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Digitalization of building LCA and international activities – in the context of German assessment system for sustainable building

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**Bundesinstitut
für Bau-, Stadt- und
Raumforschung**

im Bundesamt für Bauwesen
und Raumordnung



Guiding instruments

- Guideline for Sustainable Building
- Assessment System for Sustainable Building (BNB)

binding for
federal buildings

widely used for
other buildings

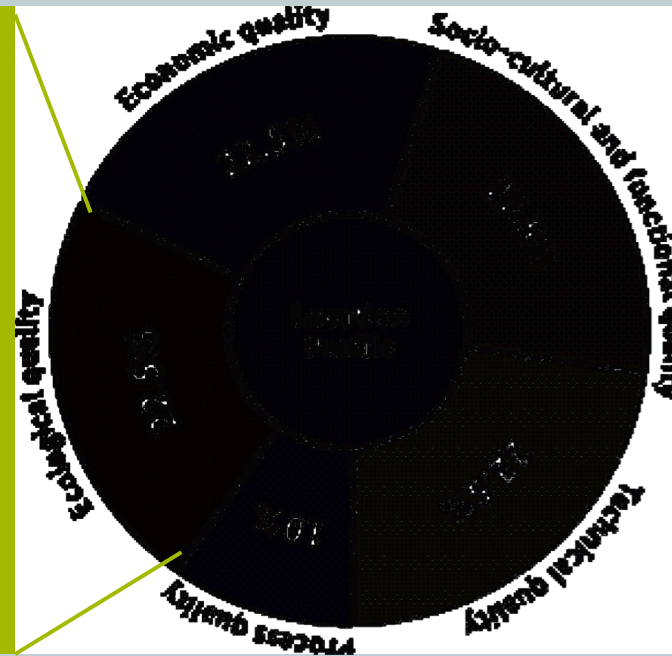
Centrally bundled
provisions of data
and tools by the
government

Transparent,
web-based, cost-
free, open-source,
publicly available
tools

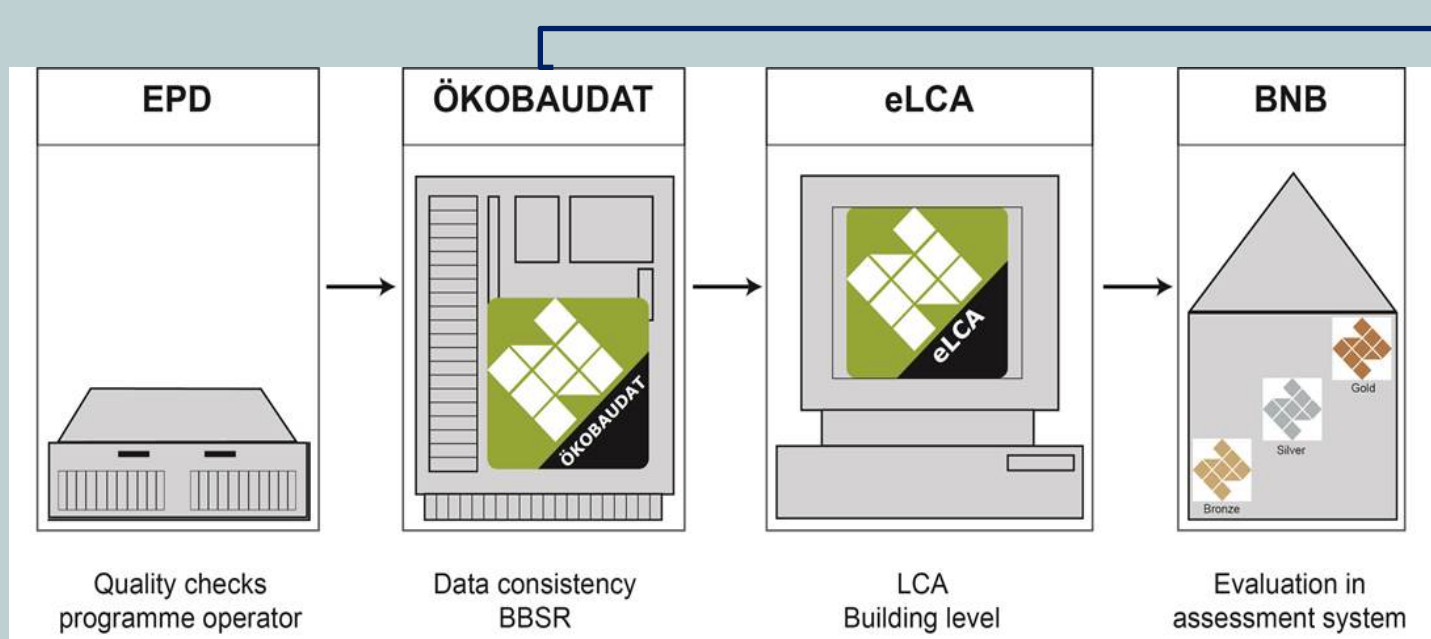
Ecological quality within BNB assessment system

