

# Circular Construction – what is it and why do we need it?



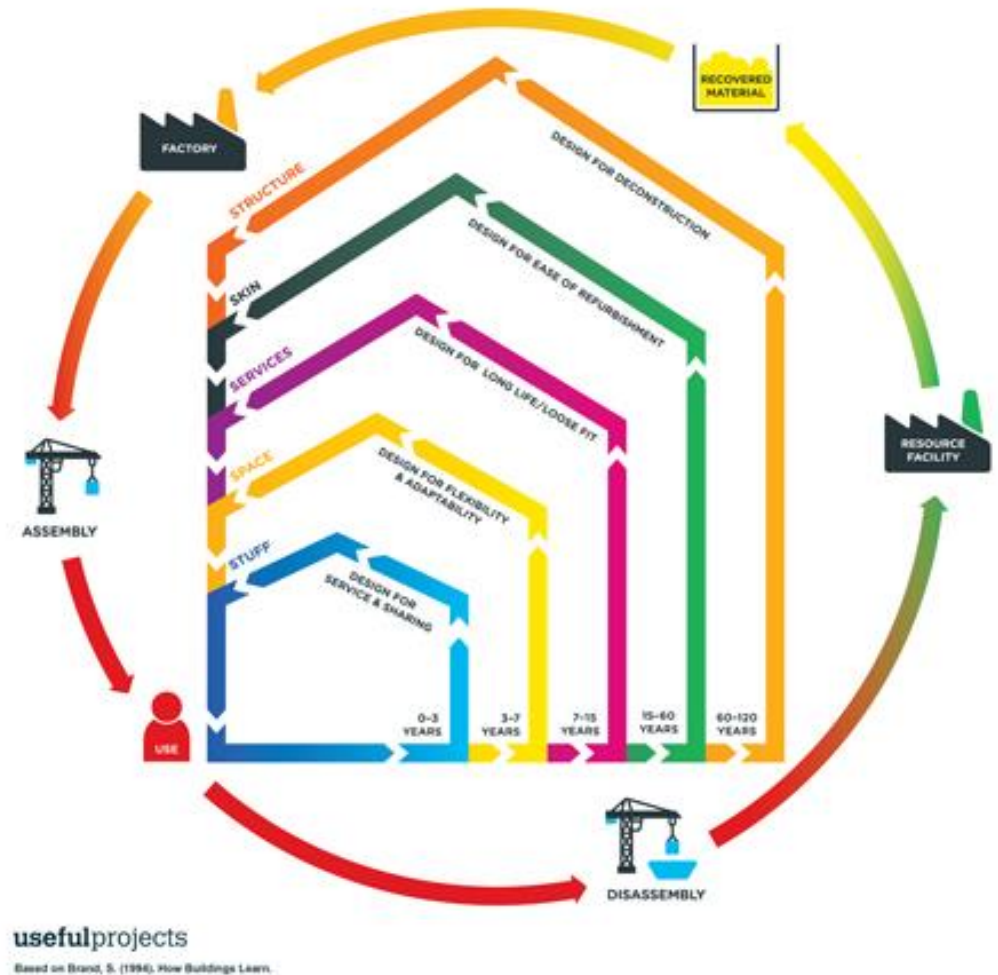
Allan Sandilands | 13 March 2019



# What is Circular Construction?

# Circular construction

In a circular construction project architects, engineers and contractors should be considering how best to **maximise material value** while they are in **use** and then consider how these are **recovered or regenerated** at the end of their service life.





# Why do we need Circular Construction?

# Twentieth Century – The Great Acceleration

- Growth of population grew by a factor of **3.7**
- Annual extraction of construction materials grew by a factor of **34**
- GHG emissions grew by a factor of **13**
- Globally an area the **size of the UK** has been converted to buildings since 1990
- Between 2011 -2013 China used more cement than the USA during the **entire twentieth century**





Construction sector performance scorecard

# Subject 1: Material consumption

**FAIL**

# Subject 2: Material embodied carbon

**FAIL**





# Subject 3: Construction waste generation



# Subject 4: Construction waste recycling

**PASS**

# Subject 5: Reuse of Construction materials

**FAIL**



What can clients do?

