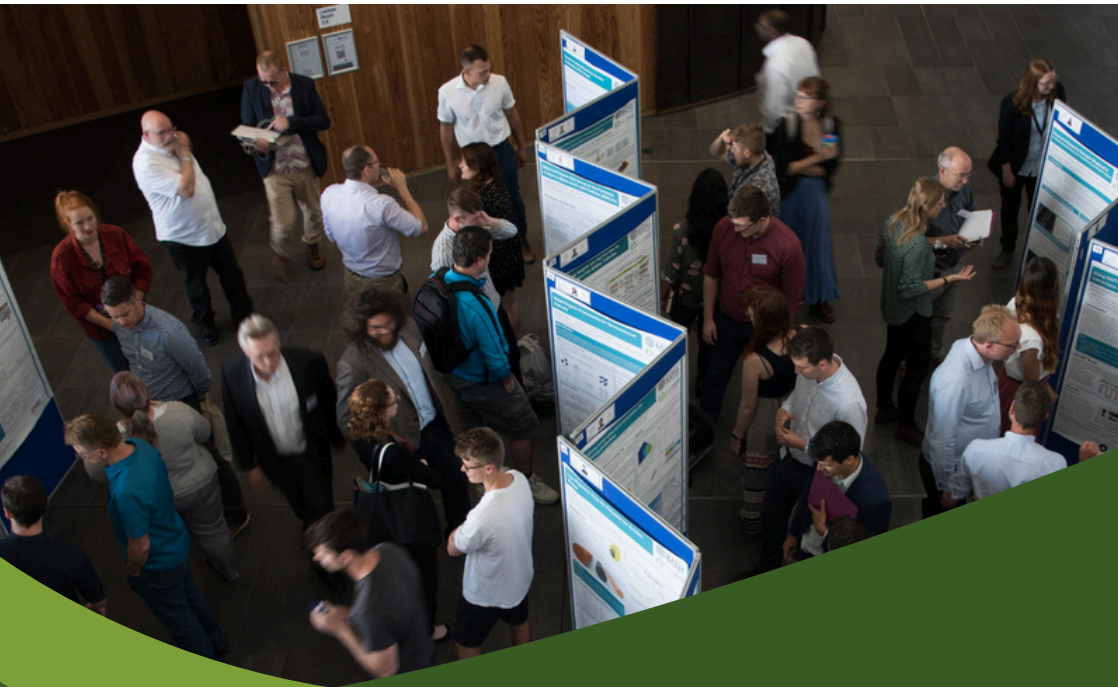


Institute for Sustainability

2024 Summer Showcase

17 & 18 June | Programme



Institute for
Sustainability



UNIVERSITY OF
BATH

Monday 17 June

13:30 ARRIVAL & REGISTRATION

14:15 WELCOME

Prof Matthew Davidson, Director, Institute for Sustainability, *University of Bath*

14:20 INTRODUCTION TO THE INSTITUTE OF SUSTAINABILITY AND CLIMATE CHANGE

Prof Sarah Hainsworth OBE FEng, Pro-Vice Chancellor (Research and Enterprise), *University of Bath*

Prof Matthew Davidson and **Prof Lorraine Whitmarsh MBE**, Co-Directors, Institute of Sustainability and Climate Change, *University of Bath*

14:35 PLENARY: The role of innovation in accelerating the circular economy for post-consumer plastics

Prof Edward Kosior, Managing Director, *Nextek*

15:25 3-MINUTE THESIS

Andrew Kay
Lois Player
Kristopher Price
Bhagya Ranathunge
Darren Richards
Claire Vassallo

PhD researchers, Institute for Sustainability,
University of Bath

15:45 POSTER SESSION | TEA & COFFEE

16:45 PRESENTATION: Understanding people's knowledge of and emotional reactions to different climate futures

Dr Alice Mason, Research Fellow and Lecturer,
Department of Psychology, *University of Bath*

17:15 PRESENTATION: A whole systems perspective for reducing environmental footprints

Dr Stephen Allen, Associate Director,
Institute for Sustainability, *University of Bath*

17:45 PRIZE

Abel + Imray Prize, awarded by *Abel + Imray*

18:00 CLOSING REMARKS

Prof Lorraine Whitmarsh MBE, Director, Centre for
Climate and Social Transformations, *University of Bath*

18:05 POSTER SESSION | DRINKS RECEPTION

18:45 SOCIAL PROGRAMME

Vegan hog roast
Ceilidh dance

Tuesday 18 June

08:30 ARRIVAL & REGISTRATION

09:00 WELCOME

Prof Matthew Davidson, Director, Institute for Sustainability, *University of Bath*

09:05 PLENARY: Sustainable manufacturing: Can it help us reach net zero?

