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RESOURCE EFFICIENCY
in Construction and the Built Environment

9th meeting
7 October 2022



elliottwood





Resource Efficiency Collective is a research initiative at Cambridge University. Together, we seek answers to a challenging question: how can we deliver future energy and material services, while at the same time reducing resource use and environmental impact?



Smart Sustainable Packaging from Plants (S2UPPlant)



Joanna Wakeling
November 20, 2020

We're excited to announce our involvement in the launch of S2UPPlant – Smart Sustainable Plastic Packaging from Plants. Background: Over 90% of plastics are derived from fossil-derived feedstocks,...



Exergy calculator



Jonathan Cullen
September 15, 2020

The use of energy and materials in modern society is associated with greenhouse gas (GHG) emissions that exacerbate climate change. To reduce emissions, a combined energy and material...



Resource Efficiency in Construction and the Built Environment (RECBE)



Michal Drewniak
August 24, 2020

Nearly half of the UK's carbon emission are linked to the construction and operation of the built environment, and this figure excludes the embodied carbon in the materials...



The Lightest Beam Method



Michal Drewniak
January 11, 2021

The Lightest Beam Method – A methodology to find ultimate steel savings and reduce embodied carbon in steel framed buildings Over the last ten years, global demand for...



Should transition bonds have a place in the path towards carbon neutrality?



Ana Morgado
November 27, 2020

"The European Union's target of achieving net-zero emissions by 2050 is a costly one. An annual investment of €260 billion is estimated as needed to advance EU transition..."

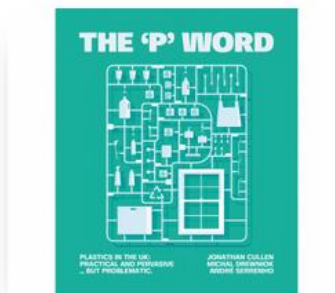


Energy reduction in construction



Michal Drewniak
October 18, 2020

Redukcja energochłonności w budownictwie (Energy reduction in construction) by Michal Drewniak is now available! Download the chapter here (PL) EN: The construction sector is considered to be the...



