CASE FILE 005 · JBS · ON ASTRATO · RECONSTRUCTED

JBS, and the two per cent that is the whole business

WHAT	a spread board for JBS, built on Astrato
FOR	the plant controller and the commercial team
PROBLEM	the margin was decided in three systems on three clocks, and nobody saw it whole until a lot closed

A reporting layer for a company that turns over BRL 417bn and keeps about **2.3% of it**, where the margin is decided in three places that could not see each other.

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A reconstruction. The engagement was real and
delivered on Astrato; the company figures are
public, the data in the product is fictional, and no
outcome is claimed.
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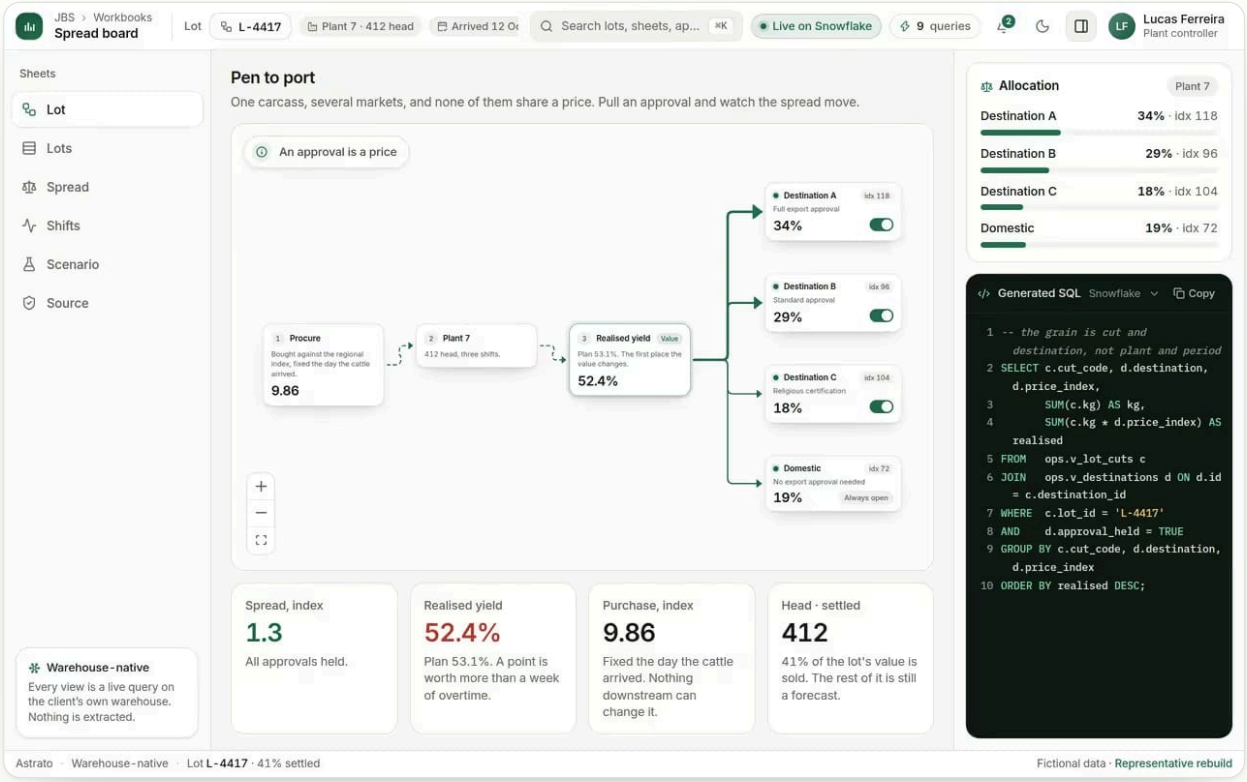
JBS · the spread board

Accessibility: The spread board passes axe-core's WCAG 2.1 AA rules at desk and phone, in both settings, and in the 9 states this file links into. Not yet tried with a screen reader. The statement

