



THE INTERNATIONAL EPD® SYSTEM

Verifierad klimatdata
@BASTA-dagen, virtuellt 2023-11-09

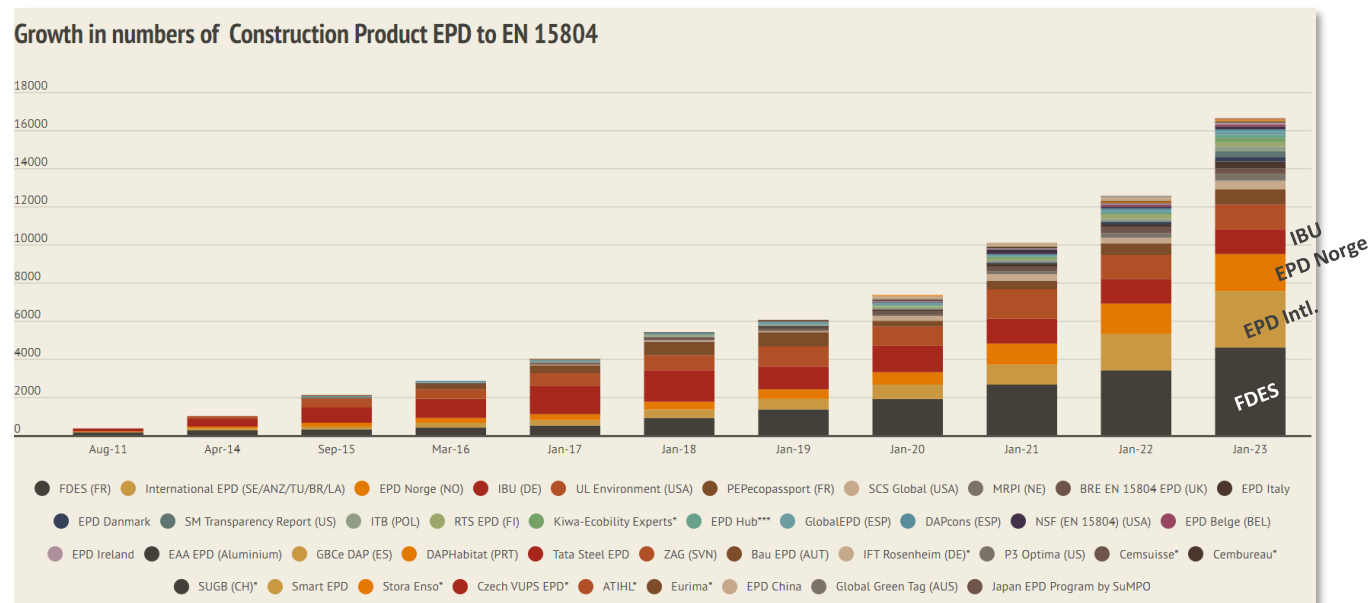
- Globally recognised communication format for environmental **declarations (ISO 14025)**
 - a **declaration** is neither a *label* nor a *claim* in ISO talk
 - In the EPD, you shall not benchmark performance: “*product X is better than product Y*”
- Voluntary
- Based on a **Life Cycle Assessment (LCA)**
- EPD, and underlying LCA, conducted according **Product Category Rules (PCRs)**
- EPD, and underlying LCA, are **third party verified**
- EPD published with an **EPD programme operator** (e.g. *the International EPD® System*)

“Transparent, objective and comparable information about the environmental performance of one or several products”

EPDs are an accepted market driven solution for third party verified climate data

Globally, estimated +80'000 verified EPDs (Jan. 2023)

- Europe and US leading
- Most mature sector is **construction sector**




World (EPD)
 + 90 000 ISO 21930 EPD


Europe (EPD)
 + 16 000 verified EN 15804 EPD
 + 25 000 EPD EN 15804 from verified tools


Europe (PEF)
 No official PEF declarations

KTH+HHS+MTU(USA)=Generalist

Entreprenör på Balkan och Global
marknadschef på Sandvik

SIS - > ISO sekretariatet för Förpackningars
miljöpåverkan och startade IoT
kommitteen i Sverige

Företagsstrategier och
innovationsarbete senast 8 åren



Why EPD International?

