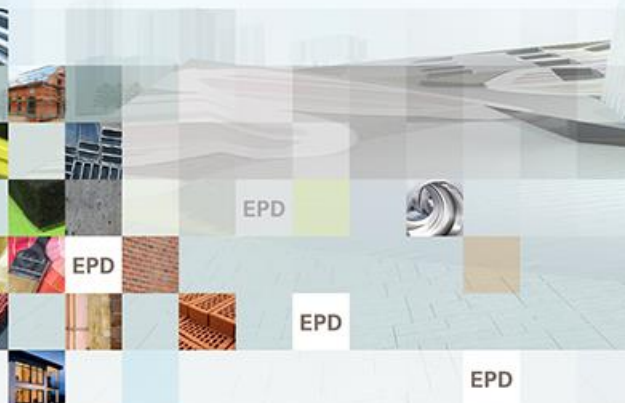


# EPDs; a competitive advantage in the international market

 Situation in Germany 



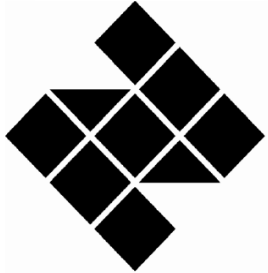
Dr. Burkhard Lehmann



Focusing on details. Seeing the big picture.

# EPDs in Building Rating Schemes

**BNB**



Nachhaltiges  
Bauen

Run by German  
government

25 projects

**Mandatory** for federal  
buildings with invest  
< 2 million €

**DGNB**

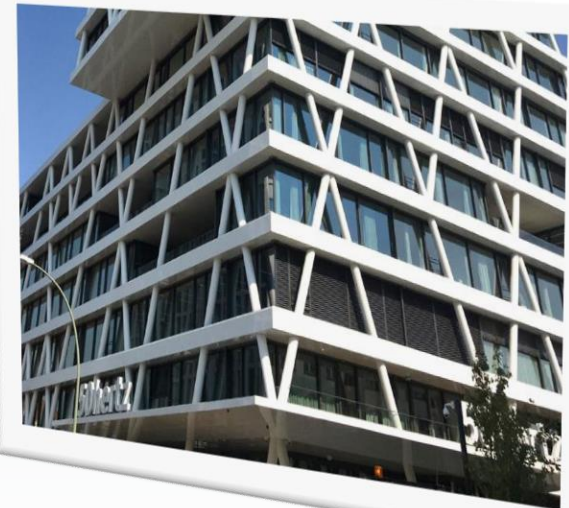


Run by private  
association

1138 projects

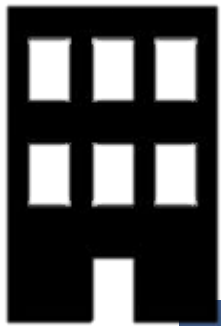
**New version 2017:**

- Responsible sourcing
- FM based planning
- dismantling & recycling



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# EPDs in Building Rating Schemes



Big residential buildings



residential building cooperatives



Small and medium residential buildings



Bewertungssystem  
Nachhaltiger  
Kleinwohnhausbau (BNK)

50 % funding by KfW for certification

Both schemes are adaptations of the basis systems of BNB/DGNB

# About IBU

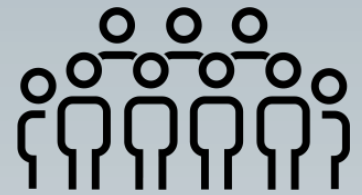


- IBU is an association of construction products manufacturers (voluntary)
- IBU members cover all construction material/product areas
- IBUs core task. EPD Programme for construction products; verification
- Association goes back to the late 1970s
- Several solutions of EPDs: Software-Tools, Model-EPDs, Sector-EPDs
- Full members **200**
  - > national and international trade associations: **38**
  - > Number of verified EPDs published: **>1600**

## Mutual recognition of EPDs with 7 Programme Operators



# Declaration owner at IBU



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# IBU EPD-Online-Tool

IBU offers a web-solution for EPD creation:

- about 1600 published EPDs according to EN 15804
- About another 150 EPDs in creation
- about 500 registered companies and LCA authors



Schreibtisch
Öffentliche EPDs
Benutzerverwaltung
Eigene Daten
Kontakte
Administration
Abmelden

EPD Dokument 7 / 9

**LCA: Results**

**DESCRIPTION OF THE SYSTEM BOUNDARY (X = INCLUDED IN LCA; MND = MODULE NOT DECLARED)**

PRODUCT STAGE	CONSTRUCTION PROCESS STAGE					USE STAGE							END OF LIFE STAGE		BENEFITS AND LOADS BEYOND THE SYSTEM BOUNDARIES		
	Raw material supply	Transport	Manufacturing	Transport	Construction-Installation process	Use	Maintenance	Repair	Replacement <sup>0</sup>	Returishment <sup>0</sup>	Operational energy use	Operational water use	De-construction demolition	Transport		Waste processing	Disposal
A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D	
X	X	X	MND	MND	MND	MND	MND	MND	MND	MND	MND	MND	MND	MND	MND	X	MND