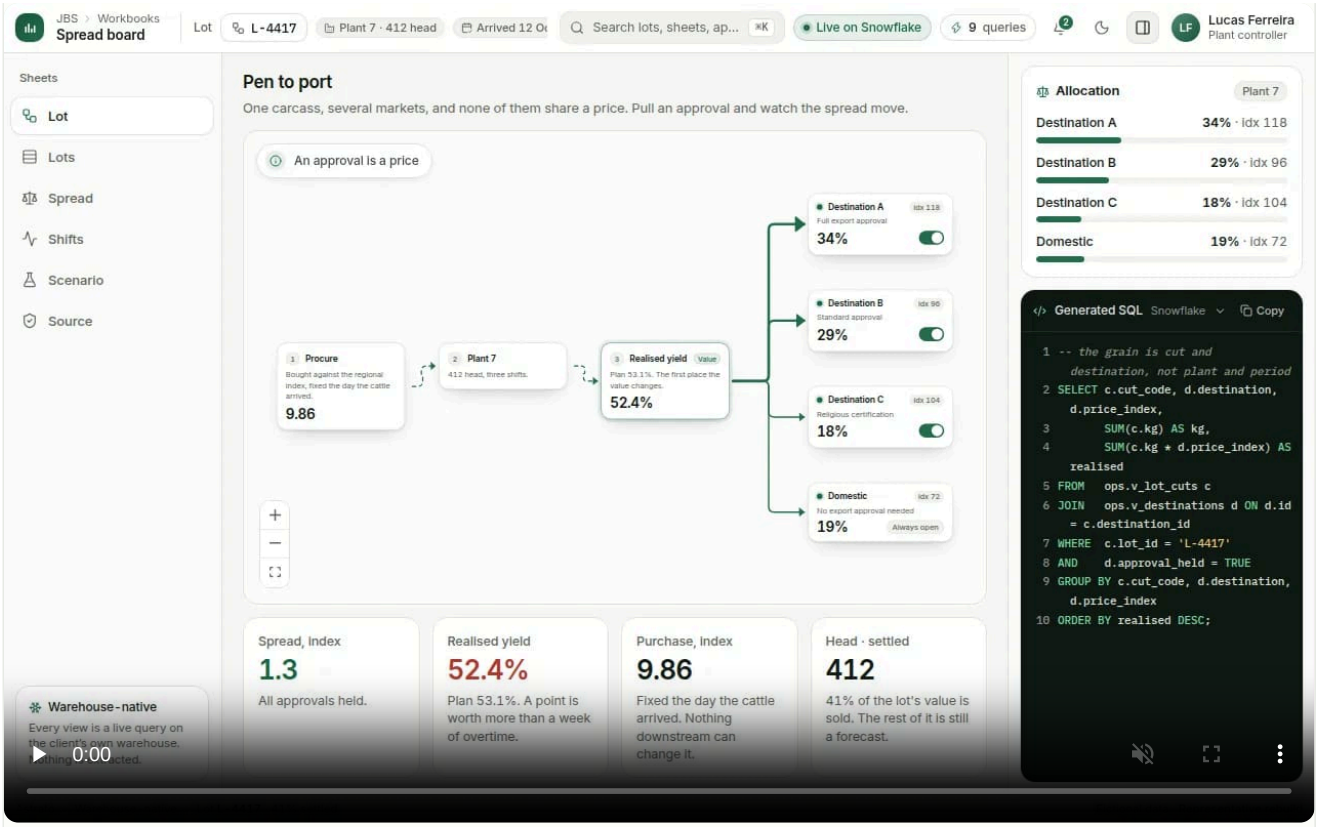
Weight on a first visit: 383 KB of script and 13 KB of style, compressed, against budgets of 400 and 15 KB. The build fails if a product passes its budget. React Flow is in the first visit, because the lot's flow is the first screen.

The states around it, each one a link: the warehouse not answering and a lot search that finds nothing. Each says what is true, names the next step and offers one action.



The spread board works on a phone, with the inspector as a sheet.
Open it full screen for the whole board.

Open the board ↗



A walkthrough, 18 seconds, recorded from the rebuild. The spread board, step by step: an approval pulled and restored, every lot, how the spread assembles, and yield shift by shift. Each step is captioned as it happens, and the transcript has the same words.

Watch while you read

TRANSCRIPT

ROLE	CLIENT	PLATFORM	STATUS
Lead Product Designer · Astrato	JBS	Astrato on Snowflake	Reconstructed, see source notes

I OWNED	The design of the spread board, as lead product designer at Astrato; this file rebuilds it with fictional data
WITH	Astrato's delivery pods, as their one designer
THEIRS	The client's systems and the delivery team's build; their roles are not part of this reconstruction, so none is claimed here
CONSTRAINTS	Three systems on three clocks that could not see each other, and a net margin of about 2.3%, at which a point of yield is not a rounding error
FRICTION	The export gate was tracked by people who did not own the spread, so a market shutting mid-lot read as a bad week

THE POSITION

At 2.3%, precision is not a nicety

A point of yield is not a rounding error at this scale. The reporting layer has to be exact about the thing the margin actually turns on.

THE PROBLEM

The margin was decided three times

Procurement buys on one clock, the plant realises yield on another, and the commercial team sells into a market on a third. Nobody saw the whole spread until the lot was closed.

