

01_RD_01 Single-family house WHOLE LIFE CARBON ASSESSMENT

BUILDING TOTAL CARBON

40.58

Kg - CO₂eq/m²a



RESIDENTIAL
BUILDING



HEATED FLOOR AREA
112 m² (PENB)



SERVICE LIFE
50 years

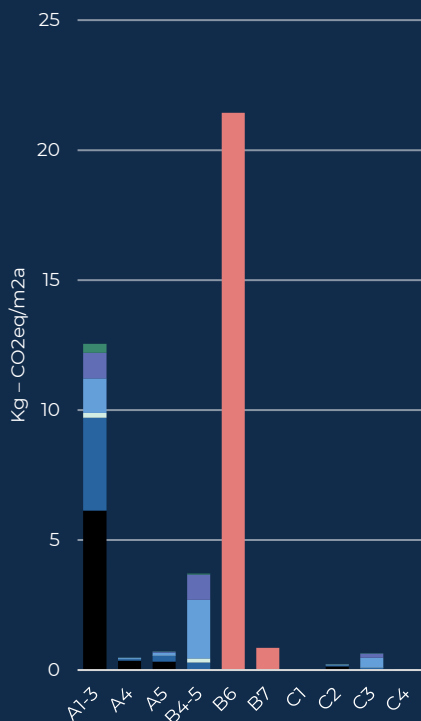
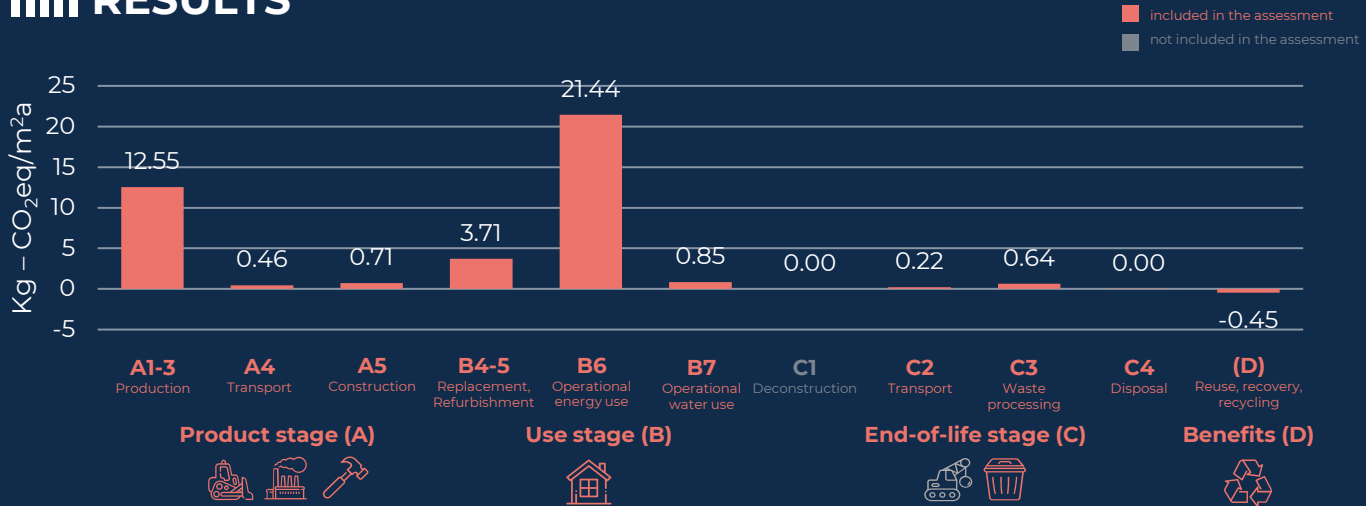


CRADLE-TO-CRADLE
APPROACH
A-D modules



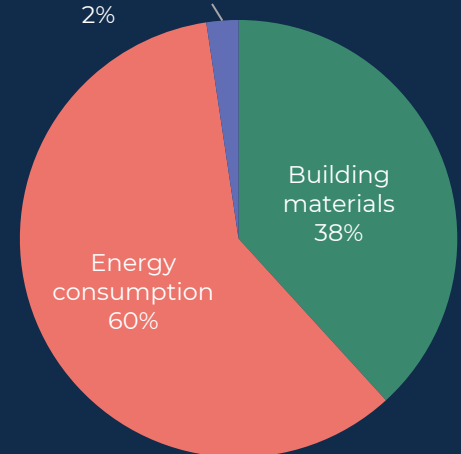
LIFE CYCLE
ASSESSMENT TOOL
OneClick LCA

RESULTS



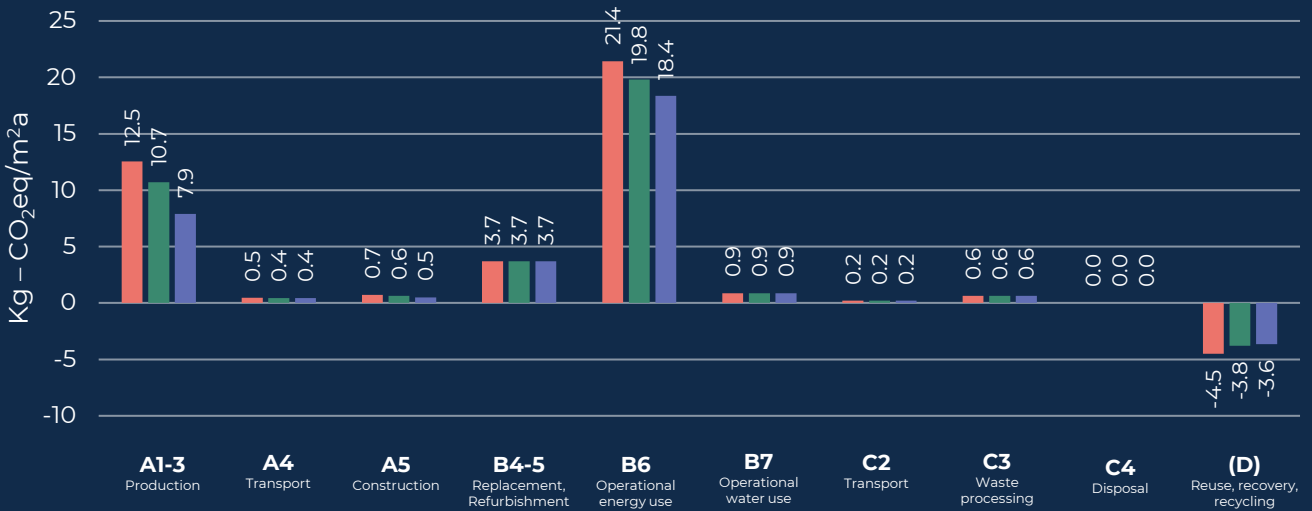
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- Appliances (i.e. fixed facilities, mobile fittings, etc.)
- Services (i.e. mechanical, electrical, renew. energy, etc.)
- Internal (i.e. partitions, int. finishes, etc.)
- Envelope (i.e. openings and external finishes)
- Structure (i.e. structural frame, walls, floors, roofs, etc.)
- Ground (i.e. substructure, foundation, basement walls, etc.)

Water consumption

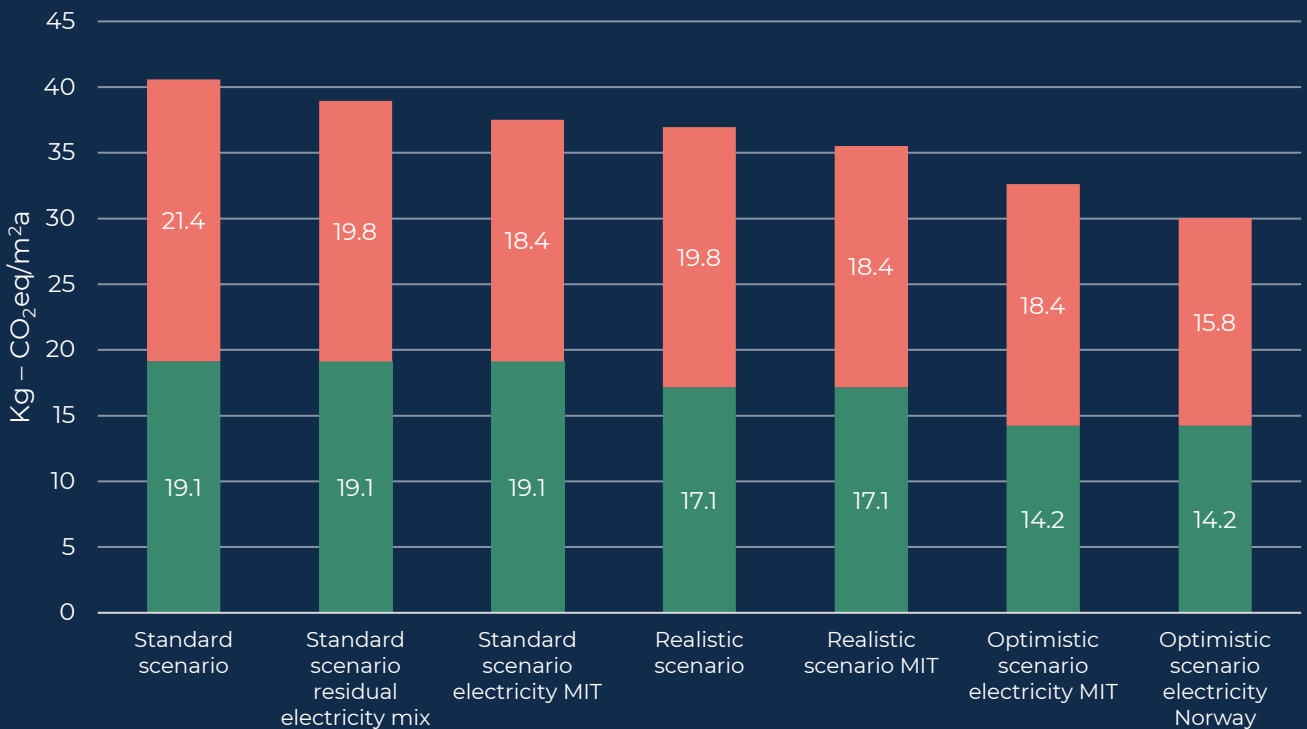


SENSITIVITY ANALYSIS

RAW MATERIALS & ENERGY COMPARISON



SCENARIO COMPARISON



01_RD_02

Single-family house

WHOLE LIFE CARBON ASSESSMENT

BUILDING TOTAL CARBON

42.26

Kg – CO₂eq/m²a



RESIDENTIAL BUILDING



HEATED FLOOR AREA
157 m² (PENB)



