

**EPDs in medium-term perspective:
The demand will increase**



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Delegate of ARGE at CEN TC 350

A bit of background..



Olympia Dolla

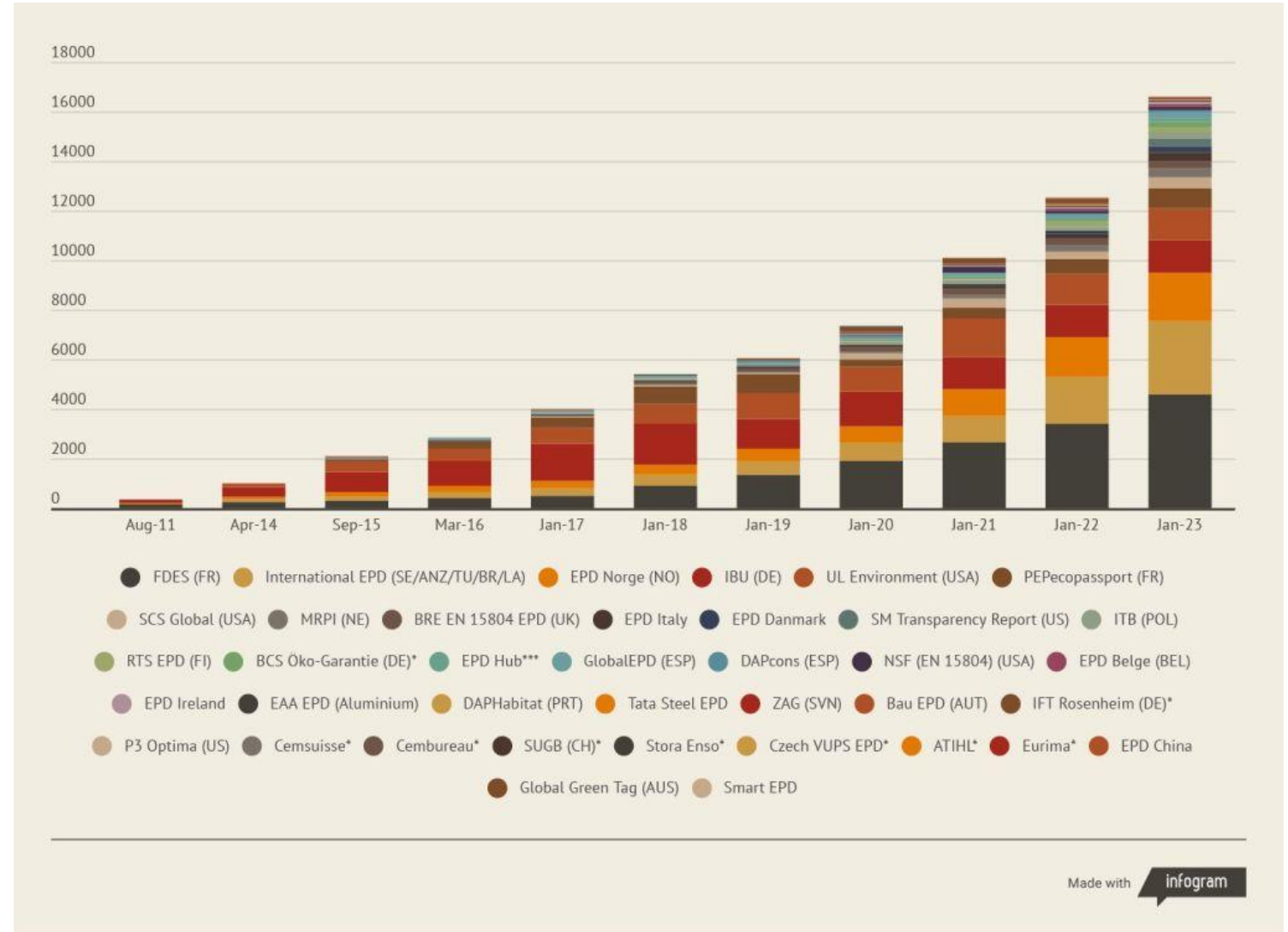
- Sustainability Program Manager at ASSA ABLOY.
- Environmental scientist with specialization in Energy and Materials.
- Experience with EU associations for construction and chemicals industries. Sustainability Public Affairs for the European Mineral Wool Insulation industry (Eurima) and the European Paints industry (CEPE).
- Responsible for Sustainability, circularity, LCA, EPDs etc. Deep knowledge of EN15804 and PEF methods. Actively involved in WGBC.
- Involved for several years in standardization. Currently representing ARGE at CEN TC 350.
- Sustainability Task Group leader at Construction Products Europe (CPE).
- Vice President of ECO Platform, an umbrella organisation for EPD Programme Operators
- Member of the Horizontal expert group Environmental Sustainability of the CPR Acquis (representing both CPE and ECO Platform).

