



PLENARY SESSIONS PROGRAMME

**Agricultural waste and residue management
for a circular bio-economy:
Shared **China** and **EU** impact-oriented solutions**

**22nd - 23rd October 2018
HUBEI HOTEL**

**Haidian District, Zhongguancun South Street,
No. 36 Beijing, China**



TOWARDS ZERO PLASTIC:

This event aims to be as plastic-free as possible



www.noaw2020.eu



AGROCYCLE
THE CIRCULAR ECONOMY

www.AgroCycle.eu

This event and related projects have received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 690142 (Agrocycle) and grant agreement No 688338 (NoAW), as well as from the Ministry of Science and Technology of the People's Republic of China.

MONDAY, OCTOBER 22nd 2018

14:00 **Welcome and Opening Session**
Taihua Mu, Prof. (CAAS, China), Lujia Han, Prof. (CAU, China)
Nathalie Gontard, Prof. (INRA, France), Shane Ward, Prof. (UCD, Ireland)

Session A1. Circular Economy in EU and China: Shared Cooperation Priorities, Co-funding Mechanisms, Policies and Implementation

Chairpersons: Nathalie Gontard, Prof. (INRA, France), Lujia Han, Prof. (CAU, China)

14:20 **Introduction of the Situation in China-EU Cooperation Project Application**
Keqin Dong, Ministry of Science and Technology, China

14:40 **Government Policy and National Practice for Promoting the Recycling Utilisation of Waste in China**
Zhenhai Yang, National Animal Husbandry Service (NAHS)/China Feed Industry Association (CFIA), China

15:00 **European Policy in Relation to the Circular Economy**
Nicolas Dandois, Counsellor for Agriculture, European Union Delegation to China

15:20 **INRA's Policy to Strengthen Collaboration between France and China**
Philippe Mauguin, President of INRA, France

15:40 **Building relationships with China in Research and Education**
Dolores O'Riordan, Prof., Vice-President for Global Engagement, Univ. College Dublin (UCD), Ireland

16:00 **Cooperation between China & EU in Agriculture: the 13th Five-Year Period**
Xifeng Gong, Dr., Department of International Cooperation, Chinese Academy of Agricultural Sciences (CAAS), China

16:20 **Coffee Break**

Session A2. Challenges and Perspectives of Up-Cycling Agricultural Wastes and Residues into Sustainable Bio-Products using Eco-Friendly Technologies

Chairpersons: Taihua Mu, Prof. (CAAS, China), Shane Ward, Prof. (UCD, Ireland)

16:45 **Diversified Agro-Waste in China: Multiscale Approaches for Better Understanding and Efficient Utilisation**
Lujia Han, Prof., College of Engineering, China Agricultural University (CAU), China

17:00 **Converting Waste/Wastewater Organic Matter into Valuable Biodegradable Plastics: 3 Pilot-Scale Studies in the frame of H2020 Programme**
Mauro Majone, Prof., Department of Chemistry, University of Rome La Sapienza, Italy

17:15 **Biogas and Bio-Natural Gas in China: Current Status and Future Development**
Xiujin Li, Prof., Department of Environmental Science and Engineering, Beijing University of Chemical Technology, China

17:30 **Converting Agricultural Waste into Sustainable and Value-Added Products for Efficient Chemical (Succinic Acid) Production**
Carol Lin, Prof., Hong Kong City University, Hong-Kong
Annamaria Celli, Prof., University of Bologna, Italy

17:45 **Challenge and Perspectives of Up-Cycling Rice Processing Waste Using Eco-Friendly Technologies**
Yu Yan-Xia, Prof., Chinese Cereals and Oils Association (CCOA), China

19:00 **Welcome dinner**

TUESDAY, OCTOBER 23rd 2018

Session B1. Collaborative Actions between China and EU: NoAW, AgroCycle and other Projects

Chairpersons: Min Jiang, Prof. (NanjingTech, China), Ronghou Liu, Prof. (SJTU, China)

