



THE BRIGHTON & HOVE CITY COUNCIL (BHCC) CIRCULAR ECONOMY ROUTEMAP

Dr David Greenfield - SOENECS
Lead for the creation of the BHCC
Circular Economy Routemap

SOENECS

Innovative Sustainable Solutions

Template Recycling & Waste Management
Strategy
For new build flats in London



LONDON ENVIRONMENT:
THE LONDON ENVIRONMENT DIRECTORY NETWORK



January 2015

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Government
Office for Science

From waste to resource productivity

Evidence and case studies



www.soenecs.co.uk

@DrResources



2018
FINALIST



Organismo
Internacional
de Juventud
para Iberoamérica



CIRCULAR ECONOMY
C L U B

CIRCULAR
BRIGHTON &
HOVE

CEC is the largest international network in the Circular Economy field with over 4,000 professionals and organizations in more than 260 cities worldwide.

Non-profit | Global

www.circulareconomyclub.com
www.circularbrightonandhove.uk

@CircBrightHove
#GoingCircular

SOENECS
Innovative Sustainable Solutions

OUR CHALLENGE IS NOT NEW

“To waste, to destroy our natural resources, to skin and exhaust the land instead of using it so as to increase its usefulness, will result in undermining, in the days of our children, the very prosperity which we ought, by right, to hand down to them amplified and developed.”

Theodore Roosevelt, December 3rd 1907



ITS JUST SIGNIFICANTLY MORE CHALLENGING



1. 70% of the world population will live in urban areas by 2050
2. The UK needs at least 300,000 new homes per year.

CIRCULAR
BRIGHTON &
HOVE



Brighton & Hove
City Council



University
of Brighton

US

UNIVERSITY
OF SUSSEX

SOENECS
Innovative Sustainable Solutions

AND MUCH MORE SYSTEMATIC

“80% of all environmental costs are predetermined during the conception and design phase of an infrastructure project”

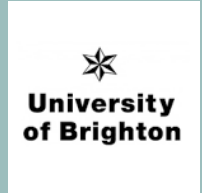
Sophie Thomas 2014

75% of the infrastructure that will be in place by 2050 does not exist yet.

