AALBORG UNIVERSITET

HORIZON EUROPE 2026/2027 CALLS

CLUSTER 6 – FOOD, BIOECONOMY, NATURAL RESOURCES, AGRICULTURE AND ENVIRONMENT

AAU Fundraising & Project Management Office

TABLE OF CONTENTS

INTRODUCTION

AAU HORIZON EUROPE COMPENDIUM

Interested in finding academic partners for the upcoming Horizon Europe calls? At AAU, we have collected, mapped, and showcased AAU researchers' interest in collaborating on specific topics within the six clusters of Pillar 2 (including EU Missions & Cross-cutting activities). Each compendium displays our showcased researcher's relevant expertise within each identified topic, which makes it easy to locate AAU researchers who are interested in collaborating and providing their expertise in your next Horizon Europe proposal.

ABOUT AAU

AAU has campuses in Aalborg, Copenhagen, and Esbjerg, as well as an EU office in Brussels. We have 3.700 staff, 18.000 students and an annual turnover of DKK 3 billion.

AAU is a comprehensive university covering four faculties and 18 departments, such as Sustainability and Planning, Energy, Health Science and Technology, Computer Science, Built Environment, Politics and Society, Culture and Learning.

With problem-based learning at the heart of educational programs, AAU researchers and students are well-equipped to take on current and future societal, environmental and economic challenges.

OUR PROFILE AND DNA – WHY SHOULD YOU PARTNER WITH US?

Collaboration is heavily embedded in the DNA of AAU. We have a strong and natural collaboration with industry and the surrounding society – thus our current strategy is labeled "Knowledge for the World 2.0".

We are a mission-oriented university, with three identified AAU Missions:

1. A Sustainable Danish Energy System
2. Improved Wellbeing Among Children and Youth in Denmark
3. Improving Health Through Coherence and Individualisation

As the second best ranked engineering university in Europe, and being no. 16 globally (ranking from the U.S. News & World Report), as well as being in top 5 of universities pursuing the UN sustainable development goals (THE University Impact Rating), we are a very capable partner and collaborator.

AAU has contributed as coordinator or partner in close to 200 projects in the EU Horizon 2020 Framework Programme. For Horizon Europe we have – so far – contributed to more than 150 projects. We are setting even more ambitious targets for Horizon Europe in 2025 and going forward.

DESTINATION 1

BIODIVERSITY AND ECOSYSTEM SERVICES

DESTINATION 1: CALLS

CALL – BIODIVERSITY AND ECOSYSTEM SERVICES

DESTINATION 2

FAIR, HEALTHY AND ENVIRONMENT-FRIENDLY FOOD SYSTEMS FROM PRIMARY PRODUCTION TO CONSUMPTION

DESTINATION 2: CALLS

CALL – FAIR, HEALTHY AND ENVIRONMENT-FRIENDLY FOOD SYSTEMS FROM PRIMARY PRODUCTION TO CONSUMPTION

DESTINATION 3

CIRCULAR ECONOMY AND BIOECONOMY SECTORS

DESTINATION 3: CALLS

CALL – CIRCULAR ECONOMY AND BIOECONOMY SECTORS

HORIZON-CL6-2026-01-CIRCBIO-01: Improving circularity of multilayer flexible plastic food contact packaging

HORIZON-CL6-2026-01-CIRCBIO-02: Advancing recycling technologies for mixed post-consumer textiles waste from blended products

HORIZON-CL6-2026-01-CIRCBIO-05: Understanding biomass flows in Europe

HORIZON-CL6-2026-01-CIRCBIO-07: Advancing the European bio-based innovation enabled by biotechnology and biomanufacturing concepts

HORIZON-CL6-2026-01-CIRCBIO-10: Bio-based innovation in society: supporting the sustainable way of living

HORIZON-CL6-2026-01-CIRCBIO-11: Harnessing the unique properties of marine organisms to deliver sustainable blue bio-based products

HORIZON-CL6-2027-01-CIRCBIO-02: Enhancing ecodesign and circularity of construction products

