

# **Circular Construction**

## **We live Material Circularity**



350-480

tons/inhabitants



2 billion  
people



75

tons/inhabitants



6 billion  
people





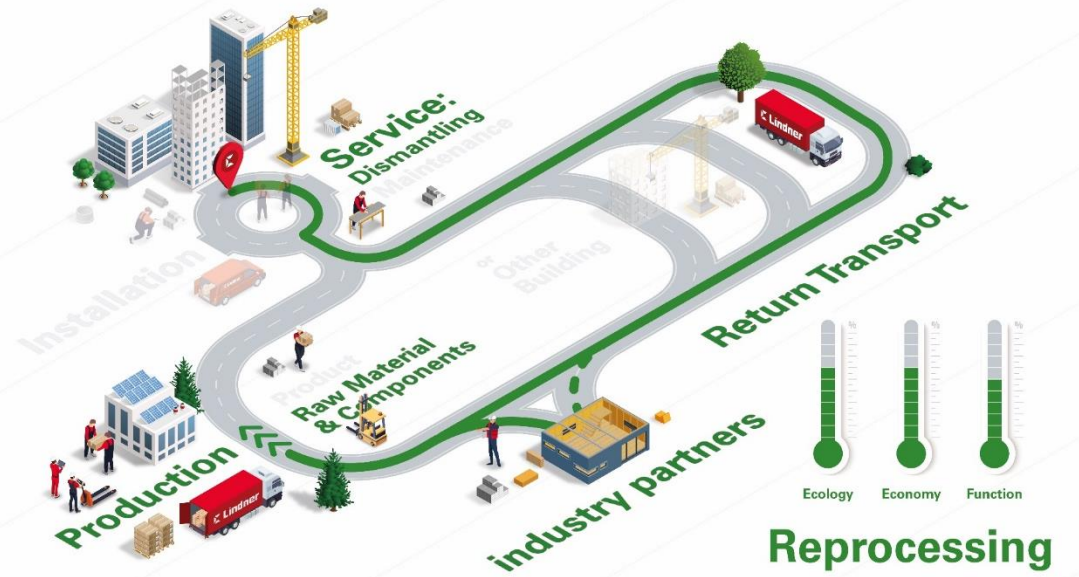
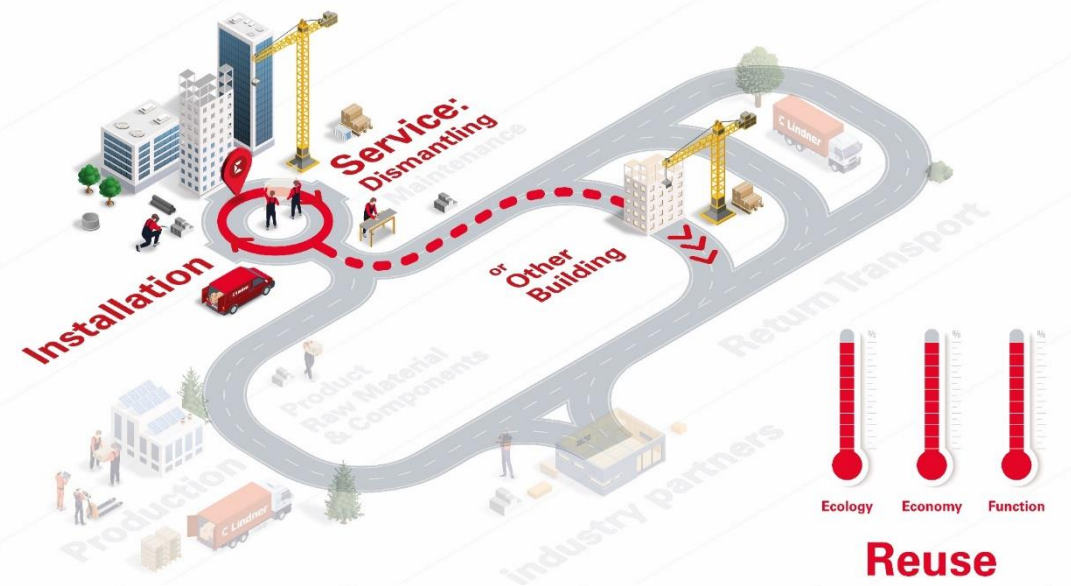
too late!

 Lindner



**We think in  
cycles**







# Conserve

- After professional installation, the original product is used and maintained in the location for the longest possible period of time.
- The product is given optimum appreciation in this process.
- The conservation of the functional quality is guaranteed by services in form of maintenance or repair.





## Conserve in practice

Circular product design  
metal ceilings LMD aurum

- Long-lasting design with high-quality materials to keep building products in (initial) use for as long as possible
- LMD ceiling systems can be dismantled non-destructively  
>> almost no irreversible connections such as bonding etc.



## Conserve in practice

Metal ceilings LMD aurum  
C2C® Certified Gold

- Production with closed water cycles and share of renewable energy over 50%
- Low-emission material components (far below limit values in AgBB measurements)
- High recycling rate of all components
- Easy to inspect, non-destructive dismantling and almost completely recyclable
- Life cycle assessment in accordance with ISO 14040/44





# Reuse

- The primary product is dismantled and directly reused without any refurbishing.
- The product can be used either in the same or in a different building.





