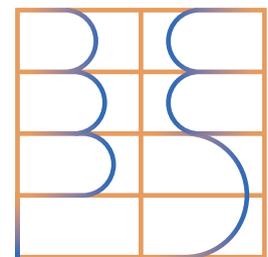
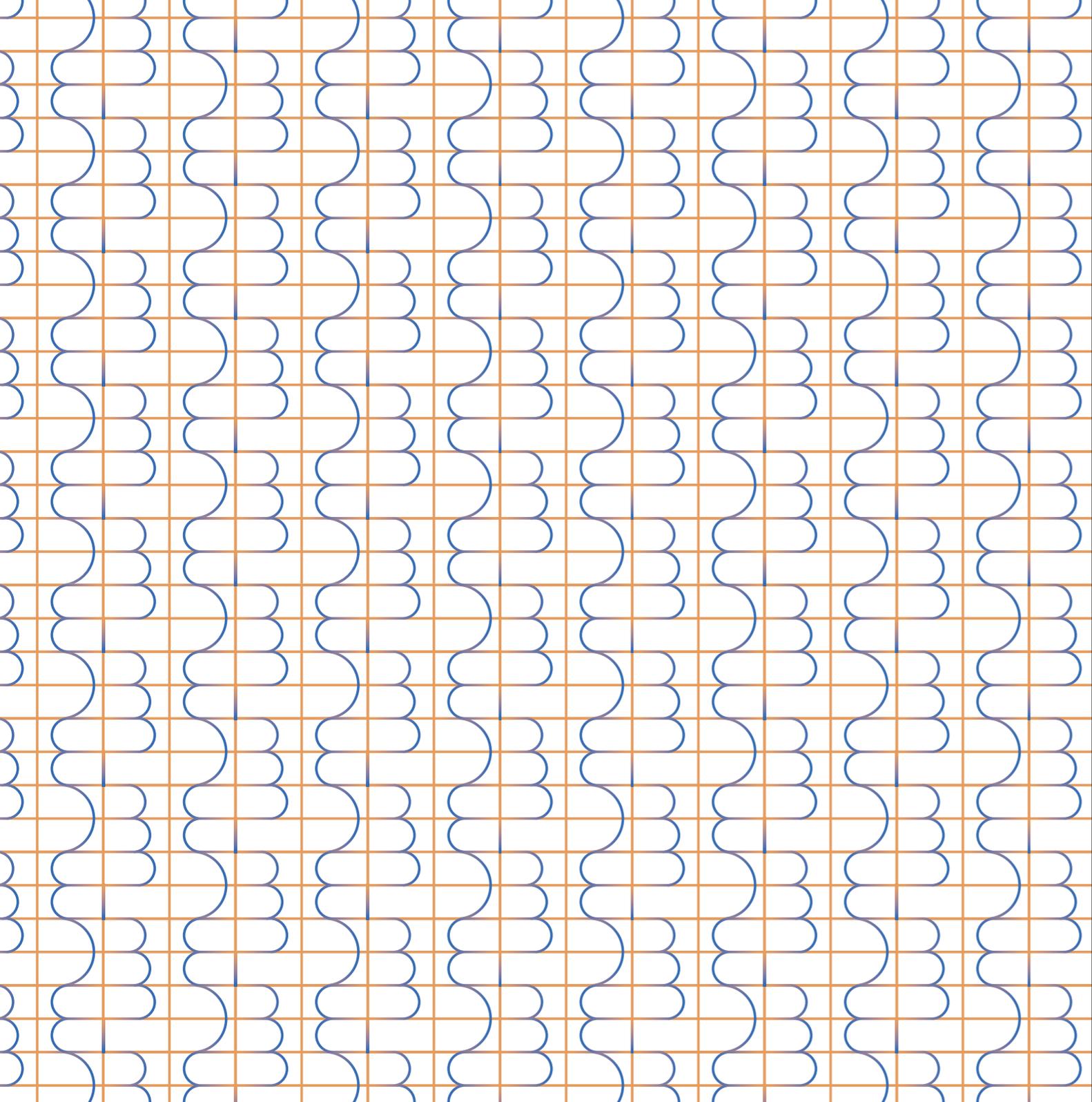


ENVIRONMENTAL PRODUCT DECLARATIONS (EPD)

A CONCISE GUIDE FOR PRODUCERS
IN THE CONSTRUCTION SECTOR



B-EPD .BE



ENVIRONMENTAL PRODUCT DECLARATIONS (EPD)

A CONCISE GUIDE FOR PRODUCERS
IN THE CONSTRUCTION SECTOR

A publication of the FPS Health, Food Chain Safety and Environment

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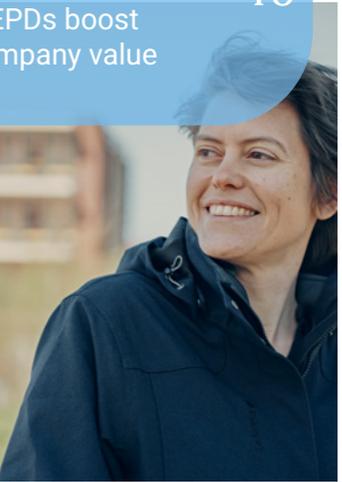
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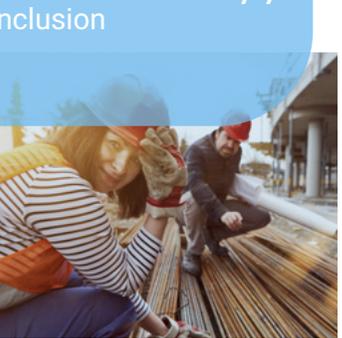
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1. INTRODUCTION & POLICY STRATEGY

The construction sector faces major challenges. We want to build and live as energy-efficiently as possible and reduce our ecological footprint. That is why we want buildings and products that impact our climate and the environment as little as possible.

Belgium is a frontrunner in environmental product declaration (EPDs) development for construction products, in terms of legal framework and programme design. EPDs are **based on life cycle assessments (LCA)**, currently the best tool for gauging a product's environmental impact, comparing materials, and preventing misconceptions about certain materials and products. LCAs provide unique insights into the complex life of a construction product, from resource extraction to end of life and beyond. Ultimately, burden-shifting (shifting the negative impact to a different part of the cycle by improving an aspect elsewhere in the cycle) needs to be eliminated where possible and calculations should be facilitated at the product and building level.

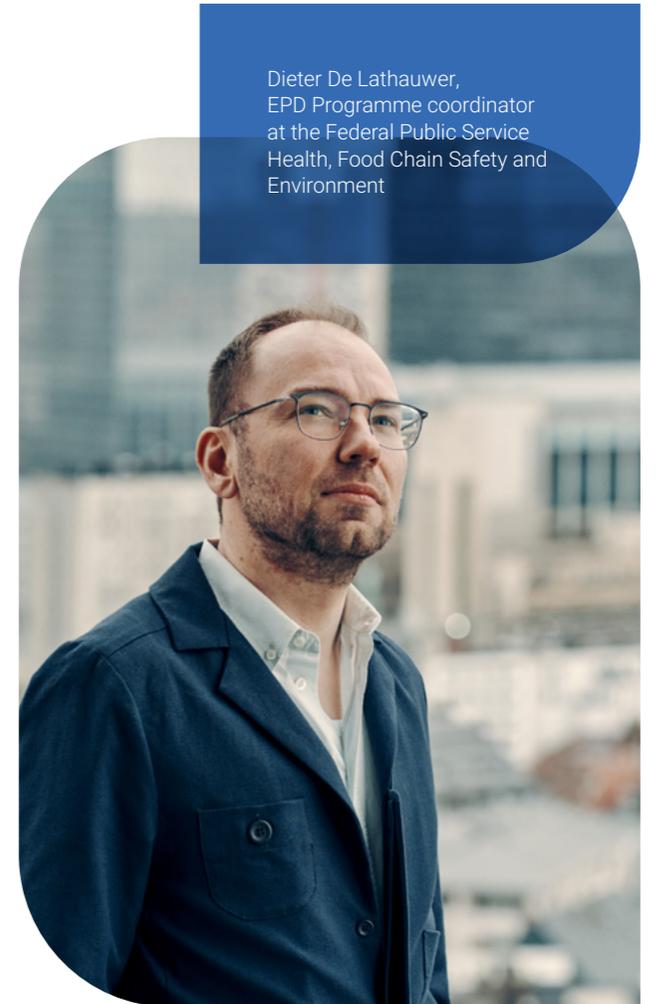
LCA is a train that runs on dual tracks – national and European. To maintain and achieve a competitive edge, companies should take the opportunity to board that train now. Why? From now on, the number of EPDs and manufacturers that employ is only likely to increase. Their gradual rise in popularity is a logical response to the construction sector's **growing environmental awareness** and focus on sustainability, as well as regulatory pressure to **achieve national and international climate goals**. SMEs interested in **futureproofing** their **business**, in terms of sustainability and finance, have a chance to do just that by capitalising on the assets of LCA and EPDs.

Environmental Product Declarations (EPD) represent countless advantages for business owners and manufacturers. That said, those advantages aren't as familiar as they should be yet to those who stand to benefit the most. And that's precisely what this guide is for. It's intended to get the construction sector, especially sustainability-minded SMEs, up to speed, answering questions, such as:

- What is the added value in developing an EPD for your company?
- What does it take to develop an EPD?
- What can you do with an EPD?

What's more, the guide addresses other practical issues, shares quotes from major players in Belgium's construction sector, and functions as a convenient how-to so that at the end of the day you can get the most out of EPDs, future-proof your business, and contribute to a greener world.

Dieter De Lathauwer,
EPD Programme coordinator
at the Federal Public Service
Health, Food Chain Safety and
Environment



POLICY STRATEGY

The Federal Public Service Health, Food Chain Safety and Environment (FPS Health) is the programme operator, i.e., providing interested organisations with a framework for developing EPDs based on the Belgian EPD-related Royal Decree. The FPS Health subsequently makes those EPDs available through a national data bank. The FPS Health prioritises the following related objectives:

- To provide consumers and professionals with access to transparent, quantifiable, comparable, and scientifically substantiated information on every construction product's environmental impact throughout its life cycle so that they can make **informed, green decisions**.
- Identifying and implementing the **most environmentally friendly products** in the most environmentally friendly buildings
- Ensuring that product-level data contribute to **reversible buildings with a low environmental impact**, in terms of energy consumption, emissions and resource consumption
- Ensuring that the **building context** and integration in building assessment tools always factor into an EPD's development
- Rendering information **digitally accessible** wherever possible – not only as legible data but data that can be easily processed by building software
- Creating **a level playing field** for all construction materials and products
- Proactively and ambitiously seeking to promote **environmental protection** (i.e., beyond the minimum and stop-gap measures)
- Putting society and its health and well-being first



The FPS Health is a pivotal player involved in strategic EU initiatives on construction, the environment, and LCA. Given that Belgium is at the heart of the EU, it makes sense for it to proactively move green construction standards in Europe forward. Among others, the FPS Health:

- is actively involved in the drafting of European Standards (CEN TC 350)
- chairs the NBN E350 Committee, the Belgian equivalent of CEN TC 350
- manages and monitors the European Construction Products Regulation in Belgium on the environment regulation (EU) 305/2011
- is a member of relevant European Commission expert groups

2. THE INS AND OUTS OF B-EPD

EPD stands for '**Environmental Product Declaration**'. They provide key data on your product's environmental impact in a convenient, standardised format. EPDs currently provide a numerical representation of a product's environmental impact, which is why they are mainly used in B2B relationships. While a consumer-friendly label with an A to D score or red to green scale isn't available yet, something similar is in the works. EPDs are a straightforward response that cut through divergent and often confusing claims about how green or sustainable a product is. However, if that's an EPD, what is a **B-EPD**?

The 'B' gives it away. A **B-EPD** is an EPD that conforms to the general principles of the Belgian EPD Programme of the **FPS Health** as part of the **B-EPD programme**. B-EPDs can be drawn up for construction products, paint, as well as civil engineering technical installations and materials. This group of products falls under the broad umbrella of construction products and will be referred to as such throughout the rest of this guide

So, an EPD is an independently verified document that reliably communicates transparent and comparable information about the life-cycle environmental impact of products. To map the **global environmental impact of a product**, different impact categories are taken into account, such as global warming potential, ozone depletion, acidification potential, eutrophication potential, etc.

B-EPDs contain between 20 and 30 pages of information on the product, manufacturing process, manufacturer(s), and the hypotheses and results of the LCA study.

While it is true that B-EPDs are likely to boost product popularity in the market, that isn't their primary purpose. Instead, what counts is that they provide purely impartial data that has been rigorously substantiated and quantified, with calculation results based on cutting-edge scientific methods and European standards. That makes B-EPDs combined with TOTEM, the building calculator of the regional authorities, a robust tool for businesses and buyers alike in terms of product overview, process, and sustainability. Even better, the B-EPD format has been harmonised to make it easier to navigate the available data (see Figure 1).

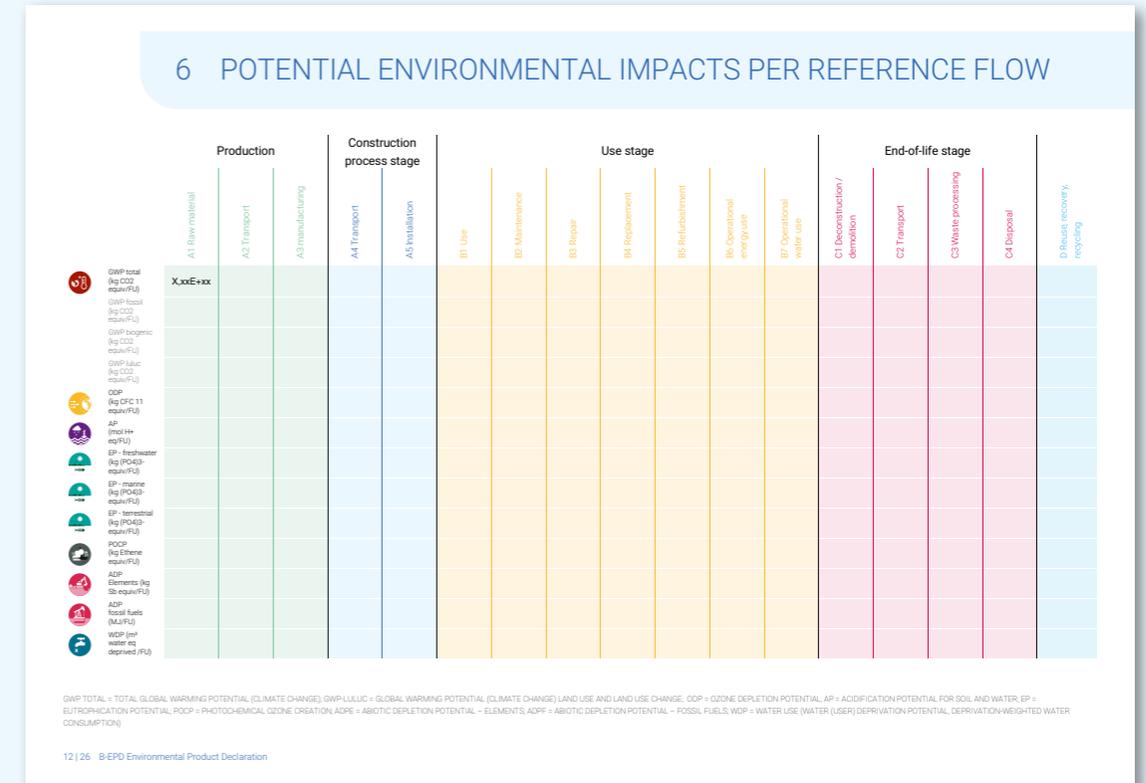


Figure 1: Sample B-EPD with cover page (left) and table of potential impact indicators (right).

2.1. High standards and no more greenwashing

In 2019, the **B-EPD programme** took off in earnest and has experienced accelerated growth ever since. Despite its short existence and Belgium's small size, it has already claimed a place in the mid-tier of European EPD programmes. Germany and France currently occupy the top tier, with the largest EPD programmes; however, their programmes were launched over a decade ago. Belgium is quickly catching up.