THE CONSTRAINT

One carcass is not one product

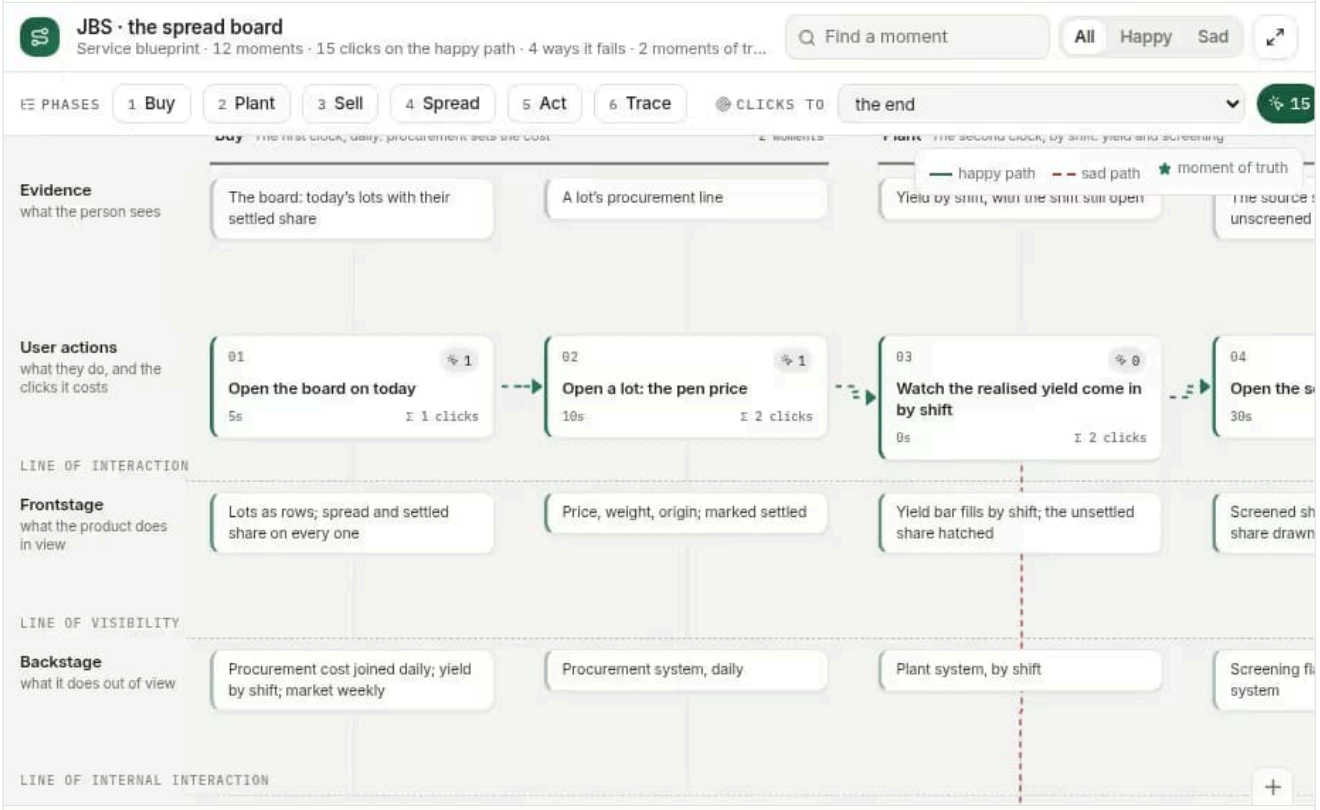
A single animal becomes dozens of cuts that leave for different countries under different certifications at different prices. There is no single price of beef.

Three systems on three clocks, drawn as one line

Before the board: the business end to end from the pen to the port, the gate an approval can shut, the targets a two per cent margin sets for the rebuild, the evidence under each decision, and the spec checked before every release.

SERVICE BLUEPRINT

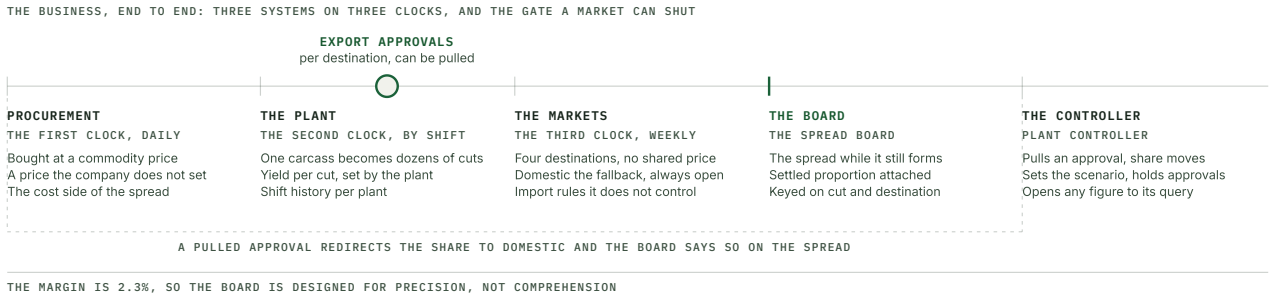
The spread board as a service: twelve moments on three clocks, with the pulled approval as the one act that redirects a share. Pan, zoom, pick a moment, count the clicks to any point, switch the sad paths on.



Wheel to pan, pinch to zoom, click a moment for its detail. ← → walk the moments, f fits the map.