# Reuse in practice

## Siemens Erlangen

- Removal of old floor slabs (built in 1972) in Erlangen
- Temporary storage and minor repairs to the surface covering
- Reinstallation of the tiles in the new Siemensstadt Square in Berlin
- Lindner as a permanent partner for recyclable finishing systems with support right from the planning phase





# Refurbish

- The original product's components are returned to production after disassembly.
- The components of the product are reprocessed and serve either the original or a new purpose.





## Refurbish in practice

ReUsed product LOOP in  
HTC Villach, Austria

- Selection of fit-out systems for the rental spaces that are as modular and demountable as possible
- Use of refurbished raised access floor panels to implement the circular economy
- Saving over 70% CO<sub>2</sub> by choosing 1,600 m<sup>2</sup> of LOOP prime floor panels





## Refurbish in practice

ERGO Group AG –  
administration building, Munich

- Redesign and conversion of the atrium as part of the revitalization of the administration building
- „**Refresh**“ instead of replacing the existing wall panels
- Dismantling, sanding and repainting of the individual panels





# Reprocessing

- The individual components of the product are separated and reused as material in the manufacturing process.
- Left-over materials from production, reconstruction, construction sites or from industry partners are dissolved and used as raw substance for the manufacture of our products.
- Materials that cannot be recycled by ourselves end up in an external material or substance cycle.





# Material reprocessing

of building materials containing gypsum

- **In the production process:**  
cuttings, milling dust, sediments
  - **Construction site remains:**  
cuttings/residual materials
  - **From deconstruction materials:**  
deconstruction waste on the site
- 
- **State supported project**  
(German Federal Ministry for the Environment and Nature Conservation)
  - **Gypsum panels can be processed up to 100% by low-energy thermal reactivation**
  - **Patented method**





# Our goals

**51,350 tons**

of recyclable gypsum are to be returned to the production cycle annually in the future.

**44,000 tons**

of setting gypsum can be recovered from gypsum waste

**5,270 tons of CO<sub>2</sub>e**

reduction through 53% process energy savings

**50,000 tons**

Primary raw materials are saved and thus less gypsum waste is deposited in landfills



