator, could produce 5,000 tons of bio-based FCDA per year. Entry into service is scheduled for 2023.

More information: Press release
En savoir plus : Formule Verte.com

3232 - Bio-On

The Italian producer of bioplastics, whose former management team is the subject of a legal investigation for accounting irregularities and fictitious transactions, has declared bankruptcy. However, the Italian justice system has ordered "*the temporary continuation of the economic activity of the business […] to preserve the continuity of the activity and therefore avoid the dissolution of the production organisation with regard to its employment, technological and start-up components*."

En savoir plus : Formule Verte.com

The receiver responsible for running Bio-On during the legal investigation announced the appointment of Riccardo Casoni as director-general and manager. The aim of this appointment is to:

- promote the stable and coordinated management of all the business' operational and planning activities;
- map out a path to growth in order to develop the finished products on an industrial scale and find new market applications for PHA.

En savoir plus : Formule Verte.com

3233 - Genomatica

The specialist in bioengineering processes announced that it had produced the first ton of 100% renewable caprolactam at the Slovenian plant of the expert in microbial biotechnology, Acies Bio. Produced by fermenting sugars found in plants using modified microorganisms, this key intermediate needed to obtain nylon 6 will make it possible to produce 100% renewable nylon. It will mainly be used by Aquafil, an Italian specialist in nylon 6, to make nylon yarn and flakes.

More information: Press release
En savoir plus : Formule Verte.com

3234 - Gevo

The American producer of biofuels announced that it had received a certification from the Roundtable on Sustainable Biomaterials (RSB), a Swiss NGO that promotes biomaterials. This certification relates to Gevo's procurement of sustainable corn for its production plant in Luverne (United States) and its production of an intermediate feedstock, isobutanol. The certification confirms the sustainability of Gevo's business model.

More information: Press release

3235 - Kaneka

The Japanese chemist announced the completion of work intended to increase the capacity of its plant, located in Takasago (Japan), to produce the biodegradable polymer PHBH (poly3-hydroxybutyrate-co-3-hydroxyhexanoate). This work, which required an investment of 2.5 million yen (€19.4m), has increased the site's annual production capacity fivefold.

En savoir plus : Formule Verte.com

3236 - Mattel

The American company specialising in toys and games announced that it wants to use 100% recycled, recyclable or bio-based plastic materials in the manufacture of all its products and packaging by 2030. In the scope of this objective, the company is expected to launch a new, "*environmentally sustainable*" version of its Fisher-Price® Rock-a-Stack®, one of the brand's iconic toys, which introduces babies to relative size and stacking. This toy, which should be available during the first half of 2020, will be made using sugarcane-based plastics and packaged in a 100% recycled or sustainably sourced material.

More information: Press release
En savoir plus : Formule Verte.com

3237 - Tereos

During the beetroot harvest, Tereos tested the fuel ED95 in real-world conditions at its production site in Escaudoeuvres (Nord, France). This sustainable ethanol, made up of around 95% ethanol mainly from waste produced when beetroot is transformed into sugar, and a denaturing agent for the other 5%, can be used to power heavy-goods vehicles, coaches and buses fitted with an adapted engine, currently produced exclusively by the Swedish manufacturer Scania. This 100% "*circular economy*" solution was proposed to hauliers to decarbonise the transportation of beetroot.

En savoir plus : Communiqué de presse

3238 - TWB

The third TWB® START-UP DAY brought together 18 exceptional speakers, almost 200 international representatives in the field from nine countries, around 50 startuppers, manufacturers, and a panel of investors. The day's talks and round tables were followed by a start-up pitch contest. This year, five preselected start-ups, from three European countries, pitched one after the other to a board of experts from the sectors of investment and innovation: Fungus Sapiens, Glowee, Hoekmine BV, Octarine and Zymoptiq. The Danish start-up Octarine, which uses synthetic biology to develop new products to improve the health and well-being of people all over the world, won over the board with its inspiring presentation. Octarine is awarded services with TWB's technical platforms and scientific support for its project worth €50,000.

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

3239 - Versalis

The chemicals company of the energy group Eni announced that all the production units of Biochemtex, Beta Renewables, IBP Energia and Bio Products that belonged to the Mossi & Ghisolfi group and that are located on the Crescentino site in Italy will be operational by the first half of 2020.

