

The global conference dedicated to PROCESSES AND TECHNOLOGIES APPLIED TO BIOMASS



Showguide 2021

March 1st-19th, 2021

Online

Organized by



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INNOVATE IN INDUSTRIAL BIOTECHNOLOGY

STIMULATE INNOVATION

At Genopole, we seek to sound new knowledge, for the development of innovations that will contribute to human well-being, as concerns health and the environment.

The main fields of activity developed on-site are:

- o bioeconomy,
- computational genomics,
- on innovative therapies.

LINKING SCIENCE... ...TO BIOECONOMY

A pioneer in synthetic biology, Genopole is increasingly attracting researchers and industrials active in that field and the progress being made is enabling a large range of industrial applications.

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Genopole benefits from the support of











Genopole, France's leading biocluster in the Paris Region, accommodates, accompanies and connects companies and laboratories in all fields of biotechnologies.



A NETWORK OF SCIENTISTS AND INDUSTRIALS

Abolis - Altar - Cearitis - Core Biogenesis - Evaldepol - FabMid -Fermentation Bioproduction Platform - Glowee - Gourmey -Greenwell - Metabolic Genomics Laboratory (including the systems and synthetic biology unit) - NextProtein - Proteinea - Pymabs -Structurys - Synhelix - Synovance - Watchfrog - Ynsect

Index

| Edito IAR | page 7 |
|---|---------|
| About IAR – The French Bioeconomy Cluster | page 9 |
| BIOKET 2021 Advisory Board | page 10 |
| Programme at a glance | page 13 |
| Your detailled programme | |
| March 1st-19th: Video-on-demand | page 15 |
| March 15th-19th: Matchmaking | page 21 |
| March 16th-18th: Live sessions | page 21 |
| The BIOKET Bioeconomy Quiz | page 25 |
| Chairpersons & speakers | |
| Plenaries | page 26 |
| Breakout sessions | page 29 |
| Exhibitors & sponsors' profile | page 40 |
| Innovation Tours | |
| Lanolines Stella | page 45 |
| Dunkirk's area | page 46 |
| SAS Pivert | page 47 |
| Workshops | |
| • LIPES | page 48 |
| • IBISBA | page 49 |
| · VALUEMAG | page 50 |
| Carnot 3BCAR | page 51 |
| Start-up village | page 53 |

BIOKET's Showguide 2021 - 2 3 - BIOKET's Showguide 2021

THE BIOECONOMY,

A CRUCIAL STAKE FOR THE HAUTS-DE-FRANCE



A REGIONAL STRATEGY BASED ON FOUR AMBITIONS

- Make the Hauts-de-France the European leader in the protein sector.
- **Develop** biosourced materials for the transport and construction sectors.
- Increase the share of biogas in the energy mix with a target of 25% renewable energies produced in the Region by 2025.
- Support biotechnologies to enable the development of the molecules of the future.









Digital

LIVE THE BIOKET DIGITAL EXPERIENCE







www.hautsdefrance.fr 🕤 🗾 in 🚨 📴

In the heart of tomorrow's industry 4.0, the University of Lille is developing international, innovative, cutting-edge research in bioeconomy.

OBJECTIVES

- Understand and monitor global changes
- Seek alternative solutions to the exploitation of fossil resources
- Evaluate the impact of climate change on Earth, people and societies

STRENGTHS

- A privileged position inside European networks, taking the lead on scientifc and technological processes at the heart of biorefineries, and expertise within French
- Examples: coordination of the EuroBioref FP7 project, coordination of the REALCAT EQUIPEX platform and participation in the ROCK EQUIPEX platform, important roles in the ITEs IFMAS and PIVERT.
- Socio-economic collaboration and strong links with industrial partners to develop the ground-breaking key technologies necessary to create the Industry 4.0 in the biomass valorisation sector.
- Regional initiatives (e.g. Rev3 and Eura Industry Innov') and links with the regional technopole parks to support business development and technological transfer from research results.

DYNAMIC INDUSTRIAL PARTNERSHIPS

- 33 patents since 2013
- (©) 5 start-ups in incubation
- 2 companies founded from start-ups
- (A) 3 public-private laboratories
- More than 50 different industrial partnerships

HOW WE WORK

- As experts in the Lille area, we are developing an innovative approach to research integrating a large number of disciplines. Chemistry and Biotechnology are deeply involved via participation in INTERREG projects and the development of cutting-edge innovation in fundamental research such as the "Hybrid Catalysis" concept. Other projects have a regional flavour (e.g CPER ARCHI-CM Alibiotech). We have had numerous successes in industrial and fundamental research, including the construction of the first cross-border research unit, in association with the INRAE, the TERRA institute of the University of Liege (Belgium) and the UPJV (Amiens), three major French and Belgian actors in European research in bioeconomy. Moreover, interrelationships between biorefineries and their supply chains, when seen as an ecosystem, raise interdisciplinary questions of logistics and economics. The University of Lille also integrates into the reflection process input from historians, philosophers, political scientists and legal scholars to question the acceptability of new behaviours in the global ecological transition, adopting an interdisciplinary approach.
- The Biorefinery BIOREF Master's, an Erasmus Mundus programme, is educating a new generation of interdisciplinary scientists able to apply their knowledge in a renewed bioeconomy-based society and in the private sector. The programme has been designed to offer unique specialisations and skills that will make graduates attractive to the employment sector and ensure fast and high-quality employability in the labour market and/or in research.

master-bioref.eu















Edito

THE CURTAIN RISES TOWARD THE SECOND EDITION OF BIOKET

IAR - The French Bioeconomy Cluster - is delighted to welcome you digitally for the second edition of **BIOKET**, THE Global Conference dedicated to processes and technologies applied to biomass.

After the success of its first edition in 2018 which gathered 300 delegates from all over the world, BIOKET is back with high ambition to boost once again the emergence of innovative projects and business partnerships.

In 2021, you are more than 400 delegates for this edition of #BIOKETDigital, confirming how essential KETs are. KETs play a central role when it comes to biomass transformation optimisation. They underpin the shift to a greener economy, are instrumental in modernising our industry and drive the development of entirely new industries.

We trust that #BIOKETDigital will provide an abundance of opportunities to promote your business and technologies, to expand your network and build new international partnership with the key players and experts of the sector.

#BIOKETDigital is offering you lots of opportunities to meet your tomorrows partners such as the prescheduled B2B meetings and the exhibition arena.

Our thanks to all delegates, speakers, sponsors and partners who make BIOKET the unique conference dedicated to technologies and processes applied to biomass!

> Boris DUMANGE - Director General IAR - The French Bioeconomy Cluster





IAR is **the leading Bioeconomy Cluster** in Europe.

With more than **430 members**, from farmer cooperatives, research organisations and universities to venture capital firms, start-ups, SMEs and large industries, it is your gateway to **the French bioeconomy!**

KEY FIGURES

E2+
BILLIONS
INVESTMENTS

350+ 430+
PROJECTS MEMBERS

5
STRATEGIC AXIS

Bio-based resources
Feed & food
Bio-based chemistry & biotech
Bio-based products and materials
Energy
Process & KETs

in www.iar-pole.com

About IAR: The French Bioeconomy Cluster

IAR, your Gateway to the French Bioeconomy

IAR is the leading bioeconomy cluster in Europe. It brings together over 400 stakeholders from farmer cooperatives, research organisations and universities to venture capital firms, start-ups, SMEs and large industries.

IAR focuses on all bioeconomy aspects: from feedstock production to its valorisation into food & feed, industrial (bio-based chemicals and bio-based materials) and energy (biofuels and biogas) applications.

IAR provides a full range of services to bio-based innovators:

- Through our extensive network, we provide you with qualified contacts to grow your projects and business
- · We support your development of innovative, collaborative, industry-driven R&I projects from conception to financing
- · Gain access to our economic, technological and business knowledge of the French bio-based market

We strive for excellence!