- 09:00** **NoAW: Innovative Approaches to Turn Agricultural Waste into Ecological and Economic Assets (No Agro-Waste)**
Nathalie Gontard, Prof., Institut National de la Recherche Agronomique (INRA), France
- 09:30** **Agrocycle: A Blueprint for Achieving Sustainable Agri-Food Waste Valorisation**
Tom Curran, Dr. and Shane Ward, Prof., University College Dublin (UCD), Ireland
- 10:00** **Round Table Testimony and Discussion on Barriers, Levers and Priorities in EU-China Collaborative R&D Initiatives on Circular Bio-Economy**
Moderators: Maria Loizidou (NTUA, Greece), Simon Jeffery (Harper Adams University, UK), Taihua Mu (CAAS, China), Lujia Han, (CAU, China)
- 10:30** **Coffee Break**

Session B2. Stakeholder Platforms: How to Create a Bridge between European and Chinese Stakeholders and Knowledge

Chairpersons: Simon Jeffery, Dr. (Harper Adams University, UK), Carol Lin, Prof. (CityU, Hong-Kong)

- 11:00** **Presentation of NoAW and AgroCycle EU-China Stakeholders Platforms**
*Burkhard Schaer, Dr., Ecozept, Germany
Guang-Way Jang, Dr., Industrial Technology Research Institute, Chinese Taipei
Thomas Oldfield, Dr., University College Dublin (UCD), Ireland*
- 12:00** **Chinese and European Cooperation for Eco-Friendly Technologies and Bio-Products: our Experiences and Proposed Modules**
Renjie Dong, Prof., College of Engineering/National Center for International Research of BioEnergy Science and Technology (iBEST), China Agricultural University, China
- 12:15** **Practical Benefits Provided to Members of Knowledge Exchange Stakeholder Platforms in China and Europe and the Added Value of their Collaboration**
Andras Sebök, Dr., Campden BRI Hungary, Hungary
- 12:30** **Lunch**

Session C1. Chinese and European Case Studies of Eco-Friendly Technologies and Bio-Products, Bioenergy, Bio-Fertiliser, Novel Business Value Chains

Chairpersons: Daniele Rossi, Dr. (CONFEDERATION OF FARMERS – Confagricoltura, Italy), Renjie Dong, Prof. (CAU, China)

- 14:00** **Bioethanol in China: Current Status and Development**
Guoqing Wu, Dr., China National Cereals, Oils and Foodstuffs Corp. (COFCO), China
- 14:15** **Valorisation of Organic Fraction of Waste to Sustainable Bio-Fuels and other Valuable Bio-Products**
YaYing Chen, Dr., Exergy, UK
- 14:30** **Clean Recycling Production based on Comprehensive Utilization of Sweet Potato Resources**
Yong Yi, Dr., Shandong Bio Sunkeen Co., Ltd, China
- 14:45** **High Performance Anaerobic Digestion of Straw, Manure and Agricultural By-Products & Production of Solid Fertiliser**
Katharina Danner, Dr., Snow Leopard Projects GmbH, Germany

- 15:00** **Sustainable Utilisation of Organic Waste in Arable Land of China**
Qing Chen, Prof., College of Resources and Environmental Sciences, China Agricultural University, China
- 15:15** **Ductor's Biotech Solution for Nitrogen Control and Production of Renewable Energy Sustainably**
Minna Leppikorpi, Dr., Ductor Oy Corp., Finland
- 15:30** **Biogas Production from Agro-Waste in Nanjing Tech University: Research and Practice**
Jia Honghua, Prof., College of Biotechnology and Pharmaceutical Engineering, Nanjing Tech University, China
- 15:45** **Green Production of Biodiesel and Biofuels with Solid- and Nano-Catalysts**
Zhen Fang, Prof., College of Engineering, Nanjing Agricultural University, China
- 16:00** **Bio-Oil Production and Upgrading Research with Rapid Thermal Pyrolysis of Biomass**
Ronghou Liu, Prof., Shanghai Jiao Tong University, China
- 16:15** **The Development Situation and Future Trends of Potato and Sweet Potato Processing and Comprehensive Utilisation Technology in China**
Taihua Mu, Prof., Institute of Food Science and Technology, CAAS, Ministry of Agriculture, China
- 16:30** **Coffee Break**
- 17:00** **C2 & C3 Parallel Sessions up to 20:00**

Session C2. The Future: Sino-European Young Stakeholders Connecting Session and evening

The upcoming generation will exchange views during a dynamic session gathering young actors from academic and professional sectors in Europe and China. This session is a rare networking opportunity, bringing together a broad range of young professionals to share their work projects, current R&D ideas, experiences and to build contacts that will lead to follow-on collaborations.

