



# Next Generation Biofuels

Dr. Himanshu

- Industrial Scale Biogas plant

- Throughput: 65,000 Tons/year



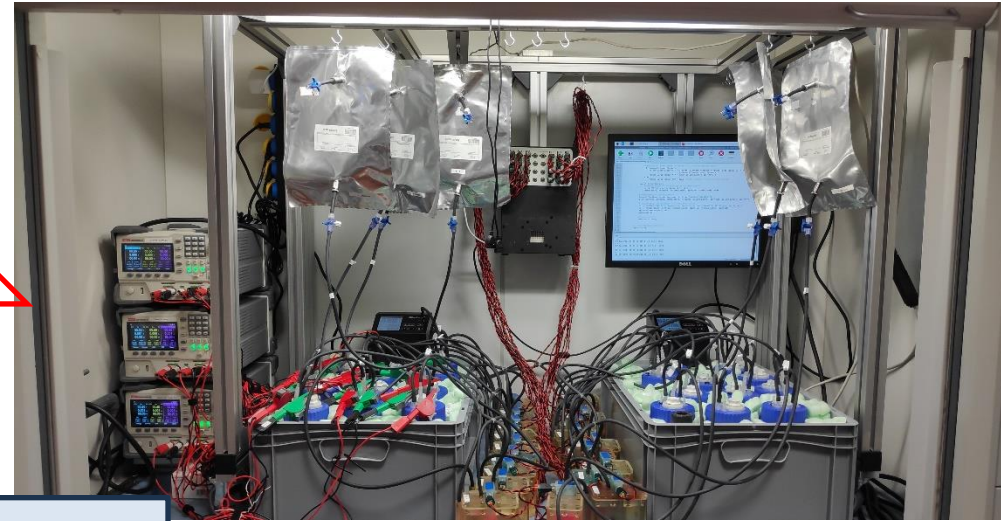
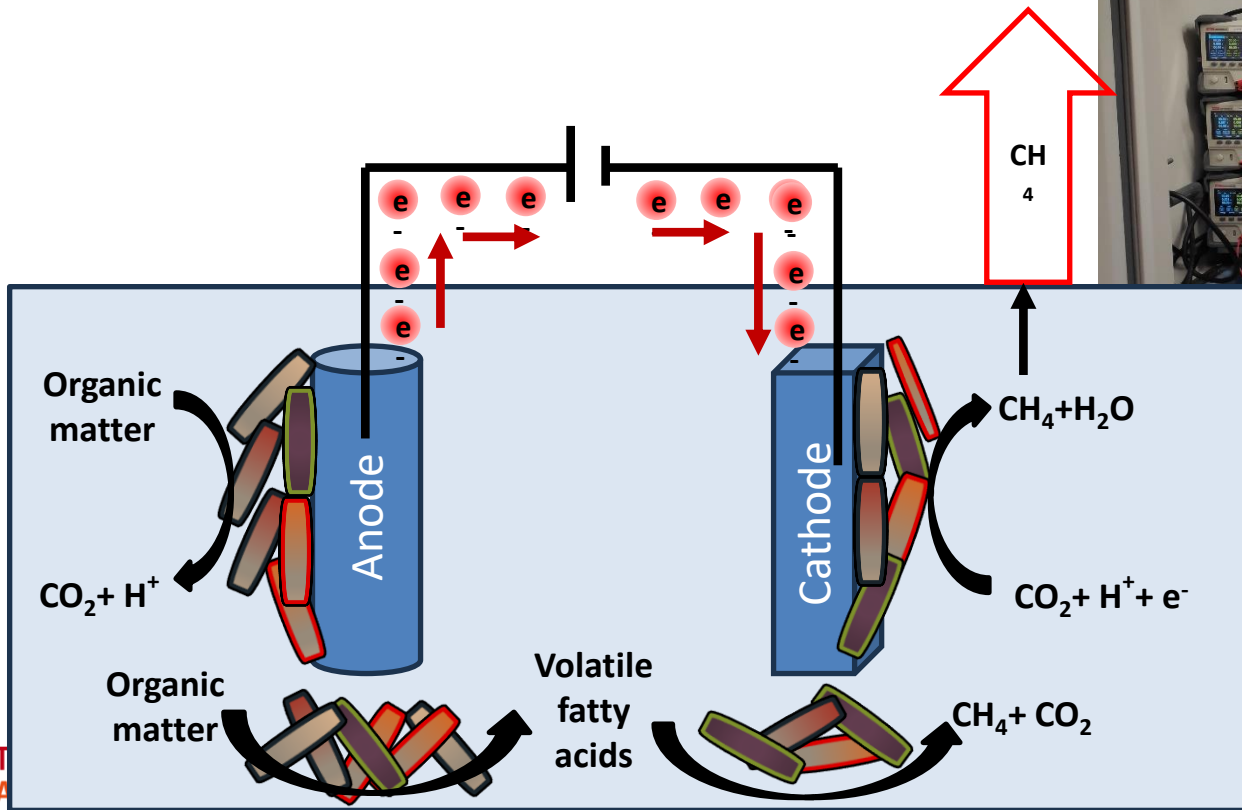
# :metabolon

