ROBECOSAM
We are Sustainability Investing.

For professional investors only

Environmental Impact Monitoring

Investors are increasingly interested in understanding the environmental and societal impacts of their portfolios, and therefore require firm evidence that their investment decisions are making a positive impact. RobecoSAM's Environmental Impact Monitoring tool helps investors quantify the impact of their portfolios on the four most significant environmental impact indicators namely, GHG emissions, energy consumption, water use as well as waste management.

Why impact monitoring?

Over the last few years, many investors have become increasingly interested in using their investments to achieve a positive social or environmental impact without compromising financial returns. But in order to manage their portfolios' impacts, investors must first be able to measure them. With this in mind, RobecoSAM has developed an analytical reporting tool to help investors monitor the impact of their portfolio on a selection of quantitative environmental indicators.

By measuring their portfolios' footprint on a series of tangible environmental indicators, investors gain an understanding of the magnitude of their portfolios' environmental impact per invested dollar. Subsequently, this information can be used to adjust portfolio company weights to maximize the positive impacts, or limit the negative environmental impacts of their investment portfolios.

Impact monitoring at a glance

- Helps investors quantify and communicate the environmental impacts of their portfolios to beneficiaries and stakeholders
- Enables investors to make better-informed decisions on how to adjust their portfolios in order to maximize the positive impacts and minimize the negative impacts of their investments
- Leverages the annual Corporate Sustainability Assessment and RobecoSAM's long-standing experience in collecting and interpreting financially relevant environmental data

How it works

1. **Quantitative Indicators:** We screen a client's portfolio to determine the aggregate environmental footprint of its holdings on four quantitative environmental indicators:

    - **Greenhouse gas (GHG) emissions:** measures direct GHG emissions generated by sources owned or controlled by the company (Scope 1 emissions) and indirect emissions associated with the generation of purchased electricity or heat (Scope 2 emissions).
    - **Energy consumption:** measures total energy directly consumed by the company.
    - **Water use:** measures a company's total water withdrawal, excluding water discharged with an equivalent quality level than the water extracted.
    - **Waste generation:** measures metric tons of dry waste generated by the company, consisting of by-products of the extraction or production process that can no longer be used for production or consumption and which the company intends to discard.

2. **The Environmental footprint is calculated for using 2 different methods in order to yield a more comprehensive perspective of a company's emissions profile:**

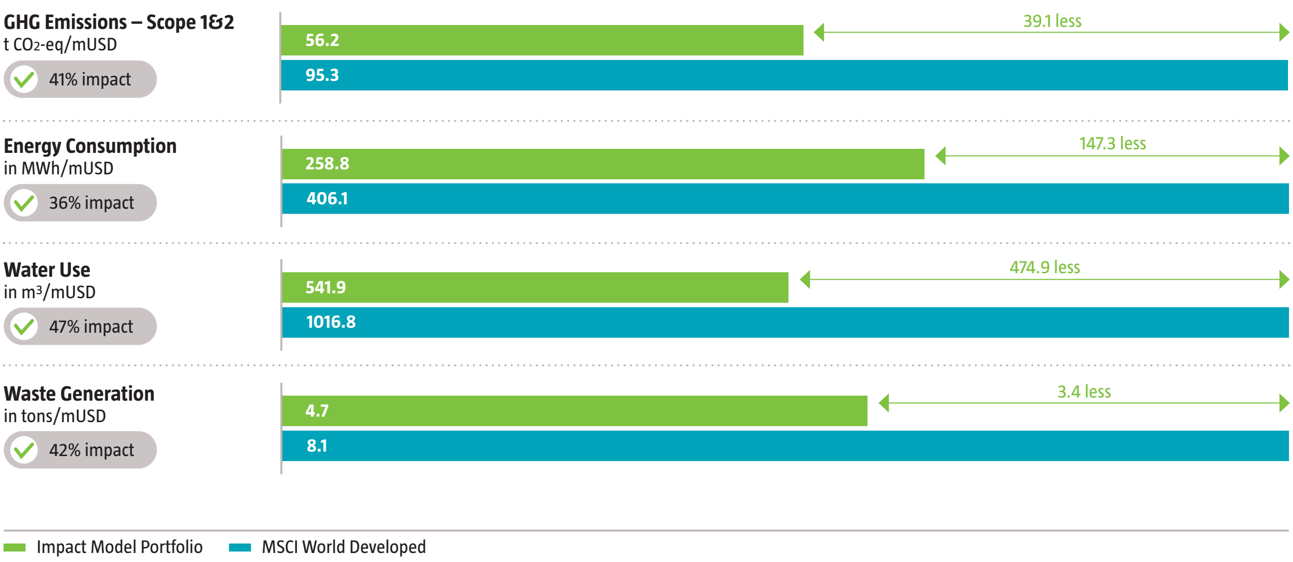
   1) Ownership indicator: For each company in the portfolio, RobecoSAM determines the environmental footprint per million USD invested by dividing the company's exposure to each environmental indicator by total capital (enterprise value in million USD). For example, for GHG emissions, a company that emits 5 million metric tons of CO_2-equivalents (CO_2-eq) per year and has an enterprise value of USD 10 billion has a CO_2 footprint of 500 metric tons of CO_2 for every million USD invested.

