



Concular

# Concular

The leading digital ecosystem  
for circular construction

Dominik Campanella  
Mitgründer, CEO



**The construction sector is the largest  
polluter in the world**





The construction sector is the largest  
polluter in the world

60%

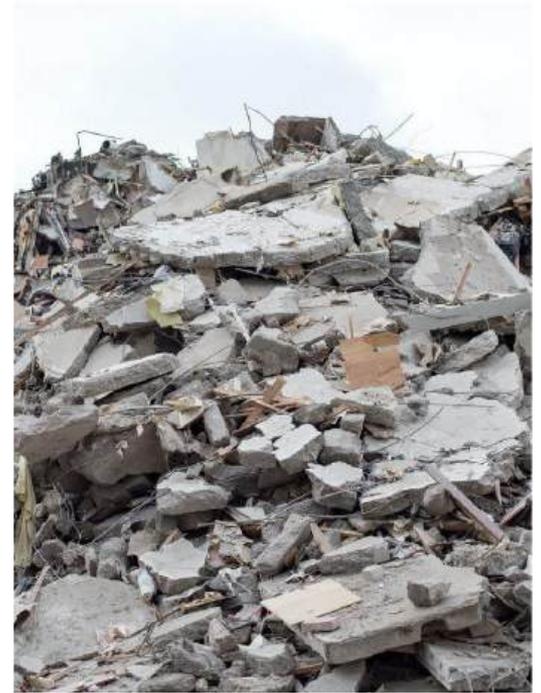
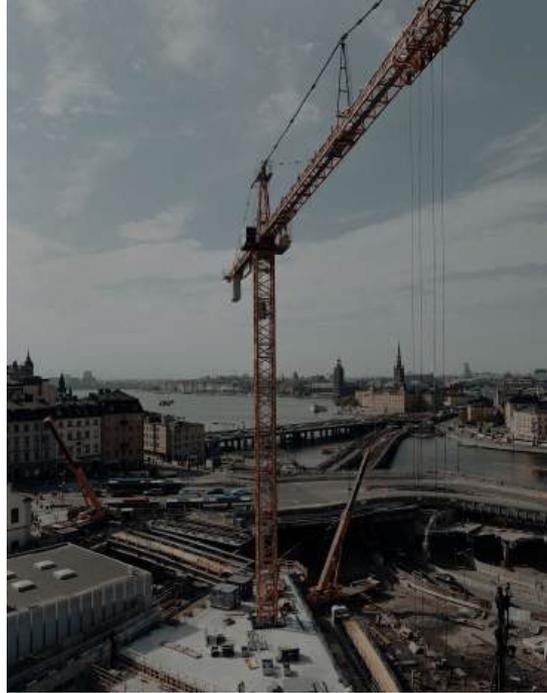
global  
waste

40%

global GHG  
emissions



**Take**    **→**    **Make**    **→**    **Waste**



**Climate crisis is decided  
on the construction site.**



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# No Waste, Just Value.

60%  
waste

40%  
CO2 emissions

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# No Waste, Just Value.