SERVICE LIFE
50 years

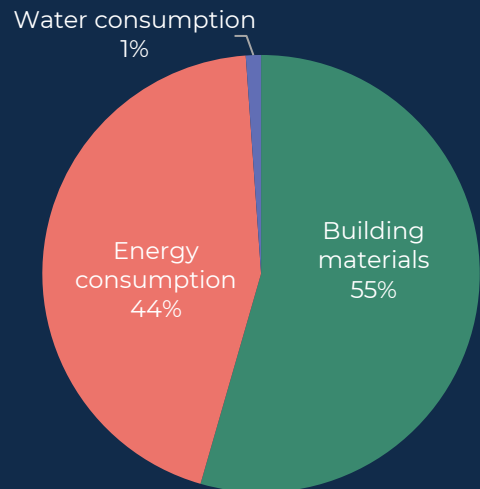
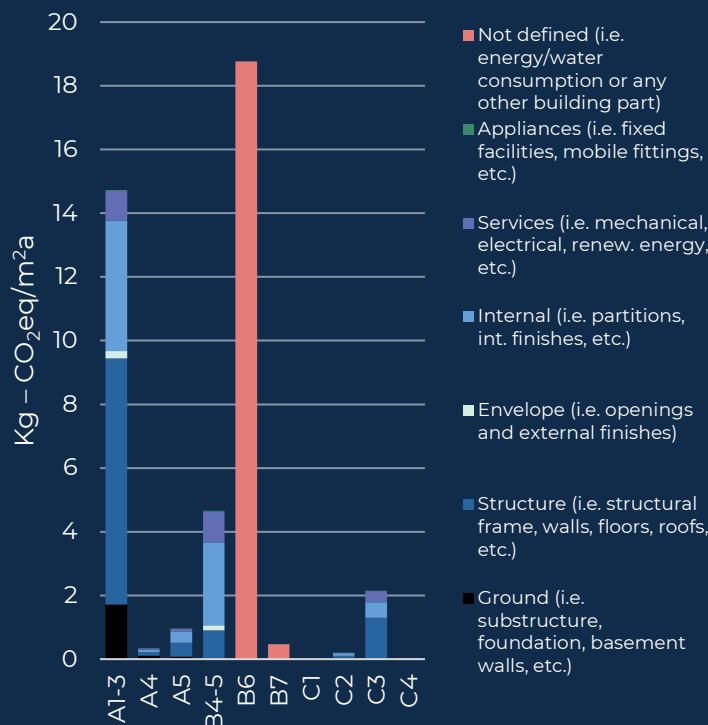
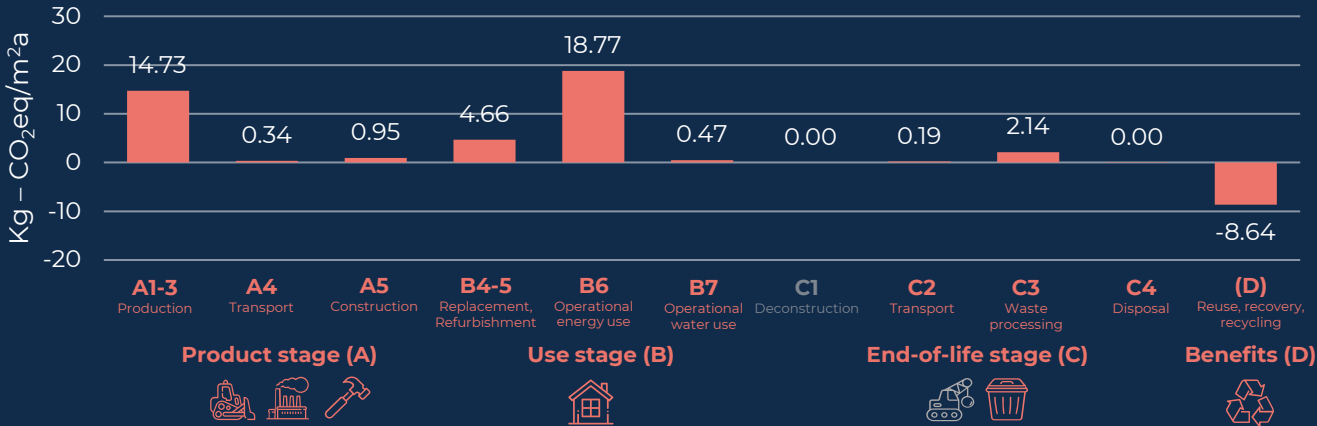


CRADLE-TO-CRADLE APPROACH
A-D modules



LIFE CYCLE ASSESSMENT TOOL
OneClick LCA

RESULTS



01_RD_07_Var1 Single-family house WHOLE LIFE CARBON ASSESSMENT

BUILDING TOTAL CARBON
51.02
Kg – CO₂eq/m²a



RESIDENTIAL BUILDING



HEATED FLOOR AREA
228 m² (PENB)



SERVICE LIFE
50 years

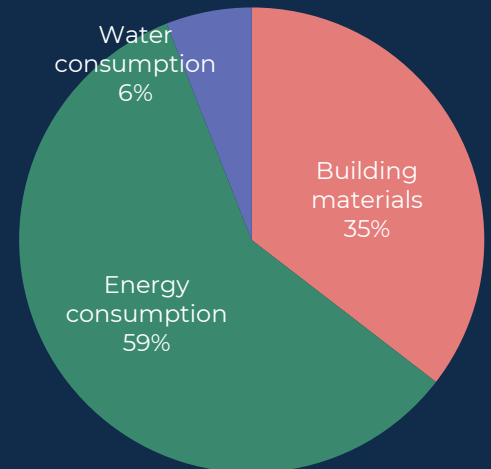
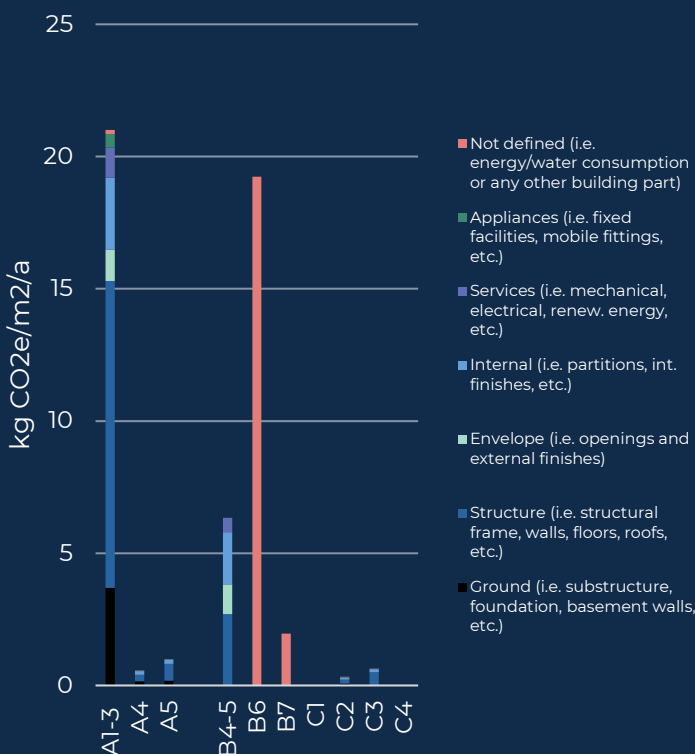
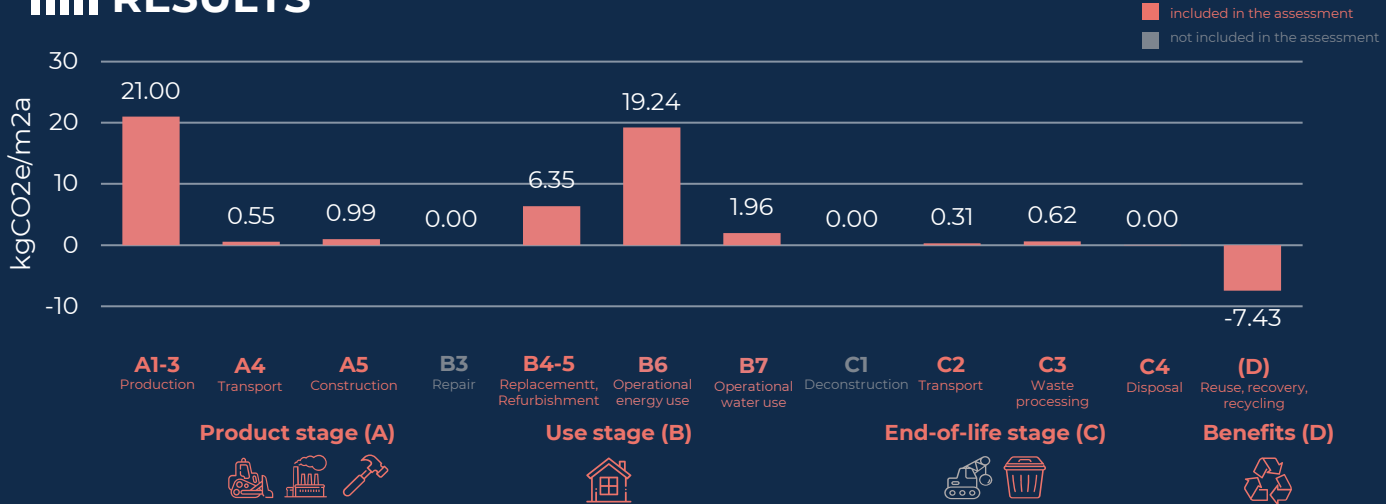


CRADLE-TO-CRADLE APPROACH
A-D modules



LIFE CYCLE ASSESSMENT TOOL
OneClick LCA

RESULTS



01_RD_09 Single-family house WHOLE LIFE CARBON ASSESSMENT

BUILDING TOTAL CARBON

53.45

Kg - CO₂eq/m²a



RESIDENTIAL
BUILDING



HEATED FLOOR AREA
101.6 m² (PENB)



SERVICE LIFE
50 years

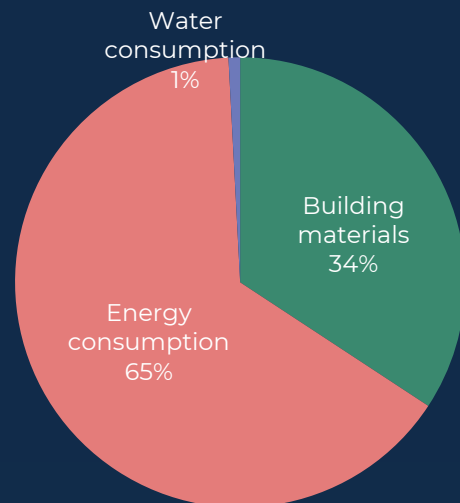
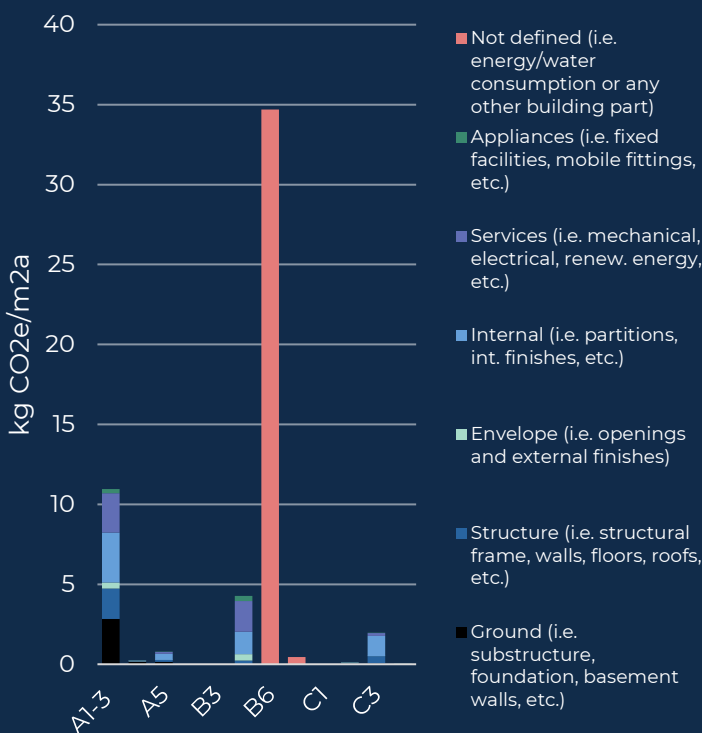
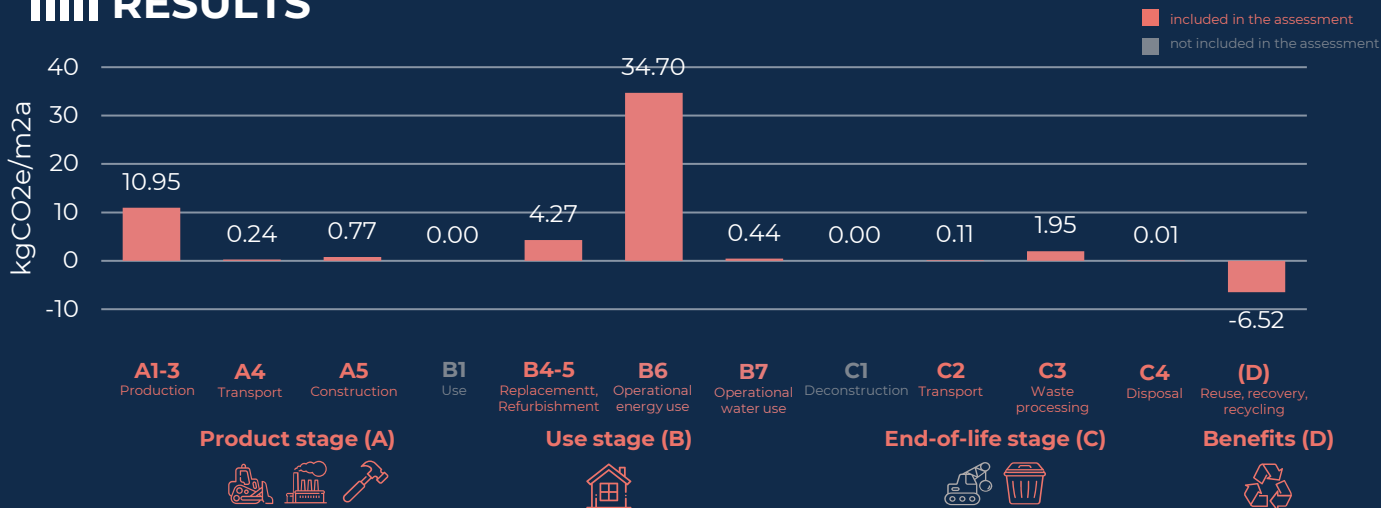