- The inventors of the EPD* and PCR**
- Impact driven and owned by IVL, operating at non for profit
- Global EPD programme with licensees represented on all continents
- Global harmonization to minimize market trade barriers and increase comparability
- Front runners in digital solutions, a necessity to meet scalability needs for sustainability
- PCRs for all sectors, largest PCR library and considered best practice in the market
- Pricing model allowing you to scale up EPD publication at fair cost

1

- ESPD
- PCR aqui
- DoP
- DPP
- PEF
- EPD
- CSRD
- CBAM

WARNING



Vad händer kring klimatdata just nu?

Hur påverkar det byggbranschen och vad ser vi för trender

Minimizing climate change is no longer
a purely voluntary commitment!

Manufacturers need to do their homework
to be prepared for future compliance

Market regulation is steadily turning into **legal compliance**

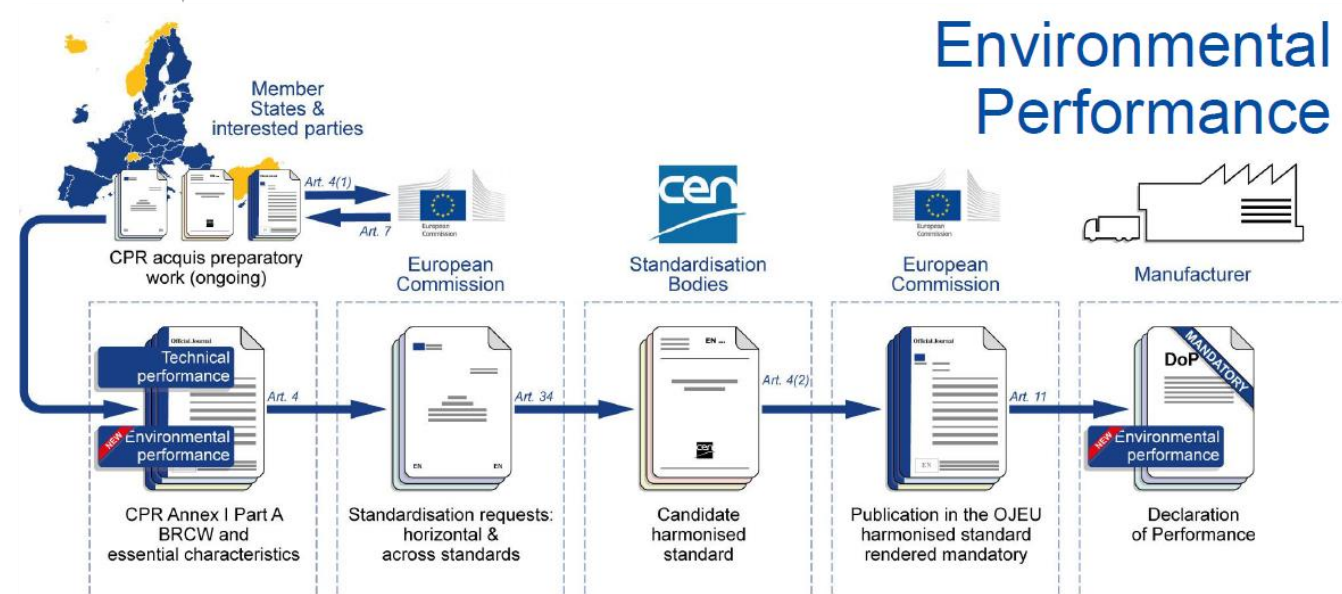
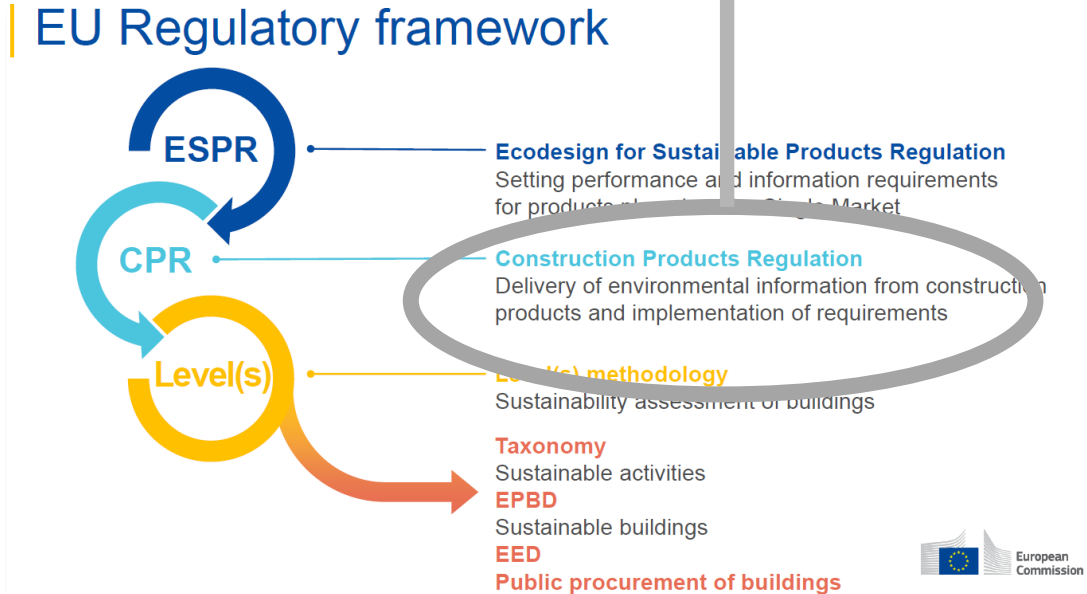
European Union - upcoming policies, regulations and directives for EU domestic and foreign organizations:

- EU Green Deal
- Eco design Sustainable Product regulation, **ESPR**
- Construction Product Regulation **CPR** with **DoP**/BWR7 for CE-mark
- EU **PEF**, Product Environmental Footprint
- EU **DPP**, Digital Product Passport
- EU Taxonomy - green finance
- Corporate Sustainability Reporting Directive. **CSRD**
- Circular Economy Action Plan (policy)
- EU Level(s) for Sustainable Buildings (policy)
- EU Carbon Border Adjustment Mechanism, **CBAM** (tax instrument)

National

- Netherlands, France, UK, Italy, Sweden, Norway, Finland, Denmark, Austria have strategies or frameworks on circular construction in place
- USA – Green New Deal, California Buy Clean Act
- Indonesia, ...

European legal framework for construction products



DoP structure resembles a lot like the EPD structure...

Product Declaration of performance			Climate change total	Climate change fossil	Climate change biogenic	Climate land use and land use change	Ozone Depletion	Acidification	...						
			[kg CO ₂ eq.]	[kg CO ₂ eq.]	[kg CO ₂ eq.]	[kg CO ₂ eq.]	[kg CFC11 eq.]	[mol H ⁺ eq.]							
Product stage	Raw material supply	A1	Mandatory declaration												
	Transport	A2													
	Manufacturing	A3													
Construction process stage	Transport	A4													
	Construction – installation process	A5													
Use stage	Use	B1													
	Maintenance	B2													
	Repair	B3													
	Replacement	B4													
	Refurbishment	B5													
	Operational energy use	B6													
	Operational water use	B7													
End of life stage	Deconstruction demolition	C1													
	Transport	C2													
	Waste processing	C3													
	Disposal	C4													
Benefits and loads beyond the system boundary		D													

EU's Product Environmental Footprint (PEF)

PEF largely resembles EPDs

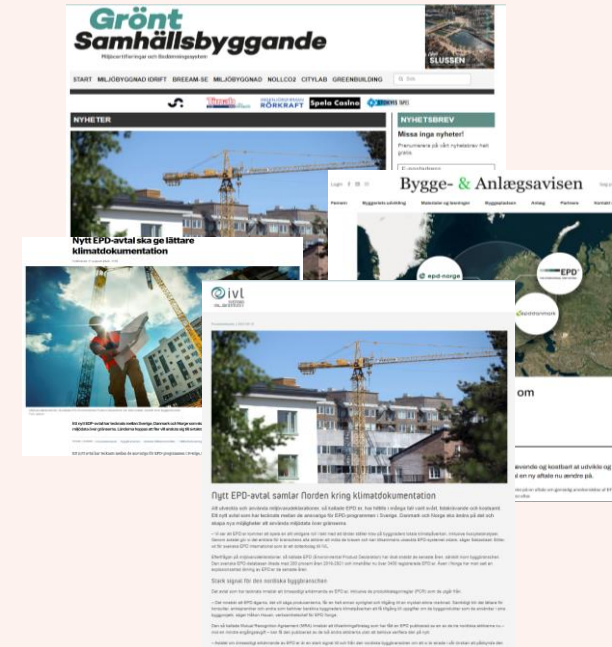
- A means for communicating environmental information
- LCA-based, life-cycle perspective
- Broad set of indicators (almost identical)
- Third-party verified
- Rules set in an open and participatory process (PCR and PEFCR)

Main differences

- EPDs are essentially market-driven, voluntary and decentralised, whereas PEF is driven by EU authorities and potentially mandatory in certain legal contexts
- The EPD system was developed with a clear objective: B2B communication of environmental information. PEF was developed to address many objectives.
- PEF includes benchmark to industry reference
- Differences in fundamental LCA method

Harmonization is needed to ...

