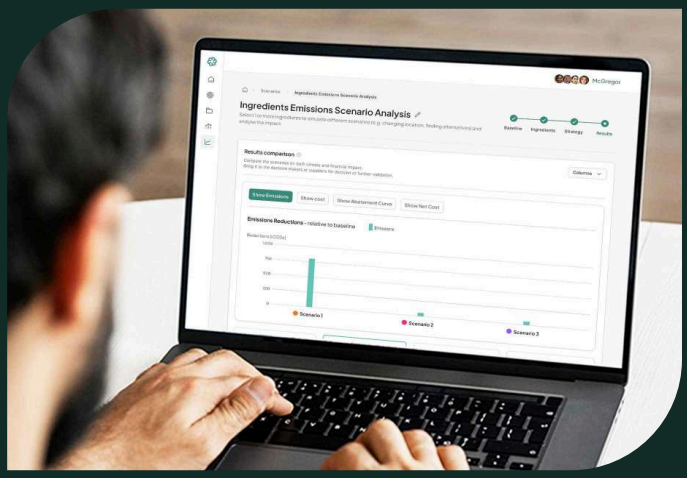
Unibloom









January 2025

Case Study:

Unibloom helps Unilever's Unox team gain insights to cut emissions by 40% with integrated databases & smarter climate & financial scenario modeling



Background

Unilever's brand Unox, the leading snack and sausage brand in the Netherlands, has set ambitious 2030 climate targets alongside equally ambitious growth targets.

Until recently, they were part of Unilever's Science-Based Target Initiative (SBTi) Scope 3 sub-target to deliver a 50% emission reduction by 2030 (the brand was acquired by an external company at the end of 2024). They had an ambition to pioneer in the market with low-carbon meat.

For Unilever’s Unox team, this includes retaining the highest standards of nutrition and animal welfare while reducing emissions.

Achieving these goals requires extensive data collection, cross-department collaboration, supplier engagement, and complex analyses of emissions, costs, nutrition, and animal welfare impacts which require months of work for several departments and suppliers.

To support this initiative, Unilever’s Unox team partnered with Unibloom, utilising their expert team and predictive digital tool with integrated secondary data and automated climate, nutrition & financial scenario simulations, with focus on the agriculture (including SBTi & FLAG), food, and material industries to speed up the process from data access & validation to actionable insights and prioritisation.

Unilever unox Unibloom

The challenges

Unilever's Unox team aimed to identify, compare, and prioritise impactful climate solutions to reduce emissions without compromising taste, nutrition, or animal welfare. Balancing these priorities with cost efficiency and product adaptation requires complex calculations, modelling, and analysis, which is typically very difficult to do manually. For the Unilever Unox team, comprising R&D, procurement, and Net Zero leads, this was very much the case. Issues such as fragmented data, reliance on industry averages, and limited supplier data made it challenging to calculate, simulate, and compare solutions at a detailed product-impact level and integrate them with future targets.

Key challenges (not applicable for all products in the portfolio) included:

Companies/brands like Unox with complex value chains faces urgent pressures to shift gears from setting targets and intentions to act and setting a robust climate transition plan that is integrated & adaptable with business growth and budget allocations. Pressure is mounting on multiple fronts and most brands face the same challenges:

Emission impact calculations

Fragmented data and reliance on industry averages made it difficult to accurately measure & priorities hot spot emissions along the value chain.

Project impact and costs

Without granular insights, evaluating the effectiveness and cost implications of various projects was time-consuming and prone to inaccuracies.

Comparative analysis

The lack of integrated systems hindered the ability to compare different initiatives to identify those with the greatest impact on both emissions and business goals.

Adding to the complexity, suppliers were still in the process of collecting and calculating primary data at the farm level. While they provided average farm impacts as a baseline, the lack of detailed primary data delayed insights for confident decision-making and action.