EPDs according to EN 15804	European Programme operators
>1000	EPD Norway* (2002), IBU (Germany, 2011), FDES (France, 2011)
Between 100 and 500	BRE (UK, 2015), MRPI (NL, 2004), ITB (Poland), Global EPD (Spain, 2013), EPD Italy, B-EPD **
< 100	EPD Denmark, Bau EPD (Austria), RTS Finland, Slovenia, Portugal, etc.

As programme operator, FPS Health bases the programme on the NBN EN ISO 14025 standard and EN 15804 on environmental product declarations. Its goal is to provide interested stakeholders with a framework for develop-

ing EPDs that complies with the relevant Royal Decree and to make them accessible online.

That accessibility is stipulated in the [Royal Decree on Environmental Claims](#), which provides for a publicly accessible [Belgian federal EPD database](#) where stakeholders can register their data and find data on other products. There has been a big push in Belgium to supply the building sector with accessible, transparent tools that accelerate the sector's greening while avoiding the typical pitfall of greenwashing.

To prevent greenwashing, the information declared in a B-EPD is based on a **Life Cycle Assessment (LCA)**. LCAs assess a **product's global environmental impact** throughout its life cycle, from raw material extraction to manufacturing processes, on-site installation/construction processes, use, demolition, transport to end-of-life treatment, all stages of transport, and end-of-life treatment (including reuse and recycling). Figure 2 and figure 8 illustrate how this works. LCA experts are responsible for carrying out an in-depth analysis and drawing up the related report to substantiate an EPD. The result is extremely reliable data that can back up a brand's claims and lead to continuous environmental improvement.

* Norway's EPD programme has over 1,000 EPDs, with a scope that extends beyond construction products, including furniture, packaging, chemicals, and more.

** Figures from the B-EPD programme include the total of published and soon to be published EPDs.

Source: Ecoplatform website, dd. January 2021, created by J. Anderson.



EN 15804 is the EPD standard, developed by CEN TC 350, the European standardization committee for the sustainability of construction works. 'This European standard provides core product category rules for all construction products and services. It provides a structure to ensure that all Environmental Product Declarations (EPD) of construction products, construction services and construction processes are derived, verified, and presented in a harmonised way.' (EN 15804:2012+A2:2019).

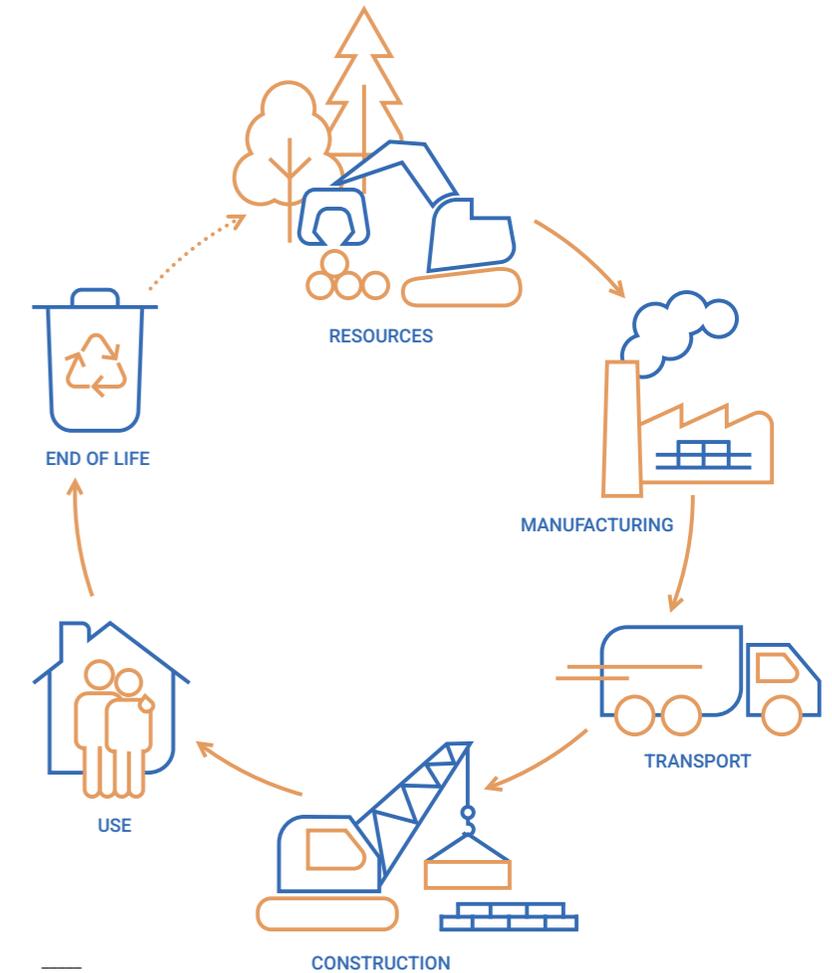


Figure 2: LCAs assess the entire life cycle of building materials, from cradle to grave.

The EPD life cycle assessment (LCA) can be centrally registered in the database for quick, easy access. But to which products does the B-EPD programme apply?

Programme scope & history

Simply put, the EPD programme applies to any construction product sold in Belgium or intended for use in Belgian buildings. That means that if a company completes an LCA proving the sustainability of its product, it will be eligible for a B-EPD. The core rules are largely based on international standards (ISO 14040, ISO 14044, ISO 14025) and the EU standards committee CEN TC 350 - Sustainability of Construction Works (EN 15804:2014+A2:2019).

To date, B-EPDs cover materials such as: *expanded clay, bricks, roof tiles, insulation materials, natural stone, windows, roof membranes, fibre cement, concrete, precast concrete elements, oils for wood protection and wooden structural elements.*

France (FDES) and Germany (IBU) have EPD programmes that encompass over 1,000 materials which strongly suggests that the range of Belgian product categories is likely to expand in future.

In recent years, the number of B-EPDs drawn up and published has expanded rapidly. For an up-to-date overview, please consult www.b-epd.be. Several major Belgian construction companies and manufacturers, along with a significant contingent of Belgian SMEs, should be considered pioneers in the realm of EPDs and sustainability certification. They have thrown their full support behind the programme and several have gone through the process of publishing B-EPDs for their products.



A sampling of these companies includes names such as [Isover](#), [Recticel](#), [SVK](#), [Isoproc](#), [Reynaers](#), [Wienerberger](#), [the Belgian Brick Federation](#), [Foamglas](#), [Unilin](#), [Isohemp](#), [Menuiserie Riche](#), [Stabilame](#), [Muylle Facon](#), [Vesta Eco](#), [Natura Mater](#), concrete federation [Febelcem](#), [the Belgian-Luxemburg Gypsum Federation](#), [precast concrete Febe](#), in situ concrete [Fedbeton](#), [Etex](#), [Interalu](#), [Isomo](#), [Office Economique de la Wallonie](#), [Pierres et Marbres de Wallonie](#), [Willemen Infra](#), [Rockwool](#) and [Dragopaint](#).

2.2. TOTEM integration

B-EPDs can be seamlessly integrated into **TOTEM** (Tool to Optimise the Total Environmental Impact of Materials), Belgium's unique building assessment tool. OVAM, Brussels Environment, and the Public Service of Wallonia – representing the three Belgian regions – developed TOTEM to assess the environmental performance of buildings and building elements in 2018. Ultimately, TOTEM is intended to

objectify and considerably reduce the impact of buildings on the environment.

All three Belgian Regions recommend that architects use TOTEM, not only because it unifies Belgian efforts to green the construction sector but because it provides them with the means to assess products in the proper context.

totem

“ Declaring a product in a B-EPD and facilitating its use in TOTEM substantially contributes to the collective effort needed for the construction sector to develop greater respect for the environment and, consequently, future generations. Architects have been incredibly enthusiastic about incorporating environmental aspects into the design. They also appreciate the prospect of rounding out TOTEM with brand-specific data issued by product manufacturers as a way of enhancing their projects based on Belgium-specific data. ”

— Sophie Bronchart,
Project Manager at Brussels Environment, on behalf
of the three regional authorities governing TOTEM



Building elements and products are listed in TOTEM according to environmental performance. Until recently, however, that performance has been based on default generic data. The advent of B-EPD specific data in TOTEM spells a huge advantage for the Belgian construction sector because it transforms TOTEM into an even more authentic reflection of the sector's distinct reality. The specific data allow a more accurate evaluation of the environmental impact of building element types or buildings. It also enables companies to gauge their performance vis-à-vis the competition at the building level. Given TOTEM's growing acceptance within the Belgian construction community, its compatibility with B-EPDs has considerable potential to boost their relevance and popularity in the Belgian market.

However, the benefits of B-EPD use in TOTEM transcend Belgian borders. Why? Because TOTEM is recognised as a valid tool for obtaining **BREEAM certification**; TOTEM results can be used as evidence for the 'material category'. **BREEAM** is an international sustainability assessment method that can be used for masterplanning projects, infrastructure, and buildings.

In addition to BREEAM, certification systems such as **LEED** and **DGNB** also allocate additional credits for listing building products accompanied by an EPD. This is an easy, cost-effective means of gaining additional credits in sustainable building certification systems. And BREEAM, LEED and DGNB are all internationally recognised as such. With these certification systems in mind, B-EPDs are the way to pull market green products and successfully bid in green public procurement.



Towers 1 and 2 of the Brussels World Trade Centre will be thoroughly renovated and transformed into the multifunctional space ZIN, an area designed to accommodate offices, homes, and hotel services. This development aimed high by applying circular economy and sustainability-related principles wherever reasonable and possible. TOTEM was showcased during the procurement process, and the project also received a BREEAM 'Outstanding' certificate for the Design phase.



“ As concerned architects we believe sustainable building should rest on a sound scientific basis. The LCA supplied through TOTEM is a priceless tool in this context. However, adding B-EPDs will take the assessment to the next level. Now, we really can choose building materials based on their actual environmental impact and incorporate LCA performance demands in our tenders. ”

— Joost Declercq,
Architect and Executive Partner at
archipelago architects.



3. B-EPDS BOOST COMPANY VALUE

3.1. B-EPD benefits

Generating a B-EPD for your products unquestionably means more administration, but those efforts pay off. Exactly what added value does a B-EPD represent? A snapshot of ten advantages is provided below.

1. Your B-EPD is **TOTEM compatible**. Accessibility in TOTEM will enhance your product's visibility vis-a-vis building designers and customers. Architects are also more likely to choose brand-specific data generated by EPDs because it offers them transparency and efficiency that generic data simply cannot provide. In Flanders, all public building procurement contracts require a TOTEM assessment. The B-EPD programme features free TOTEM registration, i.e., an easy path to futureproofing your business.



Since its launch in 2018, the number of TOTEM users has grown by 20% annually, and that growth is only expected to accelerate with the integration of B-EPDs.

“ B-EPDs are bound to increase TOTEM's relevance since they allow for more product-specific data processing. And with the rise in popularity and incentivisation of sustainable material use, there's little doubt that B-EPDs will play a key role. What's more, Bouwunie looks forward to seeing more Belgian B-EPD-certified products in TOTEM in the future. We hope this guide will contribute to that. ”

— Mieke Bonnarens,
Innovation Unit Coordinator at Bouwunie



“ Creating a B-EPD for precast concrete products and registering it in TOTEM with third-party verified data makes assessing the environmental performance of buildings not only possible, but reliable. Making transparent data on the environmental characteristics of its products available **demonstrates serious commitment** by the concrete sector. Since 10 to 15% of the overall environmental impact of buildings across their life cycle is attributable to these products, that’s a significant and important contribution. Ultimately, **the transparency of the concrete product manufacturer (or the federation of producers) is a vote of confidence** in their favour. ”

— Laurent Mbumbia,
Technical Advisor at Probeton

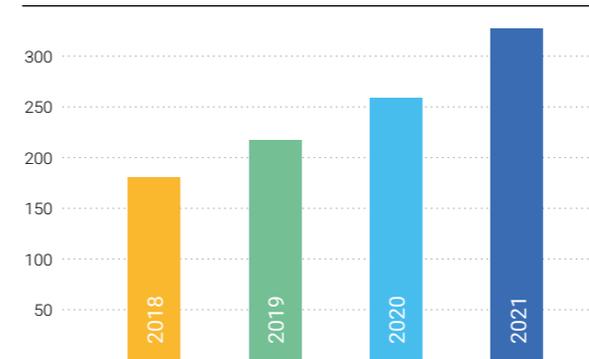


Figure 3: Average monthly TOTEM users from 2018 to 2021

2. B-EPDs are a prime asset for contractors and architects working with **building sustainability certification or rating schemes** such as GRO, BREEAM, LEED, DGNB, etc. These schemes award additional sustainability credits to buildings that employ EPD-certified materials. Ultimately, that incentivises designers, procurers, and other stakeholders to make decisions based on credible, robust environmental data. Moreover, B-EPDs can be a great asset or even a requirement for **public procurement access**.
3. To provide quantified information about the environmental impact of your product, an EPD is the best way to go. It is scientifically based, adheres to European standardised methods, and assesses the various environmental impacts (e.g., climate, acid rain, particulate matter, etc.) across all phases of the life cycle (from raw materials extraction and production to transport and waste disposal.) B-EPDs also uniquely contain

information on your product’s **reversibility**. That signals how easily the product can be dismantled at the end of its service.

4. B-EPDs are legally required to **make environmental claims** about your product (cfr. [Belgian Royal Decree on Environmental Claims](#)).

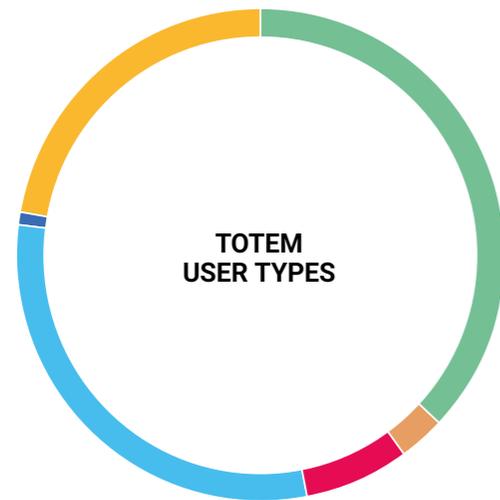


The Belgian Royal Decree on Environmental Declarations stipulates that claims about a product’s sustainability or how green it is are only allowed when accompanied by a published B-EPD and when the claim complies with NBN EN ISO 14021. Your takeaway? No B-EPD means no green marketing and missing out on a key segment of the market.

The B-EPD programme applies to construction products sold in Belgium or intended for use in Belgian buildings. The decree and programme are a clear sign that Belgium wants real change – not greenwashing.

5. B-EPDs automatically **distinguish your brand** from the competition in terms of environmental performance, and they are more conducive to **resilient and persuasive marketing and image development**. They can be used to compare your product against real alternatives in TOTEM through brand-specific data, giving potential clients and consumers convincing proof of your product's performance vis-à-vis the competition – at every stage of the lifecycle.

How you choose to market B-EPDs depends on your objectives. For instance, if you want to promote your brand's sustainability strategy, EPDs are a great metric. Given how much work goes into obtaining an EPD, they also prove to clients that you take sustainability seriously. All B-EPDs are verified by an external third party, which improves your market **credibility**.



- 37% designers
- 3% construction product manufacturers
- 7% public authorities
- 30% students/teachers/researchers
- 1% contractors
- 22% unknown/others

Figure 4: TOTEM user types (January 2021)

6. A B-EPD provides insight into the **overall environmental performance** – burdens and benefits alike – of your products. This cradle-to-grave perspective helps **identify hotspots**. Your product's biggest environmental impact might not be in your production process; experience has shown that bottlenecks can happen at any stage. For instance, the hotspot might be due to a supplier or to how the product is used. -EPDs make it possible to pinpoint and optimise accordingly.

7. A detailed picture of a product's cradle-to-grave environmental impact reveals new opportunities for upgrading and **streamlining** your processes. That, in turn, leads to **cost reductions** (e.g., less energy or raw materials needed) and a reduced ecological footprint. If there is low-hanging fruit to be had, this is a fantastic way to spot it.