Content

- ➔ EPDs: today
- ➔ Future of EPDs: in the context of the CPR
- ➔ Are we ready to comply?
- ➔ EPDs and the connection to the Building level

EPDs today:

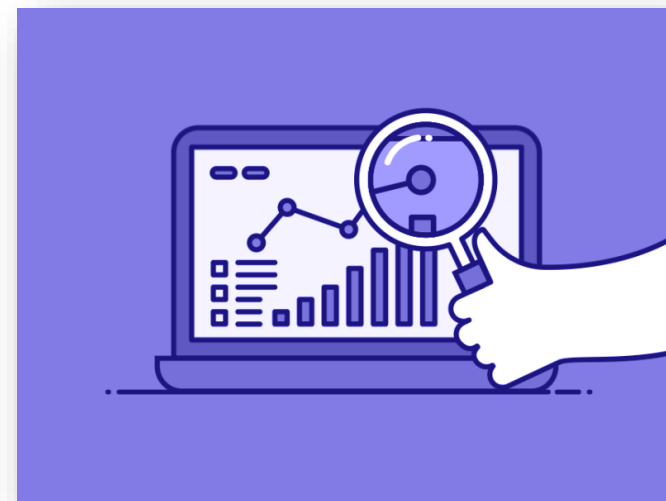
- There are more than 130,000 EPDs for construction products available globally.
- More than 30% of these are according to EN15804 standard.



Source: Construction LCA <https://constructionlca.co.uk/>

EPDs today:

- Big increase for more transparency and information. Transparency and disclosure are differentiating factors in the market.
- Customers (retailers, architects, etc.) are becoming more environmental conscious.
- From a checklist item to an important factor to build a building.
- Challenges:
 - rather costly especially for SMEs
 - complex information – not easy to explain
 - Still a big data gap to ensure a full assessment at the building level
 - Lack of expertise to create and verify an EPD

