

Circularity Indices and EPDs: The Eco Platform Proposal

State and Outlook of the CE Task Group

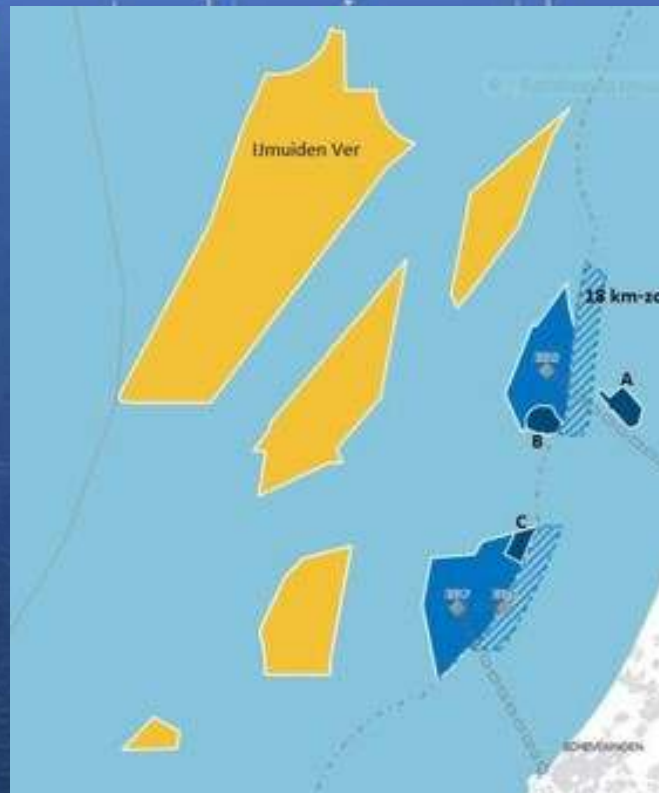


Martin Blumberg
Convenor of the ECO Platform CE Task Group
ICMQ Conference Milan, February 23rd, 2024

RAMBOLL

Bright ideas.
Sustainable change.

Ijmuiden Ver Auction for a 4 X 1-1,15 GW Off-Shore Windfarm





Harmonization

global alignment of EPD, PCR,
Building LCA – common rules

Verification

reliable data by common
verification guidelines for ECO EPD

Digitalization

freely available digital product data
(EPD) via ECO Portal

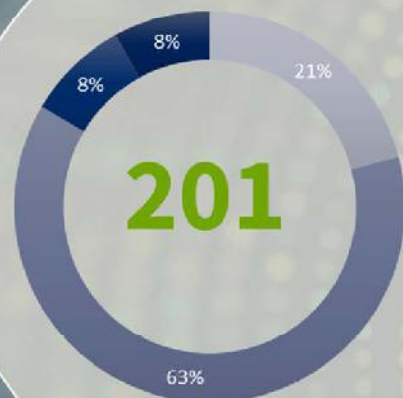
83 ECO
Members



CE Task Group Mandate

- to propose a generally recognized and accepted approach that helps construction products manufacturers to assess, how well their products align with circular economy principles.
- to develop a proposal of how best to integrate verifiable circularity information into the Environmental Product Declaration (EPD)
- and to develop verification guidelines that enables independent verification of the information provided on the circularity of construction products in compliance with regulatory frameworks.

Construction Product Manufacturers & Associations



Basic materials and precursors

Building products

Building services engineering

Other Non-Building/Construction Products

CE TASK GROUP

Alliance
HOE



eurima
European Insulation Manufacturers Association

Bau-EPD
European Product Declaration

EUROPEAN ALUMINIUM

ICMQ

Standardisation & Regulation

breeam

DGNB



Level(s)
European framework for sustainable buildings



Academia



FH
Berne
Fachhochschule

Existing methods for circularity assessment of societies, companies and products

CE assessment methods	Qualitative	Quantitative
Assessing CE on a societal level	15	14
Assessing CE on a company level	8	7
Assessing CE on a product level	1	15

Product circularity dimensions in the EPD (ECO Platform proposal)