Open the blueprint full screen →

FIG. 001 · THE SYSTEM

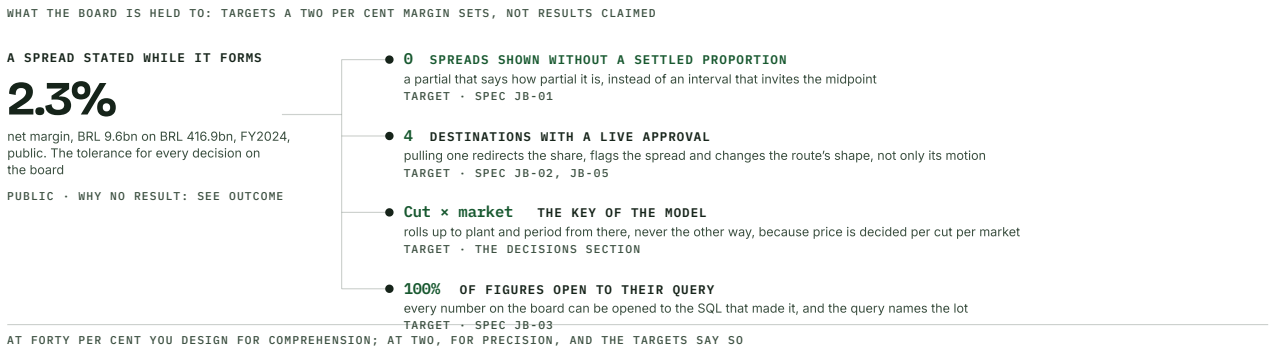


Three clocks, one gate, one board. The board exists because the three systems never agree on when a number is final, and the gate is on the line because an approval can shut a market mid-lot.

The gate is the part that was in the wrong department. Export approvals were tracked as a compliance list by people who did not own the spread, so a market shutting mid-lot showed up as a bad week at a plant. On this line the gate sits between the plant and the markets, where it actually is, and pulling it moves the share on the board the moment it is pulled.

The board is the fourth station, not the first, for the same reason the Novo cockpit is: it reads the three systems, it does not replace them. What it adds is the honest partial, a spread that is still forming with its settled proportion attached, which is worth more than a complete number that arrives after the decision it should have informed.

FIG. 002 · THE KPI TREE



Targets, not results. The outcome section explains why no adoption number is claimed; what is claimed is that the rebuilt board satisfies these sentences every time the site is released.

FIG. 003 · THE EVIDENCE

Three of the inputs are public or structural facts about the business. The third is a representative controller, and the research section further down says how much that can honestly support.

The spec below holds the rebuilt board to six statements, each written as an acceptance test before the screens were rebuilt, and each verified by a check that runs before every release of this site, named in the right-hand column. It is the only kind of claim this file makes about the product: not that it was adopted, but that it satisfies these sentences, and that something other than my eye confirms it.

01

THE SPEC

JB-01

A spread is never shown without how much of it is settled.

ACCEPTANCE

Given any lot, when the spread is on screen, then the settled proportion is beside it, and the scenario sheet shows the break-even yield for the rest.

VERIFIED BY

The spread sheet and the scenario sheet of the running board.

THE PRODUCT, EVERY LOT

02

THE SPEC

JB-02

Pulling an approval redirects the share and flags the spread, in one act.

ACCEPTANCE

Given a lot in flow, when Destination A's approval is pulled, then the flow says the approval was pulled, Domestic shows the redirected share and the allocation restates.

VERIFIED BY

The checks "pulling A says so and flags the spread", "Domestic shows the redirected 34%" and "allocation shows Domestic at 53%".

THE INTERACTION SUITE, RUN BEFORE EVERY RELEASE OF THIS SITE

03

THE SPEC

JB-03

Every figure opens to a query that names its lot.

ACCEPTANCE

Given the inspector, when the lot changes, then the generated query names the new lot and the bar names the lot's plant.

VERIFIED BY

The checks "changing lot recompiles the query" and "the bar names the lot's plant".

THE INTERACTION SUITE, RUN BEFORE EVERY RELEASE OF THIS SITE

04

THE SPEC

JB-04

The source sheet draws the share that was not screened, rather than hiding it.

ACCEPTANCE

Given the Source sheet, when it opens, then the unscreened share is drawn and labelled as such.

VERIFIED BY

The check "the source sheet draws the unscreened share".

THE INTERACTION SUITE, RUN BEFORE EVERY RELEASE OF THIS SITE

05

THE SPEC

JB-05

A shut route differs from a live one without motion.

ACCEPTANCE

Given reduced motion, when an approval is pulled, then exactly one route is dashed and thinner, and another has thickened to absorb the share.

VERIFIED BY

The canvas check over the flow, which runs the board with motion off.

THE CANVAS CHECK, RUN BEFORE EVERY RELEASE OF THIS SITE

06

THE SPEC

JB-06

The board works on a phone.

ACCEPTANCE

Given a 390-pixel viewport, when any sheet opens, then four tabs are on screen and nothing scrolls sideways.

VERIFIED BY

The check “jbs phone: 4 bottom tabs, no sideways scroll, no errors”.

THE INTERACTION SUITE, RUN BEFORE EVERY RELEASE OF THIS SITE

01

THE BUSINESS

Four hundred billion through the door. Nine billion stays.

