UKUPC WEBINAR: CIRCULAR PROCUREMENT OPPORTUNITIES

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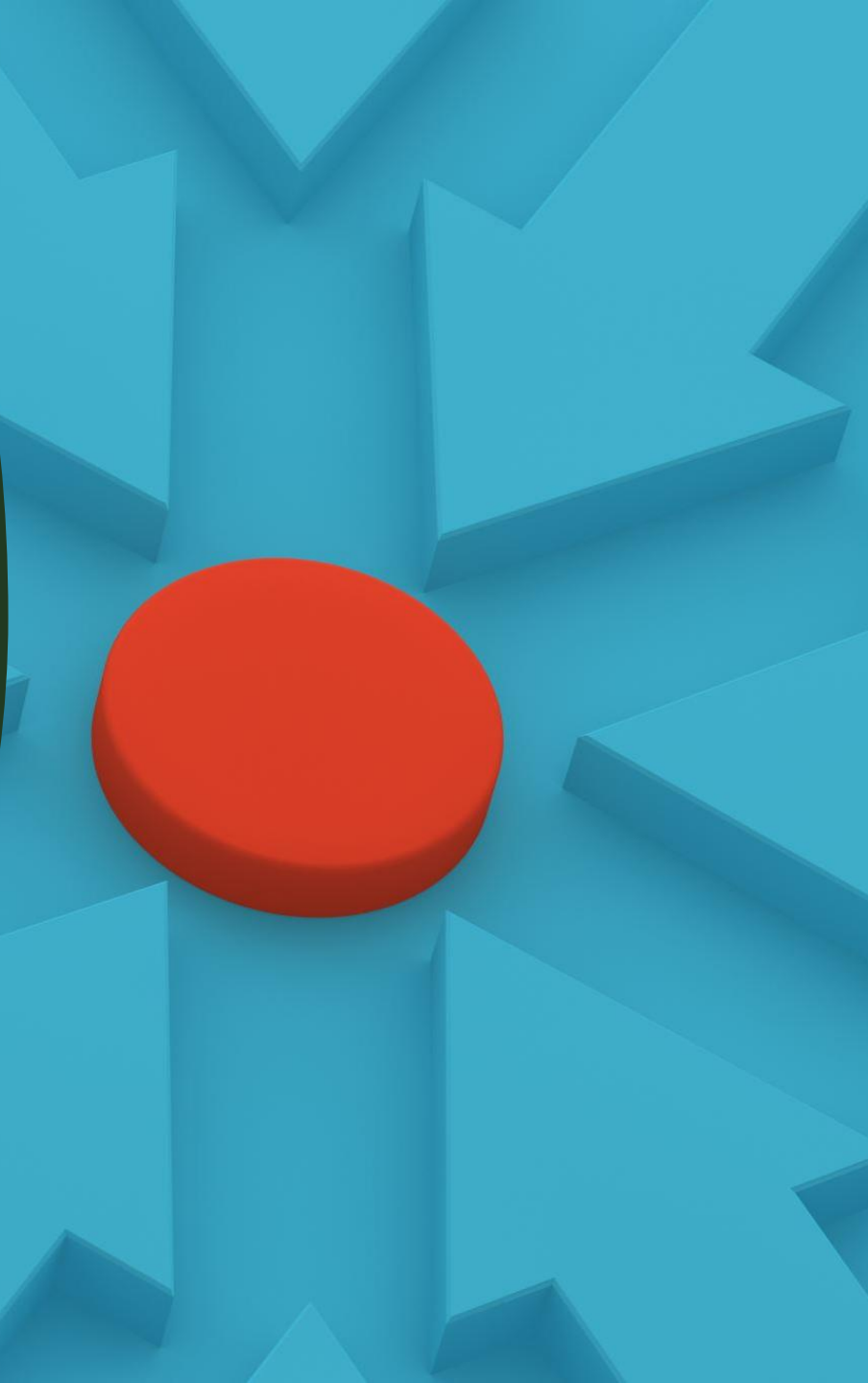
What will we cover?

- Introduction to the Circular Economy
- Circular Procurement Strategies
- How to embed circular Procurement
- Circular Procurement Opportunities
- Q&A



Before we start ...
Climate Emergency Declared

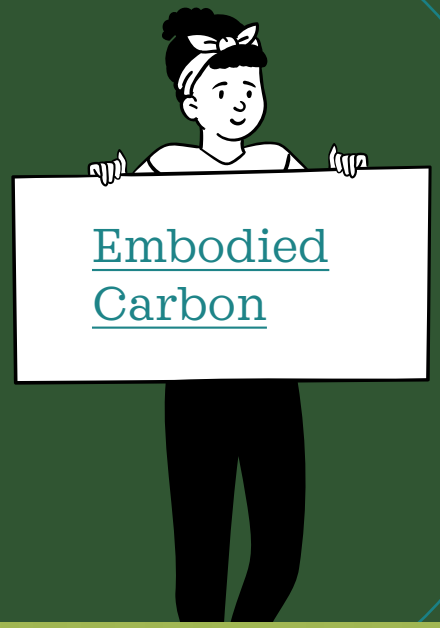
https://www.youtube.com/watch?v=zCRKvDyyHmI

https://ellenmacarthurfoundation.org/videos/explaining-the-circular-economy-rethink-progress

What is Circular Procurement?

Circular procurement sets out an approach to green public procurement which pays special attention to "the purchase of works, goods or services that seek to contribute to the **closed energy and material loops** within supply chains, whilst minimising, and in the best case avoiding, negative environmental impacts and waste creation across the **whole life-cycle**".

Carbon footprint is a widely used measure of the amount of greenhouse gases, such as carbon dioxide, released into the atmosphere as a direct and indirect result of human activities.



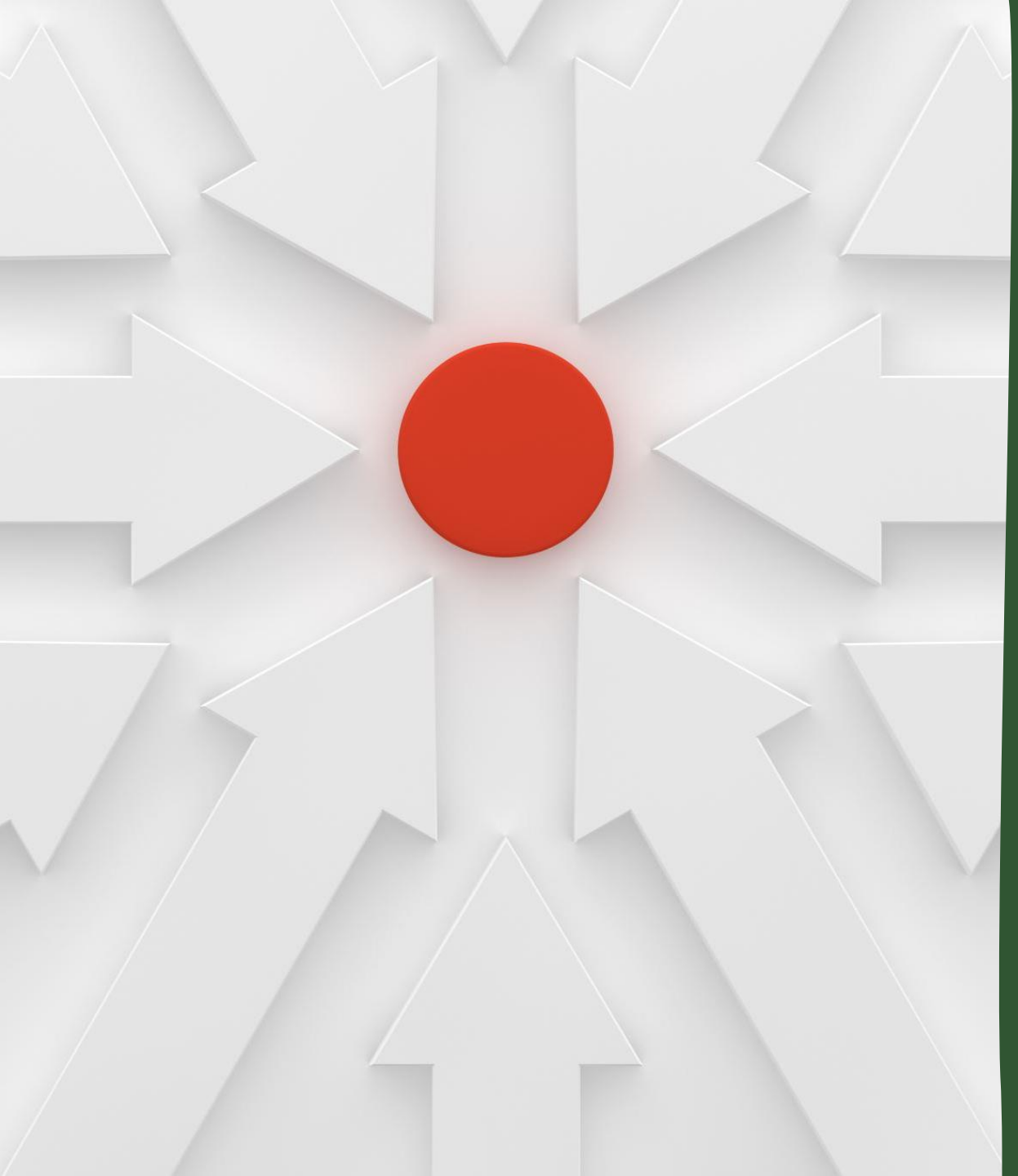
Procurement's role - Circular Procurement Strategies

Life Cycle Impact

- obtaining raw materials
- manufacturing and logistics
- use of products or works and the delivery of services
- re-use/re-manufacture and final disposal

Circular Strategies

- Circular design
  - Design to disassembly
  - Repairability
- Optimise lifetime and use
  - Re-use
  - Repair
  - Sharing Economy
- Extend lifetime
  - Remanufacture
  - Modularise
  - Take-back
- Product as a service or Leasing
- Resource recovery



How to embed Circular Procurement?