Recycled content

Recyclability

Renewables

Quality of recycling

Design for disassembly

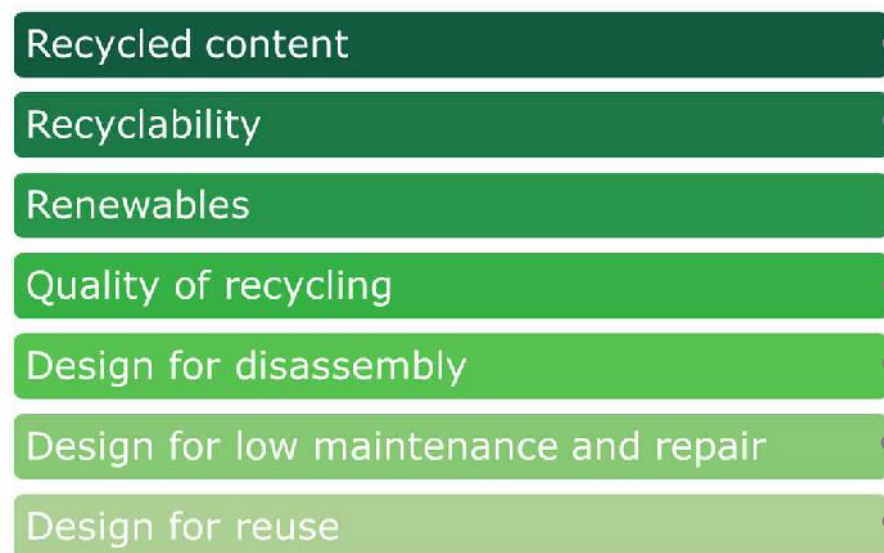
Design for low maintenance and repair

Design for reuse





Product circularity dimensions in the EPD (ECO Platform proposal)



Most relevant aspects by number of mentions and integrations in the systems

Recycled content/ use of primary materials: % of primary raw material, % of pre-consumer recycled content, % of post-consumer recycled content, % of reused or repurposed material

Recyclability after life-cycle or waste route: can the product be recycled, downcycled or does it need to be disposed of in a certain way (waste-to-energy, landfill)

Design for disassembly and deconstruction: separability of the material components, separability from neighbouring materials (reversible connections), flexibility of the product

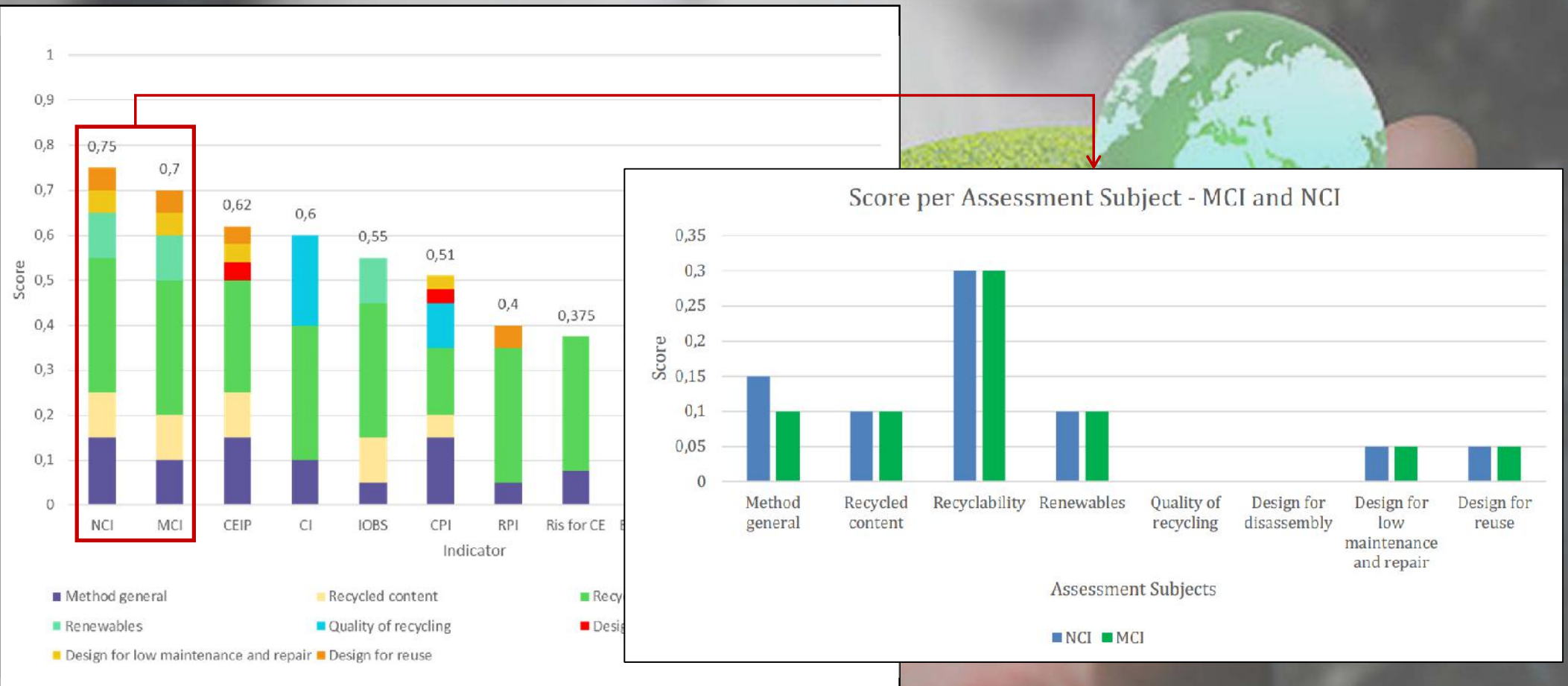
Design for reuse: can easily be reused after first use