Prioritisation and data gap challenges to make confident choices towards 2030

2024

- Renewable energy
- Optimise space for pigs & wellbeing
- Increase water content
- Adjust meat proportion



- Waste in feed
- Feed mix change
- Include alternative proteins
- Waste management
- Improving product design lower cost

2030

Business Growth

Improve profit targets

50% CO2e reduction in Purchased Goods & Services

Low carbon & Climate positive

The solution

To address these challenges, Unibloom introduced its innovative Scenario Modeling Tool, built on Life Cycle Analysis (LCA) principles, Wageningen University scientific open-sourced research papers, and the Global Livestock Environmental Assessment Model (GLEAM). Alongside a combination of the AgriFootprint database and Unibloom's proprietary location-based emission, cost & nutrition database, the tool provides granular data on new ideas to reduce and improve emission reduction, cost, land use, waste, and nutrition.



Unibloom's tool goes beyond calculating product carbon footprints (PCF); instead, it integrates carbon footprint data (and fills gaps with reliable secondary data where primary data is missing in the PCF) into the tool and provides simulations for tailored, actionable insights that balance cost, emissions (including FLAG), and nutrition. By enabling scenario-based simulations, the tool empowers the Unilever Unox team to identify realistic, data-driven solutions across the value chain and empower them to collaborate effectively internally and with suppliers on targeted actions.



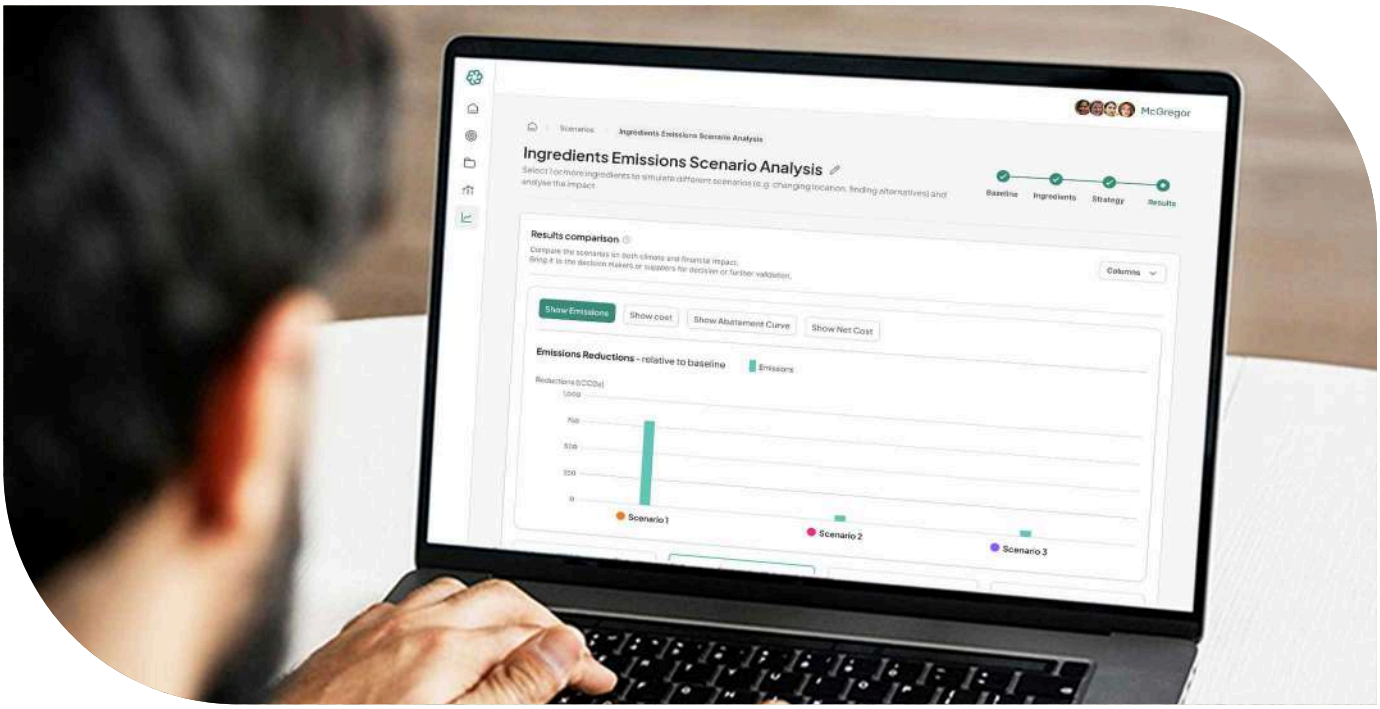
How Unibloom approached data gaps & cost-effective scenario modelling