More information: Press release
En savoir plus : Formule Verte.com

3240 - Walki Plastiroll

According to a study carried out by the Finnish environment institute (SYKE), Walki's Bioska 501 and Bioska+ bioplastic films, made from natural plant- and bacteria-based polymers, degrade completely after six months in the Baltic Sea and after one month under laboratory conditions.

More information: Press release
En savoir plus : Formule Verte.com

New joint ventures

3241 - Towell Engineering group & GF Biochemicals

The two groups have created NXTLEVVEL Biochem, a joint venture to produce and commercialise biochemical products obtained using GF Biochemicals' technology, which converts lignocellulosic biomass into levulinic acid. NXTLEVVEL Biochem's objective is to become a leader in bio-solvents and bio-plasticisers based on levulinic acid. Thanks to GF Biochemicals' technology and Towell Engineering Group's proven excellence in the field of engineering, construction and project management, in addition to their financial strength, NXTLEVVEL Biochem BV could become a global player in the industry.

More information: Chemeng Online.com
En savoir plus : Formule Verte.com

Commercial launches

3242 - Amyris

The American industrial biotechnology company announced that the Biossance™ product range would be sold in the United Kingdom. Made of 100% plant-origin squalane, this natural moisturiser is made exclusively from sustainable sugarcane.

More information: Press release
En savoir plus : Formule Verte.com

3243 - BASF & Fabbri Group

The German chemicals company and the Italian company specialising in packaging and wrapping for food products have started to commercialise Nature Fresh, a new cling film that is 100% biodegradable and compostable and intended to keep packaged products fresh. Made from ecovio® plastic developed by BASF, Nature Fresh complies with American and European food-contact standards. After use, it can be thrown away with food waste in a home or industrial composter.

More information: Press release
En savoir plus : Formule Verte.com, Emballages Magazine.com

3244 - Deinove

The French biotechnology company confirmed that it had finished developing its second proprietary cosmetic ingredient produced through fermentation and based on a brand-new carotenoid, intended to keep skin looking glowing and radiant. The official launch of this active ingredient is expected to take place at the next In-Cosmetics Global exhibition (31 March to 2 April, Barcelona (Spain)).

More information: Press release
En savoir plus : Communiqué de presse

3245 - Kompuestos

The Spanish plastic composites producer has developed a bioplastic made entirely of potato starch which also biodegrades in four weeks. This new bioplastic is part of the Biokomp range which is based on biodegradable resins made of different starches derived from corn, potato and various types of cereals, as well as other polymers of renewable origin. According to the company, these resins can be processed by standard processing equipment.

More information: Packaging Europe.com

3246 - StoraEnso & Valio

The Scandinavian papermaker and the Finnish dairy company plan to distribute 10,000 reusable lids made from Stora Enso's DuraSense® granules. These lids, made of wood fibres, polymers (recycled, bio-based or fossil origin) and additives, provide the flexibility of plastic with the strength of wood, making it possible to "*cover any leftover crème fraiche and quark in the cups, and therefore prevent food waste*". This launch should also pave the way for new food packaging solutions made from biocomposite materials.

Source: storaenso.com

More information: Press release

Fundraising

3247 - DMC Biotech

The American biotechnology company announced that it had carried out a series-A fundraising round for $11.3m (€10.12m) with its existing investors Capricorn Partners and Breakthrough Energy Partners and two new investors Boulder Ventures and SCG. The speciality chemicals company also announced that it expected to commercialise its first batches of bio-based amino acids in 2020.

Recap: DMC Biotech mainly manufactures amino acids via microbial fermentation and has developed a metabolic engineering process that makes fermentation more predictable, robust and effective.

More information: Press release
En savoir plus : Formule Verte.com

3248 - METabolic EXplorer (METEX)

METEX announced a successful capital increase without shareholders' preferential subscription rights of €7.3m through an offering addressed exclusively to qualified investors (Private Placement) as well as free allocation of share subscription warrants to all its shareholders at the conclusion and subject to the completion of the Private Placement. The funds will be used exclusively to accelerate the industrialisation of the processes developed at the ALTANØØVTM platform in the following order of priority and proportions:

- approximately 40% for the studies necessary to decide whether to industrialise the production of glycolic acid (GA) by the end of 2021;
- approximately 30% for investments in the industrial demonstrator at the Saint-Beauzire site to carry out several projects in parallel (GA, then amino acids) and digitalize all the fermentation data from the laboratory to the demonstrator; and
- approximately 30% for intellectual property investments (filing of patents on an enlarged product portfolio) and preparation of regulatory filings for GA and the first amino acid.