Durability/ resilience/ lifespan: information about how to keep the product from degrading, information about typical lifespan (can be taken from standard)

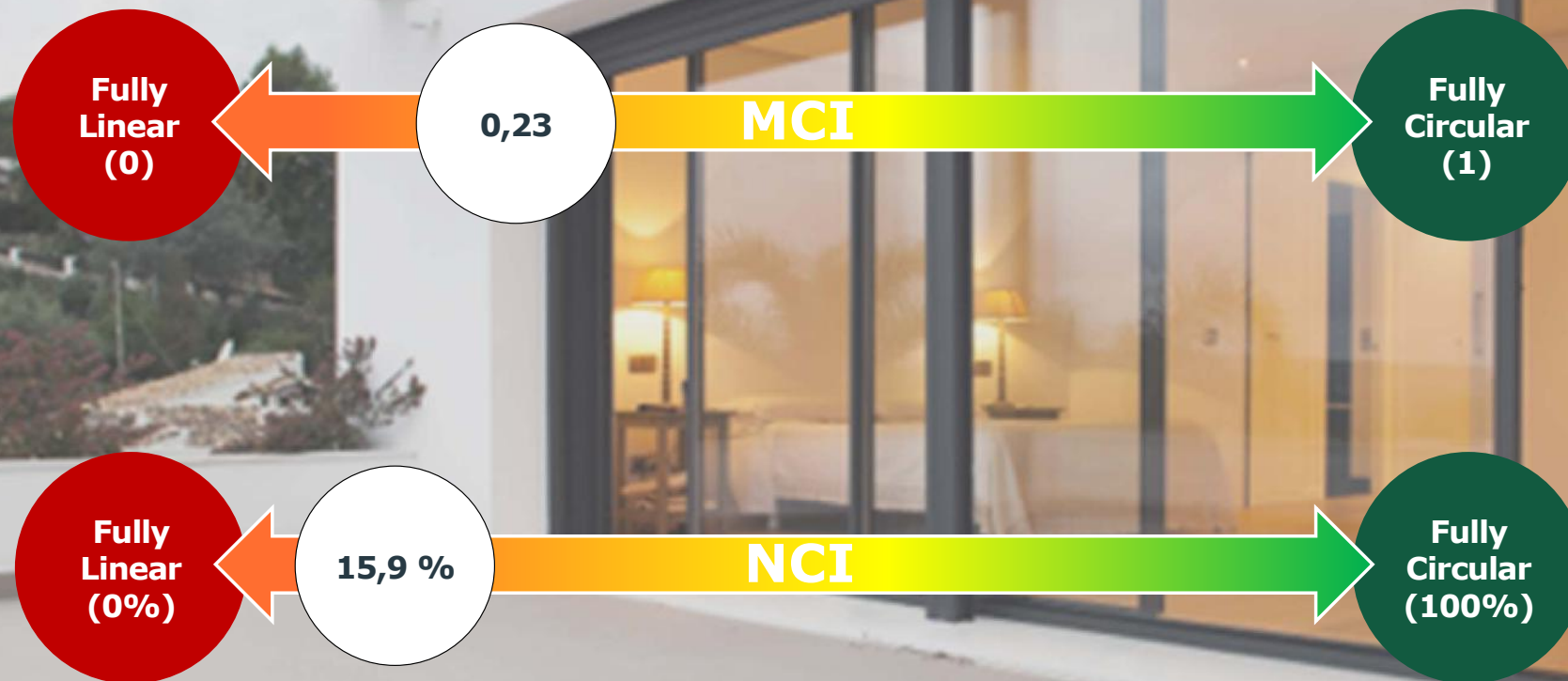
Hazardous components/ ingredients: list all hazardous components or ingredients, e.g. SVHC, carcinogens