IAR, since 2005: over €2 billions invested in 300 R&D collaborative projects!



g - BIOKET's Showguide 2021 - 8

BIOKET 2021 Advisory Board



Florent ALLAIS
Director

URD ABI - AgroParisTech



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Axelera



Dirk CARREZ
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Biobased Industries
Consortium (BIC)



Ludo DIELS Senior Advisor **VITO**



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Director of the Unit of Catalysis
and Chemistry of Solid

UCCS – UMR CNRS



Claus Crone FUGLSANG
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Technology
Novozyme



Michael KREL
Principal
Sofinnova Partners



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IAR - The French Bioeconomy
Cluster



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Director

Toulouse White Biotechnology

(TWB)



François NICOL
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Société Française de Génie
des Procédés (SFGP)



Kevin O'CONNOR

Director

Beacon SFI Bioeconomy

Research Center



Christian OEHR
Head of dpt of Interfacial
Engineering
Fraunhofer IGB



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Luuk VAN DER WIELEN
Director

Bernal Institute



Niklas VON WEYMARN CEO Mestä Spring

PROGRAMMING COMMITTEE

Christophe CLEMENT
RIBP Research Unit Director - University of Reims

Johan DE CONINCK

Networks & Enterprises Development Director - IAR - The French Bioeconomy Cluster

Christophe LUGUEL

European Projects Director - IAR - The French Bioeconomy Cluster

Louis TIERS

Consultant - IAR - The French Bioeconomy Cluster

Jacky VANDEPUTTE

Scientific Director & Innovation Manager - IAR - The French Bioeconomy Cluster

Sponsorship & Exhibitors

PLATINIUM



BIOECONOMY CLUSTER







GOLD























SILVER











BRONZE



























































PROGRAMME AT A GLANCE

MARCH 1ST - MARCH 19TH - VIDEO-ON-DEMAND

Breakout sessions

- Application of KETs
- KETs for algae biorefinery
- · KETs for biomass pretreatment
- KETs for DSP
- KETs for ecoextraction (sponsored by Tournaire)
- KETs for lignin valorization
- · KETs for process control, optimization and modelling
- KETs for wood biorefinery
- KETs to enzymatic catalysis and processes associated with biotechnology

Innovation Tours

- · Dunkirk area facilities
- SAS PIVERT
- · Lanolines Stella

Workshops

- · LIPES project Life Integrated Process for the Enzymatic Splitting of Triglycerides
- VALUEMAG Blue bioeconomy Valuable Products from Algae Using Innovation
- · IBISBA within the global context of biofoundries and accelerated end-to-end bioprocess development
- · 3BCAR Phenolic acids: from research to market

Start-up Village's Pitch

From March 8th - 19th

- Alganelle
- BIOC3
- BioThoT
- BLOOM Biorenewables
- Chemintelligence
- D'INNOV
- · EV Biotech
- Guatecs
- iMean
- Lixea
- Teamcat Solutions
- Water Knight
- · Xtrem Biotech
- Zymoptiq
- Zymvol Biomodeling

BIOKET's Showguide 2021 - 12 13 - BIOKET's Showquide 2021

PROGRAMME AT A GLANCE

MARCH 15TH - MARCH 19TH - MATCHMAKING

| Pre-scheduled B2B | Pre-schedule 1 to 1 meetings with the BIOKET participants and find your would-be |
|-------------------|--|
| meetings | partners. |

MARCH 16TH - MARCH 18TH - LIVE SESSIONS

| Exhibition ARENA | Visit the virtual booth of our exhibitors |
|-------------------------------|---|
| Plenaries | March 16th (10h-12h30 CET): Moving from H2020 to Horizon Europe - what are the opportunities for the bioeconomy? Sponsored by the University of Lille |
| | March 17th (14h-16h30 CET): Synthetic biology - a multi-stage rocket for the bioeconomy Sponsored by Genopole |
| | March 18th (gh3o-11h CET): Bring your innovations to market Sponsored by ARD |
| The BIOKET Bioeconomy Quiz | March 18th (16h30-18h CET) Join the BIOKET participants for a playful moment to test your knowledge about the bioeconomy field and on BIOKET! Sponsored by PNO Consultants |

YOUR DETAILLED PROGRAMME

MARCH 1st - 19th - VIDEO-ON-DEMAND

Breakout session: Chairperson: Fabien DESWARTE - L'Oréal

Application of

KETs

units

Product diversification in the starch and ethanol industry, synergies between production

Alessandro GUZZONE - Vogelbusch Biocommodities

Microbubble Technologies Invented by Desai and Zimmerman

Pratik DESAI - Perlemax

Stabilisation of emulsions by vegetal coproducts

Jérôme LENOTRE - Pivert

Synthesis of a new set of lipoamino acids from brewery spent's grains

Benoit MOREAU - HEPH-Condorcet

Breakout session: **KETs for algae**

Chairperson: Maria BARBOSA – Wageningen University & Research (Algae Park)

biorefinery Comprehensive photobioreactor modeling: from isolated microalgae motion to

population growth rate

Victor POZZOBON - CentraleSupelec

Innovative photobioreactor integrating luminous fabric for high microalgae productivity

at industrial scale

Lucie VAN HAVER - Capacité

Fermentation and valorization beyond borders

Marc BUEVINK - Biostream

From CO2 sequestration to biofuel production thanks to microalgae liquefaction

Anne ROUBAUD - CEA LITEN

The ALG-AD project: integrating anaerobic digestion and algal technologies

Marcella FERNANDES DE SOUZA - Ghent University

YOUR DETAILLED PROGRAMME

MARCH 1st - 19th - VIDEO-ON-DEMAND

Breakout session: Chairperson: Thomas HABAS - ENGIE

KETs for biomass

pretreatment Catalytic pyrolysis of biomass towards aromatics and subsequent conversion towards

bioplastics

Andre HEERES - Hanze University of applied Sciences, Groningen

Contribution of dry processes in the raw material preparation for the biotechnological

processes improvement

Jean-Charles MOTTE - IMPROVE

Pulsed Electric Field: a key technology for biomass refineries

Fabien MAJCHRZAK - MAGUIN

Intensified continuous biomass treatment by twin screw extrusion

Lionel DANOS- CLEXTRAL

FuturolTM: your one-way ticket to the 2G world.

Julie MAILLOT - Axens

Breakout session: Chairperson: Ludo DIELS-VITO

KETs for DSP

Flottweg - Extractis: A win-win partnership to offer biotech players, highly qualified

separation solutions

Jean-Sébastien BIZOT - Flottweg

Olivier DUPUIS - Extractis

Thin film technology - evaporation and drying

Jacqueline PANAROTTO - BUSS SMS Canzler

Dry tribo-electrostatic protein enrichment of distillers grains

Thomas WOLAK - SteqTech

Modeling and simulation of ion-exchange in bioprocesses - illustrations from industrial

biotech to biopharma

Yoann LE GUENNEC- Ypso-Facto

YOUR DETAILLED PROGRAMME

MARCH 1st - 19th - VIDEO-ON-DEMAND

Breakout Chairperson: Nicolas TETARD - Tournaire

session: KETs for

ecoextraction Green extraction as economic, social and environmental concept for converting

(sponsored plantbased raw material to sustainable ingredients

Farid CHEMAT - Green Extraction by Tournaire)

The challenge of scaling-up microwave assisted technologies

Marilena RADOIU - Microwave Technologies Consulting

World's first off-grid mobile supercritical fluid extraction hardware: opening new doors

Alexander NOVITSKIY - Nova Extraction

From tropical by-products to natural enzymes: a green-extraction opportunity

Rémi PRZYBYLSKI - BIOVAL Océan Indien

Vegetable extraction using liquefied gas as solvent

Alain VALLAGEAS - Celsius

Breakout session:

KETs for lignin

Chairperson: Sergio MASTROIANNI - Solvay

valorization The value of stabilized lignin

Florent HEROGUEL - Bloom Biorenewables

Role of lignin valorization in modern biorefineries

Sami-Pekka RANTANEN - MetGen

Joining forces to enable commercial production of functionalized biobased aromatics:

lignovalue pilot & shared research centre Biorizon

Karolien VANBROEKHOVEN - VITO

Catalytic conversion of lignin to bio-aromatic compounds - process design and

assessment for industrial implementation

Kerstin THIELE - Fraunhofer CBP

The scale-up route for fuels and chemicals from second generation biomass

Rob VERLINDEN - BPF

YOUR DETAILLED PROGRAMME

MARCH 1st - 19th - VIDEO-ON-DEMAND

session: KETs for

Chairperson: Luuk VAN DER WIELEN - Bernal Institute

Breakout

Heat transfer scale-up of batch reactors: still a challenge? process control,

modelling

optimization and Philippe LEURENT - Prosim

Gas fermentation laboratory design

Alex SMITH - CPI

Track Advance, a modern digital platform enhancing the global performance of factories

Ludovic HENIN - Boccard

The role of shared pilot facilities in the deployment of gasfermentation: CCU at BBEPP

Karel DE WINTER - BBEU

Breakout session: Chairperson: Ian ARCHER - IBIOIC

KETs for wood biorefinery

How to implement a first forest residues based biorefinery: the BELT project methodology

Patrice MANGIN - BioÉnergie La Tuque/I2E3-UQTR

Bio3: A bio-refinery to valorize hardwood sugar without degrading cellulose, to produce

bio-based ingredient for food and chemical industries

Marie CHAUVE - Eurodia / Jérémy BOUCHER - Fibre Excellence

Chemically modified microfibrillated cellulose: A new reinforcing additive for adhesive

and thermoplastic resins

Alex BERG - University of Concepcion

Bio4Products: Unlocking the potential of biomass for a new range of bio-based products

Hans HEERES - BTG

YOUR DETAILLED PROGRAMME

MARCH 1st - 19th - VIDEO-ON-DEMAND Breakout Chairperson: Rob ONDERWATER - Materia Nova session: KETs to enzymatic PARAGEN 1.0: a bacteriocin gene library to control microbial communities catalysis and Philippe GABANT - Syngulon processes associated with Cellobioselipids and mannosylerythritollipids: process optimization for the production biotechnology and purification of microbial biosurfactants Fredyc Wsbaldo BARON NUNEZ- Fraunhofer IGB Artificial Intelligence: next phase in protein engineering Juan JIMENEZ - Protera Biosciences Creating value for industrial biotechnology with protein design Alexandre ZANGHELLINI - Arzeda Implementation of an enzyme membrane reactor to intensify the enzymatic -glycosylation of resveratrol Morad CHADNI - CEBB - URD ABI AgroParisTech Innovation Tours Lanoline Stella SAS Pivert Port of Dunkirk Area · LIPES PROJECT FINAL - Life Integrated Process for the Enzymatic Splitting of Workshops Triglycerides • EU Project Workshop IBISBA - IBISBA within the global context of biofoundries and

- accelerated end-to-end bioprocess development
- EU Project Workshop VALUEMAG Blue bioeconomy valuable products from algae using innovation
- Project Workshop Carnot 3BCAR Phenolic acid: from research to market

Start-up Pitch From March 8th

Discover 15 start-up through their 5 minutes pitch!









MARCH 15th - 19th - MATCHMAKING

B2B meetings

Develop your business leads and find your would-be partners through the BIOKET virtual B2B meetings. Pre-scheduled 20 minutes' meetings in 1 to 1 appointments.

MARCH 16th - 18th - LIVE SESSIONS

Exhibition Arena Discover our sponsor's technologies and innovation by visiting our virtual exhibition.

Plenary Session: Moving from H2020 to Horizon Europe, what are the opportunities

March 16th – **for the bioeconomy?**

10h-12h30 CET Sponsored by University of Lille

Chairperson: Christophe LUGUEL - IAR- The French Bioeconomy Cluster

Welcome and opening words

Christophe LUGUEL - IAR- The French Bioeconomy Cluster

Bioeconomy at the University of LilleFranck DUMEIGNIL – University of Lille

BBI JU Impact assessment: 5 years of iPPP!

Philippe MENGAL - Bio-Based Industries Joint Undertaking

How to build a successful project

Christophe LUGUEL - IAR- The French Bioeconomy Cluster

Success stories:

Ed DE JONG – Avantium Yann RAOUL – OLEON Thomas LADRAK – Zeton

The green deal challenges & opportunities for the bioeconomy?

Philippe MENGAL – Bio-Based Industries Joint Undertaking

BIOKET's Showguide 2021 - 20

YOUR DETAILLED PROGRAMME

MARCH 16th - 18th - LIVE SESSIONS

March 17th -

Plenary Session: Synthetic biology, a multi-stage rocket for the bioeconomy?

14h-16h30 CET

Sponsored by Genopole

Chairperson: Christophe LANNEAU- Genopole

France's leading biocluster for biotechnologies and research in genomics and genetics

Christophe LANNEAU- Genopole

Synthetic biology: past, present and future!

Dr Jean-Loup FAULON - Micalis Institute of INRA

Building an artificial chloroplast Drop-by-Drop

Tarryn MILLER - Max Planck Institute

Constructing a platform to enable diverse industries through synthetic biology

Jess LEBER - Ginkgo Bioworks

Round table: Is synthetic biology meeting the industry objectives

Animated by Cyril PAUTHENIER - Abolis

Michael KREL - Sofinnova Partners

Thierry AUDIBERT - Givaudan Jess LEBER - Ginkgo Bioworks

Neil PARRY - Unilever

Nicolas SEEBOTH - Michelin

YOUR DETAILLED PROGRAMME

MARCH 16th - 18th - LIVE SESSIONS

Plenary Session:

Bringing your innovations to market

March 18th -9h30-11h CET Sponsored by ARD

Chairperson: Jacky VANDEPUTTE - IAR -The French Bioeconomy Cluster

How to speed up time to market of innovation?

Jean-Christophe DUVAL - ARD Olivier ROLLAND - TWB Cyrille PAUTHENIER - Abolis

How to finance the acceleration of start-up?

Jean-Christophe DUVAL - ARD Dr. Michael BRANDKAMP - ECBF Michael KREL - Sofinnova Partners

The BIOKET **Bioeconomy Quiz** Test your knowledge on the bioeconomy field and enjoy a pleasant moment with the BIOKET

ARD at a glance

participants! Sponsored by PNO Consultants

March 18th 16h30-18h CET











Expert in biotechnology, plant extraction, green chemistry and bio-inputs, ARD innovates and offers solutions to its customers by enhancing biomass.









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www.a-r-d.fr contact@a-r-d.fr ttps://fr.linkedin.com/ company/a-r-d

www.a-r-d.fr





Expand your possibilities with europe's leading innovation and funding consultancy

The bioeconomy market is growing and it has become one of PNO's focus areas too. Since 2015, PNO has secured around 100 million euro in Bio-Based Industries (BBI) funding for its clients and is continuously delivering innovation services to stakeholders within all of the main involved value chains.

We have developed a strong expertise in conceptualising projects, finding the right partners, providing advice on public funding opportunities, writing proposals and supporting our clients throughout the implementation phase. Our bioeconomy expertise includes techno-economic evaluation, bio-refineries and bioprocesses conceptualisation.

OUR LATEST PROJECTS











EURSDING POLICE SUSTAINABLE & TAILOR-DESIGNED PROCESS SOLUTIONS

The Bioeconomy Quiz

PNO Consultants and **BIOKET** propose you a nice and playful moment to test your knowledge about the bioeconomy field and on BIOKET!

