



Measuring and reporting the carbon footprint

How could the impact of greenhouse gas emissions for “Scope 3” be measured and reported to ensure the transparency, accuracy and reliability of the information?

Challenge Origin

Sacyr seeks to give a new dimension to the calculation of "Scope 3" of its carbon emissions. “Scope 3” includes, among others, all indirect emissions that occur in a company's value chain, including all work and supplies.

The calculation of the Carbon Footprint in “Scope 3” is based on a list drawn up by the Greenhouse Gas Protocol (GHG) which defines the fifteen categories of greenhouse gas (GHG) emissions.

Sacyr accounts and reports these emissions with an indicative/estimative calculation base.

Objectives

- Measure and report the carbon footprint associated with SACYR's main activities.
- Analyze data transmitted by suppliers to validate the source, reliability and consistency of the data.
- Manage data in a secure and standardized way to be able to present the the proofs/evidence to/from each audit.
- To detect the activities that generate the highest impact on the environment.

Aspects to consider

The main products used by Sacyr in the development of its projects are cement, steel, aggregates, concrete and asphalt products, as well as supplies for each project.

To calculate "Scope 3", both emissions from the point of production to the point of consumption must be considered, thus including the emissions generated in transport and distribution, as well as the emissions generated in all stages of the product value chain.



Barriers to overcome

- Use of generic data (dispersed sources and non-homogenised data) in official databases and lack of information about all inherent manufacturing, transport, processing and application operations.
- Lack of accuracy in quantifying, reporting and assessing the carbon footprint; difficulty in identifying activities with higher impact and alternative solutions with lower impact.
- Lack of digitalization of suppliers in the sector.
- Decentralization of work centers and/or supply points.
- High number of both suppliers and products.

Benefits

- Obtain all the necessary data for the calculation of the carbon footprint from the suppliers.
- Speed up the capture, analysis and processing of data through a management system that guarantees the hegemony and reliability of the information.
- Speed up the audit process through the certification of data and calculations.
- Strengthen greenhouse gas reporting, consolidating Sacyr's commitment to the fight against climate change.



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We look for...

Capture and authentication of data required for carbon footprint calculation:

- Automation of data capture from scanned documents.
- Solutions to encourage and speed up communication between customers and suppliers on the data needed to calculate emissions.
- Sensors that capture and report the necessary data to the environmental impact assessment.
- SSOT (Single Source Of Truth) models that guarantee the reliability and transparency of data.

Methodologies for environmental impact assessment that reduce approximations:

- Mathematical models applied to the calculation of greenhouse gas (GHG) emissions.
- Solutions that allow an approximation of the GHGs emitted by each activity with high precision.

Traceability of the life cycle of products and services:

- Solution that allows to follow a product or service in each stage of its life cycle.
- Tool linked to product monitoring that allows for the quantification of GHG emissions generated by each activity.
- Solution for the certification of the calculations that allows to speed up the reporting of the “Scope 3” and the audit work.