Moderators: Zheng Zhao (CAAS, China) Ana Batista (INRA, France), Jinyi Ge (CAU, China), Ciara Beausang (UCD, Ireland)

- 17:00** Introduction
- 17:15** Short Video Presentations of European and Chinese Young Collaborators from NoAW and AgroCycle Projects
- 17:45** Dynamic Sino-European Connecting Activities (e.g. speed networking)
- 18:30** Mini-Project Competition
- 19:30** Debate, Conclusions and Prospects for beyond this Session

Session C3. Networking & Brokerage Session for Business, Science & Policy

This is a unique networking opportunity to explore business and research collaboration between Europe and China. You will network with business representatives, researchers and government officials, explore government policy and support measures. You may also make a short presentation of your business or research ideas and arrange business-to-business meetings.

Moderators: Ian Lahiffe (Allflex Livestock Intelligence, China), Zhao Hui (Henan Tianyu Shuye Limited by Share Ltd, China), Katharina Danner (Snow Leopard Projects GmbH, Germany)

- 17:00** Introduction
- 17:15** Short presentation from businesses/organisations
- 18:00** Networking time

20:00 **Networking and closing dinner**



Biographies of speakers, chairpersons & moderators



BATISTA Ana Paula, Institut National de la Recherche Agronomique (INRA), France

Post-Doctoral Researcher, with expertise in the fields of Food, Bioenergy and Environmental Sciences. She has co-authored 30 papers (*h*-index 16) and collaborated in several research projects in Portugal and France as well as short-term scientific missions in Spain, Italy, Chile and South Africa.

BEAUSANG Ciara, University College Dublin (UCD), Ireland

Ciara Beausang is in the second year of her PhD at the School of Biosystems and Food Engineering, UCD. Previously she studied Plant Science at University College Cork and completed a Masters in Food Security at the University of Edinburgh.



CELLI Annamaria, University of Bologna (UNIBO), Italy

Expert in the field of polymer science, in particular in bio-based polymer synthesis and characterization; scientific responsible of research contracts with national and international companies and involved in H2020 European Projects, author of about 80 publications.

CHEN Yaying, EXERGY Ltd (EXERGY), United Kingdom

Strong background in sustainable technologies as well as engineering consultancy in chemical and biochemical processes, managing BESTF3 and H2020 projects related to valorisation of biomass into valuable products to improve the circular economy.



CHEN Qing, China Agricultural University (CAU), China

Scientist of China Agriculture Research System-vegetable. The main research fields include organic waste process & fertilizer utilization; greenhouse soil improvement and control of N & P pollution etc. More than 180 papers published in International and Chinese Journals. 8 related books have been edited so far.

CURRAN Tom, University College Dublin (UCD), Ireland

Leader of AgroCycle Horizon 2020 research and innovation project on valorisation of waste from the agri-food sector. 20 years research and teaching experience. Previously worked in the Irish food industry. Fulbright Scholar at North Carolina State University, USA in 2018.



DANDOIS Nicolas, Delegation of the European Union to China (EUDEL), China

Joined the European Commission in 1997 with a master degree in agricultural sciences from the Free University of Brussels (Belgium). Large expertise from economic and policy analysis of the CAP to the development of R&I programmes and the management of international mobility programmes for post-doc researchers. Active in EU-China relations since 2013 (agri policy dialogue, EU-China R&I Task Force on Food, Agriculture and Biotechnology, executive committee of the Sino-EU Panel on Land and Soil, negotiations on GI agreement).

DANNER Katharina, Snow Leopard Projects GmbH (SLP), Germany

Director of Snow Leopard Projects that has designed and built more than 50 biogas plants worldwide. With its special 2-stage BATCH hydrolysis AD system, targeted feedstock is fibrous biomass and energy rich biomass. Various international projects, presentations for GIZ, BMZ, UNIDO and others. Lecturer at Deggendorf Institute of Technology. Publications in the area of biogas and battery storage systems.