A granular deep dive to deliver significant added value and insights

Comprehensive value chain coverage:
Unibloom goes beyond conventional models focused solely on energy or transportation emissions, instead deep dive into raw material sourcing, locations, cost & nutrition & waste disposal in Scope 3.

Industry-specific accuracy:
Tailored to the food, agriculture & CPG sector, the tool avoids oversimplifications of generic emission factors, guide the user & delivers insights that reflect real-world operations across the supply chain.

Actionable recommendations:
The tool provides actionable data-driven solutions to help the Unilever Unox team achieve sustainability and business goals. These insights engaged decision-makers, innovation, procurement, marketing teams, and suppliers, with measurable actions to optimise costs, improve efficiency, and reduce emissions.



The results and insights

Focus areas

Key interventions in feed composition, ingredient sourcing, manure management, and waste handling were assessed for emission reductions, CapEx/OpEx, and nutritional outcomes.

Simulated ideas delivered both financial efficiency and climate impact:

~20%
efficiency improvement

Reduced feed requirements to under 1.98 kg/day (normal 2.2-2.8 kg/day) for fattening pigs

-12%
emission reduction

Substituting soy with pea protein in sausage production reduced emissions by 12%

-15%
lower raw material

Integration of food by-products (waste management) into feed systems lowered raw material by 15%, showcasing several benefits in sustainability, nutrition, efficiency per animal, and cost-effectiveness.

Lower
land-use emissions

Modelled ingredient sourcing from neighbouring regions to cut land-use emissions

Solution
for manure treatement

Assessed and identified solutions for manure treatments like thermal gasification and crust systems



Metrics and outcomes

This process revealed in total eight actionable strategies for reducing emissions by up to **40% in pork smoked sausages and 15% waste reduction** without compromising nutrition or animal welfare. Each scenario was evaluated across emissions, financials, nutrition and alignment with Science-Based Targets (SBTs), balancing sustainability and business value.

> “
> Unibloom’s platform has been a game-changer for us, enabling our teams to quickly understand and validate solutions that balance sustainability, cost, and operational goals. It’s helping us move from ambition to action faster than before.
>
> 
> **Ida**
> General Manager Nutrition Nordic & Net Zero Director

> “
> This tool adds immense value to our procurement process by allowing us to model and compare various solutions before choosing suppliers. It can also empower our 300 suppliers to create their own transition plans, projects, and validate ideas more efficiently and effectively from the bottom up.
>
> 
> **Klaas Jan**
> Global Sustainable Sourcing Manager