# LinLoop

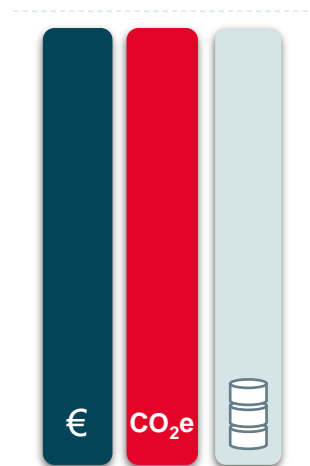
Business models



# LinLoop

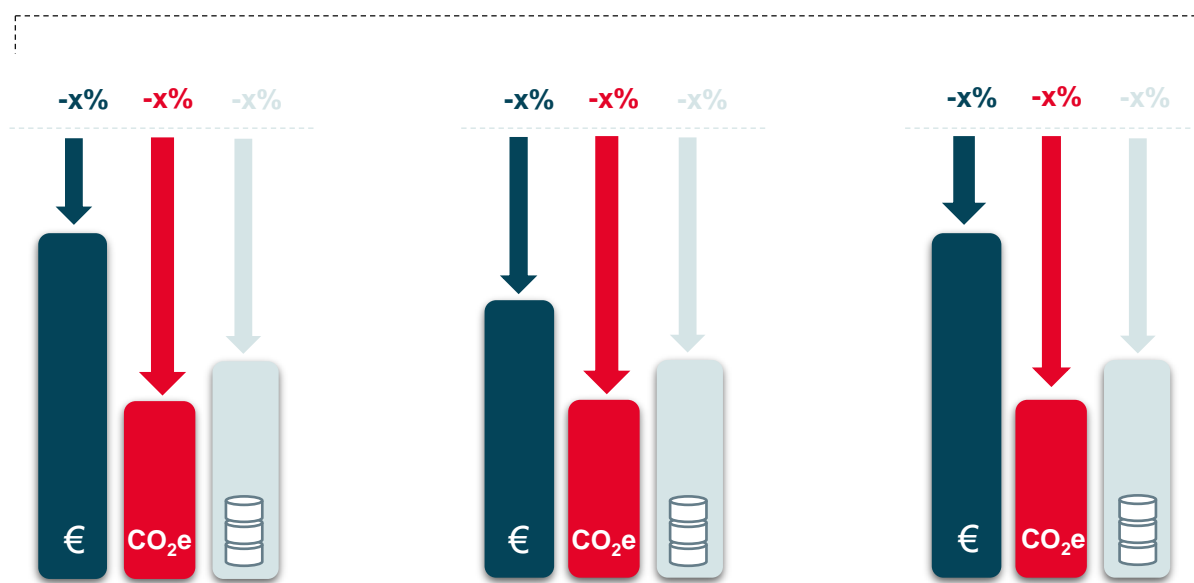
## rethinking interior fitout

status quo  
„sell & forget“



purchase without  
loop option

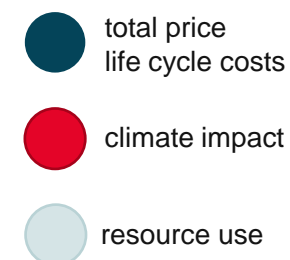
LinLoop



ReUsed products

purchase and  
return

renting





# LinLoop | ReUsed products

## refurbish for ReUse

### **keyfacts about ReUsed products using the example of a reconditioned raised floor (LOOP prime)**

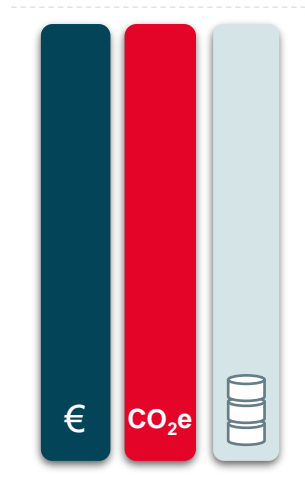
- Refurbished raised floors on five sides
- 595 mm x 595 mm
- Same and assured physical building properties as new products (statics, fire and sound insulation)
- 70% improved CO2 than new products
- High-quality materials and products that remain in cycle



# LinLoop | purchase and return

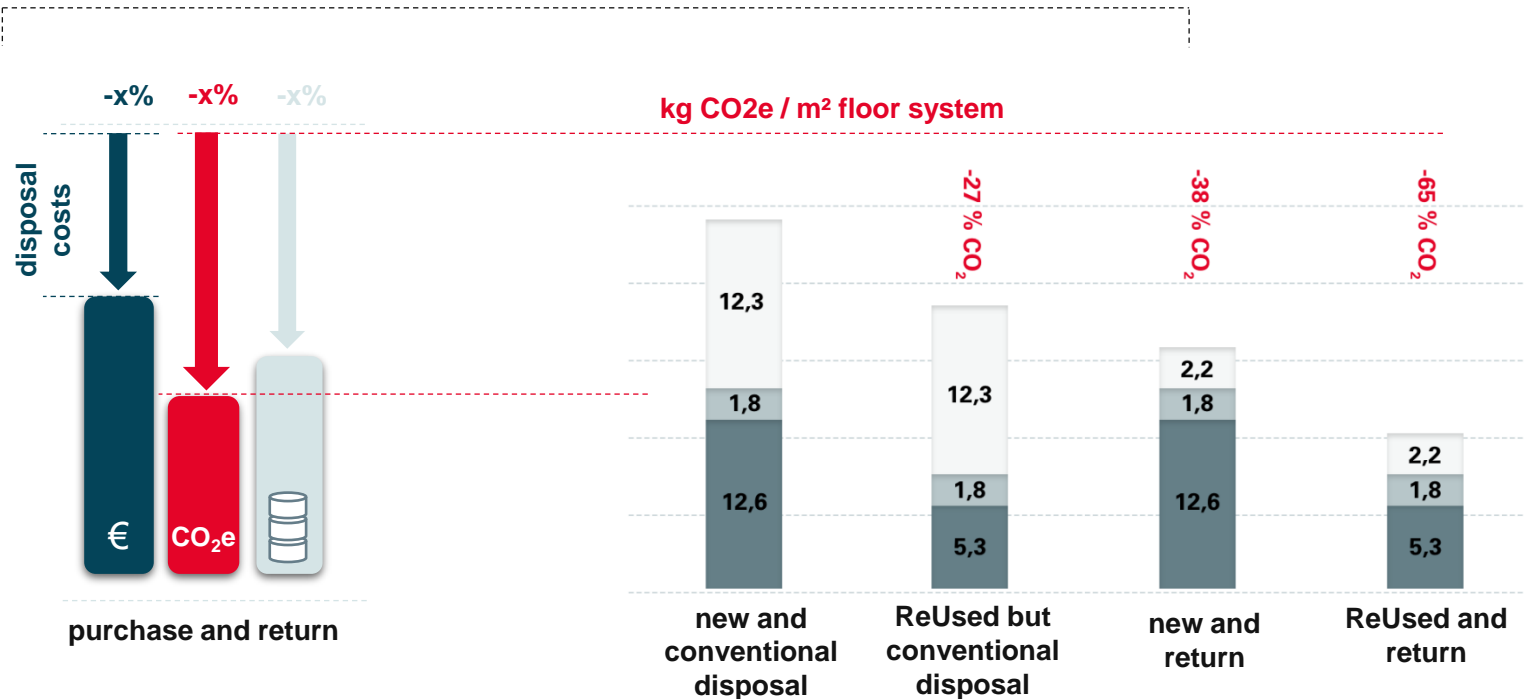
take care – give back

status quo  
„sell & forget“



purchase without  
loop option

LinLoop



total price life cycle costs climate impact resource use

remove of the floor system assembly manufacturing



# LinLoop | purchase and return

take care – give back

## keyfacts about purchase with return:

- full purchase price - customer is full owner, optional maintenance contract
- obligation on both sides to return / buy back of defined contractual items
- return after 10 to 30 years, announcement 12 months in advance
- residual value is agreed individually when the contract is concluded
  - >> project dependent calculation
  - >> usually covers the dismantling costs
- functionality assumed (not contaminated, misused, etc.)