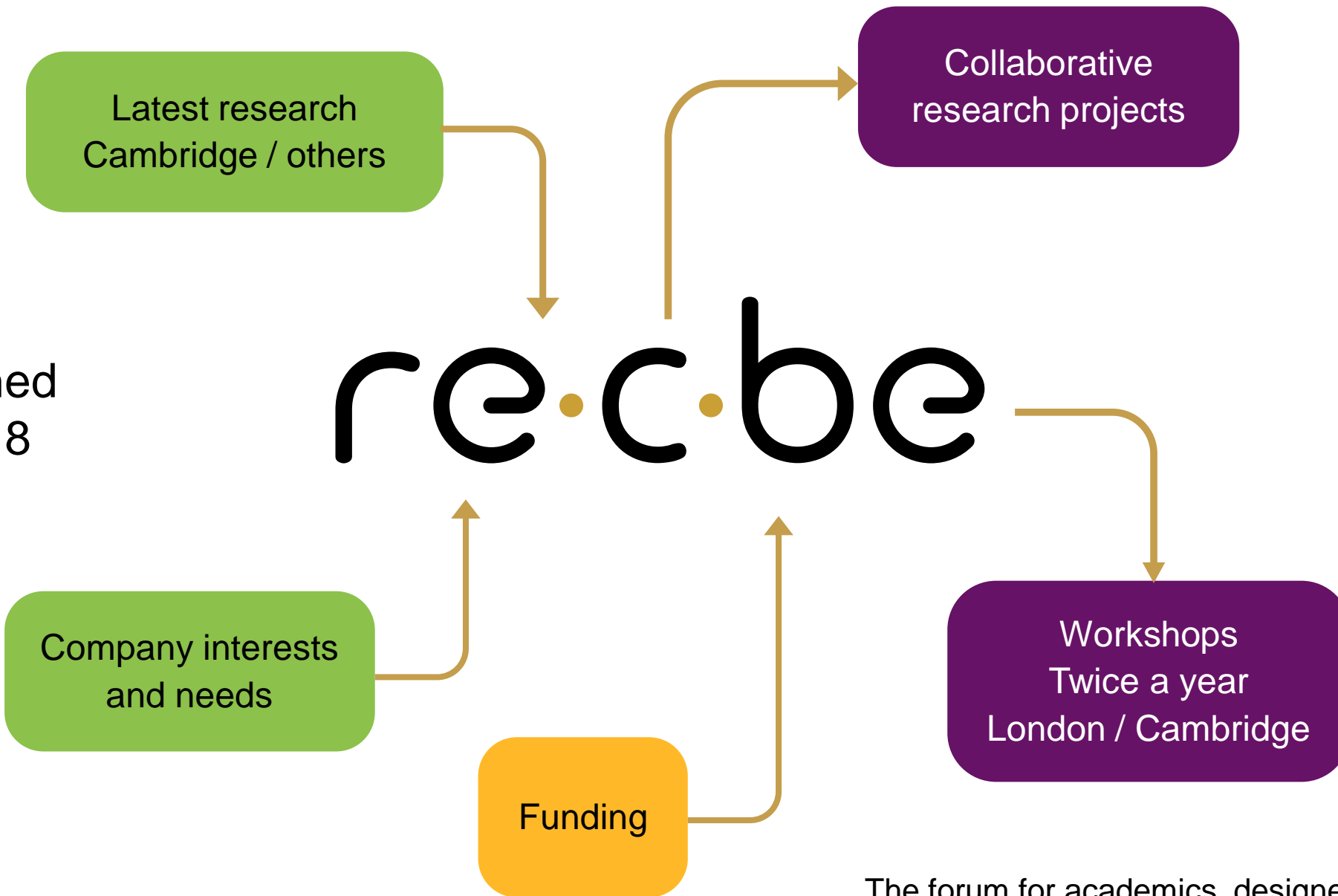
THE 'P' WORD



Jonathan Cullen
September 22, 2020

THE 'P' WORD – Plastic in the UK: practical and pervasive ... but problematic By Jonathan Cullen, Michal Drewniak and André Cabrera Serrenho Click here to download the...

Launched
in 2018



The forum for academics, designers, engineers,
contractors, clients and policy makers ...



Department for Business, Energy & Industrial Strategy



UNIVERSITY OF CAMBRIDGE



The University of Sheffield.



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UNIVERSITY OF WESTMINSTER



Sustainable Circular Economy

12.45 Coffee / tea / opening a ZOOM connection

13.00 Welcome – Jonathan Cullen (University of Cambridge)

13.05 – 13.45 - Session I:

- **Anne Velenturf**, Principles for a sustainable circular economy (University of Leeds, TransFIRe)
- **Kai Liebetan**, Circular Economy and its impact on carbon and beyond (UK GBC)
- **Ian Poole**, The Structural Plan of Works - Sustainability Report and Checklist (elliottwood, IStructE)

13.45 – Discussion

Sustainable Circular Economy

14.00 – 14.40 - Session II:

- **Roy Fishwick**, Structural Steel Reuse, (Cleveland Steel & Tubes)
- **Cyrille Dunant**, Cambridge Electric Cement (University of Cambridge)
- **Les Ellaby**, The new three R's; Recycle, Reuse and Re-purpose, (PowerCem Technologies)

14.40 – Discussion

14.55 – RECBE next steps – funding opportunities

15.00 – End of the meeting

talks

discussion

RECBE next steps – funding opportunities



EPSRC

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CAMBRIDGE

Low Carbon Concrete Technologies (LCCT): Understanding and Implementation

Aurelia Hibbert, Jonathan Cullen, Michal Drewniok

TR Number: ENG-TR.011
ISSN: 2633-6839

01/03/2022


expedition


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The authors have asserted their right under the Copyright, Designs and Patents Act 1988 to be identified as authors of this work.

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Second revision
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Thanks to:

The British Standards Institute
AMCRETE UK
Ramboll
Expedition Engineering
The University of Bath
The Concrete Centre

for their help in developing this report.

This project was funded by the University of Cambridge EPSRC IAA Impact Starter Grant (NMZA/282)

Please cite as:

Hibbert A.F., Cullen J.M., Drewniok M.P. (2022) "Low Carbon Concrete Technologies (LCCT): Understanding and Implementation", EPSRC IAA Final report No. ENG-TR.011, University of Cambridge, Cambridge, 2022

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January, 2023

Project ideas

Funding streams

Meeting topics

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