“ The timber industry sees EPDs as a fantastic marketing tool for its companies. EPDs objectify environmental benefits, giving consumers a clear guide for making greener choices. They are a key stepstone on the path to greening construction materials. About 70% of processed wood ends up in construction. That means EPD development will act as a springboard for the entire sector. ”

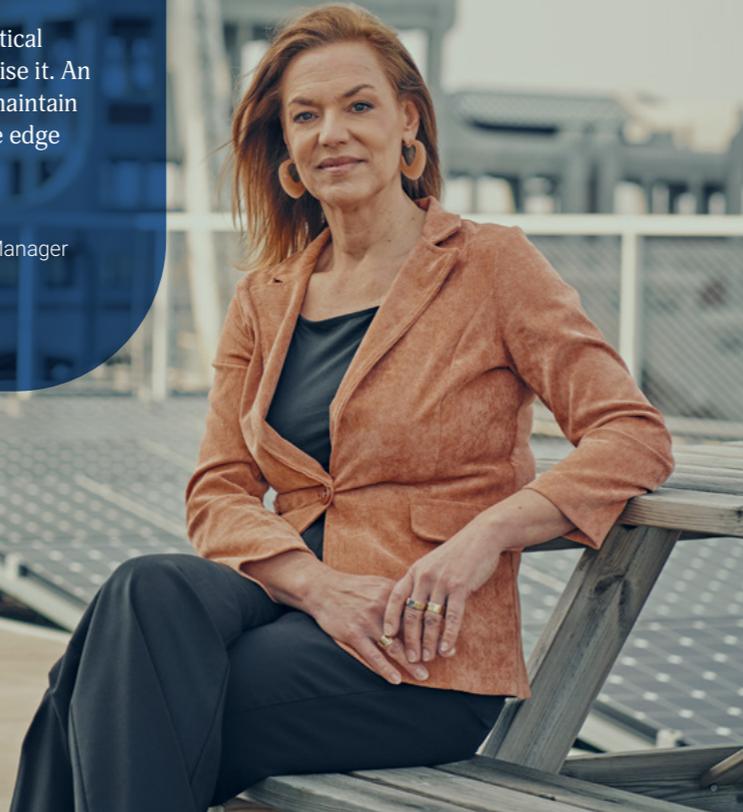
– Sophie Hugon,
Communications Officer at EUSTAFOR
and Forest-based Sector Technology Platform

“ We are committed to providing our customers with sustainable products and solutions. To make that a reality, we continuously upgrade the health and environmental performance of our products. We resolutely opted for Environmental Product Declarations (EPDs) as the soundest, most transparent way of publishing the environmental impact of our products. It's the only science-based methodology that allows objective comparison and optimisation at the product and building level. ”

– Pieter Van Laere,
Public Affairs Managers at Saint-Gobain Construction Products

“ In terms of sustainability, if you want to improve your product across the entire value chain, then developing an EPD is your best bet. The information provided by your EPD enhances your understanding of the product’s environmental footprint and hands you clear, practical recommendations on how to optimise it. An EPD enables industry to gain and maintain a sustainability-related competitive edge grounded in hard science. ”

— Carolin Spirinckx,
Sustainable Built Environment Project Manager
at VITO



B-EPDs and environmental management systems: EPDs also neatly integrate into environmental management systems (EMS), e.g., ISO 14001, EMAS or other guidelines. EPDs empower your organisation to identify, control, monitor, and assess environmental performance in terms of lifecycle. With that data available, sharing B-EPD results with stakeholders is simple.



8. B-EPDs are an excellent KPI for annual company reports, e.g., **sustainability reports**. The clear, comprehensive data contained in B-EPDs stands to benefit your company’s internal sustainability strategy and facilitates harmonisation with rapidly evolving EU and international standards. There’s no need for a mad scramble for data when it’s all conveniently contained in a single document.
9. **EPDs are a smart tool for assessing investment sustainability**. For example, if you poured extra funds into state-of-the-art tech to enhance the efficiency of your production process, an EPD will verify whether there’s been a complementary reduction in your product’s carbon footprint. They help identify strategic investments and prevent unnecessary expenses.

“ When we invest in upgrading our operations, it’s good practice to check how it will impact our EPD. We see our EPD as a unique way to share how we are improving the environmental performance of our products. And a steady increase in customer approval demonstrates the success of this approach. As a result, we make the right investments. ”

— Marc Bosmans,
Circular Economy Manager at Knauf Insulation

10. EPDs are indispensable for **future-proofing your business**. The **EU Green Deal** and **EU Circular Economy Action Plan** are the future. **Are you prepared?**

Product-level LCAs are a key area of focus in the **EU Green Deal**, the **EU Circular Economy Action Plan**, and are also prominently addressed in the **Construction Products Regulation** review. Companies that want to stay a step ahead of the game should look to EPDs to futureproof their green policies and practices in construction.

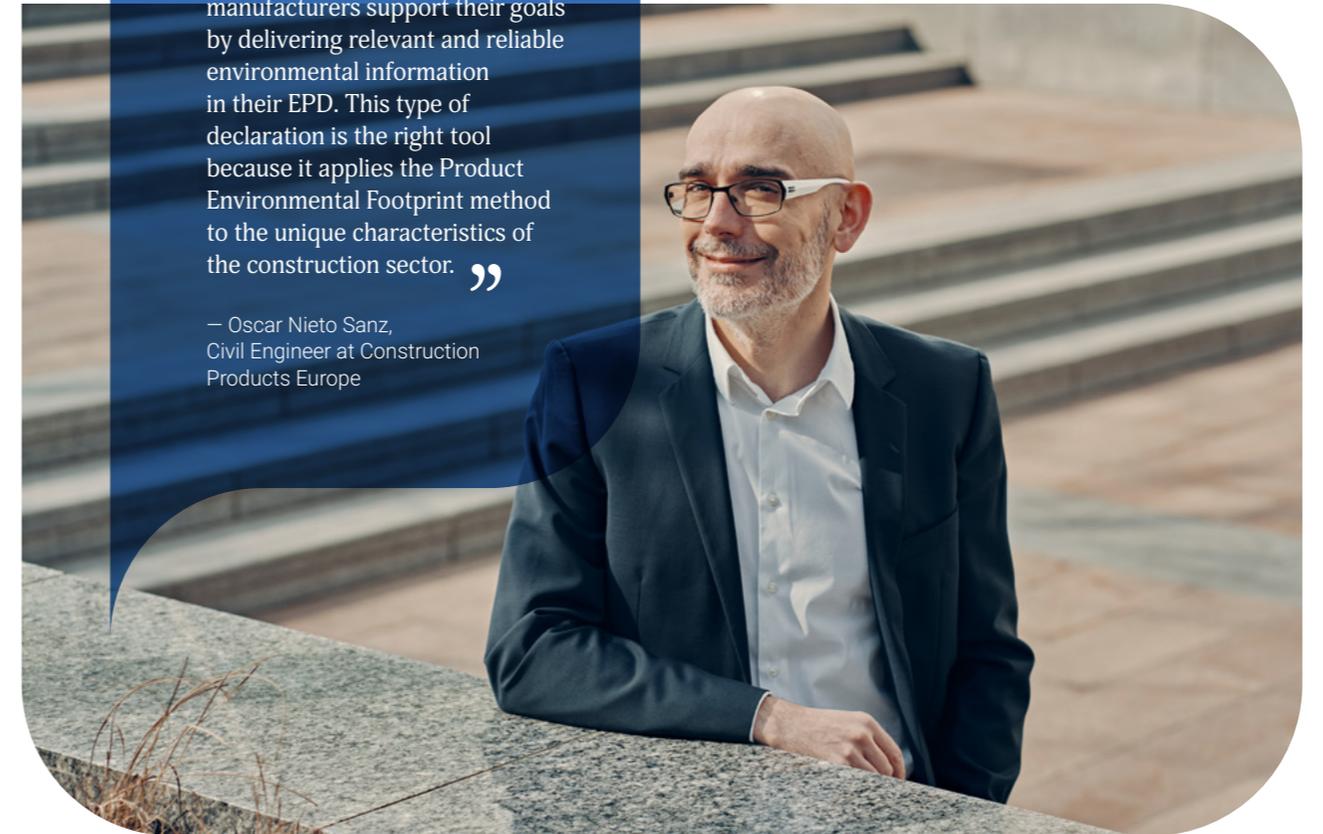
In a nutshell, B-EPDs are the perfect tool for **distinguishing** your product on the market, **increasing** its **relevance** and **value**, and **optimising sustainability performance**. In terms of branding, they underscore your credibility as a sustainable manufacturer. B-EPDs signal a pro-active, mindful approach to the environment, which can be incorporated in your image development and sales pitches.

What's more, they are a gateway to sustainable built environment initiatives. EPDs improve scores in assessment and certification schemes such as BREEAM, LEED, and DGNB, making your products more commercially attractive. At the same time, they grant better access to public initiatives. For example, when integrated into TOTEM, B-EPDs enhance your product's visibility, giving your brand a competitive edge in green public procurement tenders.

However, the benefits of B-EPDs aren't limited to **pivoting your brand** and **improving market value**. They also deliver in terms of **practical benefits**. They are a great tool for sustainably engineering products to **improve performance** and **production processes**. The LCA that accompanies the B-EPD process also facilitates hotspot analysis, allowing you to identify where your product's carbon footprint fails so that you can adapt accordingly. The benefits here are myriad, from helping you **increase efficiency** and **cut costs** to reliably **futureproofing** your business.

“ Strategically speaking, the EU Green Deal and Circular Economy Action Plan are the way forward for the construction industry. Construction product manufacturers support their goals by delivering relevant and reliable environmental information in their EPD. This type of declaration is the right tool because it applies the Product Environmental Footprint method to the unique characteristics of the construction sector. ”

— Oscar Nieto Sanz,
Civil Engineer at Construction
Products Europe



“ Environmental Product Declarations in the construction sector provide a recognised basis for the collection and communication of a comprehensive range of data on construction product environmental impacts, creating potential for market-based competition and demand for products based on life cycle assessments of environmental performance. Regulation, however, remains the most effective driver of environmental performance requirements. Consequently, the EU Single Market legislation for construction products is likely to use an EPD+PEF-based system for environmental performance requirements in the future. That means that SMEs engaged in EU cross-border trade will also benefit from learning the ropes of EPDs. ”

— Michael Neaves,
Programme Manager at ECOS

3.2. B-EPDs are the new normal

The built environment

Buildings and construction account for over a third of annual global energy-related CO₂ emissions (see Figure 5). But while progress is being effectively made towards sustainable buildings and construction, that progress considerably lags behind the fierce demand for energy-efficient service and a burgeoning construction sector. For example, to meet the Paris Agreement’s global climate

targets, the construction sector worldwide needs to cut energy consumption per square meter by 30% by 2030 (compared to 2015). Given a **projected increase in emissions**, this number percentage will be impossible to reach without the wide-scale implementation of EPDs and a life cycle approach.

BREAKDOWN OF GLOBAL ENERGY-RELATED CO₂ EMISSIONS

- 22% transport
- 28% buildings
- 11% construction industry
- 30% other industry
- 9% other

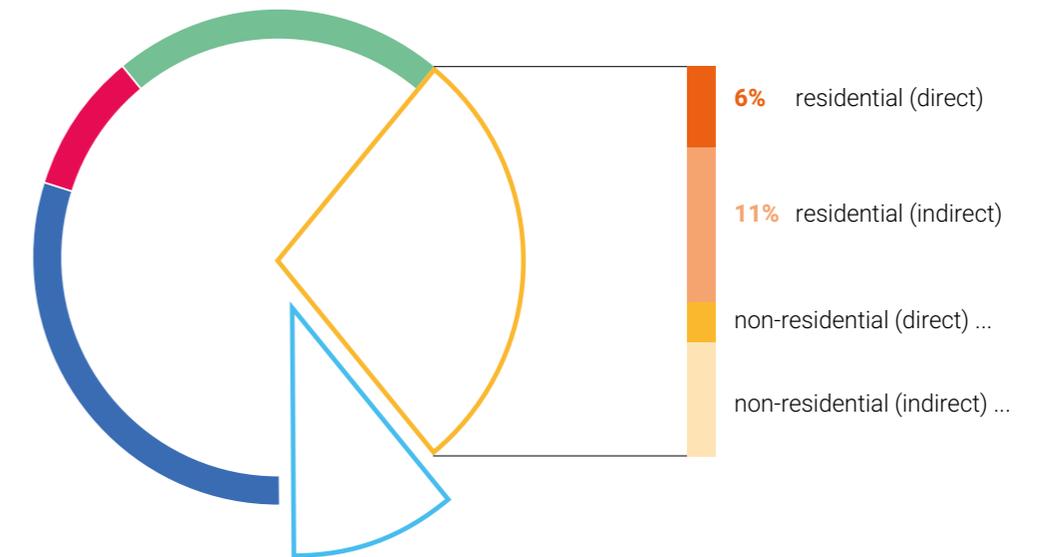


Figure 5: Breakdown of Global Energy-related CO₂ emissions by sector (2017) (Reference: www.worldgbc.org)

The story is no different in Europe. **The built environment in the EU has a significant impact on major environmental issues** (see Figure 6), and by redoubling its efforts to cut carbon emissions and improve building material sustainability throughout the lifecycle it could make serious strides towards achieving international climate goals.

EU CONSTRUCTION SECTOR ENVIRONMENTAL IMPACTS AT A GLANCE

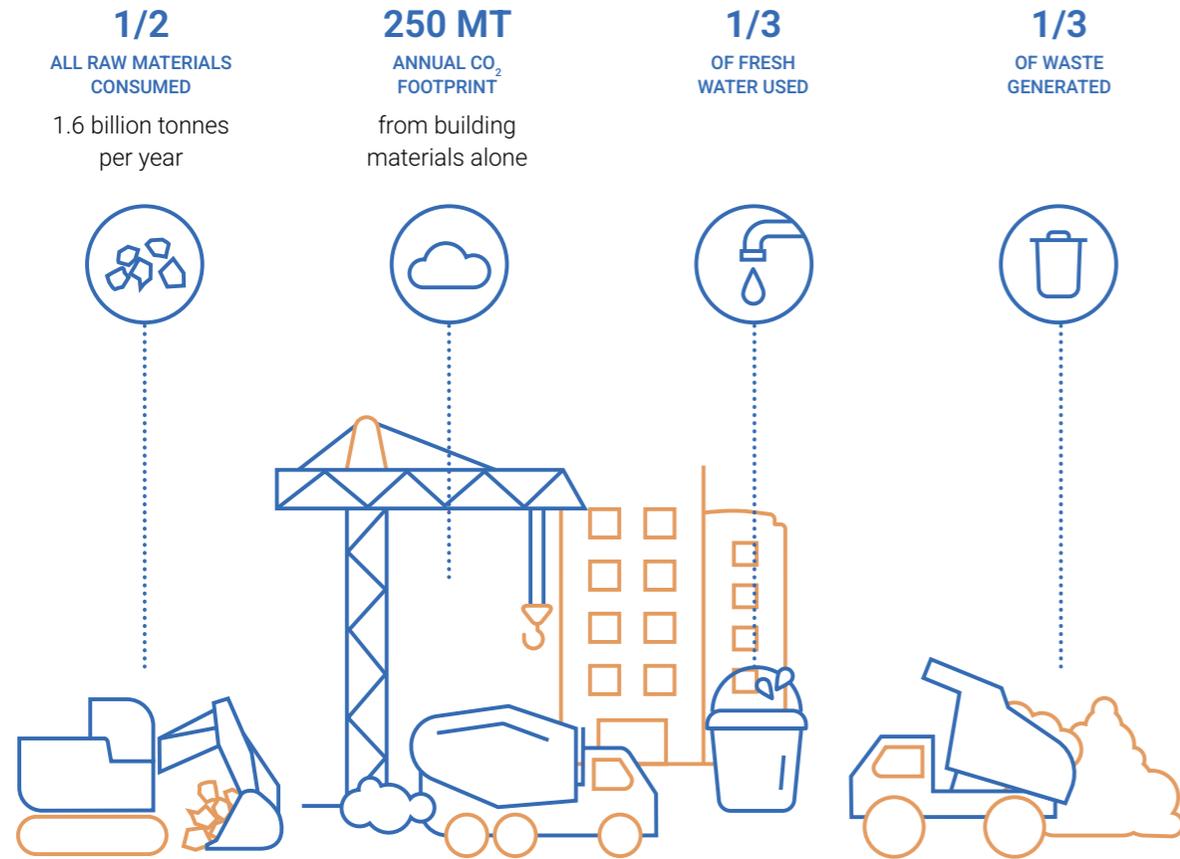


Figure 6: EU construction sector environmental impacts at a glance (source: COS position paper 'From barrier to enabler – towards a greener EU building products policy', September 2020)

“ In the past decade, sustainable building and, more recently, circular building, have become important design criteria in our office. Reducing the environmental impact of materials co-influences these criteria. Especially where circular designs are concerned, research into the appropriate material is introduced at an early stage of the design process. EPDs are used as a reliable, transparent tool for supporting product assessments and informing decisions. ”

— Lieven De Groote,
Founder and Owner of MAKER architecten

Material impacts

Transitioning to a sustainable future demands pervasive, resolute change, not just concerning environmental impact, but vis-à-vis society and in financial terms as well. It wasn't that long ago that **building energy performance** was a top priority, which was the focus of efforts to green the sector. Those efforts have paid off impressively. However, that swift decline of building energy consumption has **shifted**

the focus. Much of the total environmental impact is now attributed to the materials used in construction. B-EPDs address that shift and allow more detailed tracing of **material impacts** on the built environment and beyond. Moreover, there's a significant chance their development and use will lead to policies that enforce the **inclusion of external environmental costs** into the product price; that means that assessing material impacts now will help you stay a step ahead.