# LinLoop | purchase and return

take care – give back

## **Add.vantage for our costumers**

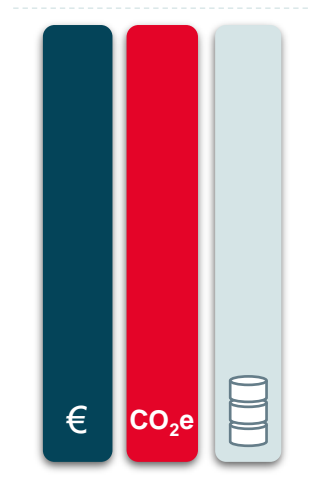
- sustainable investment / green finance
- active contribution to climate and resource protection and CO<sub>2</sub> savings
- no disposal costs and risk
- resale profit
- high-quality materials and products that remain in loop
- all-round carefree package: advice, planning, installation and dismantling - everything from a single source!



# LinLoop | renting

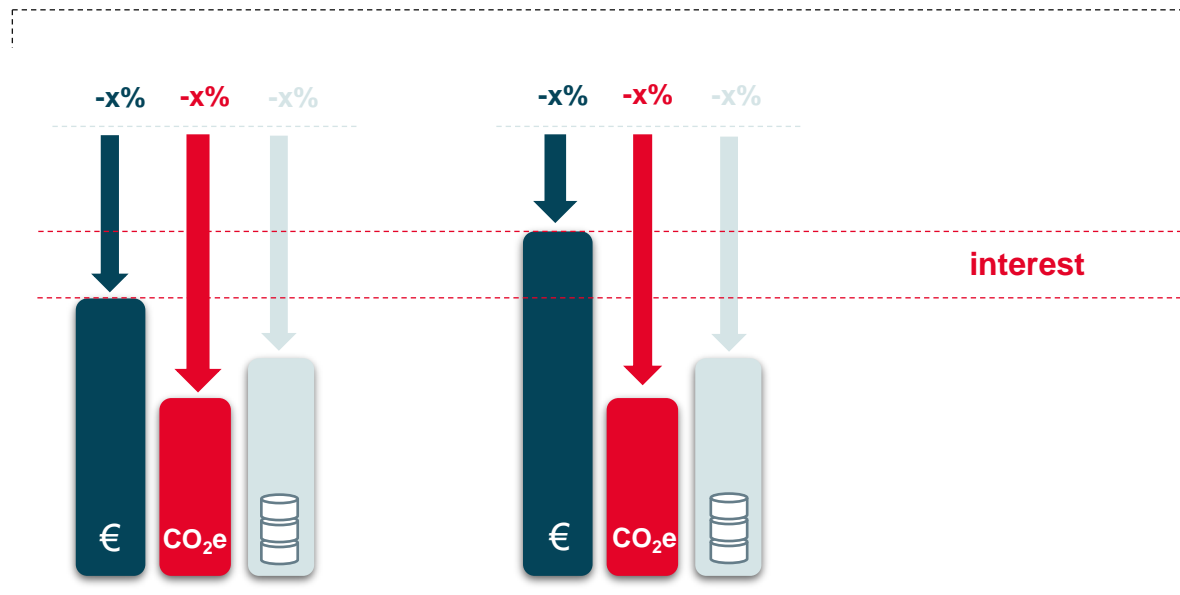
renting is the new buying

status quo  
„sell & forget“



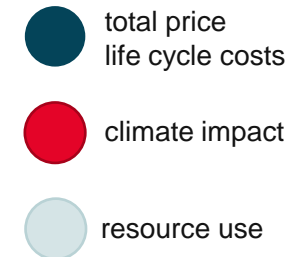
purchase without  
loop option

LinLoop



purchase and  
return

renting





# LinLoop | renting

renting is the new buying

## keyfacts about rental models

- reversible expansion products
- 5 to 10 years: 40% to 90% of the standard using period of 12 years
- notice period: 12 months (with partial takeover of remaining rent)
- no purchase: can only be extended as a follow-up contract
- deposit: 6 months' rent
- insurance by costumer
- modifications possible, rent adjustment at cost

# LinLoop | renting

renting is the new buying

## **Add.vantage for our costumers**

- sustainable investment / green finance
- active contribution to climate and resource protection and CO<sub>2</sub> savings
- No disposal costs / risk
- savings on dismantling costs
- pay as you earn: no pre-financing - improves liquidity and equity ratio and shortens the balance sheet
- high-quality materials and products that remain in loop
- all-round carefree package: advice, planning, installation and dismantling - everything from a single source!



# Floor systems

appropriate for renting and  
purchase and return

## raised floor systems

- NORTEC *aurum | power*
- LOOP *aurum | prime*
- LIGNA *power*
- RELIFE
- ALUVENT
- PRODATA

## Coverings

- parquet planks *magnet system | click system*
- textile *Fabromont | Interface | Desso*
- ceramics *Minero/Eterna | CLASSEN*

Please contact us for  
more information about  
the suitability of our  
products!