Join us on March 18th to answer 30 questions.

Integrate the contest and win incredible prizes!

- First place: A Champagne case (6 bottles) + 1 free full pass for the next edition of BIOKET
- Second place: 3 bottles of Champagne + 1 free full pass for the next edition of BIOKET
- Third place: 1 bottle of Champagne + 1 free full pass for the next edition of BIOKET

Tips to prepare your quizz

- Make sure to visit all our **sponsor's booths** from March 16th to March 18th. You might find answers
- Watch the videos on the **VOD section**. There should be clues to answer the quiz and to update your knowledge of bioeconomy technologies and processes.



BIOKET's Showguide 2021 - 24

Chairpersons & Speakers

MARCH 16

Plenary Session



CHAIRPERSON

Christophe LUGUEL, has a Master of Engineering in Agronomy. He occupied various positions in sales, marketing or business development in chemical & biotech companies. He's currently EU Project Manager of IAR Cluster and also Vice Chair of BIC, Board and member of the governing board of BBI.



worked for Cargill and Solazyme/ Early-stage Researchers in Lille".



at Avantium, is tasked with PhD, spent 6.5y in Japan is Sales Manager at Zeton BV in is the Executive Director of (second generation biorefinery.) He's currently coordinating the all bio related projects. Prior to joining Avantium, Eelco H2020 doctoral "Programme for



commercializing a portfolio before returning in France the Netherlands. He has 22 years' the Bio-based Industries Joint of revolutionary renewable as Full Professor (Univ. Lille). experience in sales and marketing Undertaking (BBI JU). He trained chemistry solutions, including He coordinated several projects functions. Within the Zeton Sales as an engineer in Chemistry Ray Technology™ (plant-based such as EuroBioRef and directed team he is responsible for the and Bio-industry & in Strategic glycols) and Dawn Technology™ the CNRS Laboratory CAT&P4BIO. large scale modular plants and Innovation Management. He held



strategic managerial positions such as CEO of 3 companies, Global R&D Director and Senior Consultant in food ingredient, engineering and life science.



Plenary Session



CHAIRPERSON

ANNEAU. Open mind scientist with strong expertise in life sciences to support with Open Innovative projects that seek from public/private research solution impacting global health, manage public funding and assure relationship management (seek resources, contract)



various positions before moving Univ). He coordinates the into Sales. He was appointed network BioSynSys of the CNRS. as Head of Fragrance Research Previously, he has been director expertise. Today, as Head of New and research director at Joint Business Development for the BioEnergy Institute (JBEI) Fragrance Division, he covers M&A activities



has a background in Chemistry is Director of INRA and synthetic



Michael KREL

& Perfume Creations. He held biology professor (Manchester of Sofinnova in 2013 and is and expertise as a microbiologist, currently Principal. He focuses molecular biologist, and on investments in the industrial metabolic engineer. As Director biotechnology & renewable of Business Development at contributing to develop Givaudan of the institute of system and chemistry sectors. He graduated Ginkgo, Jess brings his technical Biotechnology synthetic biology (Genopole, Evry from Ecole Polytechnique and background to help identify new holds a PhD in organic chemistry commercial opportunities. from the Institut de Chimie des Substances Naturelles.



Dr. Jess LEBER

joined the Life Sciences team has over 20 years of experience





is inventor on 45+ patents & holds long and complex pathways. advisory posts on boards (EU,



is a PhD candidate at the Max PhD in industrial biotechnology, MsD ENS Paris, PhD Paris-Saclay is an experienced reserved. Planck Institute for Terrestrial is Research Programme Director University. Young entrepreneur director with demonstrated Microbiology in Marburg, Biotechnology & Biosourcing at in synthetic biology, he is history of working in the field of Germany. She joined the institute Unilever R&D Port Sunlight lab. the President and founder polymers and chemical industry. to work on artificial CO2 -fixation In 23 years at Unilever, he has of Abolis Biotechnologies, a successfully commercialised of pluridisciplinary metabolic a range of new ingredients. He is engineering SME that focuses on

Round table moderator



Vice president of Toulouse White Biotechnology, a public-private consortium with objectives to accelerate development in industrial biotechnology.

is managing collaborative projects at Oleon and coordinates the LIPES and INCITE European projects on the development of enzymatic processes. He holds a PhD in organic chemistry from the University of Hull (UK) and has been working in the oleochemical industry for 20 years



BIOKET's Showquide 2021 - 26

MARCH 18

Plenary Session



CHAIRPERSON

Jacky VANDEPUTTE is scientific Director at IAR - The French Bioeconomy Cluster. With a double skill in biochemistry and marketing and quality (Lille University), he has started his career in the food industry where he was in charge of quality management & trading of dairy ingredients. Shifting then to French associations on the promotion and defense of fruit juices.



Michael BRANDKAMP

is currently general partner of the worked in atochem and Acetex joined the Life Sciences team of Technology.



Jean-Christophe DUVAL

European Circular Bioeconomy before joining a European agen- Sofinnova in 2013 and is currently Fund (ECBF). He has occupied cypromoting sustainable growth Principal. He focuses on investdifferent position such as ma- where he supported startups ments in the industrial biotechnaging director or director tech and developed innovative pro-nology & renewable chemistry investments and has taken part jects. He joined ARD in 2015 as sectors. He graduated from as Advisory Boards member at Business Development Director Ecole Polytechnique and holds the Fraunhofer Institute for En- and Director of its affiliated com- a PhD in organic chemistry from vironmental, Safety & Energy pany WHEATOLEO. He became the Institut de Chimie des Subs-ARD's CEO in 2018.



Michael KREL

tances Naturelles.



Cyrille PAUTHENIER,

MsD ENS Paris, PhD Paris-Saclay University. Young entrepreneur in synthetic biology, he is the President and founder of Abolis Biotechnologies, a pluridisciplinary metabolic engineering SME that focuses on long and complex pathways.



Olivier ROLLAND

is Managing Director of TWB, a public / private industrial biotechnology organization that transitions early stage R&D from academic labs into preindustrial development projects and start-ups. Olivier has 10+ years experience in strategy, business and product development in the bio-economy at Boeing, Amyris, Total and Michelin.



KETs for Algae biorefinery



CHAIRPERSON

Dr Maria Barbosa, PhD in Bioprocess Engineering, is Professor in Microalgae Biotechnology & Director of AlgaePARC at Wageningen University and Research Centre. She is presently VP of the Dutch biotechnology Association. Her scientific interests are on microalgae strain improvement, cultivation and scale up.



Marc BUEVINK

and become CEO at Infors Benelux, microalgal biomasses and mi-photobioreactor. In 2013 he founded Biostream for croalgae cultivation. manufacturing bioreactors.



Marcella DE SOUZA



Victor POZZOBON

has 23 years' experience in fermen- holds a PhD in Biochemical Processes is a research engineer with a backtation & cell culture and worked and is currently a project manager ground in fluid dynamics and CFD. the first years in research lab at at Ghent University. She has ex-UMC. 6 years at New Brunswick as perience in the area of Biotechno- with the complex interactions bioreactors specialist, after that logy, working mainly on enzymatic between light and microalgae in moved to IKS Biotech equipment's hydrolysis of lignocellulosic and the complex environment that is a



Anne ROUBAUD

Dr. graduated in 1995 from H.E.I. Engineering High school of Lille in Chemical Engineering. PhD in Combustion Chemistry Lille University (1999). Joined CEA in 2005 as Research engineer. She is now Expert at CEA LITEN Grenoble in hydrothermal processes for biomass valorization.



Lucie VAN HAVER

is a chemistry engineer graduated from ESCOM (France) and has specialized on microalgae processes through her internships. She is actually responsible of industrial valorization for the GEPEA laboratory - AlgoSolis, part of the team Bioprocesses applied to microalgae at CAPACITES SAS.