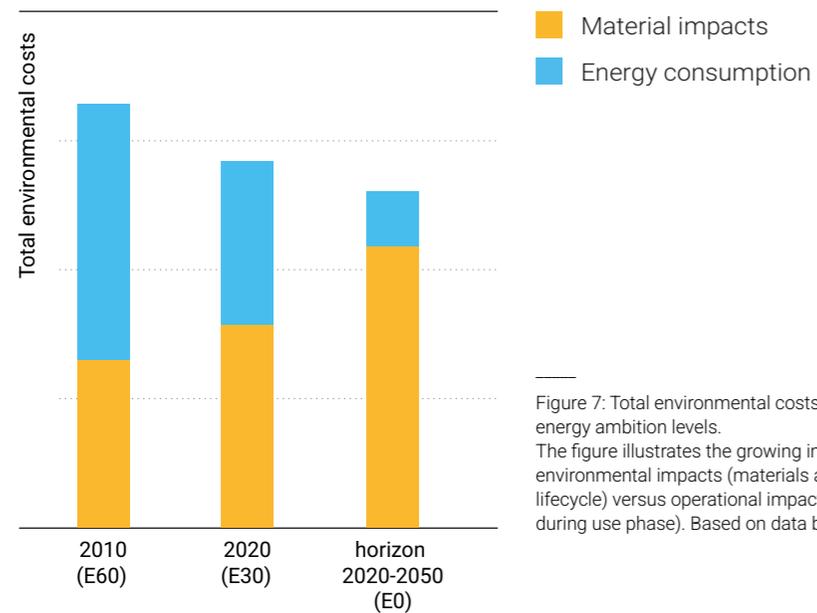


Figure 7: Total environmental costs over 60 years in function of higher energy ambition levels. The figure illustrates the growing importance of embedded environmental impacts (materials and energy throughout a products lifecycle) versus operational impacts (mainly energy consumption during use phase). Based on data by BBRI.

SEMI-DETACHED HOUSE NEW

Building materials create environmental burdens during production, transport, construction, use and demolition, i.e., throughout the lifecycle. That calls for a twin focus. On the one hand, the building’s **operational energy**, i.e., energy consumed by in-built technical systems during the use and operation of the building, which is occupant dependent, should remain a priority. Reducing this type of energy involves raising awareness among and efforts by a building’s users.

On the other hand, tackling **embodied energy** (also referred to as grey energy) is an essential means of avoiding

burden shifting (see Figure 7). Since embodied energy addresses the multiple incidences of energy consumed throughout a material’s lifecycle, it needs to be at the forefront of the construction sector’s sustainability efforts. It facilitates a true cradle to grave approach.

Environmental Product Declarations successfully address the issue of embodied energy and to a wider extent the overall embedded environmental impacts (i.e. the impact of both materials and energy throughout the products lifecycle) For example, they never lose sight of the grey energy produced during end-of-life treatment, opening up opportunities to explore recycling and reuse.

“ We are proud to have been a pioneer in 2009 by developing EPDs for the plastic piping systems used by our subsidiaries. -We developed over 20 generic EPDs for various applications in building and infrastructure installations. Partnering plastic pipe manufacturers throughout Europe rely on our EPDs to meet environmental performance requirements in public procurements and private tenders. We expect environmental performance indicators to become even more relevant in the future, especially with the rollout of the Commission’s new Circular Economy Action Plan as part of the EU Green Deal. EPDs are the perfect tool for delivering on environmental performance requirements. And that’s why we plan to expand our range in the future. ”

— Ludo Debever,
General Manager at TEPPFA

“ For the sake of our environment, the building sector must take steps to minimise the environmental impact of materials. A standardised approach to communicating the environmental impact of building materials, i.e., with product-specific B-EPDs will motivate manufacturers of building materials to deliver the best performance. Linking the B-EPD database to TOTEM for building-level environmental impact will allow stakeholders to consistently make well-informed material choices based on up-to-date data. ”

— Geert Dhaese,
Senior Building and Construction Advisor at essenscia



“ Reliable data is essential for reducing the material-related impact of the construction sector. B-EPDs will significantly expand the TOTEM database and improve the reliability of results. As such, B-EPDs directly facilitate the selection of more sustainable building solutions. ”

— Lisa Wastiels,
Head of the Sustainability Lab at WTCB-CSTC-BBRI

EU Green Deal: The European Green Deal will improve the health, quality of life and wellbeing of all Europeans, and we should all be involved in making it a reality. The new EU Green Deal has outlined a plan to boost sustainable industry and eliminate pollution by developing a circular economy. Key players in the construction materials sector have already begun transforming their products and supply chain structures to support more efficient resource use and increased recyclability. LCA will play a central role in supporting this transition by contrasting building material-related business-as-usual solutions with new innovative (more circular) solutions.



European goals

The EU has set ambitious climate targets for 2030. These targets are part of the broader framework of the European Green Deal and the Circular Economy Action Plan, which aim to accelerate Europe's sustainability sector-wide.

One of its targets is to reduce greenhouse gas emissions by 40% compared to 1990. To get the construction sector on board, the Commission published a new initiative on 14 October 2020 as part of the Green Deal called the **Renovation Wave**. The Renovation Wave aims to double annual energy renovation rates in the next ten years to 'decarbonise and create a clean energy system'. These renovations will directly improve building user and occupant quality of life, providing society with more breathing space and a brighter outlook. From a financial and social perspective, it will also create up to 160,000 additional green jobs in the construction sector, coinciding with the Circular Economy Action Plan's objectives.

Ultimately, the Renovation Wave will help reduce EU greenhouse gas emissions. However, it's important not to lose sight of material impacts. Concrete, steel beams, windows, bricks, doors, walls, roof tiles are all essential building components. However, they also have a major environmental impact. That means achieving zero net operational carbon by 2030 won't be enough. To meet the 2030 challenge successfully, embodied carbon also needs to be radically reduced. EPDs can make that happen.

Growing market

EPDs are not a passing trend or a hype. Years of concerted effort have gone into their development, and the evolving economic and environmental context point to continued growth. Europe, specifically, has seen a **huge increase** in published EPDs, with France and Germany having gotten an early start, account for a large percentage of EPDs.

“ Construction isn’t just a major consumer of raw materials and energy; it’s also a huge source of waste. We currently have the technical means to create buildings with ultra-high energy performance, but that shouldn’t conceal the building’s overall impact. After all, what’s the point of reducing the impact of energy if it causes material impacts to soar? That’s why a building’s lifecycle is so important; LCAs/EPDs assess the big picture. The Dutch have already integrated LCA, and France will do the same this year within the framework of the RE2020 environmental regulation for new buildings. Belgium already had TOTEM, so it would be a shame not to join them. As advocates of eco-construction, we are convinced that LCAs contribute to making the right decisions. We’ve promoted high-performance, low-processed, local products with low environmental impact for over a decade, and it’s time our sector caught up. ”

— Hervé-Jacques Poskin,
Director at Cluster Eco-Construction

However, Belgium is also making strides to capitalise on this growing market. Towards the end of 2020, TOTEM was made B-EPD-compatible. Since TOTEM enjoys the widespread support of the Belgian construction sector, that should radically boost the number of B-EPDs published in the coming years.



4. YOUR B-EPD HOW-TO

This chapter is your practical go-to for developing a B-EPD. It complements the B-EPD programme [website](#), which provides a convenient roadmap with all the steps you need to take to successfully register your B-EPD in the federal database linked to [TOTEM](#). Hands-on tips are provided below to help you navigate the ins and outs of each step. If you’re looking for a simple guide for registering your own B-EPDs, then this chapter is for you.

Developing, registering, and publishing an EPD may seem daunting at first glance. However, most LCA experts already know the drill and are ready to lend a hand. That way no time is lost scrambling to find the right information. LCA experts keep you posted on when and what kind of information your company needs to provide so that you can maximise your time.

And don’t forget, the **FPS Health** (epd@health.fgov.be) is also there to **assist with any additional questions**.

4.1. Practical aspects

Creating an EPD is an extensive, time-consuming process that requires considerable expertise. That's especially true the first time around. However, the more you create, the easier and more efficient that process will become. That means that the initial time and effort you pour into your first B-EPD pays off down the line. With each new EPD, the process becomes more efficient, and you boost your eligibility for green public procurement.

There are three main steps in the process:

1. **B-EPD creation** – this document is a 10-page summary (on average) of your product's life-cycle assessment, drawn up by an LCA expert in consultation with you.
2. **B-EPD verification** – a registered third-party will audit the LCA for conformity and accuracy.
3. **B-EPD registration and publication in the B-EPD database** – this step can be performed by you or your LCA expert.



What's the difference between an EPD and a B-EPD?

B-EPDs are the Belgian equivalent of an EPD. They are drawn up in accordance with B-EPD programme regulations and only cover products and materials related to the Belgian market. Is the product being transported to, installed, used, or demolished in Belgium? If so, a B-EPD is involved. As a result, any LCA study will focus on the Belgian context, from transport distance to the electricity mix, waste scenarios, and more. B-EPDs also require the additional indicators from the European standard such as particulate matter, ecotoxicity, and land use related impacts.

Do I need a B-EPD?

That depends on how you plan to use your EPD. Will you be making environmental claims about your product in Belgium? If so, you're legally obliged to have one. Creating a B-EPD also makes your product stand out in TOTEM. Additionally

the use of TOTEM in green public procurement is rising.

I already own an EPD, can I repurpose it as a B-EPD?

Sure. In fact, it may even save you time and money by scrapping a few LCA steps. Talk to your LCA expert to find out what your options are and how you can adapt your EPD for use on the Belgian market.



Time & teamwork

LCA studies are typically conducted in close collaboration with an LCA expert. That could be a company employee or an external consultant (see chapter 4.4.1); it all depends on what works best for your business. So, what is the LCA expert responsible for? They handle calculations, drafting the EPD, and will provide a detailed LCA background report. They are also your go-to for defining the study's scope and goal, data collection, and any additional tasks such as product optimisation, eco-design, product comparisons, etc.

However, while the LCA expert is responsible for much of the process, your participation is equally important. For example, your input is indispensable where data collection is concerned. This time-consuming step involves collecting data on specific products and production processes that can only be produced in house in the 'Life cycle inventory'.

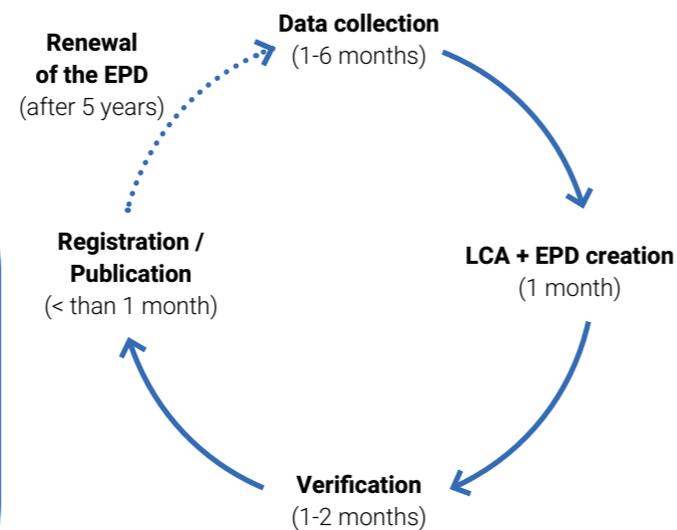
Since this process may feel overwhelming at first, here are a few key tips to assist:

- Life-cycle assessments involve the entire business. **Every department has something to contribute**, from R&D, EHS, purchasing, and production to sales, financial controllers, logistics, and the technical department. However, depending on the size and structure of your company, and provided you have full access rights, you might be able to coordinate the data collection on your own. To find out what kind of information is typically requested of each department, please check out Chapter 4.4.2.

- There is a significant learning curve associated with a first EPD. That means planning in plenty of time to get used to the process and collect the necessary information is crucial. However, those initial efforts will pay off. Once the initial data has been entered, the central database makes it easier to streamline the creation of new EPDs. Over time, the central data management system, your product's level of complexity (e.g., simpler products process faster), and the value chain associated with a new EPD will cut down on the time required to process new EPDs.

Duration: from the drawing board to a published epd

The EPD track from creation to publication generally takes around six months, although highly complex products can take up to nine months. There are different partners involved at each step, including your company, the LCA expert, the verifier, and the Federal Public Service Health, Food Chain Safety and Environment. They all have something relevant to contribute.



“ Don't underestimate data collection... Be proactive and get informed. By joining information sessions on the B-EPD programme and TOTEM, we've significantly reduced our workload. ”

— Nathalie Lebrun,
Communications Officer at Stabilame

Costs and considerations

Like most good tools, LCAs and EPDs are not free. Drafting, verification, publication, and registration all entail different tangible and intangible costs. The examples below are basic 'expenses' to keep in mind:

- **Your time**, especially for internal data collection
- **LCA expert fees**, where external consultants are involved
- **Third-party verifier fees**
- **Registration fee** for registering the EPD in the B-EPD database

LCA expert fees fluctuate wildly and are contingent on the product, service provided, additional demands, etc. Hiring one can range anywhere from EUR 5,000 to EUR 15,000.

What's more, your LCA expert may be able to expand the scope of your EPD to include multiple products or to group them. The final cost may be higher, but because it covers a larger percentage of your product portfolio – it also substantially lowers the cost per product. More information on the services LCA experts provide and how they can help you green your business is available in Chapter 4.4.1., below.

In addition to the LCA expert, a third-party verifier will need to be hired after the assessment is done. While their fees also vary according to the scope of the project/EPD, the margin is relatively small. Verifiers typically cost between EUR 2,500 and 3,000.

Lastly, registering an EPD in the B-EPD database costs EUR 200 per entry. These entries are valid for five years, and a discount is available for the registration of five EPDs or more. If your company hasn't registered an EPD yet, there is a one-off account setup fee of EUR 150 for new companies.

Several resources are available to SMEs that wish to develop a B-EPD. These vary by region. Flanders supplies subsidies through the [kmo-portefeuille](#), while the Brussels Capital Region and the Walloon Region work with [innovation vouchers](#) and [chèques entreprises](#), respectively.

4.2. LCA study scope

At a minimum, drawing up an EPD requires an LCA study with calculations to substantiate the application. However, the basic LCA study required for an EPD is also a singular opportunity to holistically expand the scope of analysis. In the initial stages, your LCA expert can advise you on other assessments that might benefit your business. For a marginal cost, these additional assessments yield data packed with valuable insights for your business. Interested in expanding the study?