- Embedding circular procurement in policies
- Early stakeholder engagement
- Identify hot spots, opportunities and gaps in the market
- Communicate your sustainability objectives

Embedding in the Tender Process

Rethink the need – do we need to own it, does it need to be brand new, latest spec, owned assets + local repair and service options

SoR – Allow for innovation but require minimum circular capabilities

Early market engagement - Can suppliers offer circular solutions?

Move your procurement standard to circular

https://www.youtube.com/watch?v=f7P-b0quECY

https://www.zerowastescotland.org.uk/circular-economy/circular-procurement

Benefits of circular procurement

Economic:

- Whole life value
- Cost control and savings
- Planning and forecasting
- Resilient and local supply chains
- Partnerships with suppliers

Environmental

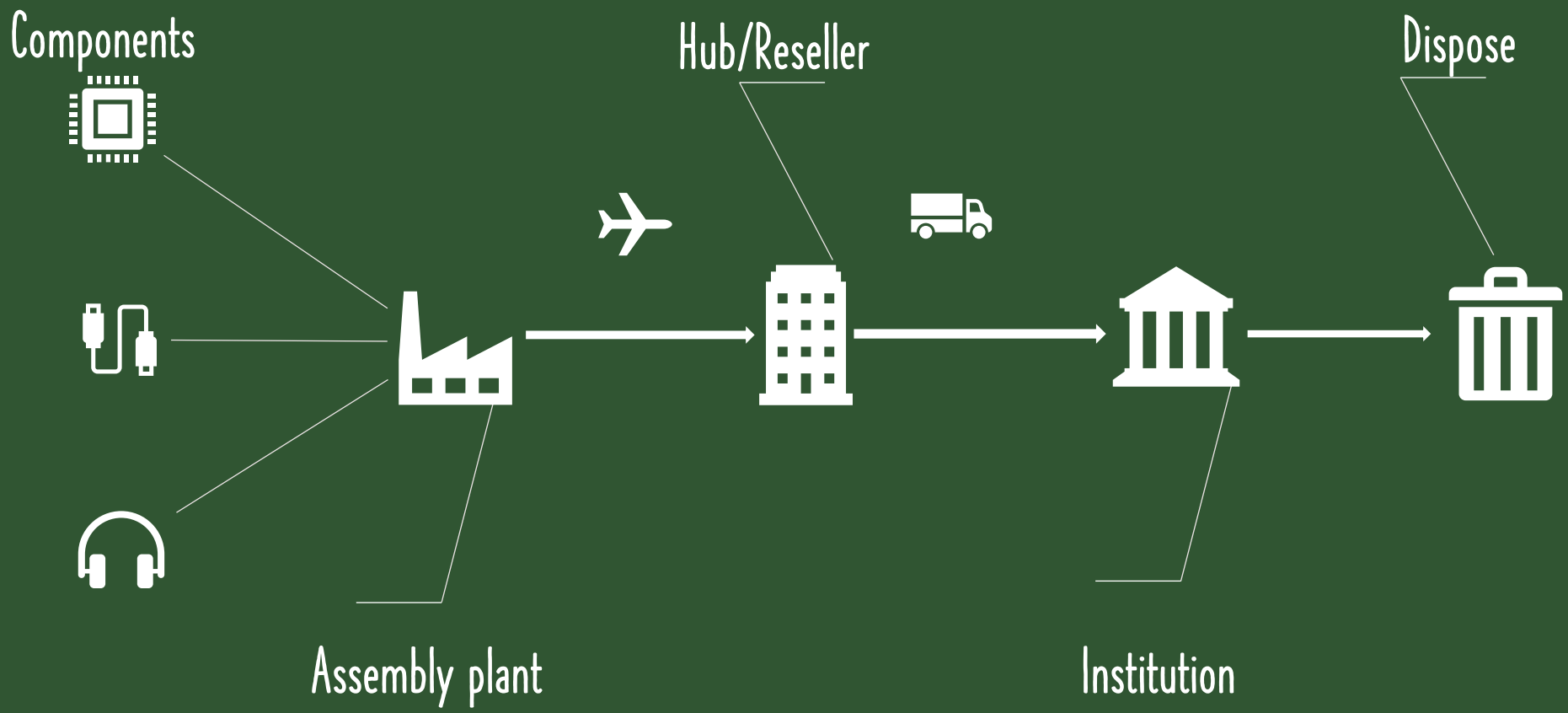
- Circulation of materials reducing consumption of materials
- Reduction of waste
- Addressing issues such as deforestation, GHG emissions, water use

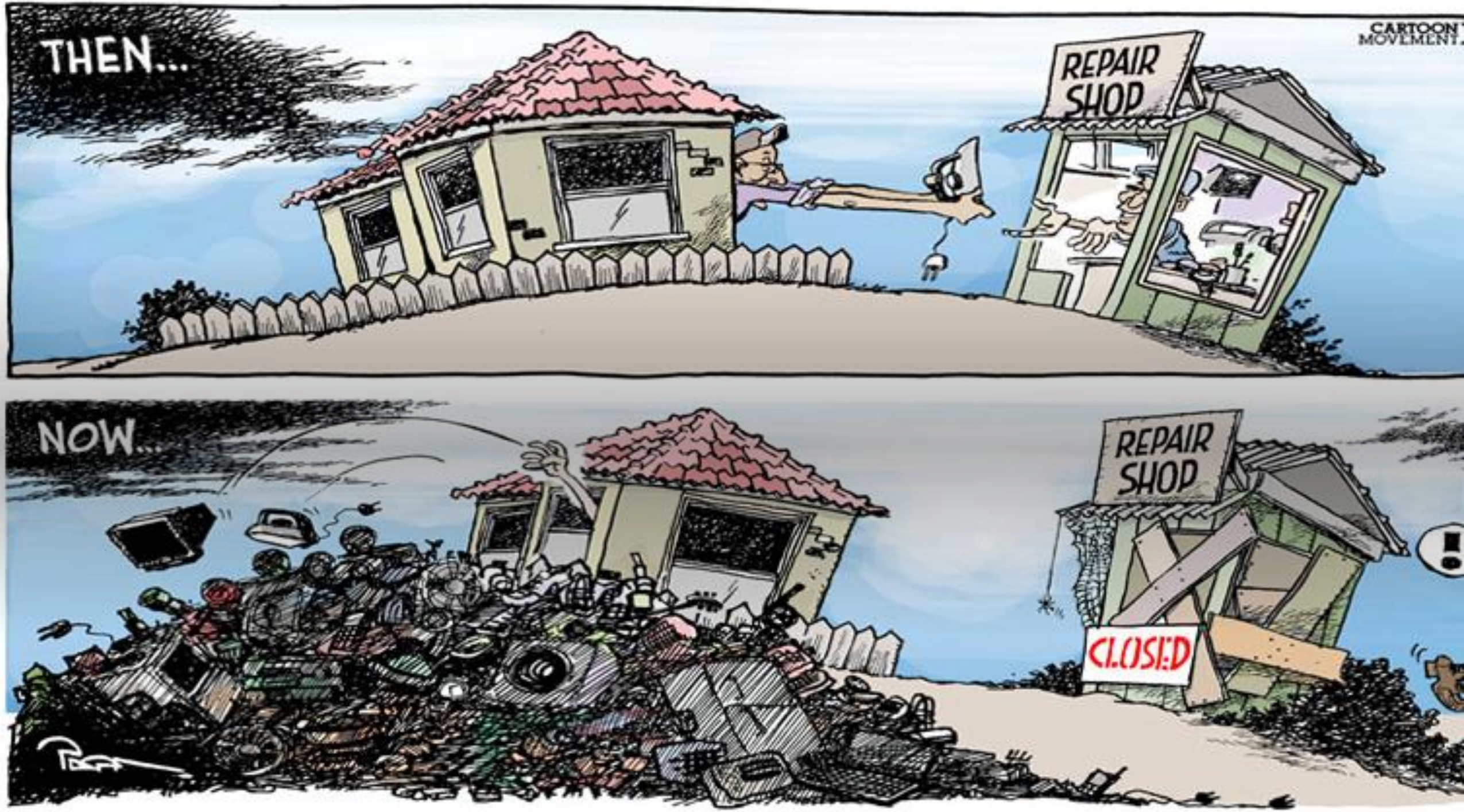
Social:

- Local supply markets
- Inclusive skills and training opportunities
- Third sector and supported businesses

Circular IT

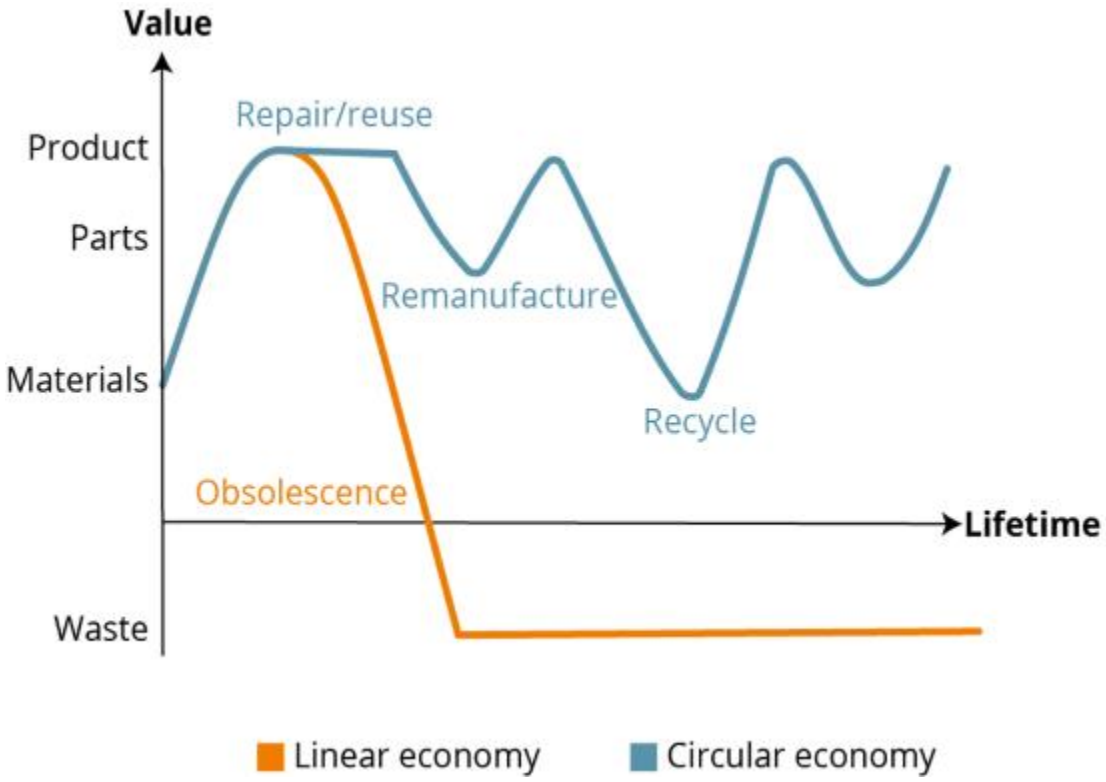
The Supply Chain - Linear




THEN...
REPAIR SHOP
CARTOON MOVEMENT
NOW...
REPAIR SHOP
CLOSED
!

Environmental Issues - eWaste

E-Waste and the Circular Economy

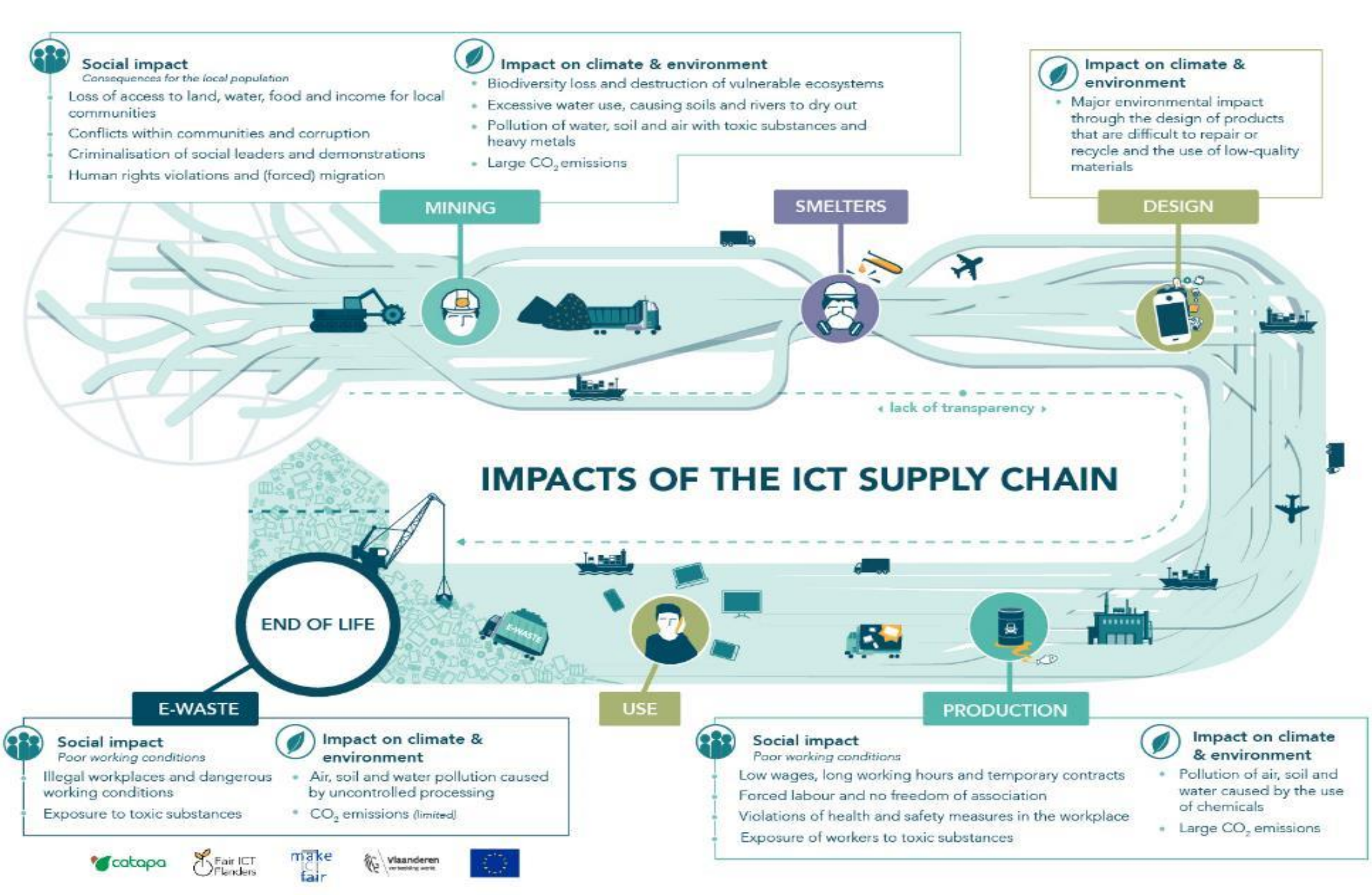


20% Only 20% of e-waste generated is documented to be collected and recycled.[2]

€55B The total value of all raw materials present in e-waste was estimated to be ~55 Billion Euros in 2016.[3]

Extending useful life and extracting maximum value from devices is a key issue.