Ecological quality - LCA:

- GWP Global warming potential
- ODP Ozone depletion potential
- POCP Photochemical ozone creation potential
- AP Acidification potential
- EP Eutrophication potential
- PE Primary energy demand



Digitalized LCA tool chain



ÖKOBAUDAT

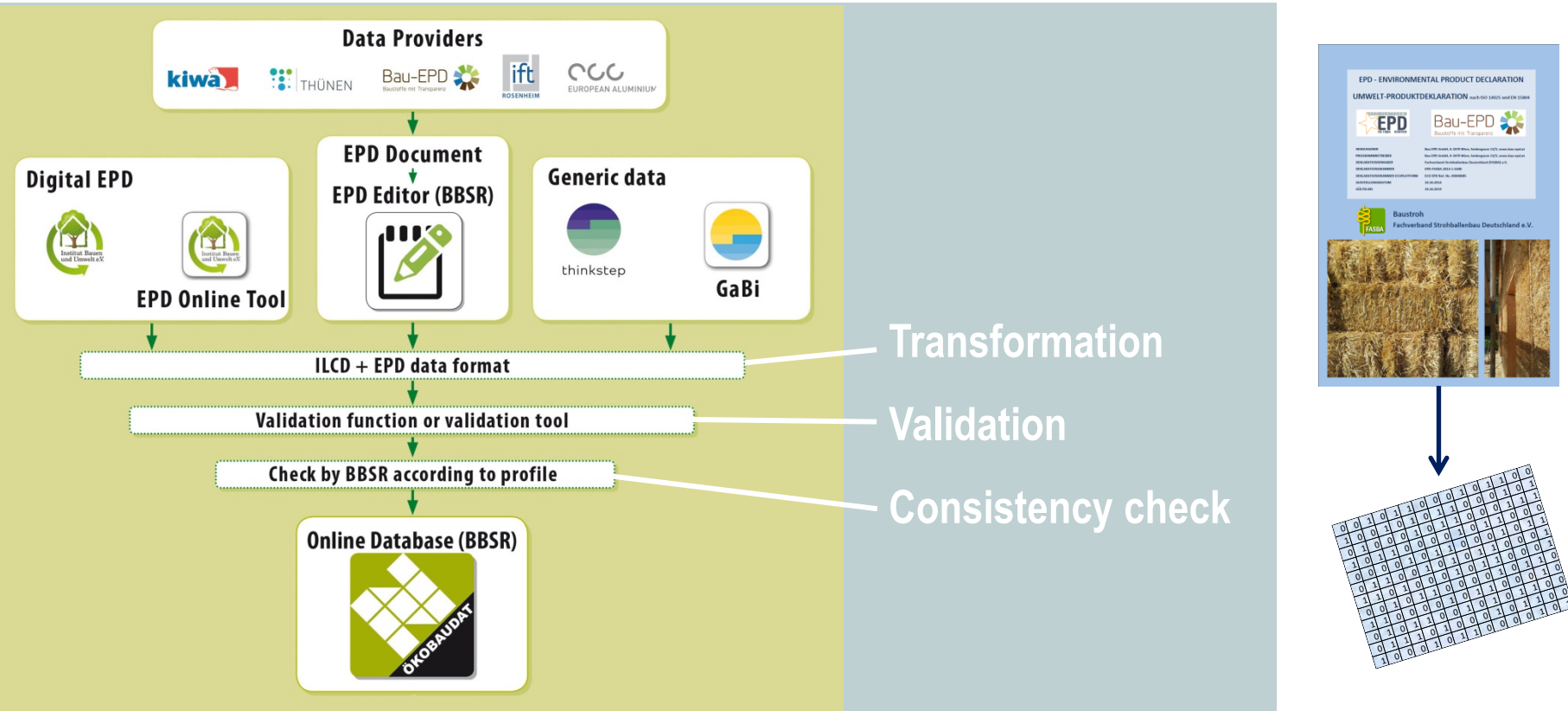
>1200 data sets
BNB-compliant

Generic + EPD

All EPD data:
EN 15804
compliant and
externally verified