40%

CO2 emissions

60%

waste



12 Mio  
SQM digitized

15 Mio  
Materials recirculated

-30%  
Costs

-95%  
CO2 & waste

Concular

SIEMER



Next Economy  
Award 2024

# Transforming the construction sector

70+

Professionals  
in 3 countries

65+

industry  
partners

700+

large buildings  
optimized

DIN

Standard process  
DIN 91484



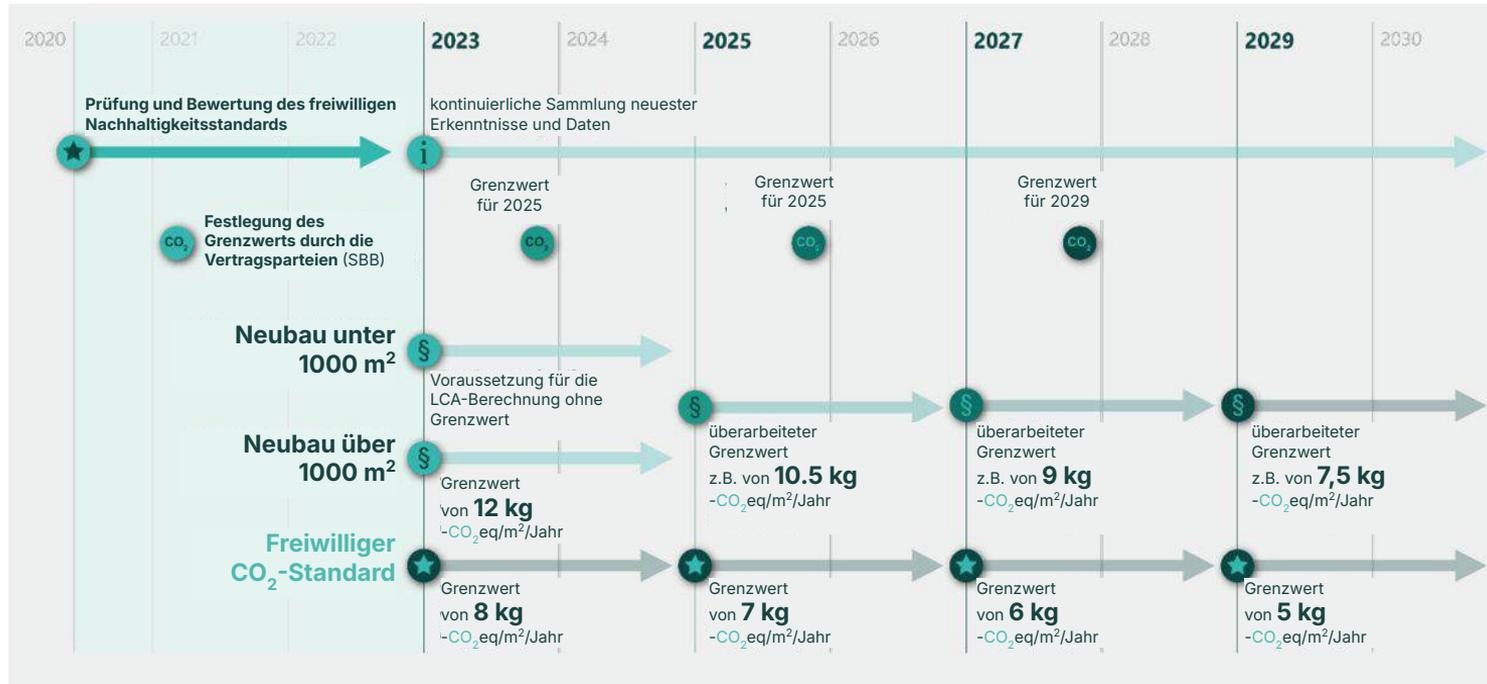
Circular product  
insurance

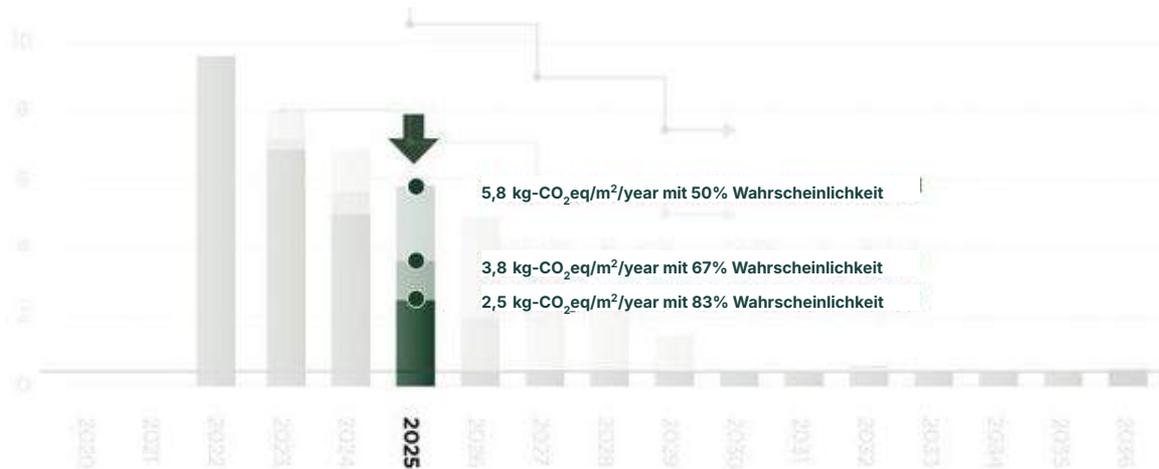


## CO2-limits in different countries

Country	Residential/ Non-Residential	Metrics	Limit	Performance specified by typology (e.g. size, usage target, climate)	Launch
Sweden	Both	kg CO <sub>2</sub> eq/m <sup>2</sup> /y	-	Yes	2022 -2027*
Denmark	Both	kg CO <sub>2</sub> eq/m <sup>2</sup> /y	12kg	Yes	2023
The Netherlands	Both	Euro/m <sup>2</sup> /y	1,0	Yes	2018
France	Both	kg CO <sub>2</sub> eq/m <sup>2</sup>	12,8 – 14,8 kg*	Yes	2022
Finland	Both	-	-	Yes	2025

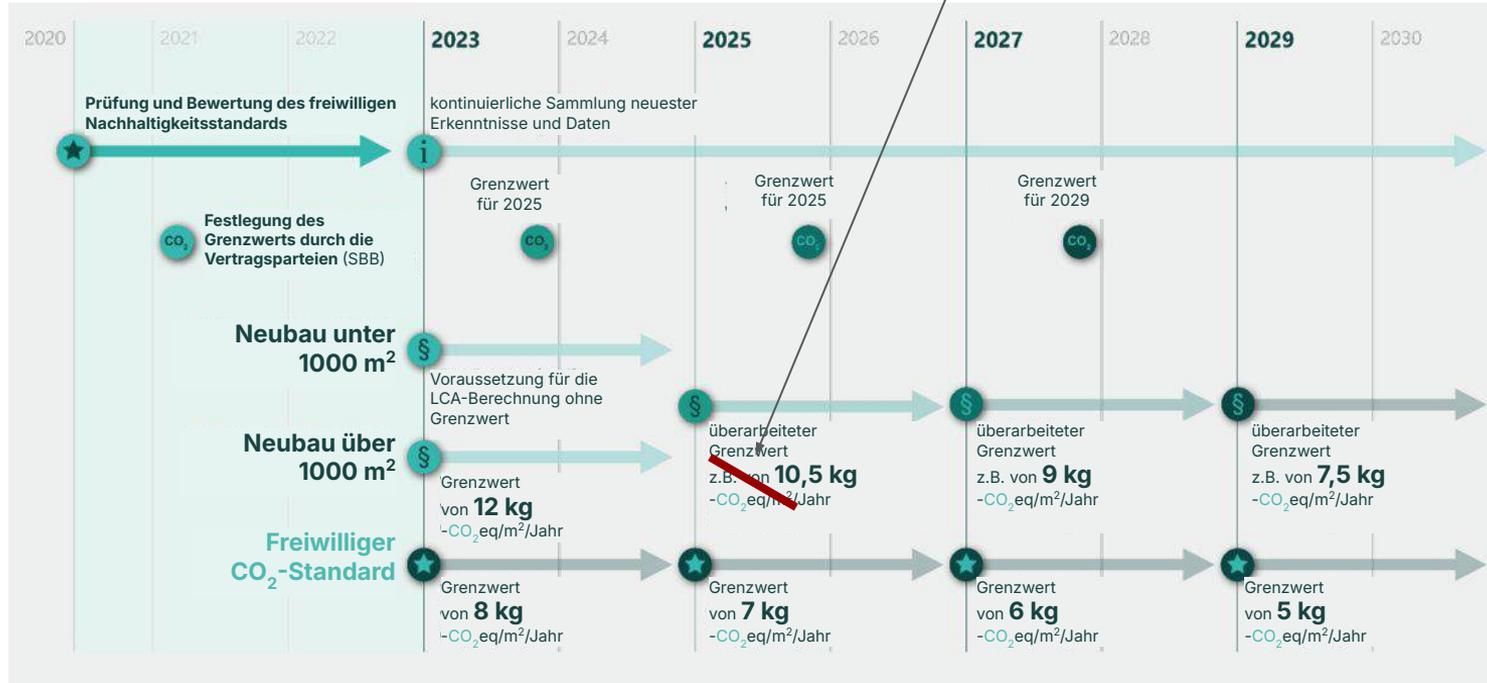
# Denmark BR18





**5,8 kg CO<sub>2</sub> eq/m<sup>2</sup>/year** for a 50 % probability to fulfil the 1,5 °C goal

New threshold will be 7,1 kg in 2025





## Die CO<sub>2</sub>-Uhr tickt

**2 11 22 4 35 35**

Jahre

Monate

Tage

Stunden

Minuten

Sekunden

bleiben, bis das globale CO<sub>2</sub>-Budget für das Erreichen des 1,5-Grad-Limits aufgebraucht ist.