Origin of materials: supply chain information, chain-of-custody for wood products

Performance of the quantitative CE assessment methods

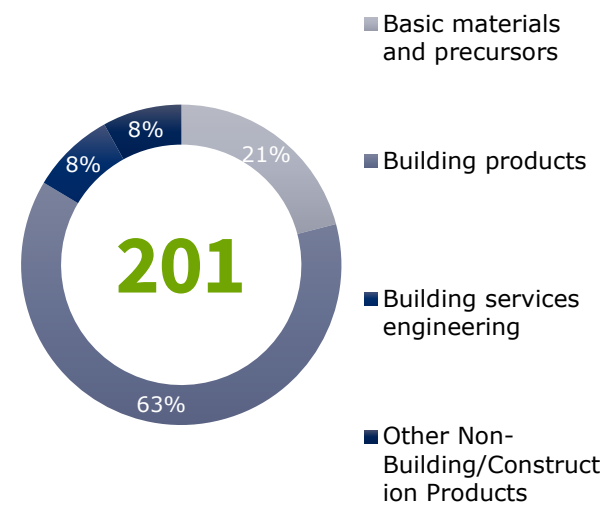


MCI and NCI results for a sliding door

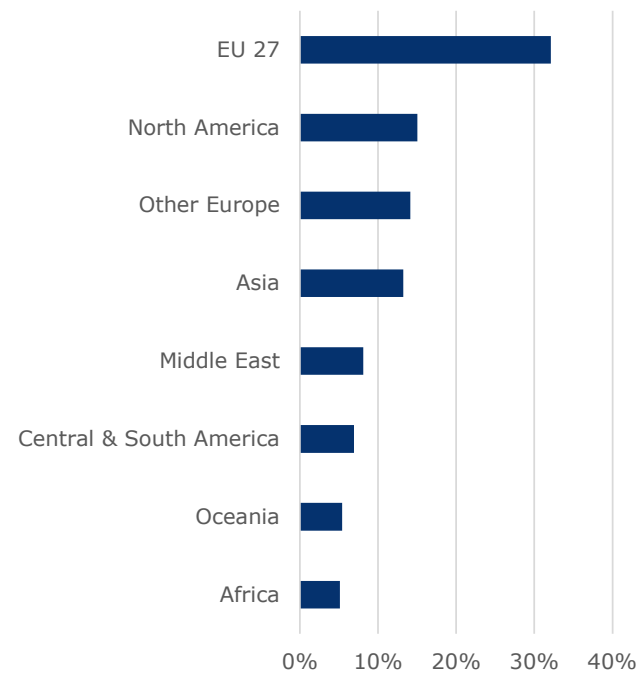