   2) Efficiency indicator: This is similar to the ownership indicator, except we divide by company revenues (instead of enterprise value) to obtain a measure of carbon efficiency (CO2 and CO2-eq emitted per million USD of sales revenue generated).

While measure 1) is more intuitive (GHG emissions per USD invested), it is also subject to market sentiment and swings in share price. Revenues, in contrast, are more stable year by year, and more representative of overall company activity. Measure 1) also penalizes sectors with low price-to-sales ratios (e.g. basic resources) while measure 2) penalizes sectors with high price-to-sales ratios (e.g. real estate). Combined, both measures provide a more balanced view of a companies' emissions profile.

3. **Portfolio level impact:** The total environmental footprint for the portfolio is calculated as a weighted sum of all the portfolio components' environmental footprints. The same calculation is carried out for the benchmark components. The portfolio's environmental impact is defined as the deviation of the portfolio's environmental footprint from that of the benchmark. A sample report for a client investing USD 100 million in an impact portfolio is provided in Figure 1.

Figure 1: Sample Environmental Impact Report



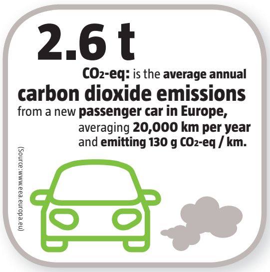
Source: RobecoSAM

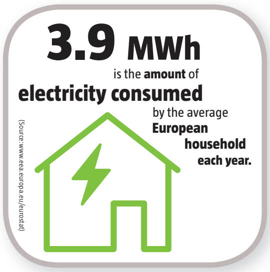
Providing context

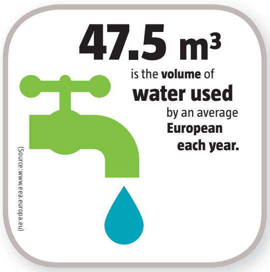
Measuring and understanding a portfolio's environmental footprint is at the very heart of impact investing. However absolute figures stating the number of Megawatt hours or metric tons of CO_2 emissions are not necessarily meaningful when provided out of context.

To help investors grasp the true magnitude of their portfolio's impact, the emissions, water use, energy consumption and waste generation data are expressed in terms of tangible examples of every day household activities to which every investor can relate.

For example, the portfolio shown in Figure 1 has achieved emissions savings of 3,908 tons of CO_2-eq relative to the benchmark, or the annual CO_2 emissions of 1,503 European cars. Armed with this information, investors have a better understanding of the impact which their portfolios are contributing.







Maximizing impact

An attribution analysis relative to the portfolio's selected benchmark helps the investor determine whether the portfolio's environmental impacts are driven by sector allocation or stock selection.

Based on this information, we work with our clients to jointly develop a customized impact investing strategy with measurable targets, and help them determine how to adjust their portfolios accordingly. In addition, we help investors enhance the positive impact of their investments by entering into dialogue with selected companies that have demonstrated areas of weakness on one or more of the environmental measures, as part of our Engagement Services.

"Our environmental impact monitoring and management capabilities provide investors with transparency about the impact of their investments."

Why RobecoSAM?

Thanks to our long history focusing exclusively on sustainability investing, we can offer our clients a range of investing and monitoring options suited their individual needs.

The starting point for RobecoSAM's impact analysis is the Corporate Sustainability Assessment (CSA) where each year, we assess over 4,600 publicly-traded companies. This affords us direct access to companies and their business practices, enabling us to build one of the world's most extensive research databases on corporate sustainability, including key environmental indicators for each company. This comprehensive database serves as the foundation for measuring and monitoring portfolio impacts. In parallel, companies' participation in the CSA raises their awareness of environmental factors that are relevant to investors, ultimately encouraging them to improve their environmental impact performance.

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