[\*\*► Alles zur Klimakrise\*\*](#)



# The real estate sector is responsible for 40% of GHG emission and 60% of global waste



Circularity could abate 75% of embodied emissions from the built environment while creating significant economic value.<sup>1)</sup>

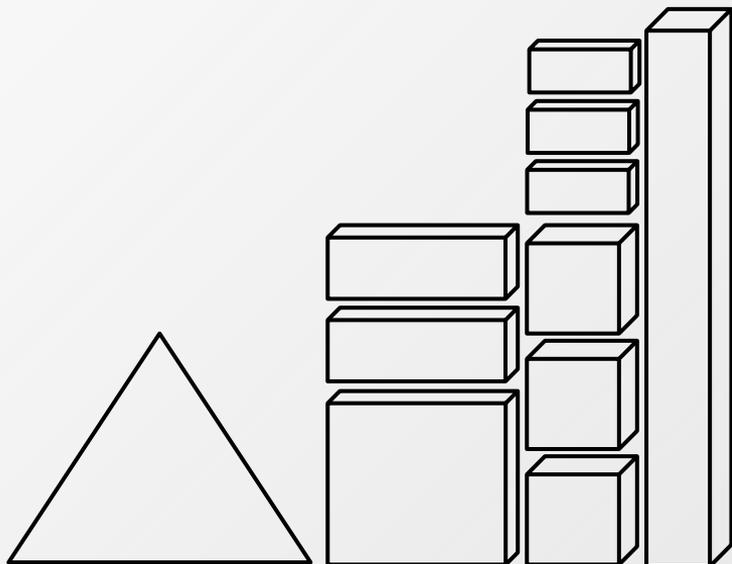
“Preparing for **reuse and recycling** are the options incurring the **highest GHG savings**.”<sup>2)</sup>

- 1) World Economic Forum, McKinsey & Company, Circularity in the Built Environment: Maximizing CO2 Abatement and Business Opportunities, 2024
- 2) Publications Office of the European Union, Techno-economic and environmental assessment of construction and demolition waste management in the European Union, 2024



Buildings as urban mines

# Source for new products and buildings





# 14 years restado

Europe's largest marketplace  
for circular construction

>5T  
Sellers



80T  
User  
per month



1 Mio  
materials



2012 - today



# 6 years Concular

The digital ecosystem for circular construction

2020 → Today

2012



>5T  
Sellers

2016

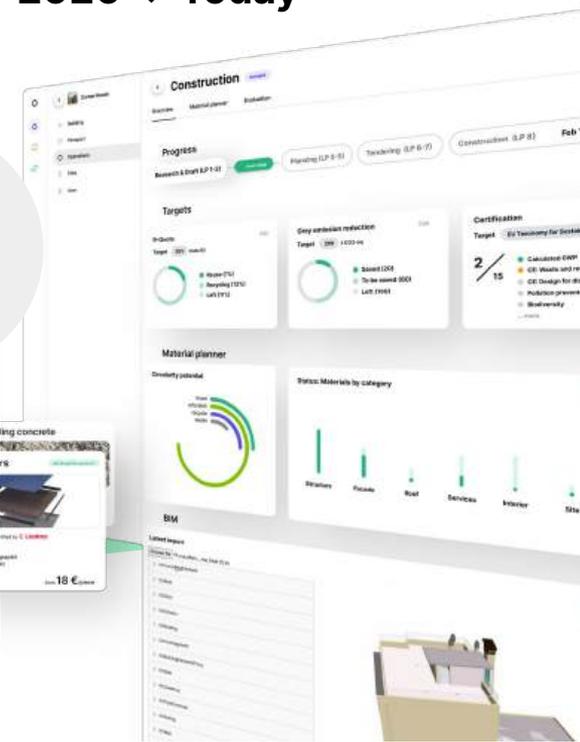


80T  
User  
per month

2019



1 Mio  
materials





# Concular is market leader of circular construction

70+ experts:



6 offices in DACH:



40+ Awards:



Öffentliche Kunden (Auszug):



Private Kunden (Auszug):



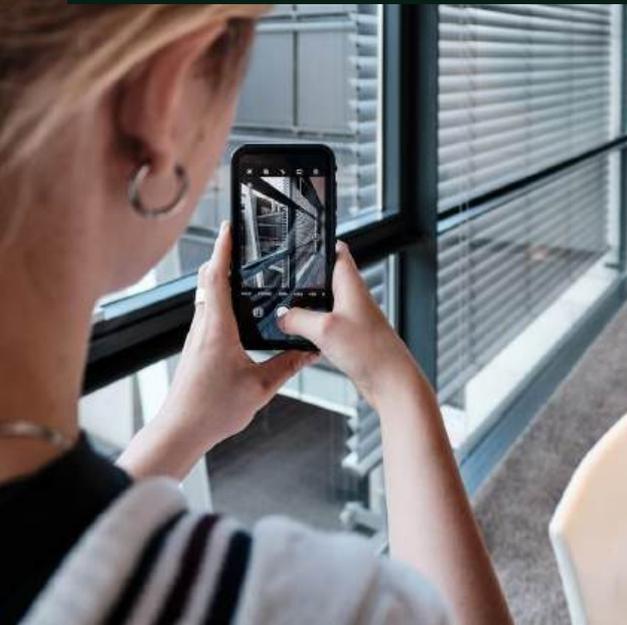
Concular

Digitize.



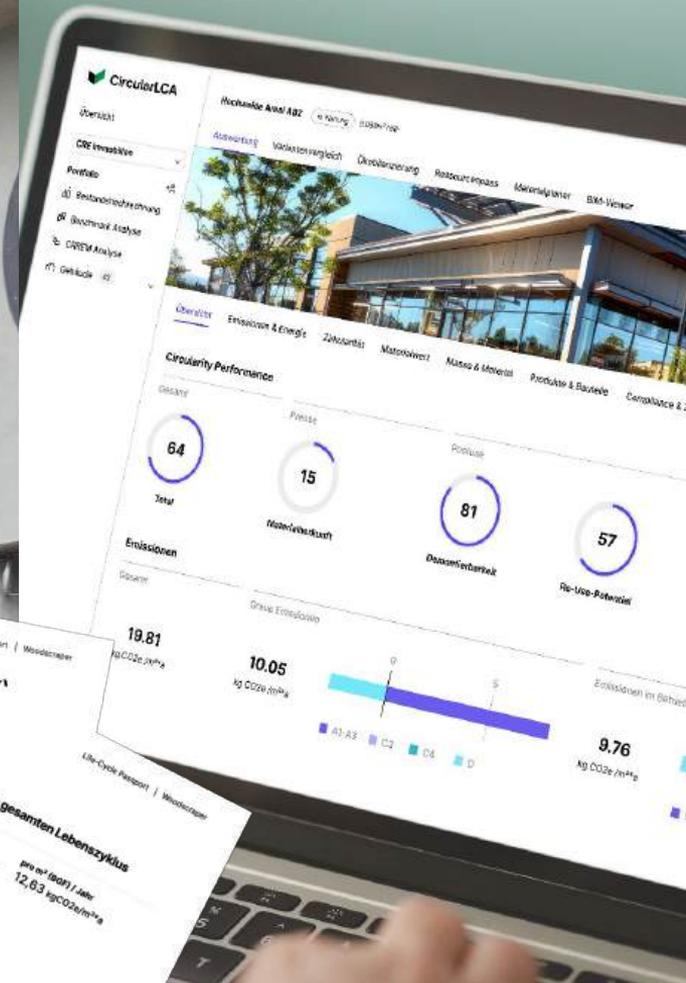
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Digitize.  
Realize.