ECO PLATFORM SURVEY 2023 ON THE OPPORTUNITIES AND CHALLENGES OF CIRCULAR ECONOMY IN THE CONSTRUCTION INDUSTRY

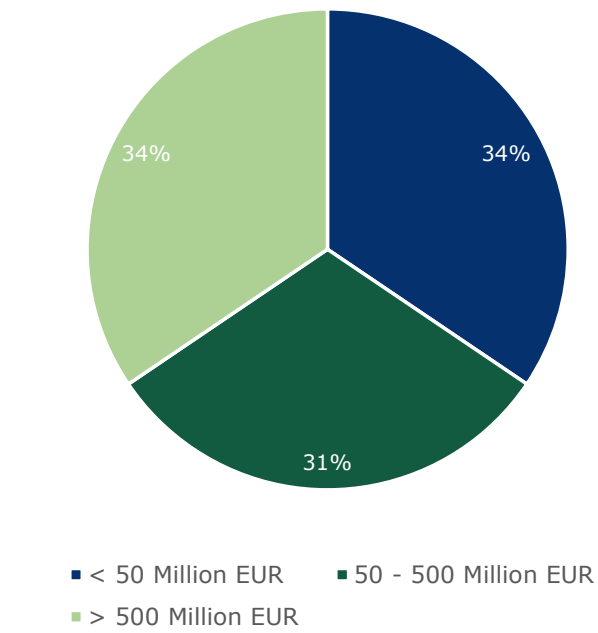
DISTRIBUTION OF PARTICIPANTS BY PRODUCT CATEGORY



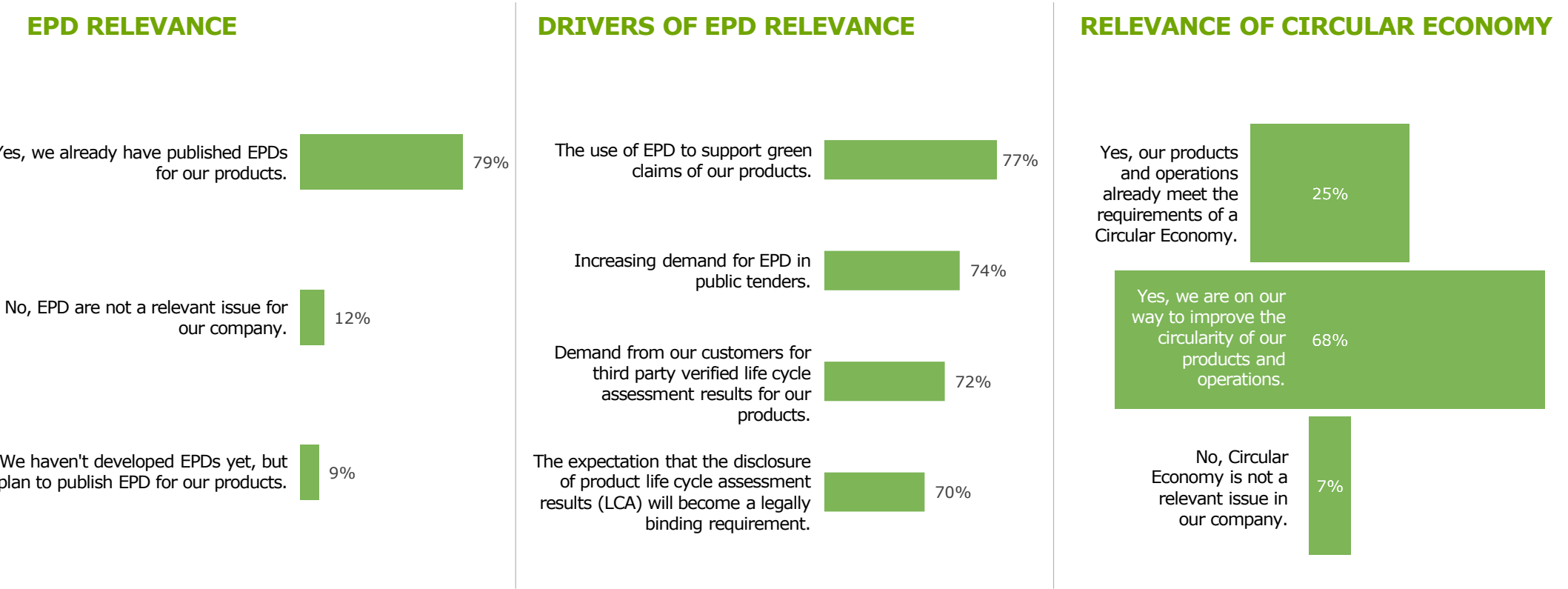
DISTRIBUTION OF PARTICIPANTS BY MAIN SALES REGION