Global Infrastructure Basel 2015



OVER 75% OF
COUNCILS HAVE
DECLARED A
CLIMATE
EMERGENCY

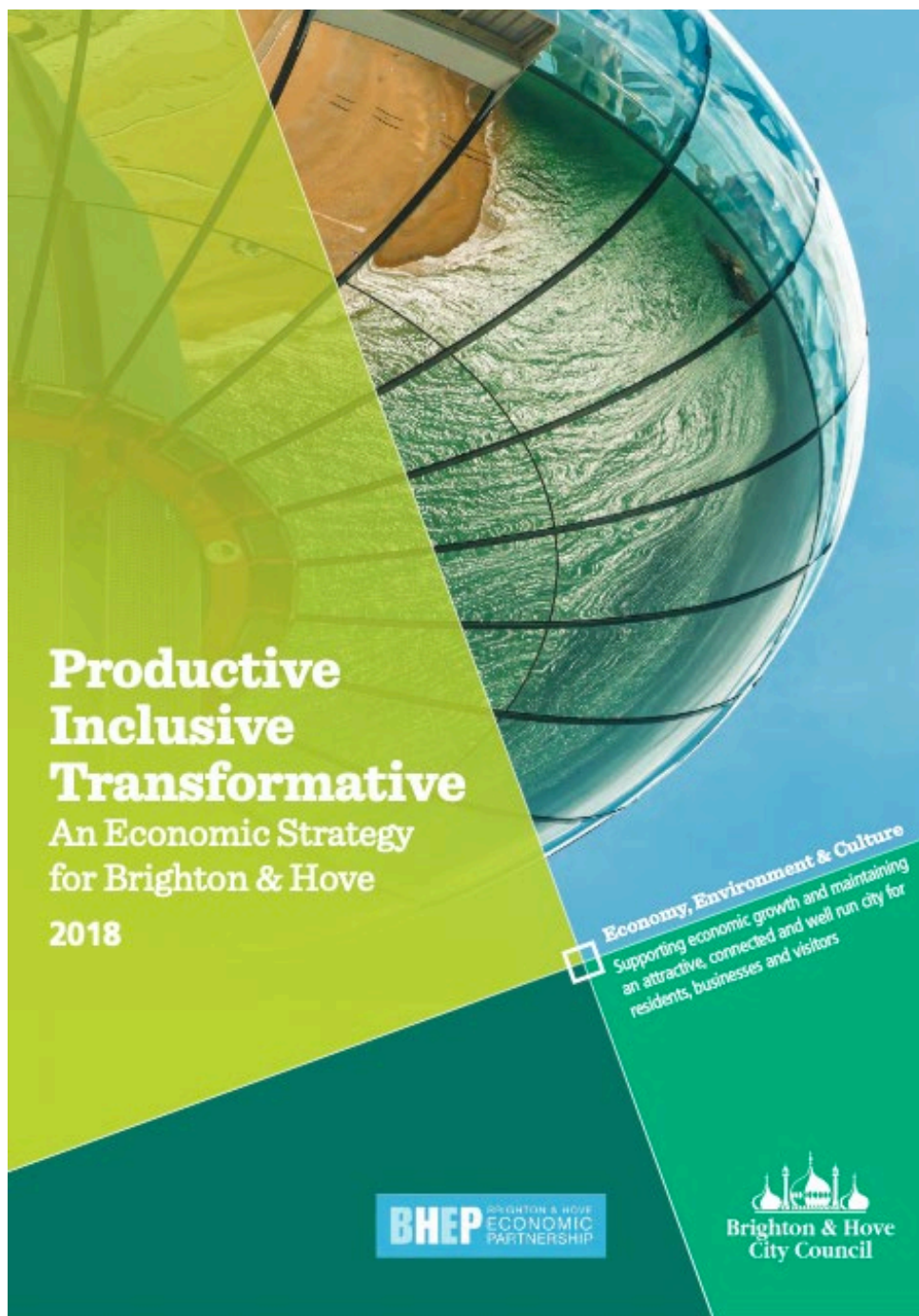


What is Brighton & Hove City Council doing?

Purpose: Develop a more circular, sustainable and resilient economy that looks towards the future

Focus on building a strong, sustainable economy geared towards developing solutions to the big challenges of our time in order to protect and enhance the health and wellbeing of its residents and act as a leader in developing a robust response to climate change.

Create a Circular Economy Framework, incorporating SDGs, to 2035 for priority sectors for the Brighton & Hove City Region



1.1. Definition of a Circular Economy

Linear economy

A circular economy is defined as an alternative to the current linear economy in which we take resources, produce, consume and generate waste.

TAKE -> MAKE -> USE -> WASTE



In a circular economy, systems and products are designed to eliminate the concept of waste, by enabling the recovery and reuse of all materials at the highest value possible at all times.

With the yearly 80% of unrecovered materials from the \$3.2 trillion worth that are used only in consumer goods (McKinsey 2014), the circular economy is the world's largest opportunity.

