BrewAI:
Brew Smarter, Brew Greener!

a.r.u. | Anglia Ruskin University

Our mission is to make sustainable brewing accessible to every brewery by transforming how they capture, analyse, report, and reduce their carbon footprint.

BrewAI

? Why should breweries care about estimating their carbon footprint?

1 | Consumers Care

Drinkers are more conscious of sustainability:
- In 2024, **61% of beer drinkers** said that a brewery's sustainability practices directly influence their purchase choice.
- At a recent London beer festival, **58%** of visitors said they would consider paying up to **£0.50 more per pint** if it had a verified lower carbon footprint than similar alternatives.
- **70%** would like carbon footprint information displayed on labels or menus — ideally through a simple **traffic light system**.

2 | Regulations Tighten

New EU legislation is changing the game:
- Under the new **EU Corporate Sustainability Reporting Directive**, large companies must disclose their carbon footprint across Scopes 1, 2, and 3.
- That means **SME breweries aren't exempt**: if you sell to major retailers or distributors, you are part of their **Scope 3 emissions**.
- Some buyers are already requesting **verified carbon data** from their suppliers, and many others expect to do so increasingly over the coming year.

3 | Evaluation Matters

Energy costs remain high:
- With energy prices still around **60–80% above pre-2021 levels,** breweries are under pressure to cut costs wherever possible.
- Many invest in efficiency measures, which promise to cut energy use by **10–30%**, but every intervention carries a price tag.
- By tracking energy use before and after changes, breweries can **evaluate performance**, verifying whether these investments truly deliver the savings promised.

? Why do most breweries not estimate their carbon footprint?

It's a complex endeavour!

- **Limited in-house expertise:** few breweries have staff trained in carbon accounting or data management.
- **Time pressure:** day-to-day operations leave little capacity for detailed measurement and reporting.
- **Financial constraints:** external consultants and audits can be costly, making outsourcing unrealistic for smaller brewers.

The Brewers' Viewpoints:

- *"Our **energy prices went up** to about £12,500 a month, up from about £2,500. That killed us"*

- *"We've done little to limit our carbon use, **I wouldn't really know** where to start"*

- *"We always try to optimise, but **it's trial and error** with every bit of equipment"*

- *"The problem with sustainability is **not having the capital**, you're always chasing your tail"*

- *"The **auditing company** dangled the carrot — it was £1,500 a year — and then it turned out to be three times that price"*

? Can measuring carbon footprint be simple and cost-efficient?

Automated Carbon Tracking
- We simplify carbon footprint analysis by automatically capturing and analysing **batch-specific** Scope 1 and Scope 2 emissions, reducing manual input, minimising errors, and saving valuable time.

Sustainable Production Timing
- By predicting the **carbon intensity** of the electricity grid **24 hours in advance**, BrewAI helps breweries schedule production when power is cleanest, lowering their overall carbon footprint.

Intervention Evaluation
- Using **time-series statistical models**, BrewAI helps breweries quantify the real **impact** of carbon-reduction interventions, turning sustainability actions into measurable results.
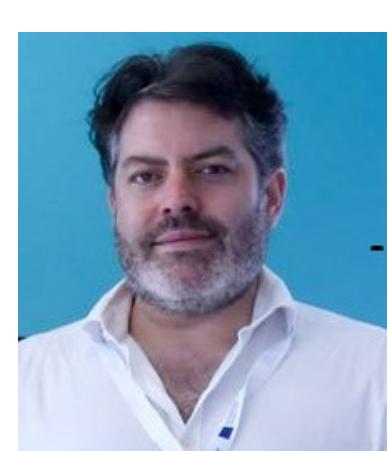
Meet The Team

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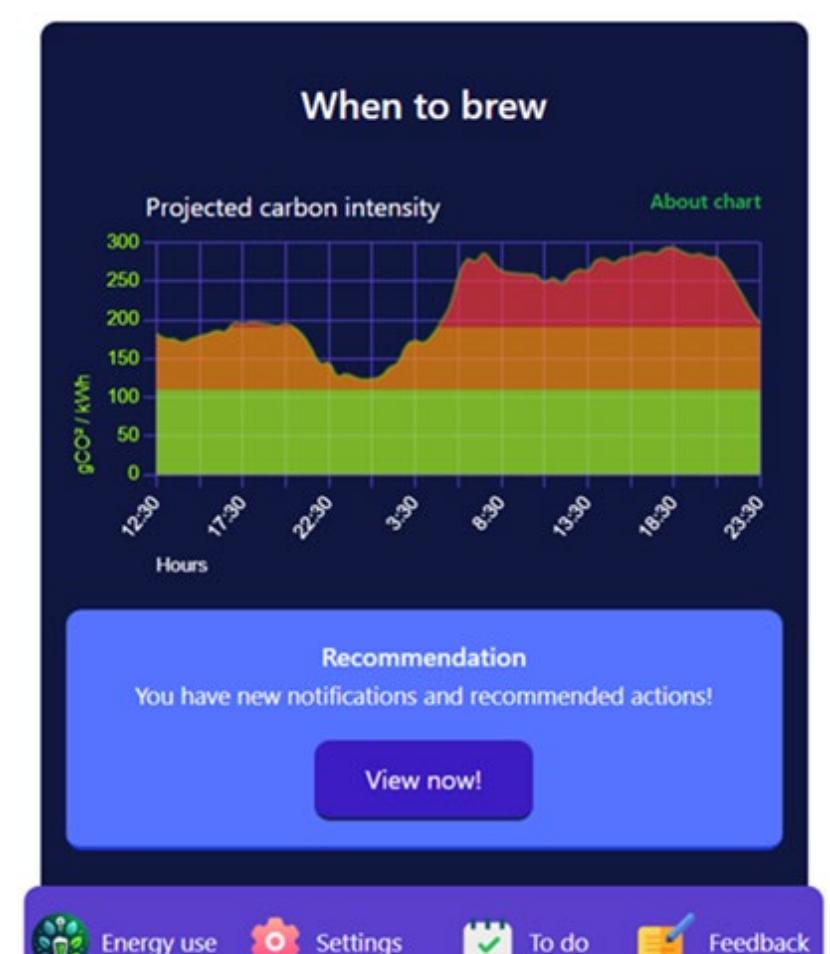
Did you know?

In the UK, emissions from electricity generation can vary from **under 100 g CO$_2$/kWh** during windy midday hours in the north to **over 350–400 g CO$_2$/kWh** on calm evening peaks in the south.
So, Timing matters!
Using energy when the grid is cleaner can significantly lower a brewery's carbon footprint.

When to brew

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