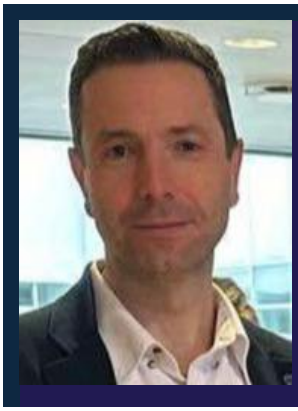
HORIZON-CL6-2027-01-CIRCBIO-03: Developing novel recycling technologies for complex plastic materials applying biotech solutions

HORIZON-CL6-2027-01-CIRCBIO-04: Capacity building for extending product lifecycles through repair and refurbishment

HORIZON-CL6-2027-01-CIRCBIO-05: Innovative circular solutions for end-of-life footwear through collection, sorting and recycling (RIA)

HORIZON-CL6-2027-01-CIRCBIO-08: Biotechnology application for CCU (IA)

HORIZON-CL6-2026-01-CIRCBIO-01: IMPROVING CIRCULARITY OF MULTILAYER FLEXIBLE PLASTIC FOOD CONTACT PACKAGING



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HIGHLIGHTED AAU RESEARCH GROUPS

Lead of the AAU Plastic Biorefinery and upcycling group: Plastic Biorefining and Bioupcycling - Aalborg Universitet

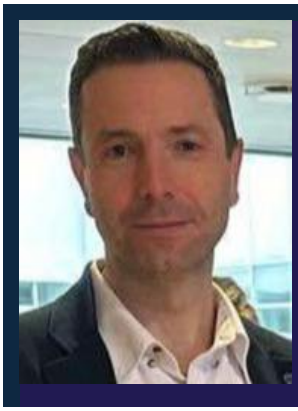
RELEVANT LINKS OUTSIDE ACADEMIA

Large international network through coordination of several EU projects (both RIA and IA)

AREA OF EXPERTISE

Fermentation Technologies and Biorefineries
Eco-engineering of Mixed Microbial Cultures
Bio-upcycling plastic waste
Second Generation Biofuels and Green Chemicals
Statistical optimization of process parameters

HORIZON-CL6-2026-01-CIRCBIO-02: ADVANCING RECYCLING TECHNOLOGIES FOR MIXED POST-CONSUMER TEXTILES WASTE FROM BLENDED PRODUCTS



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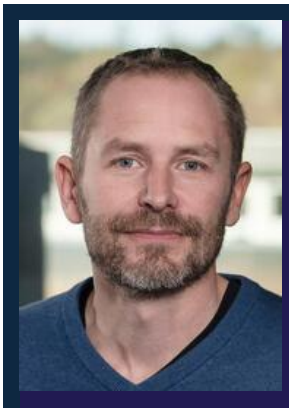

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HIGHLIGHTED AAU RESEARCH GROUPS

Leader of research group of Advanced Materials and Circular Solutions, AAU

RELEVANT LINKS OUTSIDE ACADEMIA

Many Industrial partners in different sectors both in Denmark and in Europe

AREA OF EXPERTISE

Development, characterization, and testing of materials (polymers, composites, metals, and ceramics).
Chemical recycling of mixed plastic waste, textiles, thermoset plastic and composite materials (e.g. PCB and plastic with flame retardants) by pyrolysis and solvolysis.
Chemical recycling of batteries and E-waste.
Separation and purification technologies
Quantitative chemical analysis
High temperature and high-pressure technologies.
Supercritical CO2 extraction (e.g. extraction of dyes).

RELEVANT PROJECTS

Streamlined Textile waste streams for recycling optimization (STREP), HORIZON-CL6-2024-CIRCBIO-02, 2025-2028

HORIZON-CL6-2026-01-CIRCBIO-05: UNDERSTANDING BIOMASS FLOWS IN EUROPE

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HIGHLIGHTED AAU RESEARCH GROUPS

Leader of Life Cycle Sustainability group.

RELEVANT LINKS OUTSIDE ACADEMIA

Previously coordinator of ALIGNED EU project. Partner in several EU projects of Cluster 6 and CBE-JU.