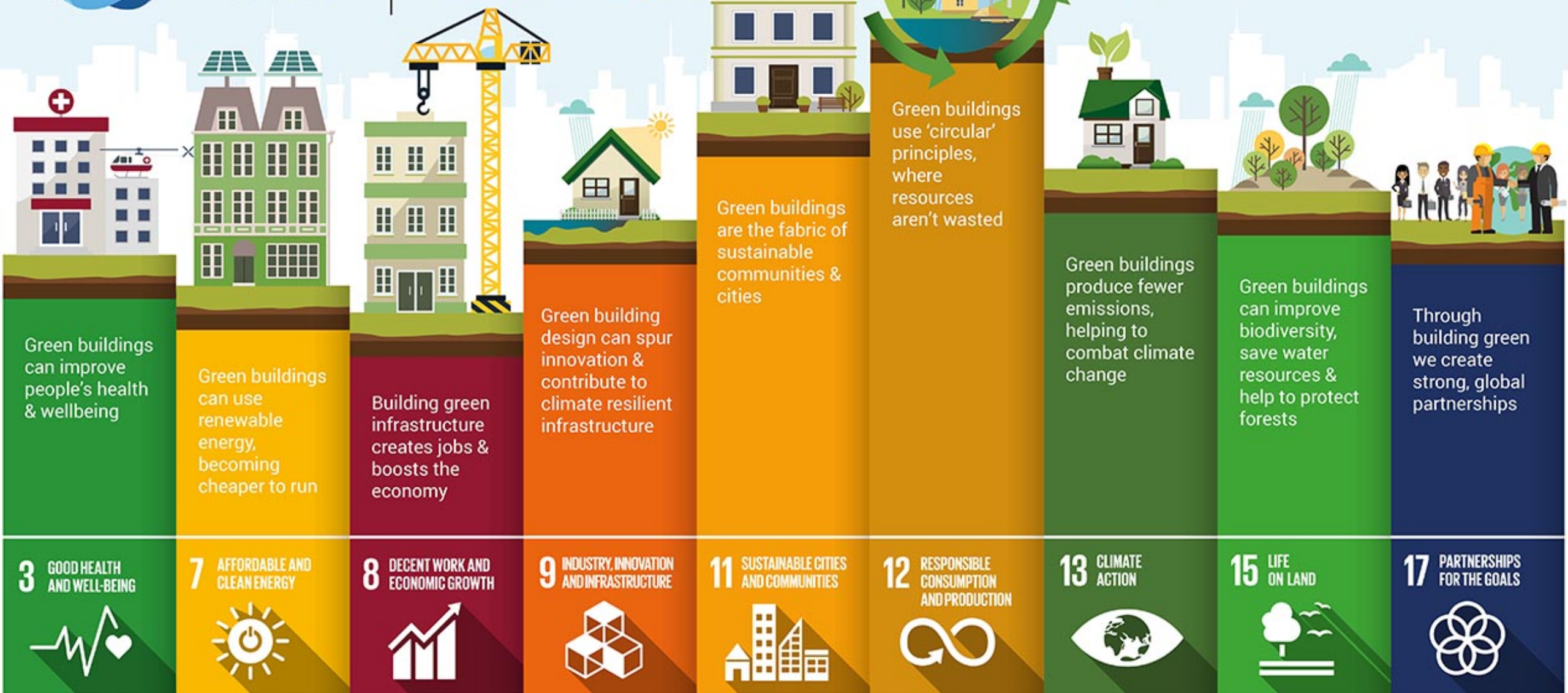
Circular economy



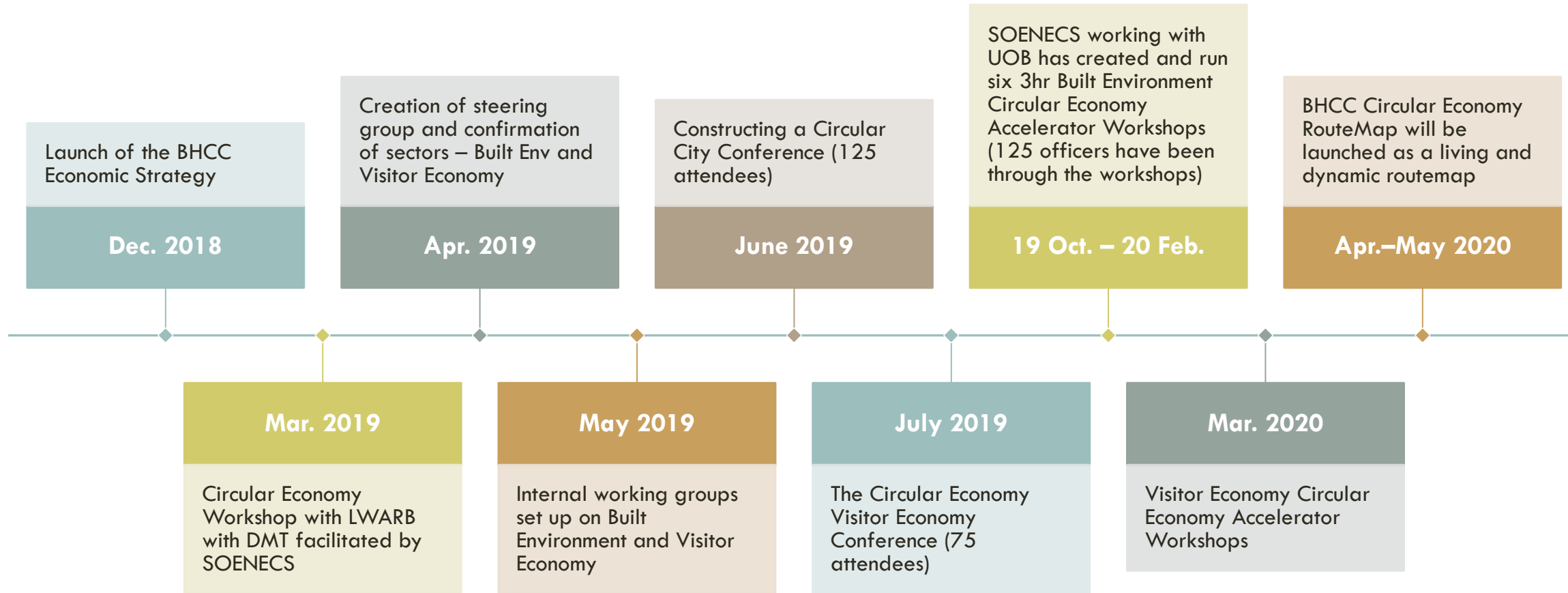