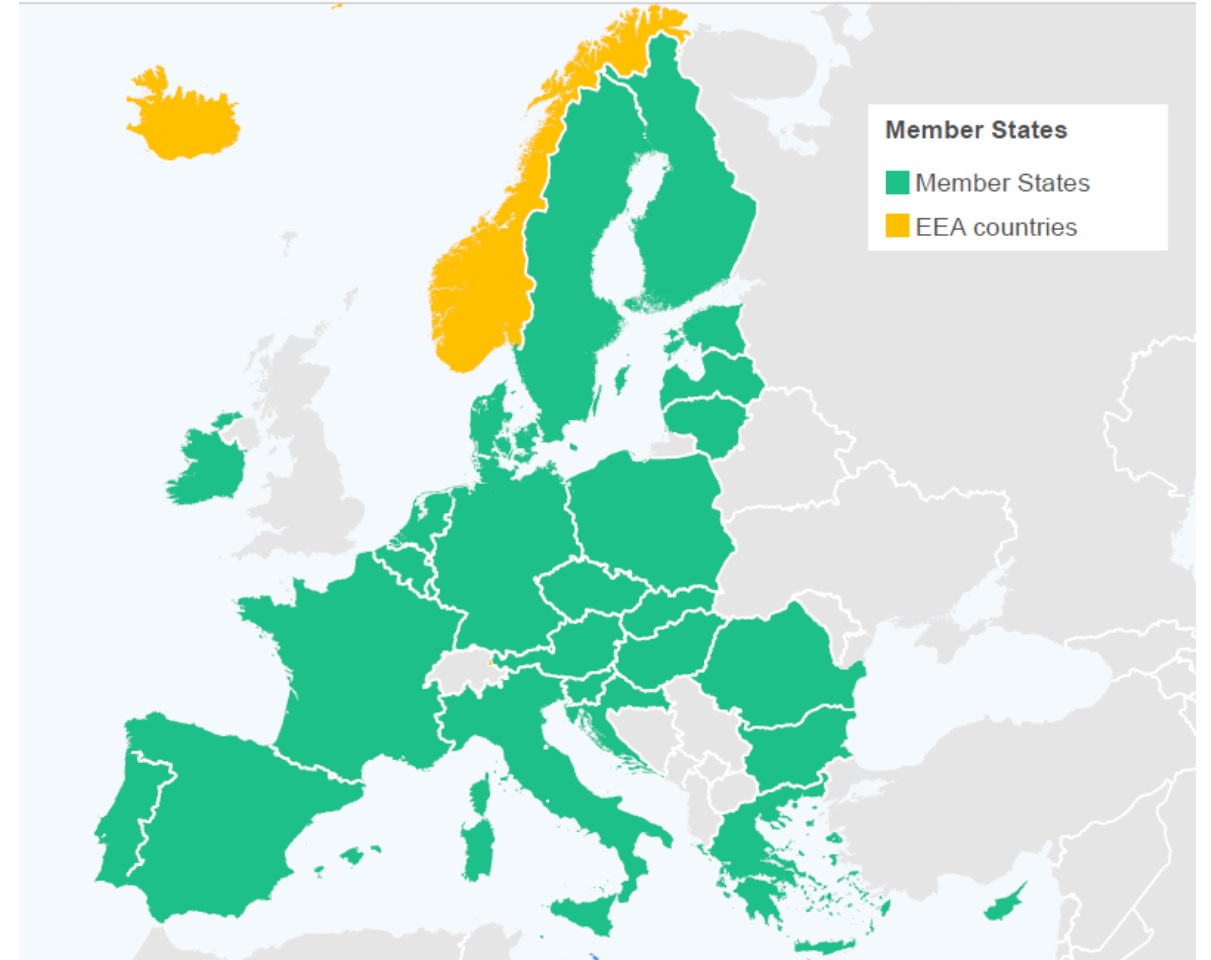


EPDs in the context of the CPR:

- A big win is the methodology – EN15804+A2!
- Objective: to use the current system as basis and adapt it in the regulatory framework. From the creation of an EPD to its 3rd party verification and digital accessibility.
- On-going discussions how to make it ready to be adapted in the Acquis procedure – important for the first product groups to deliver this info!
- Full speed application in auto pilot – Revision of the Regulation.

CPR Acquis

- EU COM expert group E03776
- MS+ EEA countries
- Stakeholders:
 - CPE
 - ECOS
 - EBC
 - FIE
 - CEN/CENELEC



CPR Acquis: Environmental Sustainability


Steering group

Fire

Dangerous substances

Environmental sustainability

2021	1	Precast concrete products	13	Floorings	25	Gypsum
2021	2	Structural metallic products	14	ETICs	26	Anchors and fasteners
2022	3	Reinforcing prestressing steel	15	Curtain walling	27	Membranes
2022	4	Doors, windows and shutters	16	Wood based panels	28	Glass
2023	5	Cement	17	Structural bearings	29	Geotextiles
2023	6	Thermal insulating products	18	Kits and assemblies	30	Sanitary appliances
...	7	Structural timber products	19	Wall and ceiling finishes	31	Pipes and tanks
	8	Concrete, mortar and grout	20	Space heating appliances	32	Cables
	9	Masonry	21	Roof coverings	33	Chimneys
	10	Aggregates	22	Circulation fixtures	34	Sealants
	11	Fixed firefighting equipment	23	Waste water disposal		
	12	Road construction products	24	Adhesives		



Representative of
CPE/ ECO Platform

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European Commission

Expert group defines the elements that will be part of the standardization request that will be sent to CEN to deliver the relevant product standards in compliance with these rules.