DISTRIBUTION OF PARTICIPANTS BY COMPANY SIZE



THE EPD HAS ESTABLISHED ITSELF INTERNATIONALLY - COMPANIES ARE MOVING TOWARDS CIRCULAR PRODUCTS AND OPERATIONS



Product circularity dimensions in the EPD (ECO Platform proposal)

- Recycled content
- Recyclability
- Renewables
- Quality of recycling
- Design for disassembly
- Design for low maintenance and repair
- Design for reuse



WE KNOW...

...any **critical raw materials** in our products (e.g. lithium).

...any **chemical substances of high concern** in our products (e.g. lead).

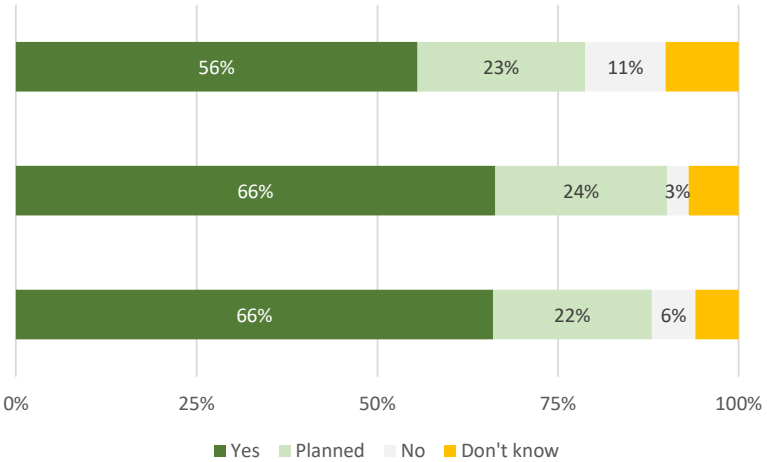
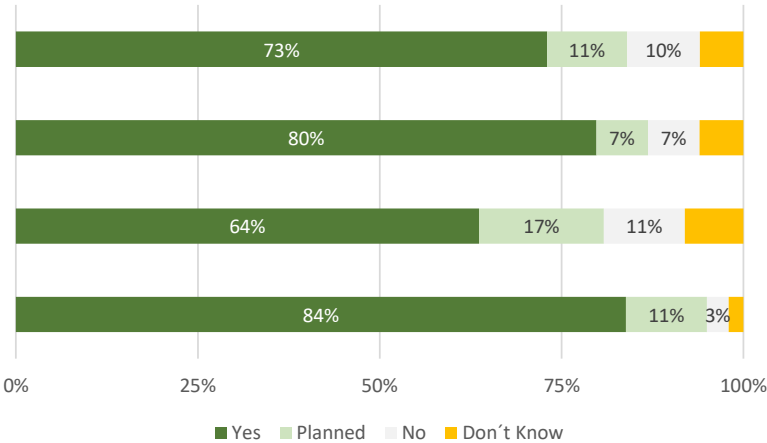
...the ingredients of the auxiliary and operating materials we use.

...the ingredients of all the products and materials we use.

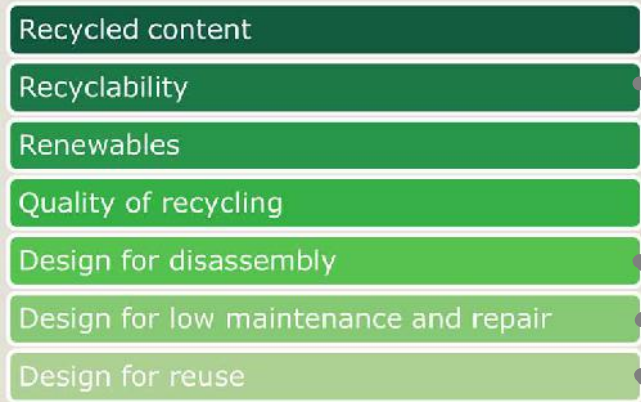
...the proportion of **reused substances**, materials and/or components we use.