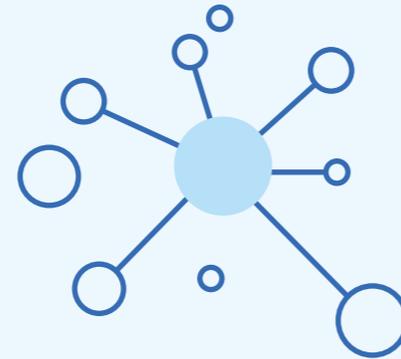
- The elements below represent just a few key benefits:
- Competitive comparison involving the same product
 - Competitive comparison involving different products with a similar function
 - Eco-design to optimise the production process

- Hotspot analysis and identification of opportunities for improvement related to your product's environmental impact
- Foreign-market friendly EPD creation

4.3. Product choice

Selecting a product or product group to create a B-EPD merits careful consideration. Your choice should be a relevant reflection of your brand and its values. The selection process is something your LCA expert can help you with; however, because you know your business better than anyone, you determine how a B-EPD product aligns with your company objectives. That means incorporating your business strategy and drivers in your decision-making process is crucial. After all, this is meant to be a truly sustainable solution, one that will grow with your company.

After selecting a product or product group, it's time to send an email to the Federal Public Service Health, Food Chain Safety and Environment at epd@health.fgov.be.



Smart **grouping of products** covers a wider product range and boosts cost efficiency. However, EPDs can be created in several different formats, e.g., for:

- a highly specific product produced by a single manufacturer in a specific plant
- a group of similar products, e.g., variations in dimensions or colour, produced by a single manufacturer
- a (similar) product produced by several manufacturers, a.k.a. a collective EPD, co-created by different manufacturers and coordinated by your sector federation, for example.

Every option entails pros and cons. Talk to your LCA expert to find out which solution is the best match.

Your LCA expert and the FPS Health will help define your building product, referred to in the LCA study as a functional unit. The **functional unit** is the basis of the LCA study. It defines qualitative and quantitative aspects of the function(s) and/or service(s) provided by the product assessed in the LCA. The functional unit's final definition answers key questions, such as, 'What?', 'How much?', 'How well?', and 'How long?'

According to the European Standard, a **functional unit** must specify a.o.:

- the application of a product covered by the functional unit
- the reference quantity when integrated in the building
- the quantified key properties
- the reference period for which the environmental impact is evaluated

It's important to keep in mind, however, that unless your LCA expert is an internal employee, they will not have in-depth knowledge about the product. For that reason and to save time and maximise efficiency, always supply the information they need to bring them up to speed. Drawing up a detailed product description, a visual flow of the production process, and a clear overview of intended use and installation options will facilitate their and your efforts. Moreover, all of these documents will be required at a later stage, so tackling them early on will elevate efficiency throughout.

“ The CEO and our Sales Team carefully selected our product. Your choice doesn't have to be the company's top product though. In the end, we went for a product that is used in large buildings since those are the ones most likely to demand a BREEAM certificate. ”

— Nathalie Lebrun,
Communications Officer at Stabilame

LIFE CYCLE STAGES OF A CONSTRUCTION PRODUCT

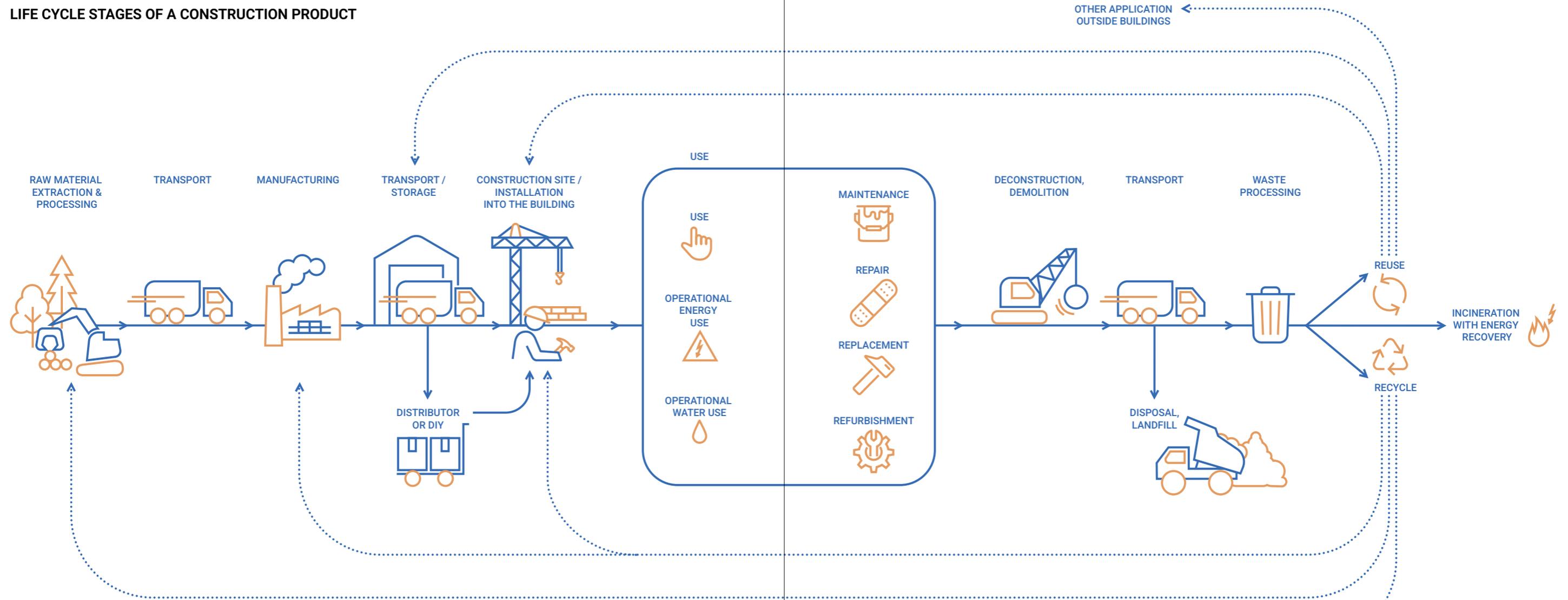


Figure 8: A Life-cycle Assessment (LCA) is the fundamental building block of the environmental product declaration. LCAs assess a construction product's global environmental impact throughout its entire life cycle.

4.4. Life Cycle Assessment (LCA) study

A Life-cycle Assessment (LCA) is the fundamental building block of an EPD. They provide hard data on incoming and outgoing flows and emissions throughout the product's lifecycle. That means quantitative data is supplied not just for the product's use, but production, transport, construction, use, and demolition are all included. Afterwards, these flows are translated into potential environmental impacts with different indicators, giving you and others a clear picture of how sustainable your product is.

The following sections are a concise summary of what an LCA study entails, along with a few key tips.

1. Selecting an LCA expert

If you don't have an in-house expert, hiring an external LCA expert becomes a must. So, what should your criteria be when selecting an expert? The list below provides a few pointers and key questions to ask on your search.

- **Interpretation:** Does the LCA expert offer an in-depth interpretation of results? Discussing your product's hotspots in terms of environmental impact can produce incredibly useful R&D data. Some LCA experts also offer a comparison with generic data in TOTEM or other EPDs, i.e., relevant data for future benchmarking.
- **Process/support:** How does the LCA expert guide you

through the process of an LCA? For example, what level of assistance will they provide during data collection? Some consultants make online tools available, while others prefer Excel templates. An LCA expert may want to visualise the process and a visit to the production site to get a better feel for your product.

- **LCA expertise:** What are the LCA expert's qualifications and area of expertise? Most stay up to date on LCA methodology, standards, etc. to flexibly adopt the latest best practices and provide relevant advice. Some consultants have expertise in different (international) EPD programmes and/or are members of the related steering committees, or participate in TOTEM developments, etc.
- **Technological expertise:** What kind of technological expertise does the LCA expert possess? Finding one specialised in construction and product technology is recommended. Even better, an LCA expert with expertise in a relevant product group will boost the study's efficiency.
- **Price:** What are their rates? Because the range varies so much, it's a good idea to request quotes from several experts.
- **Subsidies:** Are you eligible for a subsidy? Some financial support mechanisms (e.g., [the KMO portefeuille](#)) impose additional requirements on LCA experts.

Please contact epd@health.fgov.be for more information on LCA experts with B-EPD experience.

2. Data collection

To calculate an accurate environmental profile, the LCA expert requires data from your company (See Section 4.1). The question is, what kind of data? This section addresses common data required for drawing up an EPD. The different types can easily be divided into different categories to provide a clear overview.

Key categories include general and product information, plant-related data (everything that happens at the production site, core production, etc.), data on all upstream processes (raw materials + transport) and downstream processes (what happens to your product after leaving the plant, e.g., transport, installation, use, and end of life). Keep

in mind, however, that these categories and those below can't be narrowed down to a single, universal checklist. Every product is, to some extent, unique, meaning more, less, or different data may be required. And that's why you should **discuss the data with your LCA expert right from the start.**

The categories on the next page indicate between parentheses which department is likely to have the data you need.

General information

- Company name and contact data
- Product specifications, e.g., commercial name(s), product components, chemical composition, safety data sheets, etc.
 - An overview of product applications and intended use
 - Installation data and information on essential ancillary products and materials
 - Clear overview of the production process and its various steps
 - Plant data, e.g., location, surface area, and annual production volume



Upstream data

- **Product formulation (R&D)** – LCAs require the precise formulation of your product for an accurate assessment. Any data you share will be kept strictly confidential, and a non-disclosure agreement (NDA) can be drawn up and signed to safeguard valuable company data.
- **Raw material + packaging data (R&D, EHS, or Purchasing)** – to identify the impact of raw materials, each material and/or ingredient needs to be specified. Related packaging information is also required, including the type, amount, supplier, and distance of the supplier. Because multiple suppliers are often involved, they need to be itemised and linked to their respective quantities. Most suppliers can provide safety datasheets. Where that isn't the case, ask your LCA expert for assistance.

Factory data (→ core production)

Factory data collection identifies, defines, and details production process-related inputs & outputs:

- **Energy, water, waste, and emissions, (EHS or Production)** – inputs and outputs, such as CO₂ emissions, tap water use, production waste, etc. are essential for assessing the plant's environmental impact. This data is often contained in an annual environmental report. In the absence of such, the data has to be collected internally.
- **Product packaging (Production and Purchasing)** – how much packaging and what kind of packaging are

you using on your final product?

- **Product quantities (Sales, Production, or the Financial Controller)** – data on product quantities can usually be obtained from the plant's general ledger or indirectly through sales reports. However, where multiple products are manufactured on the same site, a breakdown of the production may be needed to demonstrate where the relevant product stands in comparison with the rest of the plant's activities. That way the correct amount of factory inputs and outputs can be allocated to the product.



Allocation example: To calculate the environmental impact of a product, you must know the energy consumption of the production line. However, sometimes different products are processed on this production line. Consequently, you and the LCA expert will need to allocate the energy consumption of the line across the various products.

Top tips:

- Accuracy is everything! Data collection should be conducted by someone with a solid scientific background (e.g. an R&D engineer).
- Be transparent. What you may initially think has a negative environmental impact might actually have a positive one. And vice versa!
- Suppliers are an important data resource. Make sure you maintain cordial relations.



Downstream

Once your (packaged) product has left the plant, it's still got a whole lifetime ahead of it. And that's why this stage is a crucial part of any LCA study. Predictably, your company has little control over downstream scenarios, which is why generic scenarios are often used. Nevertheless, your company still needs to supply a selection of product-specific data. A few relevant downstream processes include:

- **Transport to installation site (Sales or Logistics)** – if your product is produced for a specific site or location, then specific transportation data is required (distance and mode of transport). If not, average Belgian scenarios are available for modelling transportation of the final (packaged) product to the installation site.
- **Installation method (Sales or Technical)** – how is your product installed? Does it require additional energy, resources like water, or auxiliary materials like screws, glue, or a paintbrush? If the answer is yes to more than one of the above, talk to your LCA expert to come up with the best strategy.
- **Typical use of the product (Sales or Technical)** – what is your product's lifetime? Does your product require replacements or spare parts? Does it need to be cleaned or does it call for regular maintenance? If so, talk to your LCA expert.
- **End of life scenario** – average Belgian scenarios tend to be used to model product end of life. Any specific end-of-life scenarios should be discussed with your LCA expert.



TIP:

All data in the TOTEM library is based on the **Ecoinvent database**. If your EPD was created with non-Ecoinvent background datasets, a few other conditions must be met to make it TOTEM friendly. This distinguishes Belgium from neighbouring countries such as the Netherlands and Germany (GaBi) which are more restrictive about database use.

Please visit www.b-epd.be for more information.

3. LCA Impact Assessment (LCIA)

Once the LCA expert has received all the required data, they will start modelling your product's **environmental profile**. During the Life Cycle Impact Assessment (LCIA), the third step in the study, they will use specific LCA software and generic environmental databases to assess your inventory in terms of environmental impact. To create a viable EPD, the functional unit is a critical variable in the LCIA.

4. Reporting

Every LCA must be accompanied by a background report, drawn up by an LCA expert according to the EN15804:2012+A2:2019 standardised method. The background report provides detailed insights into the methodology, underlying assumptions, and the applied background data. Unlike the EPD, the LCA background report is not published to protect confidential information. EPDs are generated and published based on the LCA report's calculated environmental impacts and product description.

4.5. Verification

Once the LCA study is complete, an **independent verifier** will review the EPD, background report, and LCA to ensure compliance with the EU and related Belgian standards. Like an audit, this may occasionally require a site visit so that the verifier can visually verify the details contained in the report.

“ There’s hardly a shortage of “green” labels, but not all are equally useful. Many only provide select information and leave consumers scratching their heads in confusion. We made a strategic choice to provide our stakeholders with objective, third-party verified environmental data with EPDs. These declarations demonstrate the impact of our products on different environmental indicators, at different stages of the product lifecycle. Construction product EPDs produce the right data for assessing a building’s environmental impact throughout its lifetime. ”

— Jorrit Gillijns,
Product Innovation Manager at Unilin

TIP: Planning on developing an EPD for a product to be sold and used in several countries (i.e., multiple EPD programmes)? Be sure to find out whether there is a single accredited verifier who can handle your case. It will save considerable time and costs; the verifier will only have to check programme-specific conditions for additional EPDs rather than perform a full audit.



There is a list of accredited verifiers for each EPD programme with a list of B-EPD programme-accredited verifiers available [here](#).

4.6. Registration

To register an EPD, the following files should be uploaded to the B-EPD database or entered:

- The **B-EPD**, created by the LCA expert in concertation with the producer, verified and signed by the FPS Health
- The **verification statement**
- Requested **data** on the product and the study results (either by you or the LCA expert)

EPDs are registered via a convenient [online application](#). Why online? Your EPD data needs to be digitised for it to be transferred and automatically integrated in TOTEM. It also makes it centrally accessible to prospective customers or official bodies trying to verify green procurement data.

For any registration-related question, FPS Health will be happy to assist you.



5. MAXIMISING YOUR B-EPD

Chances are that if you've made it this far, you're convinced that EPDs are a worthwhile investment. If you want to find out how to maximise the added value that comes with an EPD – this chapter is for you! It contains pertinent details and specific tips to assist your R&D or marketing specialist with getting the most out of your B-EPD.

5.1. Circular products are future-forward

Circular economies create value for the economy, society, and business while minimising resource consumption and environmental impacts. It's a strategy based on reduce, reuse, and recycle. So, what difference can B-EPDs make to a circular economy?

