CASE STUDY

Shaping the future of beer *with Boolah and Asahi*

Challenge: Reporting across supply chains

- For large food and beverage companies, **most emissions occur outside their direct operations**, embedded in raw materials and supply chains. These impacts are commonly grouped under what is known as Scope 3 emissions.
- **Scope 3 emissions** are often the largest and most complex part of a company's footprint and they depend on activities that sit beyond direct control.
- Improving the quality of this data requires **closer collaboration** between growers, processors, framework developers and technology providers.

The Regen4real Framework

- Regen4real provides the sustainability framework, defining what data matters and how it should be interpreted
- Asahi applies these insights within its barley supply chain to inform sustainability decision-making and governance
- Downforce Technologies delivers measurement of on-farm activity, aligned with recognised reporting standards

Regen4real was developed to bridge the gap between what happens on farm and what end users need to understand and report. This work shows how real data, collected at commercial scale, can support more credible and practical sustainability outcomes

Stuart Tighe
Founder & CEO, Boolah Group

With Boolah for sustainable beer

Downforce partnered with Boolah Group and Asahi Group to demonstrate how farm-level data can be captured, verified and applied across the beer supply chain. For beer, barley is not just a key ingredient, it is one of the most significant variables influencing the product's environmental footprint - malt accounts for about 7% and barley, just under 4% of Asahi's total emissions, underscoring the importance of improving barley production practices across its supply chain strategy.

A collaboration between
Downforce, Boolah Group, and Asahi Group

Downforce's Core Capabilities

- Demonstrating **outcomes of regenerative programs** using verified soil health metrics
- Identifying **high-impact interventions** that can boost profitability and resilience
- Providing **large scale GHG removals data for Scope 3 reporting** at a fraction of traditional costs
- Providing supply chain trust through **ISO 14064 verified evidence** of net carbon emissions

Solution: Collaboration for credible decision-making

This collaboration brings together three distinct but complementary roles across the barley supply chain, creating a clear and credible pathway from farm activity to supply chain decision-making. This involves:

- Clearly defining roles and aligning data, technology and end users
- Demonstrating that credible sustainability outcomes are built on more than a single tool or organisation
- Relying on quality data, transparency and collaboration across the supply chain

Downforce deployed its US patented and ISO 14064-validated monitoring technology to deliver farm-level data across the supply chain. Our platform measured Soil Organic Carbon (SOC) levels by integrating ground-based data and satellite observations to measure annual SOC levels from 2017 to the present day.

Result: Scalable sustainability

Regen4real acts as the organising framework, connecting measured farm-level data to traceability, reporting and broader sustainability outcomes, and ensuring insights generated on farm remain meaningful and decision-ready along the supply chain.

- **Greater visibility:** For growers, it creates greater visibility into how management decisions affect outcomes beyond yield
- **Stronger governance:** For end users, it supports stronger governance and confidence in sustainability reporting
- **Scalable model:** For the broader industry, it offers a practical, scalable model that improves transparency without overstating claims

This collaboration shows how closer alignment between farming, technology and end users can support more grounded, credible and scalable sustainability outcomes for the future of food and beverage production.

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