**RESULTS OF THE LCA - ENVIRONMENTAL IMPACT: FU: 1 m<sup>2</sup> of ceramic wall tiles**

Parameter	Unit	A1	A2	A3	C4
Global warming potential	[kg CO <sub>2</sub> -Äq.]	4.15	0.277	5.31	0.183
Depletion potential of the stratospheric ozone layer	[kg CFC11-Äq.]	5.01E-7	3.75E-8	5.68E-7	4.28E-8
Acidification potential of land and water	[kg SO <sub>2</sub> -Äq.]	1.94E-3	3.79E-4	2.93E-3	3.68E-4
Eutrophication potential	[kg P(O <sub>5</sub> )-Äq.]	1.27E-2	7.05E-3	5.59E-3	9.23E-4
Formation potential of tropospheric ozone photochemical oxidants	[kg Ethen Äq.]	5.52E-3	3.89E-4	1.28E-3	2.38E-4
Abiotic depletion potential for non fossil resources	[kg Sb Äq.]	3.25E-2	2.01E-3	4.54E-2	1.96E-3
Abiotic depletion potential for fossil resources	[MJ]	72.1	4.57	93.4	4.51

**RESULTS OF THE LCA - RESOURCE USE: FU: 1 m<sup>2</sup> of ceramic wall tiles**

Parameter	Unit	A1	A2	A3	C4
Renewable primary energy as energy carrier	[MJ]	2.27	0.053	7.96	0.034
Renewable primary energy resources as material utilization	[MJ]	0	0	0	0
Total use of renewable primary energy resources	[MJ]	2.27	0.053	7.96	0.034
Non renewable primary energy as energy carrier	[MJ]	82.8	4.37	92.8	4.35
Non renewable primary energy as material utilization	[MJ]	0	0	0	0

**Eigenschaften** Bearbeiten

Bezeichnung: Ceramic Wall Tiles

Sprache: Englisch

Kategorie: 02 Bauprodukte

Innen-, Außenwand und Deckenbekleidungen

Deklarationsinhaber: Kaleseramik Çanakkale Kalebodur Ceramic Industries Inc.

Ökobilanz-Ersteller: Metsims Sustainability Consulting

Deklarationstyp: Kern-EPD

Status: Veröffentlicht

Erstellt am: 04.09.2012 10:01:14

Zuletzt geändert am: 16.10.2012 09:13:50

Zuletzt geändert von: Administrator Administrator

**Benutzer** Benutzer einladen

Nachname	Vorname	Email	Telefonnummer	Berechtigung
Spang	Robert	spang@bau-umwelt.com	022232966795	Verantwortlich

**Anhang** Anhang hinzufügen

Name

PCR Part A.docx

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# Applicability of EPD towards BIM

- Digital creation, verification and publication of EPD:

