## wood.

Circular Economy 101: An introduction to circular economy

IEMA webinar: 14/08/2020



## Our purpose

Wood helps businesses to grow. To improve their performance, products and environmental impact We are a global leader in the delivery of project management, engineering, consulting and technical services to energy and built environment customers.

Introduction to circular economy

## Current practice



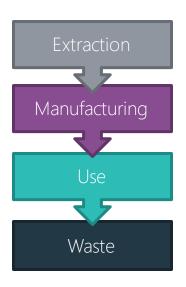




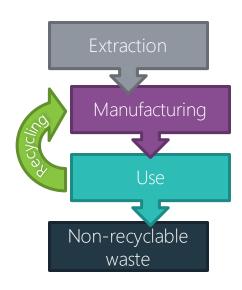


## From a linear to a circular economy

#### Linear economy



#### Recycling economy



# Circular economy Manufacturing Reuse

## The principles of a circular economy

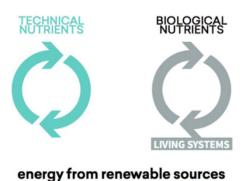
#### LINEAR ECONOMY



**Energy from finite sources** 

after W McDonough and M Braungart

#### CIRCULAR ECONOMY



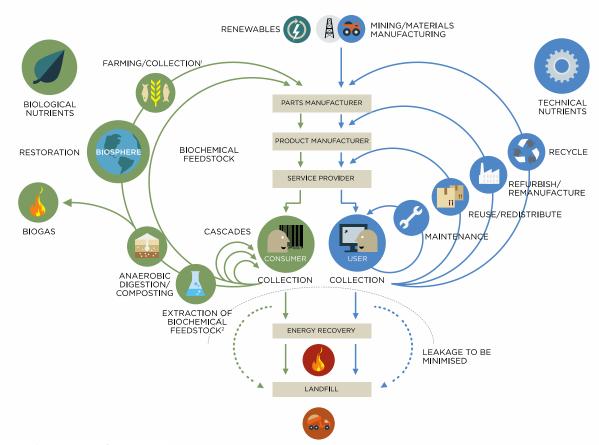
RETHINK: REDUCE - REPAIR - RECYCLE

The three Rs (3R) Reduce, Reuse and Recycle. The rule of the three Rs (3R).

- 1. Design out waste and pollution
- 2. Keep products and materials in use
  - 3. Regenerate natural systems



#### CIRCULAR ECONOMY THE BUTTERFLY DIAGRAM



## Applying circular economy to businesses

Organisations are under pressure from consumers and governments to reduce the amount of waste they're producing, consider material choices and end of life consequences and still provide value for money Shifting towards a circular, waste-free business model makes this viable



BREWED WITH BREAD

## Circular business models



#### Design

- Assets built to last
- •Waste designed out
- •Future life aware
- •New materials e.g. bio-based



#### Use

- Product-to-service
- •Leasing, hiring
- Maintenance, repair
- •Collaborative consumption



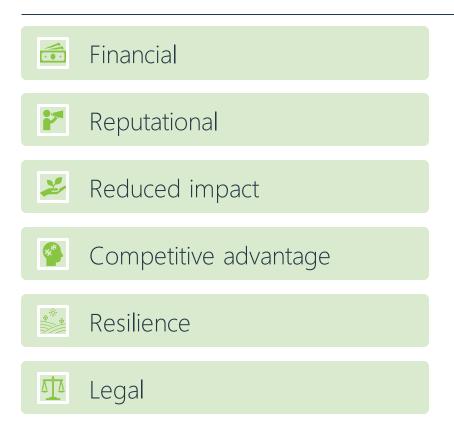
#### Recovery

- •Reverse logistics
- Recycling
- Material recovery
- •Incentivised return



Tools for sustainability professionals

### **Drivers & barriers**





## Examples of tools for sustainability professionals

- Professional networks: <u>IEMA</u>
- Organisations: IEMA; <u>CIWM</u>; <u>EMF</u>; <u>Advance London</u>; <u>Zero Waste Scotland</u>, Chambers of Commerce; <u>Wood</u> & other consultancies
- Informal learning:
  - Podcasts: <u>In the Loop</u>; <u>Explore the CE</u>; <u>CEC</u>; <u>CE Playbook</u>
  - Newsletters: <u>Circulate</u>; <u>Circular Online</u>; <u>Transform</u>
  - Talks and videos: <u>Circular Economy club list</u>
- Formal <u>courses</u> & <u>programmes</u>
- Standards & guidelines: <u>BS 8001:2017</u>; Design Guides (various)
- Measuring CE: MCI; Circulytics
- Further reading:
  - Policy: <u>UK Industrial Strategy</u>; <u>Resources and waste strategy for England</u>, <u>EU CE Action Plan</u>; <u>EU Green Deal</u>
  - IEMA Guides e.g. <u>Materials and Waste in EIA</u>



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