- ensure high quality of data
- minimize barriers to trade
- be resource efficient – use what is already crafted and working well



Nordic Mutual Recognition Agreement

- First MRA inspired by ISO14029
- Including EPD Denmark, EPD Norge & EPD International
- Ambition to include other EPD POs to increase role of ECO Platform

National compliance example - Decarbonising the construction sector in the Nordics

Sweden



Mandatory:

2022

CFP limits:

2027

Method:

Boverket

Denmark



Mandatory:

2023

CFP limits:

2023

Method:

Baeredygtighedsklassen

Finland



Mandatory:

2025

CFP limits:

2025

Method:

YM – Ministry of Env.

Norway



Mandatory:

2018 for public constr.

CFP limits:

2018

Method:

NS 3720

Iceland



Mandatory:

-

CFP limits:

-

Method:

-



From 2022, all new buildings require a LCA on building level «KLIMATDEKLARATION».

Boverket's database contains CO₂-values for 171 generic construction materials and resources:

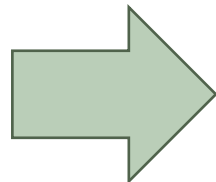
- **Generic datasets are conservative values and have a 25% higher than typical value**
- EPDs are specific data that are frequently lower than the generic datasets
- For climate declarations used with specific data, you must report the EPD that was used

4



Missing data quality requirements that support use of specific data for public procurement

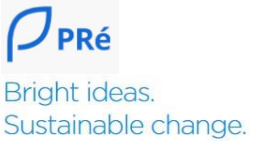
System boundaries (X=included. MND=module not declared)																	
	PRODUCT STAGE			CONSTRUCTION PROCESS STAGE		USE STAGE							END OF LIFE STAGE				BENEFITS AND LOADS BEYOND THE SYSTEM BOUNDARY
	Raw material supply	Transport	Manufacturing	Transport	Construction installation	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use	De-construction demolition	Transport	Waste processing	Disposal	Reuse-Recovery-Recycling-potential
Module	A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Modules declared	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Geography	FI	FI	FI	Nordics	Nordics	-	-	-	-	-	-	-	RER	RER	RER	RER	RER
Specific data used	> 43% GWP-GHG																
Variation products	0%																
Variation sites	-15% – 3% GWP-GHG																



Digitization, digitalization, digitalization and automation

Front runners in data transparency for handling of large amounts of data and scaling sustainability decision making

1. Single LCA
2. Pre-verified LCA and EPD Tools
3. Non-integrated resp. fully-integrated EPD Tools
4. Semi-automated or fully-automated solutions



iPoint

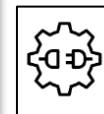
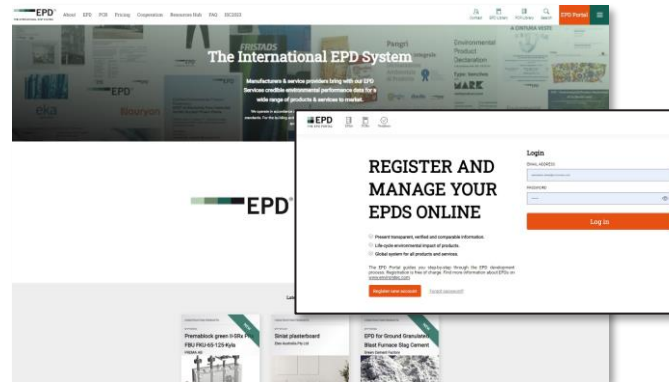
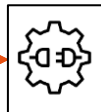


Organization

Abc



LCA
Consultant



- ILCD + EPD (EUROPE)
- OPEN EPD FORMAT (USA)
- PDT – EPD IN BIM (ISO 22057)