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

New investments

3249 - International Airlines Group (IAG)

The airline group, which includes the airlines British Airways, Iberia, Vueling, Aer Lingus and Air Europa, announced that it would invest $400m over 20 years to develop a biofuel. As a first step, IAG has partnered with British Airways, Shell and Velocys to build the first European biofuel production plant. Located in Immingham (Great Britain) and named Altalto, when completed this unit will convert 500 million tons of household and industrial waste into 60 million litres of biofuel each year, for use in aircraft and cars. Entry into service is scheduled for 2024.

Info: IAG has committed to achieving "*zero CO_2 emissions*" by 2050.

More information: Press release
En savoir plus : Air & Cosmos.com

3250 - Nestlé

The Swiss agrifood group announced plans to invest up to CHF 2 billion (€1.86bn) to replace virgin plastics with recycled plastics and to accelerate the development of innovative and sustainable packaging solutions. Nestlé has also committed to buying up to two million tons of recycled food-grade plastics and allocating over CHF 1.5 billion (€1.4bn) to pay the premium associated with buying these materials between now and 2025. In addition to the

significant in-house research carried out by the Nestlé Institute of Packaging Sciences, the company will launch a CHF 250 million (€233m) sustainable packaging venture-capital fund to invest in start-ups that work in this field.

More information: Press release
En savoir plus : Communiqué de presse, Zone Bourse.com, Enviscope.com, L'Usine Nouvelle.com, Les Echos.fr

New partnerships

3251 - AVA Biochem & Michelin

The Swiss company, which has developed a fully water-based process for the conversion of industrial sugars into the 100% bio-based molecule 5-HMF, and the French tyre manufacturer have signed a joint development agreement for the construction of the first industrial-scale production unit for this molecule. In the longer term, the two partners intend to introduce new applications using this versatile chemical onto the market.

Info: Thanks to its "*versatility, non-toxicity and natural origin*", this molecule could be used to make films, bottles and other packaging, as well as resins and adhesives.

More information: Press release
En savoir plus : Formule Verte.com

3252 - Braskem, Biowash and Greco & Guerreiro

Braskem, a petrochemicals company, Biowash, a pioneer in the development of 100% biodegradable natural homecare products, and the plastics manufacturer Greco & Guerreiro have signed an agreement concerning the launch of packaging made from bio-based plastic and "*post-consumer resin*" (PCR), meaning it is obtained from recycled plastics. In the scope of this partnership, all Biowash's one- and five-litre packaging will now be made from 60% renewable plastic developed by Braskem and 40% PCR. Greco & Guerreiro will be responsible for producing the new sustainable packaging and supplying it to Biowash.

More information: Press release
En savoir plus : Formule Verte.com

3253 - Carbios & Novozymes

The French green chemistry company announced the signature of an exclusive joint-development agreement with Novozymes, the world leader in enzyme production. This collaboration, concluded for a renewable five-year period, secures production of the Carbios proprietary enzyme for the degradation of polyethylene terephthalate (PET) in the demonstration and industrial deployment phases. For Carbios, this agreement is a crucial step intended to demonstrate the environmental benefits of its technology and ensure its future clients have a sustainable solution for the infinite recyclability of PET-based products, such as water and fizzy drinks bottles, plastic packaging and textiles.

Recap: In January 2019, Carbios and Carbiolice (a joint venture created by Carbios, Limagrain Céréales Ingrédients and Bpifrance) entered into an initial collaboration with Novozymes for the biodegradation of PLA.

More information: Press release
En savoir plus : Communiqué de presse, Les Echos.fr

3254 - Clariant, Anhui Guozhen Group & Chemtex Chemical Engineering

The Swiss chemist has entered into a third licencing agreement for its sunliquid® technology with the Chinese green energy company Anhui Guozhen Group and the engineering firm Chemtex Chemical Engineering. These companies, which intend to create a joint venture, plan to use this technology to produce cellulosic ethanol on a commercial scale. The future unit, which will be capable of producing 50,000 tons per year, with the possibility of

doubling this capacity in a second phase, will be located in Anhui province (China). The financial particulars have not been released.