Concular

# Digitize. Realize. Measure.



Concular

Digitize.



# New buildings

Building resource passport

PROJEKT		Projektbezeichnung	PASS-ID Nummer	DQ
DATUM / NAME		Ereil-Ausstellung / Name / Kontaktdaten	VERSION: 4001	(0-3)
<b>1 Gebäude-Informationen und Gebäude-Massen</b>				
Standort	Adresse / GIS / Flurstück	Gesamtmasse des Gebäudes [t]	1234	
Baujahr (Fertigstellung)	2000	BGF [m²]	567	
Baugenehmigung	01.01.2000	NRF [m³]	456	
Bauweise	Holz-Stahlbeton-Hybridbau	Füßchengewichte Masse [m³NRF]	2,7	
Typ / Anlass	Bestandserhalt (Sanierung)	Umfang dokumentierter Massen [%]	95	
Kategorie	Wohngebäude	Nutzhalt	Bewohner	
Schreibung	Keller (vollunterkellert)	Daten-Basis / Datenbank	Beutelebene: Digitales Modell (.ifc)	
Stamngrenze (KG)	KG300, KG400, KG500	Baujahr-Einbaustart zuidentifiziert	ja, modellbasiert	
Abbruchempfehlung [t]	RS	Baujahrbezogene Auswertung möglich	ja, modellbasiert	
<b>Materialität, Materialherkunft und Bau- und Abbruchabfälle</b>				
<b>Materialität des Bauwerks</b>		<b>Materialherkunft - Umgesetzte Kreislaufführung</b>		
Material	Masse [%]	Materialherkunft	Masse [%]	
Holz und Holzwerkstoffe	8,3	Vermeidung	5,9	55%
Kunststoffe	1,2	Wiederverwendet	1,0	
Blattglas/Mischungen	1,2	Altmaterialverwert	1,0	
Metalle	1,2	Wiederverwert (Wieder-/Wiederverwert)	1,3	
Elektr. und Elektronik	1,2	Primärrohstoffe, erneuerbar	2,3	
Metalle	1,2	Primärrohstoffe, nicht-erneuerbar	4,0	
Glas	1,0	Vermeidene Primärrohstoffe [t]	123,4	
Gips	1,0			
Mineralische Baustoffe	1,0			
Monetärer Materialwert (M <sup>2</sup> )	1.000,000			
(Baugewerkschaft Materialwert)	(01.01.2000)			
Schad- und Risikostoffe	0,54			



**Zusammenfassung**

**Circularity Performance Index**  
Dieser Indikator ist 2024 entwickelt und nutzt kreislaufgerechte Metriken.

**Green Emissions**  
Dieser Indikator ist ebenfalls 2024 entwickelt und nutzt kreislaufgerechte, emissionsreduzierte Materialien.

**Zertifizierung**  
Dieser Indikator ist 2024 entwickelt und nutzt kreislaufgerechte, emissionsreduzierte Materialien.

**Gold Standard**  
121 von 100 Punkten

**Emissionsreduziert**  
100 von 100 Punkten

**Concular Life-Cycle Passport**

**29.132 t**

**Materialherkunft**

**Post-Use Zirkularität**

**Green (Prozessen (gro Mask))**

# Circularity assessment of an existing building



**Sifting through the buildings, data collection and surveying**

**Photographic documentation**

**Assessment of the condition and deconstructability of the materials**

**Storage in digital material database**

☰ < zurück Abbrechen ⋮

1 ————— 2 ————— 3

### Neues Produkt hinzufügen

Produktgruppe auswählen\*

Detailbilder hinzufügen

Kamera Galerie

Hersteller auswählen

Weiter

Lokaler Speicher  
98.61% übrig

Produkte suchen...

Sortieren nach

Produkte	Menge
Knauf Cleaneo Up 800 x 1600 mm	16 m <sup>2</sup> + ⋮
Knauf Cleaneo Up 1000 x 2000 mm	12 m <sup>2</sup> + ⋮
Regal 2150x3000x400	2 Stück + ⋮
Tisch inkl Versorgungstank 2800x750x1600	1 Stück + ⋮
Tischplatte	1 Stück
Tisch 1600x1040x1200	1 Stück + ⋮
Tischplatte	1 Stück
Tischbeine	3 Stück
Edelstahlküche 2550x900x2000	1 Stück + ⋮
Deckenleuchte 1530x20x110	20 Stück + ⋮
Stromkabel 3000	76 Stück + ⋮

+ Neues Produkt hinzufügen

☰

## Knauf Cleaneo Up 800 x 1600 mm

### Artikel

Name ↑↓	Etage ↑↓	Raum ↑↓	Menge
Knauf Cleaneo Up 800 x 1600 mm	EG 0	S 040/046	16 m <sup>2</sup>

+ Artikel hinzufügen

### Hochgeladene Bilder

Standard machen

Standard machen

Standard n

### Spezifikationen

Gesamtbreite	800 mm
Gesamthöhe	
Farbe	Cremeweiß (RAL 9001)
Gesamtlänge	1600 mm
Material	Mineralien / Gips

# Circularity assessment of an existing building



# ○ The first standard for circular construction



## DIN SPEC 91484

Standard for pre-deconstruction audits

Led by:

**Concular**

30+ partners:



# ○ Already introduced in Germany



## DIN SPEC 91484

Standard for pre-deconstruction audits

Led by:

**Concular**

30+ partners:



“... mandatory pre-demolition audits [...] according **DIN SPEC 91484**. ...”

# ○ Applied in 8 countries



## DIN SPEC 91484

Standard for pre-deconstruction audits

Applied in 8 countries on 1.000 buildings:



Germany



Austria



Switzerland



Italy



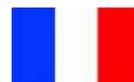
Denmark



Sweden



UK



France

Led by:

**Concular**

30+ partners:



“... mandatory pre-demolition audits [...] according **DIN SPEC 91484**. ...”

# ○ And also mandatory on an international level soon



## DIN SPEC 91484

Standard for pre-deconstruction audits

Applied in 8 countries on 1.000 buildings:



Germany



Austria



Switzerland



Italy



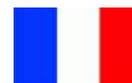
Denmark



Sweden



UK



France



EU Waste Directive



ISO Norm

Led by:

**Concular**

30+ partners:



“... mandatory pre-demolition audits  
[...] according **DIN SPEC 91484**. ...”

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## DIN SPEC 91484

Standard for pre-deconstruction audits

Applied in 8 countries on 1.000 buildings:



Germany



Austria



Switzerland



Italy



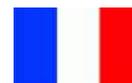
Denmark



Sweden



UK



France



EU Waste Directive



ISO Norm

Led by:

Concular

30+ partners:



"... mandatory pre-demolition audits [...] according **DIN SPEC 91484**. ..."