DONG Kenqin, Chinese Science and Technology Exchange Center (CSTEC) / Ministry of Science and Technology (MOST), China

Director of European Affairs, with senior experience on China-European ST cooperation policy and inter-governmental science and innovation projects.

***DONG Renjie, China Agricultural University (CAU/iBEST),
China***



Being senior consultant to the government and active researcher for international cooperation on biogas and organic waste treatment, Dr. DONG leads research on crop residues collection and storage, animal manure slurry and biogas digestates field application, household cookstoves, etc.



FANG Zhen, Nanjing Agricultural University, China

Leader, founder of biomass group, inventor of “fast hydrolysis” process, Editor-in-Chief of Springer Book Series – Biofuels and Biorefineries, Associate Editors of Biotechnol Biofuels & J Supercrit Fluid. PhDs China Agr. Univ. (Agr. Eng. Beijing) and McGill Univ. (Materials Eng. Montreal).

GE Jinyi, China Agricultural University (CAU), China

A postdoc at Princeton University (NJ, USA). She has been working in Agricultural and Environmental Engineering for 8 years with 15 papers published (10 in top journals, total impact factor = 51.58), 6 patents authorized, and 7 software copyrights registered.



***GONG Xifeng, Department of International Cooperation,
Chinese Academy of Agricultural Sciences (CAAS), China***

Director General of the Department of International Cooperation, CAAS; Deputy Director General of CIAR, CAAS; Expert for reviewing key international cooperation projects of MARA and MOST; Member of the Technical Management Committee of the China-UK-Africa Tripartite Agricultural Technology Cooperation Project; Member of the Global Challenge Project Committee of CGIAR and System Council; Key contributor in the planning of the Center for Western Agricultural Research of CAAS.

***GONTARD Nathalie, Institut National de la Recherche
Agronomique (INRA), France***

Research Director in the field of circular economy, food and bioplastics. Coordinator of NoAW and other international projects (e.g. EcoBioCAP), published 160 papers (h-index 37). Kyoto University Invited Professor (2010), EFSA Expert (2006-present), Horizon 2020 Etoile de l'Europe award (2015) among other merits.



HAN Lujia, China Agricultural University (CAU), China

Dean of the college of Engineering, obtained her PhD degree in Agricultural Engineering from CAU in 1990. She has led over 20 national research projects in agro-waste or biomass and published over 150 peer-reviewed international journal articles. She participated in the EU Projects FP7 QSAFFE and AGROCYCLE H2020.



***JANG Guang-Way, Industrial Technology Research Institute
(ITRI), Chinese Taipei***

Dr. Jang's research interests include bio-based and hybrid materials, with expertise in sol-gel processes, nano-composites and bio-plastics. He has held 30 patents and co-authored more than 50 scientific journal articles and book chapters. He is the chairman of the Association of Bio-based Materials Industry (ABbi).



***JEFFERY Simon, Harper Adams University (HAU),
United Kingdom***

Senior Lecturer in Sustainable Technology. Researcher involved in AgroCycle. Marie Curie alumnus (GA 526/09/1762). Published 30 papers (h-index 21). Lead editor of the European Atlas of Soil Biodiversity and editor of the Global Soil Biodiversity Atlas.



***JIA Honghua, Nanjing Tech University (NANJING TECH),
China***



Associate dean of College of Biotechnology and Pharmaceutical Engineering, Nanjing Tech University. Research on the field of anaerobic biotransformation and enzyme engineering. Hosted more than 20 research projects, published more than 40 papers and 20 patents. The outstanding young backbone teacher of the “Blue Project” in Jiangsu Province and the “Six Talents” high-level talent plan of Jiangsu Province



JIANG Min, Nanjing Tech University (NJTECH), China

Dean of 2011 college, Deputy Secretary General of Jiangsu Biological Technology Associate, China and Coordinator for Cooperation in Biotechnology between Baden-Wurttemberg and Jiangsu. Published more than 120 SCI papers, 61 invention patents, 2 English book chapters and 2 Chinese books.