CPR Acquis: Environmental Sustainability

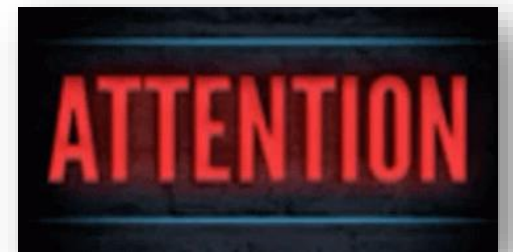
Annex 2 – Gantt chart

Task Name	2022			2023												2024			
	10	11	12	01	02	03	04	05	06	07	08	09	10	11	12	01	02	03	04
Milestone A: Essential characteristics																			
1 Life cycle assessment indicators																			
2 Resource use indicators																			
3 Waste indicators																			
4 Output flows indicators																			
5 Biogenic carbon indicators																			
6 Carbon removals																			
7 Other indicators, if required																			
Milestone B: Assessment methods																			
1 Methodology for the assessment																			
2 Declaration of the performance																			
3 Modularity																			
4 Scenarios																			
5 Reference service life																			
6 Simplification																			
7 Benchmarking																			
8 Modelling rules																			
9 Allocation, if required																			
10 Other issues, if required																			
Milestone C: Verification																			
1 Third party verification delegated acts																			
2 Third party verification new CPR																			
Milestone D: Datasets and data quality																			
1 Background datasets potential problems																			
2 Endorsed background datasets																			
3 Data quality requirements																			
Milestone E: Compulsory declaration																			
1 Compulsory declaration current CPR																			
Milestone F: Guidance dossiers																			
1 Develop guidance for the dossiers																			

- Discussions are very horizontal beyond products groups.
- OR vertical which are technical & VERY POLITICAL too!
- E.g. how recycled content is defined for structural metallic products
- The group will also be scrutinize the c-PCR for Building Hardware!

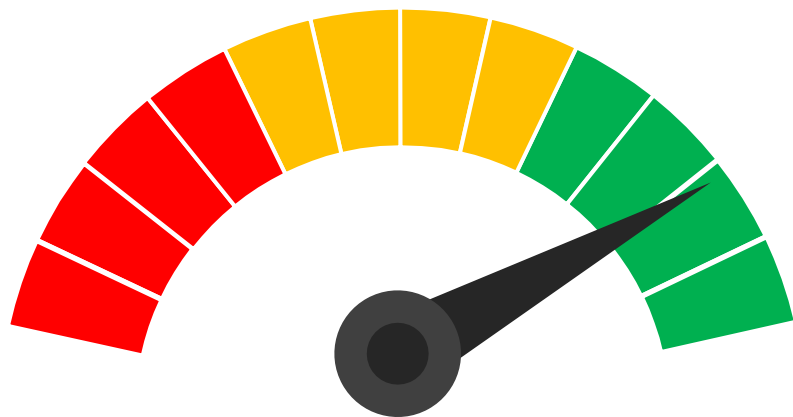
EPDs in the new CPR

- Gradual increase as product group per product group will start delivering this requirement once the products are placed in the market.
- This information shall be provided for each product type.
- That means more than 400.000 manufacturers will be subject to this.
- Market surveillance, penalties and possible court cases in case of greenwashing!





**A million Euro question is:
Are we ready to comply with the Environmental Sustainability
requirement of the new CPR?**



COMPLIANCE METER



**We are ready! The requirement is to disclose.
For ARGE members this is due to 2 basic
ingredients!**

- C-PCR Building Hardware compliant with the latest EN15804+A2*
- ARGE EPDs for the product categories subject to CE marking because they are considered as “worst-case” scenario EPDs.

Important note!

- The mandatory declaration requirements apply to product groups that are subject to harmonized standards.
- Voluntary standards will remain in the zone of the voluntary declaration!
- Expected that these products too will see an increase in demand of this information!



ENVIRONMENTAL PRODUCT DECLARATION

as per ISO 14025 and EN 15804+A2

Preliminary – EPD
still in verification

Owner of the Declaration: ARGE
Publisher: Institut Bauen und Umwelt e.V. (IBU)
Programme holder: Institut Bauen und Umwelt e.V. (IBU)
Declaration number: EPD-ARG-20160192-IBG1-EN
Issue date: EPD in verification, issuance expected for July 2023
Valid to:

Door and windows handles
ARGE



LCA: Results Please note – EPD in verification

In Table 1 "Description of the system boundary", the declared modules are indicated with an "X"; all modules that are not declared within the EPD but where additional data are available are indicated with "MND". Those data can also be used for building assessment scenarios. The values are declared with three valid digits in exponential form. DESCRIPTION OF THE SYSTEM BOUNDARY (X= INCLUDED IN LCA AND M= MODULE OR INDICATOR NOT DECLARED) MNR = MODULE NOT RELEVANT

Product stage			Use stage										End of life stage				Benefits and loads beyond the system boundaries
Raw material supply	Transport	Manufacturing	Transport from the gate to the site	Assembly	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use	Decommissioning	Transport	Waste processing	Disposal	Reuse, recycling potential	
A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D	
X	X	X	X	X	MND	MND	MNR	MNR	MNR	MND	MND	X	X	X	X	X	