Recap: sunliquid® technology makes it possible to transform straw and other agricultural by-products into biofuel via enzyme conversion of cellulose and hemicellulose into ethanol.

More information: Press release
En savoir plus : Zone Bourse.com, Formule Verte.com

3255 - Danimer Scientific & Columbia Packaging Group (CPG)

The producer of biodegradable materials and the manufacturer of custom plastic bags and flexible packaging have entered into a partnership to develop compostable bags, films and roll-stock for the flexible packaging market. These new products will be made of Danimer Scientific's Nodax™ PHA, a 100% bio-based material that biodegrades in anaerobic soils, in industrial and domestic composters. This collaboration should also enable CPG to extend its product range to include bags for fruit and vegetables.

More information: Press release
En savoir plus : Formule Verte.com

3256 - Deinove & Sharon Laboratories

The biotechnology company announced the signature of a Memorandum of Understanding (MoU) with the Israeli group Sharon Laboratories, a specialist in preservatives for cosmetics. The aim is to undertake a partnership to develop and commercialise a range of innovative new bio-based solutions, including bioactives, from the Deinove platform. With an initial duration of three years, this pivotal agreement grants Sharon Laboratories exclusivity over a certain type of ingredient, while leaving Deinove free to develop other partnerships elsewhere. This MoU also provides for significant milestone payments, reaching a total of several million, as well as royalties on sales once commercialised. Sharon Laboratories cemented its commitment before the agreement was even formalised by making an immediate payment of $200k – a fraction of the substantial upfront payment to be received upon signature of the final agreement at the end of March 2020.

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

3257 - Evonik & Unilever

In the wake of the successful launch of a handwash containing rhamnolipids (biosurfactants made from 100% biodegradable fermented natural sugars), the speciality chemicals company Evonik and the Unilever group announced they had signed a new agreement regarding the construction of an industrial-scale production unit for these biosurfactants.

More information: Press release
En savoir plus : Formule Verte.com

3258 - Gevo & Delta Air Lines

The biofuel producer and the airline concluded an offtake agreement under which Delta Air Lines agrees to buy over 45 million litres of advanced aviation biofuel each year. This renewable aviation fuel, which will be produced at the Gevo plant in Luverne (United States), should be delivered to the American airline between 2022 and 2023.

More information: Press release
En savoir plus : Formule Verte.com

3259 - Shell Aviation, World Energy, Lufthansa & Swiss International Air Lines

The petroleum company and the refiner, which concluded an agreement for the commercial development of a sustainable aviation fuel (SAF) produced from used cooking oil and agricultural waste, announced the sale of one million gallons of the fuel to the German airline Lufthansa. This agreement should reduce the carbon footprint of flights operated by Deutsche Lufthansa and Swiss International Air Lines between San Francisco airport and Frankfurt, Munich and Zurich.

More information: Biofuels News.com
En savoir plus : Journal de l'Environnement.net

3260 - Total, Nestlé, Mars & Recycling Technologies

In the scope of the call for projects for the promotion of the eco-design, recycling and recovery of packaging and paper in France launched by Citeo, the eco-organisation responsible for packaging, the Total, Nestlé and Mars groups as well as the plastic recycling technology provider Recycling Technologies are joining forces to develop an innovative industrial chemical recycling industry in France. This consortium will examine the technical and economic feasibility of recycling complex plastic waste, such as small, flexible or multi-layered food-grade packaging. These products are currently considered non-recyclable and are therefore either incinerated or disposed of in landfill. Recycling Technologies will be the technology provider for this project.

Recap: Nestlé and Mars are aiming for 100% reusable or recyclable packaging by 2025. Total plans to produce 30% recycled polymers by 2030.

More information: Press release
En savoir plus : Communiqué de presse, Capital.fr, L'Usine Nouvelle.com, Environnement Magazine.fr, Le Figaro.fr

3261 - Unipex & Exsymol

The French distributor of speciality products and the Monaco-based company specialising in the design, bio-objectification and manufacture of active ingredients for cosmetics signed an agreement for the distribution of Exsymol's active ingredients across France from 1 January 2020.
Exsymol offers a wide range of active ingredients for cosmetics that can be divided into three families:

- silanols made from organic silicium;
- optimised peptides;
- natural active ingredients.