BIOKET's Showguide 2021 - 28

KETs for biomass pretreatment



CHAIRPERSON

Thomas HABAS is R&D Project Manager at ENGIE Lab CRIGEN. During his career in renewable energy production and green chemistry, Thomas has developed a broad vision of the sector, in particular on pretreatment, thermochemical conversion and energy production from biomass.



Lionel Danos

has in excess of 25 years of experience in the extrusion of biomass &cellulose based products. He has a Master of Science in Pulp and Paper Engineering. With a background of Process Manager of Cellulose & Pulp department, and later of Project Manager, he is now Market Manager Green Industries in Clextral.



André HEERES

pany Syncom (The Netherlands) business group of Axens, promoand professor at The Hanze ting its solutions for the production University of Applied Sciences of advanced biofuels & biochemi-(The Netherlands) He is active in cals. She is dedicated to Futurol™ (thermo)chemical conversion of Technology that converts lignocelbiomass towards chemical inter- lulosic biomass into 2nd generamediates.



Julie MAILLOT

is currently working at the com- is technologist in the Renewables tion bioethanol through enzymatic conversion and fermentation.



Fabien MAJCHRZAK

is the Technical Director of Maguin, in charge of Process Expertise and R&D. He is graduated from Ecole Centrale of Paris and held several positions in the Sugar Industry, from process and energy expertise to management.



Jean-Charles MOTTE

is the head of the dry processes at IMPROVE. In 10 years, he managed many R&D projects related to dry processing of cereal, pulse and byproducts.



KETs for lignin valorization



CHAIRPERSON

Sergio MASTROJANNI works in Solvay as Innovation Leader, managing scouting projects in disruptive and sustainable chemistry. He's been working in R&I for 20 years in different chemical companies and positions. He has a PhD in organic metallic chemistry and catalysis from the Imperial College of London.



Florent HEROGUEL

Master degree at ENS de Lyon.



Sami-Pekka RANTANEN

solutions & biomass valorization University of Leipzig. technologies to various industries.



Kerstin THIELE

is co-founder and COO at Bloom Sami-Pekka has Bachelor of works as scientist and project Biorenewables, aiming to make Science degree (Oulu School manager at Fraunhofer CBP in biomass a true alternative to of Engineering) & degree in the group of Chemical Processes petroleum. Prior to this, he was marketing. He has served pulp since 2017. She studied Chemistry scientist at EPFL after obtaining and paper industry in sales at the University Halle-Wittenberg. his PhD from ETH Zürich and a organization of chemical solution Her PhD thesis is currently being providers. As Sales Director he's made in the field of technical introducing MetGen's enzymatic chemistry and catalysis at the



Karolien VANBROEKHOVEN

is research manager at VITO in sustainable chemistry. Her focus areas of R&D are biobased economy & sustainable process development. The last years she mainly managed technologies in electrochemistry & bioprocesses. She is the manager of the lignin to aromatics horizon in the shared research centre Biorizon.



Rob VERLINDEN

has an MSc in Chemical Engineering from Eindhoven University of Technology and a PhD in biotechnology from the University of Wolverhampton. He's currently Senior Process Technologist at BPF where he works on biomass valorisation.



KETs to enzymatic catalysis and processes associated with biotechnology



CHAIRPERSON

Rob ONDERWATER is the scientific leader of the biotechnology department of Materia Nova. He obtained a PhD in Chemistry from the VU in Amsterdam (The Netherlands) and has 25 years of research experience in toxicology, ADME, enzymology and microbiology at various research institutes and companies.



Morad CHADNI

PhD. After a PhD in process enginee- has a PhD in Molecular Biology leads the production processes ration process.



Philippe GABANT

ring and sustainable development (Université Libre de Bruxelles -ULB). from Université de Technologie He was involved as inventor in the Protein Engineer at Protera Biosde Compiègne, he joined the URD development of a portfolio of gene-ABI (Agro Biotechnologies Indus- tic selection patented technologies. mistry from the University of Chile trilles) in 2019 as a researcher in He's co-founder & CSO of Synguprocess engineering. His main lon, a startup focusing on genetic Immunology from the University of research interest focus on sepa- innovations to improve the control Illinois-Chicago. of microbial population using bacteriocins.



Juan JIMENEZ

of engineered proteins as Senior and a Ph.D. in Microbiology and



Alexandre ZANGHELLINI

is a co-founder & CEO of Arzeda. He leads Arzeda's corporate strategy. He's one of the inventors of Arzeda's synthetic biology platform for novel enzyme and metabolic pathway design. Before founding Arzeda, he held positions in research and development both in academia and industry (Cellectis, NASDAQ: CLLS).



Fredy Wsbaldo Baron Nunez

Fredy Wsbaldo Baron Nunez has a bachelor's degree in chemical engineering (Industrial Univ. of Santander, Colombia) and a master's Degree in process, energy and environmental systems engineering (Technische Universität Berlin). He's now doing his PhD research at the Institute of Interfacial Process Engineering and Plasma Technology (Univ. of Stuttgart) in the field of downstream processing of microbial glycolipids.



KETs for ecoextraction



CHAIRPERSON

Nicolas TETARD is a Chemical Engineer, currently working as Sales Manager at Tournaire since 2016. With more than 10 years of international experience in the search for industrial solutions for his clients, he benefits from the unique knowhow developed by Tournaire in the field of natural treatment.



Farid CHEMAT

is a full Professor of Chemistry has a PhD in clean chemistry from Rémi Przybylski worked 7 years for



Alexander NOVITSKIY

co-founder Sergey.



Rémi PRZYBYLSKI

at Avignon University, Director the University of Nottingham, the valorization of slaughterhouse of GREEN Extraction Team UK for his work with Martyn by-products in Lille University and (innovative techniques, alternative Poliakoff on supercritical fluids Laval University (Canada). As R&D solvents, and original procedures as a replacement for hazardous manager of Bioval Océan Indien, for green extraction of natural solvents. He then spent over 8 he does research in bioconversion products). He is nominated as High years in financial industry before of tropical by-products into natural Cited Researcher HCR in 2018 and starting Nova Extraction with his and high-added value products for cosmetic and agro-industries.



Dr. Marilena RADOIU

(Chartered Chemist, Member of the Royal Society for Chemistry) is an expert in the development of microwave-assisted technologies with applications to chemical synthesis, biomass extraction, plasma.



Alain VALLAGEAS

is an engineer, graduated from INPG, IAE and ICG. He has 43 years of experience in the design, negotiation and implementation of contracts of industrial equipment. Founderin 2006, Chairman & CEO of CELSIUS, design & manufacturing company of process equipment for fine chemicals, pharmaceuticals and cosmetics.

BIOKET's Showguide 2021 - 32

Application of KETs



CHAIRPERSON

Dr. Fabien DESWARTE is L'Oréal's Sustainable Innovation Manager. He has over 15 years of experience in the area of green chemistry and biorefining and has worked in a variety of roles in academia, government and industry.



Pratik DESAI

PhD is a chemical engineer- Inventor/ Finalist for several awards.



Alessandro GUZZONE

plants.



Jérôme LE NÔTRE

obtained a degree in process en- holds a PhD in Chemistry and specia-Co-inventor for PMX-technologies, gineering (Technical Univ. Vienna) & lised his work on industrial projects leads strategy & techno-commercial chemical engineering (Politecnico converting biomass into speciality operations. Noted techno-manage- di Milano), He joined Vogelbusch in and commodity chemicals. After 6 ment consultant in MENA. Lead tech- 2002 and worked as a technologist years at Wageningen University nologist for grants (value£15.82Mn), for DSP of bioprocess plants focu- and the Food&Biobased Research consulted 65+ companies. Winner/ sing on alcohol distillation, rectifi- Institute, he joined PIVERT in 2014 cation, dehydration & evaporation from which he is today the R&D Manager.