RESULTS OF THE LCA – ENVIRONMENTAL INDICATORS according to EN 15804+A2: 1 kg of door or window handle

Parameter	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
GWP-ass	kg CO ₂ eq	6.47E+00	1.04E+00	1.3E+00	0	1.57E-02	3.37E-03	7.47E-03	-1.83E+00
GWP-assat	kg CO ₂ eq	7.71E+00	1.04E+00	5.13E-02	0	1.57E-02	3.37E-03	7.46E-03	-1.83E+00
GWP-biogenic	kg CO ₂ eq	-1.25E+00	0	1.25E+00	0	0	0	0	0
GWP-fossil	kg CO ₂ eq	1.75E-02	4.16E-04	7.99E-06	0	6.26E-06	8.39E-06	3.64E-06	-3.65E-03
ODP	kg CFC11 eq	6.36E-07	2.21E-07	4.96E-09	0	3.69E-09	1.71E-10	1.27E-09	-1.03E-07
AP	mol H ⁺ eq	3.94E-01	2.96E-03	6.6E-05	0	4.49E-05	1.72E-05	3.24E-05	-1.19E-01
EP-freshwater	kg P eq	1.69E-03	7.42E-06	1.5E-07	0	1.12E-07	3.79E-07	6.39E-08	-5.29E-04
EP-marine	kg N eq	2.19E-02	5.57E-04	1.61E-05	0	8.84E-06	2.22E-06	1.1E-06	-5.91E-03
EP-terrestrial	mol N eq	4.31E-01	6.66E-03	1.79E-04	0	8.66E-05	2.97E-05	1.3E-05	-6.47E-02
POCP	kg NANOC eq	7.66E-02	2.62E-03	6.67E-05	0	3.79E-05	7.03E-06	3.64E-05	-2.36E-02
ADPE	kg Sb eq	8.71E-03	3.69E-06	7.09E-09	0	5.55E-08	8.16E-09	1.43E-08	-2.93E-03
ADPF	MJ	1.03E+02	1.59E+01	3.01E-01	0	2.37E-01	7.13E-02	9.49E-02	-2.23E+01
ADP	mol world eq deprived	6.94E+00	4.8E-02	1.21E-03	0	7.23E-04	7.97E-04	-4.06E-04	-2.08E+00

GWP = Global warming potential; ODP = Depletion potential of the stratospheric ozone layer; AP = Acidification potential of land and water; EP = Eutrophication potential; POCP = Formation potential of tropospheric ozone photochemical oxidants; ADPE = Abiotic depletion potential for non-fossil resources; ADPF = Abiotic depletion potential for fossil resources; WDP = Water (user) deprivation potential

RESULTS OF THE LCA – INDICATORS TO DESCRIBE RESOURCE USE according to EN 15804+A2: 1 kg of door or window handle

Parameter	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
PERE	MJ	1.63E+01	2.22E-01	-7.05E-01	0	3.34E-03	1.35E-02	1.46E-03	-5.42E+00
PERM	MJ	7.62E+00	0	-6.19E+00	0	0	0	0	0
PERF	MJ	2.61E+01	2.22E-01	-6.86E+00	0	3.34E-03	1.35E-02	1.46E-03	-6.43E+00
PENRE	MJ	1.02E+02	1.59E+01	7.35E-01	0	2.37E-01	7.26E-02	1.16E-01	-2.24E+01
PENRM	MJ	3.16E-01	0	-4.34E-01	0	0	0	-2.12E-02	0
PENRT	MJ	1.04E+02	1.59E+01	3.01E-01	0	2.37E-01	7.26E-02	9.49E-02	-2.24E+01
SM	kg	5.43E-01	0	0	0	0	0	0	0
RSF	MJ	0	0	0	0	0	0	0	0
NRSP	MJ	0	0	0	0	0	0	0	0
PW	m ³	0	0	0	0	0	0	0	0

PERE = Use of renewable primary energy excluding renewable primary energy resources used as raw materials; PERM = Use of renewable primary energy resources used as raw materials; PERF = Total use of renewable primary energy resources; PENRE = Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials; PENRM = Use of non-renewable primary energy resources used as raw materials; PENRT = Total use of non-renewable primary energy resources; SM = Use of secondary material; RSF = Use of renewable secondary fuels; NRSP = Use of non-renewable secondary fuels; PW = Use of net fresh water

