



A Data-Driven Guide to Scenario Plan, Optimise & Engage for a Sustainable Feed Transition to Achieve Science-Based Targets by 2030



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Livestock farming is one of biggest sources of emissions in the food industry

We will deep dive into how to optimise & transform poultry feed to meet both efficiency improvements and emission, waste reduction targets at optimal cost.



What you'll learn?

-  HOW TO OPTIMISE BETTER POULTRY FEED TOWARDS SCIENCE BASED TARGETS
-  BALANCE **NUTRITIONAL NEEDS & SUSTAINABILITY IN TRANSFORMATION**
-  INNOVATIVE PROJECTS TO ENGAGE & INFLUENCE YOUR STAKEHOLDERS & SUPPLIERS

Who it's for?

-  FOOD INDUSTRY
-  AMBITIOUS COMPANIES WHO WANT TO REACH **NET ZERO** & SBTI COMMITMENTS

What's the impact?

The production of feedstock for livestock may account for around **70%** of all incremental cropland needed by 2030.

Summary

This report provides a comprehensive guideline aimed at optimising poultry feed compositions to enhance feed efficiency and minimise carbon emissions. Recognising the critical role of sustainable feeding practices in the poultry industry, we offer insights into selecting feed ingredients that balance nutritional needs with environmental sustainability. **This guideline is designed to address common questions from our customers, ensuring the information is valuable for both scientific and non-scientific audiences.**

STEP 1:

UNDERSTAND FEED EFFICIENCY & ITS IMPACT ON EMISSIONS

STEP 2:

OPTIMISE FEED COMPOSITION FOR SUSTAINABILITY & EFFICIENCY

STEP 3:

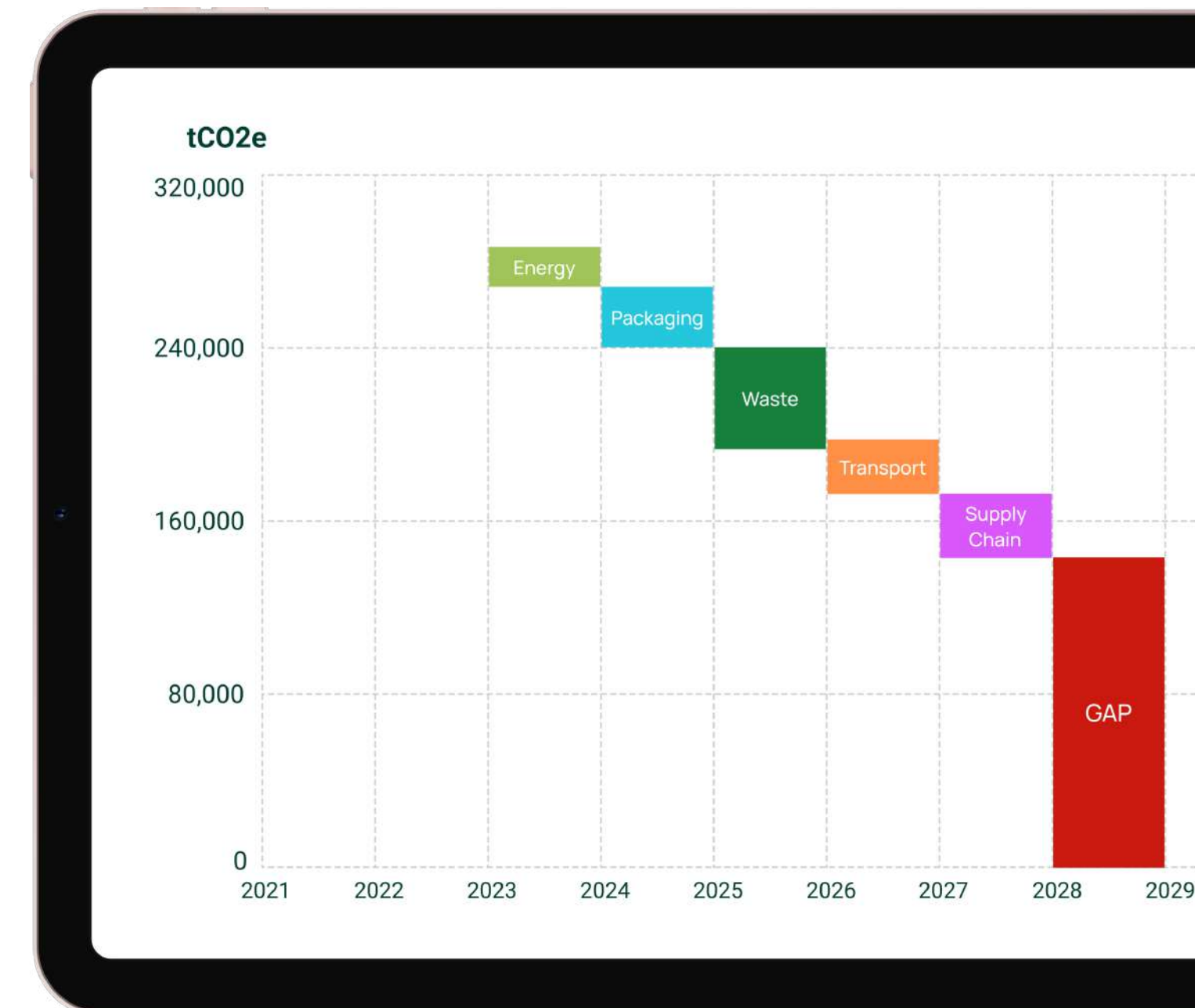
IDENTIFY PROJECTS ALIGNED WITH SBTI GUIDELINES, FOR FLAG SECTOR.