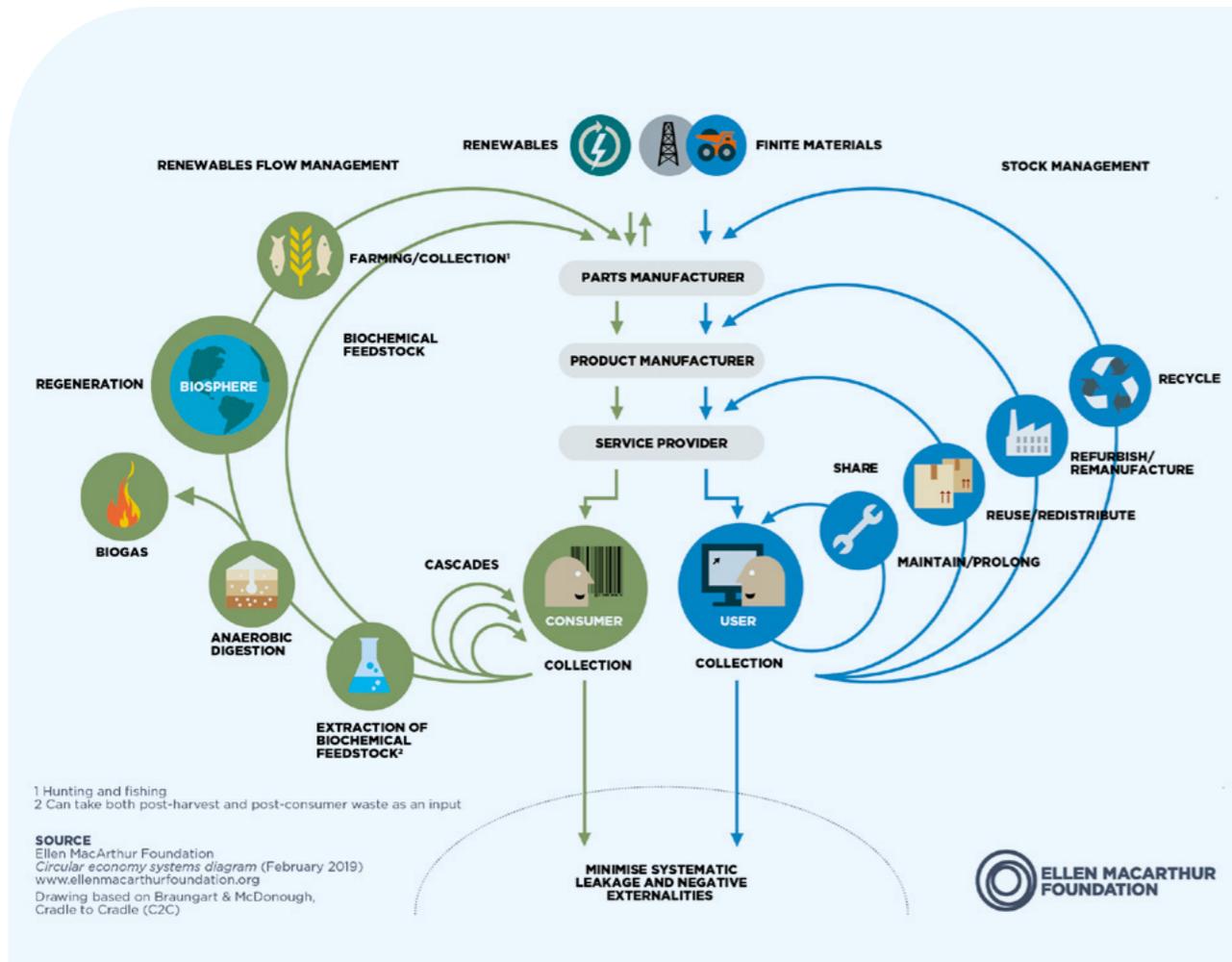


Figure 9: A circular economy seeks to rebuild capital, whether financial, manufactured, human, social or natural. Why? It ensures enhanced flows of goods and services.

For one, an LCA – the fundamental building block of an EPD – measures product environmental performance. Secondly, combining these tools fosters green innovation. They provide a wealth of useful data to circular economy decision-makers, which can be used to assess impact trade-offs. With an EPD, environmental impact indicators, such as climate change, resource depletion, water consumption, toxicity, etc. can be gauged with a high degree of accuracy.

5.2. Transparent product environmental performance = trustworthy

An EPD is a reliable, verified document that provides **transparent, objective data** on your building product's environmental performance. Not only does it provide more credible data, but it's also a clear signal that green thinking is an integral part of your business strategy. That could also factor into your **branding**.

Where branding is concerned, EPDs are a robust image development and marketing tool that could play a pivotal role in your **communications**. For instance, they can be shared with prospective customers as proof of your environmental claims and dedication to transparency. They are an excellent means of distinguishing your product or project on the market.

However, branding your product as environmentally friendly does come with strings attached. Simply put, the only companies allowed to make environmental claims related to product sustainability, etc. are those with a published EPD. The Belgian Royal Decree on Environmental Claims restricts these claims to prevent greenwashing. That means that EPDs fulfil a major legal obligation and are evidence that your brand puts its environmental policy into practice.

“ B-EPDs boost the reliability and value of LCA calculations, potentially persuading architects and contracting authorities to opt for low impact materials. Data is essential for monitoring and achieving the circular potential of materials and products. Brand-specific data, in particular, could enhance the quality of data, improving reuse and recycling. ”

– Almut Fuhr,
Sustainable Building Consultant at
Het Facilitair Bedrijf

5.3. Boosting product visibility in totem

TOTEM compatibility is a major B-EPD asset. It allows architects to integrate your building product into the building's environmental impact assessment. B-EPD registered products can also be upgraded in TOTEM from 'generic' to 'specific'. It's a transition that automatically **boosts your brand and product visibility**. In TOTEM itself, Specific (EPD) components are indicated with a  symbol, making it easier for users to identify your product. Even better, those looking for building products with transparent specific data can also add a 'Specific (EPD)' filter to the TOTEM library to quickly locate available EPDs. That makes

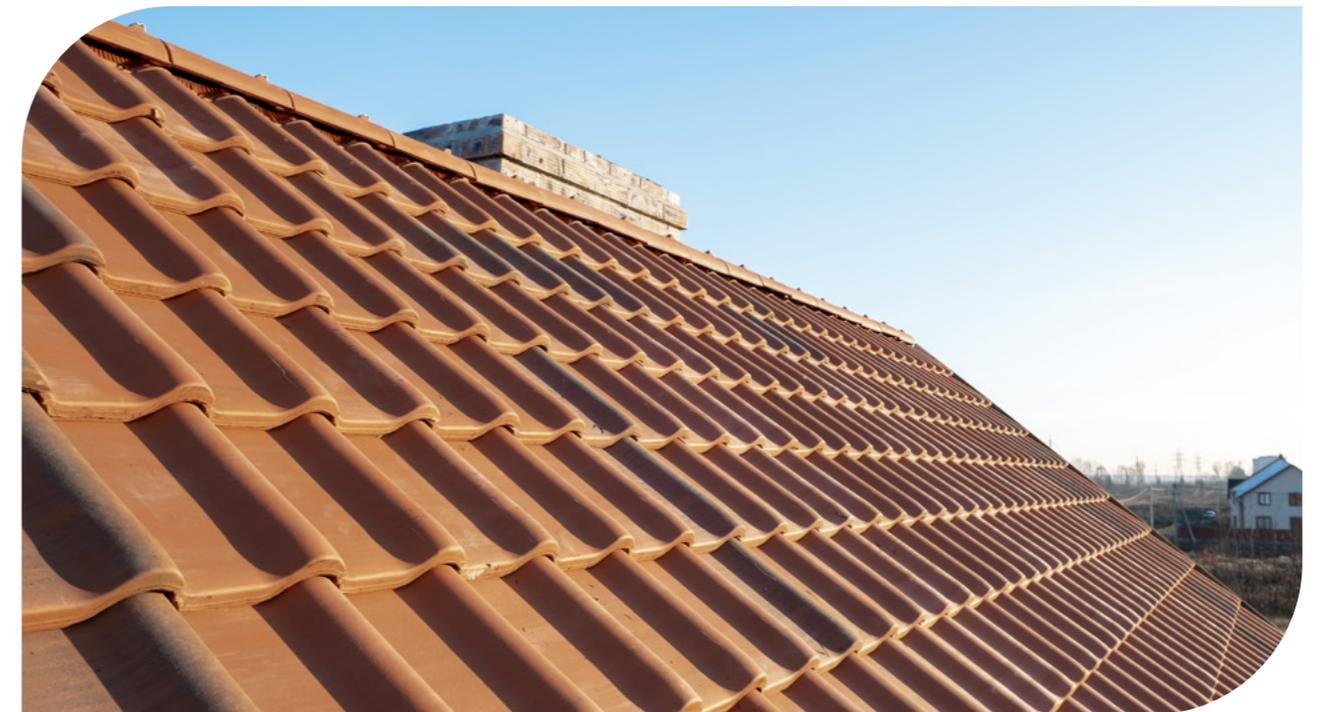
it simpler and faster to identify your EPD-certified product as the best match for a construction product.

Single EPDs can conveniently be linked to multiple applications. For example, an insulation material EPD could cover floor, roof, wall, etc. applications. Alternatively, a brick could cover a range of product dimensions. Where multiple applications are concerned, they are entered as separate 'application units' in the **B-EPD application** and are shown in the TOTEM component library in the upper right corner of the screen. Just click a tab to open a specific EPD-related application.

TOTEM contains a library with predefined building elements made up of different building components that are based on common Belgian construction practices. Predefined elements only consist of generic components. If a

“ Architects can no longer deny the significance of building material impact on the road we share towards a low-carbon society. We need clear information and proper tools to appropriately address this issue. What's more, architects need to be wise throughout, retaining a holistic approach. We cannot afford to ask ourselves, in the words of T.S. Eliot: “Where is the wisdom we have lost in knowledge? Where is the knowledge we have lost in information?”

— Kris Blykers,
Founder and CEO of Blieberg A.C.E. – Architects of a Circular Economy



 is shown next to a generic component, that means a specific component (EPD) is available within the same product category. **That means users can easily opt for specific, sustainable components.**

For instance, imagine you select (or create) an element with a generic roof tile. However, a  displays next to the generic component. To apply an EPD rather than the generic component to your assessment, all you have to do is click the 'replace' button to visit the library and select a relevant EPD.

However, before you go ahead with your choice, carefully check and compare the generic and EPD-specific properties to ensure that your replacement really is functionally equivalent. Where a more customised approach is called for, you could consider creating a new element that consists of generic components and/or specific components. Please read the **TOTEM FAQ** for more information on TOTEM and how to use EPDs.

Better data quality and accurate representation

Brand-specific data also **improves the data quality and Belgian product image** in TOTEM. TOTEM's generic data for production is currently based on European averages and common production technologies. In contrast, brand-specific B-EPDs represent a product sold on the Belgian market, based on information considered representative of the Belgian situation, and recent data. Brand-specific data holds higher appeal for serious architects looking for locally sourced products and to verifiably guarantee the sustainability of their building project. Your brand-specific data, in particular, offers them a unique opportunity to achieve their objectives.

Better data quality also promotes more accurate **BIM (Building Information Modelling)** formats, which can also be imported in TOTEM. What's more, BIM facilitates data exchange between the partners involved in a construction project by structuring how and when data is shared for developing relevant digital building models. Later, data can be derived from these models for the project design to draft a virtual implementation run before launching construction activities in the real world. BIM's precise, transparent predictive features ensure project sustainability and that all parties are on the same page.

“ The generic data in TOTEM is based on general assumptions. It goes without saying that these assumptions affect the figures associated with product environmental impacts. As a manufacturer, we know our product better than anyone else and, thanks to B-EPDs, we can now define assumptions far more precise than the general ones. Consequently, integrating B-EPDs in TOTEM significantly improves data quality. ”

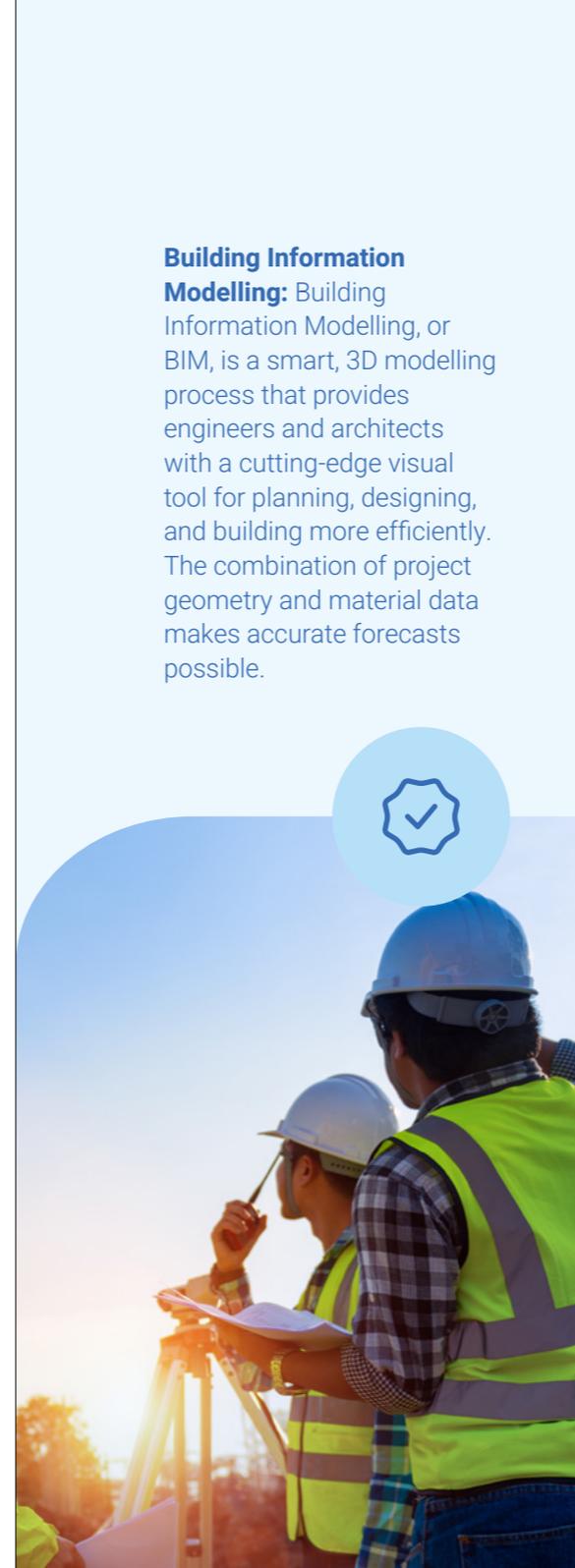
— Marijke Rymenants,
CSR Specialist at Reynaers Aluminium

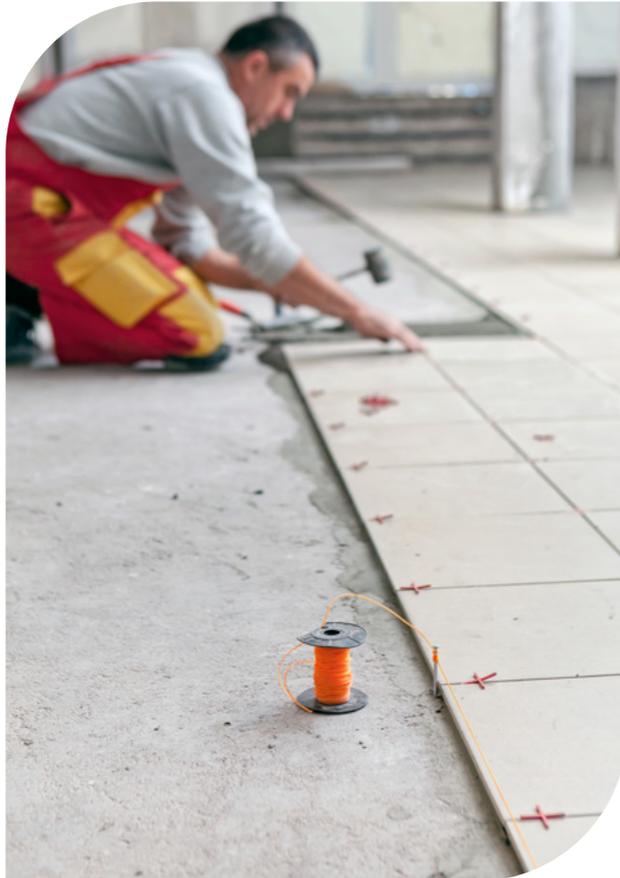
Building Information Modelling: Building Information Modelling, or BIM, is a smart, 3D modelling process that provides engineers and architects with a cutting-edge visual tool for planning, designing, and building more efficiently. The combination of project geometry and material data makes accurate forecasts possible.

Practically speaking, importing a BIM model into TOTEM saves time. The building geometry is directly imported into TOTEM and can be instantly linked to the correct building elements in the TOTEM library or used to model your own elements. Again, the [TOTEM FAQ](#) is a great resource for finding out about the process and what options are available.