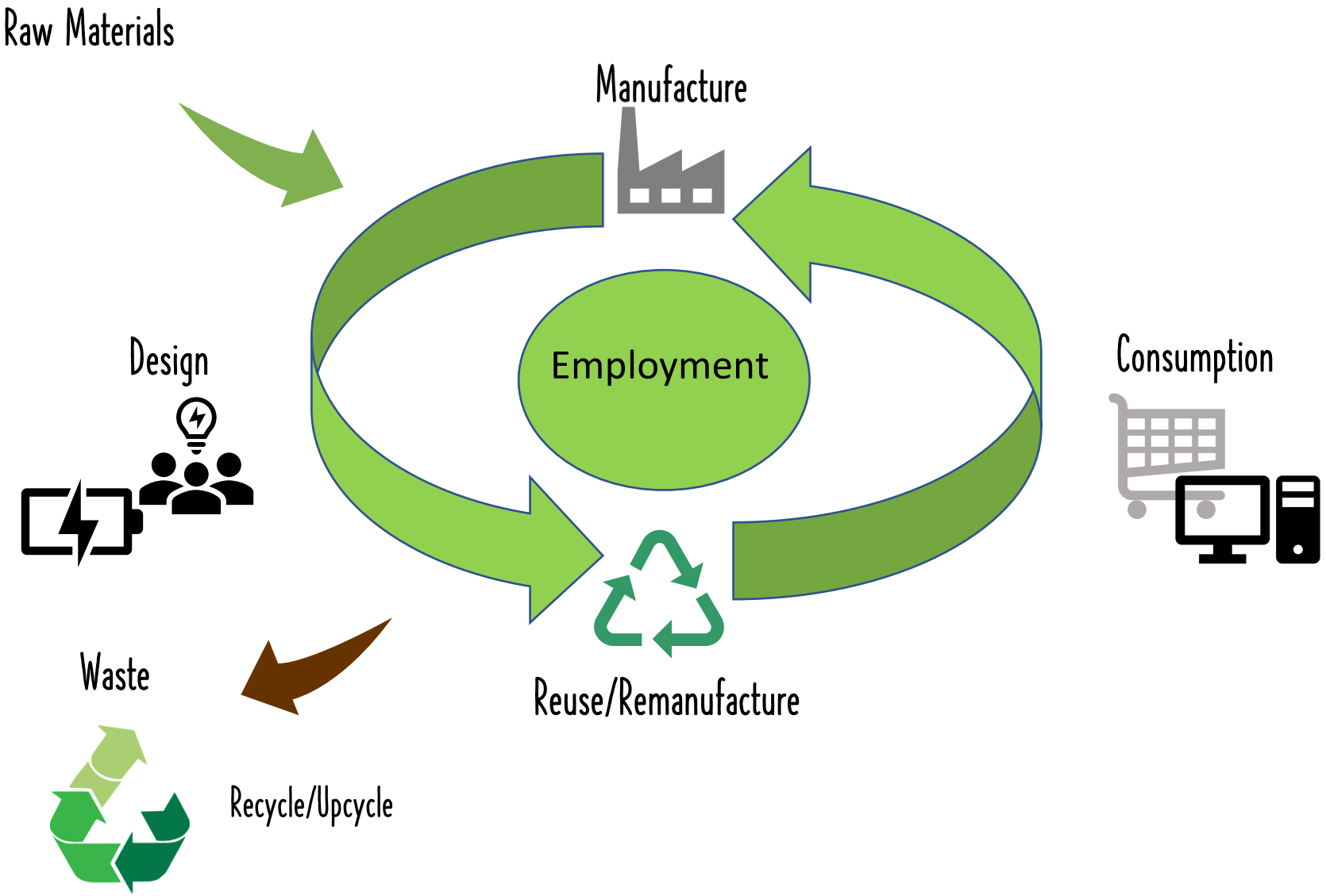
Life Cycle Costs


Social impact
Consequences for the local population
Loss of access to land, water, food and income for local communities
Conflicts within communities and corruption
Criminalisation of social leaders and demonstrations
Human rights violations and (forced) migration
Impact on climate & environment
Biodiversity loss and destruction of vulnerable ecosystems
Excessive water use, causing soils and rivers to dry out
Pollution of water, soil and air with toxic substances and heavy metals
Large CO_2 emissions
Impact on climate & environment
Major environmental impact through the design of products that are difficult to repair or recycle and the use of low-quality materials
MINING
SMELTERS
DESIGN
lack of transparency
IMPACTS OF THE ICT SUPPLY CHAIN
END OF LIFE
E-WASTE
USE
PRODUCTION
Social impact
Poor working conditions
Illegal workplaces and dangerous working conditions
Exposure to toxic substances
Impact on climate & environment
Air, soil and water pollution caused by uncontrolled processing
CO_2 emissions (limited)
Social impact
Poor working conditions
Low wages, long working hours and temporary contracts
Forced labour and no freedom of association
Violations of health and safety measures in the workplace
Exposure of workers to toxic substances
Impact on climate & environment
Pollution of air, soil and water caused by the use of chemicals
Large CO_2 emissions
catapa
Fair ICT Flanders
make it fair
Vlaanderen

Current Supply Chain Issues

- Price Stability
- Factory closures
- Unprecedented rise in demand
- Component shortages
- "Chipageddon"

Transition to Circular Economy



Considering relevant actions

Performance & Compliance may be key

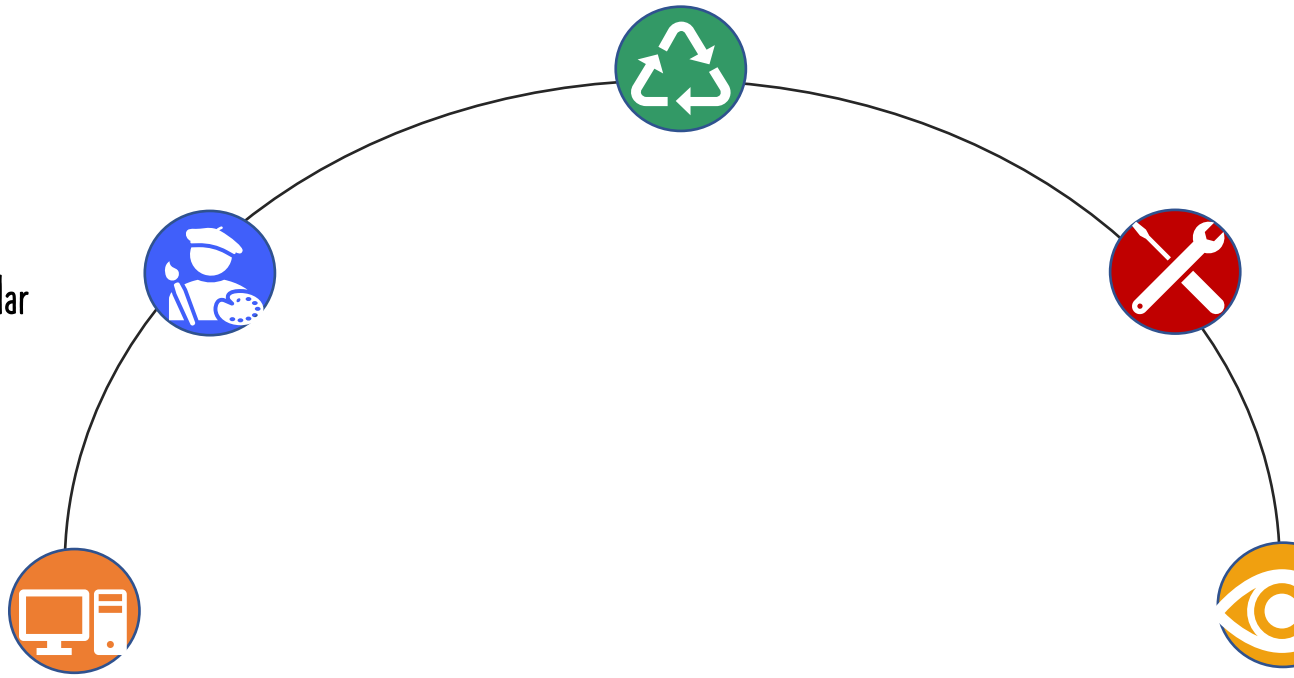
does this preclude alternatives including refurbished/ remanufactured devices?

epeat
European Commission
GPP
CERTIFIED cradletocradle
TCO CERTIFIED
EU Ecolabel www.ecolabel.eu
Government BUYING STANDARDS

Strategic Options for Transition to Circular Economy

1. Challenge Manufacturers/Supply Base through Procurement
2. IT Recycling
3. Explore Feasibility of a Circular IT Shared Service