WORLD
GREEN
BUILDING
COUNCIL

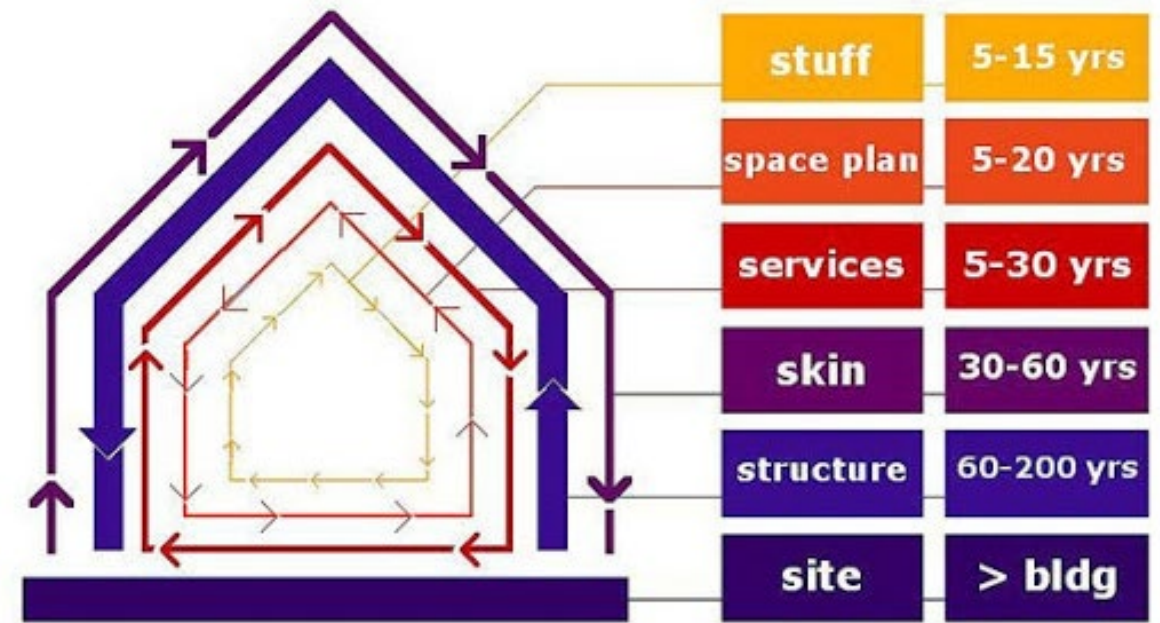