Saving time & resources, de-risk future sourcing & customer requirements

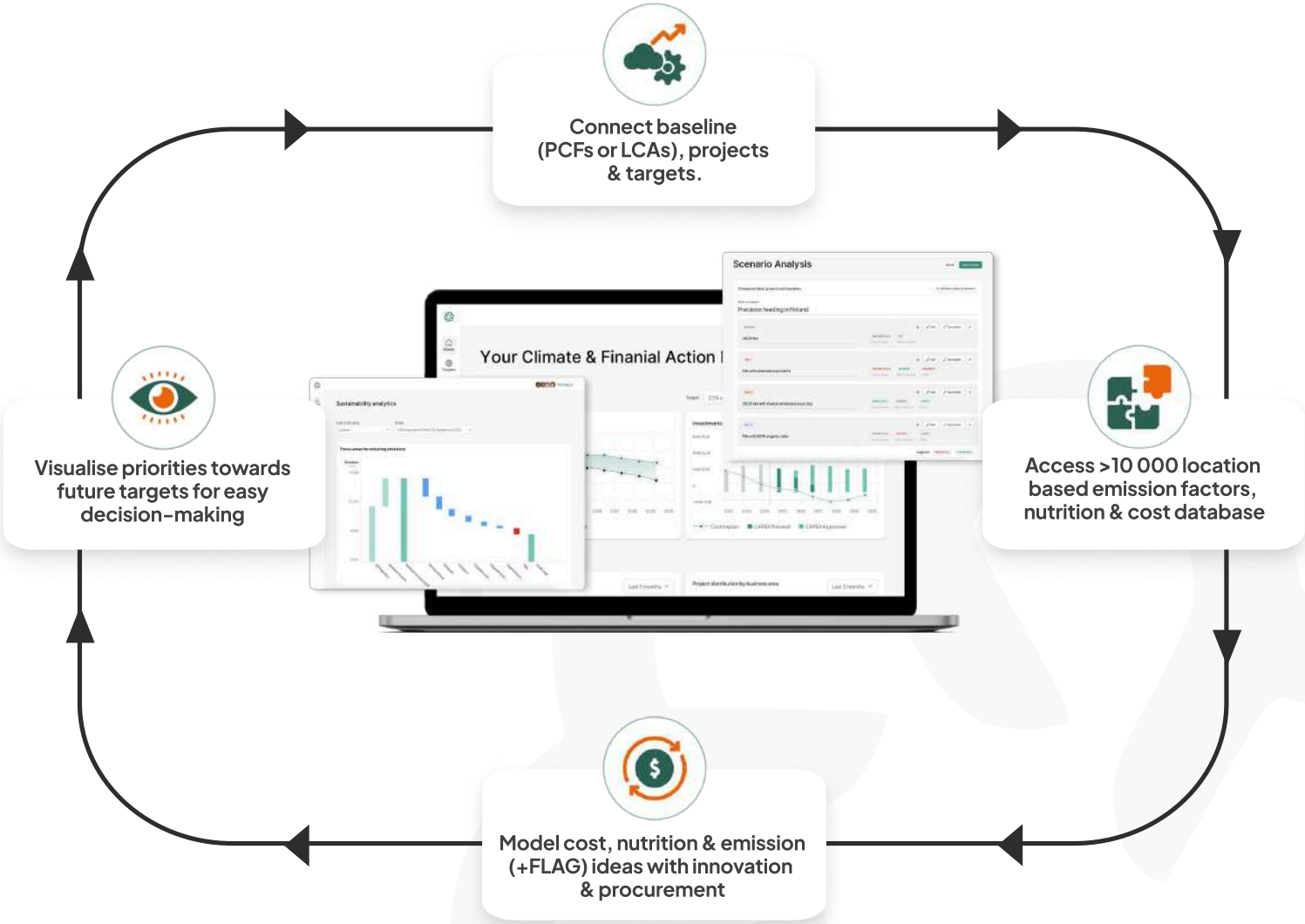
Core benefit	Old way	New way with Unibloom	Impact with Unibloom
Digital collaboration	Asking for broad data or plenty of primary data,without specifics, across procurement, R&D, sustainability, finance & suppliers, slow insights & actions. Cost 100s of days.	Integrated trusted secondary data, pinpoint specific data gaps or needs for primary data, all in one place. Real-time collaboration & automated calculations to influence & engage with speed.	**80%** faster insights, reducing supply chain & customer pressure risks, digitised and transparent
Predictive prioritisation	Complex data files & manual calculations, hard to prioritise and extremely complex to get the right data and accurate calculations. Require 6–12 months of manual work.	Automated nutrition, emission, waste & OPEX/ CAPEX calculations, integrated data & clear real-time insights towards future targets.	**60%** more accurate real-time data & modelling, enabling better decisions towards SBTi & future targets
Integrated visualisation	Financials, emissions, nutrition & land use tracked separately, difficult to link & engage stakeholders on risks and opportunities.	Integrated data, insights & cross-functional impact with roadmap mapping for optimal impact at every stage to 2030	**40%** more ideas for emissions reduction on the TOP hotspots in Scope 3, 15% waste/resource efficiency gain.

