

Introduction of the Product Environmental Footprint (PEF) methodology in Georgia

Pilot Project: Handicraft For Kids



Life cycle thinking according to PEF

The Product Environmental Footprint (PEF) methodology is designed to assist companies **measure the environmental performance of their products** and position **themselves in the market of sustainable products**. The PEF method entails a multi-criteria measurement of the environmental performance of a good or service throughout its life cycle. It **considers the entire resource cycle** and environmental factors in product manufacturing across all stages and **provides concrete rules** that reduce freedom of interpretation and promote stringent data quality and verification requirements. Implementation of a PEF assessment establishes 16 environmental impact categories and includes representative product profiles, which serve as benchmarks within their product categories.

Handicraft For Kids

Sector | Apparel
Location | Tbilisi, Georgia
Key products | Toddler Summer Dresses
Employees | 4 Woman
Main markets | Georgia, US
Exportation quota | 10%
Founding year | 2018
Certifications/management systems | EN71 Toy Safety Standard



In addition to the local market, the company is represented on Amazon in America and has also participated in the international toy exhibition in Nuremberg, Germany, in 2023. The company is the winner of several projects, including GEClose2EU, Enterprise Georgia, Spark, etc. Furthermore, it is actively searching for buyers in the European market

Motivation for introducing the PEF methodology

Applying best practices | Georgia is a relatively small country where sustainable practices are in their early stages. Therefore, the support from such projects has the potential to bolster sustainability practices.

Process optimization | The PEF study provides valuable insights into processes that have the biggest impact on the environment and identifies improvement potentials across the whole value chain.

Export orientation | The company is strongly export-oriented and is committed to enhancing product sustainability to effectively enter the EU market and remain competitive.

Action implemented by:

Key findings of the PEF study

The **most relevant impact categories** for the product are (1) Water use (34.3%), (2) Climate change (26.4%), (3) Resource use, fossils (12.5%), and (4) Particulate matter (7.76%). The **most relevant life cycle stages** for this product are (1) LCS1 Raw materials acquisition and pre-processing, (2) LCS2 Manufacturing, and (3) LCS3 Distribution. Finally, the **most relevant processes** for this product are (1) Cotton fiber, (2) Residual grid mix, and (3) Van diesel.



Climate change impact category:

44.4%

Manufacturing

32.1%

Distribution

18.9%

Raw materials acquisition and pre-processing

Resource use, fossils impact category:

76.6%

Manufacturing

23.1%

Raw materials acquisition and pre-processing

Recommendations

Sustainable material sourcing | Water use (34.3%) is identified as the most important impact category. This result is reasonable as the main raw material used for this product is cotton fabric, which is made of cotton and needs much water in its harvesting process. Therefore, it is advisable to seek textile companies that use more eco-friendly and sustainable cotton harvesting practices.

Energy efficiency measures | The manufacturing life cycle contributes the most to climate change and resource use (fossils) categories due to high electricity consumption. The potential improvement will imply enhancing energy-efficient electricity and exploring green energy alternatives to reduce environmental impact.

Environmentally-friendly shipping practices | The widespread use of vans currently relies on fossil fuels, presenting an opportunity for potential substitution with eco-friendly alternatives. By exploring eco-delivery partnerships within the country, we can address this issue. Similarly, in the realm of online sales, prioritizing environmentally sustainable delivery logistics and utilizing eco-packaging are crucial steps forward.



Before participating in the project, we did not realize the importance of the application of PEF methodology for business. We believe that after participating in this project and gaining the relevant certificate, our company will have an advantage across the EU market.



Tato Kobakhidze, Owner

The Product Environmental Footprint (PEF) methodology was introduced by the European Commission in 2013, under the 2013 Single Market for Green Products (SMGP) initiative. In the Eastern Partner (EaP) region, the PEF methodology is promoted as an activity led by the United Nations Industrial Development Organization (UNIDO), through the EU-funded EU4Environment Action. For more details, visit: www.eu4environment.org

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