STEP 4:

ENGAGE, IMPLEMENT AND TRACK

Feed is almost 70% of our total CO₂ footprint. We want to collaborate with procurement, sales, feed suppliers and farmers to improve.

— Sustainability Professional



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Understand feed efficiency & its impact on emission

Feed efficiency is a measure of how effectively poultry converts feed into body mass. A lower FCR indicates that less feed is needed to produce a unit of poultry weight, signalling higher efficiency and, typically, lower carbon emissions. This section explores the significance of feed composition in achieving optimal feed efficiency and its consequent effect on reducing carbon emissions.



1 WHAT IS FEED EFFICIENCY?

The FCR (Feed Conversion Rate) is the amount of feed required to gain one kilogram of body weight in poultry. It is a critical indicator of feed efficiency, with lower values being more desirable.



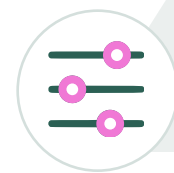
2 WHY DOES IT MATTER FOR CO2?

More efficient feed conversion results in lower feed consumption, reducing production, processing & transportation.. Optimise each component to select components with lower emission factors.



3 CALCULATING TOTAL EMISSION

Consider both the quantity of each feed ingredient used and its specific carbon emission factor.



4 ADJUST EMISSIONS FOR FEED EFFICIENCY

Emphasising the importance of selecting efficient feed compositions.

McDonalds has signed up for SBTi and requires their suppliers to show progress towards SBTi. We need to invest & transition faster.

— Sustainability Director



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Optimising Feed Composition for Sustainability and Efficiency

Building on the foundational understanding of feed efficiency's impact on emissions, this section outlines practical strategies for optimising feed composition. These strategies are designed to guide poultry producers toward more sustainable and efficient feeding practices that can significantly reduce their carbon footprint.

STRATEGY 1:



INCORPORATING ALTERNATIVE FEED INGREDIENTS

The FCR (Feed Conversion Rate) is the amount of feed required to gain one kilogram of body weight in poultry. It is a critical indicator of feed efficiency, with lower values being more desirable.

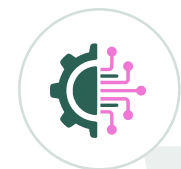
STRATEGY 2:



OPTIMISING FEED MIX PROPORTIONS

Adjusting the proportions of ingredients in the feed mix can significantly impact both nutritional value and carbon emissions. The goal is to create a balanced diet that supports poultry health and productivity while minimising the carbon footprint.