Scottish Public Sector Hardware Agreements



TAKE BACK SCHEMES

DESIGN

Design For Circular Economy

REUSE

Remanufacture and reuse options encouraged

BUYING OPTIONS

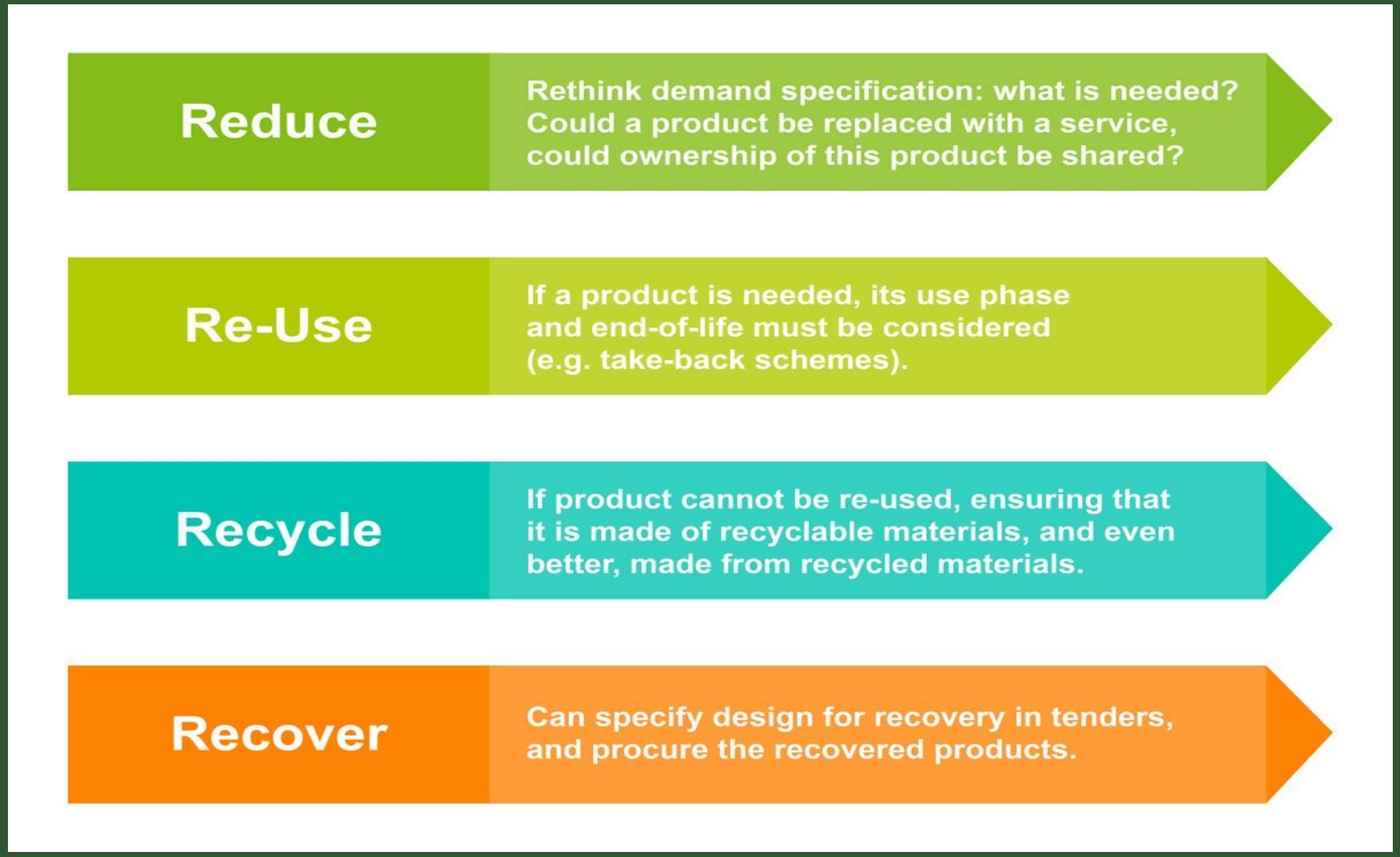
Device as a service

SOCIAL

Apprenticeships

Work with NGOs

The Waste hierarchy



IT Recycling Framework Agreements

Collection and treatment of IT hardware and electronics classed as redundant or waste

Processing of hardware Removal of personal data and removal/ destruction of hard drives

Innovative approaches including refurbishment and repair or more efficient recovery process

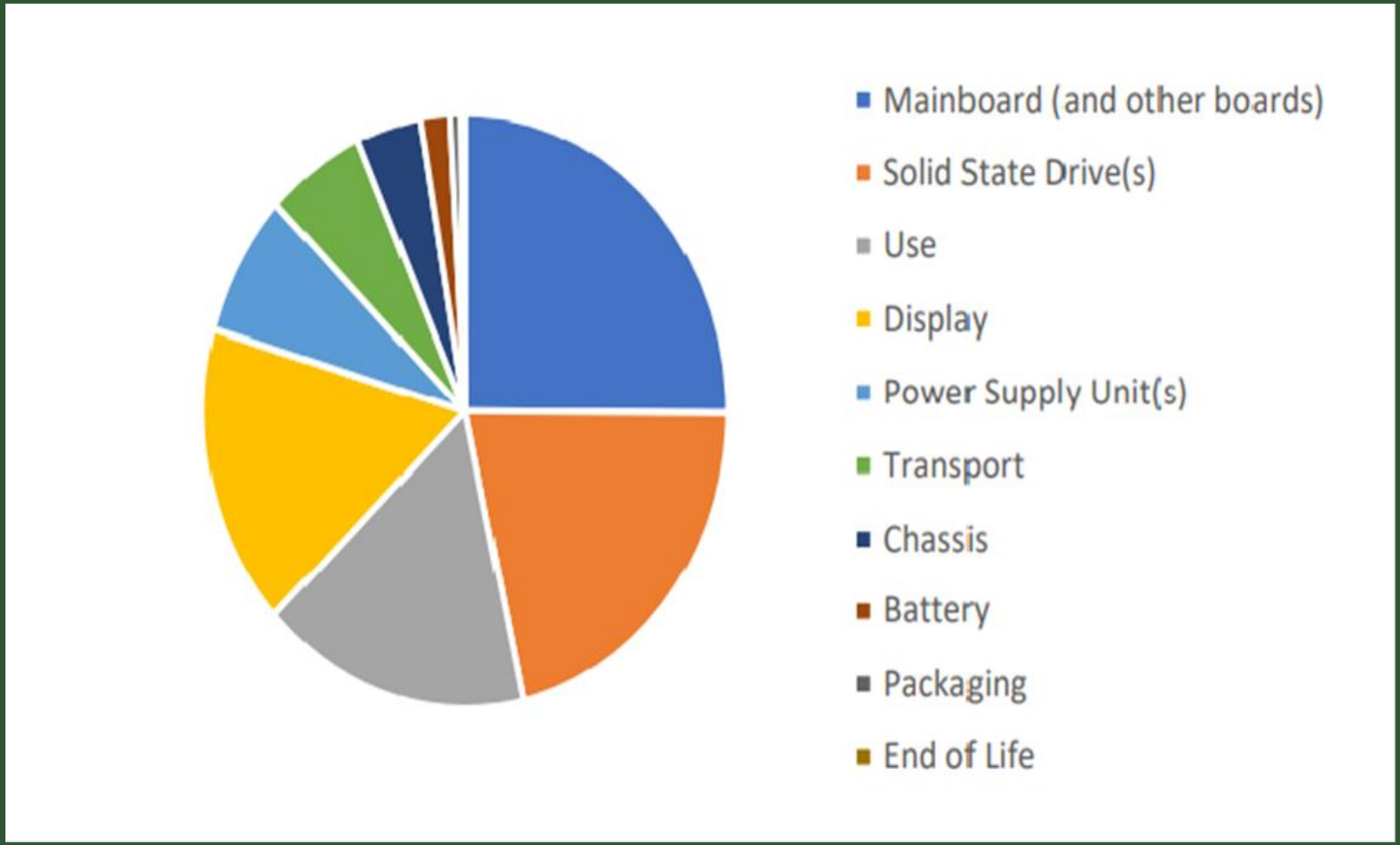
Ability to obtain rebates for any products sold on for further use by the contractor

Creation of social benefits and / or circular economy approach

CO2 Emissions for HP Elitebook 840 G8

330 (KG of CO2e) required per new laptop

GHG % Of Total	New
Mainboard	24%
Solid State Drive	20%
Use	**15%**
Display	20%
Power Supply Units	8%
Transport	5%
Chassis	3%
Battery	2%
Memory	1%
Packaging	1%
EOL	1%
Total	100%



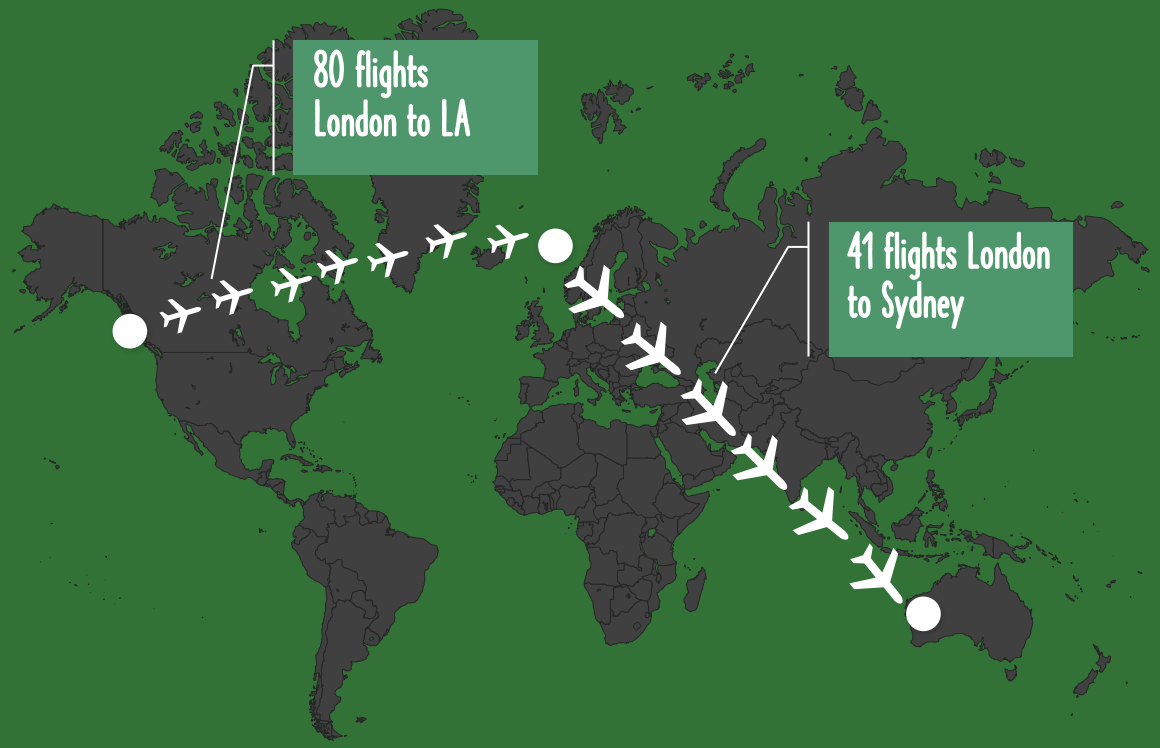
What is revolvit?

revolvit

We are a shared services (not for profit) company

Our purpose is to work with our members to offer shared services that reduce our members carbon consumption

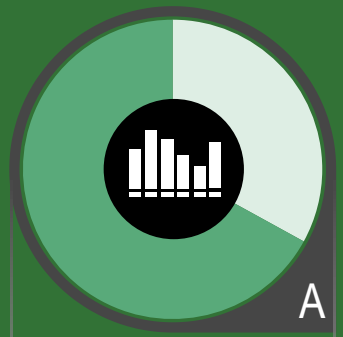
We will work with our members to identify the actual benefits achieved from our services be they environmental, economic or social



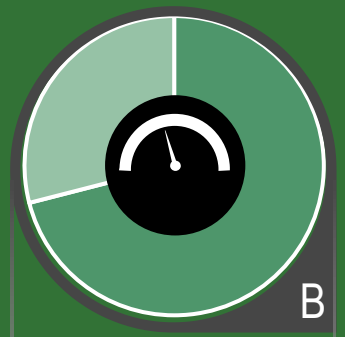
Supporting Climate Action

71%

A 71% reduction in CO_2 emissions would be achieved for every device which is remanufactured as opposed to the purchase of a brand new device.