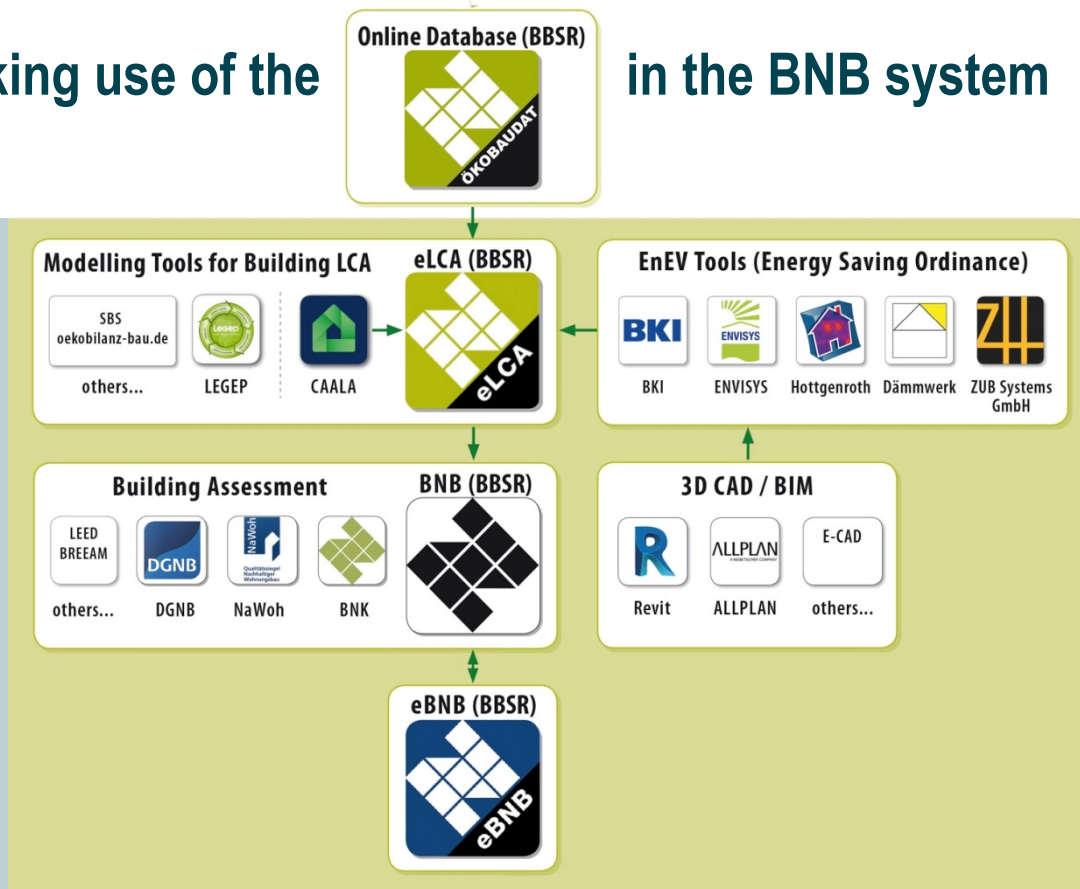
EPD ... Environmental product declaration

Digitalizing Environmental product declarations (EPD's)

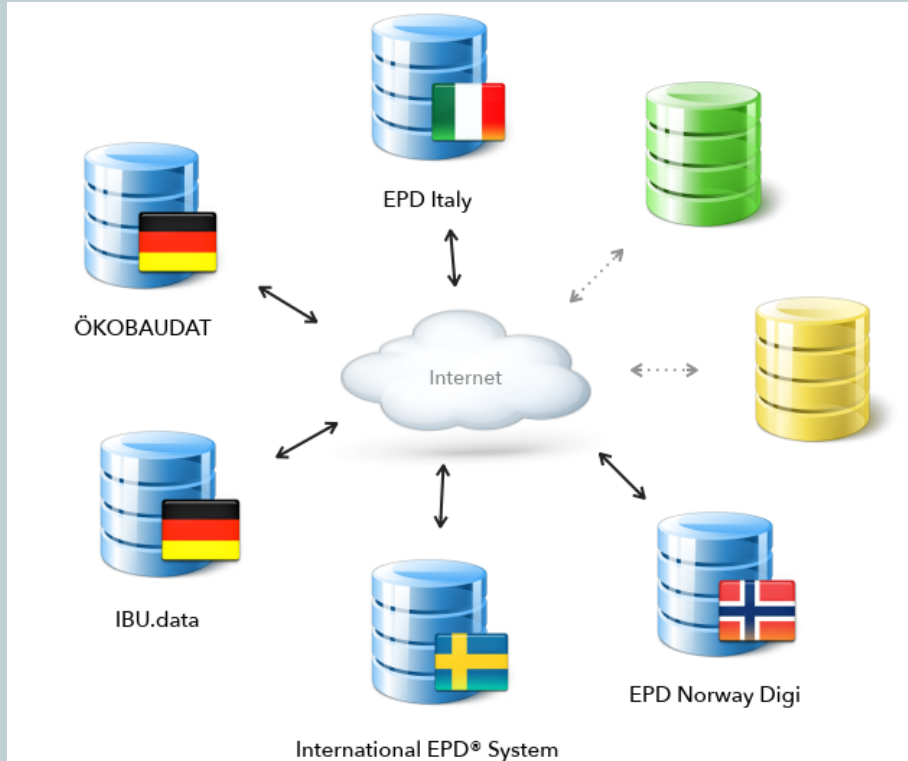


Making use of the

in the BNB system



International open data network



Data set request in the international search engine

Search results

License conditions of the individual data providers apply. Data resale prohibited