STRATEGY 3:

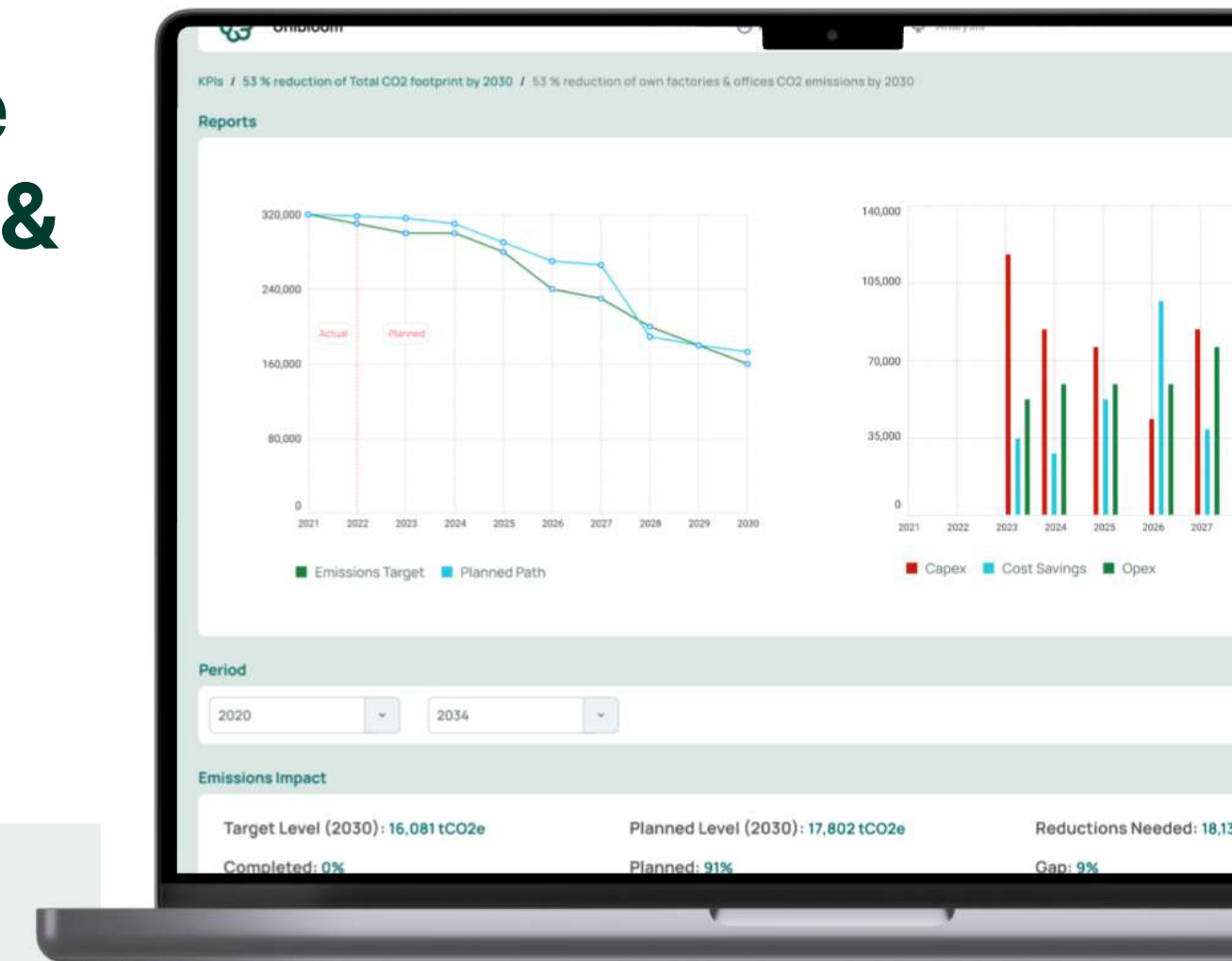


LEVERAGING FEED EFFICIENCY TECHNOLOGIES

Technological advancements offer opportunities to enhance feed efficiency, reducing waste and optimising feed use.