67%
Cost Savings

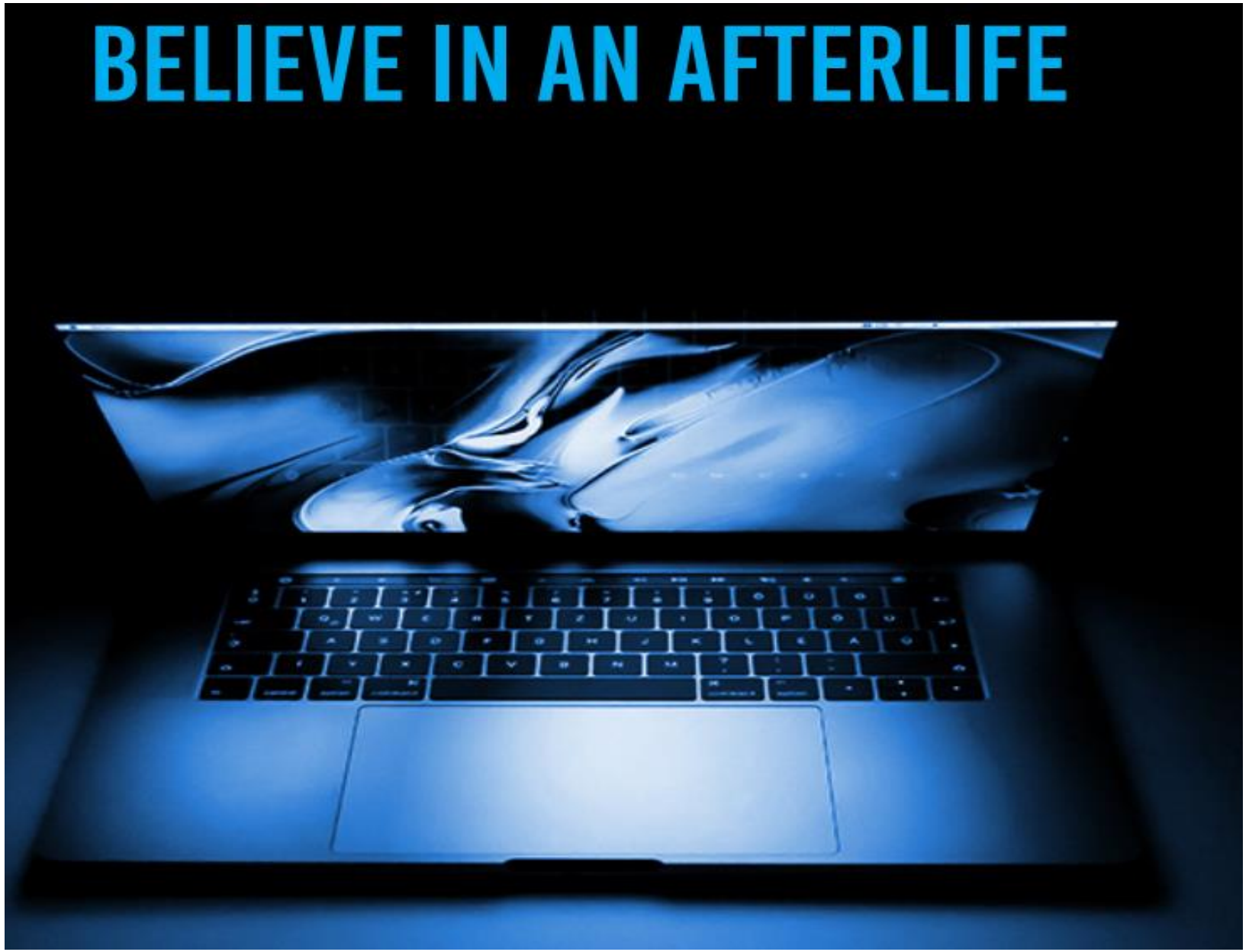


71%
CO2 Savings

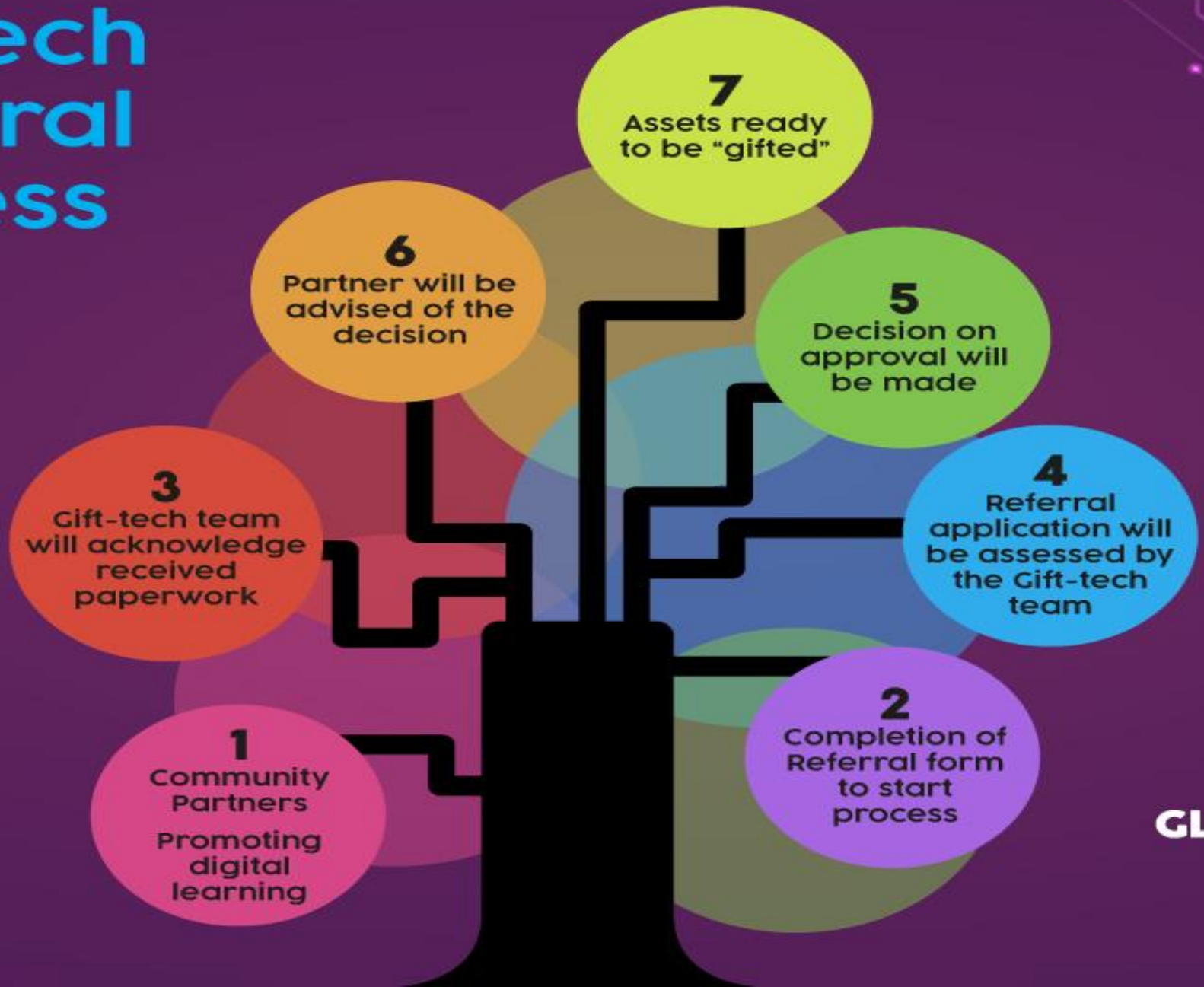
4
Jobs Created

revolvit

- Non-Profit Shared Service
- Environmental and Social benefits
- CO2 Savings
- Cost Savings
- Free Consultancy