CRADLE-TO-CRADLE
APPROACH
A-D modules



LIFE CYCLE
ASSESSMENT TOOL
OneClick LCA

RESULTS



01_RD_09 Single-family house WHOLE LIFE CARBON ASSESSMENT

BUILDING TOTAL CARBON

53.45

Kg - CO₂eq/m²a



RESIDENTIAL
BUILDING



HEATED FLOOR AREA
101.6 m² (PENB)



SERVICE LIFE
50 years

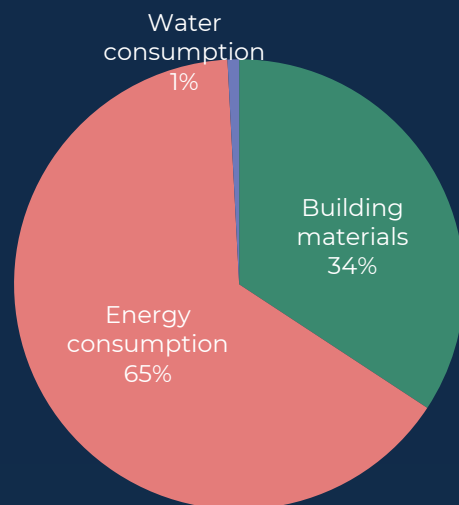
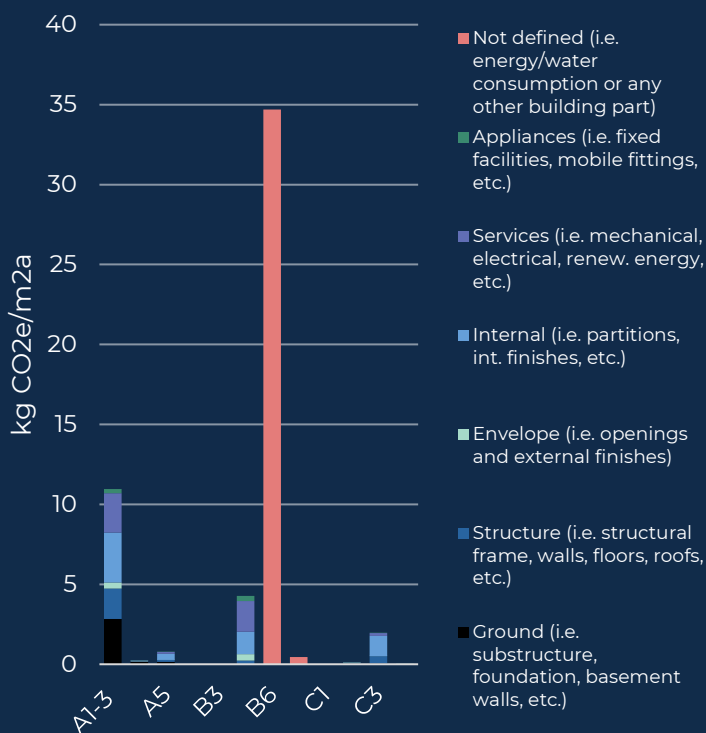
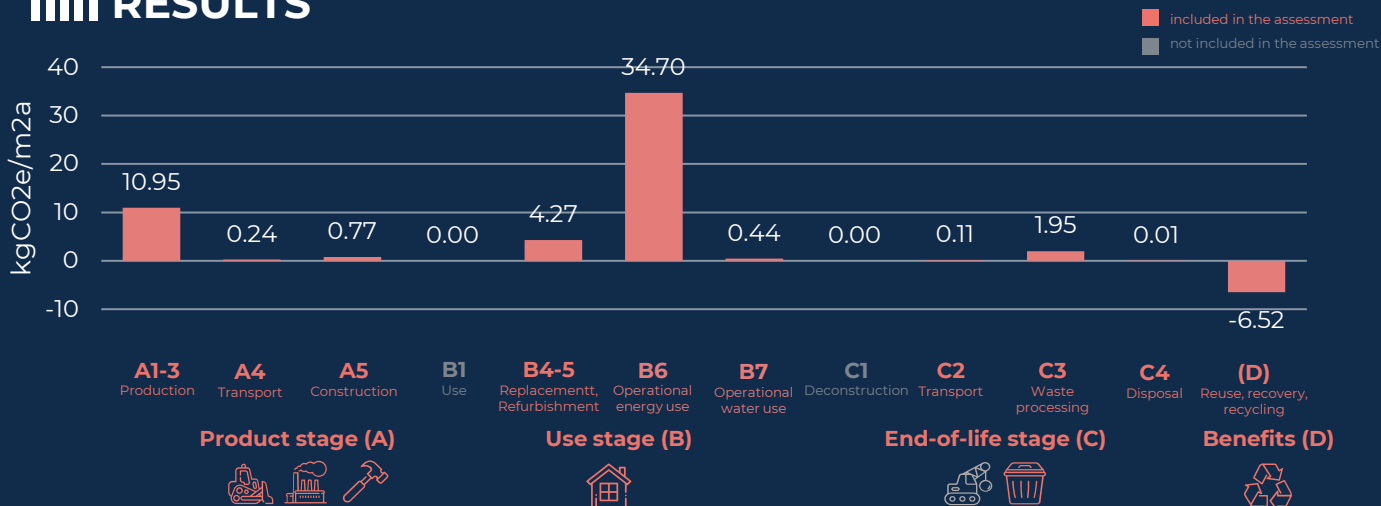


CRADLE-TO-CRADLE
APPROACH
A-D modules



LIFE CYCLE
ASSESSMENT TOOL
OneClick LCA

RESULTS



01_RD_10 Single-family house WHOLE LIFE CARBON ASSESSMENT

BUILDING TOTAL CARBON

34.80

Kg – CO₂eq/m²a



RESIDENTIAL
BUILDING



HEATED FLOOR AREA
112 m² (PENB)



SERVICE LIFE
50 years

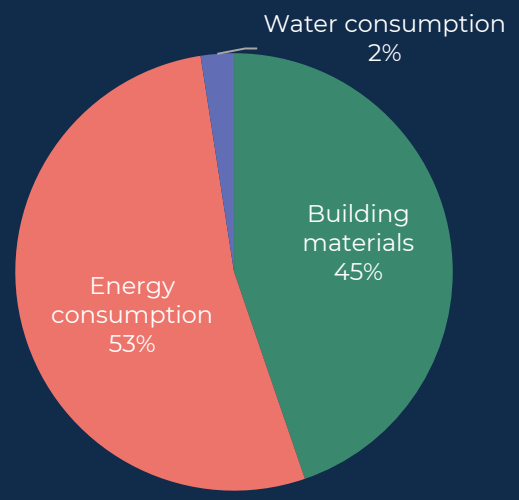
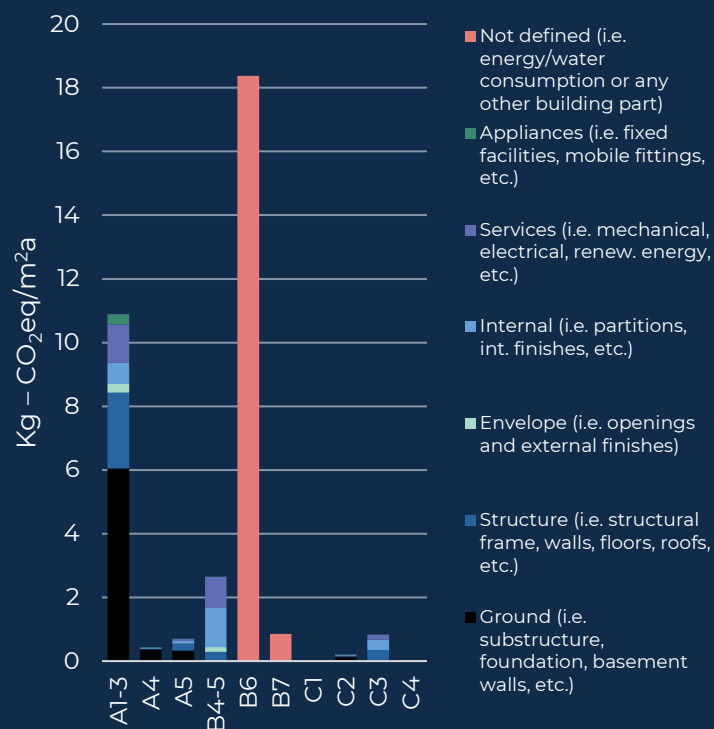
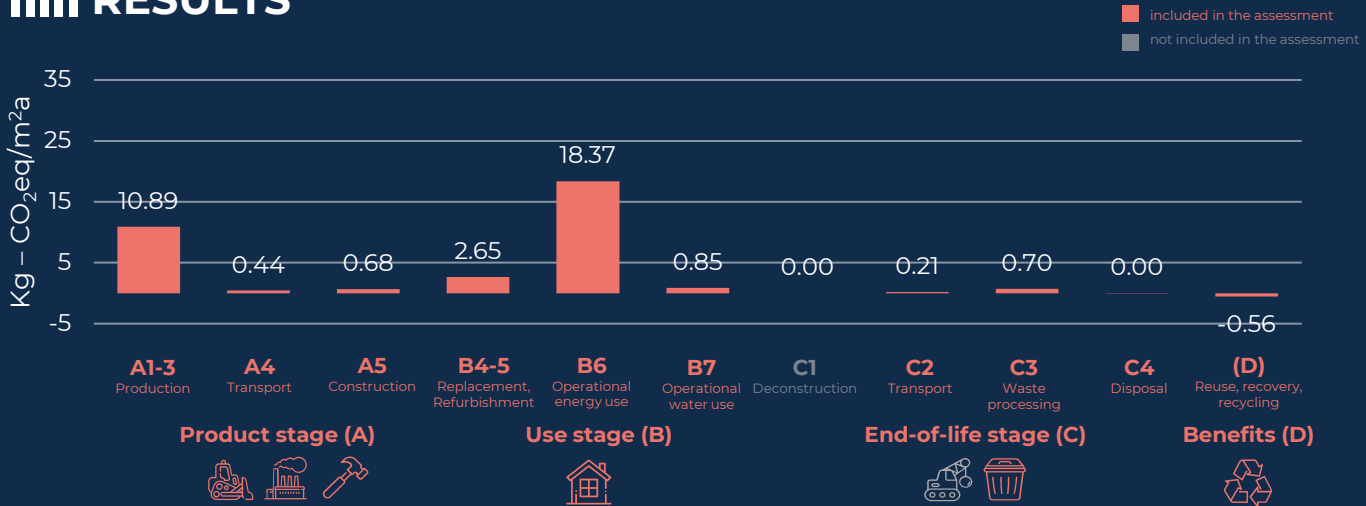


CRADLE-TO-CRADLE
APPROACH
A-D modules



LIFE CYCLE
ASSESSMENT TOOL
OneClick LCA

RESULTS



01_RD_11

Single-family house

WHOLE LIFE CARBON ASSESSMENT

BUILDING TOTAL CARBON

37.72

Kg – CO₂eq/m²a



RESIDENTIAL BUILDING



HEATED FLOOR AREA
112 m² (PENB)