Dr Jenny Baker, Senior Lecturer, Mechanical Engineering, *Swansea University*

09:55 IGNITE TALKS

George Dunkley
Alex Texcan
Sarah Toy
Eleanor Trudinger Charnley
Duong Truong

PhD researchers, Institute for Sustainability,
University of Bath

10:20 ALUMNI PRESENTATION

Dr Scott Allan (cohort '17), Principal Bioprocess Engineer, *Cellular Agriculture Ltd*

10:50 TEA & COFFEE

11:20 FLASH TALKS

Cohort '23, Institute for Sustainability PhD Researchers, *University of Bath*

11:40 INDUSTRY COLLABORATION TALK

Dr Tom Corrie, Principal Specialist Process Chemist,
Syngenta

Dr Damian Grainger, Team Lead, *Johnson Matthey*

Owen Harper, PhD researcher,
Institute for Sustainability, *University of Bath*

Dr Ulrich Hintermair, Royal Society University
Research Fellow, *University of Bath*

Adam Khan, PhD researcher,
Institute for Sustainability, *University of Bath*

12:25 AWARDS

Poster Prizes, awarded by **Prof Tim Mays**,
CDT Co-Director, *University of Bath*

Janet Scott Prize, awarded by **Dr Giovanna Laudisio**,
CEO and Co-Founder, *Naturbeads*

13:00 CLOSING REMARKS

Prof Matthew Davidson, Director, Institute for
Sustainability, *University of Bath*

Prof Edward Kosior

Managing Director,
Nextek Ltd



PLENARY: The role of innovation in accelerating the circular economy for post-consumer plastics

Edward Kosior is the Managing Director of Nextek Ltd, a science-based consulting organisation dedicated to developing solutions and innovations for end-of-life plastics and inspiring a future where sustainability is at the forefront of global priorities.

Edward has received numerous awards, including the IOM3 Prince Phillip Medal (2019), the Sustainable Future Award (Circular Economy 2023 Award for COtooCLEAN), Alliance Prize (USD\$3M for Circular Solutions for Plastics Films 2023), World Packaging Award for Excellence 2022 (NEXTLOOPP), and Packaging Europe Sustainability Awards (2023 and 2021 for COtooCLEAN and NEXTLOOPP respectively). He is also Visiting Professor at The Wolfson Centre, Brunel University London.

Dr Alice Mason

Research Fellow and Lecturer,
Department of Psychology, *University of Bath*



PRESENTATION: Understanding people's knowledge of and emotional reactions to different climate futures

Alice Mason is a cognitive psychologist and Research Fellow at the University of Bath. Her work aims to understand the cognitive processes underlying judgement and decision-making, in particular learning and memory.

Alice's research uses behavioural experiments with statistical and computational modelling to ask questions about how people understand risks and make choices. She studies these processes in a range of contexts, including economic decisions, food choice, decisions involving mental and physical effort, and climate action. Alice moved to the University of Bath in 2023, having held an Leverhulme Early Career Fellowship and an ESRC New Investigator Award at the University of Warwick.

Dr Stephen Allen

Associate Director, Institute for Sustainability, *University of Bath*



PRESENTATION: A whole systems perspective for reducing environmental footprints

Stephen Allen is an Associate Professor in the Department of Architecture and Civil Engineering and Associate Director of the Institute for Sustainability at the University of Bath. Stephen's research and teachings focus on measuring sustainability in design and engineering, particularly in the use of life cycle assessment (LCA) in the development of construction products.

Stephen joined the Department of Architecture and Civil Engineering in 2018, having previously worked as the Scientific Adviser on Energy at the Parliamentary Office of Science and Technology, and as a senior consultant and then director of energy and environmental consultancies in industry. He is also a recipient of the George Stephenson Prize (IMechE, 2008) for life cycle assessment of wind power.

Dr Jenny Baker

Senior Lecturer, Mechanical
Engineering, *Swansea University*



PLENARY: Sustainable manufacturing: Can it help us reach net zero?

Jenny Baker is a Senior Lecturer in Mechanical Engineering and Lead for SPECIFIC (Sustainable Product Engineering Centre for Innovative Functional Industrial Coatings). Her team is working on storage solutions for non-mobile applications including flow cells, lithium-ion and sodium-ion batteries.

An EPSRC ECR fellow and chartered engineer, Jenny has significant experience in manufacturing and renewable energy (solar and batteries). Her research in sustainable materials processing for solid state devices is supported by project partner Adphos. Prior to academia, Jenny worked in the aerospace sector for 12 years, developing processing routes to the circular manufacturing of aerospace-grade titanium. This industry expertise informs her research in sustainable manufacturing.