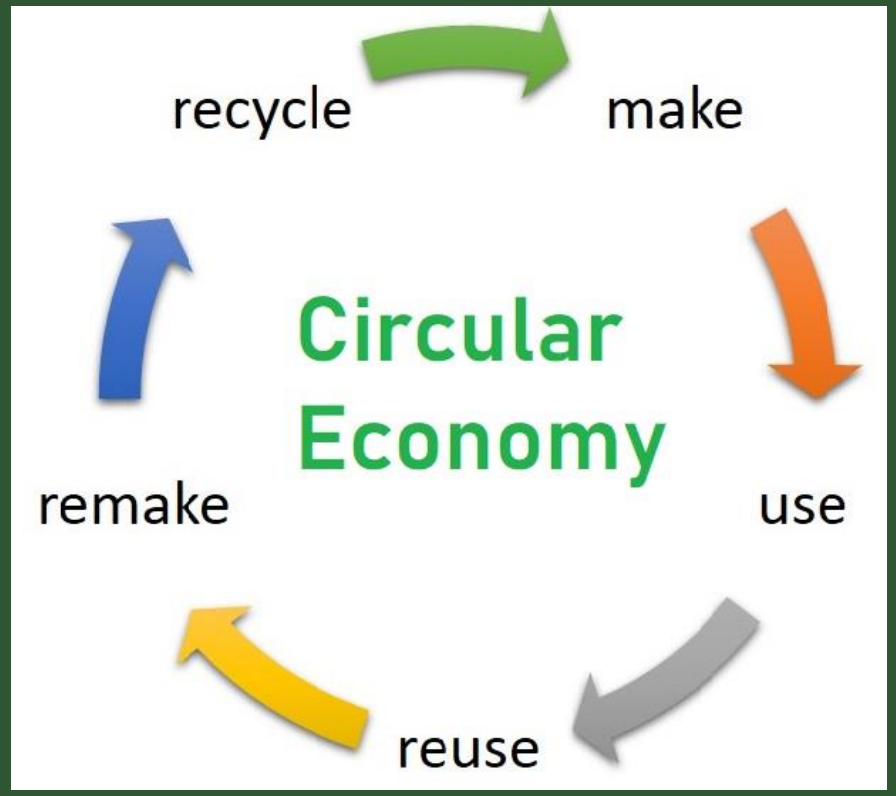
Gift-tech Referral Process Tree



GLASGOW CLYDE COLLEGE

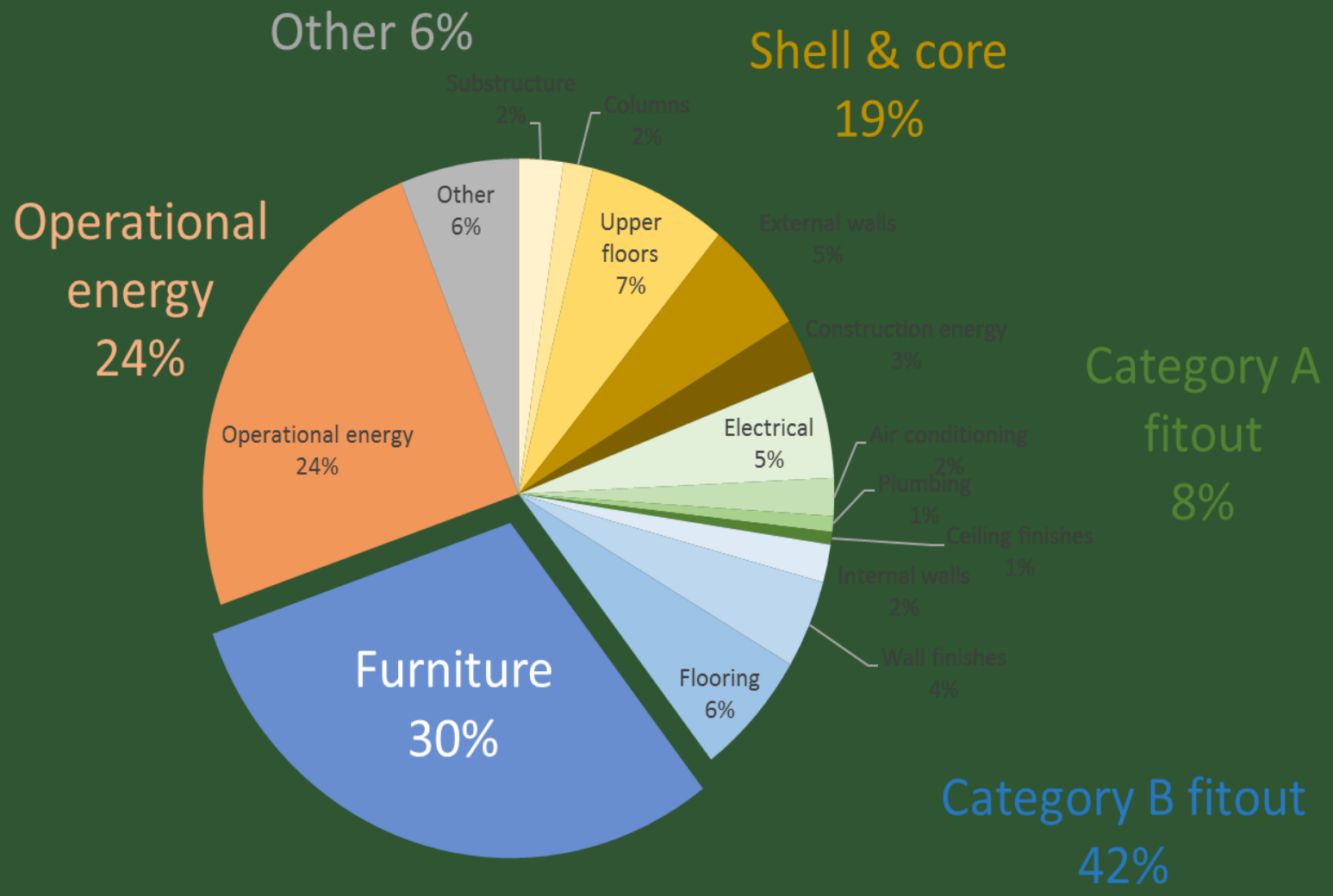
What will we cover?

- Assessing Impact Areas
- Circular Procurement projects – think big, start small
- Embedding circular Procurement in business as usual
- Endless Opportunities
- Q&A



GREENHOUSE GAS EMISSIONS OVER THE LIFETIME OF A COMMERCIAL BUILDING

Life-cycle impacts



Source: Treloar, GJ. Et al, 1999, *Embodied energy analysis of fixtures, fittings and furniture in office buildings*, Facilities, Volume 17, Number 11, pp. 403-409 (Accessed on 14 June 2019 at https://www.academia.edu/18481731/Embodied_energy_analysis_of_fixtures_fittings_and_furniture_in_office_buildings)

REUSING AND REFURBISHING FURNITURE IN A NEW OFFICE

Public Health Wales (PHW) National Health Service (NHS) Trust, Wales

- Relocation to new 4,700m2 open plan office in Cardiff bay in 2016
- Procurement objectives:
  - reuse as much of the existing items as possible. This included repairing and refurbishing existing items where necessary and adding new elements as required by the design
  - Encourage participation by social enterprises
  - outcomes-based approach
- Design Specifications:
  - meet collaborative workspace requirements.
  - Re-use as much of the existing furniture as possible and augment this with pre-owned items, with new furniture being the least favoured option.
- Outcome
  - Out of the 2,563 items used in the new office:
    - • 45% of items were re-used
    - • 49% of items were remanufactured
    - • Only 6% of items were sourced from new stock
  - In total, around 41 tonnes of waste were diverted from landfill, and the project
    - saved around 134 tonnes of CO2e (carbon dioxide equivalents) based on the:
    - • Re-use of 729 office/meeting room desks (saving 50.04 tonnes of CO2e)
    - • Re-use of 979 office/meeting room chairs (saving 57.70 tonnes of CO2e)
    - • Re-use of 522 office pedestals (saving 20.67 tonnes of CO2e)
    - • 670sqm of re-used carpet tiles (saving 5.7 tonnes of CO2e)

Case Study

https://ec.europa.eu/environment/gpp/pdf/news_alert/Issue77_Case_Study_152_Wales.pdf

YOU DON'T ALWAYS HAVE TO THINK BIG

FFE1011 AP – SUPPLY, DELIVERY & INSTALLATION OF FURNITURE

Recycle

Abertay University

- furniture gathered over 15 years recycled within the supply chain.
- **6,795 kg** of furniture was diverted from landfill
- **7,150 kg/CO2e** saved

University of Edinburgh

- 275 student task chairs
- **> 11,000 kg/CO2e** saved

Edinburgh College

- 587 chairs & 178 Desks
- **>30,000 Kg / Co2e** saved

Re-use

Donation of exam furniture used for Covid testing and vaccination centres

> 26,000 kg/CO2e saved

Refurbish

Edinburgh College

250 chairs refurbished. Saved £20K and **10,000 Kg/ Co2e**

University of Strathclyde

240 chairs refurbished. Saved £10K and **9,000 Kg of Co2e**

University of Glasgow

60 conference chairs refurbished. Saved £4K and **2,400 Kg of Co2e**

It's not added on, it's built in

- Level of recycled components stated for each core product item
- Contractors are encouraged to implement circular economy principles throughout the delivery of the Framework Agreement
- Contractors are challenged to reuse and recycle redundant furniture –take-back schemes and recycling services available for all lots
- Refurbishment/Re-modelling and Remanufacturing services available for all lots

The next step.....