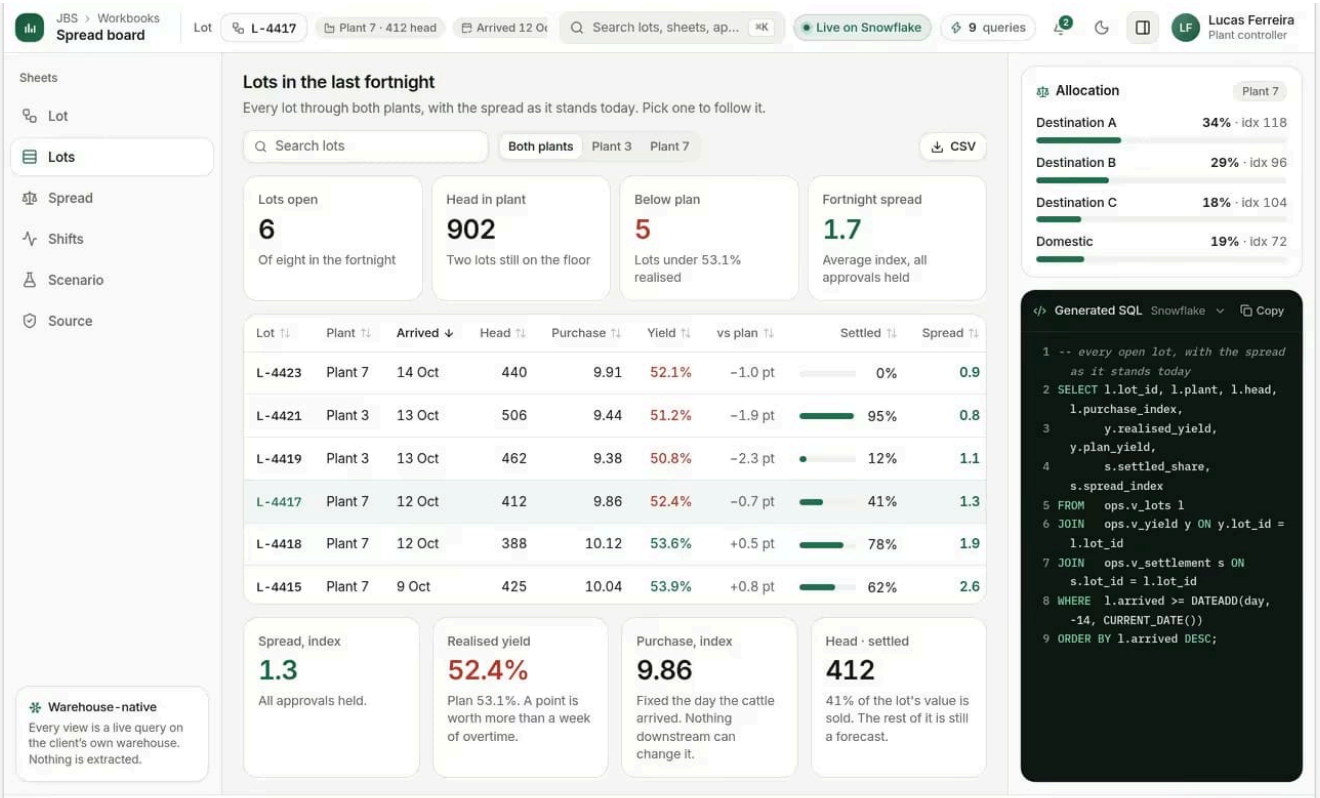
JBS reported net revenue of BRL 416.9bn for 2024, about USD 77.2bn, and net profit of BRL 9.6bn. That is a net margin of roughly 2.3%. Around 270,000 people, selling to more than 300,000 customers in about 190 countries.

FIG. 004 · THE SLIVER

Novo Nordisk, three files back, keeps 41% at the operating line. JBS keeps about two. The same dashboard conventions do not serve both: at this margin a chart that rounds to the nearest per cent has rounded away the answer.

This is a spread business. You buy an animal at a price set by a commodity market you do not control, you convert it into cuts at a yield set by your own plants, and you sell those cuts into markets whose prices and import rules you also do not control. What you keep is the difference, and the difference is thin.

Everything on this page follows from that. A reporting layer for a 41% margin business can afford to be approximate and directional. A reporting layer for a 2.3% margin business cannot, because the entire profit sits inside the error bars of a careless chart.



Today's lots, each spread beside how much of it is settled and how much is still a forecast.

02

WHERE MARGIN IS DECIDED

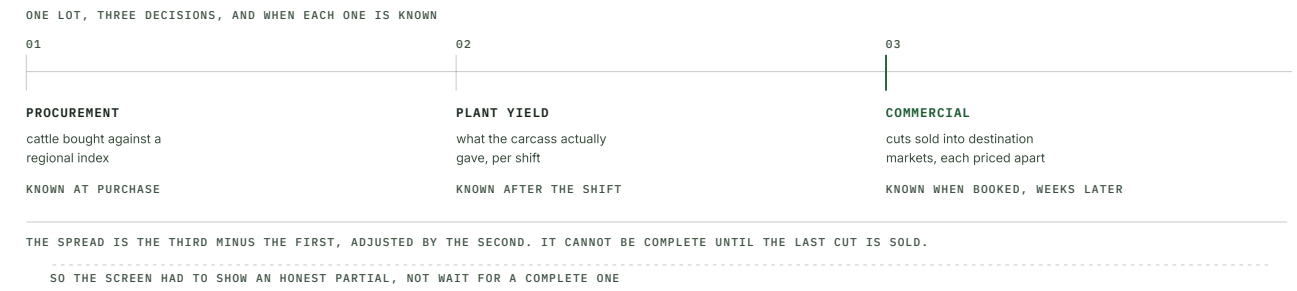
Three decisions, three systems, three different clocks

The spread on a lot is set by three separate decisions taken by three separate groups of people, recorded in three separate systems, on three separate time bases. By the time they can be reconciled, the lot is closed and the money is already made or lost.