SERVICE LIFE
50 years

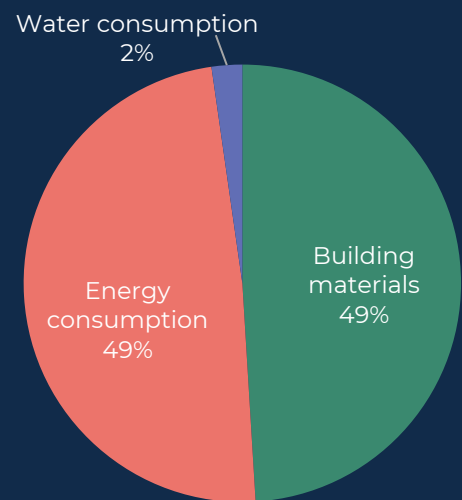
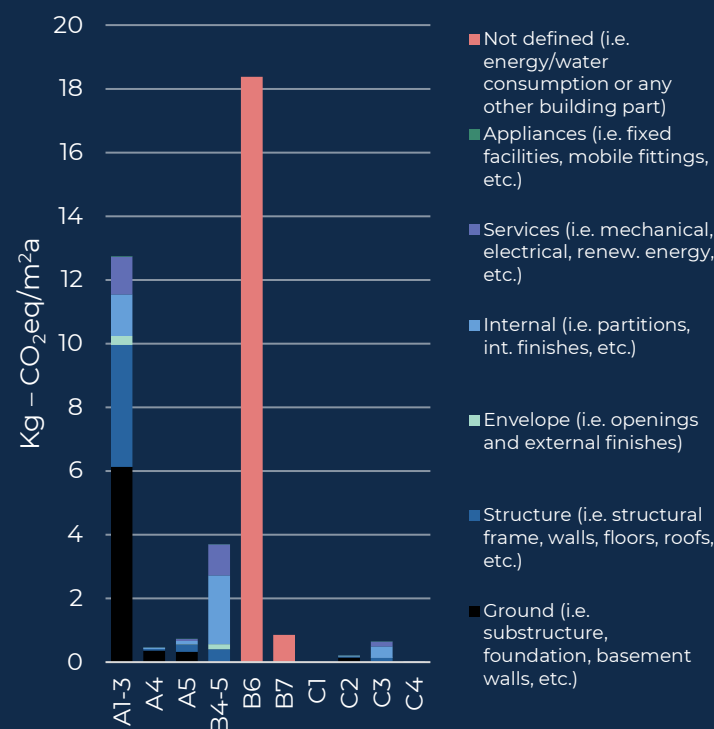
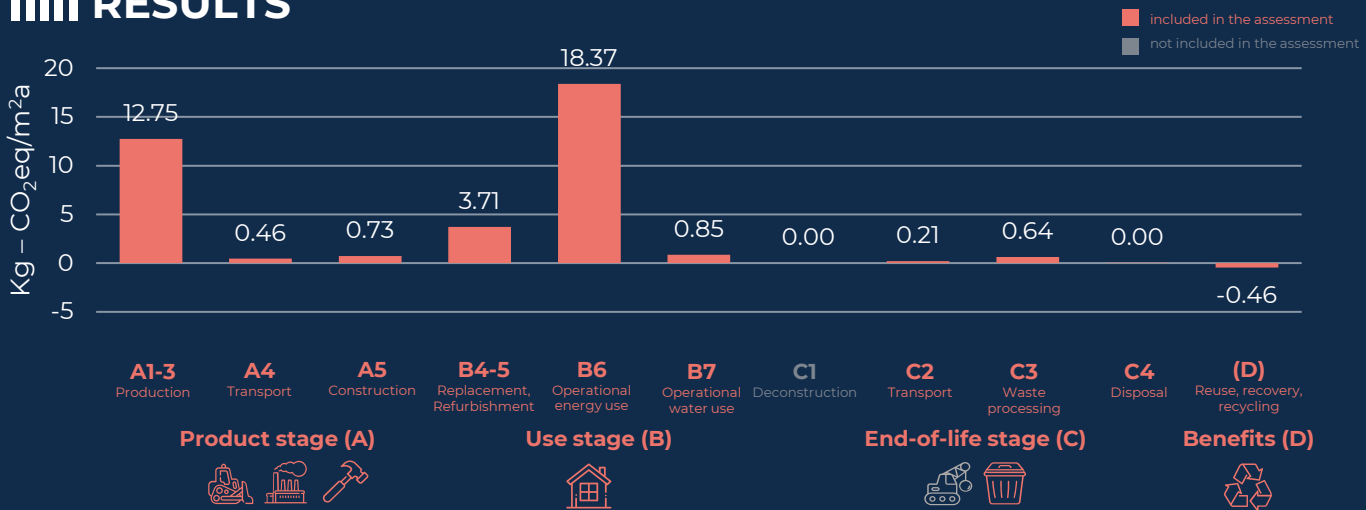


CRADLE-TO-CRADLE APPROACH
A-D modules



LIFE CYCLE ASSESSMENT TOOL
OneClick LCA

RESULTS



02_BD_02 Residential building WHOLE LIFE CARBON ASSESSMENT

BUILDING TOTAL CARBON

24.47

Kg – CO₂eq/m²a



**MULTI-RESIDENTIAL
BUILDING**



HEATED FLOOR AREA
6 644 m² (PENB)



SERVICE LIFE
50 years

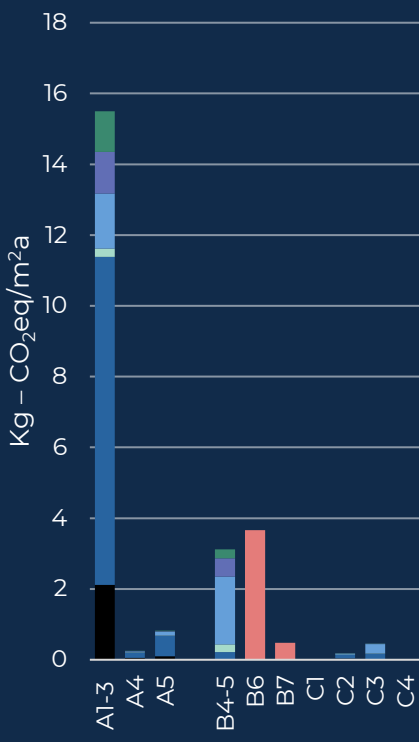
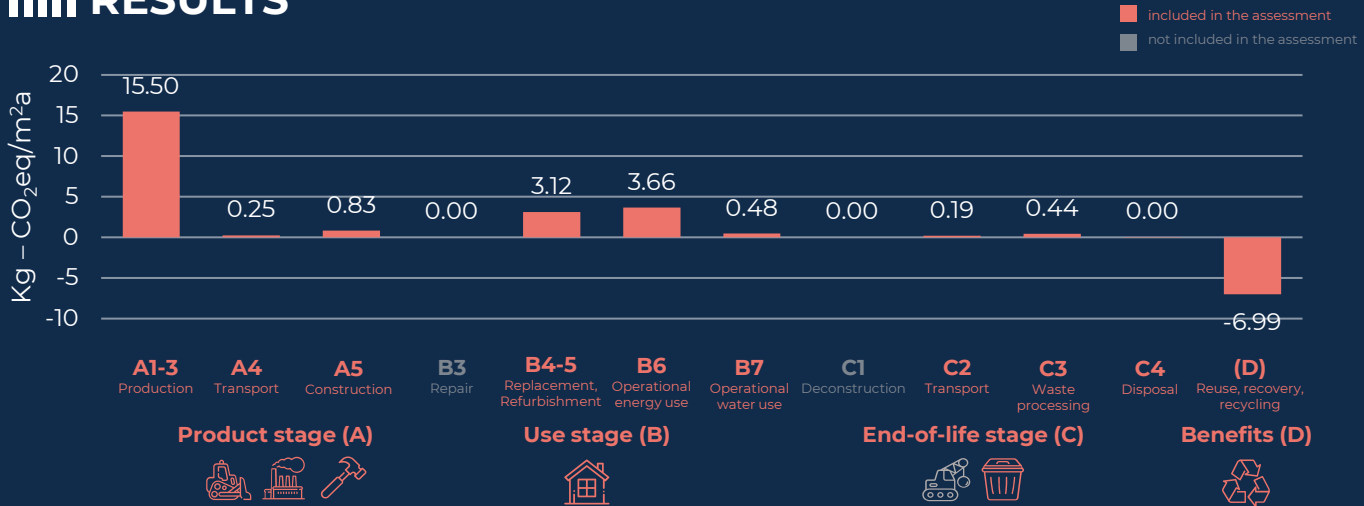


**CRADLE-TO-CRADLE
APPROACH**
A-D modules



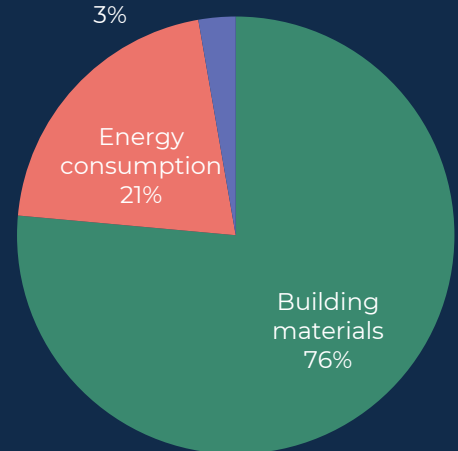
**LIFE CYCLE
ASSESSMENT TOOL**
OneClick LCA

RESULTS



- Not defined (i.e. energy/water consumption or any other building part)
- Appliances (i.e. fixed facilities, mobile fittings, etc.)
- Services (i.e. mechanical, electrical, renew. energy, etc.)
- Internal (i.e. partitions, int. finishes, etc.)
- Envelope (i.e. openings and external finishes)
- Structure (i.e. structural frame, walls, floors, roofs, etc.)
- Ground (i.e. substructure, foundation, basement walls, etc.)

Water consumption



02_BD_04 Residential building WHOLE LIFE CARBON ASSESSMENT

BUILDING TOTAL CARBON

24.89

Kg - CO₂eq/m²a



MULTI-RESIDENTIAL
BUILDING



HEATED FLOOR AREA
1304.7 m² (PENB)



SERVICE LIFE
50 years

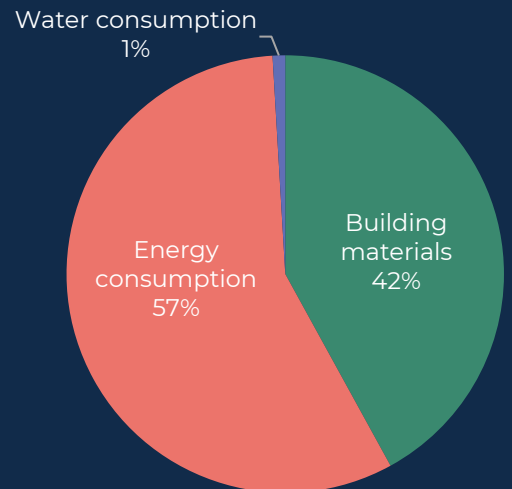
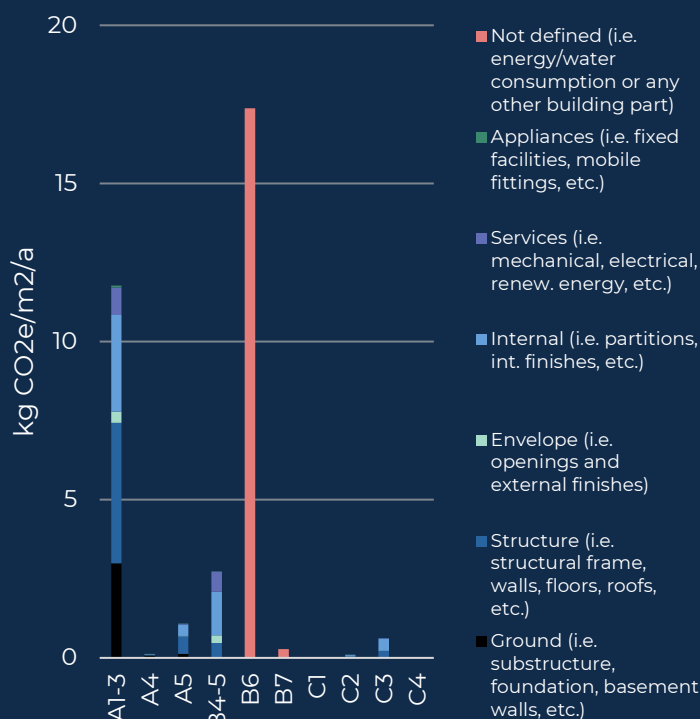
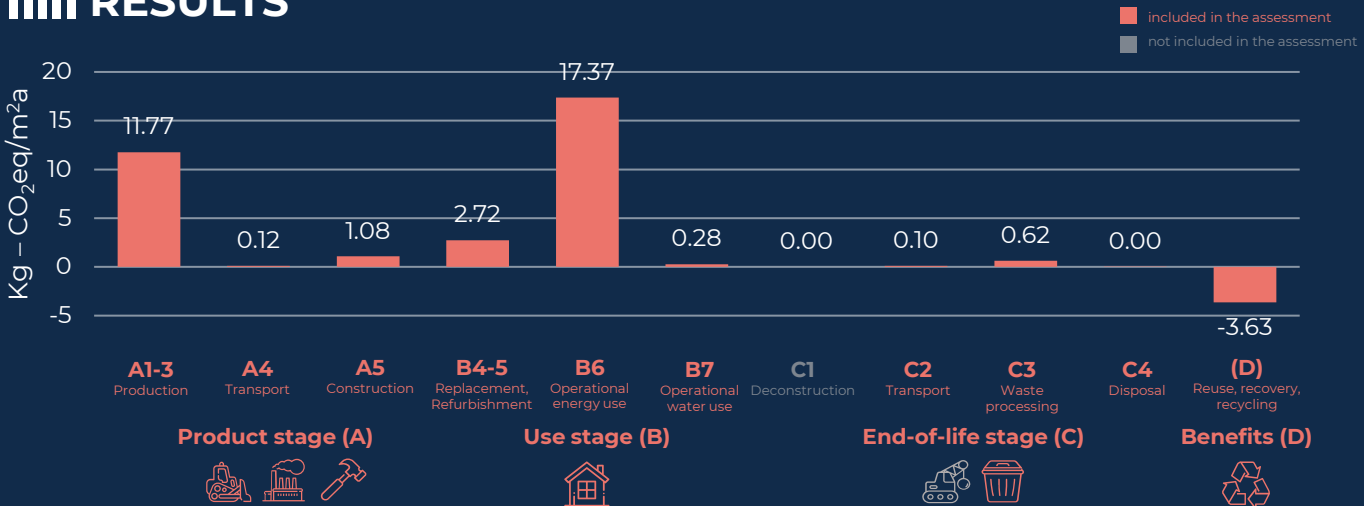