LAHIFFE Ian, ALLFLEX China (ALLFLEX), China



He was formerly New Business General Manager for Alltech in China and is now leading up operations for Allflex Livestock Intelligence in China, while remaining very active in the agri-food technology space in China, working on a range of projects, including food traceability systems, technology acceleration and working to develop exchanges between China’s nascent beef sector and international best practice. Ian writes regularly on Chinese agri-technology and market trends, and is in demand as a speaker in China, and internationally.



LEPPIKORPI Minna, Ductor Corporation (DUCTOR), Finland

Experienced Director of Marketing and Business Development with a demonstrated history of working in the biotechnology industry. Skilled in Portfolio Management, Business Planning, International Business, Entrepreneurship, and Business Development. Strong marketing professional with a M.Sc. focused in Economics from University of Vaasa.

***LI Xiujin, Beijing University of Chemical Technology (BUCT),
China***



Conducting research on waste management with focus on anaerobic bioconversion of various biowastes into biogas, biomethane, and biochemicals. Over 300 papers were published, 20 patents granted.



***LIN Carol Sze Ki, School of Energy and Environment (SEE),
Hong Kong***

Associate Professor in the field of waste and biomass valorisation, food biorefinery and nutrient recovery. Consortium member of NoAW and other international projects (e.g. International Green Chemistry Network), published over 85 papers in peer-reviewed international journals (h-index 24). Korea University Invited Professor (2018-2019), Gold medal in Geneva Invention Exhibition award (2016 and 2018) among other merits.

LIU Ronghou, Shanghai JiaoTong University (SJTU), China



Director of Biomass Energy Engineering Research Centre, School of Agriculture and Biology, SJTU. Editorial board members of two SCI and Four EI journals. Published 9 books and more than 130 papers in SCI and EI journals. Main research field is Biomass Energy Engineering including biomass pyrolysis, biogas, bioethanol, biochar, characterization of biomass, etc.



***LOIZIDOU Maria, National Technical University of Athens
(NTUA), Greece***

Head of the Unit of Environmental Science & Technology (www.uest.gr), published more than 450 papers in international scientific journals and conferences focusing on solid waste, wastewater & water resources with 6,900 citations, scientific responsible of more than 150 projects (<http://www.uest.gr/index.php/projects>), 1st Green Award for the SOL-BRINE LIFE Environment project.

**MAJONE Mauro, University of Rome “la Sapienza”
(SAPIENZA), Italy**



Research interests: Environmental and Industrial biotechnologies for treatment and valorisation of waste and wastewater. Biopolymer (PHA) production. Remediation of polluted soils and groundwater. Co-author of more than 170 papers in international journals with more than 4900 citations (HI=42).



**MAUGUIN Philippe, Institut National de la Recherche
Agronomique (INRA), France**

Engineer in the Corps of Rural Engineering, Water and Forests, Philippe Mauguin becomes successively adviser to the Minister of Research, Director of Agriculture and Bioenergies at the ADEME, adviser to the Prime Minister, Director of the INAO, Director of the DRAAFT Ile-de-France Region, Director of Maritime Fisheries and Aquaculture, Chief of Staff of the Minister for Agriculture, then President and CEO of INRA.

**MU Taihua, Institute of Food Science and Technology
(IAPPST), Chinese Academy of Agricultural Sciences (CAAS),
China**



Chief Scientist of Potato and Sweet Potato Food Science Innovation Team, CAAS; Expert of Division of Sweet Potato Processing and Utilization of China Agriculture Research System; President of Sweet Potato Starch-Specialized Committee, China Starch Industry Association; Vice chairman of National Potato Staple Food Processing Industrial Alliance.



O'RIORDAN Dolores, University College Dublin (UCD), Ireland

Prof O'Riordan is the VP for Global Engagement at UCD, a role she holds concurrently with that of Director of the UCD Institute of Food and Health. She is a member of the Department of Agriculture, Food and the Marine's 'Sustainable Food Systems Ireland' Steering Committee and the national Expert Advisory Group on Agri-Food Research and Innovation. Prof O'Riordan is also a Board Member of safefood, the Food Safety Promotion Board.

