

# Circular Economy Showcase 2022



2<sup>nd</sup> – 3<sup>rd</sup> March 2022 Church House Westminster

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# A message from the CE-Hub Co-Directors

Professors Fiona Charnley and Peter Hopkinson

We would like to extend a huge thank you to all who attended the NICER CE Showcase in March. It was brilliant to see the enthusiasm, passion and innovation from everyone in the room.

Throughout the event, a clear message emerged from both our speakers and audience, 'For a UK CE to be successful, we need to work together'. Through the NICER Programme we will not only work together across the five UKRI National Interdisciplinary Circular Economy Research Centres but also bring together academics, industry practitioners, policy makers and civic society to deliver, accelerate and upscale CE research and innovation.

We, and the CE-Hub team, would like to say a huge 'Thank You' to all of our Co-hosts, speakers, panellists, SMEs, the Church House Westminster Team, our film makers Greg & Paul, our workshop facilitator Tom Inns, the NICER Programme CECs and of course to you, our participants.

We hope to see you again soon in the future.

With kind regards,

Professor Fiona Charnley and Professor Peter Hopkinson

CE-Hub Co-directors, University of Exeter Business School

# **Executive Summary**

The inaugural NICER Circular Economy Showcase provided an opportunity for in person networking, learning and knowledge exchange. Through a series of expert panel discussions, an exhibition of innovative SMEs and facilitated networking, the event brought together representatives from government, academia, global industry, small business and wider society. View our short event film highlighting key messages on the CE-Hub website.

The CE-hub has distilled four key messages from the event and feedback:

- 1. For a Circular Economy to be successful, we need to work together
- 2. Circular Design can lead to positive impact at all stages of the supply chain (Panel 1: Circular Design)
- 3. Circular Innovation is more than technological advances (Panel 2: Circular Innovation)
- 4. Industrial scale implementation of Circular Economy principles requires a collaborative, whole-system approach (<u>Panel 3: Industrial Implementation</u>)

Following from the open CE Showcase event on Day 1, the NICER Programme colleagues met for a series of collaborative workshops, discussing the future of the CE for the five specialist sectors represented by the NICER Circular Economy Centres. Culminating in the production of a 3D model for a collaborative city-scale project idea. A full report on these workshops is available to download separately.

# Day 1: NICER Programme Circular Economy Showcase

Wednesday 2<sup>nd</sup> March brought the inaugural NICER Programme CE Showcase, and the first in-person event of the NICER Programme to London.

The schedule for the day provided three expert panel discussions, from Circular Design, Innovation and Industrial Implementation, lightning rounds from our SME Showcasers and allowed for facilitated speed networking sessions as well as opportunities for further discussion during coffee and lunch breaks.

Bringing the NICER Programme and the wider CE Community to together in person for the first-time allowed us to make new connections, share opportunities, network as a CE Community and share our experiences and stories. Bringing together representatives from government, academia, global industry and small businesses, the event and our audiences brought a diversity of expertise, experience approaches to CE. The CE-Hub has produced a short film capturing attendees' thoughts and highlighting key messages form the event – this is available to watch on the CE-Hub Website CE Showcase Event page.

# The Expert Panels:

# Circular Design can lead to positive impact at all stages of the supply chain

The first panel session of the day focussed on Circular Design. Chaired by Sharon Baurley, Dan Dicker, Gaelle Le Gelard, Phillip Mossop and Kalkidan Legesse explored the different considerations throughout the design of a product, from sourcing materials, industrial implementation, end-of-use service and the role of our mindset, consumers, data and technology in closing the loop. We need to "challenge businesses to change their core business" says Dan Dicker, referring to the need to implement and consider circularity beyond 'recycling' existing products and consider the entire supply chain, production and sale of products.

#### Circular Innovation is more than technological advances

The second panel explored how innovation is more than new technology. The panel chair, Mark Miodownik opened with a discussion on the term 'consumer', saying that we are more than consumers in a CE, we are citizens, makers, recyclists, repairers and much more. Thami Schweichler, Hugo Spowers, Kresse Wesling and Pawel Kisielewski went on to discuss social, political and systemic innovation. Promoting how together these can lead to positive change at scale. "When I see a bag and it is priced cheaply, I know it is because of exploitation and environmental degradation." Said Kresse Wesling, highlighting the need for governments to act as a convener to facilitate connection between different stakeholders in the economy.