“ Environmental Product Declarations can help the construction sector reduce their environmental footprint. That means integrating Environmental Product Declarations into BIM is also a major step towards the circular economy of the future. ”

— Marc Dillen,
Executive Management and Spokesman at
the Flemish Construction Federation





5.4. B-EPDs offer a competitive edge

EPDs are a great positioning tool. In terms of product environmental performance, they distinguish your brand's products vis-à-vis the competition, i.e., products carrying out the same function at the building (element) level. For instance, you can search for competing EPDs and run an analysis to **compare** the results.

However, make sure that the same scope is involved. For example, insulation materials can be stated in m³ with a certain insulating value or per m² with a certain thermal resistance. In this case, the results should be adjusted to represent the same functional unit to avoid a false comparison. For a more in-depth analysis of how your product performs compared to other building solutions, get in touch with your LCA expert.

Because EPDs aren't always available for other products, products can also be **compared** with **generic data in TOTEM**. For example, TOTEM contains the predefined element 'FloorOnGrade1', consisting of compacted sand, in situ concrete, PUR insulation, reinforced cement screed (ready-mixed concrete + reinforcement steel), and ceramic tiles. The generic ready-mixed concrete can be replaced with the EPD 'Fedbeton ready-mixed concrete' and compared with the original element (with only generic components) and the adjusted element (with Fedbeton EPD + generic components).



CASE STUDY

The manufacturer of a specific insulation material invested in an innovative technology that achieves identical thermal resistance but with less material. They now want to benchmark their product's environmental performance to prove just how good this technology is. Both the competition and the manufacturer have conducted LCA studies and obtained EPDs, so a product comparison is easy.

The final comparison revealed that **their product had a 30% lower impact on global warming compared to other products**, mainly due to reduced impact at the raw material extraction phase. In other words, the analysis proved a significant decrease in global warming. However, the comparison also revealed an increased negative effect on human health due to the production and incineration of the protective facer. Rather than view this as a sign of failure, they saw it as a critical opportunity to invest in an R&D project on alternative facers. Why? To create a product that is better for people and the planet.

“ We wanted to advertise the environmental friendliness of our products. Naturally, that meant a B-EPD. Nevertheless, what really sold us in the end was TOTEM compatibility and visibility. On top of that, we maximised our EPD by scoring more credits in BREEAM. ”

— Nathalie Lebrun,
Communications Officer at Stabilame



5.5. Entry pass to building certification schemes

EPDs are a pass to all major sustainable building **certifications schemes**, such as BREEAM, LEED and DGNB. In Belgium, TOTEM is recognised as compliant with ‘BREEAM International New Construction 2013 and 2016’ and

The main differences occur during life cycle stages A1-A3 (raw material extraction, transport, and production) and A4 (transport from the plant to the installation site). In A4, the EPD ‘Fedbeton ready-mixed concrete’ incorporates a transport distance of 17 km compared to the much larger generic TOTEM assumption of 100 km. At the end of the day, using the EDP-certified Fedbeton product significantly reduces the impact of product transportation.

These results are calculated for the full building element, and the positive outcome is achieved by replacing just one material with an EPD. Once more EPDs that can be used with the same element become available, the differences between generic versus specific are likely to be more drastic. EPD elements will have a distinct edge.

‘BREEAM International Refurbishment and Fit Out 2015 calculators’.

Practically speaking, the credits awarded by these certification schemes depend on how many EPDs are available and the number of points associated with each type of material. For **LEED v4**, for example, credits are issued when at least 20 different permanently installed products with an EPD or a critically reviewed LCA sourced from at least five different manufacturers are available.

By contrast, for **BREEAM UK**, credits are awarded when at least 20 EPD points are scored with no more than four points for each type of material (e.g. timber, concrete, etc.). Manufacturer-specific and product-specific EPDs score 1.5 EPD points. Manufacturer-specific EPDs score 0.75 EPD points, and generic EPDs score 0.5 EPD points.

In the DGNB system, EPDs are preferred ENV1.1 ‘**LCA – emission-related environmental effects**’ and ENV2.1 ‘**LCA – resource consumption**’ criteria.

And the end of the day, EPDs are a smart choice for construction professionals seeking to secure green public procurement. EPD-certified products improve project eligibility and give them a better shot at successful bids.

5.6. Embedding ecodesign throughout the life cycle

EPDs are the best tool for contextualising your product’s environmental impact and pinpointing realistic potential for **improvement**, which includes optimising manufacturing processes. LCA results reveal environmental hotspots so that you know which level to prioritise. Depending on your LCA expert, a hotspot analysis can be scheduled with the life cycle assessment to identify the best opportunities to reduce your product’s environmental impact. Those could include:

Key upstream processes in the value chain:

- This involves analysing your choice of raw materials. A key question to ask here is ‘Are there other (better) suppliers you could work with?’ To figure that out, request an EPD and compare suppliers.
- Another key question is, ‘Could you use a different raw material with a lower environmental impact without compromising product quality?’



CASE STUDY

XPS insulation production requires a blowing agent. In a comparative LCA study the environmental impact of HFC and CO₂ blown XPS based on company-specific data was calculated and compared to generic data. The figure below shows that CO₂ blown XPS has a lower impact on most environmental indicators compared to HFC blown XPS. In conclusion, solely producing CO₂ blown XPS is recommended for reducing the environmental impact.

COMPARISON OF XPS INSULATION USING DIFFERENT TYPES OF BLOWING AGENTS

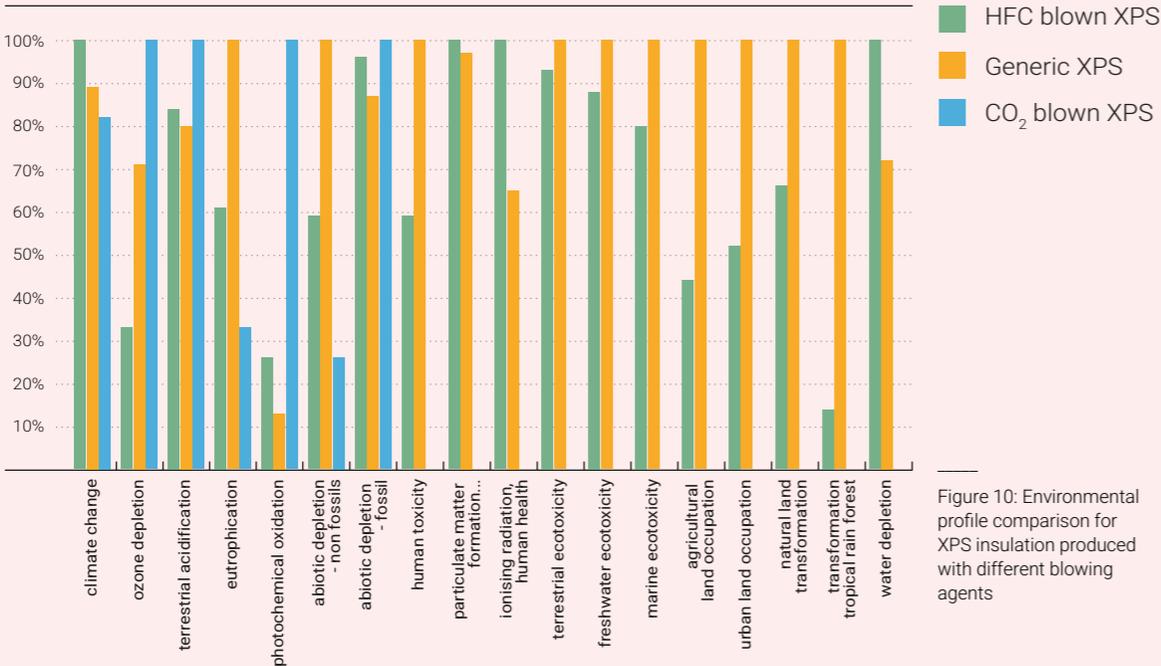


Figure 10: Environmental profile comparison for XPS insulation produced with different blowing agents

Production level impact at your company:

- Could certain production parameters be modified? For instance, could you alter the source of electricity or fuel (e.g., renewable energy instead of fossil fuels), or improve internal recycling of production waste, etc.? Figure 11 below demonstrates how different energy consumption can radically impact the environmental costs.

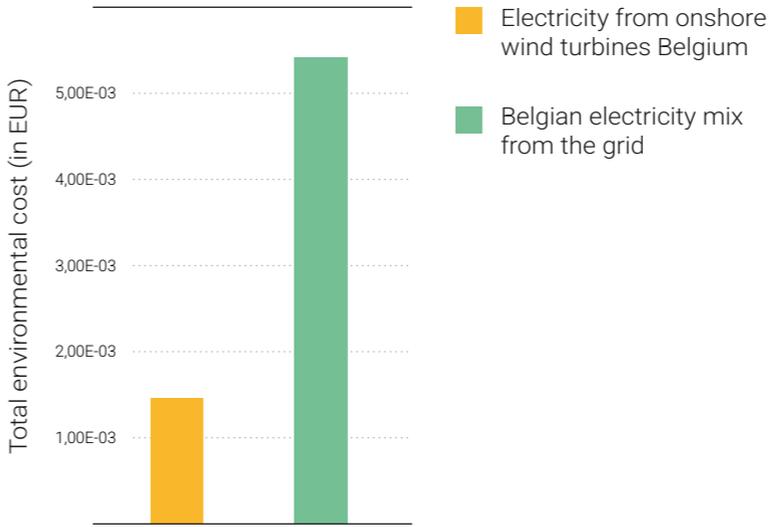


Figure 11: Environmental impact comparison between different electricity sources (based on MMG method)

TIP: Go local. Use local raw materials instead of imports, e.g. Belgian blue stone from the Flemish Ardennes instead of India or China.



Key downstream processes in the value chain.

Downstream processes are also impacted by product developments and installation guidelines:

- Product designs could be altered to increase the installation's circularity (e.g., click systems, rapid disassembly, etc.)
- Products that require energy during the use phase could, for example, be optimised to reduce energy consumption.
- Choosing greener packaging makes sense where product waste handling of this packaging generates a significant environmental impact.



CASE STUDY

A manufacturer of product X conducts an LCA study and notices that the packaging, especially the final product's plastic boxes, has a huge impact on the overall environmental profile. As a result, they decide to reuse the plastic boxes rather than discarding them after a single use. Now, the boxes are returned to the factory for reuse once the product has been delivered. A rough estimate shows that these boxes can be reused at least five times. Figure 12 compares the environmental impact of both scenarios including the additional transportation due to reuse.

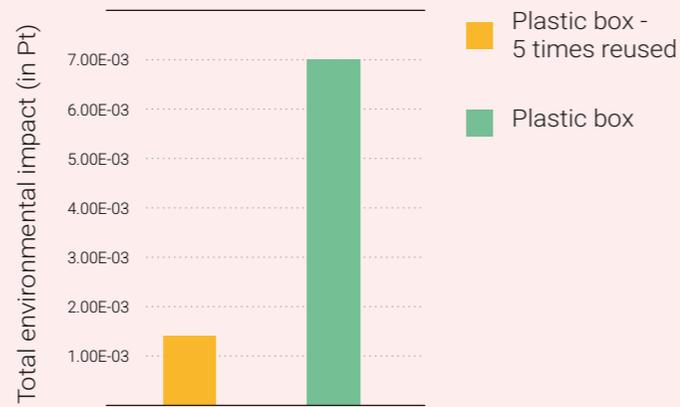


Figure 12: Environmental profile of plastic product packaging comparison, single use vs. reuse (according to EN15804:2012+A2:2019 method)



“ To protect our planet and deal with a rapidly growing population, architecture requires a complete overhaul. The principles of circular economy are an essential means of coalescing ecological necessity and economic reality. Our wall system provides flexible and circular interior walls. Life cycle assessment (LCA) and life cycle costing (LCC) help us prove to customers that our product has a long-term sustainable impact. Where decisions need to be made on the circular economy within the built environment, we're convinced that LCA and LCC are indispensable. ”

— Chris Van de Voorde,
Founder of JuuNoo

- The choice of raw materials also affects product waste treatment. Selecting high recycling rate materials benefits the environment and your budget.
- The production location also affects the impact of raw material transport and transport to the customer.



CASE STUDY

A manufacturer of product Y performs an LCA study and notices that the final product's packaging has a significant impact on the overall environmental profile. Based on this outcome they decide to transition from a plastic packaging foil that weighs 0.2 kg per product to corrugated board that is 0.8 kg per product. Despite the new, heavier weight, the overall environmental impact is lower.

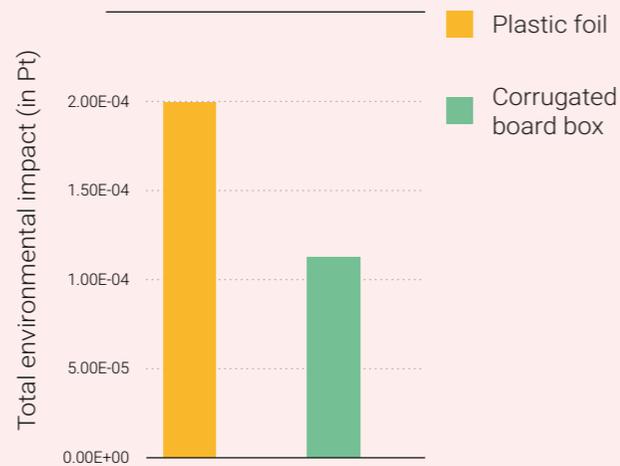


Figure 13: Plastic vs. board product packaging environmental profile comparison (according to EN15804:2012+A2:2019 method)



CASE STUDY

Based on an LCA study for product Z, a sensitivity analysis was conducted on the transport distances to the plant and customer, respectively. The results showed that lorry transport over 300 km was expected to have a significant negative impact on climate change. Conversely, transport by ship only showed a negligible increase. And the result? The company sensibly decided to transition away from road transport to inland navigation.

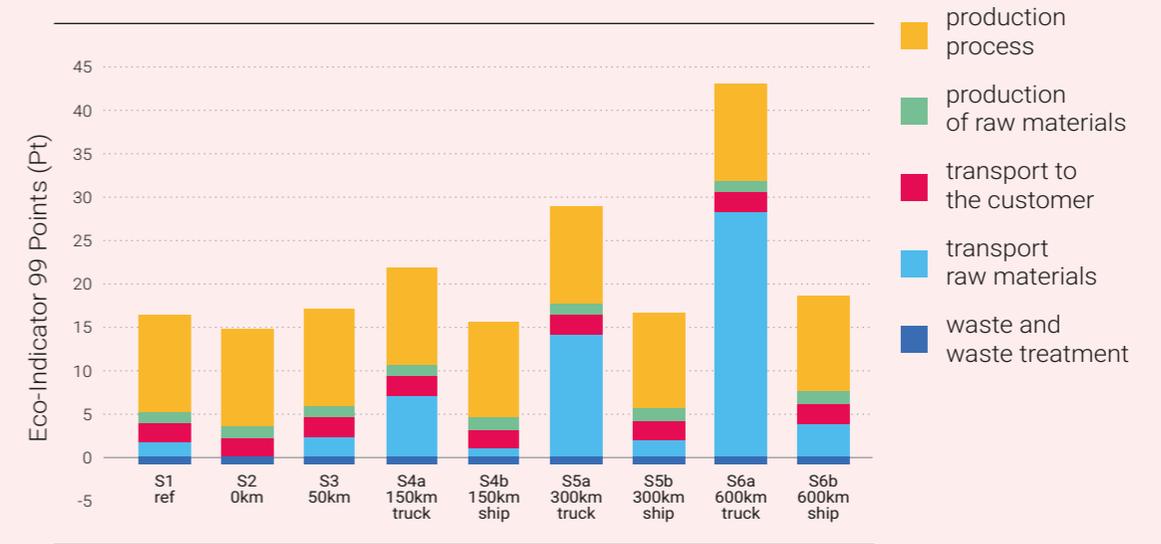


Figure 14: Transport scenario comparison in terms of raw materials (to the plant) and final products (to the construction site) (Eco-Indicator 99)

5.7. Embracing cost reduction

The benefits of an EPD aren't limited to better brand image and a greener construction sector. Awareness of the environmental impact throughout the value chain leads to **more efficient** processes and **reduced costs** (e.g., because less energy or raw materials are required) and a cleaner carbon footprint.

