

REAL-TIME PROCESS OPTIMIZATION

TURN PRODUCTION VARIABILITY INTO MARGIN

Food & beverage teams are trying to consistently produce the right product, the right quality, and the right yield at the right cost.

In reality, production conditions never stay perfectly stable. Raw materials vary. Moisture levels shift. Equipment behavior drifts. Upstream variability moves through the line.

To avoid falling outside specification, many operations compensate through safety buffers: overfilling product, increasing ingredient usage, or running conservatively to protect quality.

Over time, that variability compounds into excessive giveaway, reduced yield, inconsistent quality, and hidden margin loss.

THE PROBLEM

Variability drives giveaway

In many food & beverage operations, giveaway becomes the operational buffer used to manage variability and avoid specification risk.

The challenge is that small process shifts can quietly compound into significant ingredient loss, reduced yield, inconsistent quality, and margin erosion over time.

Only a small number of controllable variables typically determine whether production runs at average performance or near its true optimum. The challenge is identifying those variables and adjusting them quickly enough as production conditions evolve.

THE SOLUTION

Real-Time Process Optimization closes that gap

Braincube's Real-Time Process Optimization continuously helps food & beverage operations reduce variability, control giveaway, and sustain optimal production performance under changing conditions.

Using production and quality data you already collect, Braincube identifies the controllable variables most impacting yield, consistency, and giveaway under current conditions and calculates the operating targets required to sustain optimal performance.

As conditions change, prescriptions update in real time so production stays aligned with optimal performance.

2k+

Production Lines
Continuously Optimized

\$10B+

Performance Gains
Delivered

50K+

Operators Guided
by Braincube

How Braincube fits into your existing systems

Most food & beverage organizations already rely on MES, historians, APC, and analytics tools to keep production stable, controlled, and visible.

These systems are essential, but they do not continuously determine how the process should run to minimize giveaway and sustain optimal performance as conditions change.

Braincube adds a critical missing capability.

Real-Time Process Optimization continuously evaluates production conditions and prescribes the operating targets required to keep the process running closer to its optimal set point.

It works on top of your existing PLC, APC, MES, and historian infrastructure, helping operations reduce variability, control giveaway, and protect margin without replacing the systems already in place.

WHY BRAINCUBE

Traditional approaches help teams understand the process.

Real-Time Process Optimization continuously runs your process at its best.

TRADITIONAL APPROACHES	BRAINCUBE
⊗ Periodic, project-based optimization — gains erode between initiatives	✓ Continuous, real-time adaptation — performance holds permanently
⊗ Dashboards and insights — your team still decides what to do	✓ Exact prescriptions — specific operating settings delivered automatically
⊗ Performance depends on your best operators and engineers	✓ Systematized — consistent output regardless of who's running the line
⊗ Best practices trapped at one site, never replicated at scale	✓ Peak performance codified and deployed across every site, every shift
⊗ Requires replacing or disrupting existing infrastructure	✓ Runs on top of your PLC, APC, and historian — no rip and replace

SEE HOW MUCH MARGIN IS HIDDEN IN YOUR PROCESS

Schedule a performance assessment to quantify the impact of variability, giveaway, and operational drift across your operation.

[Schedule a performance assessment](#)