# Ceiling systems

appropriate for renting and  
purchase and return

- metal ceilings

*LMD-B 100 | LMD-B 110 | LMD-E 200 | LMD-E 210 | LMD-E 213  
LMD-E 214 | LMD-DS 315 | LMD-DS 320 | LMD-K 420  
LMD-St 213 | LMD-St 214 | LMD-St 215*

- heated and chilled ceilings

*Plafotherm® B 100 | Plafotherm® B 110 | Plafotherm® E 200 | Plafotherm® E 210  
Plafotherm® E 213 | Plafotherm® E 214 | Plafotherm® DS 315 | Plafotherm® DS 320  
Plafotherm® St 213 | Plafotherm® St 312 | Plafotherm® DS Tabs 78 / 125  
Hybrid ventilation elements | convection elements*

- baffle ceilings

*LMD-L 601 | LMD-L 607 | LMD-L 608 | LMD-L 609 | LMD-L LAOLA  
Plafotherm® -L 608 | Plafotherm® -L 609*

- sound absorber MUTE+ ®

Please contact us for  
more information about  
the system suitability of  
our products!

 **Lindner**

*The above products are only coated with standard colors. Special colors and acoustic coatings according to agreement will only be taken back after consultation.*



# Partitions and room-in-room systems

appropriate for renting and purchase and return

- glass partitions

*Life Pure 620 | Life Clear | Life Stereo 125 | Life Contour 126*

- room-in-room systems

*Cube solo | Cube duo | CAS Rooms*

- doors for system partition walls

*each incl. frame: ATB 42 | ATB 68 | ATB 100 | GTB 10 | GTB 13*

- Plus Acoustic Metal

Please contact us for more information about the system suitability of our products!