CRADLE-TO-CRADLE
APPROACH
A-D modules



LIFE CYCLE
ASSESSMENT TOOL
OneClick LCA

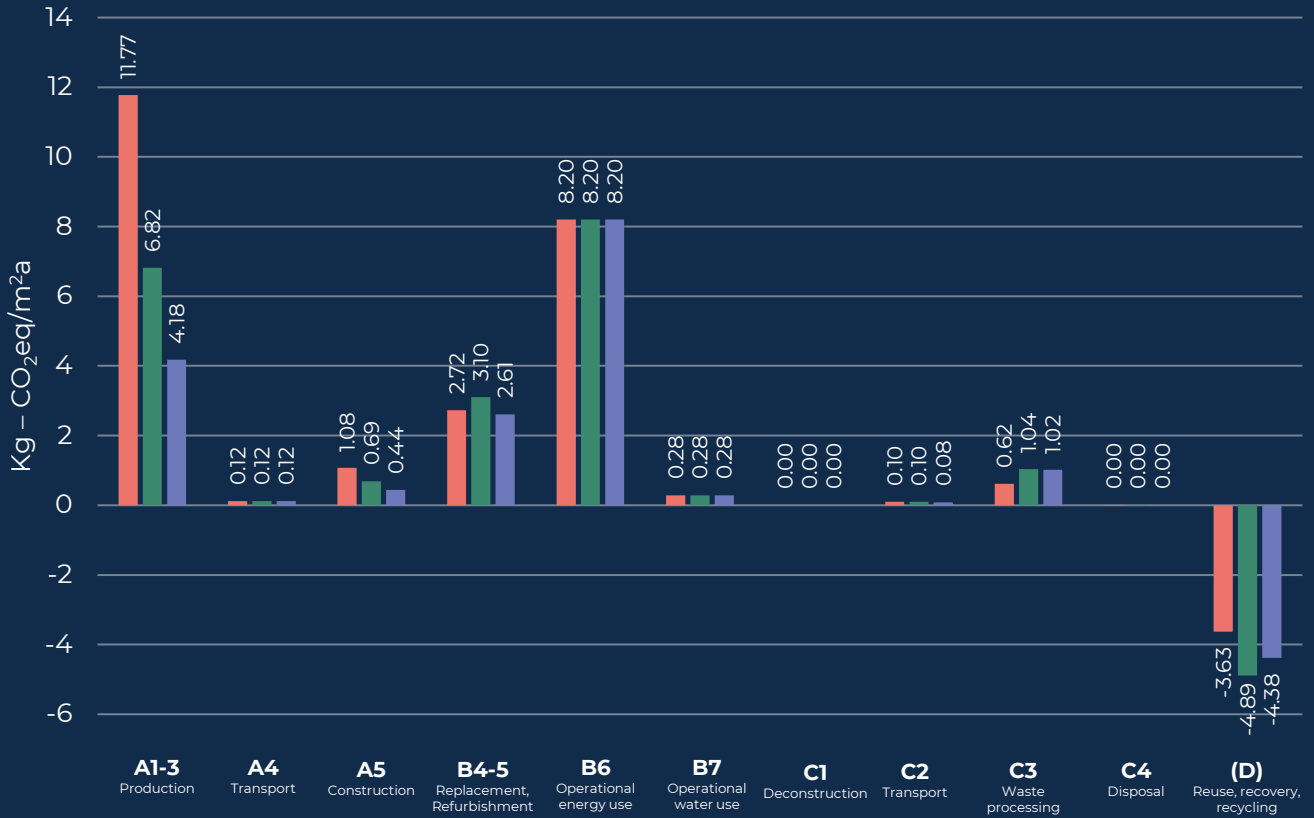
RESULTS



SENSITIVITY ANALYSIS

RAW MATERIALS COMPARISON

PESSIMISTIC SCENARIO 24.89 Kg - CO ₂ eq/m ² a	REALISTIC SCENARIO 20.35 Kg - CO ₂ eq/m ² a	OPTIMISTIC SCENARIO 16.94 Kg - CO ₂ eq/m ² a
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02_BD_09 Residential building WHOLE LIFE CARBON ASSESSMENT

BUILDING TOTAL CARBON

36.28

Kg - CO₂eq/m²a



**MULTI-RESIDENTIAL
BUILDING**



GROSS FLOOR AREA
5287.9 m²



SERVICE LIFE
50 years

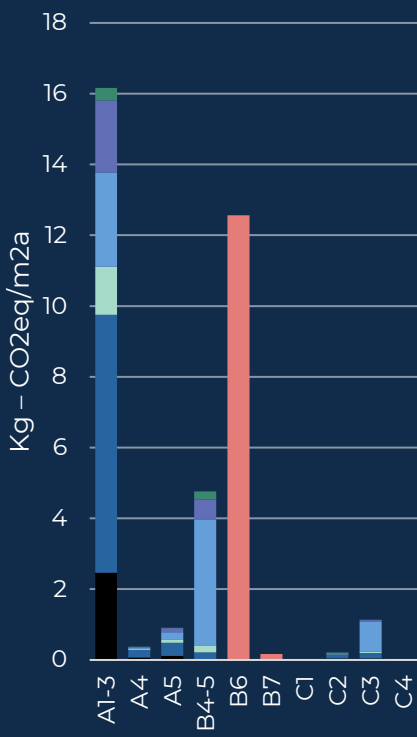
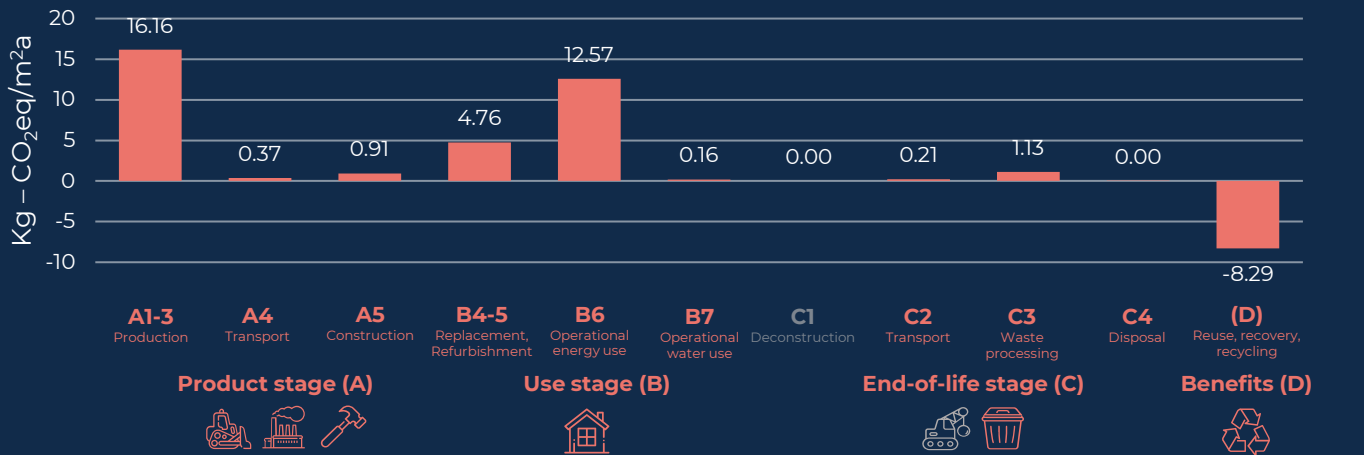


**CRADLE-TO-CRADLE
APPROACH**
A-D modules



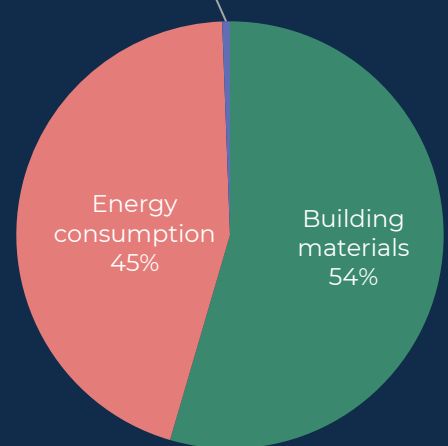
**LIFE CYCLE
ASSESSMENT TOOL**
OneClick LCA

RESULTS standard scenario



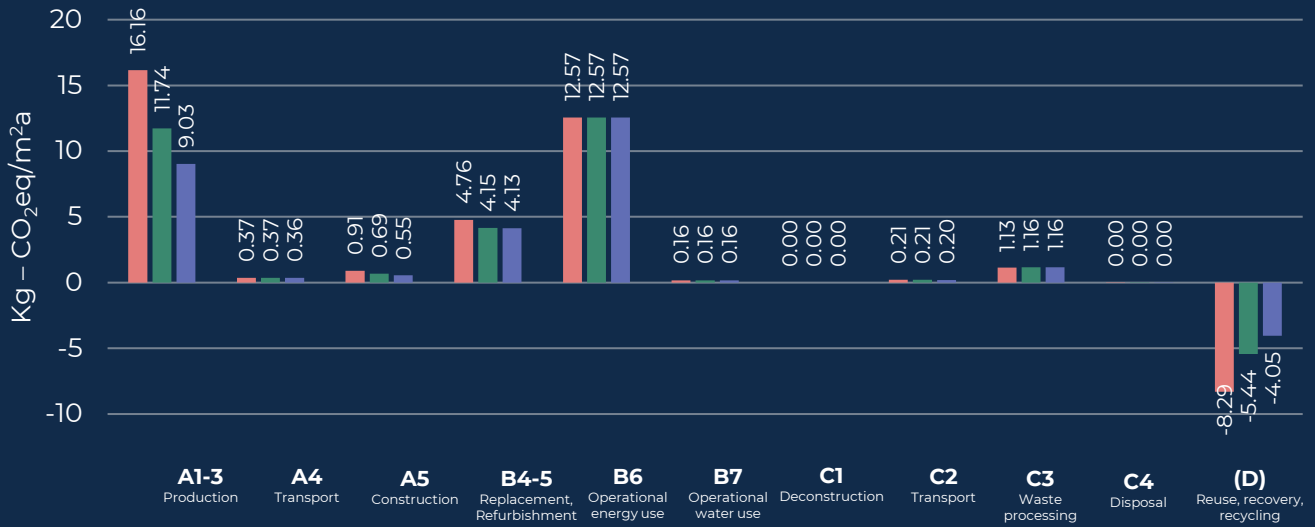
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- Ground (i.e. substructure, foundation, basement walls, etc.)