AREA OF EXPERTISE

Life Cycle Assessment
Focus on bioeconomy, biobased products from land and marine biomass, biorefinery. Additional focus on circular economy, industrial symbiosis, Carbon Capture, and LCA automation.

Biomass flows mapping and assessment of biomass utilization pathways in a life cycle perspective.

HORIZON-CL6-2026-01-CIRCBIO-07: ADVANCING THE EUROPEAN BIO-BASED INNOVATION ENABLED BY BIOTECHNOLOGY AND BIOMANUFACTURING CONCEPTS

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HIGHLIGHTED AAU RESEARCH GROUPS

Lead of the AAU Plastic Biorefinery and upcycling group: Plastic Biorefining and Bioupcycling - Aalborg Universitet

RELEVANT LINKS OUTSIDE ACADEMIA

Large international network through coordination of several EU projects (both RIA and IA)

AREA OF EXPERTISE

Fermentation Technologies and Biorefineries
Eco-engineering of Mixed Microbial Cultures
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Second Generation Biofuels and Green Chemicals
Statistical optimization of process parameters

HORIZON-CL6-2026-01-CIRCBIO-10: BIO-BASED INNOVATION IN SOCIETY: SUPPORTING THE SUSTAINABLE WAY OF LIVING

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RELEVANT LINKS OUTSIDE ACADEMIA

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AREA OF EXPERTISE

Life Cycle Assessment
Focus on bioeconomy, biobased products from land and marine biomass, biorefinery.
Additional focus on circular economy, industrial symbiosis, Carbon Capture, and LCA automation.

Assess the potential of new socio-economic models for circular and bio-based system.

HORIZON-CL6-2026-01-CIRCBIO-11: HARNESSING THE UNIQUE PROPERTIES OF MARINE ORGANISMS TO DELIVER SUSTAINABLE BLUE BIO-BASED PRODUCTS

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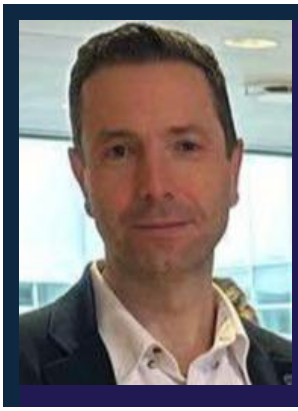
AREA OF EXPERTISE

Life Cycle Assessment
Focus on bioeconomy, biobased products from land and marine biomass, biorefinery. Additional focus on circular economy, industrial symbiosis, Carbon Capture, and LCA automation.

Previous experience with LCA of aquaculture systems and biorefineries including seaweed and microalgae. Assess the environmental sustainability and effectiveness of the developed bio-based products derived from marine environments compared to the equivalent material on the market.

HORIZON-CL6-2027-01-CIRCBIO-02: ENHANCING ECODESIGN AND CIRCULARITY OF CONSTRUCTION PRODUCTS



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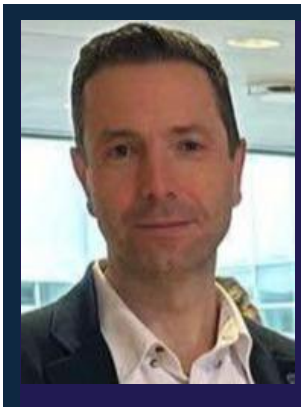
AREA OF EXPERTISE

Life Cycle Assessment
Focus on bioeconomy, biobased products from land and marine biomass, biorefinery. Additional focus on circular economy, industrial symbiosis, Carbon Capture, and LCA automation.

Conduct LCA to address the expected outcome of: The environmental performance of the proposed solutions in comparison to existing products should be evaluated from a lifecycle perspective using product environmental footprint methodology wherever applicable

HORIZON-CL6-2027-01-CIRCBIO-03: DEVELOPING NOVEL RECYCLING TECHNOLOGIES FOR COMPLEX PLASTIC MATERIALS APPLYING BIOTECH SOLUTIONS



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Statistical optimization of process parameters