# Evidence for **Circular products**



# Product information

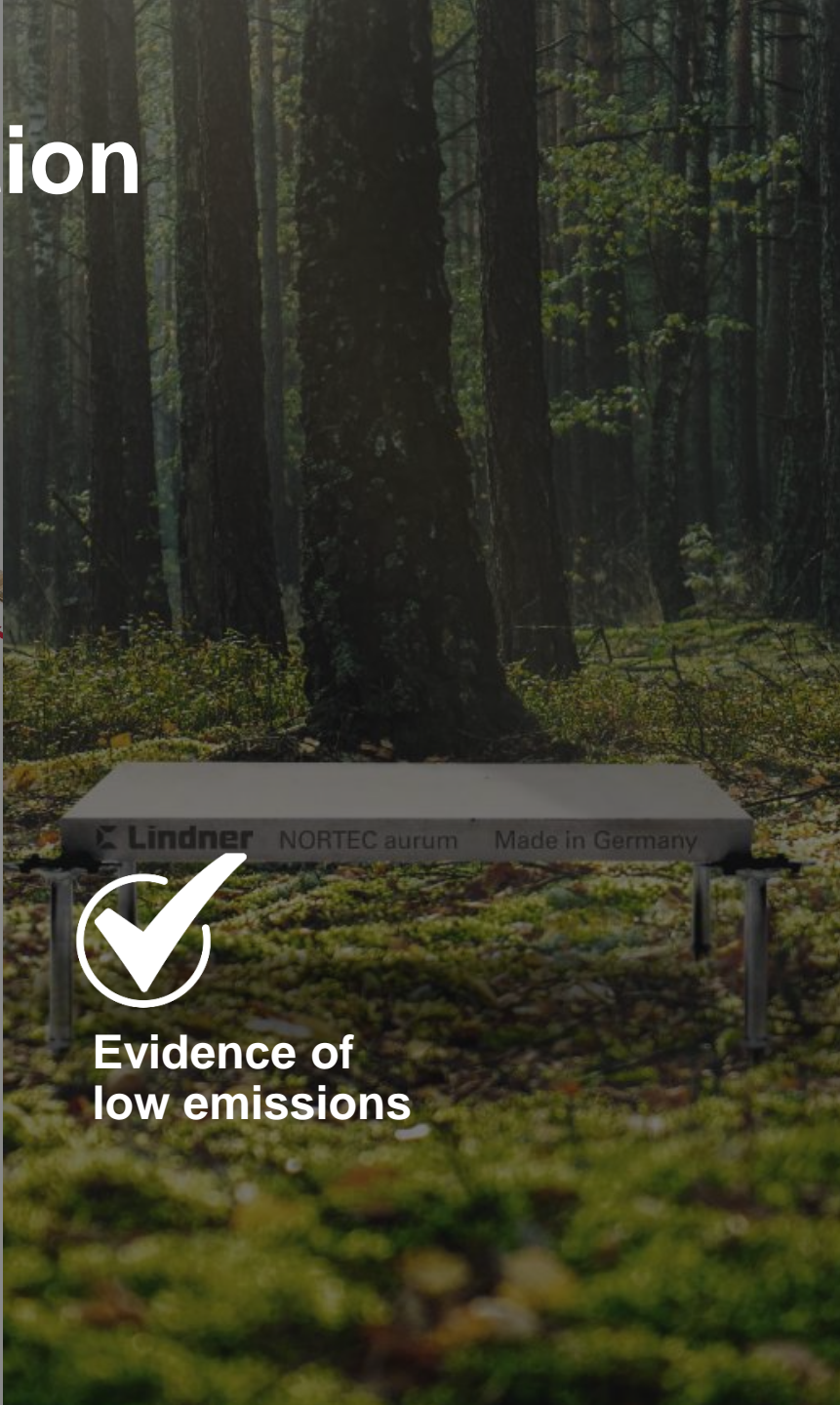
For circular products



✓  
Cradle to Cradle® Certified



Evidence of  
low emissions



CO<sub>2</sub> footprint via  
Environmental product  
declarations

 **Lindner**

# **EU Taxonomy and ESG**

## Facing challenges together





## EU Taxonomy: „the green credit card“

Classification system for sustainable economic activities and green investments

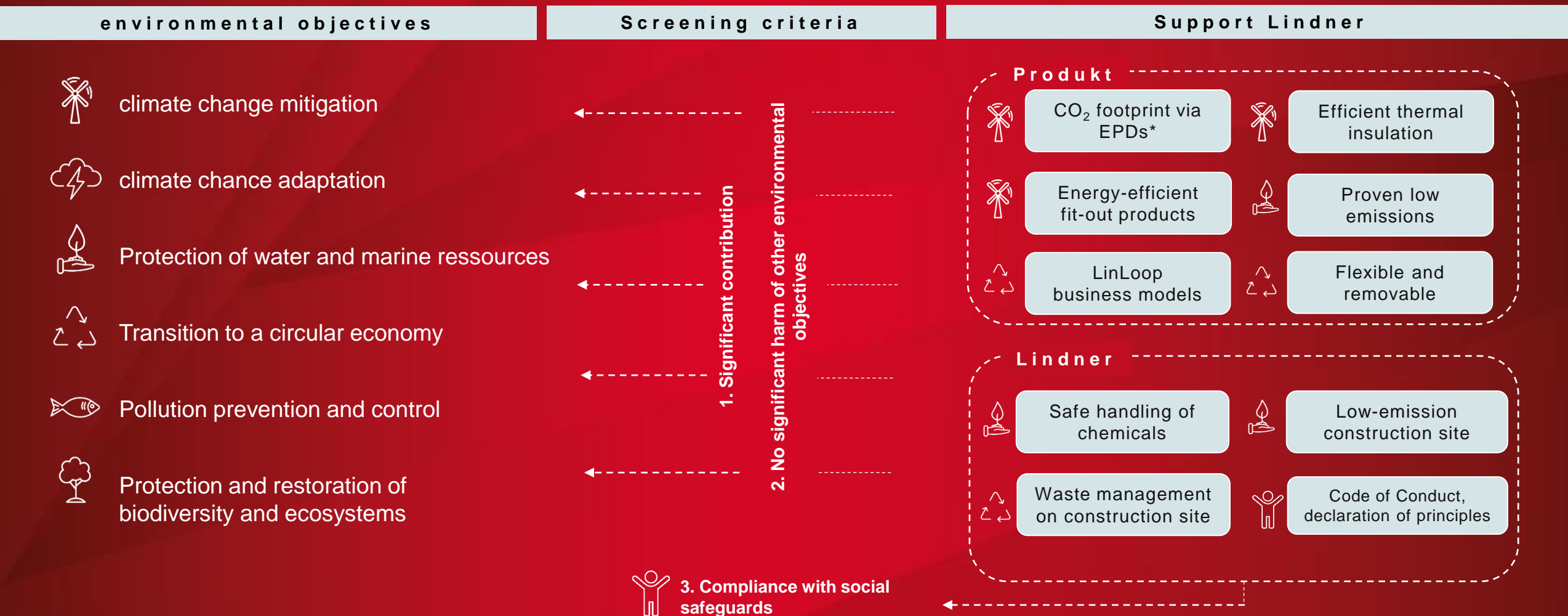
# EU Taxonomy

- Our products and services are designed to meet the technical assessment criteria, DNSH specifications\* and minimum social protection requirements are met.
- **If the client/developer is aiming for a project in accordance with the EU Taxonomy Regulation, we supply products with the appropriate certificates.**



# EU Taxonomy

How does Lindner support the implementation of the EU taxonomy in new buildings and renovations?





## ESG verification: „the green ID“

Proof of sustainable and therefore  
ESG-compliant buildings



# ESG verification

- The EU taxonomy requires defined ESG verifications for buildings.
- These can be confirmed with a separate ESG verification.
- Here too, our products make a positive contribution to the ESG verification of your building by third parties.



## ESG reporting - „the green CV“

Disclosure of ESG information  
about your company

# CV

Familienunternehmen seit 1965

Schön, dass wir uns kennen lernen! Wir freuen uns, dass Sie sich für uns interessieren – und wer weiß? Vielleicht ist das hier ja der Beginn einer gemeinsamen Zukunft. Hiermit wollen wir Ihnen einen Eindruck geben, wie es ist, ein Teil unserer Unternehmensfamilie zu sein. Als kleines Versprechen vorab: Ein Unternehmen wie die Lindner Group werden Sie kein zweites Mal finden.



