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Bean to Bin and Beyond –
Circular Economy Mapping Exercise

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CIRCULAR ECONOMY MAPPING EXERCISE



We facilitated a mapping exercise with the Sustainability Committee attendees to identify:

1. Examples of how the Circular Economy is relevant at all stages of the UK coffee supply chain (using the above simplified model)
2. Identify best practice examples of organisations and companies that are leading circular economy practices at each stage of the supply chain

The findings are summarised in the following slides and will be used to create next steps for the ‘Bean to Bin and Beyond’ white paper.

COFFEE FARMING / PROCESSING

Circular Economy Touchpoints

- Carbon 'insetting' – also helps with shade provision
- Re-use of bi-products for organic fertilisers
- Composting
- Water re-use via cleaning systems and reduction. Filtering and recycling on the farm
 - Biogas from waste water used to power coffee driers
- Re-claiming water
 - Collecting basins
 - Rain water re-use
- Eco pulp reduction (rather than full water)
- Coffee cherry pulp:
 - Fertiliser
 - Coffee flour
 - Cascara
 - Caffeine source and energy driver
- Wood from old coffee trees – re-used to provide fuel (rather than transactional)

Best Practice Examples

- Coffee Husk – Huskee cup, recyclable coffee cup made from coffee husk
- TWIN trading are an example of effective carbon insetting

SHIPPING AND TRANSPORT

Circular Economy Touchpoints

- Rail and shipping credentials – especially at Northern Ports
- Efficient trucks and loading
 - Shunting
 - Storage
 - Production planning

Best Practice Examples

- JDE – reduced 9 warehouses to 1 – increasing efficiency and reducing waste from reduction of footprint
 - Streamlining of order process
- Taylors – fuel and carbon credentials
- Nespresso have also invested in reducing fuel wastes

DESIGN AND R&D

Circular Economy Touchpoints

- Sustainable product design
 - Recyclable and compostable capsules
 - Food safe B2C
 - Reduction of waste through re-use of capsules in the agricultural sector (B2B)
 - Reduce weight, size and use of e.g. plastics
 - Sourcing of more recyclable materials for packaging use
 - Packaging innovation
 - Biodegradable pods
 - Tin and aluminium materials - aluminium stewardship
 - Ambition – we need more investments needed for collaboration solutions

Best Practice Examples

- Halo – packaging innovation for coffee pods and disruption of market
- JDE – Kenco refill product uses 97% less packaging
 - 25% less packaging being used across the portfolio in 5 years

MANUFACTURE

Circular Economy Touchpoints

- Holistic approach to manufacturing, from production to stores:
 - Energy use
 - Water use
 - Life cycle analysis
- Coffee grounds used to provide renewable energy in our factories
- Renewable wind turbines to keep factories going – renewable energy for roaster
- Manufacturing machines designed to be re-used at end of life
- Coffee sacks used for carpet, social enterprise based activities etc
- Use sustainably sourced materials for manufacture e.g. FSA sourced pulp

Best Practice Examples

- Hessian bags used by Whitbread under carpeting in Premier Inns
- Green coffee waste – collection and storage
- Zero waste to landfill

RETAILER

Circular Economy Touchpoints

- Retailers providing onsite recycling
- Examples of where incentivisation has started and may be demonstrating an effect / impact
- Retailers need to start to educate and raise awareness amongst consumers
- Reduction of packaging of product going to retailer
- Lifecycle product assessments

Best Practice Examples

- Costa perhaps to lead on in-store recycling as an example of demonstrating the important influence of retailers and demands, and the role we can and should play

CONSUMER

Circular Economy Touchpoints

- Consumer behaviour and behaviour change is an urgent priority
 - Amount of water boiled in kettle
 - Segregating waste into correct recycling bin
 - Re-usable cups
- Education, education, education
- Local authorities need to be the other focus here so that processes can be standardised throughout the UK (postcode recycling currently) and made as easy as possible for consumers

Best Practice Examples

- Food bank donations below TLG

RECYCLING SECTOR

Circular Economy Touchpoints

- Deposit Return Schemes
- Coffee grounds used as a biofuel (BioBean)
- Use in cosmetics e.g. Lush
- It was noted that the ultimate ambition for the white paper needs to be in the recycling space