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

Activity reports

3262 - Corbion

The turnover of the Dutch company, which specialises in lactic acid, was €976.4m in 2019, an increase of 8.8% on the previous financial year. The adjusted EBITDA was €149.5m (+10.9% compared to the previous year). While the Ingredient Solutions and Innovation Platforms divisions experienced an increase in sales (+7.2% and +36.7% compared to the previous year, respectively), biochemical products experienced a drop in sales of 0.5% and in volume of 3.5%.
Upon publication of the preliminary results, the company said it had invested $190m in a lactic acid production unit with a capacity of 125,000 tons/year in Rayong (Thailand). This facility, which is expected to enter into service in 2023, will supply the polylactic acid (PLA) production plant that Corbion operates as part of a joint venture with Total. The Dutch company also announced that it wanted to increase its focus on the algae ingredients sector, in particular omega-3 fatty acids and proteins.

More information: Press release
En savoir plus : Formule Verte.com

3263 - Fermentalg

Over the course of the 2019 financial year, Fermentalg achieved a turnover of €1.9m (€0.1m for 2018) which coincides with the first year of commercialisation of DHA Origins, an algal oil. At 31 December 2019, the gross cash position stood at €8.0m (€12.5m at the end of 2018).

Upon publication of the financial results, Fermentalg looked back on the key events of the past year:

- presentation of KALVEA®, the non-GM algal protein, and acquisition of "Self-GRAS" (Generally Recognized As Safe) status in the United States;
- carbon sink: four pilot sites with INERIS-validated effectiveness for air pollution.

En savoir plus : Formule Verte.com

3264 - METabolic EXplorer (METEX)

METEX recorded a consolidated turnover of €312.5k in the fourth quarter of 2019. By the end of December 2019, the Group had achieved an annual turnover of €350k. Given the strategic development plan of METabolic Explorer, which relies on the industrialisation and commercialisation of 1,3 propanediol (PDO) and butyric acid (BA) as a priority, as well as the expansion of its product portfolio via its new technology platform ALTANØØV, the Group specified that its turnover was not, at this stage, a relevant way of assessing its business activity. On 31 December 2019, the group had a gross cash position of €26.6m (€26.9m on 30 September 2019). On the same day, debt amounted to €7.7m (€7.4m on 30 September 2019) while the cash position net of consolidated debt amounted to €18.9m (€19.5m on 30 September 2019).

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

Human resources

3265 - Amyris

The American producer of sustainable ingredients announced the appointment of Han Kieftenbeld to the position of chief financial officer effective 16 March 2020. Han Kieftenbeld has worked in the field of international affairs for over 25 years and has extensive experience in finance and operations with consumer-focused and manufacturing businesses in food, health and nutrition end-markets. He will replace Jonathan Wolter, who has been the interim chief financial officer since June 2019.

More information: Press release
En savoir plus : Formule Verte.com

3266 - European Bioplastics

The association's new board is composed of chairman François de Bie (Total Corbion PLA) and vice-chairpersons Mariagiovanna Vetere (NatureWorks) and Lars Börger (Neste). The association also welcomes Michael von Ketteler (BASF SE), Patrick Zimmermann (FKuR), Paolo La Scola (Novamont), Jean-Marc Nony (Spère) and Erwin Lepoudre (Kaneka) as new members of the board. Erwin Lepoudre was also elected to the position of treasurer.

More information: Press release
En savoir plus : Formule Verte.com

3267 - Genopole

Jean-Marc Grognet announced his departure from the executive board on 31 January 2020, at the end of his term. He joins the fundamental research division of the CEA (French alternative energies and atomic energy

commission). While awaiting the appointment of a future chief executive, deputy director Anne Jouvenceau will fill the position.

En savoir plus : Formule Verte.com, La Gazette du Laboratoire.fr

3268 - Sofinnova Partners

The venture-capital firm specialising in life sciences announced the promotion of Michael Krel to Partner of the industrial biotechnologies team. Michael Krel previously served as Principal on the team, where he focused on early-stage operations in Europe and North America.

Recap: Michael Krel joined Sofinnova Partners as a Senior Associate in 2013 to develop investment activities in industrial biotechnologies. Mr Krel is an observer on the board of Comet Bio and sits on the board of EnobraQ and Afyren.

More information: Press release

MARKETS

In France

3269 - Consumption of Superethanol-E85 and SP95-E10: 2019 annual report and prospects for 2020.