# Implementation of Circular Economy Principles at an Industrial Scale needs a collaborative, whole-system approach

Session Chair, Nick MacInnes opened the session highlighting that for CE to work at scale, "the whole model needs to work for everybody". Panellists Merjin Dols, Kirstie MacIntrye, Stephen Jamieson and Sam Turner discussed the barriers and enablers to industrial implementation, including data availability and transparency, collaboration, accessible infrastructure and clarity on how we account for sustainability.

# The SME Showcase with the Circular Economy Club

In collaboration with the Circular Economy Club, the CE-Hub brought a SME Showcase of 15 innovative SME exhibitors to the NICER CE Showcase. SME Exhibitors each had a small informal stand in the break rooms and had the opportunity to present their businesses to the whole audience in three lightning-round sessions throughout the day.

We were delighted to host the below businesses to share their experiences, challenges and aspirations for their CE-focussed businesses:

#### ALDStone

View a video interview with Susana Lopez on the CE-Hub website.

#### Biohm

View a video interview with Ehab Sayed on the CE-Hub website.

## • <u>Buy-Me-Once</u>

View a video interview with Tara Button on the CE-Hub website.

#### Circular&Co.

View a video interview with Dan Dicker on the CE-Hub website.

## • Elvis and Kresse

View a video interview with Kresse Wesling on the CE-Hub website.

#### Matter

View a video interview with Adam Root on the CE-Hub website.

• Mykor (Young Innovator Award Winner)

View a video interview with Valentine Dipietro on the CE-Hub website.

#### • <u>Packamama</u>

#### RecyclEye

View a video interview with Zoe Cook on the CE-Hub website here.

• Revive Innovations (Young Innovator Award Winner)

View a <u>video interview with Harry Symonds</u> on the CE-Hub website.

#### • Revolution Zero

View a video interview with Tom Dawson on the CE-Hub website here.

### • <u>Riversimple</u>

View the Circular Innovation Panel Session Recording (featuring Hugo Spowers, CEO) on the CE-Hub website here.

#### • Rubymoon

View a video interview with Jo Godden on the CE-Hub website here.

## • Rype Office

View a <u>video interview with Greg Lavery</u> on the CE-Hub website here.

#### • <u>Satatland</u>

View a video interview with Karishma Gupta on the CE-Hub website.

#### Own

View the Circular Design Panel Session Recording (featuring Kalkidan Legesse, CEO) on the CE-Hub website here

#### • <u>Tech-Takeback</u>

View a video interview with Jake Arney on the CE-Hub website.

#### Toast Ale

View a video interview with Louisa Ziane on the CE-Hub website.

# Day 2: NICER Programme Collaborative Workshops The NICER Programme

On Day 2 of the CE Showcase event, colleagues from within the NICER Programme were brought together for a series of collaborative workshops, and the opportunity to provide an update on Centre activity.

The NICER Programme consists of five specialist centres and a Hub to coordinate, scale and add value to the programme as a whole. The programme is delivered in partnership with the Department for Environment, Food and Rural Affairs (DEFRA), to ensure research outcomes contribute to the delivery of government policy. At the event representatives from each Centre were brought together to participate in a panel discussion to discuss and share their aspirations for circularity in their Sector by 2030.

# The <u>Circular Economy Hub (CE-Hub)</u> University of Exeter

Professor Peter Hopkinson stressed the importance of collaboration across the NICER Programme and beyond to achieve circularity. By accelerating understanding of circularity and resource flows; embedding research in business, policy and society and providing national leadership, the NICER Programme and CE-Hub delivers interdisciplinary research, innovation and impact to scale up the transition to a UK circular economy by 2030.

# The Interdisciplinary <u>Textiles Circularity Centre</u> Royal College of Art

Professor Sharon Baurley highlights the need for cooperation, not competition for a successful circular textiles industry. By creating a network of brands that work collaboratively to recover and reduce materials and with a focus on social inclusion through a social production network, the TCC hopes to see the UK move towards an inclusive and circular textiles economy.

# The <u>Interdisciplinary Circular Economy Centre for Mineral-based Construction Materials</u> *UCL*

Professor Julia Stegemann took the audience through their approach to creating a healthy constructions industry and built environment. By mapping stocks, flows and impacts of building materials; ensuring sustainability-based decision making to reduce over-use of materials; improving industrial investment in new business approaches and engaging with policy, legislators and regulators they hope ensure circulation of mineral-based construction materials at their highest value in clean, closed loops.