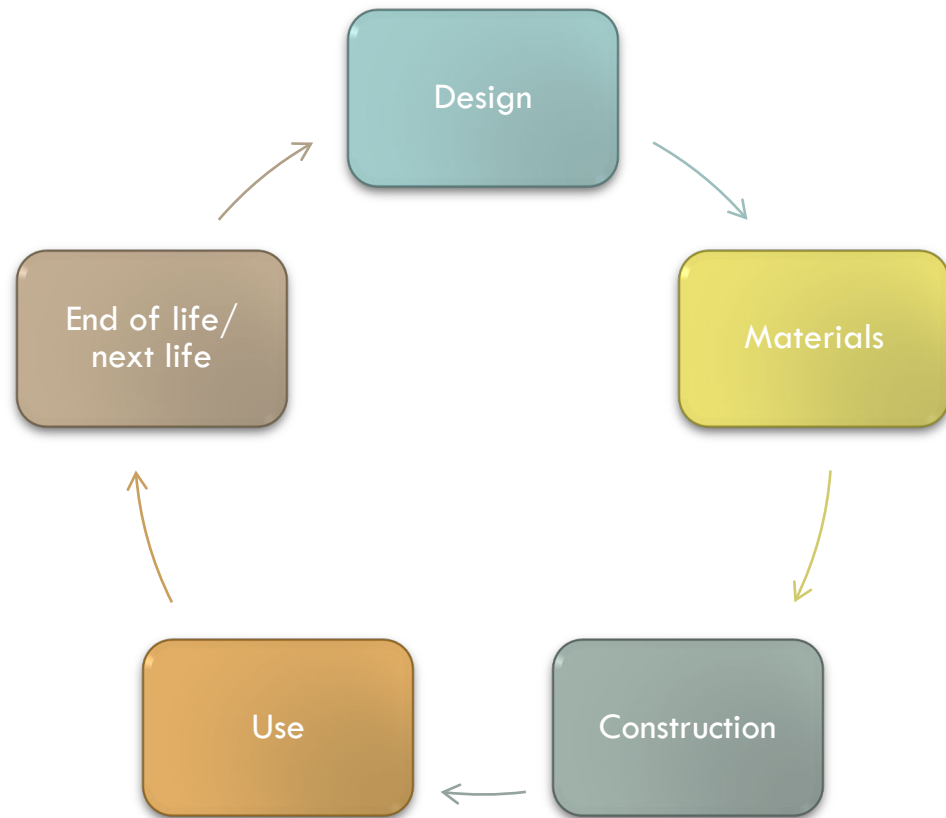
SUSTAINABLE DEVELOPMENT GOALS