Dr Scott Allan

Principal Bioprocess Engineer,
Cellular Agriculture Ltd



ALUMNI PRESENTATION

Scott Allan holds a PhD in Biochemical Engineering from the University of Bath and is a New Harvest Research Fellow Alum. With a research focus on cultured meat, Scott is Principal Bioprocess Engineer at Cellular Agriculture, which was founded in early 2016 as the first UK start-up in the cultivated protein space.

Scott graduated from the University of Bath with an MEng in Chemical Engineering and, as part of his degree, undertook a placement year with an oil refinery for ExxonMobil. Shifting his focus to the nascent industry of cultured meat production, Scott's final year project was on the design of a novel cultured meat process plant. The aim was to produce meat from cells on a large scale without the need to slaughter animals.

Dr Tom Corrie

Principal Specialist Process Chemist,
Syngenta



INDUSTRY COLLABORATION TALK

Tom Corrie joined Syngenta as a process chemist in 2017, where he is now responsible for kinetic modelling capability. Syngenta is an agricultural innovation and technology company, which spans more than 100 countries, that aims to deliver a broad range of products and services for the benefit farmers, society, and the planet:
www.syngenta.com/en/company

Prior to this, Tom completed his undergraduate degree at the University of Bristol before moving to the University of Edinburgh to complete his PhD under the supervision of Professor Guy Lloyd-Jones on the topic of gold-catalysed direct arylation. During this time, he gained an interest in the mechanisms of catalytic reactions, particularly on the application of kinetic simulations as a tool for probing selectivity and deactivation mechanisms in catalysis.

Dr Damian Grainger

Team Lead, *Johnson Matthey*



INDUSTRY COLLABORATION TALK

Damian Grainger is the Team Lead of Catalysis Screening Projects at Johnson Matthey, a global leader in sustainable technologies that operates in more than 30 countries around the world. Demand for greener, more sustainable technologies in the pharma, agro, and fine chemicals sectors is growing, and catalysis is at the heart of this transformation.

Prior to this, Damian completed his degree (MChem) at the University of Sheffield in 2001. He then obtained a PhD at Imperial College London in 2004 under the supervision of Professor Alan Spivey. This was followed by postdoctoral research in the group of Professor Stephen Clarke at the University of Nottingham and subsequently with Professor Jonathan Clayden at the University of Manchester.

Owen Harper

PhD Researcher, Institute for
Sustainability, *University of Bath*



INDUSTRY COLLABORATION TALK

A PhD researcher and member of the Hintermair group, Owen Harper is based in the Department of Chemistry at the University of Bath. Owen graduated in 2017 with an MChem from the University of Huddersfield. His final year project with Professor Craig Rice involved the synthesis and investigation of ruthenium based dinuclear double helicates and mesocates, as well as an examination of their anti-cancer properties with Professor Roger Phillips.

After a couple of years away from academia and working at ThermoFisher Scientific, Owen returned to the University of Bath to research homogeneous catalytic ester hydrogenation in a joint industrial project with Johnson Matthey. Owen cares deeply about good explanations and endeavours to follow the scientific philosophy of David Deutsch.

Dr Ulrich Hintermair

Royal Society University Research
Fellow, *University of Bath*



INDUSTRY COLLABORATION TALK

Ulrich Hintermair is a Research Fellow in Catalysis at the University of Bath, where he leads a team of chemists and engineers developing new catalytic methodologies for sustainable chemistry and clean energy. This spans a wide range of topics and methodologies, including electrocatalysis for renewable energy conversion.

Ulrich established the University of Bath's Dynamic Reaction Monitoring (DReaM) Facility for operando studies of homogeneous catalysis. In 2017, he was awarded a Royal Society Research Fellowship to launch a new research program into dinuclear metal complexes and electroactive ligand architectures for cooperative catalysis. And, in 2019, he was promoted to Reader (Associate Professor) in Chemistry.

Adam Khan

PhD Researcher, Institute for
Sustainability, *University of Bath*



INDUSTRY COLLABORATION TALK

A PHD researcher, Adam Khan is based at the University of Bath's DReaM Facility and the Institute for Sustainability. He graduated from Cardiff University in 2020, completing a Master's in chemistry with a CUROP research placement in the Browne group.

Adam completed his MChem project under the supervision of Dr Niklaas Buurma in the field of automated reaction optimisation, before joining the University of Bath to study for a PhD in homogeneous catalysis. His current research is a joint industrial project with Syngenta, which involves running experiments at DReaM and in the Hintermair Lab.

Keep in touch



@uob-institute-for-sustainability



@Bath_IfS



go.bath.ac.uk/ifs