Benoit MOREAU

biochemist, has a PhD from Gembloux AgroBioTech and post-doctorate from AgroSup Montpellier & Cognis, He's head of the unit « green chemistry & biobased products » at Condorcet, working on the valorisation of Bio-industrial by-products into molecules with high added value.



VIDEO ON DEMAND

KETs for process control, optimization and modelling

for Biobased Economy of TUD.

Digital Products Manager @ Boccard.

He has 15 years of experience in

the engineering field for the food

industries. Real digital addict, he has

also developed, aside his various

positions, strong competencies in

software engineering for the web

and the cloud particularly.

CHAIRPERSON

Ludovic HENIN

joinedCPlin2014asanexperienced chemical engineer with expertise in modelling & simulation. As Head of Process Safety & Engineering he is now responsible for engineering and modelling project delivery alongside the ongoing development of CPI's chemical engineering capability.



Prof.dr.ir Luuk van der WIELEN holds a MSc degree in Chemical Engineering (Twente

University) and a PhD degree (Delft University of Technology - TUD). Since February 2017, he is Director of the Bernal Institute at the University of Limerick and also Distinguished Professor

Philippe LEURENT

is a business developer at ProSim. He plays key responsibilities in sales and client account management, networking & communication on ProSim's solutions in process simulation. He's graduated in chemical engineering from the IFP school and the ENSIACET.





Karel DE WINTER

Dr. Ir. Karel De Winter is Head of Technology Development at the Bio Base Europe Pilot Plant. He holds a master's degree in applied bio engineering sciences and a PhD in applied Biological Sciences. Previously, he was leading a number of industrial biotech projects and project leader for a number of EU-Projects.

BIOKET's Showguide 2021 - 34 35 - BIOKET's Showguide 2021

KETs for DSP



CHAIRPERSON

Ludo DIELS Dr. in chemistry & biotechnology, is Senior Advisor for the Flemish Institute for Technological Research (VITO) in Belgium. He managed the Environment & Process Technology Business Unit and responsible for the transition toward sustainable chemistry and clean technology.



Jean-Sébastien BIZOT

is the managing director of is the technical director of Extractis. is a chemical engineer with a Flottweg France. He is a Chemical With 30 years of expertise in PhD in chemical engineering engineer and own an international processes development and thermodynamics. Since 2019 he BtoB sales degree. During his 13- setting-up of technical pathway. year experience in centrifugation he has joined Extractis 24 years technologies, he specialized and ago and is highly skilled in plant developed a great expertise in fractionation technologies. protein field separation, mainly vegetal and biomass.





Yohann Le Guennec

is Project Manager at Ypso-Facto, participating in the improvement of biochemical and pharmaceuticals industrial processes all over the world thanks to numerical models developed on purpose



graduated as chemical engineer by the University of Rio Grande do Sul. She worked as a process engineer - petroleum and petrochemistry - at Petrobras and is currently sales manager at Buss-SMS-Canzler.



Tomasz WOLAK

joined ST Equipment and Technology to reinforce Business Development team with his experience in Food and Feed business. He has been leading Operational Excellence improvement programs at Glencore Agriculture as well as managing project execution at Desmet Ballestra.



KETs for wood biorefinery



CHAIRPERSON

Dr lan Archer, PhD in chemistry (Imperial College), is Technical Director at IBioIC, directing the technical strategy of the Centre. His background is in synthetic organic chemistry & chemical process development. Previously he worked as Head of Process Development at Ingenza, responsible for all aspects of bioprocess development.



Dr. Alex BERG

Tecnológico" in the University of working on the development of at Eurodia Industie. Concepción (Chile).



Jérémy BOUCHER

bioproducts.



Marie CHAUVE

graduated from Hamburg Uni- has a Master's degree in has a Master's degree in chemical versity. He was in charge of the engineering in the field of pulp Engineering (ENSIC) and a PhD development of a new pulping & and paper (Grenoble INP-Pagora). in biotechnology for enzymatic bleaching process with organic He then made a PhD about the hydrolysis of cellulose for solvents, protected as Acetocell simultaneous production of pulp bioethanol production (Grenoble Process & scaled up in Germany. and bioethanol in a biorefinery. He University). She spent 3,5 years at Since 1994, he is the Executive Di- has worked as research engineer Solvay's Brazilian research center rector of the "Unidad de Desarrollo" in Fibre Excellence since 2015, and is currently research manager



has a PhD in chemical engineering (Univ. of Groningen). Researcher at BTG, his main expertise & work field is in the recovery and production of valuable chemicals and products from biomass derived solids & liquids, and the chemical/ physical analysis of intermediates, building blocks and final products.



Patrice MANGIN

PhD, eng. INPG, is director of the Innovations Institute in Ecomaterials, Ecoproducts and Ecoenergy, bioeconomy/bioenergy industry chair at UQTR, and CEO of BioEnergy La Tuque. Author of over 300 articles, he received many awards, including fellowships and gold medals.











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BIOKET's Showguide 2021 - 38 39 - BIOKET's Showguide 2021

Exhibitors & Sponsors' profile

PLATINIUM



Genopole, France's leading biocluster in the Paris Region, accommodates, accompanies and connects companies and laboratories in all fields of biotechnologies A pioneer in synthetic biology, Genopole is increasingly attracting researchers and industrials active in that field and the progress being made is enabling a large range of industrial applications.

www.genopole.fr



The University of Lille is one of the French key players in research in bioeconomy (chemistry, agri-food and health/cosmetology). It has forged academic and industrial links at the national and international levels, with a renowned expertise together with exceptional facilities and infrastructures.

www.univ-lille.fr

GOLD



Axens is providing a complete range of solutions for the conversion of oil & biomass to cleaner fuels, the production and purification of major petrochemical intermediates as well as all of natural gas' treatment and conversion options.

www.axens.net



ARD is a R&D company offering development and industrial services in the fields of plant extraction, green chemistry, cellulosic biomass, industrial biotechnology and bioenergies.

www.a-r-d.fr



Dunkerque Promotion is the economic development agency of the Dunkirk region. Our mission is to help companies to set up and expand. We are supporting the techno-hub Euraénergie that aims at fostering energy and circular economy businesses. On March 10, Dunkirk will welcome the Bioket Innovation Tour. The focus will be on second generation biofuels.

www.dunkerquepromotion.org



OPTIMUS instruments is a specialist of Reactor & distillation systems for chemical industry – from lab R&D, through pilot to small production scale: BUCHIGLAS, HUBER, VTA, HWS, VACUUBRAND, SYSTAG, HEIDOLPH.

www.optimus.be

Exhibitors & Sponsors' profile

GOLD





PIVERT is a SME of 35 employees, created in 2012 & located in Compiègne France with a 4,2 M€ turnover. Our technological platform (6000m²) offers facilities for the development of chemical and biotechnological pilot scale processes for biobased chemistry.

www.sas-pivert.com

PNO Consultants is a European innovation consultancy company with 30 years of experience in 7 countries. Besides perfectly handling the complete innovation cycle, PNO has developed a strong expertise in bioeconomy

www.pnoconsultants.com



Lanolines Stella is a world key player in the refining of lanolin. Its activity now extends to the high purification of oils and fats through a new toll manufacturing service with a versatile and flexible molecular distillation unit.

www.lanolin-stella.com



TAMI INDUSTRIES is one of the world leaders in ceramic membranes manufacturing for crossflow filtration in liquids. SIVA develops & manufactures custom-size units in crossflow filtration from MicroFiltration to Reverse Osmosis for all industries.

www.tami-industries.com www.siva-unit.com



Expert in the processing of natural raw materials, Tournaire offers turnkey units, offering high performance, and which are tailor-made to suit the specific needs of each client.

www.tournaire.fr



Funded by the BBI JU under H2020 program, VALUEMAG proposes a revolutionary technology for the microalgae industry to produce and purify high-value biomolecules in an affordable and environmentally-friendly manner.

