

# International Sustainable Resource Recovery Strategies Towards Zero Waste (FULLRECO4US) Final Conference

05 - 07 May 2025  
Basel, Switzerland



Website: <https://fullreco4us.eu/basel-2025-conference/>



Location: FHNW Campus Muttenez, Hofackerstrasse 30, Muttenez

# Way to Venue



## WIFI connection at venue

<b>Network:</b>	eduroam	fhnw-public
<b>User name:</b>	institutional email	phone number
<b>Password:</b>	email password	SMS code

## From Airport to the Conference Venue

From  
Basel EuroAirport

To  
Muttentz, Fachhochschule

< Mo, 05.05.2025 > | 10:30 **Dep** Arr **Settings**

Price display Full fare ⓘ

**Earlier connections**

**B 50** Direction Basel, Bahnhof SBB  
10:36 — 11:12  
1. 11:12 2. 11:12  
36 min

**B 50** Direction Basel, Bahnhof SBB  
10:51 — 11:30  
39 min

**B 50** Direction Basel, Bahnhof SBB  
11:06 — 11:42  
1. 11:12 2. 11:12  
36 min

**B 50** Direction Basel, Bahnhof SBB  
11:21 — 12:00  
39 min

**B 50** Direction Basel, Bahnhof SBB  
11:36 — 12:12  
1. 11:12 2. 11:12  
36 min

**Later connections**

**Basel EuroAirport, Ankunft → Muttentz, Fachhochschule**  
Mo. 05.05.2025, 36 min

11:36 — 12:12

2nd class from CHF 6.60 1st class from CHF 11.30

Basel EuroAirport, Ankunft [Show map >](#)

11:36 **B 50** Direction Basel, Bahnhof SBB  
NF

11:54 Basel, Bahnhof SBB Stop B

6' Walking route [Show map >](#)

12:01 Basel SBB Platform 18  
Direction Otten

12:07 Muttentz Platform 4

2' Walking route [Show map >](#)

12:10 Muttentz, Bahnhof Stop B  
B 47 Direction Bollmingen, Schloss

12:12 Muttentz, Fachhochschule

Muttentz, Fachhochschule stop moved  
Due to construction work

**n|w** University of Applied Sciences and Arts  
Northwestern Switzerland

FHNW University of Applied Sciences and Arts  
Northwestern Switzerland  
FHNW Campus Muttentz

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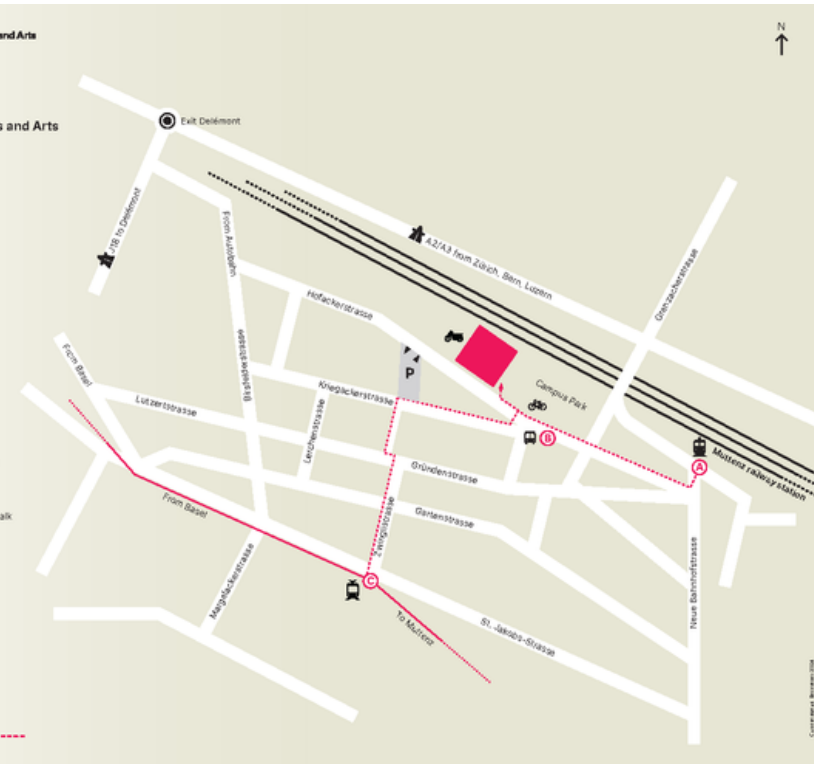
### Arriving by public transport