"We know the margin. We know it on Thursday."

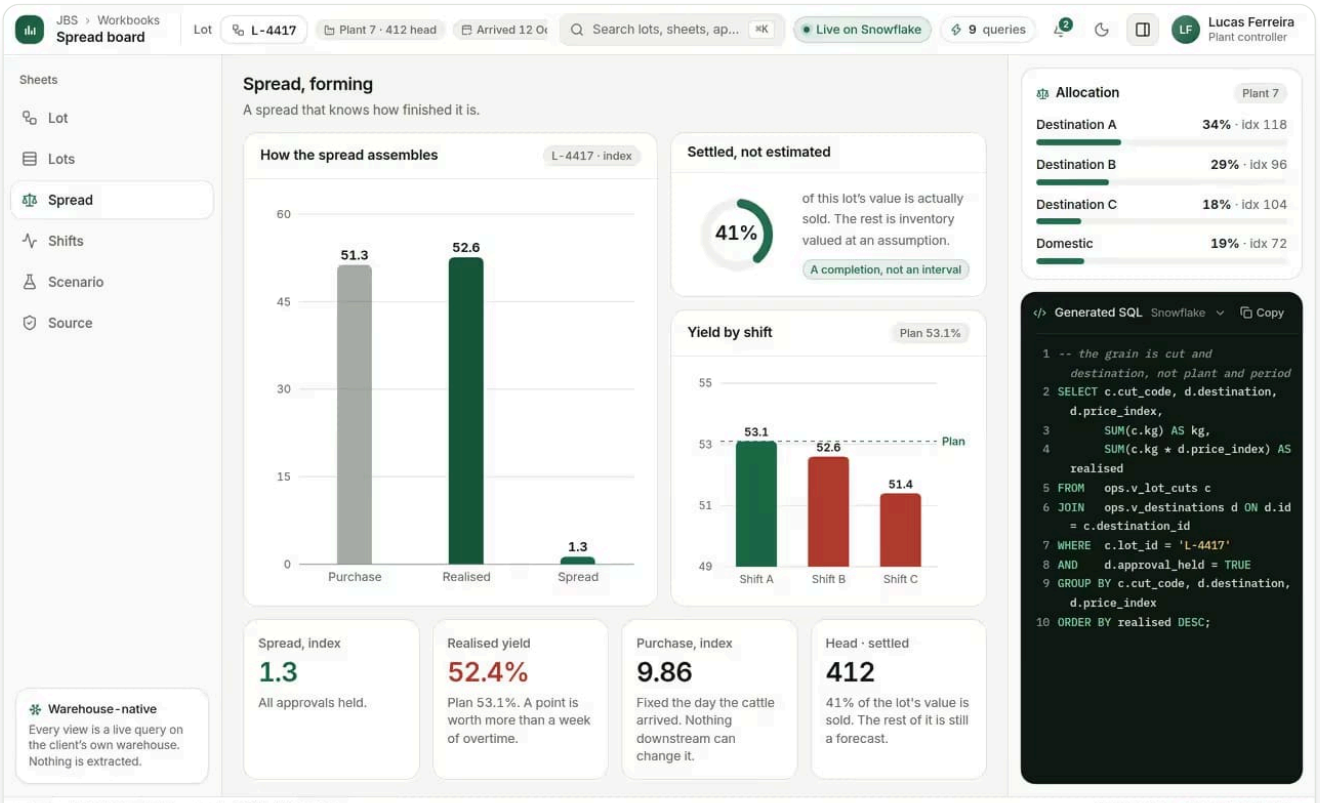
THE SENTENCE THE PROJECT WAS BUILT AGAINST

