

ASBP EPD Webinar 24 September 020

EPD for manufacturers

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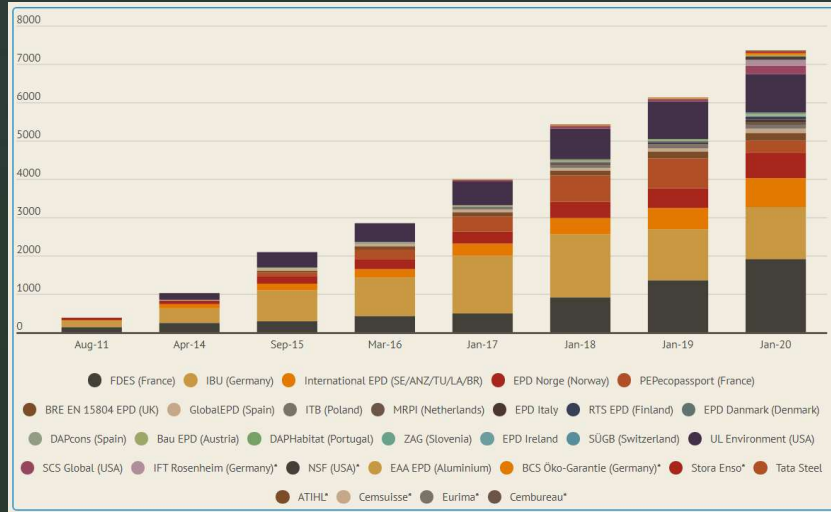
What's an EPD?

Image courtesy InterfaceFLOR



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Over 7000 EPD to EN 15804 globally



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This paper has been authored by Jane Anderson, ASBP Board Member & Director of ConstructionLCA, and peer reviewed by the ASBP's Natural Fibre Insulation Group.



ENVIRONMENTAL PRODUCT DECLARATIONS (EPD) - AN INTRODUCTION

ASBP Briefing Paper | December 2019

This paper is the first in a series of ASBP industry briefing papers focussing on Environmental Product Declarations (EPD). The aim is to generate a greater understanding of sustainable construction products and the methods of assessing sustainability. In doing this, we hope to enable industry to deliver better buildings that utilise information provided by Environmental Product Declarations.

Introduction

What are Environmental Product Declarations (EPD)?
EPD provide a standard way of declaring the impacts of manufacturing and using products through Life Cycle Assessment (LCA). Construction products are assessed using a single set of Product Category Rules (PCR) ensuring consistent reporting for similar products. EPD should be independently verified by an expert familiar with the product category.

Governing standards

ISO 14025:2006 sets out the overarching procedures and requirements for producing EPD for all product types. EN 15804:2012+A1:2013 sets out the Core PCR for the product category, construction products. There are additional standardised PCR for specific types of construction products that include timber, concrete, thermal insulation, cement and ceramic tiles.

EPD programmes

This is a database of verified EPD's managed and updated by an EPD Programme Operator that is usually an independent operator and sometimes a manufacturing group or trade association. The governing standards determine General Programme Instructions, PCR, rules for appointing Verifiers and any EPD format that must be followed. A PCR that fairly reflects the product type and EPD verification that is fully independent are essential.

Verification

EN 15804 requires EPD to be verified by an expert in

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LCA not associated with the owner of the EPD, and not involved in the EPD developments. The verifier ensures that the EPD has been produced in accordance with the Governing Standards, the PCR and General Programme Instructions.

Mutual recognition

It is possible for an EPD to be listed in more than one EPD programme where the programmes follow the same rules. This avoids producing separate EPD for each programme. A number of EPD programmes for construction products now have mutual recognition agreements in place, shown in Figure 1.



Figure 1: Mutual recognition agreements in 2019

Availability of EPD

The number of construction product EPD has grown steadily since 2012. In 2019 there were over 6000 downloadable EPD to EN 15804 within EPD Programmes. The largest number are in France (nies, PEP ecopassport), Germany (IBU) and the USA (UL Environment). A small but growing number have been produced by UK companies.

The largest product groups in terms of published EPD include insulation, floor coverings, gypsum products, paints, precast concrete, ready mix concrete and mortars, metal products, windows and doors.