- A From Muttentz railway station**  
A six-minute or so walk via Hofackerstrasse
- B Bus 46** (from/to Kleinmünchen) or  
**Bus 47** (from/to Bettingen) to the  
'Fachhochschule' stop, then a two-minute walk
- C From the 'Zum Park' train stop in Muttentz**  
Tram 14 from Basel and Pratteln, then  
a 10-minute or so walk via Zwinglstrasse  
and Kriegackerstrasse

### Arriving by road

- Hagnau junction, A18 towards Delémont  
then Muttentz-Nord exit
- P Parking Münsterareal

Walking route from train/tram





Gala Dinner: Hotel ODELYA, Missionsstrasse 21a, CH-4055, Basel

## From the Conference Venue to Gala Dinner

From: Muttentz, Fachhochschule

To: Basel, Odelya Hotel, Missionsstrasse

Tu, 06.05.2025 | 18:30 Dep Arr Settings

Price display Full fare ⓘ

### Earlier connections

	Direction Basel SBB	from CHF 4.20
18:49	19:11	38 min
Pl. 1	1. 2.	

	Direction Basel SBB	from CHF 4.20
18:54	19:19	41 min
Pl. 1	1. 2.	

	Direction Basel SBB	from CHF 4.20
19:04	19:26	38 min
Pl. 1	1. 2.	

	Direction Basel SBB	from CHF 4.20
19:21	19:41	36 min
Pl. 1	1. 2.	

	Direction Basel SBB	from CHF 4.20
19:34	19:55	37 min
Pl. 1	1. 2.	

### Later connections

### Muttentz → Basel, Birmannsgasse

Tu, 06.05.2025, 38 min

18:49 19:11 7

2nd class  
from CHF 4.20

1st class  
from CHF 7.20

9' Walking route 488 m

Show map >

18:49	Muttentz	Platform 1
		1. 2.
	Direction Basel SBB	
18:55	Basel SBB	Platform 1B

6' Walking route

Show map >

19:04	Basel, Bahnhof SBB	Stop D
	Direction Basel, Dreirosenbrücke	
	NF	
19:11	Basel, Birmannsgasse	

7' Walking route 411 m

Show map >

Basel, Odelya Hotel, Missionsstrasse



# Plenary Speakers

## Kristof Verbeeck, ArcelorMittal Steel, Belgium



The Steelanol facility at ArcelorMittal's steel plant in Ghent is Europe's first industrial installation of its kind, and the largest facility built to date utilizing gas fermentation technology globally, designed to produce 80 million liters of ethanol annually. The flagship project of Steelanol demonstrates the possibility to produce products and fuels at industrial scale through an innovative fermentation process, capturing steel mill waste gases and convert these in circular ethanol. The application of this microbial gas conversion platform significantly advances ArcelorMittal's carbon capture and utilization (CCU) capabilities and enhances steel's role in the circular economy.

## Fabio Fava, University of Bologna, Italy



Fabio Fava is Full Professor of Industrial and Environmental Biotechnology at the School of Engineering of the University of Bologna since 2005, has over than 210 international peer-reviewed publications in the fields of Bioeconomy, in which he coordinated 2 European FP7 collaborative projects and other national projects. He is the Italian Representative in various panels of the European Commission (Brussels), among others, the "Strategic Committee" and the Cluster 6 Programming Committee of Horizon Europe, the "European Bioeconomy Policy Forum" and the "States Representatives Group" of the Public Private Partnership "Circular BioBased Europe" (CBE JU). He is also the Italian Representative in the Working Party on Biotechnology, Nanotechnology and Converging Technologies of the OECD (Paris).

## Maria Reis, Universidade NOVA de Lisboa, Portugal



Maria Reis is a Full Professor in Environmental Biotechnology at FCT-UNL and leads the BIOENG research group. Her work focuses on sustainable bioprocesses for pollutant removal and waste valorization within the circular economy. She has published over 300 peer-reviewed papers (H-index: 69), 18 book chapters, and holds 10 patents. She has delivered 200+ international presentations and led 28 international and 34 national research projects, many with industrial collaboration. Prof. Reis has co-supervised 30 PhD and 15 PostDoc researchers and currently mentors 19 more. She has received multiple awards, including the Solvay & Hovione Prize, and is a member of the Portuguese Academy of Engineering and an IWA Fellow. She is also an editor for Water Research (Elsevier).