Best Practice Examples

- Coffee cups turned into recycled product e.g. James Cropper Paper
- Recycling network with Terracycle for problem wastes
- Nespresso – collection and returns schemes

REUSE AND REPAIR

Circular Economy Touchpoints

- Biochar from spent coffee grounds
- Packaging re-used by partner organisations (Terracycle)
- Refurbished coffee machines
- Promoting re-usable cups or offering incentives for use

Best Practice Examples

- Costa Express machines built to re-use parts

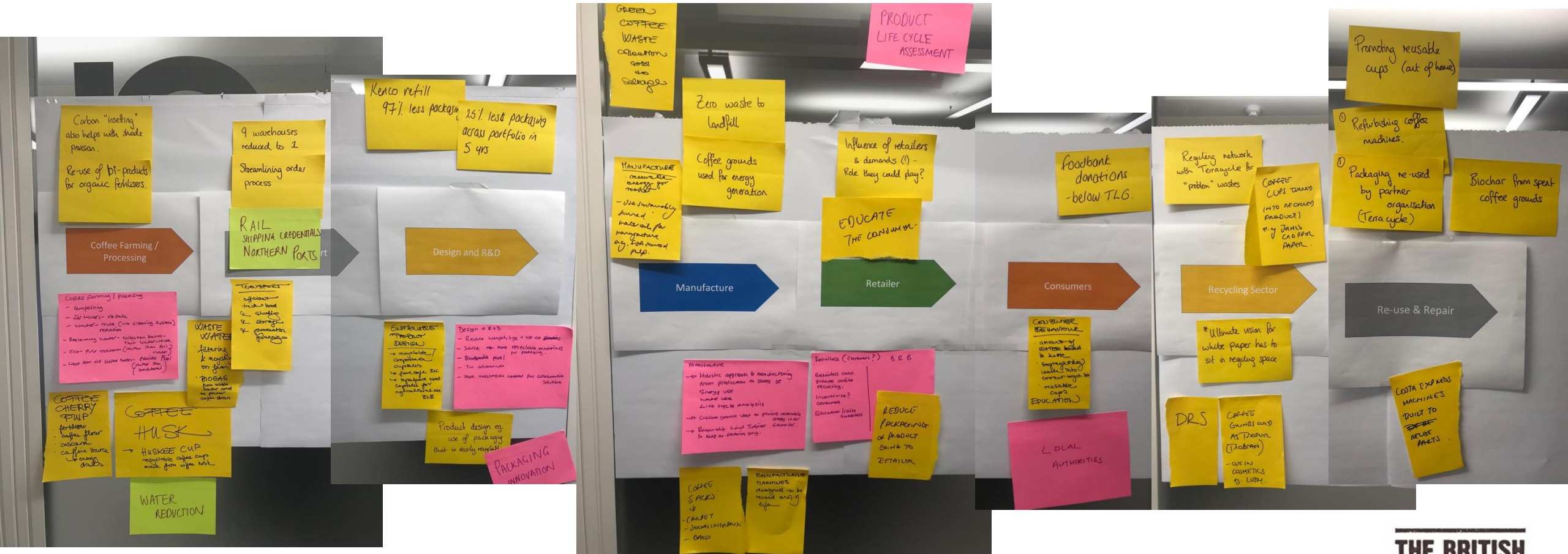
WIDER POINTS TO CONSIDER

The white paper should celebrate all the innovation that is being undertaken by the industry across the supply chain – but it should also look to include ‘ambitions’, if possible targets

Additional wider consideration points:

- Data – can we tap into big data and evidence these activities
- Legislation – need to be mindful of and tie into government legislation and broader context
- If possible, establish **critical success factors** in the white paper

SESSION PHOTOS



NEXT STEPS

To take this activity forwards we propose the following next steps:

- SHED to develop a contents list for the white paper – whilst the mapping of the supply chain is a good start for segmenting the white paper there are a couple of areas of overlap – e.g. retailer and consumer, and also recycling and re-use – so we may be able to collapse these in a tweaked contents list – this will need to be formally approved by committee
- SHED to formalise Task Force
- Sustainability Chairs and BCA to support in teasing out best practice examples from specific companies
- Once above actions complete SHED to develop an initial first draft of Bean to Bin and Beyond
- Once the first draft is complete Committee Chair and Taskforce input will be **vital**

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