EPD Online Tool

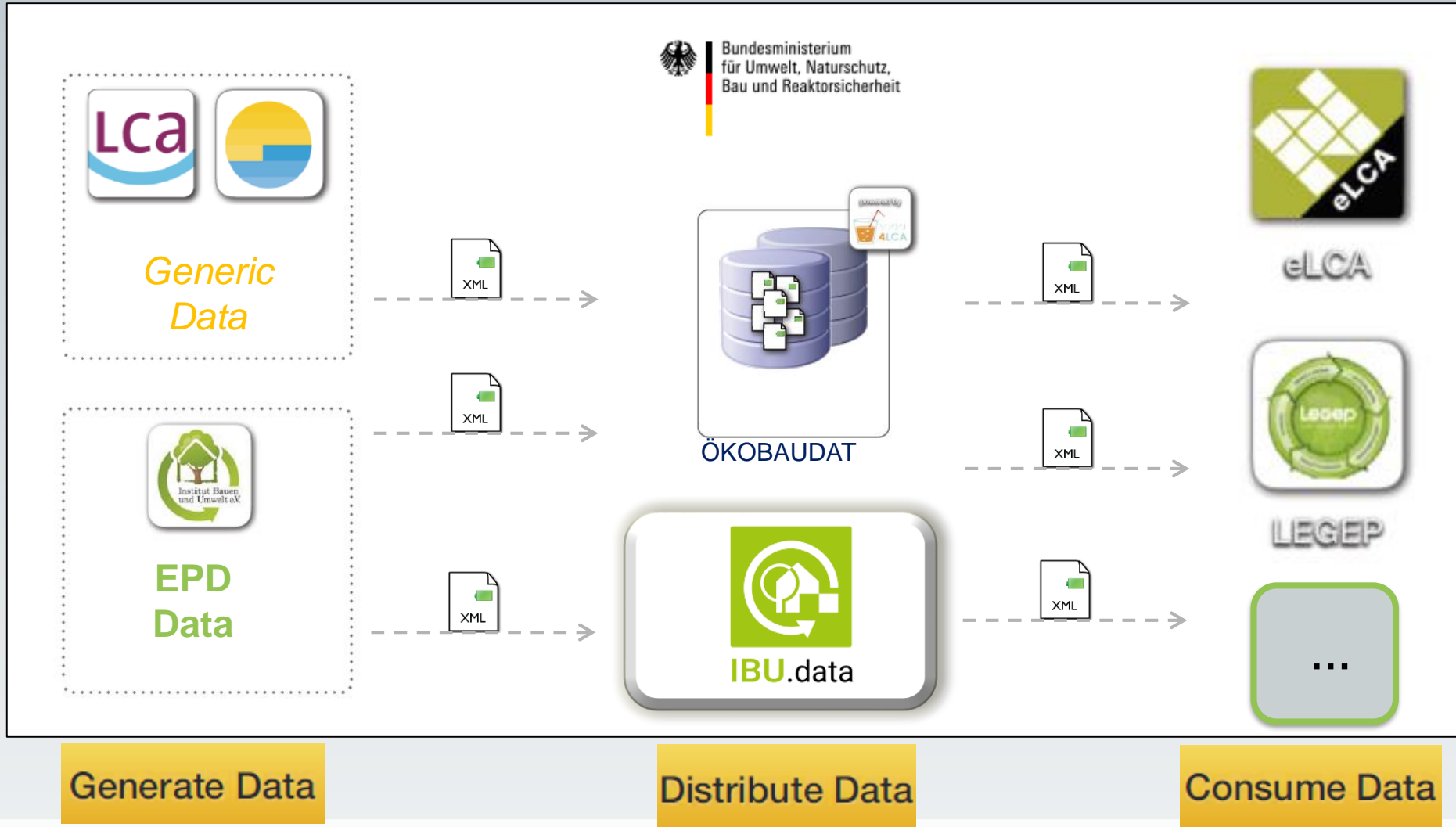


IBU.data

- Publication in digital format: **ILCD+EPD** (XML)

[www.ibu-epd.com/IBU.data](http://www.ibu-epd.com/IBU.data)

# Digital transfer and use of EPD data



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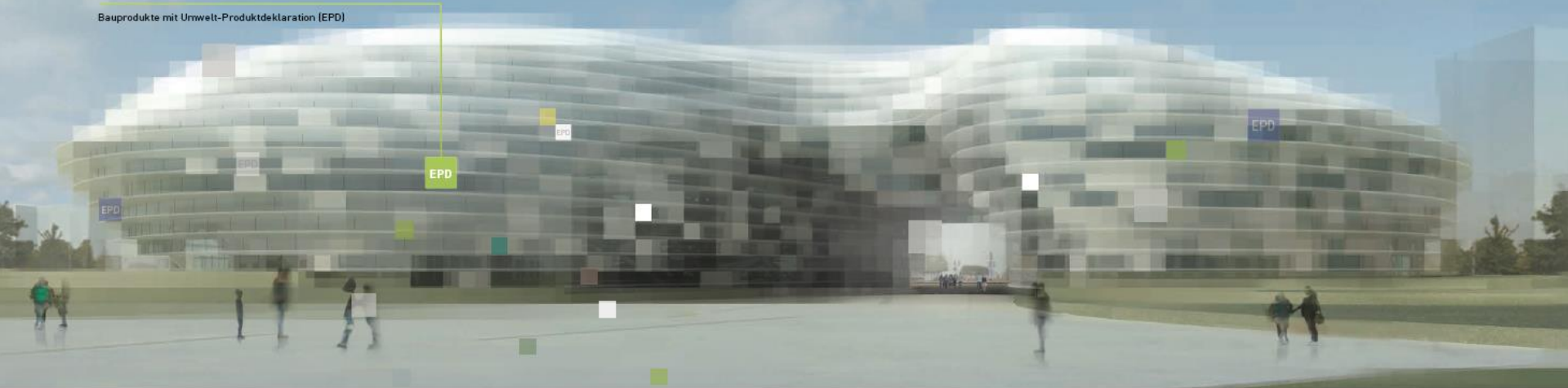
# Turnover construction industry Germany, sectors

in Mio. Euro,



## Für nachhaltiges Bauen.

Bauprodukte mit Umwelt-Produktdeklaration (EPD)



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