Project: Slimme CO$_2$-Mitigatie TEchnologie voor KMOs

Context

With Europe's ambitious 'green deal', innovative technologies are needed to accelerate individuals' and companies' transformation to lower greenhouse gas (GHG) emissions. Large industrial groups and multinationals have either ETS-obligations or group targets. Often overlooked, we will focus on the SME segment, as SMEs are more and more subject to both internal and external drivers to develop a business strategy for a less carbon-intensive economic activity. Drivers can come from direct shareholders, but also stakeholders such as suppliers, customers or employees.

Summary

We aim to build knowledge around optimal data-driven GHG inventory and reduction strategies in the SME segment. The innovative aspect is to optimize the data collection process (define minimal data requirements as a basis to create an accurate CO$_2$ footprint overview), ensure data consistency, distil customized actions to reduce the CO$_2$ footprint and create sector-motivating benchmarking strategies.

The service for SMEs based on the outcome of our research will consist of a suite of low-threshold tools to model and assess the GHG emissions and a benchmarking functionality that will motivate SMEs to lower their GHG Inventory. By linking the potential amount of GHG emissions that could be reduced when proposed actions are executed to their related reduction cost, SMEs will know exactly how they can reduce a maximum of GHG emissions at the lowest possible cost.

Project partners

Scone

Scone is a climate tech platform which helps end-consumers on their personalized journey to zero footprint. Scone measures the carbon footprint in the background and recommends personalized solutions based on a broad data set of the user behavior and requirements, for consumers and small enterprises.
https://scone.ai

Carbon+Alt+Delete

Carbon+Alt+Delete aims to incentivize SMEs to track and disclose their carbon footprint, as a starting point towards carbon mitigation. The results of this project would allow Carbon+Alt+Delete to inform SMEs on their relative performance (benchmarking) and offer them additional tools/incentives to inventorize their carbon footprint.
https://carbonaltdelete.eu

PowerPulse

PowerPulse is a neutrally positioned energy consultancy company with expertise in different aspects of the energy market. Since 2014 PowerPulse assists energy-intensive companies on a long-term basis (SME's and major consumers) in structurally lowering their energy costs and implementing a sustainable energy & climate strategy.
https://www.power-pulse.com/

Company context

What type of company are we looking for?

Overview involvement of food sector company in the project

Task Description	Use case for company	Input expected from company	Action expected from company	Outcome for company
Data-driven GHG inventory	Disclosing a carbon footprint becomes crucial Efforts and data cost must be weighed against the level of accuracy.	Raw activity data to calculate detailed carbon footprint (e.g. fuel consumption, electricity consumption, business travel,..) Publicly available company information that can be used to estimate the carbon footprint based on an outside perspective (FTEs, turnover, sold volumes)	The company cooperates with the project partners to establish a data inventory, provide feedback on the cost/effort to get access to the data, share concerns on sensitivity and confidentiality of data and the willingness to share.	Detailed carbon footprint for a given year (based on input) following GHG protocol (Scope 1-3) Comparable estimation of the carbon footprint to evaluate the efforts and achieved accuracy
Benchmarking	A comparative benchmark reveals the position of the company in the range of its sectors, companies with similar size or similar annual return. Benchmarks serve as a means of communicating the company's strong position in sustainability towards stake- and shareholders. Benchmark results are a convincing tool for the company to engage with a roadmap to reduce its climate impact.	The carbon footprint based on the GHG inventory Addition data to enrich the benchmark with meta information to categories the company together with the comparison group (e.g., FTEs, annual return, sector, number sites, output volumes, energy consumption,...)	The company provides feedback on the choice of KPIs used in the benchmark in terms of relevance, persuasiveness, resolution (companye, site, …) efforts to calculate the company's value	A benchmark for a defined set of KPIs for the company and a relevant comparison group. A visual tool to explore different benchmarks with the comparison group or within subsections of the companies (e.g., comparison of business units)
Simulation	Simulating the impact of several categories of low-carbon solutions, both in terms of carbon impact and financial business case.	Budget, technical and comfort boundary conditions (see benchmarking Input).	Company provides feedback on the UX & UI design visualisation of the solution Simulation.	Easy way to see which solutions would have which impact, so as to optimize and tune the remediation plan.
Monitoring	Analyzed KPI's important to a company's climate & energy strategy will be able to be monitored. Easily usable towards stakeholders.	Data analyzed in "Data-Driven GHG inventory" to be transferred to consortium members on a specific time basis (weekly/monthly). Goal is to automate this process as much as possible to minimize time input for company.	The company keeps track of the dashboard and gives its feedback based on changes that the consortium members have made.	Dashboard tailor-made towards company. Overview of KPI evolutions. Possible extra actions that can be undertaken in near future.