

Putting the metrics behind sustainability.



Construction Products Trade Association Comparing PEF And EPD For Construction Products

The Challenge

The construction sector is very active in sustainability. Since the popular EN 15804 standard was released, which specifies how to do environmental product declarations (EPDs), interest in LCA soared. Each year, many new EDPs are produced for construction products.

A large trade association in construction, representing manufacturers and national associations of construction products, has also been promoting their products with environmental footprint data. Previously, they had used EN 15804 to measure the impacts of their products and to compare their products to equivalent products. Now, the association wanted to analyse their products' performance with the European Commission's Product Environmental Footprint (PEF) methodology.

They were particularly interested in the similarities and differences between PEF and EN 15804, how using the different methodologies changes the comparison between the two products, and where there were opportunities for improvement based on PEF.

PRé Solution

A PEF Model For Today And The Future

We built a comprehensive, parameterised model of the life cycle of the product in question in SimaPro, following the most recent PEF guidance. The robustness of this PEF study was high due to the consistent modelling approach, the completeness and the high level of detail. To address the limitations of the PEF methodology, we did a series of sensitivity analyses for the impacts on toxicity, resource use and end-of-life. Biodiversity is not part of the current PEF methodology, but we included these aspects at the request of the trade association.

The parameters prepare the model for future methodology or data updates. End-of-life, for instance, is still a topic of discussion within the ongoing PEF developments. The model did appear sensitive to the chosen approach for end-of-life modelling, which

means the results could change significantly depending on the end-of-life approach chosen. The parameterised model can easily be updated once the end-of-life modelling approach has been finalised in the PEF pilot project.

EN 15804 Versus PEF

Our PEF study assesses the environmental performance of two equivalent construction products. EN 15804 had been used to assess these construction products in earlier studies, and the trade association was eager to understand how the current study differed from the previous one.

Over the course of the PEF study, PRé kept track of the differences between the PEF and the EN 15804 standards. The resulting overview of the similarities and differences between both standards, a qualitative comparison based on expert judgement, was much appreciated by the trade association.

Business Value

- **Thorough benchmarking and insights to increase competitive advantage.** PRé identified environmental hot-spots and explained the difference in performance between both products. The study also uncovered opportunities to increase competitive advantage.
- **Deep understanding of PEF and EN 15804.** The trade association appreciated the detailed overview of the similarities and differences between PEF and EN 15804 and the consequences the choice of standards has on the results. This clarified the potentially confusing situation around EPDs, legislative activities in the European Union and construction product LCAs and enabled them to prioritise the improvement opportunities.
- **Flexible model for easy updates.** The model was made flexible to incorporate future updates in methodology or data collection. This way, an updated or follow-up study can be done very efficiently. The model can also be used to calculate PEF studies for individual member companies with relatively little effort.

PRé has been actively collaborating with the European Commission in the development of the PEF methodology, acting as the Technical Helpdesk, testing and reviewing different aspects. This broad experience related to PEF has given us the opportunity to use our insights to solve the practical challenges described in this project.





Creating Business Value Through Sustainability Metrics

Sustainability Metrics Consulting

Sustainability in business has become a core business concern and a driving factor in creating business value. PRé offers a range of consulting services, provided by a team of experts who will work with you to choose, create and deliver the right metrics for your sustainability goals.

PIONEERING Developing Innovative New Metrics For New Challenges

Societal and stakeholder expectations for implementing sustainability in business are becoming more demanding. Sometimes, off-the-shelf metrics cannot help you answer their questions. PRé has extensive experience in life-cycle-based metrics pioneering: implementing cutting-edge new product metrics and developing completely new, scientifically sound and robust metrics. PRé has been the driving force behind many ground-breaking initiatives like ReCiPe or the Handbook for Product Social Impact Assessment.

INTEGRATION Integrating Sustainability Metrics In Your Business

To create business value from sustainability, your business needs to integrate sustainability metrics across its business functions. You can't improve what you can't measure. PRé has the expertise required to help you choose the right metrics and to integrate sustainability into your day-to-day operations. PRé also supports you in increasing the efficiency of your LCA work and in empowering your LCA practitioners.

DELIVERY Expert LCA Knowledge To Measure Sustainability Performance

LCA has proven to be a robust and science-based way to measure and communicate your sustainability performance. PRé can review your LCA studies, deliver EPDs, footprints and other metrics, and provide you with completely new LCA studies to measure your impact. Our consultants are renowned for their expertise in specific topics, such as impact assessment, uncertainty, normalisation, toxicity, social sustainability and databases. PRé offers training courses and in-house training that build a solid knowledge base to help you conduct LCA studies yourself.

Get In Touch With PRé
We're always happy to discuss your sustainability challenges with you. If you have any questions, feel free to contact our offices in the Netherlands and the US.

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We look forward to being your partner in putting the metrics behind sustainability.

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Those Who Have Gone Before – Market-leading Businesses That Are Creating Value From Sustainability Metrics

PRé has built a worldwide reputation as a leader on environmental and social impact assessment. We work with organisations and institutes such as the European Commission, European Space Agency, Heineken, BASF, Philips, L'Oréal and DSM.



About PRé

PRé has been a leading voice in sustainability metrics and life cycle thinking, since 1990, pioneering the field of product and supply chain sustainability metrics. We've developed some of the world's most widely recognised and applied environmental impact assessment methods, as well as the world's leading LCA software, SimaPro. From the very first, we have not only focused on developing the science of LCA, but also its application – helping companies create value by using state-of-the-art measuring, monitoring and analysis methodologies to improve their sustainability performance.

Find out more about what we can do for your organisation at www.pre-sustainability.com