## David Newman, European Bioeconomy Bureau, Belgium



David Newman is the Founder and Chairman of the European Bioeconomy Bureau (EBB), promoting circular bioeconomy policies. He is a partner in two CBE JU-funded projects—BRILIAN and PROSPER—focused on policy and communication. From 2015 to 2022, he led the Bio-based and Biodegradable Industries Association (BBIA), supporting EU projects like Res Urbis and Usable Packaging. He was President of the World Biogas Association (2016–2021) and has advised on waste and sustainability through Jordanglia Ltd. since 2014. A Manchester University graduate in Modern History and Economics, he authored Everything is Connected (2020), drawing on 30 years of environmental activism.



Day1

05.05.2025

## Morning Session 09:00 - 14:10

**09:00 - 13:00** Registration/MC Meeting (**Lecture hall 01.W.20**)

**13:00 - 13:30** Opening Ceremony (**Aula hall**)  
Philippe Corvini (Conference Chair) & Mohammad Taherzadeh (Action Chair)

**13:30 - 14:10** Plenary Speaker 1 (**Aula hall**)  
Kristof Verbeeck, ArcelorMittal Steel, Belgium  
"Towards the circular use of carbon: from steel mill waste gas to low-carbon ethanol – The Steelanol case"

## Afternoon Session 14:20 - 18:30

**Session A (Session Chair: Eric van Hullebusch & Derya Y. Imer)**  
(**Aula hall**)

**14:20 - 14:40** Jizhong Meng, Teagac/ University of Galway, Ireland  
"Application of Electrodialysis for Resource Recovery from Wastewater: A Long-Term Investigation of Membrane Fouling"

**14:40 - 15:00** Jeroen Geuens, Karel de Grote University of Applied Sciences and Arts, Belgium  
"Valorisation of sludge from waste water treatment plants"

**15:00 - 15:20** Xinmin Zhan, University of Galway, Ireland  
"Selective enrichment of auto-floating microalgae for wastewater bioremediation"

**15:20 - 15:40** Faysal-Al Mamun, University of Tartu, Estonia  
"Removal of different PhACs from the Hospital"

**Session B (Session Chair: Timo Kikas & Gjore Nakov)**  
(**Lecture hall 01.W.20**)

**14:20 - 14:40** Milena Rajic, University of Nis, Serbia  
"The integration of lean, green and sustainable business practices for zero waste: From literature review to the development model"

**14:40 - 15:00** Pawel Krzeminski, Norwegian Institute for Water Research, Norway  
"Circularity and industrial symbiosis in industrial parks as tools for green transition – CATALYST project"

**15:00 - 15:20** Belén García Fernández, PACKNET- Spanish Packaging technology Platform, Spain  
"Upcoming challenges and opportunities for the packaging value chain in the context of Circular Economy"

**15:20 - 15:40** Sinem Hazal Akyildiz, Politecnico di Torino, Italy  
"From Waste to Resource: Optimizing Textile Waste Management for a Circular Economy"

**15:40 - 16:00** Coffee Break (**Aula hall**)

Day1

05.05.2025

## Afternoon Session 14:20 - 18:30

### Session C (Session Chair: Xinmin Zhan & Gamze Nur Mujdeci) (Aula hall)

**16:00 - 16:20** Petras Rimantas Venskutonis, Kaunas University of Technology, Lithuania "Supercritical CO<sub>2</sub> and pressurized liquid extraction for the recovery of nutrients from the agro-food processing side-streams and waste: pros and cons"

**16:20 - 16:40** Senem Kamiloglu, Bursa Uludag University, Türkiye "Green biorefining of walnut shells into polyphenol-rich extracts using, ultrasound-assisted, enzyme-assisted and pressurized liquid extraction methods"

**16:40 - 17:00** Joana Amaral, Polytechnic Institute of Bragança, Portugal "Supercritical Fluid Extraction of Polyphenols from Almond By-Products: Evaluating Bioaccessibility and Bioavailability Through In Vitro Digestion."

**17:00 - 17:20** Valeria Pierpaoli, Tuscia University, Italy "Chestnut wood waste: route to the biorefinery concept."

### Session D (Session Chair: Joanna Surmacz-Gorska & Jorge Mario Marchetti) (Lecture hall 01.W.20)

**16:00 - 16:20** Pınar Gültekin, Düzce University, Türkiye "Evaluation of Efforts to Achieve Sustainable Development Goals and Awareness in Universities' in Türkiye"

**16:20 - 16:40** Sofia Tisocco, University of Galway, Ireland "Process-based and machine learning models for simulating biogas production from a full-scale agricultural biogas plant"

**16:40 - 17:00** Aytac Perihan Akan, Hacettepe University, Türkiye "Co-digestion of duckweed (*lemna minor*) and chicken manure for biogas production"

