Putting the metrics behind sustainability.

Footwear and Apparel Producer
Waste Disposition Life Cycle Assessment

The Challenge
A global manufacturer of footwear and apparel wanted to determine the best end-of-life disposal options for its main waste materials, in order to validate and potentially refine the current company philosophy regarding waste disposal.

PRé Solution
The first step was to prioritize three aspects of the project: materials to examine, disposition options for each material, and applicable geographies. Working with the manufacturer, seven materials were selected across seventeen dispositions and six geographic regions. PRé created 138 individual life cycle models for specific waste dispositions and materials, which were modified to be as specific as possible for each scenario. As primary data collection for this number of materials and dispositions would be very time and resource intensive, little primary data was gathered and PRé instead relied heavily on secondary data sources in the first phase of this project.

In order to determine the most environmentally preferable option, each pathway was given a single score, representing the environmental impacts of that option across eighteen different environmental factors. Higher scores represent those options that are the most preferable, while lower scores represent options which have a higher impact. As anticipated, reducing use of virgin materials was always the most preferable option. Recycling and energy recovery disposition options often varied in rank, as some recycling technologies are energy intensive. Disposal options, which include landfilling and incineration, were almost always the least preferable options. PRé also worked with the client to investigate which environmental factors were primarily responsible for driving each pathway’s score.

Business Value
Working with PRé, the footwear and apparel manufacturer discovered the following project-driven benefits:

- A framework that provides a quantitative assessment of the environmental impacts of the waste dispositions for multiple materials
- Creation of a high-level environmental impact assessment, which can be used to prioritize disposition options as well as identify specific areas for further exploration
- A heightened understanding of the downstream consequences of upstream material decisions

Material A

Most Preferable +

Reduce Use
Recycling Option A
Energy Recovery
Recycling Option B
Landfill
Incineration

Least Preferable −
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.

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.

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.

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.

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