OUR BHCC CIRCULAR ECONOMY JOURNEY SO FAR



Workshop Lead and content producer: Dr David Greenfield
Workshop Expert for Built Environment: Duncan Baker-Brown
Workshop co-producers: Mita Patel, Nicholas Fishlock & Sophie Moss BHCC



<http://sueunerman.com/2015/09/how%E2%80%99s-your-pace-layering-going/>

WE ARE EXPLORING CIRCULAR ECONOMY FROM
PERSPECTIVE OF THE LIFECYCLE OF
INFRASTRUCTURE

1

Design for
disassembly

2

Design for
adaptability
& flexibility

3

Design for
standardisation

4

Design out
waste

5

Design in
modularity

6

Specify
reclaimed
materials

7

Specify
Natural
materials

8

Design for
in-use
recycling

9

Design for
smart

DESIGN PHASE

Embrace Eco-design principles

Use less materials/optimize material use

Use less hazardous materials

Increase the lifespan

Use secondary materials

Take-back schemes

Reverse logistics

Use Natural Materials

Use Low carbon

MANUFACTURE AND SUPPLY OF MATERIALS PHASE

CONSTRUCTION PHASE

Minimise
waste

Procure
reused
materials

Procure
recycled
materials

Off-site
construction

Use Local
labour







Harvest
Mapping

Minimising
Value
Engineering

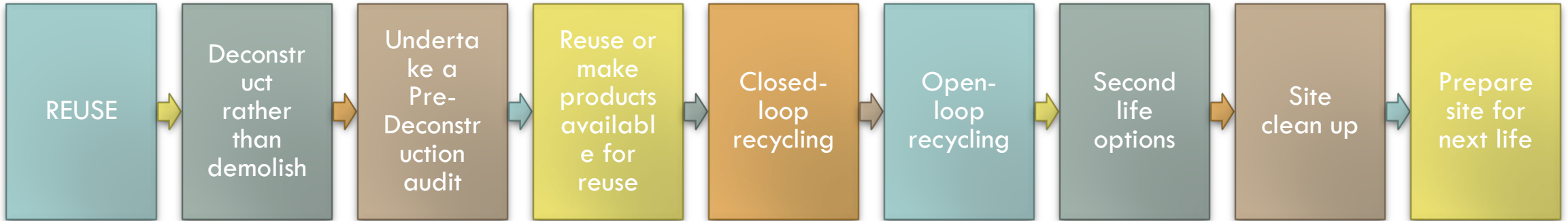
Use Material
sharing
platforms

Reusing
equipment &
PPE

IN USE AND REFURBISHMENT PHASE

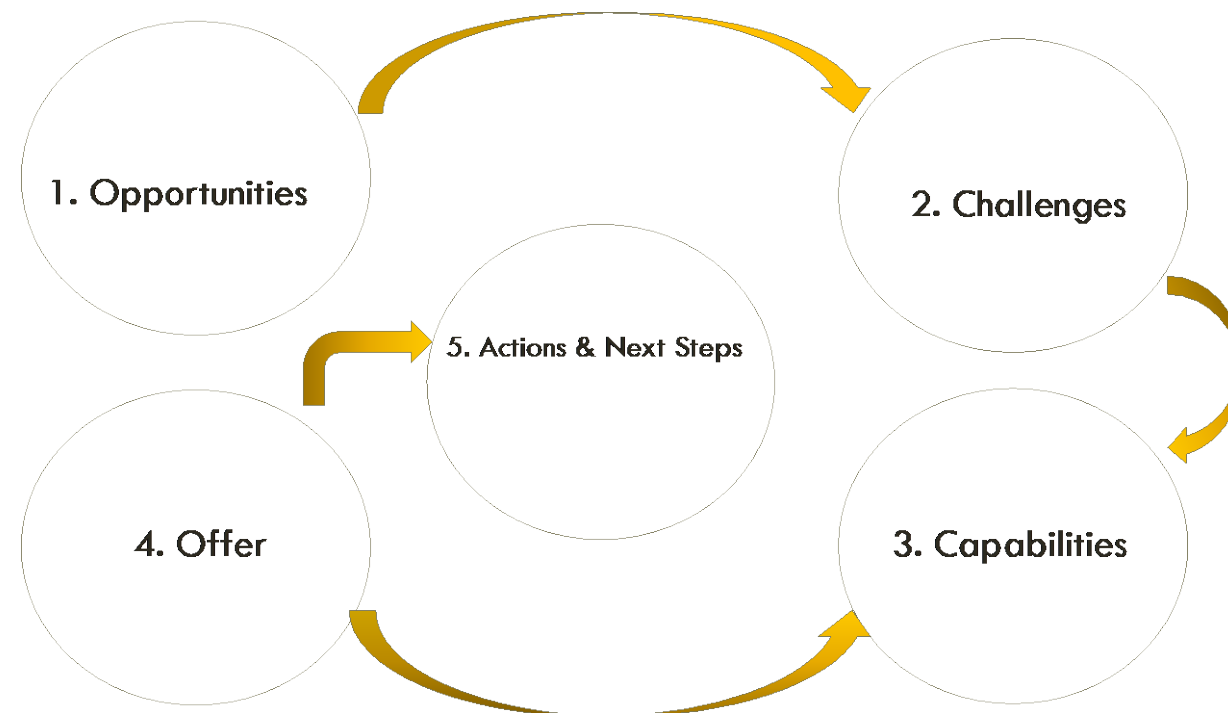
 Minimise	Minimise waste generation
 Maintain	Ensure maintenance schedules are implemented
 Repair and upgrade	Easy repair and upgrade
 Adapt	Understand the Adaptability opportunities
 Flex	Understand and implement the Flexibility of your building
 Monitor	Continue Monitoring
 Renew	Embrace Renewable energy
 Be Smart	Smart Cities