Many EPD programmes are now providing their EPD data digitally for use within BIM and building LCA tools. Some are providing this free whilst others charge and/or require the data use to be approved.

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Information on EPD

- Briefing Papers on EPD available from the Alliance for Sustainable Building Products <https://asbp.org.uk/>
- An Introduction
- Using EPD
- Finding EPD

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Cost of EPD

- Your own costs – data collection, liaising with the LCA practitioner, providing text for the EPD, checking the final EPD
- LCA modelling costs (can be done in-house or through an LCA practitioner)
- EPD Programme Costs – registration and annual fees
- Verification costs – often through the EPD Programme
- Marketing costs – making sure staff, customers and potential customers know about your EPD

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Cost of EPD – own costs

- Your own costs will depend on how well you have recorded data about energy use, raw materials usage, outputs and waste etc. It really helps to have a good, digital system and one person with an overview of the data required and where to find it.

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Cost of EPD – EPD Programme costs

- Different programmes have different pricing structures, most publish them.
- Most have an annual cost (membership or listing fees)
- Most have a one-off cost (registration and/or verification fees per EPD)
- Some price by turnover of the company, some by number of employees, some have standard fees
- Some offer discounts to trade association members or GBC members
- Most offer discounts the more EPD you publish
- Many offer discounts for EPD from tools (though these might be more expensive to verify)

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Cost of EPD – EPD Programme Costs

| | <u>BRE</u> | <u>International EPD</u> | <u>EPD Ireland</u> | <u>IBU</u> |
|------------------------|---|-----------------------------------|---|----------------------------------|
| Registration (one off) | Membership fee sheet available on request. EPD costs on application | €1500 (1 EPD) €3750 (5 EPD) | €1400 (1 EPD) €2500 (5 EPD) | |
| Verification (one off) | | Via Verifier | €1700 (1 EPD) €2200 (5 EPD or 1 EPD with 7 products) | €2000 per EPD |
| Annual Fee (company) | | €500-€2500 depending on employees | Not currently charged | €600-€7200 depending on turnover |
| Annual Fee (EPD) | | | | €960 (1 EPD) €1980 (5 EPD) |

For others, check <https://asbp.org.uk/briefing-paper/epd-where-to-find>
Median verification cost from Tasaki et al, 2017 \$2447 for 1 EPD.

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Choosing an EPD Programme

- How familiar are your market with the EPD programme?
- Are they recognised as authoritative and robust? (EcoPlatform)
- How easy is the EPD programme website to use?
- How easy will it be for users to find your EPD?
- How will your EPD be available? (Digital, EcoPlatform, etc)
- How much marketing will they do for you?
- How much “marketing” can you include in the EPD?
- How much will it cost?

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Cost of EPD – LCA practitioner

- ARGE (The European Federation of Associations of Locks & Builders Hardware Manufacturers) published their LCA practitioner costs for 14 generic EPDs in 2015 – £69k
- EPD Ireland stated the cost for a relatively simple product, A1-A3 are in the range of €5,000 -€8,000
- Tasaki et al, 2017. \$8365-\$22,745 (median \$15,250 for 1 EPD)
- In consultation with the Welsh Government, NSG Group (through Pilkington) reported an estimated cost of £100,000 for each new EPD!

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Choosing an LCA practitioner

- <https://www.environdec.com/Creating-EPDs/List-of-LCA-consultants/>
- How much experience do they have with EPD?
- How familiar are they with your product and similar products?
- Have they worked with your chosen EPD programme before?
- How realistic are they about timeframes and your effort?
- Do you trust their advice on the best approach for you?
- How much will it cost?

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How many EPD and what sort do you need?

- 1 product – 1 EPD
- Many products – many EPD – consider an EPD tool

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What tools are there to assist and what is the cost/efficacy of these?

- Off the shelf “Pre-verified EPD tools” – BRE Lina, OneClickLCA
 - May still need customisation to deal with your product system
- Bespoke EPD tools – sector or company specific
 - Higher upfront costs to develop and verify tool
 - Much lower costs per EPD

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Thank You

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