envirly
by Quantifier

LCA

ubrania do oddania

ENVIRONMENTAL LIFE CYCLE ASSESSMENT OF A PRODUCT

The subject of the analysis was 1 **kg of clothing sample*.**
A life cycle assessment (LCA) was conducted for two processes:

- clothing production,
- operations of the company "Ubrania Do Oddania" regarding the reintroduction of clothing into circulation.

The scope of the analysis covered the **"cradle-to-gate"** stage.
The functional unit used in the study was **1 kg of clothing**.

The aim of the analysis was to determine the environmental impact in two categories:

- emissions, expressed in carbon dioxide equivalent (kg CO_2e),
- total water consumption, expressed in m^3/kg.

METHODOLOGY AND DATA SOURCES

The analysis was conducted in accordance with the LCA method. All methodologies and estimations are available in the calculation file. The main sources of emission factors were:

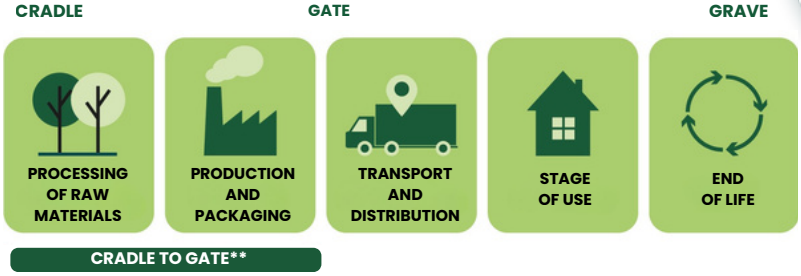
- **Ecoinvent** - database version: 3.11
- **AIB 2024**
- **Science direct**
- **Supplier data**

PRODUCT CARBON FOOTPRINT – SAVINGS ANALYSIS RESULTS

CO_2 **13,09**
kg eqCO2

- Emission intensity for introducing 1 kg of clothing into the circular system: **1.03 kg CO_2e**
- Emission intensity of producing 1 kg of clothing: **14.12 kg CO_2e**
- **GHG emissions savings: 13.09 kg CO_2e**

SCOPE OF ANALYSIS:



SUMMARY

The conducted analysis provides detailed information on the carbon footprint of **1 kg of a clothing sample**, taking into account **cradle-to-gate (LCA)** emissions for two categories**.
The comparison results serve as a basis for communication with end customers
The analysis was conducted in collaboration with Envirly – a consulting and technology company supporting businesses in meeting sustainability and ESG requirements.

WATER CONSUMPTION – SAVINGS ANALYSIS RESULTS:

7,18
m3/kg

- Total water consumption for introducing 1 kg of clothing into the circular system: **0.04 m^3**
- Total water consumption for producing 1 kg of clothing: **7.22 m^3**
- **Water savings: 7.18 m^3**

*Calculations were performed based on the analysis of a 1 kg sample, estimated from approximately 150 kg of clothing items collected from the sorting facility.
**Detailed assumptions are available in the calculation files.