www.valuemag.eu



LIPES is dedicated to bringing the first market replication of greener and healthier fatty acids. The objective is to create high purity bio-based intermediates and end products from vegetable oils and fats.

www.lipes.eu

BIOKET's Showquide 2021 - 40

Exhibitors & Sponsors' profile

SILVER



EURODIA Group is specialized in the design and construction of purification processes in agro-food, hydrometallurgy, specialty chemicals and biochemicals industries.

www.eurodia.com



Novasep's industrial solutions offer high performance technologies & purification processes for biomass derivatives, fermentation and chemical commodities

www.novasep.com



Since January 1st of 2020, Chimex rebranded as Novéal develops and guarantees exclusive high performance ingredient to satisfy the beauty needs of consumers around the world.

www.madeinchimex.com



VITO develops cleantech technologies that tackle today's societal challenges. We create new biobased value chains and develop technologies for process intensification. VITO is your R&D partner!

www.vito.be

BRONZE



Bio Base Europe Pilot Plant: An independent state-of-the-art pilot and demonstration facility for process development, scale-up and custom manufacturing of bio-based products and processes.

www.bbeu.ora



Biorea, Agrial group, relies on its innovative & patented technology of closed air-lift bioreactor for its new factory (taylor-made production) and sales of R&D lab equipment.

www.biorea.fr



Public pilot facility for scaling up biobased processes, using e.g. pretreatment, hydrolysis, fermentation, downstream processing.

www.bpf.eu



Bio4Products is a multi-company collaboration to demonstrate a pyrolysisbased biorefinery concept, creating sustainable products and materials from pyrolysis oil.

www.bio4products.eu



Biostream is a manufacturer of a large range of customized and standard fermenters & bioreactors. Our vision is to provide a total solution with the best innovation and a lot of flexibility.

www.biostream-international.com

Exhibitors & Sponsors' profile

BRONZE



chemical reactors to perform a wide range of lignocellulosic biomass treatments.

www.clextral.com



De Dietrich Process Systems is the leading global provider of Engineered Systems. We supply solutions for the plant based, chemical and pharmaceuticals industries worldwide.

www.dedietrich-thermique.fr



Experts in plant biorefinery since 1984 specialized in extraction and fractionation of plant biomass for developing and producing new extracts, actives or ingredients.

www.extractis.com



IBISBA is an EU-distributed R&D infrastructure integrating biofoundry operations into end-to-end bioprocess development, to deliver proof of concepts and prototypes.

www.ibisba.eu



LEBAS is specialized in the design & the construction of industrial production units. Our expertises include process, utilities, automation & supervision, electricity & instrumentation, building, LEBAS is an EPCC/EPCM contractor.

www.lebas-technologies.com



Clextral's twin screw co-rotating extruders are efficient and continuous CPI acts as a catalyst bringing together academia, businesses, government and investors to translate bright ideas and research into the marketplace.

www.uk-cpi.com



Specialized Engineering & General Contractor serving the agro-industry with particular focus on sugar, biofuels, bio-chemicals as well as energy efficiency. www.dsengineers.com



We combine biology and engineering Fraunhofer IGB develops processes and technologies for health, sustainable chemistry, and the environment from laboratory to pilot scale.

www.iqb.fraunhofer.de



IPSB, a process engineering company involved in sugar production, white biotechnologies and biomass valorization, at your service to design your

www.ipsb.fr

43 - BIOKET's Showquide 2021

Exhibitor's & Sponsors profile

BRONZE





m2p-labs microbioreactors for screening, bioprocess development & automated microfermentation; user can increase the number & information content of microbial experiments.

www.m2p-labs.com



ProSim is a major European process engineering software company delivering process simulation software and consulting services to the processing industries worldwide.

www.prosim.net



Syngulon is a synthetic biology startup developing original genetic technologies using bacteriocins. They are ribosomally-produced, genetically encoded antimicrobial peptides produced by a wide variety of microorganisms.

www.syngulon.com





The University of Reims Champagne-Ardenne conducts high-level research with socio-economic actors and aims at producing tomorrow's discoveries and innovations. It is part of the Federative Research Structure, FRS Condorcet.

www.univ-reims.fr



Carnot 3BCAR is a French structured R&D network, offering its competencies for companies' innovation in the field of biomass valorization with Bioenergy, Biobased molecules & materials.

www.3bcar.fr

PALL Pall Corporation

Pall Corporation designs and supplies a wide range of Filtration and Separation technologies to eliminate solid and liquid contaminants from fluids.

www.pall.com



Protera is producing next-generation clean label ingredients by using a proprietary Al-based technology that allows the design of new functional proteins

www.proterabio.com



TWB is an expert in conducting public/private collaborative R&D projects, from biosciences to bioproduction. TWB has set up high-tech platforms to support the projects.

www.toulouse-white-biotechnology.com



As world's leading Designer & Builder of innovative labscale, pilot, demonstration & small modular production plants, Zeton helps its customers bring their processes from lab to market, faster, with less risk and lower cost.

www.zeton.com

Innovation Tours: Lanolines Stella

Lanolines Stella is a world key player in the refining of lanoline products. Its clients are among the most prestigious actors in the cosmetics and pharmaceutical sectors.

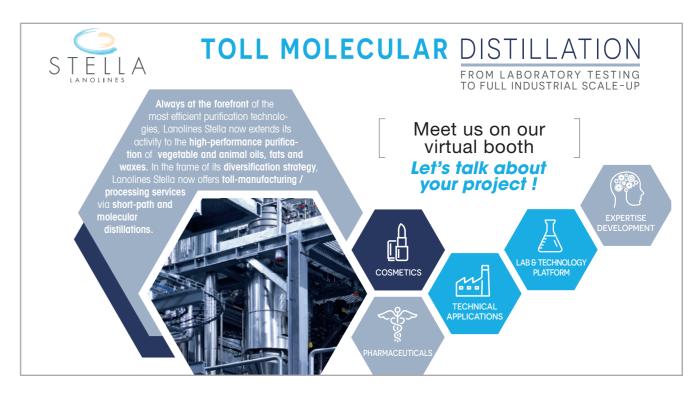
Always at the forefront of the most efficient purification technologies, Lanolines Stella now extends its activity to the high-performance purification of vegetable and animal oils and fats.



Discover Stella's facilities on the VOD section







BIOKET's Showquide 2021 - 44

Innovation Tours: Dunkirk's area

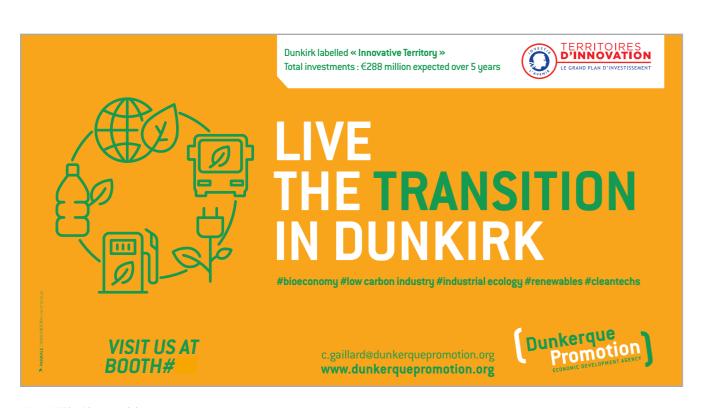
The port of Dunkirk, 3rd port in France, is an industrial platform that is pioneering transition and is one of the French Government's call for tenders Innovating Territories, a national scheme to promote a more sustainable economic development.