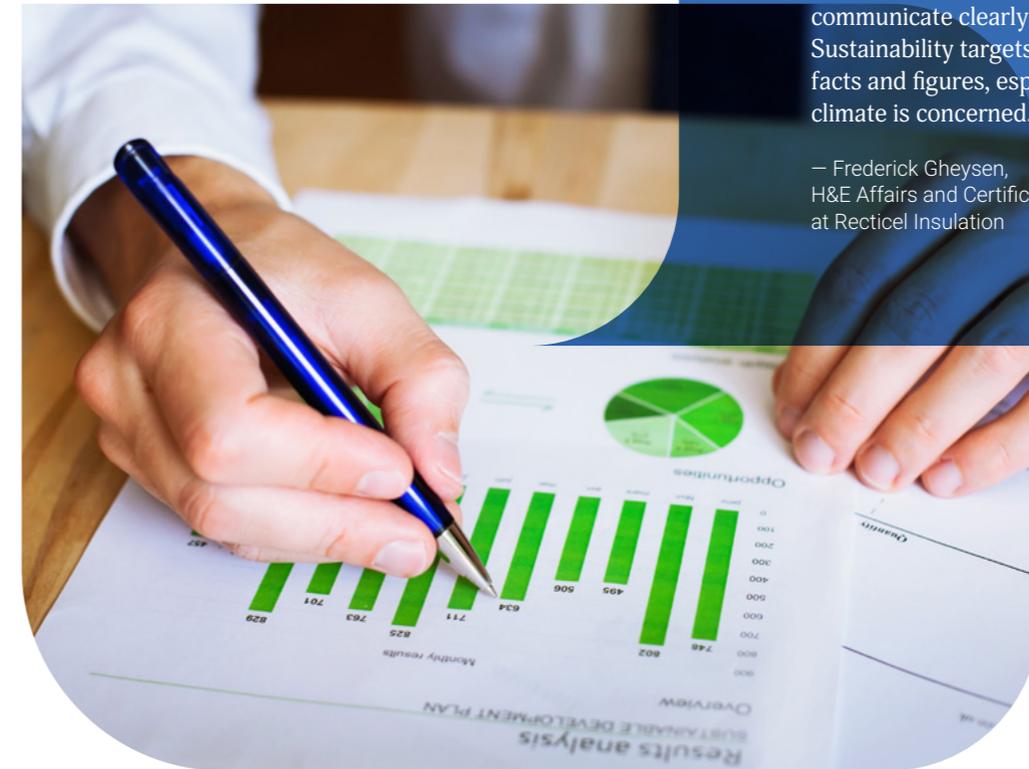
5.8. A sustainability report-friendly indicator

LCAs and EPDs contribute to specific sustainability-related Key Performance Indicators (KPIs). For instance, global warming, waste, recycled content, etc. can all be monitored and then assessed and updated in an annual sustainability report. Since **sustainability reports** are an accessible way for potential customers to gain insight into your commitment to a sustainable future, incorporating EPDs should be seen as a practical internal monitoring tool and a critical branding instrument.



CASE STUDY

A manufacturer of product Z conducts an LCA study. It reveals that electricity consumption during the production process has a tremendous impact on the overall environmental profile. That inspires them to invest in a new technology that reclaims heat emitted during production to generate new electricity. Grid consumption falls by 20% and the product's impact on global warming is reduced by 15%. A EUR 10,000 investment in a heat recovery unit and an annual savings of EUR 5,000 on the electricity bill mean that two years down the road, the manufacturer can look forward to reduced production costs.



“ We've observed a serious upturn in EPD interest in the market. Our B-EPDs are drawn up at plant level and contain specific, hard data, which is absolutely an added value. This makes it possible for us to communicate clearly on our Group Sustainability targets based on the facts and figures, especially where climate is concerned. ”

— Frederick Gheysen,
H&E Affairs and Certification Coordinator
at Recticel Insulation

Manufacturers take diverse approaches to incorporating EPDs and LCAs in their sustainability reports. The examples below from brands that see the merit and are reaping the rewards from these tools provide inspiration for how you can make them work to your advantage.



BETTER ECO-UNDERSTANDING OF OUR PRODUCTS

Imagine buying a product and understanding at a glance its environmental impact — and then being able to easily compare that impact with other products in the market. This is the ambition behind our new Eco-Design tool which will help our teams and our customers make informed choices about insulation solutions. For more than a decade we have analysed the environmental impact of our products and systems based on Life Cycle Assessment, and produced documents known as Environmental Product Declarations or EPDs. These EPDs reveal the environmental impact of our products at every stage of their life — from the sourcing of raw materials, manufacture, packaging, distribution, use in buildings and ultimate disposal. With data

from our EPDs, our new tool uses the principle of shadow pricing to sum up the environmental impact of our products across their entire life cycle in one simple measure — euros. Shadow pricing attaches a price to something that is not often quantified financially, for example, the social cost of replacing a city park in terms of community or value to children's play. Our tool will put a shadow price on environmental indicators — such as global warming potential, acidification and resources used — which are influenced by aspects of the product's life cycle. The tool will be adaptable to incorporate other aspects such as health-related issues or product content. Our aim is to start testing a pilot model in early 2021.

Figure 15: Extract from [Insulation Matter: 2020 Annual Review](#) by KNAUF ↑
 Figure 16: Extract from [Kingspans sustainability report](#) →
 Figure 17: Extract from the [2019 Assa Abloy Sustainability Report](#) ↓



ASSA ABLOY supports the intention of SDG 9 on resilient infrastructure, inclusive and sustainable industrialization and innovation by systematically exploring ways to reduce production materials, optimizing product components and streamline production as well as transport methods. The Sustainability Compass is integrated into ASSA BALOY's product innovation process, organically embedding sustainable design into the development of new products. During 2019 the overall energy consumption decreased with 4% and the proportion of energy sourced from renewable resources increased from 11.9% to 12.3%. The Group has Environmental Product Declarations (EPD) from all major product groups, representing about a third of the Group's total sales. 88% of the Group's product managers have received training regarding the use of the Compass. During 2019 we invested SEK 3.6 BSEK in R&D and we have some 2800 R&D engineers.

Progress indicator: Sustainability Compass.

HISTORICAL ACHIEVEMENTS & ONGOING ACTIVITIES

- The company's products have a long life cycle and minimal maintenance requirements.
- In 2002, Kingspan Insulation became the first insulation manufacturer, and the third manufacturer from any sector, to undertake a BRE certified Life Cycle Assessment (LCA). Kingspan Insulation has maintained continuous certification of its Therma™ range since then.
- LCAs, certified by BRE Certification to the 2008 BRE Environmental Profiling Methodology, have been completed for the vast majority of the company's Kooltherm®, KoolDuct® and Therma™ insulation products, manufactured at Pembridge and Selby. All products profiled received a certified BRE 2008 Green Guide Summary Rating of A+ or A.
- The company has been successful in persuading some of its suppliers to produce independent LCA data for its raw materials.
- Information about the impacts of manufacture and product safety datasheets are available to customers on request.
- Use of recycled aluminium facings for boards has been explored but proved unviable as the performance was of insufficient quality.
- Research and testing has been carried out to increase the proportion of renewable materials in products. The use of a polyol derived from cashew nut oil was investigated. However, a Life Cycle Assessment of the polyol showed it to have higher environmental impact than that which it would replace, so it was not progressed. A by-product from paper manufacturing was also investigated as a replacement raw material. Whilst it held promise, the supplier was not willing / able to commit the capital to manufacture in sufficient scale.



As the global leader in access solutions, ASSA ABLOY is contributing to SDG 11 on making cities and human settlements inclusive, safe, resilient by offering sustainable products and services related to openings and entrance automation solutions. At the end of 2019, ASSA ABLOY had EPDs from all major product groups, which contribute points towards higher ratings in global green building certifications such as LEED and BREEAM. All new products are required to be developed using the Sustainability Compass, which focuses on optimising the environmental footprint during the whole product lifecycle.

Progress indicator: Sustainability Compass and Product Specific EPDs.

5.9. Hotspot analysis

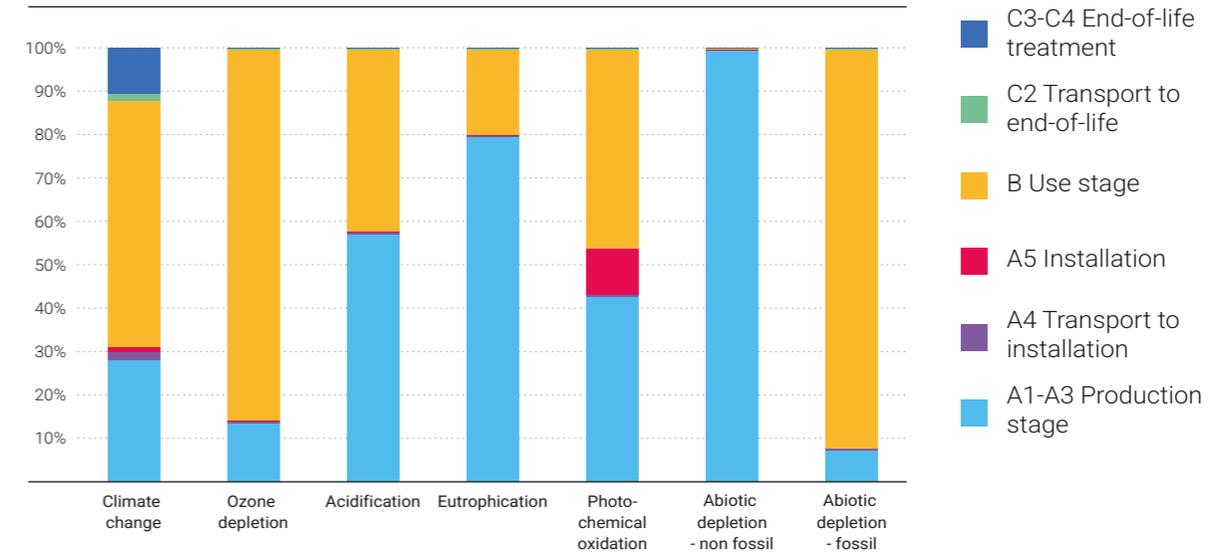
Briefly mentioned above, B-EPDs provide pivotal insights into your product's overall environmental performance, including burdens and benefits. As opposed to a piecemeal approach, it assesses the life of your product from cradle to grave so that you can identify hotspots across the spectrum.

“ Our manufacturer members use our sectoral EPD to boost their environmental profiles. The EPD results have identified hotspots and allow them to compare their company's environmental profile with the collective EPD for the sector. ”

— Laurie Dufourni,
Sustainable Building Officer at the Belgian Brick Association

The figure and table below show the environmental profile and hotspot analysis of specific building material. The production and use stage clearly contribute most heavily to the overall environmental impact. An LCA study makes it possible to really get to the root of the issue, to identify exactly which materials or processes have the largest environmental impact. When all is said and done, your company can make improvements where they matter most.

ENVIRONMENTAL PROFILE OF A SPECIFIC BUILDING MATERIAL



Impact category		Climate change	Ozone depletion	Acidification	Eutrophication	Photochemical oxidation	Abiotic depletion - non fossil	Abiotic depletion - fossil
		kg CO ₂ eq	kg CFC-11 eq	kg SO ₂ eq	kg PO ₄ - eq	kg C ₂ H ₄	kg Sb eq	MJ, net cal
Production stage	A1-3	28,17%	13,63%	57,06%	79,43%	42,76%	99,55%	7,16%
Transport to installation	A4	1,80%	0,36%	0,50%	0,37%	0,42%	0,06%	0,41%
Installation	A5	1,05%	0,16%	0,22%	0,20%	10,61%	0,05%	0,20%
Use stage (20 years)	B6	56,83%	85,53%	41,74%	19,57%	45,81%	0,24%	91,86%
Transport to end-of-life	C2	1,67%	0,31%	0,41%	0,35%	0,35%	0,10%	0,37%
End-of-life treatment	C3	10,49%	0,01%	0,06%	0,08%	0,05%	0,00%	0,01%
Total		100,00%	100,00%	100,00%	100,00%	100,00%	100,00%	100,00%

- contribution > 50 %: most important, significant influence
- 25 % < contribution ≤ 50 %: very important, relevant influence
- 10 % < contribution ≤ 25 %: fairly important, some influence
- 2,5 % < contribution ≤ 10 %: little important, minor influence
- contribution < 2,5 %: not important, negligible influence

Figure 18: Hotspot analysis of the environmental profile of a specific building material

5.10. (E-)tools

EPDs are highly versatile and can be employed for various reasons and to achieve different objectives. For example, an LCA expert can do an in-depth analysis and then compare your product to a competing product, an alternative building solution, or the generic data available in TOTEM. The analysis itself can be recorded in a report, where it not only serves as an excellent source of data but can also lead to an interpretation that solves a specific bottleneck or problem.

Another alternative is to create tools, whether an e-tool or an Excel workbook. The point is to boost accessibility, particularly for non-LCA experts. Tools based on EPDs are designed with the average user in mind so that they can run analyses without having to solely rely on an LCA expert's assistance. That also means greater independence on the part of EPD users, who will gain greater fluency in working on the green built environment.

What's more, tools created based on EPDs can be customised to meet your company's unique needs and identity. For example, LCA tools can be configured by the user to edit product composition (the material mix), transport distances, etc. It's relevant for product eco-design, but also makes it considerably easier to create an EPD for a different product since the tool contains all the building blocks of the initial declaration. Manufacturers and architects keen to balance their dependence on external experts should consult an LCA expert to find out what their best options are.

Naturally, developing a tool like this implies a significant investment. In the long run, though, it provides greater flexibility, more independence, and reduces the costs associated with creating new EPDs for a range of products.

6. CONCLUSION

What is a B-EPD? A B-EPD is an Environmental Product Declaration based on the Belgian EPD programme. Succinctly, it's a document that reports product environmental impacts. They are always verified by a third party and registered in the EPD database of the Federal Public Service Health, Food Chain Safety and Environment.

Creating a B-EPD for your products means taking advantage of a host of opportunities to create company value – internally and externally. The knowledge you gain on your product's environmental performance, for example, can be used to apply eco-design from cradle to grave so that your product is more sustainable. By identifying and tackling environmental hotspots, you can **boost production efficiency** and potentially save on costs.

On the other hand, EPDs can be used to **distinguish your brand** from the competition and boost your image. EPDs let customers know that your company's commitment



“ The LCA train has been on the rails for several years. However, while it’s clearly accelerating, now is the best time to prepare your company to board. Why? Well, the framework never has been so stable. With CE-marking and Declaration of Performance integration on the table, the quantified assessment of building product environmental impact is the best way to assess design alternatives and include impacts that might otherwise go undiscovered. Naturally, LCA is still an estimate; however, but it’s also transparent and science-based which makes it a good measure. And it’s true – LCA isn’t cheap. However, it draws out the most important asset, one that lies in your own company. It gives you a crucial glimpse into your processes so that you can grow as a company. And not only does it help identify hidden impacts that can be optimised, often leading to cost reductions, it’s also a lever for positioning yourself in the market. It gives you the chance to boost your image as an environmentally committed and concerned business. ”

– Dieter De Lathauer,
EPD Programme coordinator at the Federal Public Service
Health, Food Chain Safety and Environment

to sustainability is genuine. From image development to marketing campaigns – they **enhance product visibility**. Compatibility with TOTEM, Belgium’s foremost e-tool for analysing the environmental performance of buildings and building elements also showcases your B-EPD products to the green building community and improves their accessibility. Simultaneously, they put your brand in the running for BREEAM and other **international green certification standards**, rendering it eligible for green public procurement. It is the standard for future-proofing your production.

Companies interested in creating EPDs and taking advantage of the benefits that go along with them will need an LCA expert’s expertise. They will walk you through the process so that your EPD matches your product and your company sustainability strategy. Once you’ve been through the process once and made it through the learning curve, subsequent attempts will be quicker, easier, and feel more natural.

EPDs are **the way forward**. Please check out www.b-epd.be for more information and don’t hesitate to send an email to epd@health.fgov.be should you have any questions.

Good luck!

COLOFON

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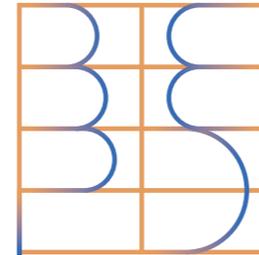
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