# ○ And also mandatory on an international level soon



## Page 15:

*"[...] mandatory digitalisation of demolition permits and pre-demolition audits."*

Digitize



Realize



# Slate



# Slate

## Conventional deconstruction [A]

Deconstruction  
Cost of new materials (for  
640m<sup>2</sup>)

**Sum [A]**

## Scenario 1:

12.960 €  
39.424 €

**54.730 €**



# Slate

## Scenario 1:

### Conventional deconstruction [A]

Deconstruction	12.960 €
Cost of new materials (for 640m <sup>2</sup> )	39.424 €
<b>Sum [A]</b>	<b>54.730 €</b>

### Circular deconstruction [R]

Value-based deconstruction	20.000 €
Transportation & refurbishment	1.000 €
<b>Sum [R]</b>	<b>21.000 €</b>

### Cost savings

<b>[A-R]</b>	<b>33.730 €</b>
--------------	-----------------



## Aktuelle zirkuläre Projekte im Verkauf



Prisma Frankfurt a. M. →



Kirschareal München →



München Westendstraße →



Technische Universität Dortmund →



Fraunhofer ISE Freiburg →



Festung Marienberg Würzburg →



Behrensbau Düsseldorf →



BIMA Düsseldorf →



Schwimmbadtechnik →



Bertin Urban Mining Hub →



Concular Lager Stuttgart →



Einzelposten - TGA - Sondervermittlungen →



Marmortresen Rain Forest Verde / Grün, poliert

€560,00 EUR VB Strombach

100 m²

1 2 3

Anschauen

# concular.shop

Filter: Produkttyp ▾ Verfügbarkeit ▾ Preis ▾ Weitere Filter ▾ Sortieren nach: Ausgewählt ▾ 28 Produkte



Cietro Synops I IPBS Trennwandsystem Glaswand 855

473 auf Lager

€320,11 EUR VB



Cietro Synops I IPBS Trennwandsystem Trennwand mit Seitenteile

405 auf Lager

€322,01 EUR VB



Cietro Synops I IPBS Trennwandsystem 360Kant

500 auf Lager

€222,00 EUR VB €189,00 EUR VB



Zartube Steuerventile "Linox-S Syn"

1.025 auf Lager

€222,00 EUR VB €39,00 EUR VB



Interface Heuga Teppichfliesen grün 500x500 (Mengenangabe in m²)

5435 auf Lager



Interface Heuga Teppichfliesen braun 500x500 (Mengenangabe in m²)

21090 auf Lager



Teinbecken / Wasseranlage (außen/innen)

3 auf Lager



Jormakaba Argus HB Sensorsteue H50-Z81

1 auf Lager



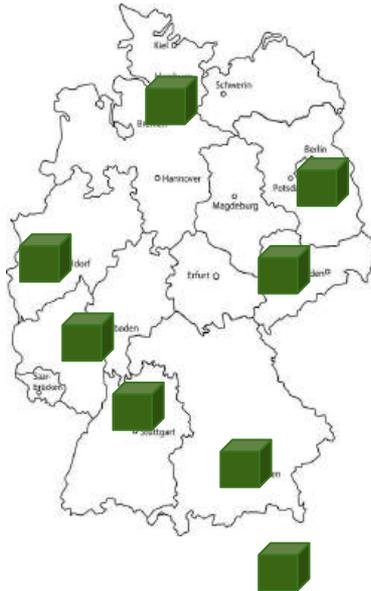
# Reclaimed construction material insurance (RCMI)

- Cooperation with largest insurance company in Germany to develop insurance specifically for reclaimed construction materials
- No difference between new and reclaimed materials in terms of warranty and insurance
- [concular.de/versicherung](https://www.concular.de/versicherung)



# Urban Mining Hubs

8 Urban Mining Hubs opened or planned



Urban Mining Hub



# Urban Mining Hub Berlin





## **CirCoFin is a city-led European consortium**

Driving circular innovation in the built environment, with a focus on dismantling, reuse, refurbishment, and repair of building materials. Spanning four diverse showcase regions - Munich, Copenhagen, Scotland, and Lisbon - the project brings together leading partners in circular construction, business and financial modelling, social sciences, and digital platform design.

[Read more >](#)



**Funded by  
the European Union**

# Halls



# Halls



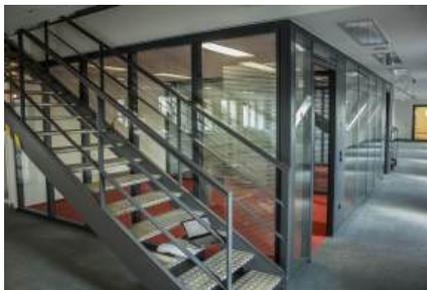




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1

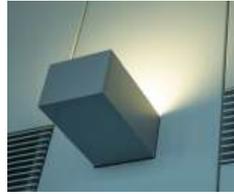
Pre-Deconstruction  
Audit



1

## Pre-Deconstruction Audit





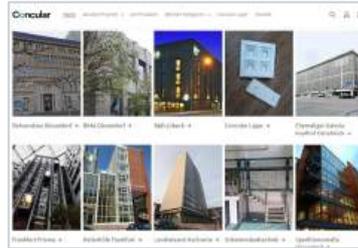
1

2

Pre-Deconstruction  
Audit

Take-back system





1

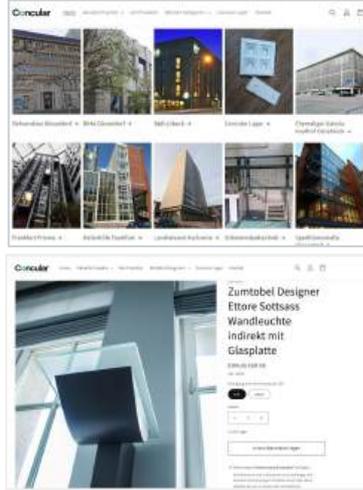
2

3

Pre-Deconstruction  
Audit

Take-back system

Sale on Concular



1

2

3

4

Re-Use

Pre-Deconstruction  
Audit

Take-back system

Sale on Concular

Deconstruction

# ○ Partition walls

Old building:



New building:



# ○ Fire resistance doors



# ○ Stores

Street Food Store  
Köln  
Cradle to Cradle inspiriert



ursemann  
interior



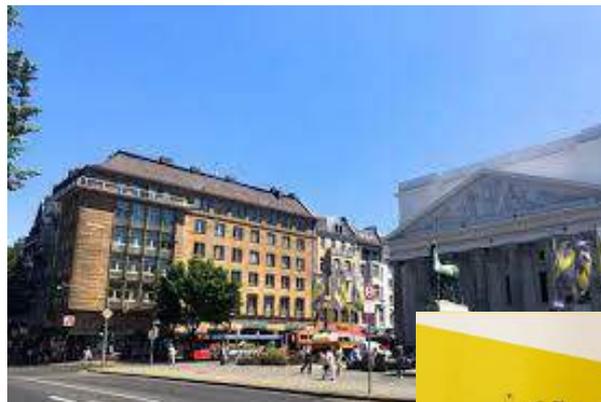
Concular  
Circularity  
Partner





# POHA HOUSE

urselmann  
interior



# The result

**70%**

materials recirculated

**35%**

CO2 emissions saved

# The result

**70%**

materials recirculated

**160.000 €**

revenue made

**35%**

CO2 emissions saved

**600.000€**

deconstruction costs saved

PRISMA















# Waste

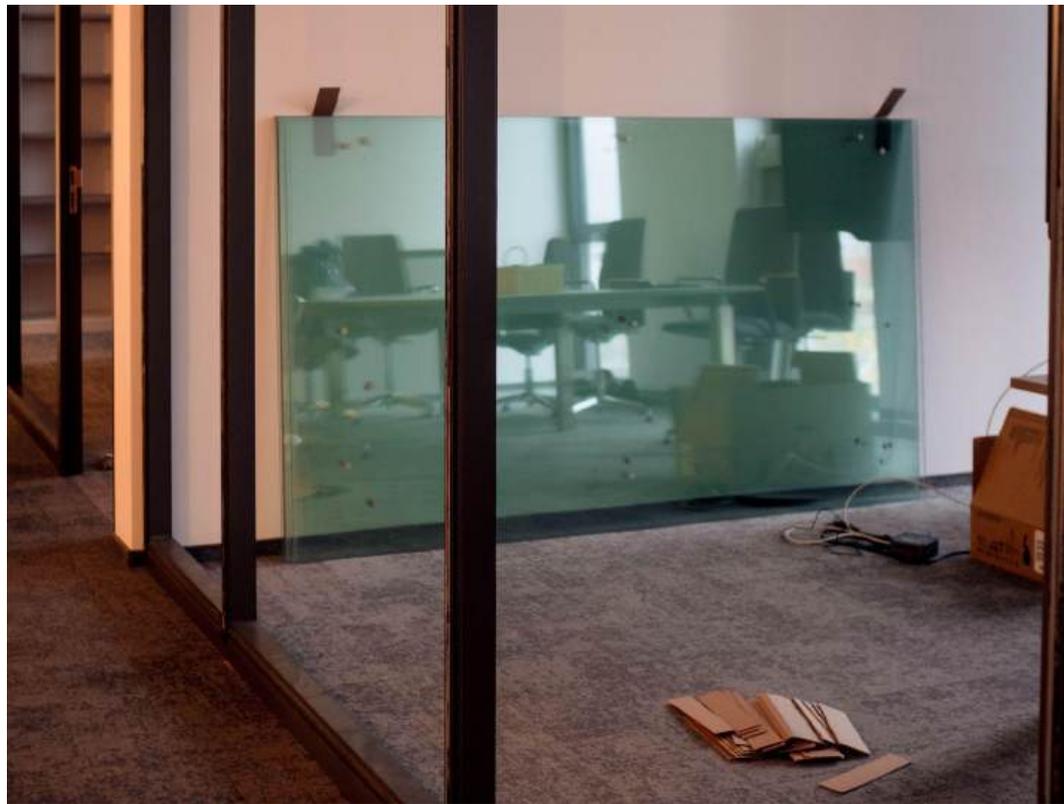
