**It's all about trade-offs.
2030 targets are around the
corner so we need to invest &
act now.**

— Sustainability Climate Data Expert



Identify projects aligned with SBTi guidelines, for the FLAG sector

Here are several project ideas that align with the goal of reducing emissions in line with Science Based Targets initiative (SBTi) guidelines, specifically targeting the Forest, Land, and Agriculture (FLAG) sectors.



1. SUSTAINABLE FEED PRODUCTION PROJECT

Impact: Decrease in GHG emissions from feed production and improved soil health.



2. BREEDER EFFICIENCY ENHANCEMENT PROGRAM

Impact: Reduced feed consumption and emissions, with improved animal health and productivity.



3. RENEWABLE ENERGY TRANSITION FOR FEED MILLS AND BREEDING FACILITIES

Impact: Reduction in fossil fuel use and associated GHG emissions, with long-term cost savings on energy.



4. AGROFORESTRY AND REFORESTATION INITIATIVES

Impact: Increased carbon sequestration, improved biodiversity, and enhanced resilience against climate impacts.



5. SUPPLY CHAIN CIRCULAR ECONOMY PROJECT

Impact: Reduced waste and emissions from feed and livestock production, with increased energy and resource efficiency.

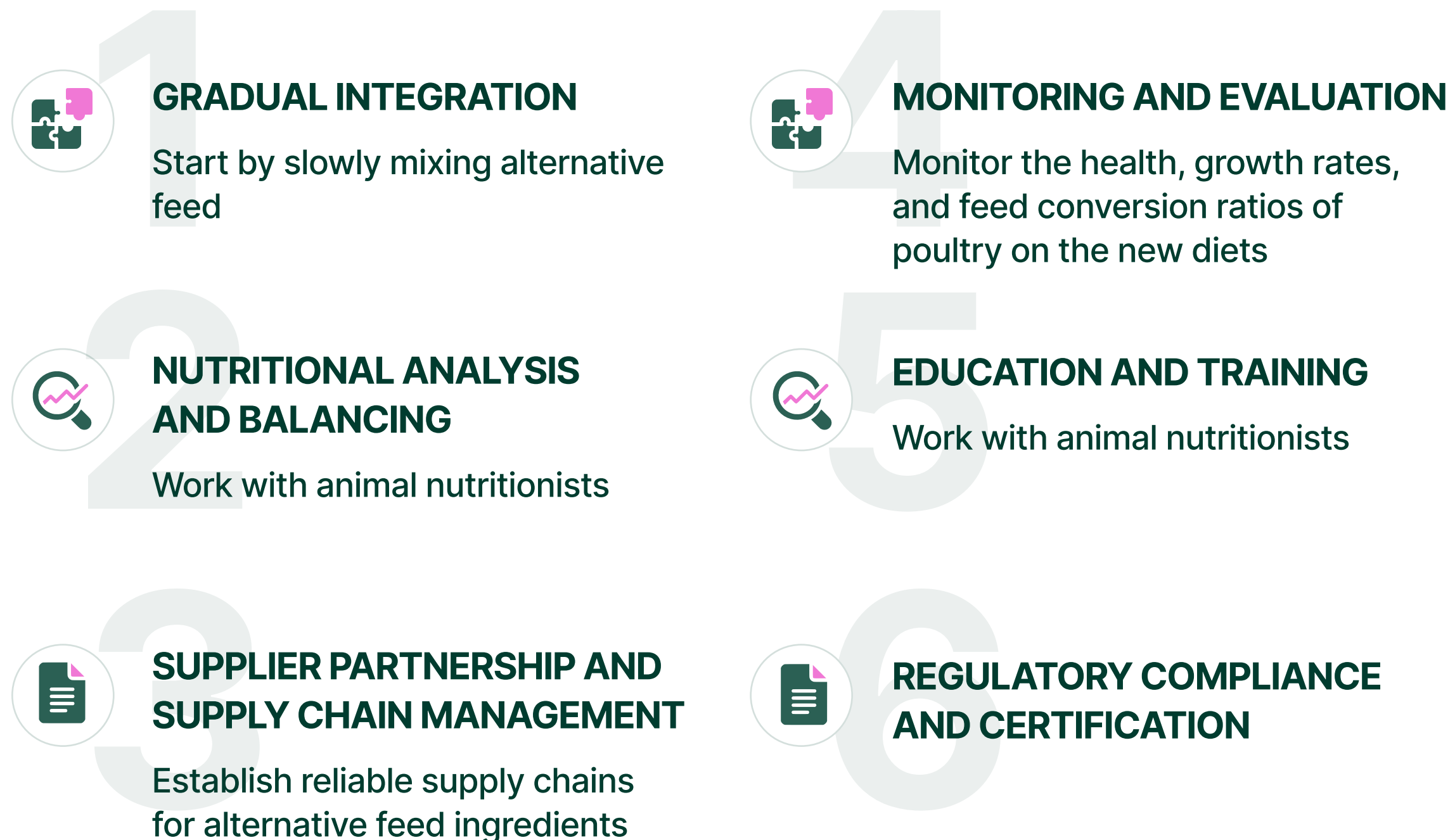
Engaging all departments, create scenarios & getting the right projects aligned is key to build the right pathway to SBIT targets.