OLDFIELD Tom, University College Dublin (UCD), Ireland

Employed as a Research and Development Specialist for the AgroCycle project. Tom's research focuses on carrying out life cycle assessment of waste valorisation technologies in the circular bioeconomy. Tom previously worked on FP7 projects FertiPlus and Refertil.



ROSSI Daniele, Confederation of farmers – Confagricoltura (CONGAFRI – GCIA), Italy

Delegate Research & Innovation of the Confederation of Farmers – Italy/Brussels / Chairman Copa Cogeca Research & Innovation EU WP RES – Brussels / Chairman EU National Technology Platforms Food For Life – Brussels / Senior Economist of the Presidency of the Council of Ministers – Italy / Chairman of the Cluster Agrifood / Past DG Food and Drink Industry Federation / Past DG Brewers of Italy, Europe / Director Cost Benefit Analysis – Italian Government IRI Group SpA / Winner Fulbright PhD UCLA – U.S. / Graduate Statistics and Economics.

SCHAER Burkhard, Ecozept (ECOZEPT), France/Germany

Consultant and researcher in sustainable agriculture and food markets and marketing. Former teacher/researcher at the Technical University of Munich and co-founder the independent consulting agency ECOZEPT. Specialist for organic agriculture markets and implicated in EU research programmes since 2000.



SEBÖK András, Campden BRI Magyarország Nonprofit Kft (CBHU), Hungary

General manager of CBHU. Long experience in food industry R&D&I, knowledge transfer, training. Specific skills in resource efficiency, process control, food safety management, value chain management operating industry R&I networks. Chairman of the R&I Expert Group of FoodDrinkEurope, Vice-Chairman of European Collaboration of NFTPs.

WARD Shane, University College Dublin (UCD), Ireland

Professor of Biosystems Engineering at UCD. He was previously Head of the UCD School of Agriculture, Food Science and Veterinary Medicine and a member of the university's Senior Management Team. He has published >200 peer-reviewed journal papers and conference proceedings. He has led several international research projects, including 'SafeMBM'; EC FP4 'ECOWOOD'; EC FP6 'SigmaChain'; and the current H2020 AgroCycle.



WU Guoqing, Biofuel Research Center (COFCO) / Nutrition and Health Research Institute (NHRI), China

Responsible for the R&D of bioethanol in NHRI and focusing on the technology of pretreatment, hydrolysis, co-fermentation and process integration. Deputy director of NERCLB (National Energy Research Center of Biological Liquid Fuel).

YANG Zhenhai, National Animal Husbandry Service (NAHS) /China Feed Industry Association (CFIA), China

Director general of NAHS and secretary-general of CFIA. Worked in the General Office of Ministry of Agriculture and Rural Affairs as deputy inspector and the Department of Livestock Production as deputy director. Deputy director of National Livestock Genetic Resources Committee. Published dozens of papers.



YI Yong, Shandong Bio Sunkeen Co, Ltd (SUNKEEN), China

Senior fermentation engineer ; A famous yeast expert in China ; Principal production and sales manager of Shandong Bio Sunkeen Co., Ltd.

***YU Yanxia, Chinese Cereals and Oils Association (CCOA),
China***



Deputy secretary general of CCOA; Vice president of Cereals and Oils Nutrition Sub-Association of CCOA; Government procurement evaluation expert of the Finance Ministry; Editorial board member of Journal of The Chinese Cereals and Oils Association, Food Science and Technology, and China Food Safety Magazine; Evaluation expert of Sci-tech Journals in China Association for Science and Technology.



ZHAO Hui, Henan Tianyu Sweet Potato Co, Ltd, China

General Manager of Henan Tianyu Sweet potato Co., Ltd. Engaged in the deep processing of sweet potato, starch noodles and sweet potato products. I have rich experiences in planting, processing and sales of sweet potatoes in the industry.

***ZHAO Zheng, Chinese Academy of Agricultural Sciences
(CAAS), China***



Master student in food science. Study the application of sourdough on potato steamed bread which is related to the Chinese national potato-staple food strategy. Microbial diversity of different Chinese traditional sourdough and their impacts on potato steamed bread has been revealed in her study.



*Up-Cycling
Agricultural
Residue into
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