## The result

**500l/m** re-circulated

**25%** cost savings

**4 weeks** delivery

**95%** CO2 savings

# Bricks



# Bricks



# Bricks



# Bricks





# Bricks



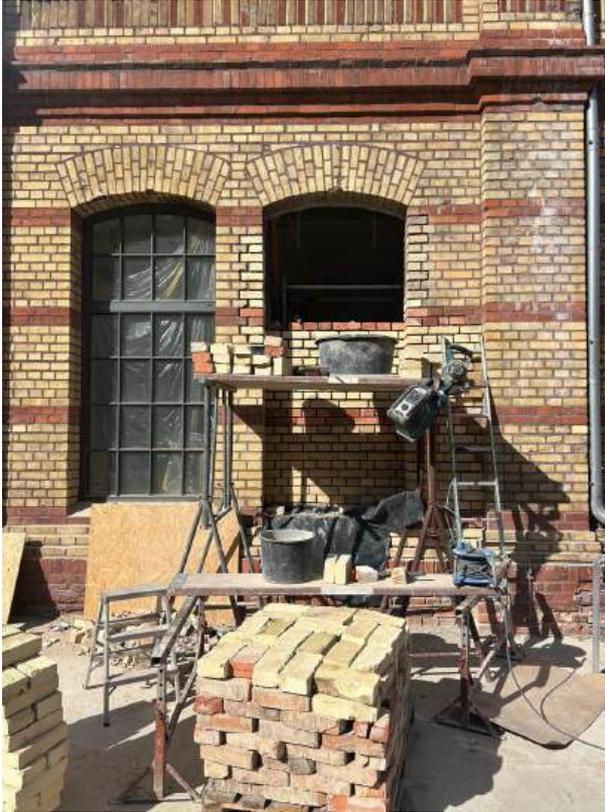
# Bricks



# Bricks



# Bricks





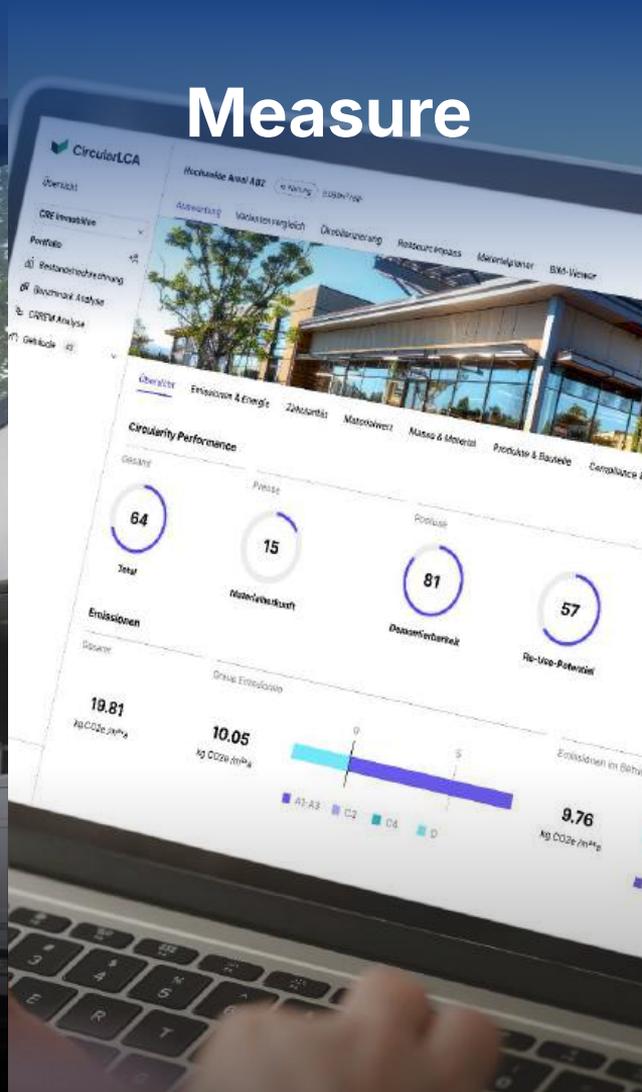
# Digitize



# Realize

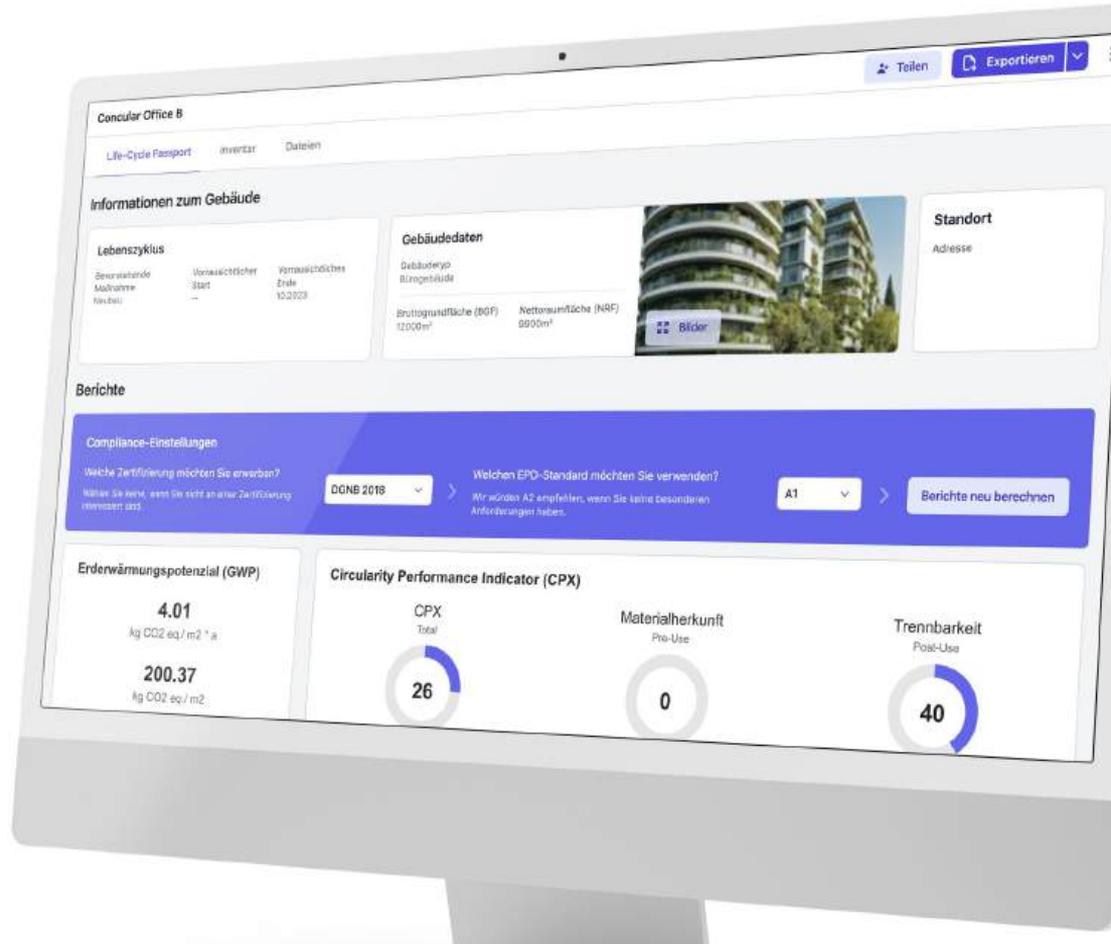


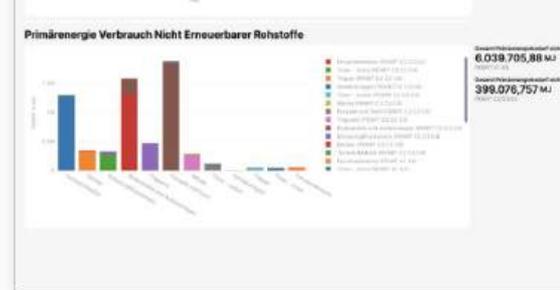
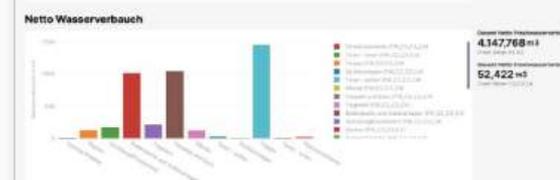
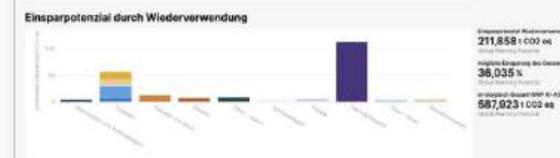
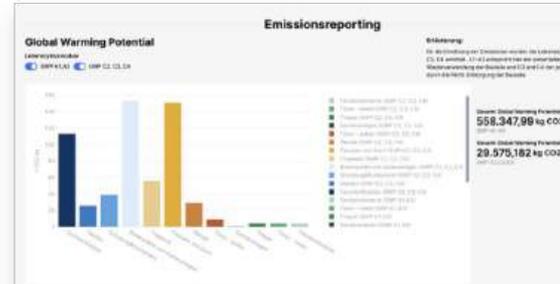
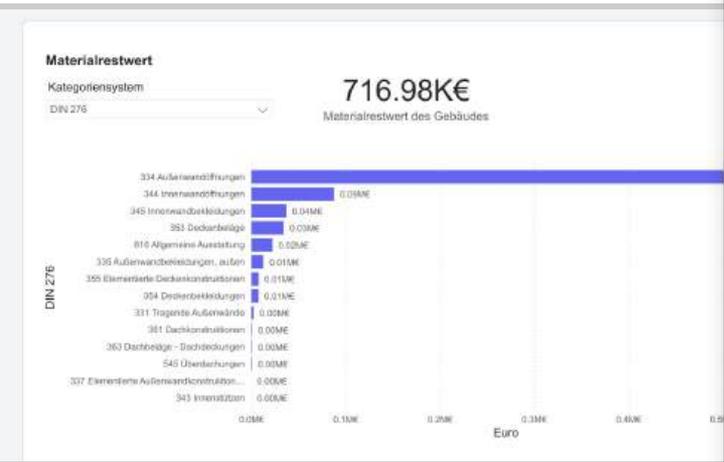
# Measure