FIG. 005 · THREE CLOCKS

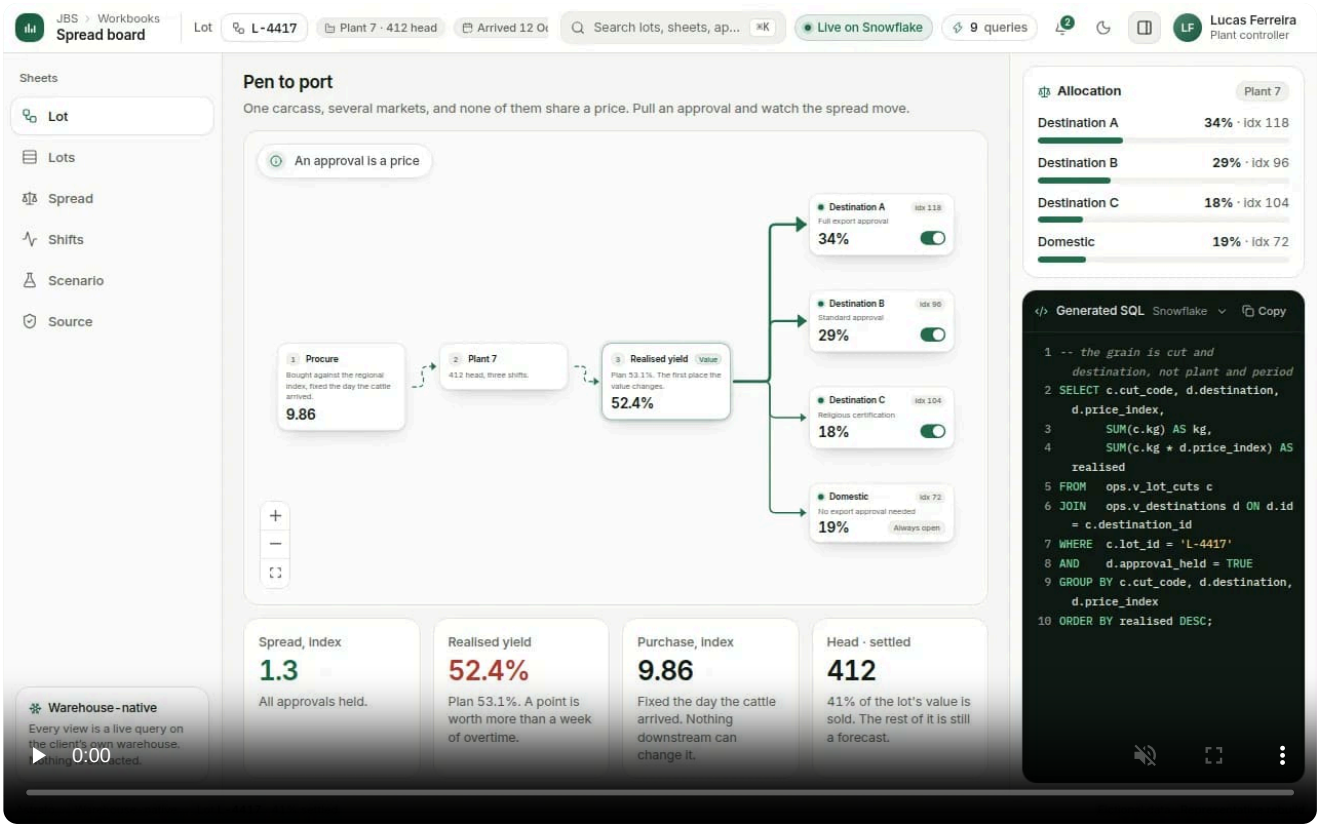


The reflex is to wait for completeness and publish a clean weekly number. That is the Thursday problem: by Thursday the decisions it would have informed have all been taken. The useful screen is the one that shows a spread which is still forming and is explicit about how much of it is settled.

So the central object on the board is not a margin figure. It is a **spread that knows how finished it is**. Every lot carries a settled proportion: how much of its value has actually been sold against how much is still inventory being valued at an assumption. A lot that is 40% settled and a lot that is 95% settled are not the same claim, and showing them as two bars of the same colour is the error the old reporting made.



The spread, with how finished it is.



Seven seconds, recorded from the rebuild. Destination A's export approval is pulled. Its cuts re-route to the domestic market at a lower index, the spread on the lot falls from 1.3 to −6.9, and the allocation and the SQL restate; then the approval comes back and so does the spread.

Watch while you read

TRANSCRIPT

Each chart, and what it has to say

A chart is chosen by the relationship it has to show, in the categories of the Financial Times' Visual Vocabulary. In the rebuild every mark reads at 3:1 against its card or carries its value in print, so no number depends on telling two colours apart.

THE CHARTS IN THE REBUILD, BY WHAT THEY SHOW

CHART	WHAT IT HAS TO SHOW	THE FORM, AND WHY
How the spread assembles	Magnitude, and the gap between two of them: the price paid, what the lot realised, and the spread that is their difference	Three bars on one scale, each labelled, the spread coloured and signed by direction
Settled, not estimated	Part-to-whole: one share of the lot	A single ring with the figure printed beside it; the ring is drawn, the number is read
Yield by shift	Deviation from the plan	Columns against a dashed plan line, each with its value
Realised yield at the plant	Change over time, against the plan	One line per shift with the plan dashed across it, so a drift shows as a gap that opens
Two spreads, one lot	Magnitude: as it stands against your inputs	Two horizontal bars on one scale, each labelled

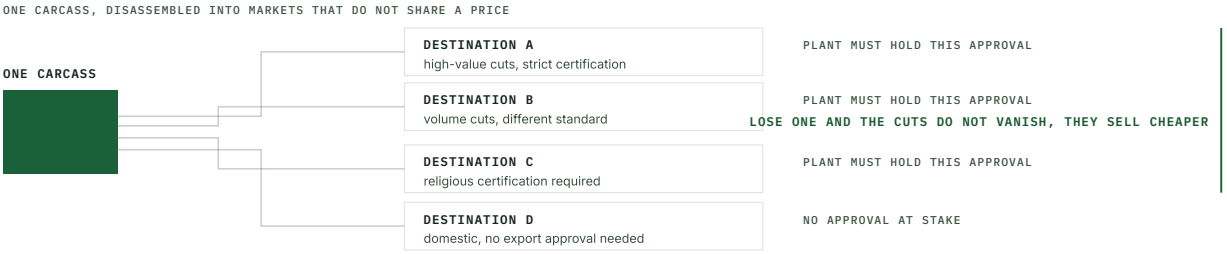
03

There is no such thing as the price of beef

One animal does not become one product. It becomes dozens of cuts, and those cuts leave for different countries, under different certifications,