- Lab to pilot scale



# Next Gen Biogas Production :metabolon

## ➤ Hybrid MEC~AD



➤ **Our Current Projects:**

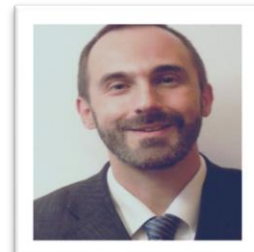
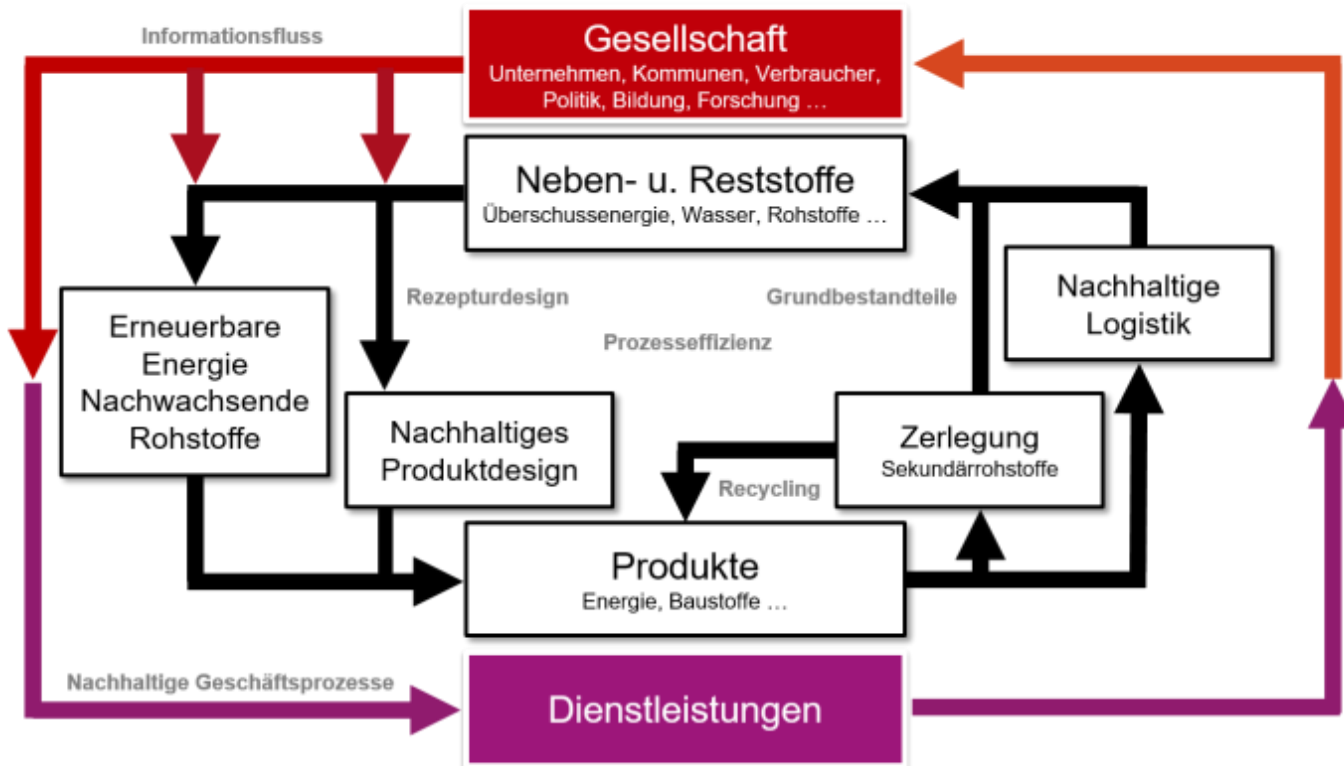
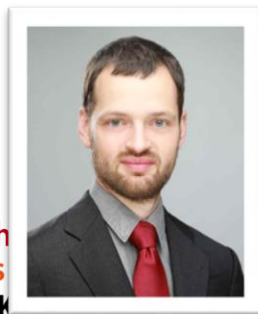
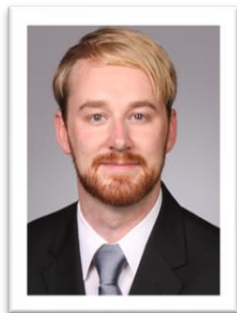
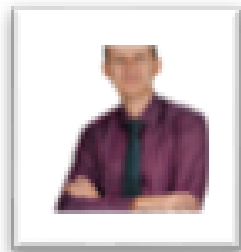
- Green Hydrogen from Organic Waste and Slurry with Dark Fermentation and Microbial Electrolysis
- Bioremediation of Plastic Waste
- Biomethanation of Landfill Gas
- Treatment of Landfill Leachate producing Biomass as microalgae



➤ **Our experience:**

- Consortium leader for multiple EU Projects
  - EIC Pathfinder Open
  - Horizon Europe
  - EFRE
  - Horizon 2020
- Past project
  - 2021-2022 Pilot of the Bergische Forge of Resources (EFRE.NRW), Budget: 3,960,000 €
  - 2019-2023 INTERREG NWE: REGENERATIS - REGENERATION of Past Metallurgical Sites and Deposits through innovative circularity for raw materials
  - 2017-2020 :metabolon IIb - Innovative Processes for a Circular Economy (EFRE.NRW), Budget: 3,640,000 €
  - 2013-2018 ENERWATER Standard method and online tool for assessing and improving the energy efficiency of waste water treatment plants, Budget: 1,700,000 €
  - 2013-2017 ATBEST Advanced Technologies for Biogas Efficiency Sustainability and Transport (Marie Curie People ITN), Budget: 3,800,000€
  - 2009-2015 :metabolon I und IIa - From Waste to Resource (EFRE) Budget: 25,000,000€
  - 2011-2015 RENEW REsource Innovation Network for European Waste (Interreg IVb) Budget: 4,859,329€
  - 2009-2011 SILCO - Innovative electrodes to control trace metal ionization used to treat Legionella and other pathogens in water distribution systems(FP7 - Research for the benefit of SME) Budget: 1,400,000€

# The Team: Circular Transformation Lab



Technologie    Ökologie    Ökonomie    Soziologie    Recht