Software for LCA & circular construction

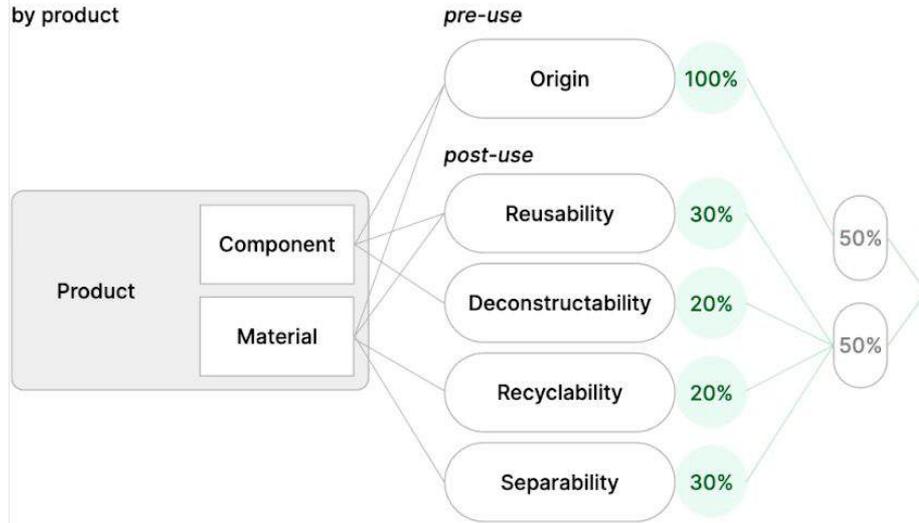




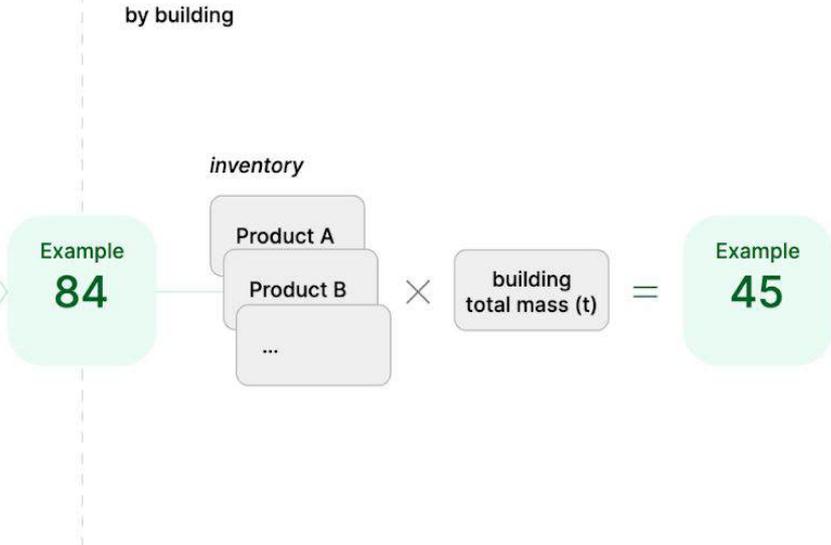
# Circularity Performance Index (CPX)

## Circularity Performance Index (CPX)

by product



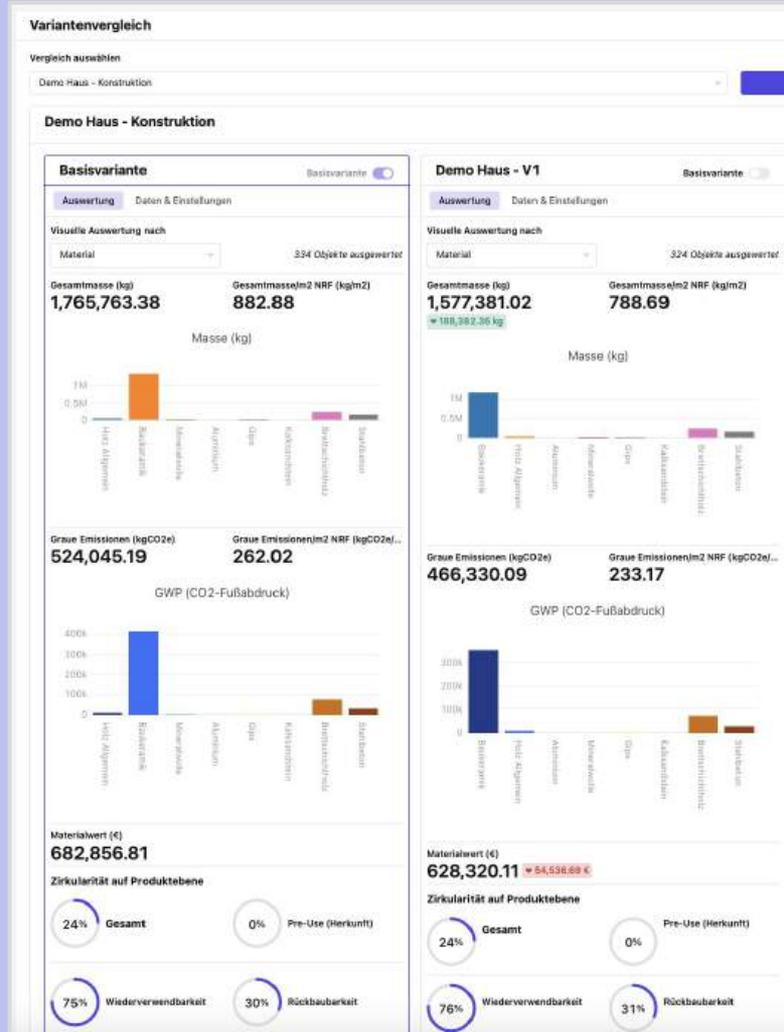
by building



# Variant Comparison for buildings and components

- Evaluation of **circularity, LCA, mass, and material value**
- Comparison at **component** or **building level**
- Multiple files can be combined as variants

**Sustainable decisions in the  
planning process**





# 100+ page guide for circular construction for free



- Insurance
- Warranty
- Re-Certification
- Pre-Deconstruction Audits
- Tendering documents

[concular.de/handbuch](https://concular.de/handbuch)



Baden-Württemberg

MINISTERIUM FÜR UMWELT, KLIMA UND ENERGIEWIRTSCHAFT



**PTKA**  
Projektträger Karlsruhe

Karlsruher Institut für Technologie

Concular

**Together, circular!**

**Dominik Campanella**

Co-Founder

[dominik.campanella@concular.com](mailto:dominik.campanella@concular.com)