Sustainable Furniture Framework FFE2008 NE

- Framework commenced 14th Feb 2022 and runs for two years with option to extend
- Three main lots:
  - Lot 1 - Circular Economy Considerations
  - Lot 2 - Supply and Installation
  - Lot 3 – Specialist
- Circular Economy Considerations sub lots
  - 1a Circular Economy Considerations - Refurbishment and Repair

    8 regional lots, offering : take-back, refurbish, refinish, reupholster, repair, reuse, repurpose, recycle.
  - 1b Circular Economy Considerations - Sustainable Furniture Design for Projects

    Provide interior design and furniture layout service Supply furniture (prioritise customer's existing stock plus that is available for refurbishment, reuse, repair, repurposing, reinstalling; then supply from someone else's surplus products; only then supply virgin product). take-back surplus product for repair, reuse, repurpose or recycle. Install furniture to project.
  - 1c Circular Economy Considerations - e-Marketplace

    Dedicated consortia e-Marketplace for refurbished furniture which includes distribution logistics utilizing the contractor's own e-Marketplace solution
  - 1d Circular Economy Considerations - Furniture as a Service (FaaS)

    Short- and long-term leasing

1a Circular Economy Considerations - Refurbishment and Repair	1b Circular Economy Considerations - Sustainable Furniture Design for Projects
1 Workscape Ltd 2 Crown Workspace 3 Right Green Recycle 4 Rype Office Ltd / John Pulsford Associates Limited* * Appointment varies by lot	1 Workscape Ltd 2 Rype Office Ltd 3 Crown Workspace 4 Right Green Recycle 5 Over2Hills
1c Circular Economy Considerations - e-Marketplace	**1d Circular Economy Considerations - Furniture as a Service (FaaS)**
1 Workscape Ltd 2 Crown Workspace	1 Workscape Ltd 2 Crown Workspace 3 Right Green Recycle 4 Over2Hills

Framework Manager s.wells@neupc.ac.uk

FFE1008 AP – SUPPLY, DELIVERY AND FITTING OF FLOOR COVERINGS

Circular economy options include

- Level of recycled components against each product of the price list – product information includes details of the materials used, the level of recycled content/materials used in product, the level of product that is recyclable, as well as the estimated lifespan of the flooring product.
- Take-back policy for redundant carpets, options include:
  - Repurposing – Cleaning and reuse of used carpets
  - Donations to Charities & the social sector
  - Recycling into new floorcovering products,plastic composite products & construction materials
  - Energy & Material recovery through certified cement industry and refuse derived fuel reprocessing centres
- Regional lots for refurbishment and repair services

EXPLORE WHAT'S HAPPENING IN THE MARKET – SUPPLIER SPECIFIC OFFERINGS

Save money and the environment with Back to the Floor

forbo back to the floor recycling Forbo's flooring

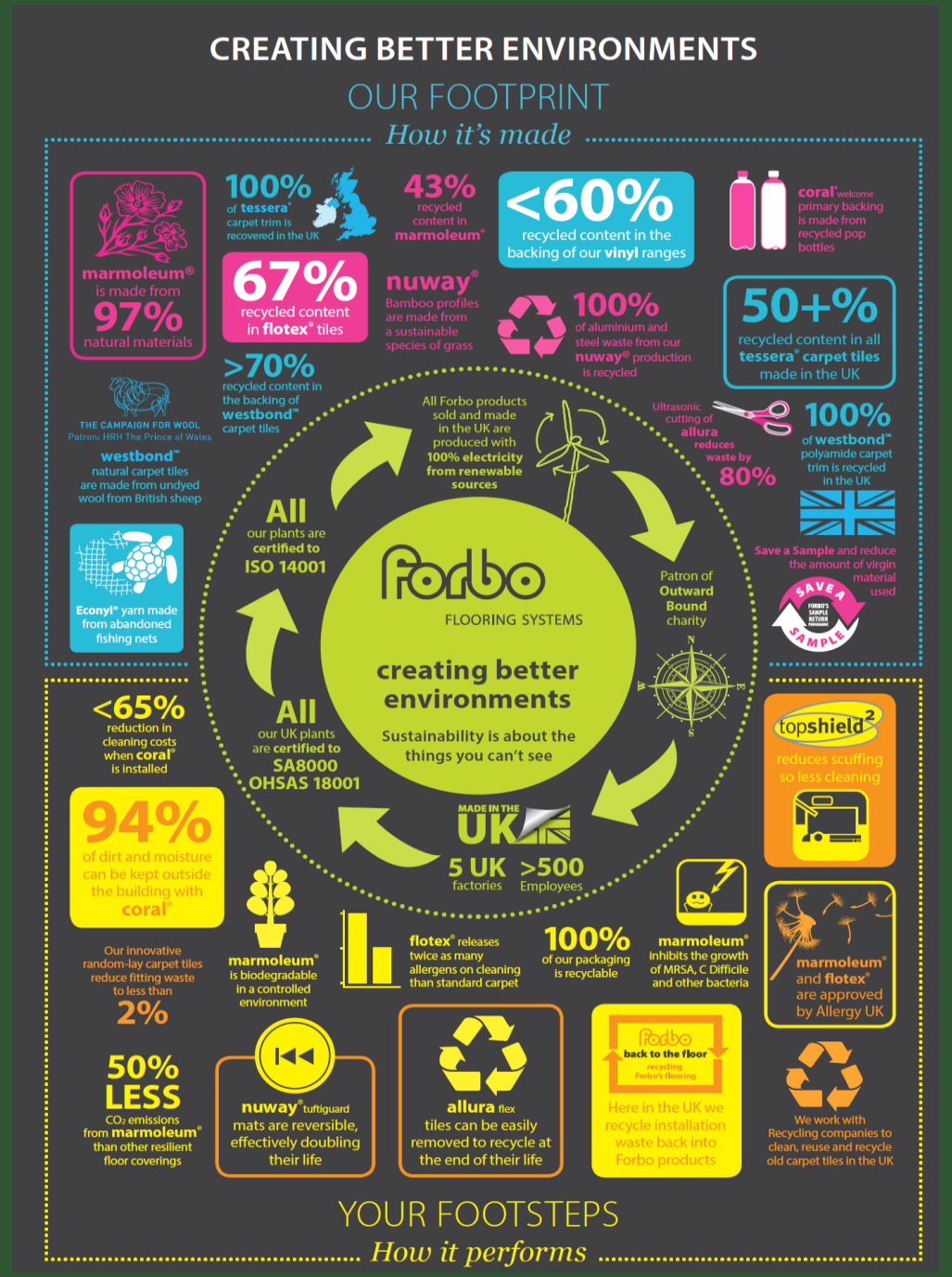
Back to the Floor is a **FREE** scheme which reprocesses installation off-cuts of Forbo's Flotex, Eternal, Sphera and Sarlon smooth sheet vinyl, Allura LVT and Novilon and Novilux cushioned vinyl, Tessera carpet tile and Marmoleum products.

Material is collected in small bags and placed in bulk **Back to the Floor** bags before being collected by **Back to the Floor** representatives to be recycled.

How does it work?

- Phone **0161 925 8760** for bulk bags/ polythene bags
- Collect off-cuts in colour coded polythene bags to keep the material clean and dry
- Place the polythene bags into the corresponding bulk bag and palletise
- When 1 or more bulk bags are full, phone **Back to the Floor** on 0161 925 8760 to arrange collection
- You will receive a certificate of commitment for recycling

Chris Yeomans, Educational Arts and Crafts with Marmoleum off-cuts in bulk bags ready for collection



https://www.forbo.com/flooring/en-uk/creating-better-environments/px9vbu

ENDLESS OPPORTUNITIES

EFM1031 AP - Trade Materials (SXL 0717)

- The Framework offers the ability to buy recycled paint and to recycle paint and paint cans.
- Paint disposal schemes available for most Contractor

JAN1012 AP - PPE, Work & Sportswear

- Reusable and machine washable masks
- Level of recycled components stated for each core product item
- Items marked as recyclable
- Contractors are encouraged to implement circular economy principles throughout the delivery of the Framework Agreement
- Contractors offer a take back and recycling service
  - Donate returned jackets clothing, and boots / shoes to homeless shelters and / or local clothing charitable organisations.
  - Donate returned / out of date Hard Hats to local charities to turn into hanging baskets.

EFM1042 AP - Road Surfacing Services

- Ability to specify use of recycled products
- Dundee & Angus College
  - Carpark and main entrance route
  - MacRebur product using hard to recycle plastics
  - Offers 30 year guarantee
  - Saved approx. 1,600 Kg / CO2e compared to traditional asphalt material

EFM1027 AP - Waste Management Services

- Specialist lots for Food waste & redundant IT & Electronics products

JAN1007 AP - Cleaning materials & Chemicals

- Take back collection and re-use service for 5 litre and larger containers – closed loop recycling

EFM1036 AP - Sustainable Timber

- Take back service for re-use and recycling of redundant timber products and end cuts

Q & A SESSION