...the proportion of **renewable substances**, materials and/or components we use.

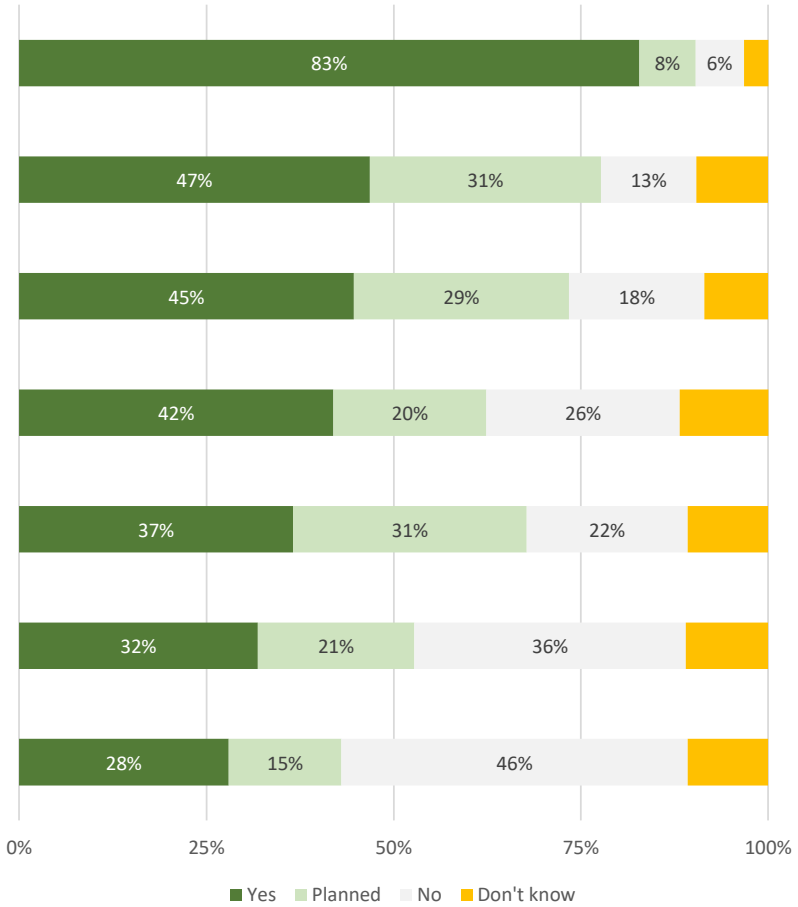
...the proportion of **recycled content** in the substances, materials and/or components we use.



Product circularity dimensions in the EPD (ECO Platform proposal)



- We design our products for low maintenance and repair.
- We design our products in a way that they can be easily disassembled (dismounting, disassembling, dismantling) after their service life.
- We design our products for maximum recyclability of material fractions, components and parts at their end of life.
- We provide our customers with information on how to extend the service life-time of our products (beyond the standard life-time).
- We design our products that they can be easily re-used after their initial life cycle.
- We provide our customers with instructions for a deconstruction compliant installation of our products.
- We offer our products as a service to our customers.