# The <u>Interdisciplinary Centre for Circular Chemical Economy</u> Loughborough University

Dr Jonathan Wagner focused on carbon retention and circularisation of Carbon flows in the Chemical Industry. Through a focus on policy, technology, economic and social aspects of a circular chemical economy, the centre hopes to raise the profile of interest in circularity in chemicals and demand of circular chemical products.

# The <u>Interdisciplinary Circular Economy Centre in Technology Metals</u> *University of Exeter*

Professor Frances Wall discussed the geopolitics of net zero and the critical raw 'technology metals', showing the progress from global – linear through global-circularity and to local-circularity of these critical materials required for 'clean' technology such as solar panels and electric vehicles.

# The <u>Interdisciplinary Centre for CircularMetal</u> Brunel University London

Professor Zhongyun Fan explains how the global demand for metals could be met through reuse, remanufacture, recycling and recovery of materials. Through a focus on alloys alongside technology, business models, macro-economics and societal demand, the CircularMetal Centre hopes to ensure metals are kept in circulation, closing the loop and reducing the need for raw material extraction.

# **Collaborative Workshops**

At the Collaborations Workshop on 3rd March 2022 colleagues from the NICER Programme CE-Hub and 5 specialist centres worked through a series of structured activities designed to support the sharing of insights, the development of collaborations and the building of the NICER programme research community.

In the morning, individual participants shared experiences and ambitions with each other using mapping sheets and a trees of knowledge exercise. Presentations were then made by all the research centres within the programme and the UKRI Circular Economy team. Working in groups participants then shared their perspectives on potential future scenarios for Circular Economy activity in the UK by 2030. These perspectives were used to help define the important current and future contribution that needed to be made by the NICER programme community to activities including policy making, education, influencing consumer behaviour, data development and relationship building.

In the afternoon, participants worked collaboratively, developing project ideas for a speculative funding call focused on developing city based Circular Economy demonstrator projects. This activity was informed by a presentation from ReLondon (London's Circular Economy Programme). Participants developed a portfolio of ideas before selecting one project for further development. The preferred projects were worked up in 3D, using a kit of parts and were then presented back to all the workshop participants.

A full report on the collaborative workshops is available separately.

# **Upcoming Opportunities:**

## With the CE-Hub

#### CE-Hub Flexible Fund

The CE-Hub has opened applications to the second round of Feasibility Studies to accelerate Circular Economy research, innovation and implementation across disciplines, sectors and value chains. More information is available on our <u>Funding Pages</u>.

## **University of Exeter CE Masterclass**

The Circular Economy Masterclass offers business executives the opportunity to learn directly from leading experts in the field of Circular Economy, enabling participants to develop skills and understanding on how to successfully introduce practises into their organisation and close the implementation gap. More information on the <u>University of Exeter Website</u>.

#### **University of Exeter SME Masterclass**

This online course has been developed for small to medium sized businesses and their partners who are keen to work towards Circular Economy (CE) opportunities. The course adopts a collaborative and networked approach to learning and provides an opportunity for close cooperation between participants and some of the world's circular economy pioneers in business and design. More information on the <u>University of Exeter Website</u>.

#### With wider CE Network

#### CISL Circular Disruptor Accelerator from the University of Cambridge

The University of Cambridge Institute for Sustainability Leadership (CISL) are looking for early to growth stage start-ups to join their new Circular Disruptors Accelerator, taking place in Cambridge from 16-17 June, as part Circular Economy Week 2022. This free, two-day programme will bring together a select cohort of innovators who are challenging the linear 'take-make-waste' economic model with pioneering new circular business models, products or services. More information on the <u>CISL website</u>.

#### Future Observatory - design museum and AHRC

Future Observatory is a new national programme for design research supporting the UK's response to the climate crisis. Researchers can apply for the Design Ecosystem Fellowships programme. Successful applicants will receive funding of up to £20,000 to spend up to six months reporting on transformative design innovation ecosystems in the UK. The aim is to highlight the strengths and weaknesses of production systems that support environmental sustainability, circular economies and waste reduction. More information on the <u>Future Observatory Website</u>.