Water consumption
1%

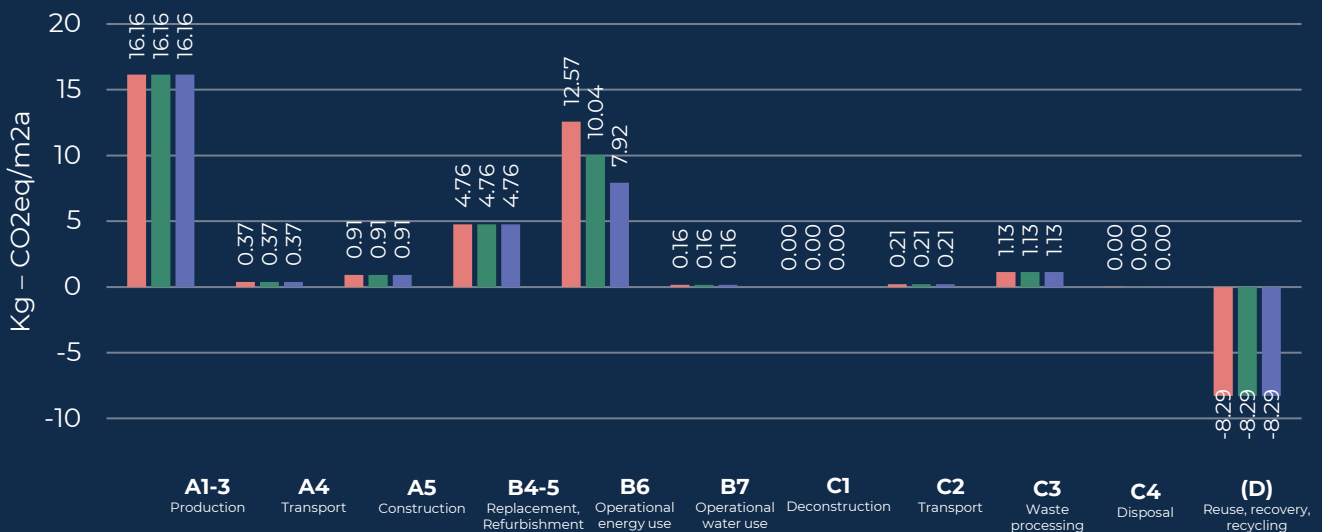
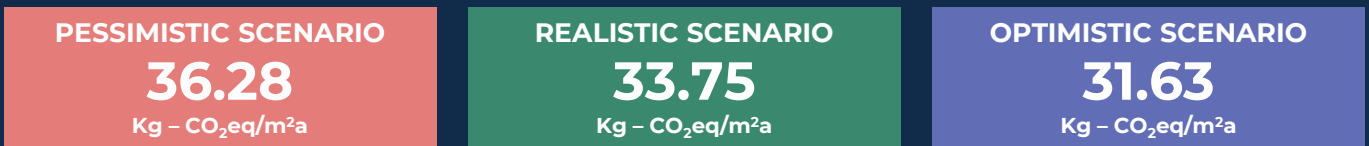


SENSITIVITY ANALYSIS

RAW MATERIALS COMPARISON



ENERGY COMPARISON



03_AB_02

Administrative building WHOLE LIFE CARBON ASSESSMENT

BUILDING TOTAL CARBON

40.89

Kg - CO₂eq/m²a



**NON-RESIDENTIAL
BUILDING**



HEATED FLOOR AREA
1534.5 m² (PENB)



SERVICE LIFE
50 years

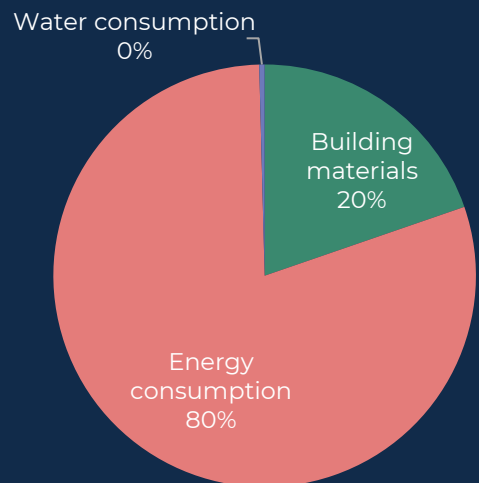
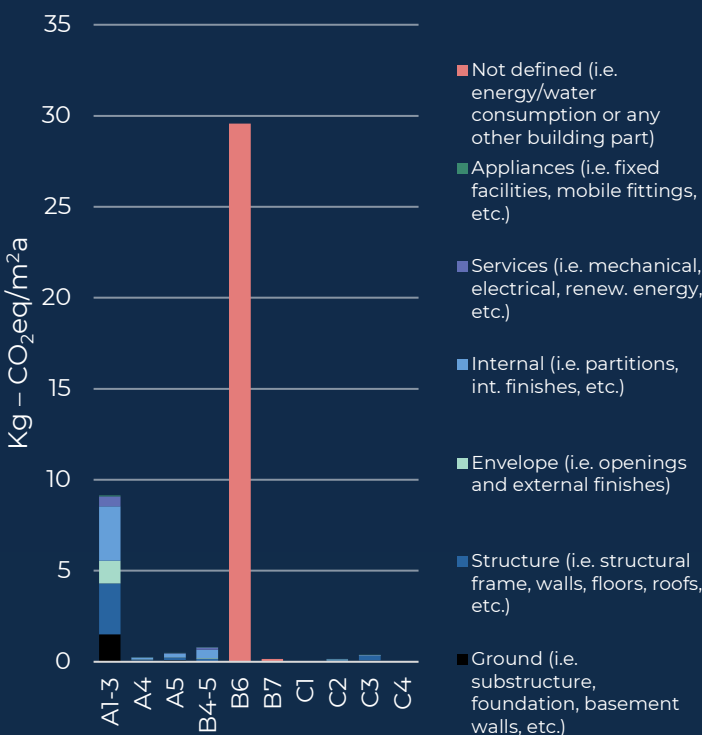
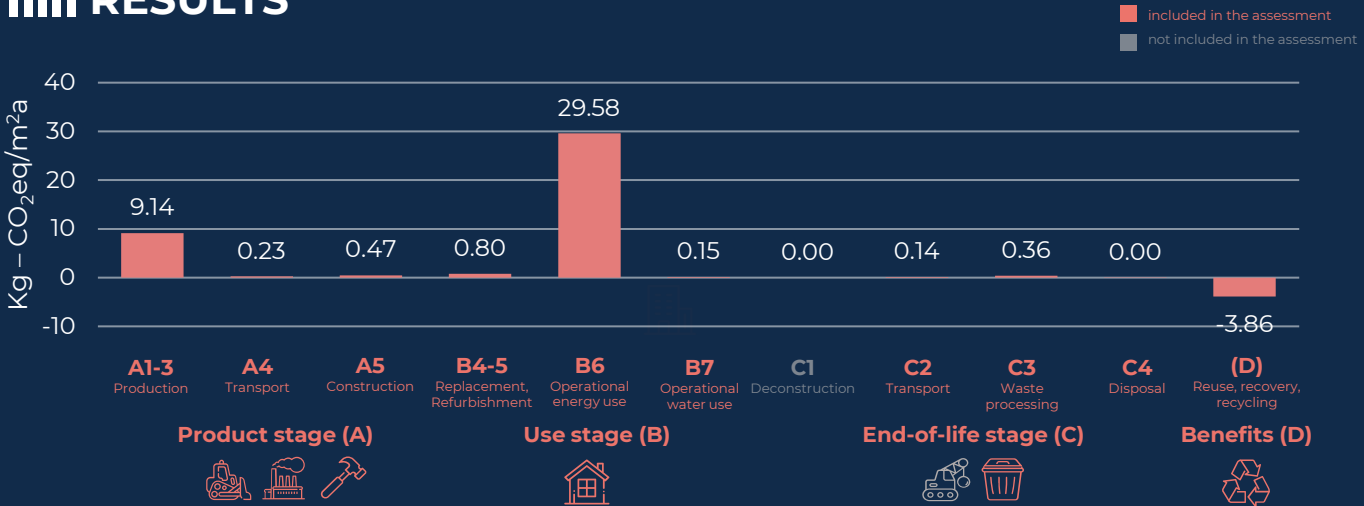


**CRADLE-TO-CRADLE
APPROACH**
A-D modules



**LIFE CYCLE
ASSESSMENT TOOL**
OneClick LCA

RESULTS



SENSITIVITY ANALYSIS

ENERGY COMPARISON

PESSIMISTIC SCENARIO

40.89

Kg – CO₂eq/m²a

REALISTIC SCENARIO

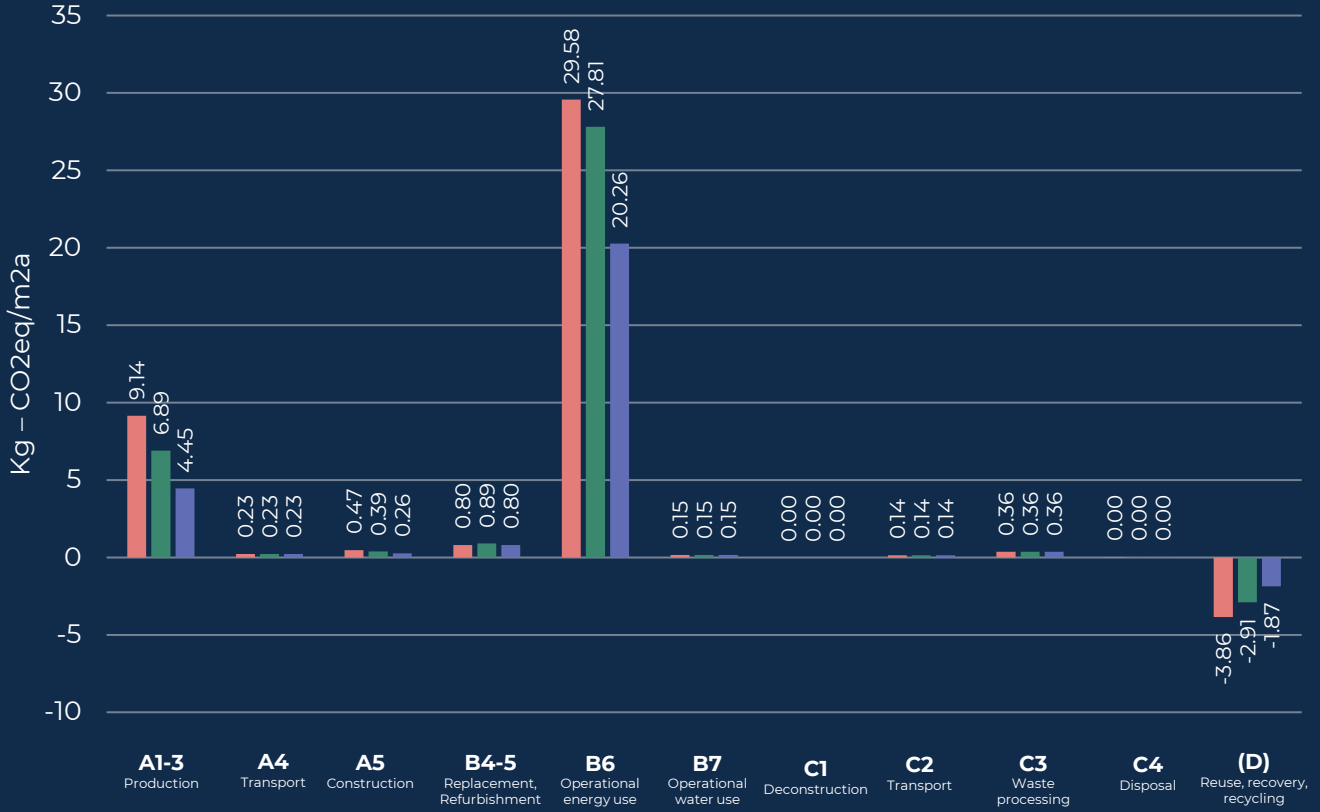
36.87

Kg – CO₂eq/m²a

OPTIMISTIC SCENARIO

26.65

Kg – CO₂eq/m²a



03_AB_09

Administrative building WHOLE LIFE CARBON ASSESSMENT

BUILDING TOTAL CARBON

21.86

Kg - CO₂eq/m²a



NON-RESIDENTIAL
BUILDING



HEATED FLOOR AREA
69529.26 m² (PENB)