According to figures published by the Collective du Bioéthanol, 34 million litres of Superethanol-E85 were consumed in 2019, an 85% increase in 12 months. This fuel, which contains up to 85% bioethanol from the fermentation of beetroot and cereals, is now distributed to 1,740 service stations (an additional 634 since the start of 2019). The Collective du Bioéthanol estimates that it will reach the milestone of 2,000 salespoints by the end of 2020.

For its part, SP 95-E10, the most popular petrol in France since 2017, saw its market share achieve 46.7% in 2019 (+4.7 points compared to 2018) with over five billion litres consumed. In late 2019 it was distributed to 6,446 service stations (69% of the biggest stations) and 99% of the rolling stock of petrol vehicles are now compatible whereas only 65% were in 2009.

Communiqué de presse : Communiqué de presse, Rtl.fr, Le Parisien.fr, 20 Minutes.fr

3270 - Publication of the white paper '*Contribution au développement de la filière du Biométhane en France*'*.

The think-tank France Biométhane has suggested four areas to work on to release the potential of the biomethane industry in France:

- set ambitious, achievable goals based on the production potential of renewable gases;
- establish a reliable and steady support mechanism so the industry can move towards industrialisation and become competitive;
- in concrete terms, develop positive externalities;
- coordinate to adapt the regulatory and fiscal framework of biomethane production.

The measures implemented in the framework of this white paper should ensure the sustainable growth of the French industry, as well as consolidate its national expertise and drive gains in competitivity.

**Contributing to the development of the biomethane industry in France*.

En savoir plus : Communiqué de presse, France Biomethane.fr

In Europe

3271 - Publication of the fourth European biomethane benchmark.

According to this report published by the French think-tank France Biométhane, at the end of 2018 there were 621 production units in the ten countries studied (France, Germany, Italy, United Kingdom, Switzerland, Sweden, Austria, Denmark, the Netherlands and Finland). These facilities have a combined biogas purification capacity of 567,000Nm³/h, i.e. 22 TWh of biomethane per year. Over 80% of these units are now connected to national gas networks and are mainly fuelled by energy crops and organic or agricultural waste. After having doubled its number of units over the last four years, the industry's growth appears to be stabilising in Europe. Growth remains strong and could be maintained, or even increased, if some countries that are fairly new to biomethane, such as Italy, take advantage of this new favourable regulatory context. Guaranteed purchase prices for biomethane have underpinned growth in recent years. Today, several sufficiently mature countries, such as France, are setting up calls for tenders to encourage producers to reduce their costs and become increasingly independent of support mechanisms. Other countries want to stimulate bioGNV demand by imposing biofuel quotas together with issuing guarantees of origin.

En savoir plus : France Biomethane.fr, L'enerGEEK.com, Le Gaz.fr

5. ETHICS & MONITORING SOCIAL CHANGE

6. PUBLIC POLICIES & REGULATIONS

In France

3272 - Announcement of the road map and a call for expressions of interest (CEI) for sustainable aviation fuels in French air travel.

The main aim of this road map is to set out a short-term trajectory for the replacement of fossil kerosene with sustainable biofuels by 2% in 2025 and by 5% in 2030. To put this national road map into practice, the French ministries for ecological and inclusive transition, the economy and agriculture are launching a CEI on the production of sustainable aviation biofuels. The purpose of this CEI is to identify investment projects in second-generation biofuel production units, currently planned by economic stakeholders in France, and in particular investment projects in aviation biofuel production units.

En savoir plus : Communiqué de presse, Dossier de presse, Ecologique solidaire.gouv.fr, France TV Info.fr, Zone Bourse.com, Air Journal.fr, La Croix.com, Les Echos.fr, La Dépêche.fr, France Bleu.fr

Following these announcements, Airbus, Air France, Safran, Suez and Total welcomed the progress towards the emergence of a sustainable aviation biofuel industry in France and applauded the launch of the CEI.

En savoir plus : Communiqué de presse

3273 - The French government commits to a road map to develop biocontrol.

At the sixth annual biocontrol meeting, the French minister for agriculture Didier Guillaume announced the imminent publication of a road map that will compile the support measures for the sector over the next five years. This

document, which is currently being discussed by the ministries for agriculture, research and the economy, is expected to focus on:

- funding for research and innovation;
- reinforcement of deployment networks such as the DEPHY farm network (demonstration, experimentation and production of references for systems that use fewer phytosanitary products), part of the Ecophyto plan to reduce the number of inputs;
- training for young farmers.