# Set the scene

1. Use the UKGBC practical guide
2. Use the Zero Waste Scotland model procurement wording
3. Measure and monitor the project outcomes
4. Report and tell the story

<https://www.ukgbc.org/wp-content/uploads/2019/04/Circular-Economy-Report.pdf>

<https://www.resourceefficientscotland.com/content/procuring-resource-efficient-construction-projects>



## Circular economy guidance for construction clients:

How to practically apply circular economy principles at the project brief stage

APRIL 2019

Partner:



Sponsors:



# Map your material banks




# Know your materials and where they come from

Materials Passport Platform **Prototype**

Products Buildings Instances ? Logout

Search

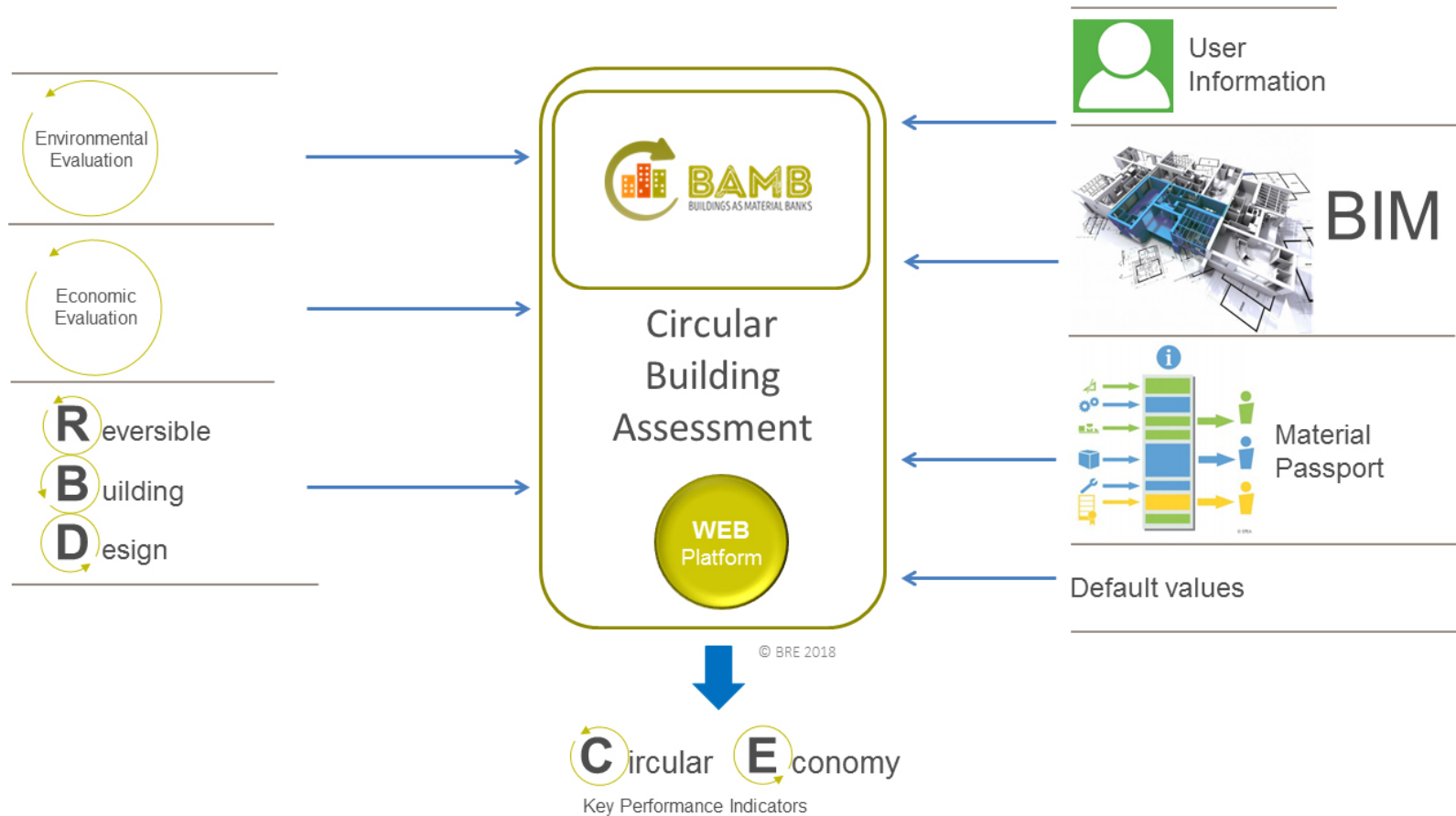
## Products



+ Add Product

Name ↓	Brand Name	Manufacturer	GTIN/EAN
Accoya® Wood	Accsys Technologies	Accsys Technologies	Unknown
Acrovyn® 4000	Acrovyn® 4000	Construction Specialties Inc.	Unknown
Ahrend Balance Desk	Ahrend	Ahrend	Unknown
AirMaster®	Desso	Tarkett	Unknown
Aluminium Door Furniture	AMI BV	AMI bv	Unknown
Armstrong Ultima+	Armstrong	Armstrong World Industries Limited	0888264102735
Axia 2.0 Office Chair	BMA Ergonomics	Flokk	

# Learn how circular your assets are





# Access Business Support





# CIRCULAR GLASGOW

A vision and action plan for the city of Glasgow


GLASGOW  
RESOURCES AND WASTE



Circular  
Edinburgh

# Thank you

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