**17:00 - 17:20** Ana Ramos, INEGI, Portugal "Optimizing Waste-to-Energy Solutions: Linking Biomass Composition to Sustainable Resource Recovery"

**17:20 - 18:30** Posters Session (Entrance hall)

Day 2

06.05.2025

## Morning Session 09:00 - 14:10

09:00 - 9:40

**Plenary Speaker 2 (Aula hall)**

**Fabio Fava, University of Bologna, Italy**

**"Sustainable Bioeconomy for the restoration of impacted terrestrial and marine habitats"**

### **Session E (Session Chair: Petras Rimantas Venskutonis & Ahmed Rassili)** **(Aula hall)**

09:50 - 10:10

Xianbao Xu, Gdańsk University of Technology, Poland  
"Effect of thermal pretreatment on valuable lactate production during the co-fermentation of food waste and landfill leachate"

10:10 - 10:30

GAMZE NUR MÜJDECI, Hitit University, Türkiye  
"High Oleic Acid Microbial Oil Production by Domestic *Rhodotorula dairensis* KTC7-1 Using Sugar Beet Molasses as a Sustainable Substrate"

10:30 - 10:50

Shohei Yasuda, University of Galway, Ireland  
"Production of the compatible solute ectoine by an isolated halophilic methanotroph using excess methane from anaerobic digestion plants"

10:50 - 11:10

Isaac Owusu-Agyeman, KTH Royal Institute of Technology, Sweden  
"Unlocking the potential of Pulp and Paper sludge for bio-based volatile fatty acid production: Effect of operation conditions"

### **Session F (Session Chair: Aleksandra Nesic & Milena Rajic)** **(Lecture hall 01.W.20)**

09:50 - 10:10

Britt Segers, University of Antwerp, Belgium  
"State-based assessment method based on statistical entropy and oxidation states to assess the economic viability of lignocellulosic biomass valorisation"

10:10 - 10:30

Mouandhe Imamou Hassani, Kaunas University of Technology, Lithuania  
"Valorizing hempseed processing byproducts into functional food ingredients using green technologies"

10:30 - 10:50

Yordan Georgiev, University of Burgas, Bulgaria  
"In vitro antioxidant and modulatory effects of freeze-dried herbal extracts on salivary alpha-amylase and lipoxxygenase"

10:50 - 11:10

Myriam Taghouti, FeedInov CoLAB, Portugal  
"Building Sustainable Agri-Food Chains: Defining Future Skills and Actions to Boost Upcycled Ingredient Adoption"

11:10 - 11:30

**Coffee Break (Aula hall)**

Day 2

06.05.2025

## Morning Session 09:00 - 14:10

### Session G (Session Chair: Belén García Fernández & Gamze Nur Mujdeci ) (Aula hall)

- 11:30 - 11:50** Francesca Accardo, University of Parma, Italy  
"Enzymatic hydrolysis of proteins as a valorisation pathway for sustainable agriculture: from food processing residues to new soil improvers"
- 11:50 - 12:10** Panayiota Karanicola, Cyprus University of Technology, Cyprus  
"Advanced Production of Pectin, Bacterial Cellulose, and Bioactive Compounds via a holistic citrus processing waste-based biorefinery"
- 12:10 - 12:30** AINTZANE ESTURO, IFU, Spain  
"Upcycling Citrus By-Products: Nutritional and Functional Potential of Argentinean lemon pecto-fibre."
- 12:30 - 12:50** Vesna Najdanovic, Aston University, United Kingdom  
"Valorisation of Cocoa Bean Shells for Sustainable Antioxidant Extraction Using Renewable Solvents"

### Session H (Session Chair: Derya Y. Imer & Olga Nunes) (Lecture hall 01.W.20)

- 11:30 - 11:50** Laia Llenas Argelaguet, BETA Tech Center (UVIC-UCC), Spain  
"Upcycling animal manure to improved fertilising products"
- 11:50 - 12:10** Rohit Kumar, University of Tartu, Estonia  
"High nitrite limiting anammox granular biomass at low rate compared to biofilm"
- 12:10 - 12:30** Katie Allinson, University of Liverpool, United Kingdom  
"Nutrient Recovery from Waste Hydroponic Nutrient Solution using Nanomaterials"
- 12:30 - 12:50** Emanuel Gheorghita Armanu, "Gheorghe Asachi" Technical University of Iasi, Romania  
"Removal of pollutants from wastewater using natural adsorbents and immobilized bacterial cells"