— CEO, food industry, SBTi committed



Engage, implement & track

Transitioning from a traditional feeding system, primarily based on corn and soy, to incorporating alternative sources such as BSF larvae, microalgae, and mealworms, involves careful planning and execution. For each project, it is crucial to establish clear goals, timelines, and metrics for success. Engaging with internal stakeholders including CFO, COO, CEO, breeders and feed suppliers to gain buy-in and ensure alignment and investments.



Calculating the impact is complex & hard. We need to make it easy for operators & decision makers. Visualise & show cost & risk reduction benefits.

— Sustainability manager



Conclusion

Transitioning from traditional corn and soy-based feeds to alternative sources such as BSF larvae, microalgae, and mealworms offers a pathway towards more sustainable, resilient, and environmentally friendly poultry production. While the transition presents challenges, including cost, availability, and regulatory hurdles, the long-term benefits in terms of environmental sustainability, nutritional improvements, and reduced dependency on volatile agricultural markets make it a compelling strategy for the future of poultry nutrition.

Less Soy & Corn In Feed



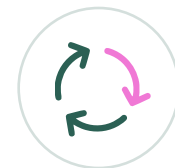
REDUCE EMISSIONS & DEFORESTATION



INCREASE NUTRITION FROM HIGH QUALITY PROTEIN



INCREASE BIODIVERSITY



INCREASE CIRCULARITY ON FARM WITH LARVAES



REDUCE VOLATILE MARKET PRICE



WIN CUSTOMERS TRUST



REDUCE WASTE WITH WORMS

If I can have four feed scenarios easily visualised for the supplier, it will be easier to engage.

— Sustainability Data Specialist



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Commit. Plan. Act.

About Unibloom

The predictive platform enable sustainability teams & operations to calculate sustainability projects, forecast impact, optimise cost & investments, resources & tradeoffs, towards sbti, in minutes, everyday.

Engaging all teams to collaborate & invest towards one climate action plan.



Why act in line with SBTi?