To gain buy-in for climate reduction projects, it will be essential to engage cross-functional teams and collaborate with suppliers. Using the Unibloom tool, the team can stage projects over time, evaluate their total impact in relation to business growth, electricity grid projections, investments, and costs, and adapt as needed.

The Unibloom tool allows for easy updates in response to changes in plans, budgets, regulations, or new supplier data.

With this level of precision, the Unox team is well-positioned to drive positive change in the pork supply chain and implement future solutions.

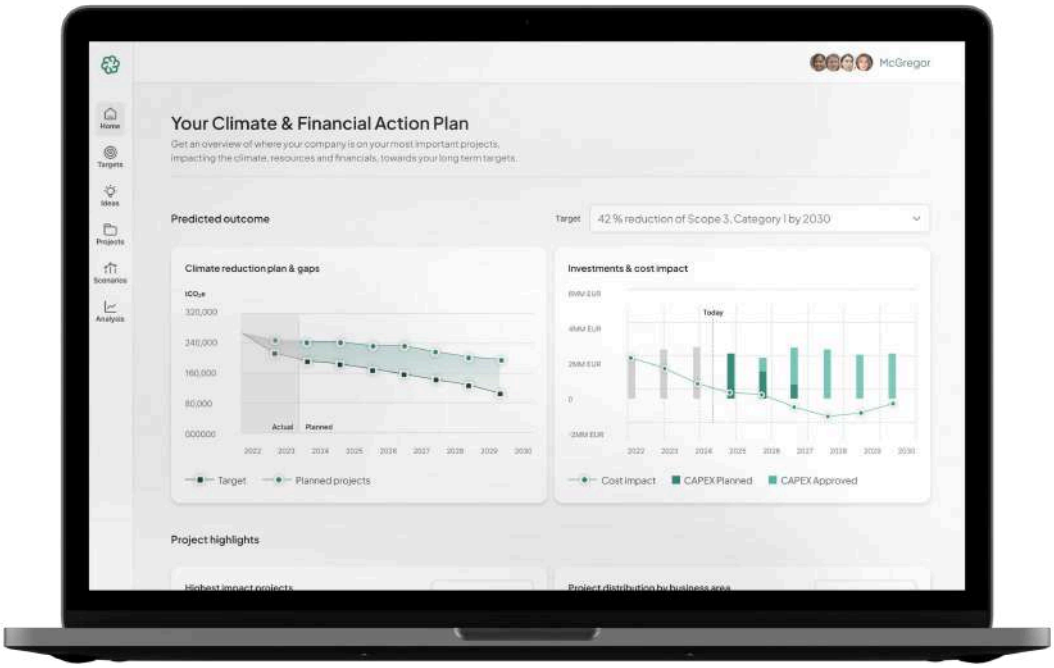
Additionally, they will be able to report climate plans and financial impacts to comply with CSRD regulations, EUDR, SBTi FLAG, and customer requirements.