HORIZON-CL6-2027-01-CIRCBIO-04: CAPACITY BUILDING FOR EXTENDING PRODUCT LIFECYCLES THROUGH REPAIR AND REFURBISHMENT

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RELEVANT LINKS OUTSIDE ACADEMIA
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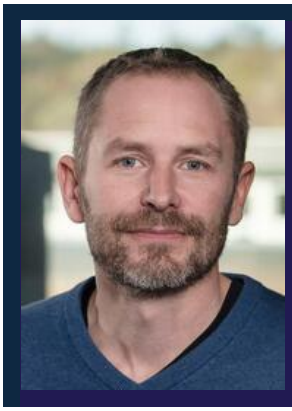
AREA OF EXPERTISE
Life Cycle Assessment
Focus on bioeconomy, biobased products from land and marine biomass, biorefinery. Additional focus on circular economy, industrial symbiosis, Carbon Capture, and LCA automation.

Conduct LCA to address the specific expected outcome of: evaluate the feasibility, effectiveness and impact of these new services and strategies using robust evaluation methods (including lifecycle assessments such as Product Environmental Footprint, where relevant) and present data and evidence about the economic, environmental and social costs and benefits of the developed strategies.

HORIZON-CL6-2027-01-CIRCBIO-05: INNOVATIVE CIRCULAR SOLUTIONS FOR END-OF-LIFE FOOTWEAR THROUGH COLLECTION, SORTING AND RECYCLING (RIA)



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Many Industrial partners in different sectors both in Denmark and in Europe

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Development, characterization, and testing of materials (polymers, composites, metals, and ceramics).
Chemical recycling of mixed plastic waste, textiles, thermoset plastic and composite materials (e.g. PCB and plastic with flame retardants) by pyrolysis and solvolysis.
Chemical recycling of batteries and E-waste.
Separation and purification technologies
Quantitative chemical analysis
High temperature and high-pressure technologies.
Supercritical CO2 extraction.

RELEVANT PROJECTS

Streamlined Textile waste streams for recycling optimization (STREP), HORIZON-CL6-2024-CIRCBIO-02, 2025-2028

Pyrolysis for green fuels and enabling future green hydrogen (Pyrogreen), Innovationsfonden Denmark, (PI/Project leader for AAU), 2023-2026

HORIZON-CL6-2027-01-CIRCBIO-08: BIOTECHNOLOGY APPLICATION FOR CCU (IA)

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The Faculty of Engineering and Science

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MEMBERSHIP OF EU PARTNERSHIPS

EERA

AREA OF EXPERTISE

Thermal/fluids energy technologies
Reacting multiphase flows (e.g., bioenergy & biofuels, carbon capture & utilization, green fuels, green cement & ceramics)
Advanced CFD and digital twins
Heat transfer

RELEVANT PROJECTS

BioNETzero: Integrated oxy-combustion solutions for flexible, bio-based combined heat and power: A Negative emissions technology for a net-zero Europe (Horizon Europe project)

DESTINATION 4

CLEAN ENVIRONMENT AND ZERO POLLUTION

DESTINATION 4: CALLS

CALL – CLEAN ENVIRONMENT AND ZERO POLLUTION

HORIZON-CL6-2026-01-ZEROPOLLUTION-01-two-stage: Decontaminate and bioremediate aquatic pollution

HORIZON-CL6-2027-01-ZEROPOLLUTION-01: Replacing hazardous substances in biocidal products

HORIZON-CL6-2027-01-ZEROPOLLUTION-04: Europe-wide environmental benchmarking system of the industrial bioeconomy sectors

HORIZON-CL6-2026-01-ZEROPOLLUTION-01-TWO-STAGE: DECONTAMINATE AND BIOREMEDIATE AQUATIC POLLUTION

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HIGHLIGHTED AAU RESEARCH GROUPS
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RELEVANT LINKS OUTSIDE ACADEMIA
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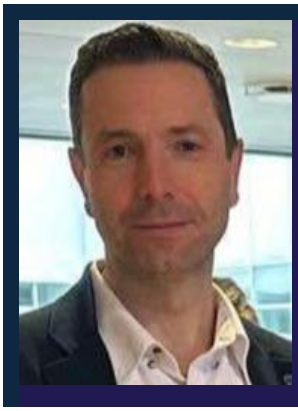
AREA OF EXPERTISE
Fermentation Technologies and Biorefineries
Eco-engineering of Mixed Microbial Cultures
Bio-upcycling plastic waste
Second Generation Biofuels and Green Chemicals
Statistical optimization of process parameters