Among the industries present on the port, we will focus the visit on:

- Van Robayes / Pierre d'Arras
- Mon Gobelet en Lin
- Pôle d'Excellence Régional Lin
- Université du Littoral Côté d'Opal



Discover Dunkirk's area on the VOD section



Innovation Tours: SAS Pivert

PIVERT is an innovative SME performing industrialisation of agricultural resources valorisation processes. It offers 3 service proposals meeting the « Time to Market » challenge and speeding up the whole innovation process, therefore avoiding the need for heavy investment in medium sized equipment and allowing business opportunities at minimal cost:

- Research & Innovation
- · From Scale-up to pre-series production
- Technological hosting



Discover Pivert facilities on the VOD section







Let innovation grow, from field to market









BIOKET's Showguide 2021 - 46 47 - BIOKET's Showguide 2021

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Workshop: LIPES

The LIPES project is dedicated to bringing the first market replication of greener and healthier fatty acids with the scaleup to pre-industrial level of a new environmentally friendly alternative to the traditional and current splitting routes of triglycerides.

The objective was to create high purity bio-based intermediates and end products from vegetable oils and fats: New low trans FA for food application, high quality fatty acids leading to new grades of C36 and C44 dimer acids and co-polyesters.

The LIPES approach replaces current thermal hydrolysis and saponification production routes, instead using a new enzyme-based, environmentally friendly alternative.

Using this approach makes the process far more resource efficient, saving at least 45% water, 70% enzymes and 80% energy over current approaches

Overview

Yann RAOUL - OLEON

Process Chemistry. Enzyme deactivation in continuous processes

Sherly RUSLI - Technical University of Berlin

Enzyme development for vegetable oil hydrolysis

Aelig ROBIN - Biocatalysts

Demo Plant design

Patrick JOBST – STC Engineering

Enzymatic - LCA KPIs

Pieter STRUELENS - OLEON

End products overview

Judith J VAN GORP - DSM





LIFE INTEGRATED PROCESS for ENZYMATIC SPLITTING of TRIGLYCERIDES

Summary

LIPES is dedicated to bringing to market **the first replication of enzymatic hydrolysis of vegetable oils** leading to greener and healthier fatty acids

The LIPES approach replaces current thermal hydrolysis and saponification production routes using a new environmentally friendly alternative

This approach will make the process far more resource efficient, saving at least 45% water, 70% enzymes and 80% energy

BBI JU funding: 4.3 m€ Agreement N°: 720743

Feedstock: Plant oils

Start date: 01.09.16

End date: 31.12.21

Objectives

SCALE-UP to PRE-INDUSTRIAL LEVEL

of a new environmentally friendly alternative to the traditional and current splitting routes of triglyceride producing free fatty acids and glycerol

ENZYMATICALLY PRODUCED

The use of enzymatically produced fatty acids and intermediates that can be used in a wider range of application

LOWER ENVIRONMENTAL IMPACT

This new oil splitting process targets a minimum saving of 45% water consumption, 70% enzymes and 80% energy consumption

Expected impacts

STRENGTHENED COMPETITIVENESS

of the EU oleochemicals industry

COST- EFFECTIVE ENZYMATIC PATHWAY in comparison with conventional processes

in comparison with conventional processes

NEW HIGHER QUALITY PRODUCTS Low trans fatty acids for food

New grades of dimer acids New or alternative polyester grade

oleon







Oleon NV (Belgium) info: yann.raoul@oleon.com

Workshop: IBISBA

IBISBA WITHIN THE GLOBAL CONTEXT OF BIOFOUNDRIES AND ACCELERATED END-TO-END BIOPROCESS DEVELOPMENT

| 14:00 | Welcome and Introduction Dr Nic LINDLEY – Agency for Science, Technology and Research – A*Star (Singapore) |
|-------|---|
| 14:10 | Primer on biofoundries Dr Paul FREEMONT - Imperial College London (United Kingdom) |
| 14:40 | An industrial biofoundry Dr Sunil CHANDRAN - Amyris (USA) |
| 15:00 | IBISBA: a pan-European infrastructure to support industrial biotechnology Dr Michael O'DONNOHUE - INRAE (France) |
| 15:10 | Driving IBISBA's biofoundry operations using knowledge management and integration Pr Merja PENTTILA - VTT (Finland) |
| 15:30 | Scaling-up or making industrial sense of biofoundry operations in IBISBA Dr Katja PATZSCH - Fraunhofer IGB (Germany) |
| 15:50 | Coffee break |
| 16:10 | Roundtable: biofoundries in the wider biotech innovation picture Dr Paul FREEMONT – Imperial College London (United Kingdom) Sunil CHANDRAN – Amyris (USA) Olivier ROLLAND – TWB (France) Katja PATZSCH – Fraunhofer IGB (Germany) Vitor Martins DOS SANTOS – Wageningen University & Research (The Netherlands) |
| | |



49 - BIOKET's Showguide 2021

Workshop: VALUEMAG

BLUE BIOECONOMY – VALUABLE PRODUCTS FROM ALGAE USING INNOVATION

Welcome

Pr. Evangelos HRISTOFOU - National Technical University of Athens NTUA (Greece)

Valuemag: an overview

Dr Angelo FERRARO - National Technical University of Athens NTUA (Greece)

The circular economy applied to valuable products from algae

Dr Antonio MOLINO - ENEA (Italy)

Valuemag based business development opportunities in the pharam/cosmetic sectors

Dr Panagiotis ZOUMBOULAKIS - Theracell (United Kingdom)

Exploitation of Valuemag results

Habib AMRANI – PNO Consultants (France)

Coffee break

Invited expert speakers in the ecosystem of blue bio-economy will present their most recent experiences and provide a platform for exchange of ideas and form collaborations

Closing remarks







valuemag.eu



The VALUEMAG technology is based on the use of magnetic nanoparticles and a soft magnetic steel cone, issue of technologic engineering research, to cultivate microalgae and to purify the high-value products resulting from their metabolism. The technology has already been tested at a small scale providing promising results.

The project is totally self-sustaining, eco-friendly and will provide socio-economic benefits to society at large. The economic benefits are also associated with a dramatic reduction in microalgae production costs, allowing this technology to become a competitive durable alternative in the current market. Social benefits will arise from the development of new and innovative biomass production plants by supporting new job creation and outside investments in local European communities.

Funded by the Bio-Based Industries Joint Undertaking under the European Union's Horizon 2020 program, VALUEMAG project develops new magnetic cultivation and extraction techniques for microalgae. The revolutionary technology behind the process offers an innovative and eco-friendly solution that will significantly reduce the associated costs, and, thus, build more efficient microalgae-based biorefinery systems.

BB Bio-based Industries Consortium

This project has received funding from the Bio Based Industries Joint Undertaking under the European Union's Horizon 2020 research and innovation under grant agreement No. 745695

Workshop: carnot 3BCAR

PHENOLIC ACID: FROM RESEARCH TO MARKET

Welcome and introduction by the Carnot 3BCAR network

Workshop co-chaired by:

Hélène ROUX-de-BALMANN – CNRS Université de Toulouse (France)

Jacky VANDEPUTTE – IAR the French Bioeconomy Cluster (France)

Diana GARCIA-BERNET - INRAE division science for Food, Bioproducts and Waste engineering (France)

Talks: Overview on phenolic acids properties, applications and promising trends

Florent ALLAIS - URD ABI - AgroParisTech (France)

Luc SAULNIER - INRAE division of Science for Food, Bioproducts and Waste Engineering (France)

Round table: Ferulic acid case study:

1) Market pull vs tech push?

2) European sourcing to fulfill domestic market demand?

Sébastien CAJOT - CELABOR (Belgium)

Florence LUTIN - Eurodia Industries (France)

Stephan VERDIER - Solvay Aroma Performance GBU (France)

Régis MARCHAND - SEPPIC - Air Liquide Healthcare Speciality Ingredients (France)

Elise ODINOT - Oléoinnov (France)

Concluding remarks



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www.evbio.tech

GuaTecs

production. Europe will increase is independency. Glove producers will have safer and cozier products.

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