END OF LIFE PHASE

Workshops for 125 officers in Brighton & Hove





International summer school

Hosted by University of Brighton

School of Re-construction School of Re-construction School of Re-construction School of Re-construction

17-21 AUGUST 2020 — SAVE THE DATE

SoRe

RE-THINK RE-USE

Interreg
North-West Europe

A five-day international summer school
hosted by the University of Brighton.
Working in teams with designers and makers,
including Rotor and Bellastock, you will
re-think re-use through the re-construction

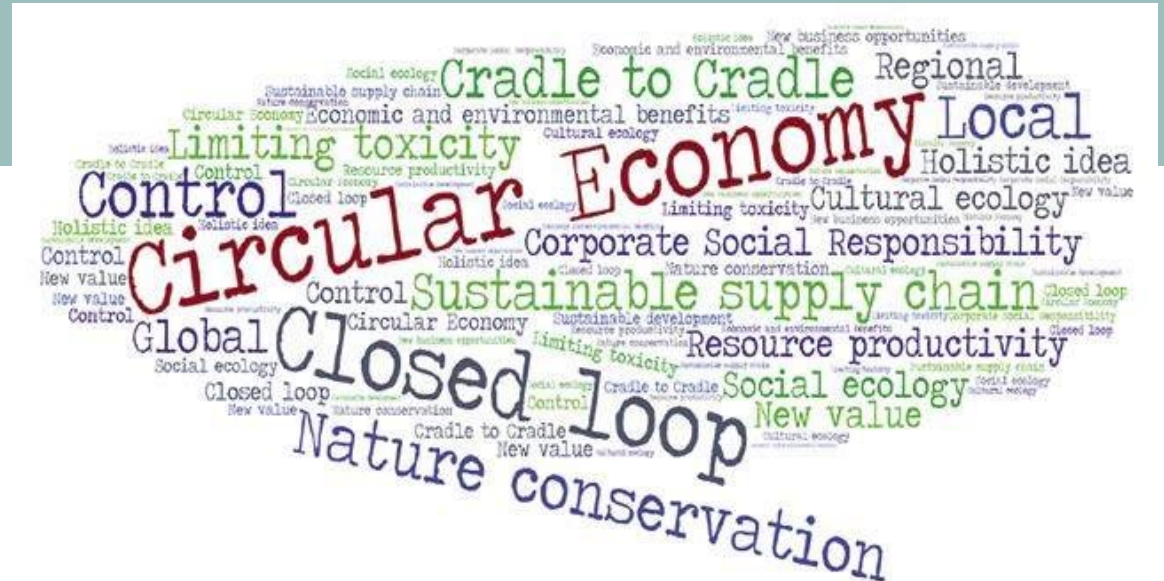
SUCCESS

Centre for Circular Construction, Demolition and Excavation Waste

Universities of Sussex & Brighton have been shortlisted and are currently bidding for upto £4mil to establish a research centre focusing on Circular Economy in the construction sector.

The Centre will exist to bring together UK knowledge and capability to prompt change in construction and waste management practices towards greater circularity, as required by central government policy, and forthcoming local government policy.

We are very keen to involve and work closely with business and local authority partners on the Centre to ensure it leads to clear benefits for the environment and economy in terms of reducing waste and saving money for companies in the sector.



Call to Action

Clean Growth UK and Green Growth Platform will act as the engagement arm for the centre.

If you are not yet a member, please go to:

<https://www.clean-growth.uk/>

And register (it's Free!)

You can then raise and Enquiry from the website or send an email to greengrowthplatform@brighton.ac.uk to show your interest in the project.

The team will contact you with a template letter of support, we'd be grateful if you could show your support to the centre!



University of Brighton



THE WAY FORWARD

Infrastructure needs to be looked at from a whole life perspective:

- Designing
- Material management strategies
- Construction
- Use
- End of life or next life

The City of Brighton & Hove and other worldwide cities can be the Champions and Facilitator of a long-term Circular Economy strategy that will give confidence to the sector and allow for strategic investment in an uncertain world.



THANK YOU
FOR YOU FOR
LISTENING



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