Regulators



Design/
Analytics
Platforms



End-users



Data-providers



+ 300 reg. users

Summering TRENDER

1. Förkortnings-orientering pågår
2. Från frivilligt till obligatorisk
3. Harmonisering
4. Hopp om datakvalitet
5. Digitalisering

“Link-pack”

Seminarium digitala produktpass		https://www.sis.se/standardutveckling/intressentmote-n-och-seminarium/intressentmote-digitala-produktpass/
Are you interested in following Nordic LCA?		https://nordicsustainableconstruction.com/work-packages/nordic-harmonisation-of-life-cycle-assessment
Utveckling av byggsektorn i Norden		https://nordicsustainableconstruction.com/
Terminologi för EUs regelverk		https://single-market-economy.ec.europa.eu/sectors/construction/construction-products-regulation-cpr_en
EU – Oscar Nieto @ISC2023		https://environdec.com/isc2023-material
Discussion paper on PEF		https://www.nordic-pef.org/wp-content/uploads/2023/11/Discussion-paper-performance-levels.pdf

Tack för att ni lyssnade!
Frågor?

Contact information

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Manager Strategy and Scaling Sustainability

@EPD International – Proud Inventors of EPD and PCR



Global presence

Offices in Sweden:

Stockholm (HQ)

Gothenburg

Malmö

Office in China:

Wuhan

Licensees' offices:

Argentina, Buenos Aires

Brasil, Sao Paulo

Chile, Santiago de Chile

India, Mumbai

Mexico, State of Mexico

New Zealand, Nelson

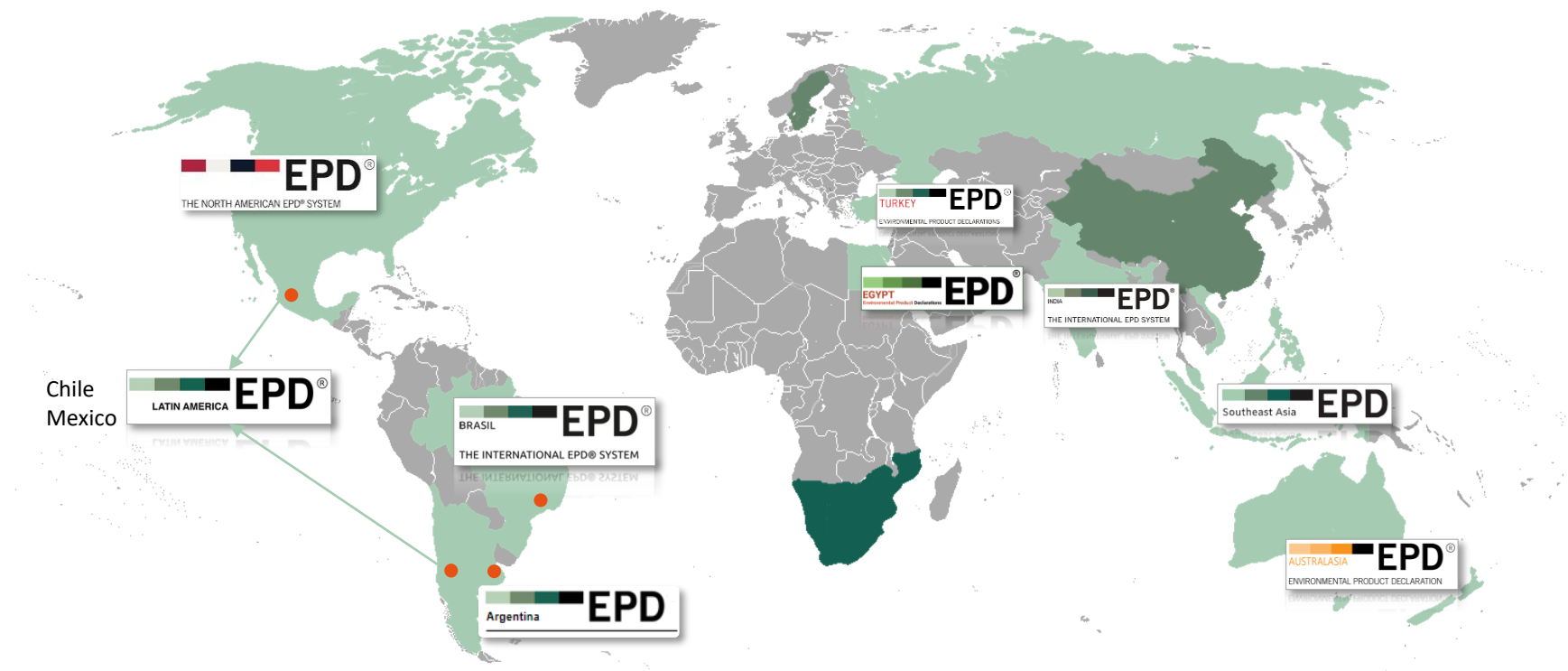
Russia, Moscow (paused)