RESULTS OF THE LCA – WASTE CATEGORIES AND OUTPUT FLOWS according to EN 15804+A2: 1 kg of door or window handle

Parameter	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
HWD	kg	3.07E-03	4.12E-05	8.81E-07	0	6.2E-07	2.53E-08	1.8E-07	-6.41E-04
RWD	kg	3.07E+00	8.31E-01	1.69E-02	0	1.25E-02	7.68E-04	3.88E-01	-9.02E-01
RWD	kg	7.68E-04	2.28E-04	4.27E-06	0	3.44E-06	9.59E-07	1.22E-06	-1.29E-04
CRU	kg	0	0	0	0	0	0	0	0
NRU	kg	8.48E-02	0	7.71E-01	0	0	9.94E-01	0	0

HWD = Hazardous waste; RWD = Recycled waste; CRU = Compostable waste; NRU = Non-recyclable waste

Declaration of Performance

Nr.:

1. Unique identification code of the product-type:

Controlled door closing devices according to EN 1154:1996/A1:2002/AC:2006

2. Intended use/s:

Door closer for smoke and fire doors according to EN 1154:1996/A1:2002/AC:2006

3. Manufacturer:

4. Authorised representative:

N.N.

5. System/s of AVCP:

System 1 according to EN 1154:1996/A1:2002/AC:2006

6.a Harmonised standard:

Notified body	Harmonised standard	Certificate of Constancy of performance
	EN 1154:1996 A1:2002/AC:2006	

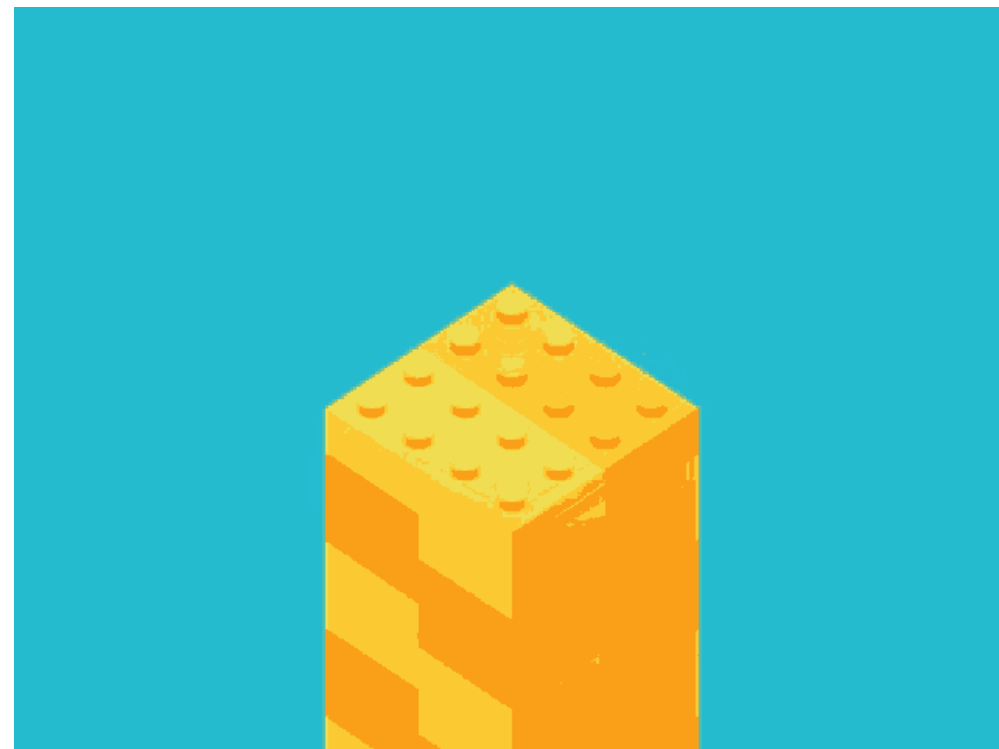
The product is covered by other EC-directives:

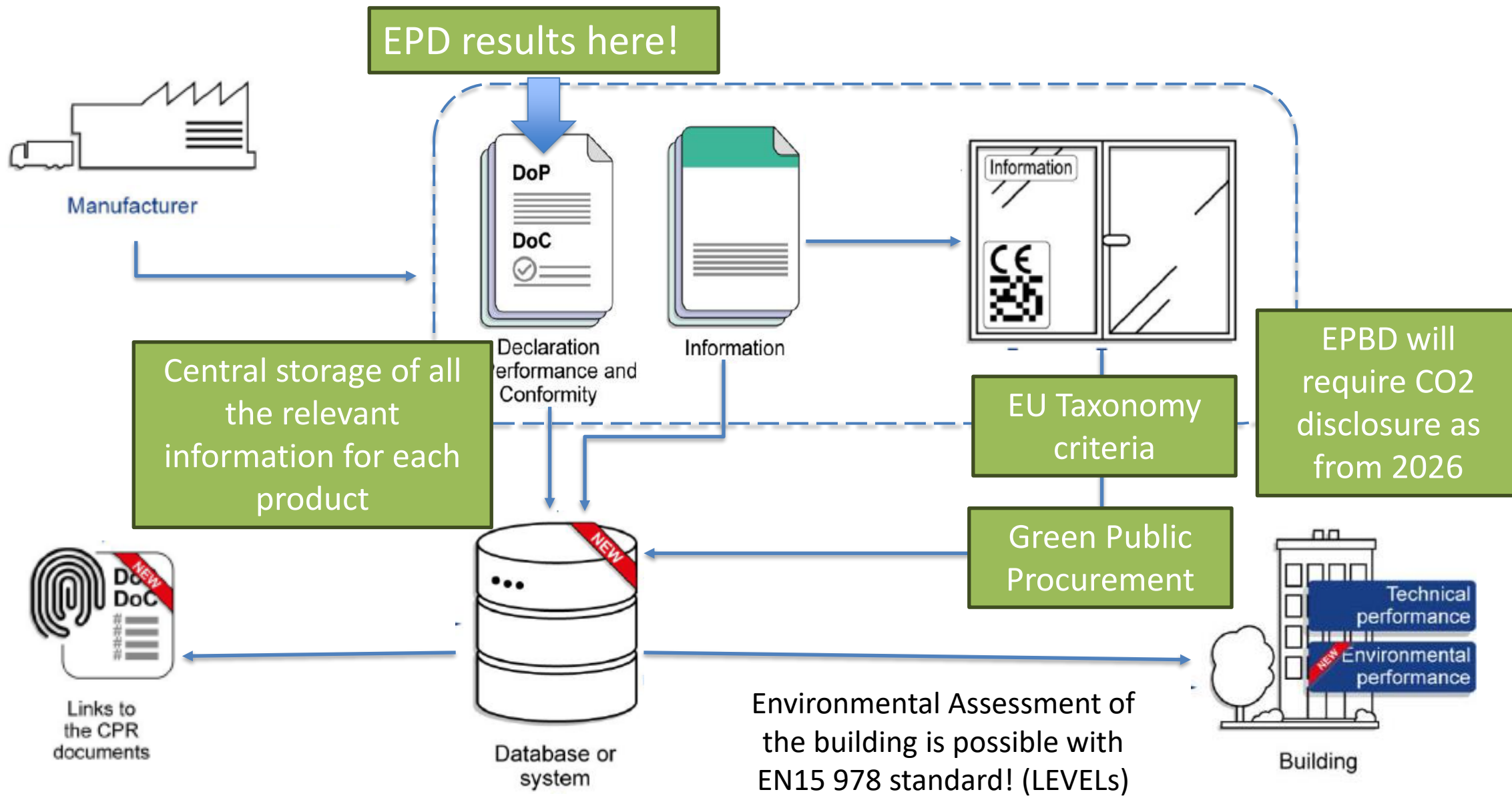
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- List of indicators from the results section of an EPD, will be required to be declared in the Declaration of Performance (DoP) of the respective product.
- EPD will remain a document as a proof in case of market surveillance and checks by the authorities.

EPDs are key elements for the environmental assessment of the building

- Our end use is the building. We are components of the final product.
- All Climate and Sustainability targets are at the building level!





Main take – aways!

- EPDs requests are rising and will rise even more in the coming years!
- Market surveillance will be stricter regarding our public green claims.
- ARGE members are ready to comply with the requirements on Environmental Sustainability.
- EPDs will be the instrument to enable the environmental assessment of the buildings and not only information used at the product level.

Thank you very much for your attention!