### Kontakt

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[info@lindner-group.com](mailto:info@lindner-group.com)

2024

Staatlich gefördertes Projekt: internes Recyclingverfahren von Gipsabfällen

2023

Neue, zirkuläre Geschäftsmodelle

2022

Forschungsprojekt HORIZON 2020

2018

Madaster Kennedy Mitglied

2016

Erste Cradle to Cradle Certified® Produktzertifizierung

2015

Zertifiziertes Umweltmanagementsystem

2008

DGNB Gründungsmitglied

1993

Aktion Besser Bauen für Mensch und Umwelt

 **Lindner**

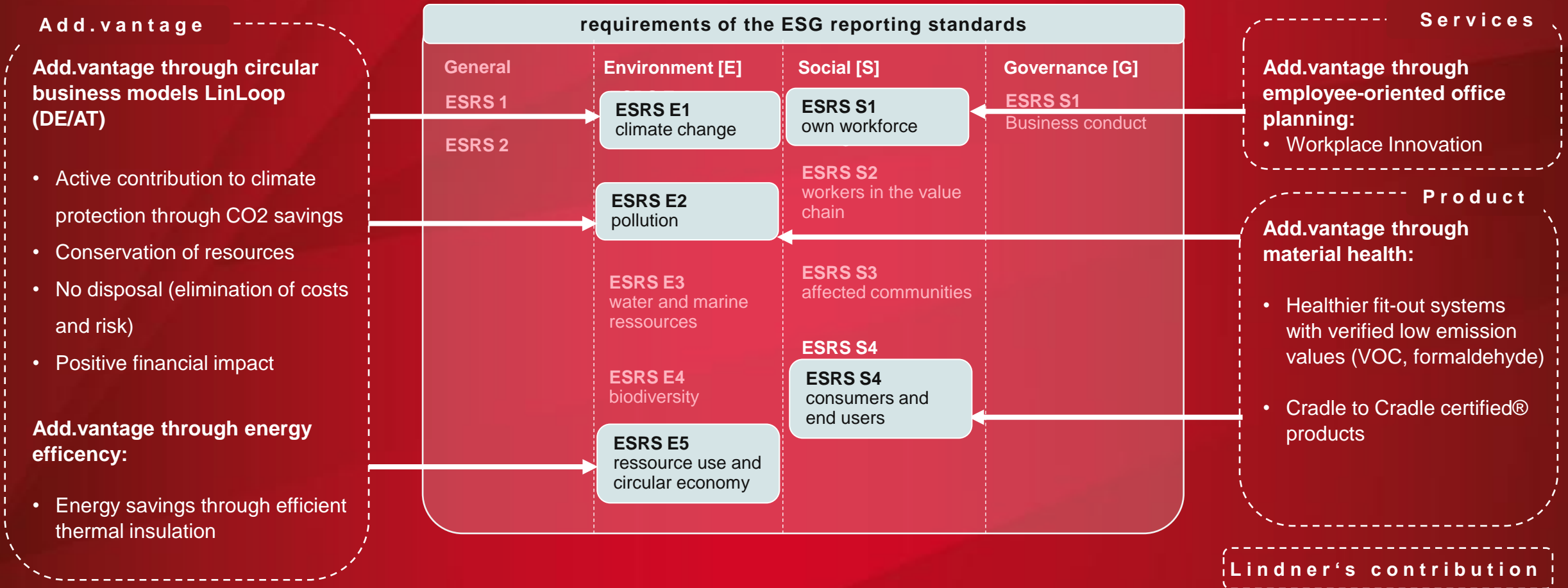


# ESG reporting

- In the future, more and more companies will be required to publish sustainability reports.
- Lindner delivers ecological and social added value as a company and through our products.
- As a part of your value chain, we can make an important contribution to your sustainability reporting.

# ESG reporting

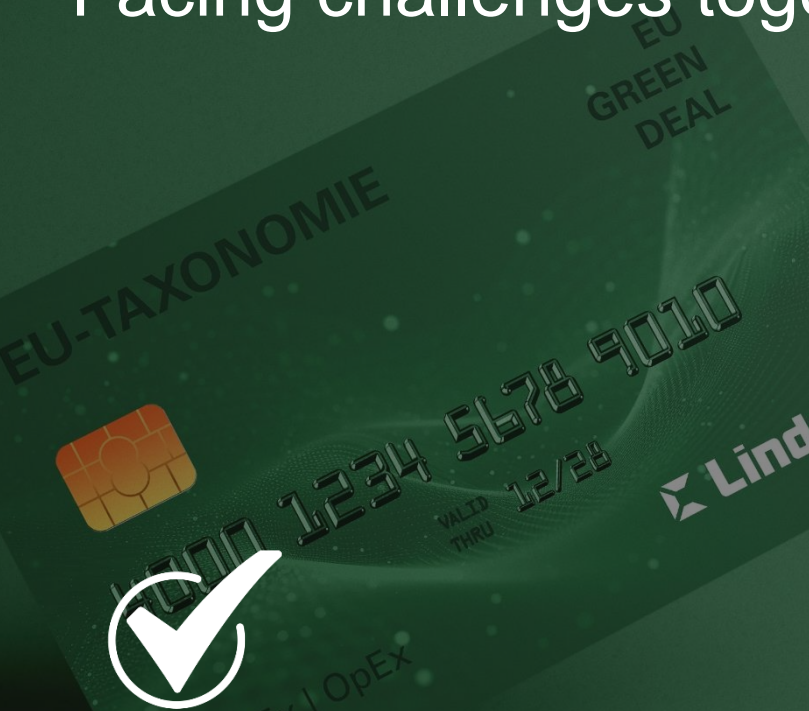
## Lindner's add.vantage for your non-financial reporting (CSRD)