South Korea, Seoul

Turkey, Istanbul

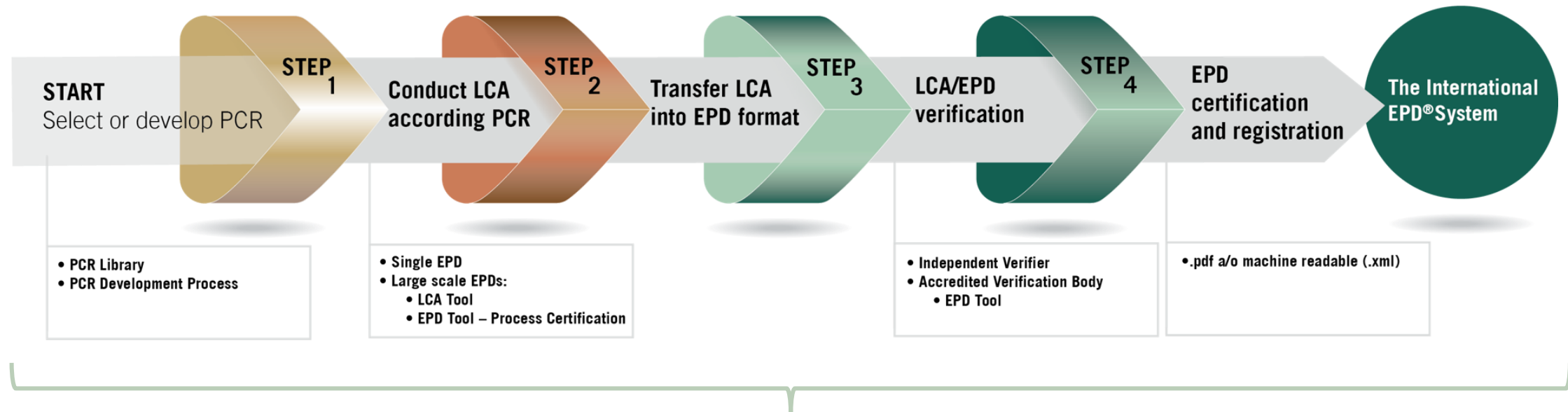
Indonesia, Jakarta

USA, Atlanta



EPD development process

communicates **transparent, objective** and **comparable** information about the life-cycle environmental performance of products and services.



What are product category rules (PCR)?

- A document that provides the **rules** for developing an EPD for a specific product category:
 - LCA calculation rules
 - EPD content
- A supplement to the General Programme Instructions (GPI)
 - It should not repeat the general rules on LCA and EPD content
 - Only specifications, additions and deviations are included
 - Shorter PCRs as of GPI version 5 – published in 2024
- PCRs and GPI are the cookbooks in the PCR kitchen



PRODUCT CATEGORY RULES (PCR)
DATE 2023-07-08



CONSTRUCTION PRODUCTS

PCR 2019:14
VERSION 1.3.1

VALID UNTIL: 2024-12-20



PRODUCT CATEGORY RULES (PCR)
DATE 2020-10-27



COSMETICS (SOAP, PERFUME AND TOILET PREPARATIONS)
PRODUCT CATEGORY CLASSIFICATION: UN CPC 35321 AND 35323

PCR 2015:07
VERSION 2.0

VALID UNTIL 2024-10-27



PRODUCT CATEGORY RULES (PCR)
DATE 2023-10-21



GRAIN MILL PRODUCTS
PRODUCT CATEGORY CLASSIFICATION: UN CPC 231

PCR 2013:04
VERSION 3.0.2

VALID UNTIL: 2024-11-30



More than 100 valid PCRs available for download in the EPD Portal (<https://portal.environdec.com/>)