All-in-one Climate & Financial Action Plan

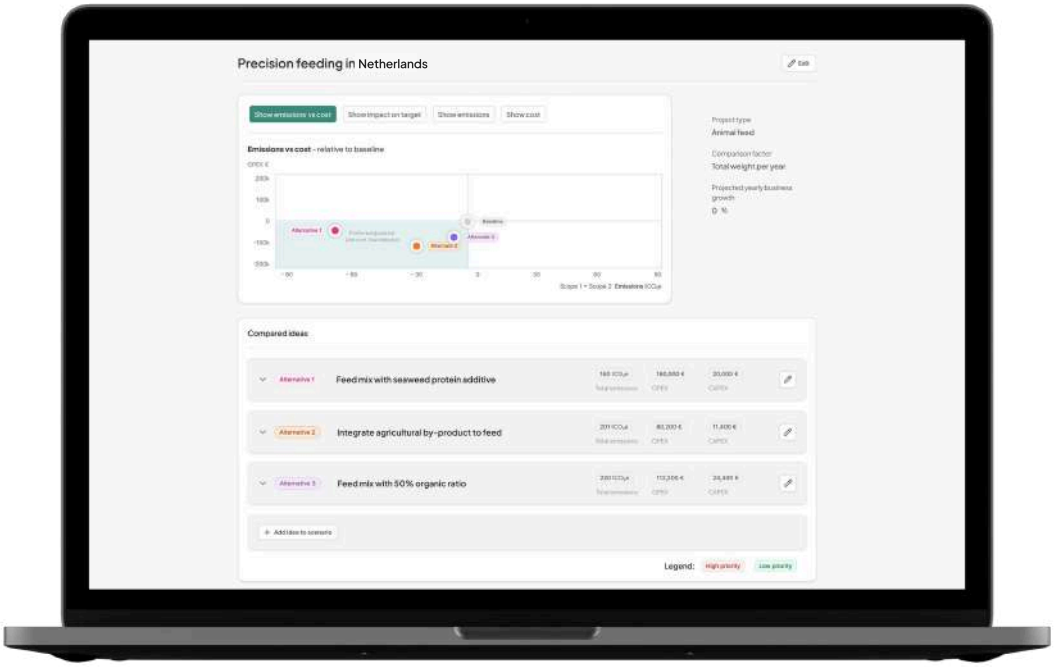
Gain full visibility and control of climate targets, projects, and investments.

Adapt plans seamlessly as business needs evolve.



Databases & scenario simulations

Eliminate manual data chasing—access real-time data from suppliers, teams, and databases. Use automated modelling to test solutions before engaging suppliers. Collaborate seamlessly to fill data gaps.



Make climate decisions easy & cost-effective.

Simplify data access, calculations, and collaboration for internal teams and suppliers—empowering everyone to drive sustainable business growth.

Unibloom

Get in touch to learn more:

Anna Sandgren
CEO & Co-founder, Unibloom
anna.sandgren@unibloom.world

Ida Wahlfeldt
General Manager Nutrition Nordic & Net Zero Director, Unilever
ida.wahlfeldt@unilever.com

References

FAO. Global Livestock Environmental Assessment Model (GLEAM).
Available at:
https://www.fao.org/gleam/en/(Accessed: 3 December 2024).

Roland Berger. How to calculate the carbon footprint of your products.
Available at:
https://www.rolandberger.com/en/Insights/Publications/How-to-calculate-the-carbon-footprint-of your-products.html (Accessed: 3 December 2024).

Emitwise. PCF Calculator.
Available at:
https://emitwise.com/pcf-calculator/ (Accessed: 3 December 2024).

thyssenkrupp. Calculate CO_2 emissions in materials trading.
Available at:
https://www.thyssenkrupp.com/en/stories/sustainability-and-climate-protection/calculate-co2-emi ssions-in-materials-trading (Accessed: 3 December 2024).

Project Drawdown. Improved Manure Management.
Available at:
https://drawdown.org/solutions/improved-manure-management (Accessed: 3 December 2024).

Clariant Ltd. Product Carbon Footprint Calculations.
Available at:
https://www.clariant.com/en/Sustainability/Environmental/Product-Carbon-Footprint-Calculations (Accessed: 3 December 2024)