SERVICE LIFE
50 years

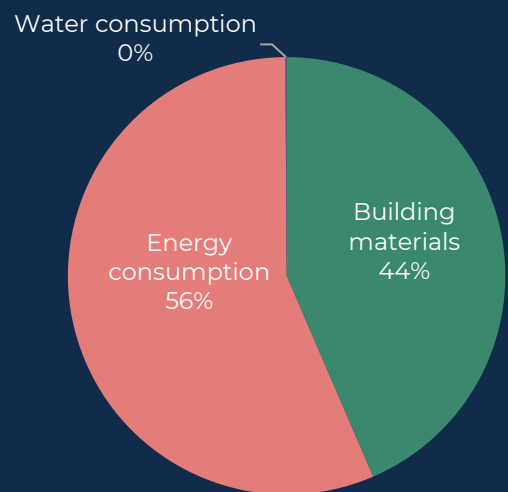
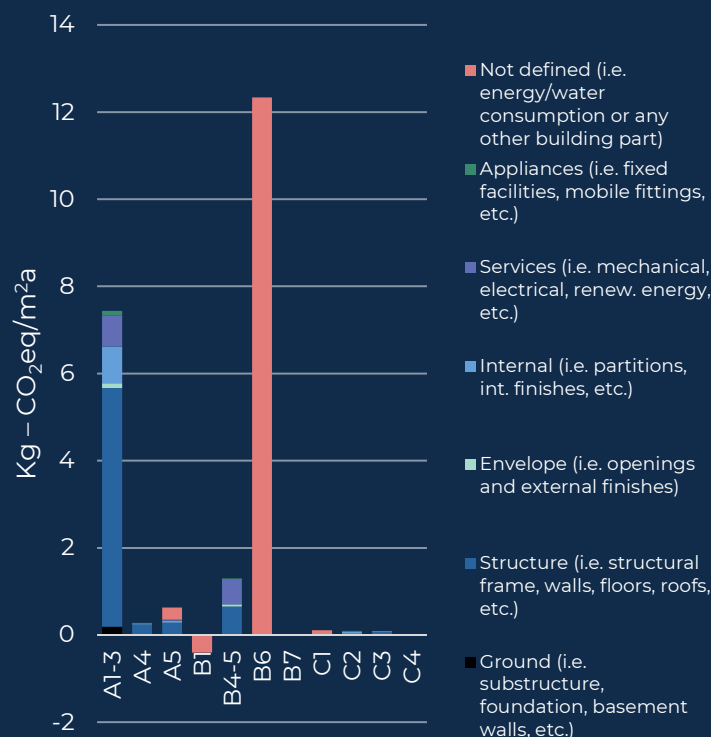
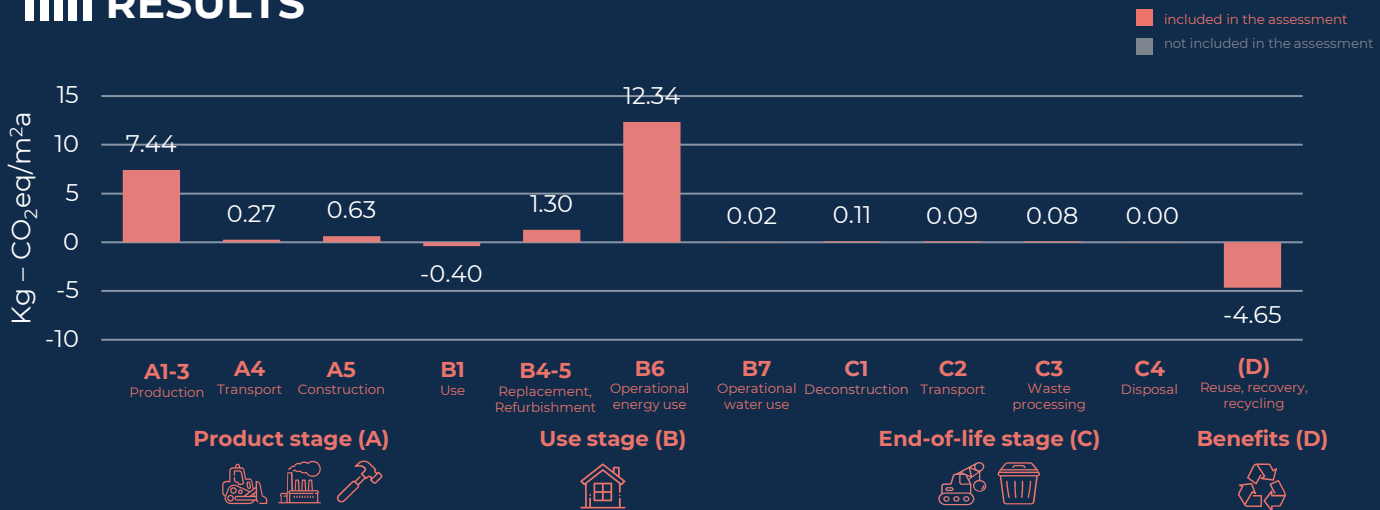


CRADLE-TO-CRADLE
APPROACH
A-D modules



LIFE CYCLE
ASSESSMENT TOOL
OneClick LCA

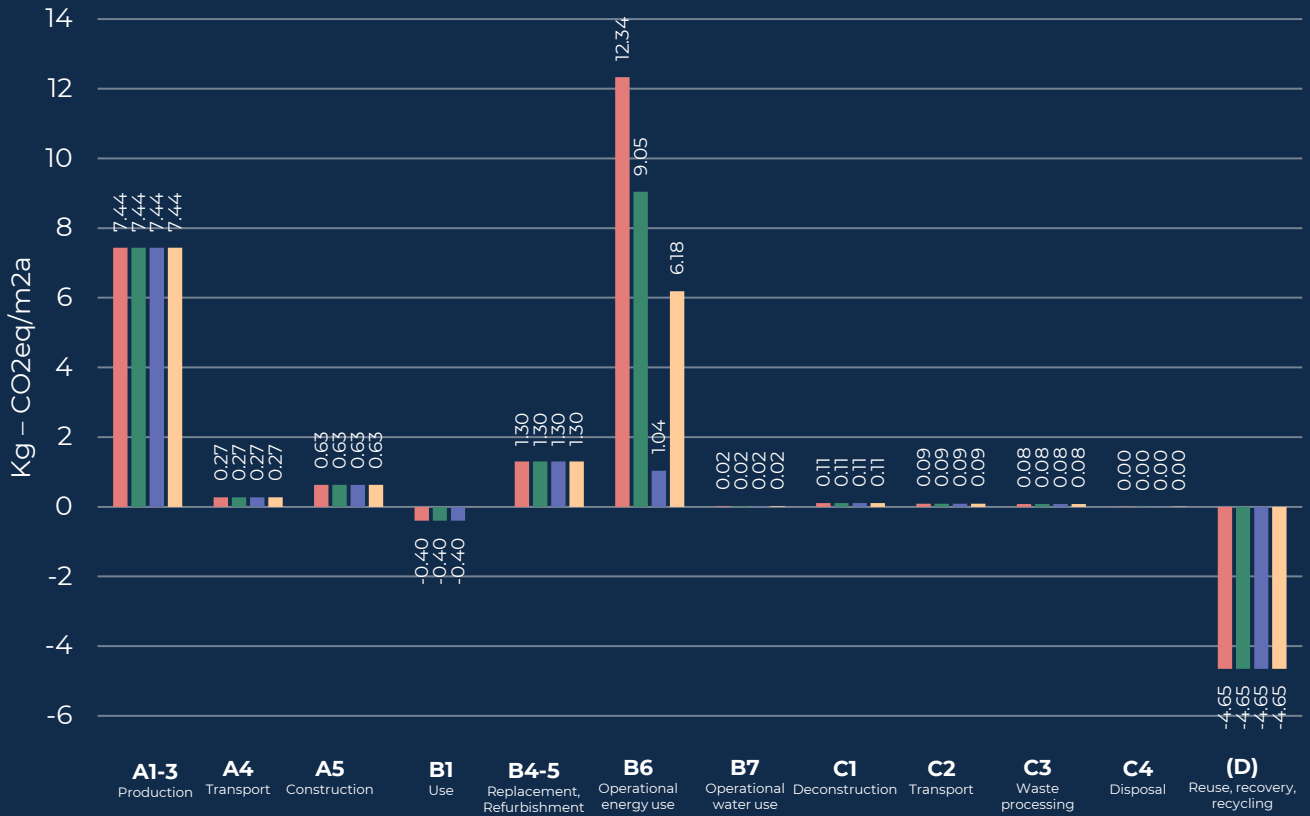
RESULTS



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- Services (i.e. mechanical, electrical, renew. energy, etc.)
- Internal (i.e. partitions, int. finishes, etc.)
- Envelope (i.e. openings and external finishes)
- Structure (i.e. structural frame, walls, floors, roofs, etc.)
- Ground (i.e. substructure, foundation, basement walls, etc.)

SENSITIVITY ANALYSIS

ENERGY COMPARISON



03_AB_11

Administrative building

WHOLE LIFE CARBON ASSESSMENT

BUILDING TOTAL CARBON

56.97

Kg - CO₂eq/m²a



NON-RESIDENTIAL BUILDING



HEATED FLOOR AREA
41350 m² (PENB)



SERVICE LIFE
50 years

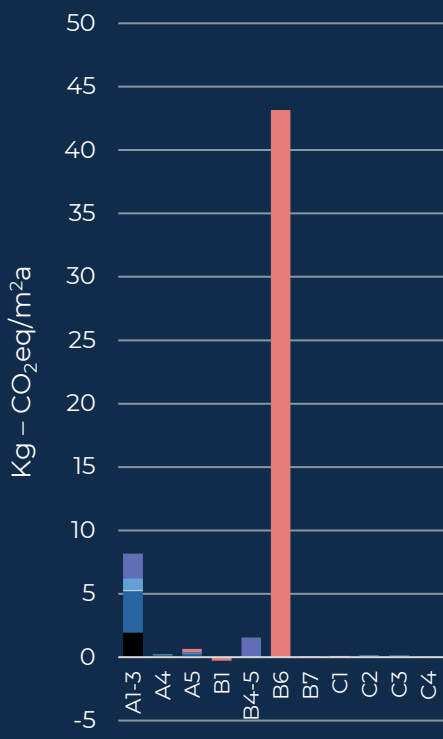
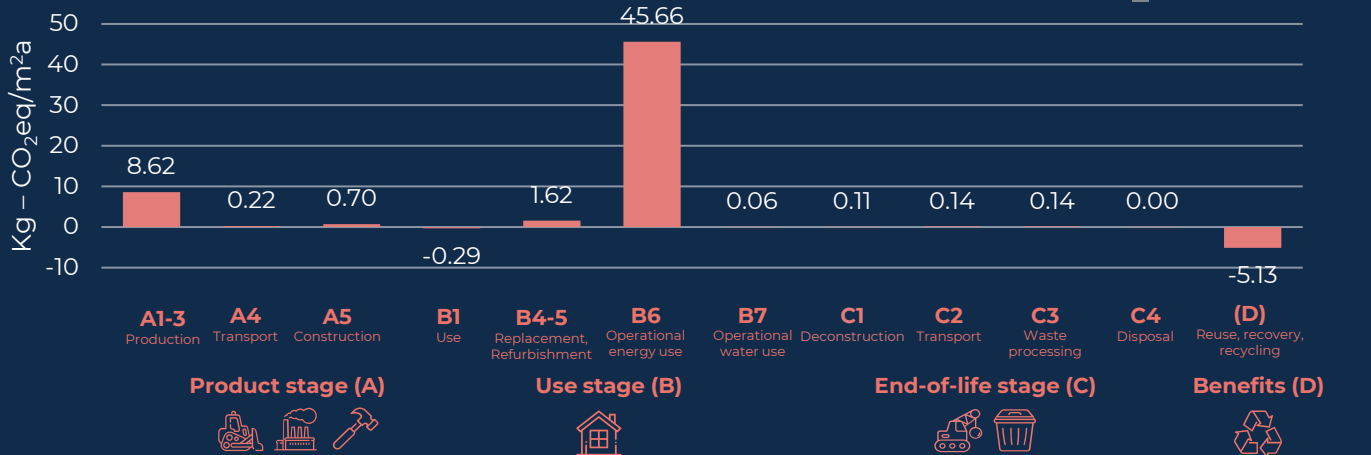