# ESG und EU Taxonomy

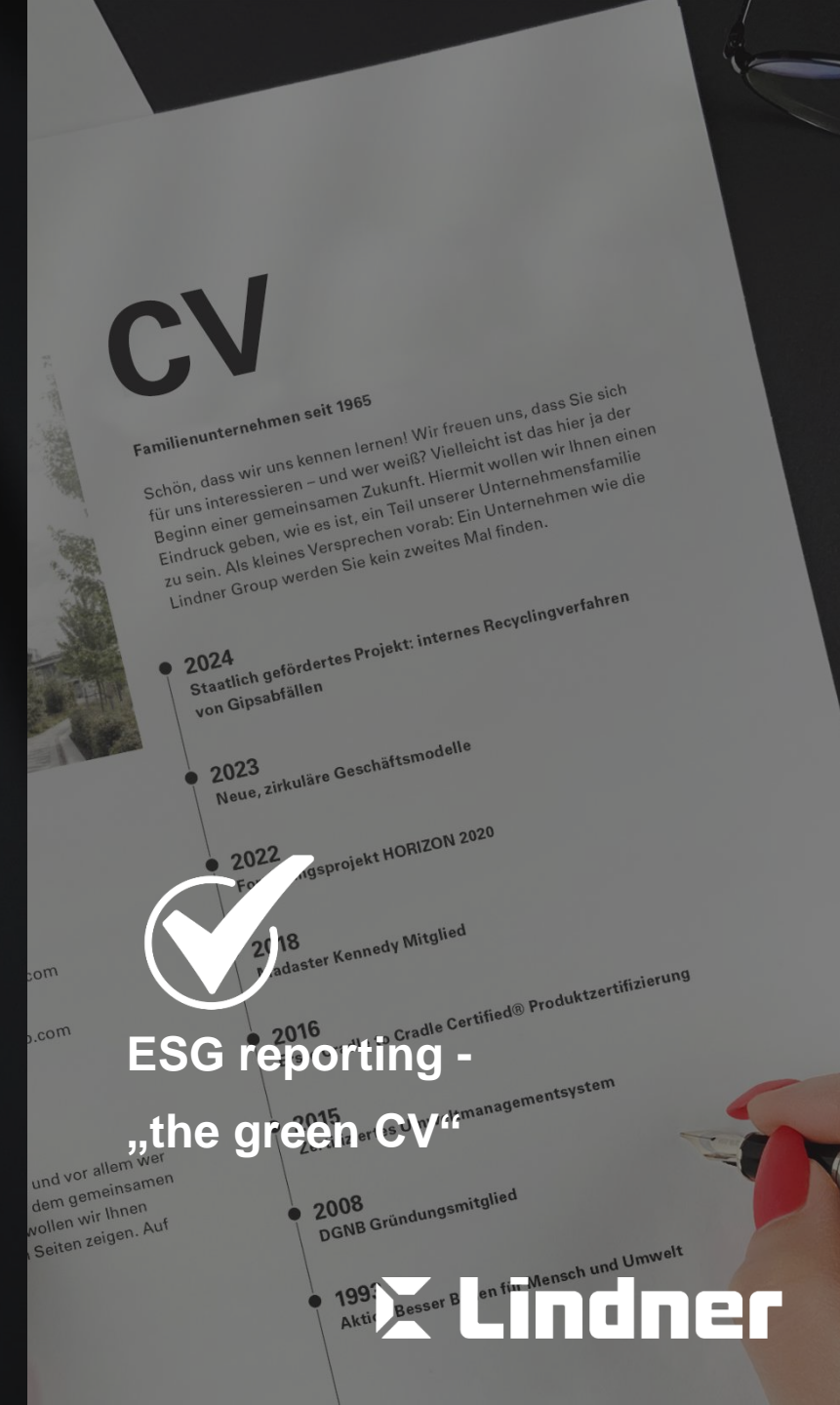
Facing challenges together



EU Taxonomy -  
„the green credit card“



ESG-Verification -  
„the green ID“



ESG reporting -  
„the green CV“

How to improve a perfect product?

**Reuse it!**



# Add...

## knowlegde / evidence / information

- Cradle to Cradle Certified® products program  
<https://www.lindner-group.com/en/expertise/green-building/cradle-to-cradle-certifiedr/>
- Building certification  
<https://www.lindner-group.com/en/expertise/green-building/building-certification-systems/>
- Environmental Product Declarations  
<https://ibu-epd.com/en/published-epds/>
- Self declarations  
<https://www.lindner-group.com/en/productfinder/>
- Sustainability  
<https://www.lindner-group.com/en/company/sustainability/>
- References  
<https://www.lindner-group.com/en/references/>

### Further information:

Cradle to Cradle Certified® is a registered trademark of the Cradle to Cradle Products Innovation Institute.



