

CIRCULAR TRANSITION INDICATORS

CASE STUDIES



Organization Name:
Secil

Industry:
Construction and Materials

Number of employees:
2,437

Annual revenue:
EUR 451 million (in 2020)

Website:
<https://www.secil-group.com>



Secil undertook this journey towards sustainability years ago and has taken safe steps towards this goal, especially with regard to biodiversity, the use of alternative fuels, innovation in products with less carbon intensity, energy efficiency and responsible action in the communities where it operates. We know that this path is long, complex and has numerous obstacles but based on our know-how, management skills and clarity in determining objectives, we will manage to become a sustainable company in the coming decades.



Otmar Hubscher,
Global Health, Chairman of the Executive Committee, Secil

Why are circular metrics interesting to your company?

Secil is committed to sustainability, seeking to reconcile its economic performance with respect to the environment and responsible citizenship. The promotion of a circular economy is a company concern that led to the need to ensure the recovery of its waste and the incorporation in its activity of by-products or waste from other industries, thus reducing the use of virgin raw materials. Circular metrics are therefore an important basis to support decision-making and Secil's promotion of circular economy principles within the value chain.

Key challenges

The increase in the circularity of Secil's activity in general and in particular of the product under assessment, entails several challenges, including the search for non-virgin and/or renewable materials for incorporation in the process, the increase of outflow recovery, the improvement of energy efficiency and an increase in renewable sources of energy. For this pilot, we decided to focus on a high strength cement produced at our Outão factory, located South of Lisbon: CEM I 52.5 R.

With regard to the CTI assessment, the main challenge was to obtain information on the outflow's actual recovery, data that waste management operators do not have.

Solutions

Increasing the circularity of the product under scope requires continuous process improvement and the promotion of industrial synergies with other companies. As an example of synergy, Secil established a partnership between Secil-Britas, The Navigator Company and Arfil, which allowed us to incorporate the sand that results from the thermal energy production process in biomass boilers in the pulp and paper industry, into the process of concrete and cement mortars manufacture.

Secil is also running the CCL Project – Clean Cement Line – which aims to reduce the carbon footprint and improve the energy efficiency of Fabrica Secil Outão's facilities. Alongside these initiatives, Secil will continue to make efforts to contribute to an increasingly circular economy model.

Results

The circularity of the product under scope (CEM I 52.5 R), a high strength cement produced at Outão Factory is 1.34%. This result comes mainly from the fact that the vast majority of raw materials used are of virgin and non-renewable origin and, within the considered outflows (product and powder by-pass), once it has reached the end of its life cycle it can be recycled and reused as secondary raw material in the cement or construction industry, or eventually landfilled, but this is a decision that is not made by the producer. 51% of the energy used in the process comes from renewable sources, whereas some part of the non-renewable energy is produced from waste from other industries. For the water circularity indicator, it was possible to verify that there is 100% circularity in the process, according to the CTI framework's criteria.