CRADLE-TO-CRADLE APPROACH
A-D modules

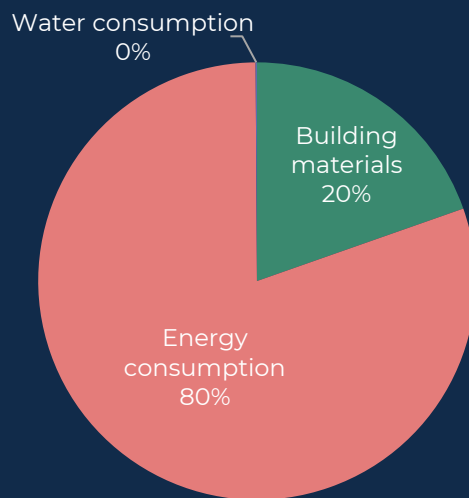


LIFE CYCLE ASSESSMENT TOOL
OneClick LCA

RESULTS



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- Internal (i.e. partitions, int. finishes, etc.)
- Envelope (i.e. openings and external finishes)
- Structure (i.e. structural frame, walls, floors, roofs, etc.)
- Ground (i.e. substructure, foundation, basement walls, etc.)



03_AB_17

Administrative building

WHOLE LIFE CARBON ASSESSMENT

BUILDING TOTAL CARBON

56.38

Kg - CO₂eq/m²a



NON-RESIDENTIAL BUILDING



HEATED FLOOR AREA
5600 m² (PENB)



SERVICE LIFE
50 years

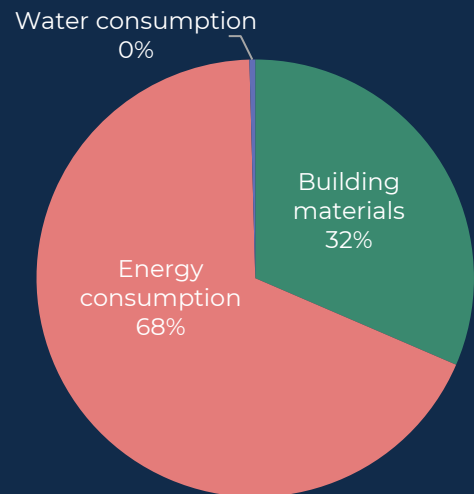
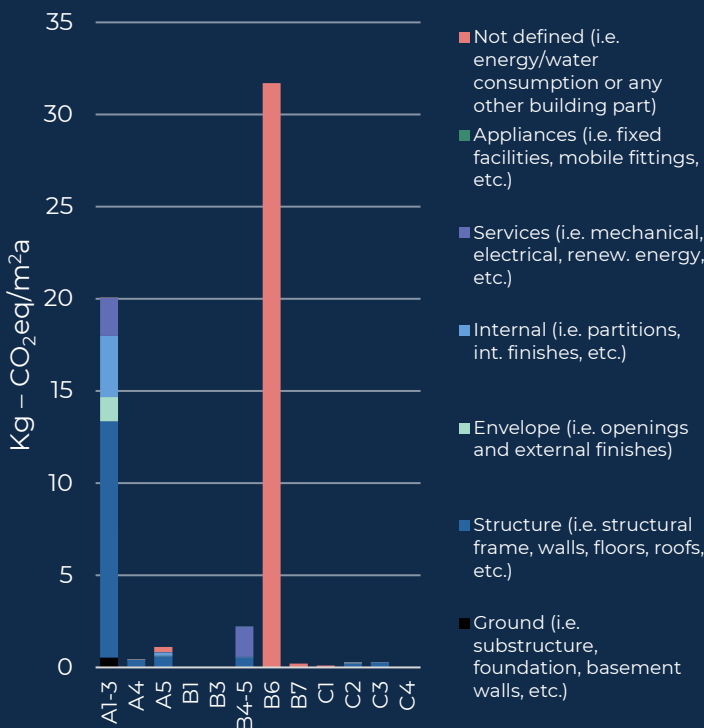
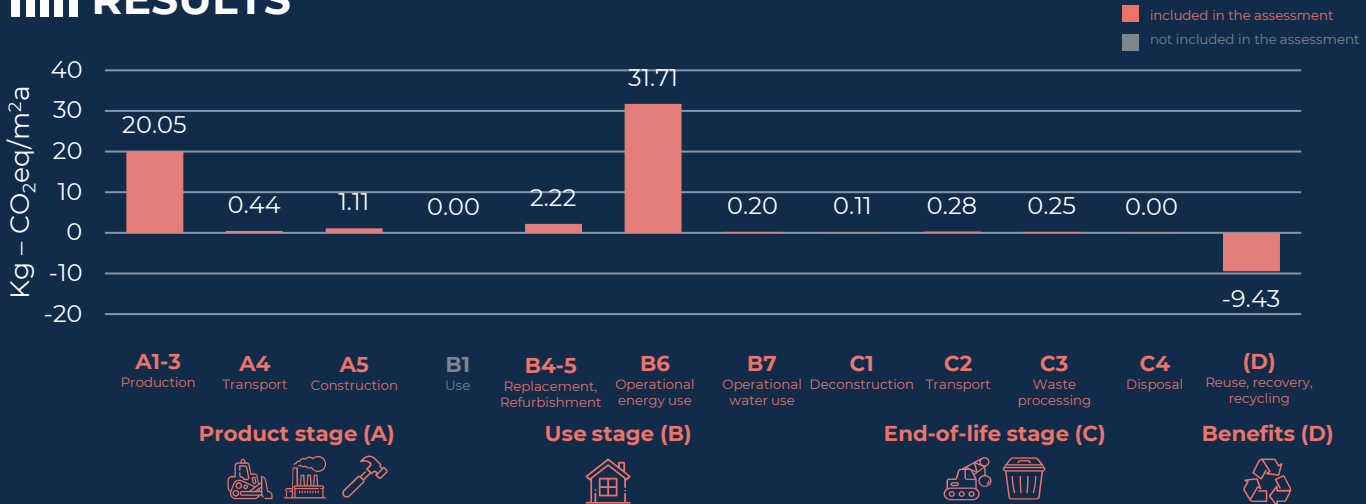


CRADLE-TO-CRADLE APPROACH
A-D modules



LIFE CYCLE ASSESSMENT TOOL
OneClick LCA

RESULTS



04_EDU_01

Educational building

WHOLE LIFE CARBON ASSESSMENT

BUILDING TOTAL CARBON

41.03

Kg - CO₂eq/m²a



NON-RESIDENTIAL BUILDING



HEATED FLOOR AREA
673.9 m² (PENB)



SERVICE LIFE
50 years

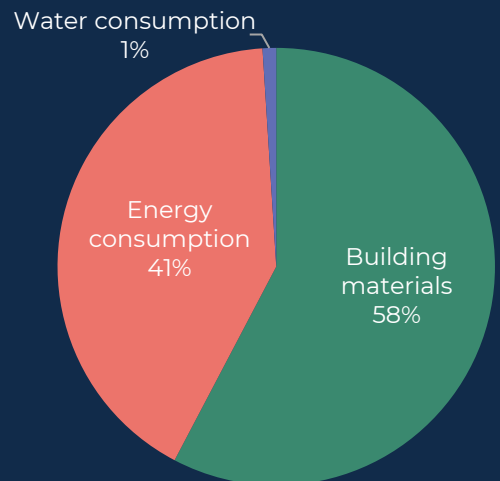
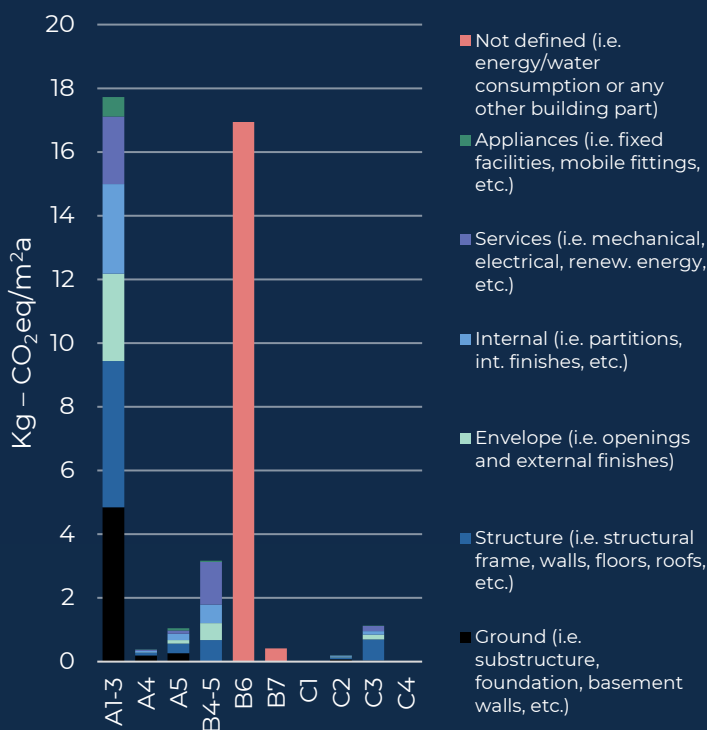
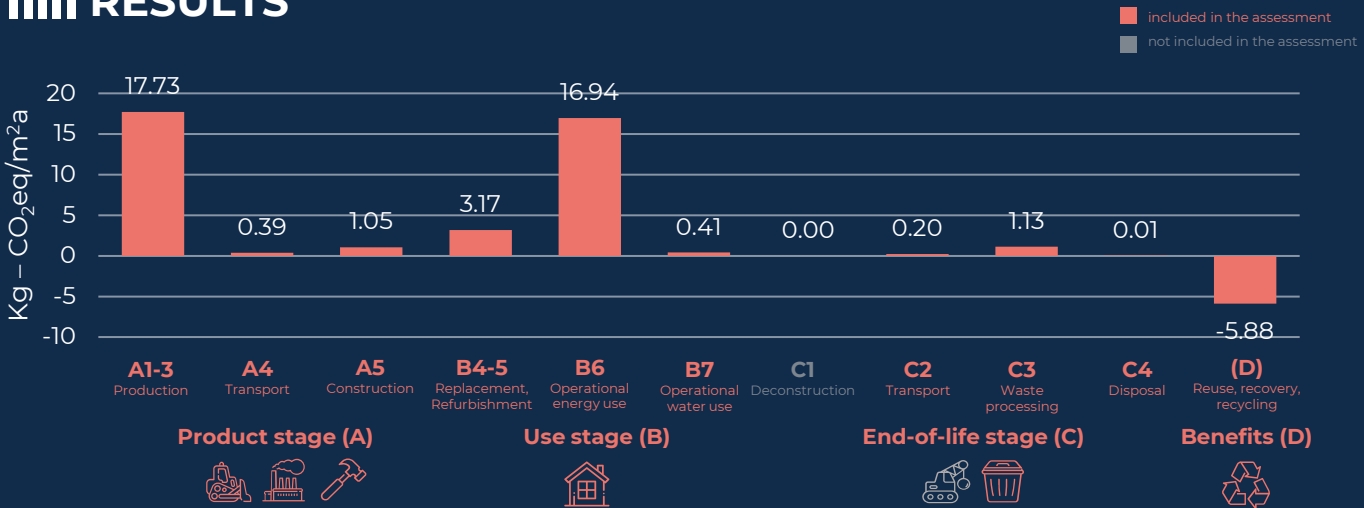


CRADLE-TO-CRADLE APPROACH
A-D modules



LIFE CYCLE ASSESSMENT TOOL
OneClick LCA

RESULTS



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