List datasets (Total number of entries:: 38 of 1) (Page 1 of 2)

 Reset Filter and Sorting

☒ Distributed Search

Name	Owner	Language	Locations	Reference year	Valid Until	Export	Node
cement	Search...		Choose	select	select		
UK Average Portland Cement	MPA - Mineral Products Association UK	en	 GB	2017	2022	View Download as XML	IBU.data
Rendering mortar - Reinforcement Fibre Plaster	Sto SE & Co. KGaA	en	 DE	2017	2019	View Download as XML	IBU.data
Fibre Cement Corrugated Sheets	Cembrit Holding A/S	en	 DK	2016	2021	View Download as XML	IBU.data
Portland-composite cement CEM II/A-M (S-LL) 52,5 N	CEMEX Ltd	en	 LV	2016	2021	View Download as XML	IBU.data
Fibre Cement Slates	Cembrit Holding A/S	en	 DK	2016	2021	View Download as XML	IBU.data
Cement mortar	thinkstep	en	 DE	2016	2019	View Download as XML	ÖKOBAUDAT
Cement (CEM IV 42,5); CEM IV 42,5	thinkstep	en	 DE	2016	2019	View Download as XML	ÖKOBAUDAT

still missing



Open international
data network



Common quality rules



Common core
information



Background database



Mandatory 3rd party
verification of data



Different types of
data



EN 15804 compliant



Information in English



ILCD+EPD data
format



Data free of charge

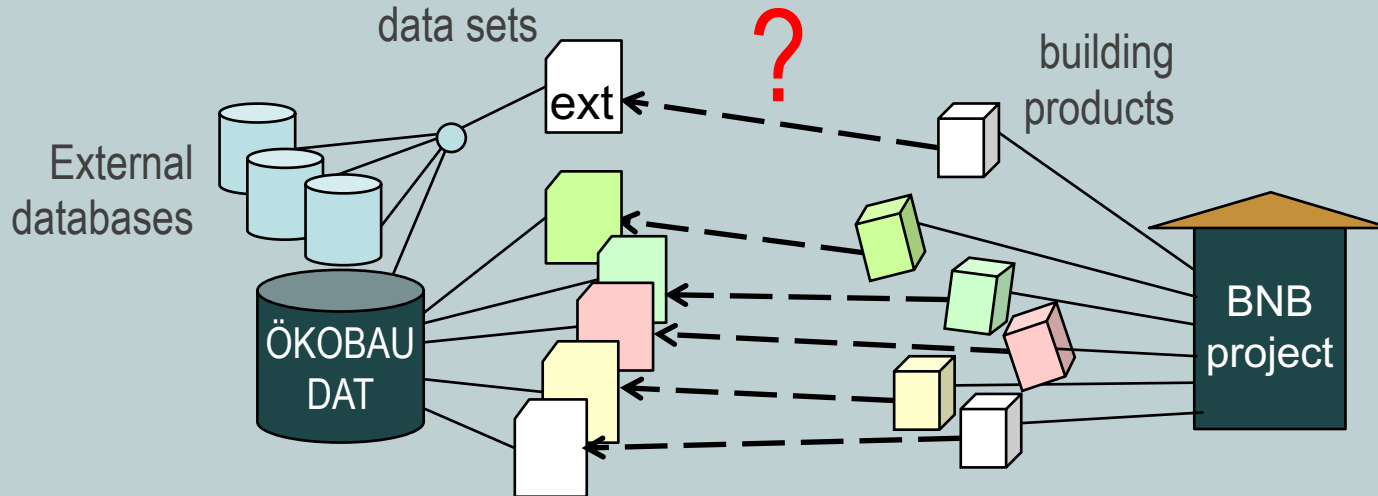
Summary and open question

Technical infrastructure developed

Core rules are agreed on
(substantially EN 15804 +
independent external verification)

How can the user evaluate the
conformity of external data sets?

Extension of the data format with
transparency creating data fields?



Thank you for your attention

Links to further information:

ÖKOBAUDAT: <https://www.oekobaudat.de/en.html>

Soda4LCA, EPD-Editor, Validation tool, etc.:

<https://www.oekobaudat.de/service/downloads.html>

eLCA: <https://www.bauteileeditor.de/>

BNB: <https://www.bnb-nachhaltigesbauen.de/>

InData: <https://www.indata.network/>