

Putting the metrics behind sustainability at LC-IMPACT.



LC-IMPACT



Method development for impacts caused by fossil and mineral resource extraction

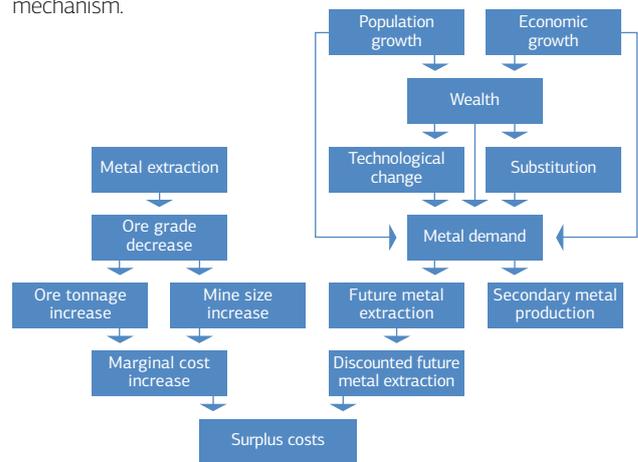
The Challenge

The European Commission analyzed existing environmental impact assessment methods for use in Life Cycle Assessment, defined as life cycle impact assessment (LCIA) methods. Recommendations for LCIA were made in the European context and published in the ILCD Handbook. As a result of the analysis conducted, many research needs for further development of impact assessment were also identified. These were presented for each impact category and categorized in high, medium, and low priority. For all impact categories, there were equal needs to quantify the uncertainty and to identify where spatial and temporal variations from global defaults were justifiable to warrant distinction in practice.

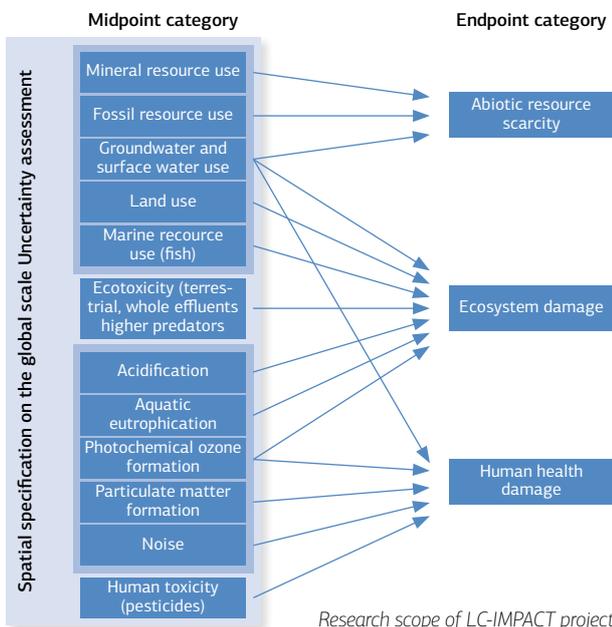
PRé Solution

The European Commission responded with a request for tender to address the LCIA research needs. This was the origin of the FP7 funded project entitled LC-IMPACT, coordinated by the Radboud University Nijmegen and composed of 16 partners, including PRé Consultants. The project started 1st December 2009 and lasted for 3.5 years. PRé led task 1.4, supported by the Raw Materials Group.

This task aimed to develop an operational impact assessment method for addressing abiotic resource scarcity and corresponding characterisation and normalisation factors. This task was chosen because, to start with, there was no clarity on what society wants to protect regarding abiotic resource use. If this priority became clear, so then did the choice of impact indicator and cause-effect mechanism.



Cause-effect mechanism of mineral resource extraction



Research scope of LC-IMPACT project

PRé used the following approach to conduct the research:

- 1. Stakeholder consultation** twenty participants, representing policy, industry, and natural resource experts, elucidated the issue of concern regarding the extraction of abiotic resources;
- 2. Cause-effect chain description** from the extraction of abiotic resources to the resource scarcity damage caused;
- 3. Characterization factors** calculation including uncertainty for endpoint, and if possible, also midpoint indicators for both fossil fuels and minerals/metals;
- 4. Normalization factors** development on European and global scale.

Business Value

- Two aligned fossil and mineral endpoint methods for the surplus cost indicator and respective characterisation factors;
- Scientifically robust and sophisticated models and improved data used for the derivation of the characterisation factors;
- Training materials with detailed description of the methods to be used for education and communication.



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