**12:50 - 14:00** Lunch Break (Entrance hall)



Day 2

06.05.2025

## Afternoon Session 14:00 - 18:00

### Plenary Speaker 3 (Aula hall)

14:00 - 14:40

Maria Reis, Universidade NOVA de Lisboa, Portugal

"Unlocking the Potential of Waste for Sustainable Biopolymer Manufacturing"

### Session I (Session Chair: Gjore Nakov & Myriam Taghouti)

(Aula hall)

14:50 - 15:10

Berkay Berk, Izmir Institute of Technology, Türkiye  
"Upcycling of kitchen food waste: development of a lycopene- and inulin-rich soup powder formulation using mixture design"

15:10 - 15:30

Bilge Basturk Berk, Ege University, Türkiye  
"Utilization of Fruit Juice Industrial Wastes in The Fruit Leather (Pestil) Production"

### Session J (Session Chair: Linda Mezule & Pieter Billen)

(Lecture hall 01.W.20)

14:50 - 15:10

Seferhan YILMAZ, Istanbul Technical University, Türkiye  
"Resource Recovery through PHA Production from Wheat Industry Wastewater: Effect of Acclimation and Extraction Parameters on Bioplastic Yield"

15:10 - 15:30

Héloïse BAZART, University of Montpellier, France  
"Biopolyester Biodegradation Studies Through Respirometric Tests at Varying Substrate-Inoculum Ratio"

15:30 - 15:50

Coffee Break (Aula hall)

### Session I (Session Chair: Gjore Nakov & Myriam Taghouti)

(Aula hall)

15:50 - 16:10

Azadeh Kermanshahi pour, Dalhousie University, Canada  
"Derivation of pharmaceutically important compounds from sea cucumber processing waste"

16:10 - 16:30

Evrin Celik Madenli, University of Liverpool, United Kingdom  
"Polyphenol Recovery from Rose Oil Distillation Wastewater with Nanomaterials"

### Session J (Session Chair: Linda Mezule & Pieter Billen)

(Lecture hall 01.W.20)

15:50 - 16:10

Swati Tamantini, University of Tuscia, Italy  
"Evaluation of Lignin-Based Polyurethane Coatings for Enhanced Wood Durability and Fungal Resistance"

16:10 - 16:30

NATALIA Czerwinska, Polytechnic University of Marche, Italy  
"Hybrid biodegradable fibers for air filtration application"

16:30 - 18:00

Posters Session & WG Meetings (Entrance hall)

19:30 - 22:00

Gala Dinner (Hotel ODELYA)

Day 3

07.05.2025

## Morning Session 09:00 - 12:00

09:00 - 9:40

Plenary Speaker 4 (Aula hall)

David Newman, European Bioeconomy Bureau, Belgium

"The EU Bioeconomy Strategy, what is needed ?"

09:50 - 10:10

Coffee Break (Aula hall)

### Session K (Session Chair: Timo Kikas & Ahmed Rassili)

(Aula hall)

10:10 - 10:30

Seferhan YILMAZ, Istanbul Technical University, Türkiye  
"Challenges and opportunities for the production of polyhydroxyalkanoates (PHAs) from industrial waste streams"

10:30 - 10:50

Pieter Billen, University of Antwerp, Belgium  
"Biodegradable plastics in a circular economy: there is no average PLA"

10:50 - 11:10

Silvio Matassa, University of Naples Federico II, Italy  
"Upcycling Nitrogen into Protein-Rich Microbial Biomass and Reducing Emissions in Wastewater Treatment Plants with Hydrogen-Oxidizing"

11:10 - 11:30

Ecrin Ekici, Karlsruhe Institute of Technology, Germany  
"Hydrodeoxygenation of Bio-Oil for Cleaner Marine Fuels at Mild Conditions"

### Session L (Session Chair: Patrik Lennartsson & Belén García Fernández)

(Lecture hall 01.W.20)

10:10 - 10:30

Aleksandra Nešić, Faculty of Technology Novi Sad, Serbia  
"Polymer-based cosmetic pads loaded with apricot seed oil"

10:30 - 10:50

Nayil Dinkci, Ege University, Türkiye  
"Hazelnut Skin: Waste or an Important Source for Phenolic Compounds"

10:50 - 11:10

Andonia Nicodemou, Cyprus University of Technology, Cyprus  
"Optimized Biomass and Lipid Production from Olive Processing Wastewater by *Scenedesmus obliquus* Using a Two-Stage Cultivation Approach Under Salt Stress"

11:10 - 11:30

Alexandrina Sirbu, Constantin Brancoveanu University of Pitesti, Romania  
"Current Opportunities of Brewers' Spent Grains Upcycling"

11:30 - 12:00

Closing Ceremony (Aula hall)