BIG RETAILERS IE IKEA, MCDONALDS, TESCO, AHOLD, ICA ET AL HAVE COMMITTED TO SBTi



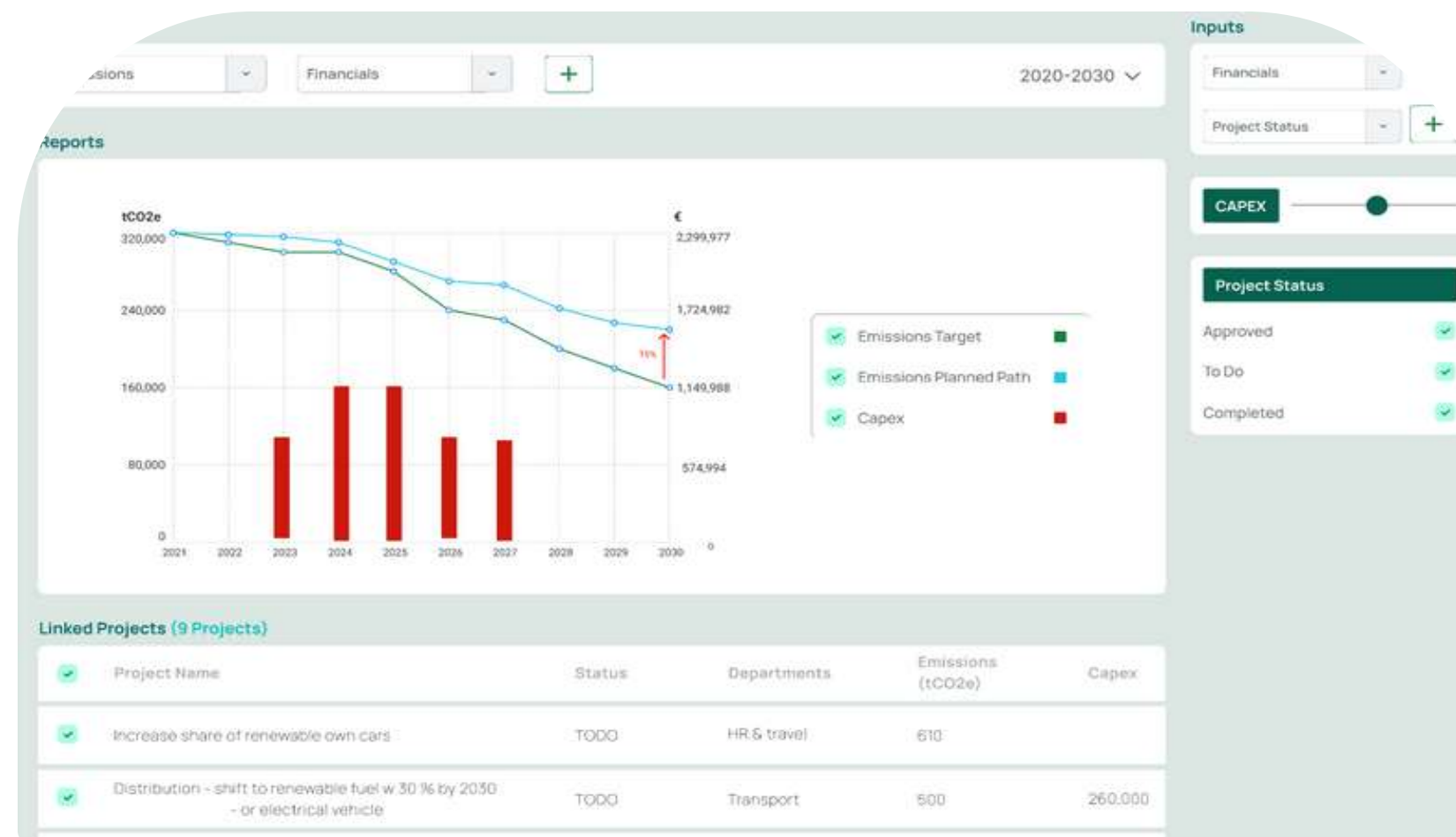
BUILD TRANSPARENCY & TRUST AMONG TALENTS



STAY AHEAD OF REGULATIONS & MITIGATE FUTURE BUSINESS RISKS

What is SBTi?

Science-based targets show businesses how much and how quickly they need to reduce their greenhouse gas (GHG) emissions to prevent the worst effects of climate change.



Learn more:

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Thank you!

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