More information: Euractiv.com
En savoir plus : Euractiv.fr, L'Usine Nouvelle.com

3274 - Publication of a report on biofuels by the fact-finding body of France's national assembly.

According to the authors of this report, written after a year of meetings, the French government should focus on:

- creating *"local distribution networks for fuel"*;
- taking better account of the impact of the change of soil use to study the environmental benefits of the various biofuels;
- implementing a tax system that favours the amount of CO_2 saved when compared to classic fuels;
- developing second- and third-generation biofuels, which emit fewer greenhouse gases, to achieve French reduction commitments;
- leaning on the automotive sector to develop biofuels (encouraging the development of flexfuel vehicles or equipping public services with this kind of vehicle, for example).

The report's authors criticize tax advantages that could encourage the production of biofuels using palm oil.

Info: This report was adopted unanimously by the commission for sustainable development on 22 January 2020.

En savoir plus : Terre Net.fr, Actu Environnement.com, Ouest France.fr

3275 - Publication of a report as a preamble to France's productivity pact: what does it have to say about the biofuel sector, the bioeconomy and plant chemistry?

The development of a biofuel sector is one of the 22 key markets set out in a report titled *'Faire de la France une économie de rupture technologique'* [Base France's economy on breakthrough technologies] published following the work of a group of experts appointed in the context of the productivity pact to identify emerging markets on which to concentrate public funds allocated to innovation. As such, according to the group formed around the board of innovation, sustainable fuels are indeed one of the "*emerging markets that need public support and that can prove they have a strategy for their future acceleration*". The authors put forward the arguments that "*encouraging energy sources produced in the scope of carbon's natural cycle, i.e. biofuels and biogas, is a key issue in the transition towards an economy that is less reliant on carbon, in particular for transport. Turning plant and agricultural waste and algae into biofuels or biomethane is an opportunity to create value and jobs in France*." The authors also consider that "*the development of this market presents challenges on an industrial, environmental and economic level, and also puts pressure on food production*".

En savoir plus : Communiqué de presse, Air Cosmos.com

Further to the publication of this report, the IAR competitiveness cluster noted that "*among the ten emerging markets earmarked as a priority, five are linked to the bioeconomy (sustainable food for health, agriculture, precision breeding and agroecology, plant biocontrol, hydrogen for energy systems and new sustainable generations of composite materials)*". For the cluster, this is "*an important recognition of the bioeconomy, which should further cement France's position as one of the world leaders in the sector*". For its part, the ACDV, a plant-based chemistry association, considered the publication of this report "*a partial success*" for the plant chemistry industry as it is "*only one of the 12 runner-up markets*".

En savoir plus : Formule Verte.com

3276 - New appeal concerning palm oil and biofuels.

On 1 January 2020, the association Canopée, supported by the federation Amis de la Terre France, announced that it had brought an appeal before the French Council of State in order to have a customs notice cancelled. The notice, dated 19 December 2019, states that a tax exemption will be upheld for biofuels produced using the by-product of palm oil refining: fatty acids known as Palm Fatty Acid Distillate (PFAD). According to Canopée, "*it is obvious that PFADs are products made from palm oil and are therefore directly concerned by the new exclusion system provided for by the law*".

En savoir plus : Communiqué de presse, 20 Minutes.fr, Le Monde.fr, Reporterre.net, France Inter.fr, Le Figaro.fr

In Europe

3277 - New investment advisor for the new European fund to support the circular bioeconomy.

The European Commission and the European Investment Bank (EIB) have announced the completion of the public procurement process for the selection of an investment advisor to set up and manage the European Circular Bioeconomy Fund (ECBF). The selected investment advisor is ECBF Management GmbH and Hauck & Aufhäuser Fund Services S.A. will act as the alternative investment fund manager. ECBF Management will raise funds from public and private investors with a target fund volume of €250 million and aims for a first close in the first quarter of 2020. A proposal for the EIB to invest up to €100 million in the fund will be submitted to the EIB's Board of Directors for approval. This investment will be backed by a guarantee from InnovFin – EU finance for Innovators, an initiative of the EIB Group and the European Commission to facilitate access to finance for innovation and research through a wide range of financing tools and advisory services.