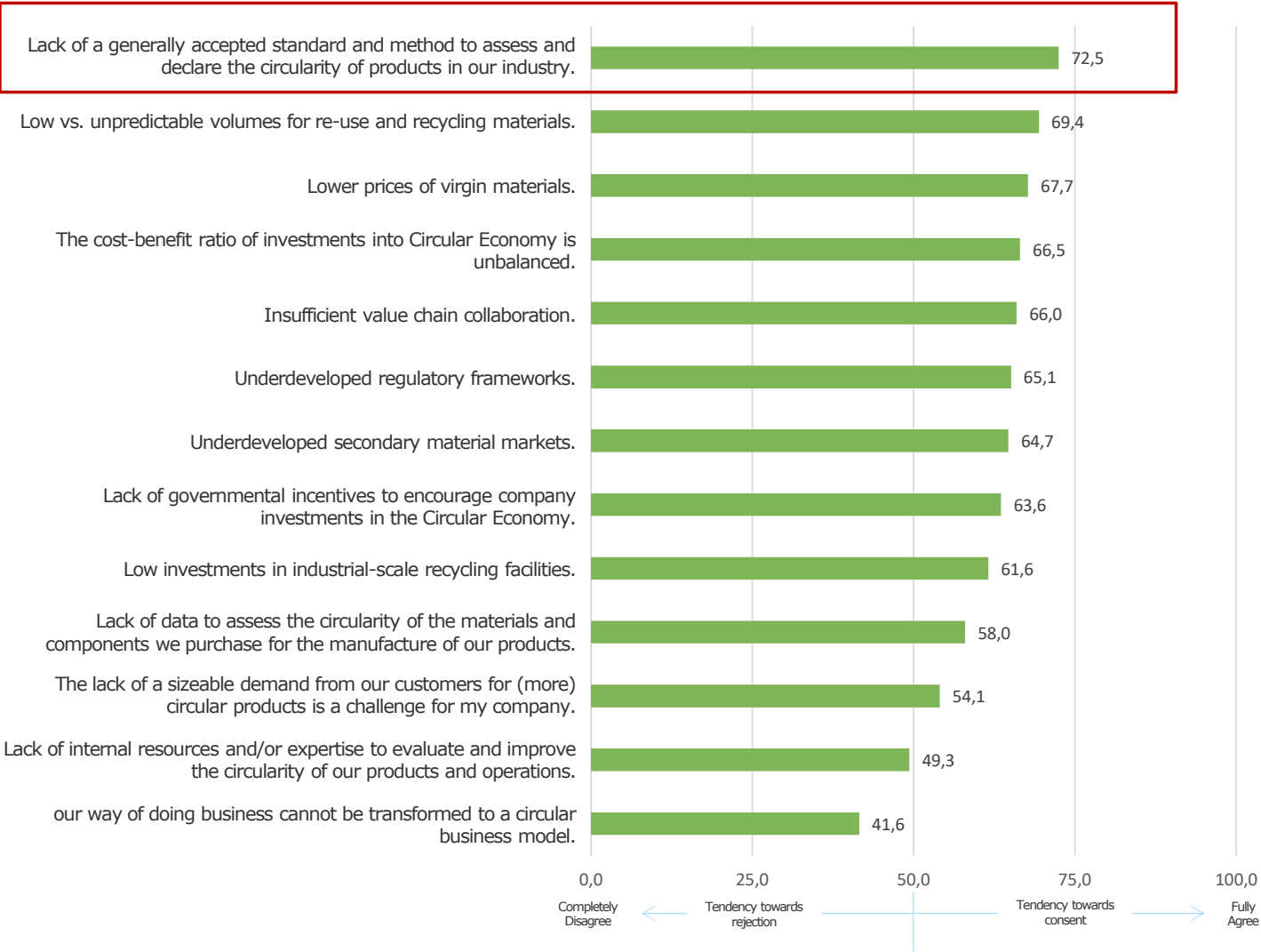


Product circularity dimensions in the EPD (ECO Platform proposal)

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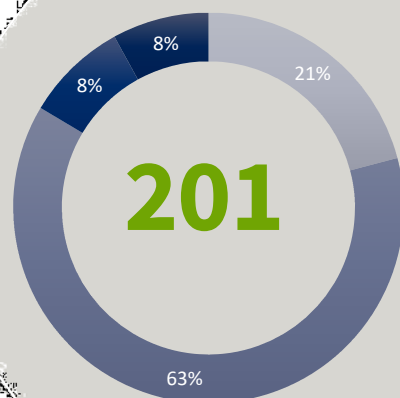
CHALLENGES/BARRIERS TO CE IN THE CONSTRUCTION INDUSTRY



Bright ideas. Sustainable change.

RAMBOLL

Construction Product Manufacturers & Associations



- Basic materials and precursors
- Building products
- Building services engineering
- Other Non-Building/Construction Products

CE TASK GROUP

Alliance
HQE
BUILDING



eurima
EUROPEAN MANUFACTURERS ASSOCIATION

Bau-EPD
BAU-EPD INFORMATION SYSTEM



EUROPEAN ALUMINIUM



Standardisation & Regulation

breeam



Academia