HORIZON-CL6-2027-01-ZEROPOLLUTION-01: REPLACING HAZARDOUS SUBSTANCES IN BIOCIDAL PRODUCTS



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HORIZON-CL6-2027-01-ZEROPOLLUTION-04: EUROPE-WIDE ENVIRONMENTAL BENCHMARKING SYSTEM OF THE INDUSTRIAL BIOECONOMY SECTORS

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RELEVANT LINKS OUTSIDE ACADEMIA

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AREA OF EXPERTISE

Life Cycle Assessment
Focus on bioeconomy, biobased products from land and marine biomass, biorefinery. Additional focus on circular economy, industrial symbiosis, Carbon Capture, and LCA automation.

Previous experience with LCA of biobased products. Align the collection of life cycle assessment (LCA) information, according to the Environmental Footprint recommendation.

DESTINATION 5

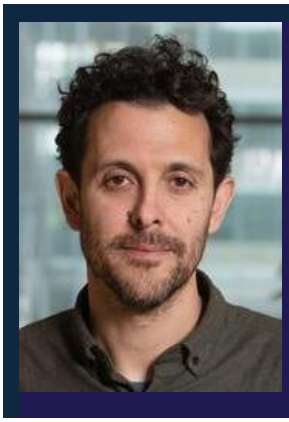
LAND, OCEAN AND WATER FOR CLIMATE ACTION

DESTINATION 5: CALLS

CALL – LAND, OCEAN AND WATER FOR CLIMATE ACTION

HORIZON-CL6-2026-02-CLIMATE-01: Towards more effective, fair and coherent policies for climate change mitigation and adaptation in agriculture and forestry (RIA)

HORIZON-CL6-2026-02-CLIMATE-01: TOWARDS MORE EFFECTIVE, FAIR AND COHERENT POLICIES FOR CLIMATE CHANGE MITIGATION AND ADAPTATION IN AGRICULTURE AND FORESTRY (RIA)



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HIGHLIGHTED AAU RESEARCH GROUPS

Machine Learning Group, Department of Computer Science, Aalborg University

RELEVANT LINKS OUTSIDE ACADEMIA

Collaborations with industry on probabilistic modeling and AI applications

Member of international research networks in probabilistic machine learning

Organizer of the Nordic Probabilistic AI School (ProbAI)

AREA OF EXPERTISE

Trustworthy and Explainable AI
Deep Learning and Neural Networks
Probabilistic Programming
Modeling Uncertainty
Large-Scale Machine Learning

Probabilistic Machine Learning for large-scale data modeling
Advance Risk Modelling with Probabilistic ML.
Bayesian methods for deep learning models

RELEVANT PROJECTS

DK-Future: Probabilistic Geospatial Machine Learning for Predicting Future Danish Land Use under Compound Climate Impacts (PI, Villum Foundation, 800K euros)
Explainable Machine Learning: A Probabilistic Approach (Co-PI, Spanish National Grant, 2020-2022)
DarkScience Project: Illuminating microbial dark matter through data science (Villum Foundation)

DESTINATION 6

RESILIENT, INCLUSIVE, HEALTHY AND GREEN RURAL, COASTAL AND URBAN COMMUNITIES

DESTINATION 6: CALLS

CALL – RESILIENT, INCLUSIVE, HEALTHY AND GREEN RURAL, COASTAL AND URBAN COMMUNITIES

DESTINATION 7

INNOVATION GOVERNANCE, ENVIRONMENTAL OBSERVATIONS AND DIGITAL SOLUTIONS IN SUPPORT OF THE GREEN DEAL

DESTINATION 7: CALLS

CALL – INNOVATION GOVERNANCE, ENVIRONMENTAL OBSERVATIONS AND DIGITAL SOLUTIONS IN SUPPORT OF THE GREEN DEAL