More information: Press release
En savoir plus : Communiqué de presse, AgraAlimentation.fr

3278 - The bioeconomy will play a central role in the European Green Deal.

The European Commission and the European Union Member States want to use the bioeconomy to achieve the political objectives at the centre of the agricultural chapter of the new European Green Deal. For Janusz Wojciechowski, European commissioner for agriculture: "*The bioeconomy requires the agricultural sector to play a critical role in the success of the European Green Deal. If we want to decarbonise our economies, we will need to produce more biomass in order to produce energy and bio-based materials and chemicals*." The new European bioeconomy strategy therefore encourages a more circular economy on the whole, rather than the simple reuse of energy.

More information: Euractiv.com, Euractiv.com
En savoir plus : Euractiv.fr, Euractiv.fr

3279 - Indonesian biodiesel will be taxed by the European Union after all.

The European Commission confirmed that it would apply import duties to biofuels from Indonesia, as it considers that these fuels receive State funding. The taxes will be between 8 and 18% and will apply for five years.

En savoir plus : Challenges.fr, La France Agricole.fr

3280 - GERMANY: the government votes on a new action plan for the bioeconomy.

Steered by the ministers of research and agriculture and allocated a budget of €3.6bn over five years, this action plan focuses on providing funding for over one thousand projects to replace fossil fuels with sustainable resources. Between 2020 and 2024, the agriculture sector will receive €2.5bn and the research sector €1.2bn.

En savoir plus : GoodPlanet.info, La France Agricole.fr

3281 - ITALY: a new tax on single-use plastic from 1 June 2020.

Baptised the 'plastic tax' by the Italian press, this tax will amount to €1 per kilo of plastic or polystyrene produced for packaging or to make single-use items. This measure, which "*will help Italy apply the principles of the circular economy*", is already the subject of concerns and criticism on behalf of the opposition, the industry, consumer associations and ecologists. The tax is expected to bring in €1bn in 2020 and €1.7bn in 2021.

En savoir plus : La Tribune.fr, La Croix.com, Journal de l'Environnement.net

Outside Europe

3282 - CHINA: a step towards banning single-use plastics by 2025.

The minister for the environment and the national development and reform commission presented a five-year plan, the aim of which is to reduce plastic use by 30%. To reach this goal, the country plans to ban disposable bags, straws, polystyrene and single-use tableware from this year in big cities. Beijing, Shanghai and the province of Jiangsu, in the east of the country, will ban the use of non-biodegradable packaging in 2022. Smaller towns and villages will have until 2022 or 2025 to start to phase them out. China, which has committed to banning the production and sale of plastic bags less than 0.025mm thick, also plans to support research in the field of alternative and/or biodegradable materials.

En savoir plus : Les Echos.fr, Le Figaro.fr, Sciences et Avenir.fr

7. AWARDS & EVENTS

AWARDS

EVENTS

MAY 2020

5th Green and Sustainable Chemistry Conference

10-13 May 2020. Bonn (Germany).

More information: Conference website

13th Bio-Based Materials Conference

12-13 May 2020. Cologne (Germany).

More information: Conference website

JUNE 2020

16th Conference on Renewable Resources & Biorefineries (RRB)

3-5 June 2020. Ghent (Belgium).

More information: Conference website

Biotechnology Entrepreneurship Boot Camp & BIO One-on-One Partnering

8-11 June 2020. San Diego (USA).

More information: Conference website

European Congress on Biotechnology

28 June-1 July 2020. Maastricht (the Netherlands).

More information: Conference website

BIOKET 2020

30 June-2 July 2020. Lille (France).

More information: Conference website

JULY 2020

11th World Congress on Green Chemistry and Technology

9-10 July 2020. Geneva (Switzerland).

More information: Congress website

AUGUST 2020

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

16-18 August 2020. Prague (Czech Republic).

More information: Conference website

16th European Organic Chemistry Congress

26-27 August 2020. London (United Kingdom).

More information: Congress website

SEPTEMBER 2020

WCIB

20-23 September 2020. Raleigh (USA).

More information: Conference website

OCTOBER 2020

EFIB (European Forum of Industrial Biotechnology and the Bioeconomy)

5-6 October 2020. Frankfurt (Germany).

More information: Conference website

NOVEMBER 2020

23rd Edition of International Conference on Green Chemistry and Technology

22-23 November 2020. Barcelona (Spain).

More information: Conference website