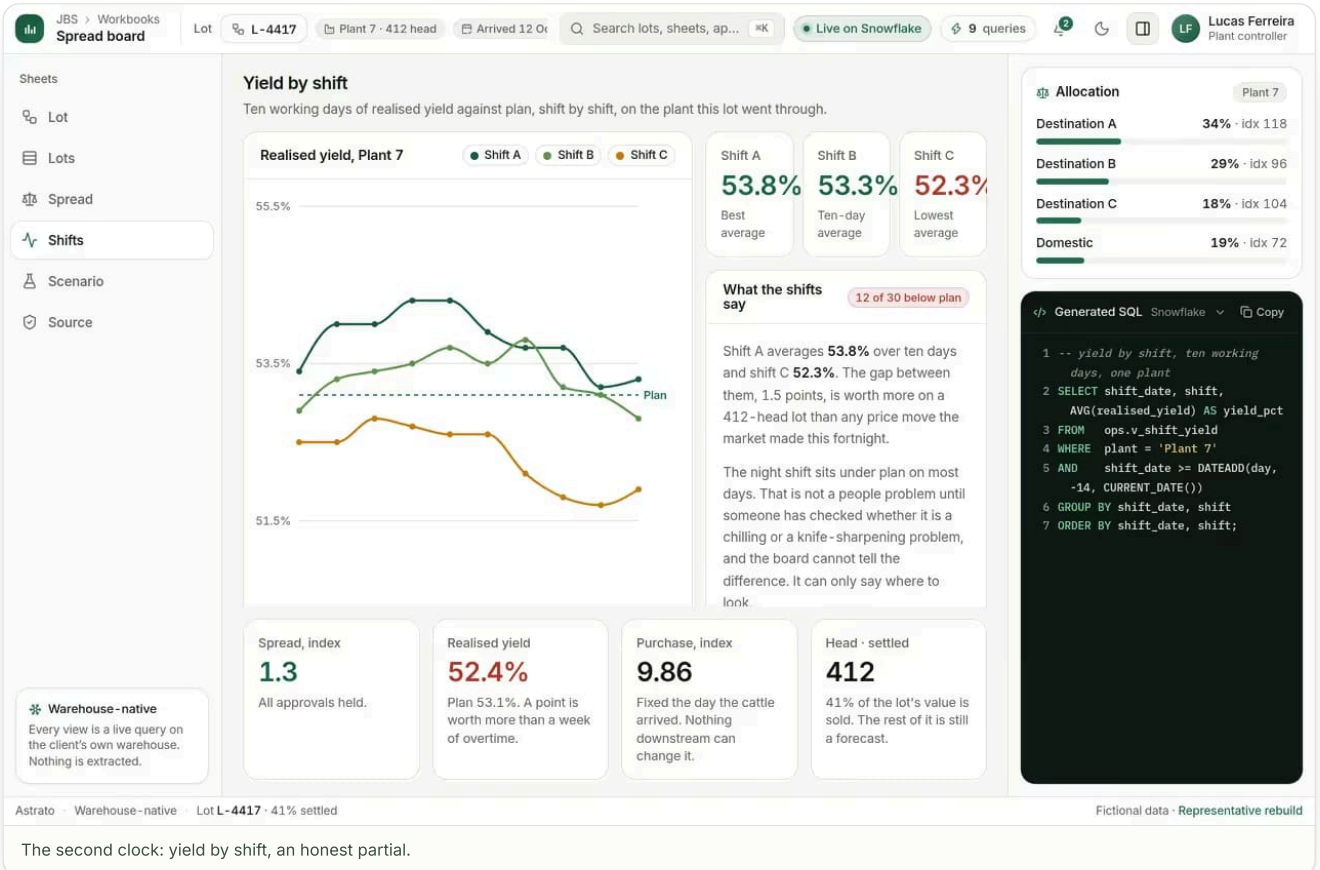
at prices that have nothing to do with each other. The grain of the data is the cut and the destination, not the animal.

FIG. 006 · ONE ANIMAL, FOUR DESTINATIONS



Plants are approved to export market by market, so an approval is not a compliance detail sitting in a different department. It is a price. When a plant loses one, its cuts are redirected into whatever market it can still serve, and the spread on every animal through that plant moves the same day.

That is the modelling decision the whole board rests on. The old reporting keyed on plant and period, because that is how the plants are managed. The board keys on **cut and destination**, because that is where the money is decided, and rolls up to plant and period from there. It sounds like a technicality. It is the difference between a screen that tells you a plant had a bad week and a screen that tells you which market closed.



The second clock: yield by shift, an honest partial.

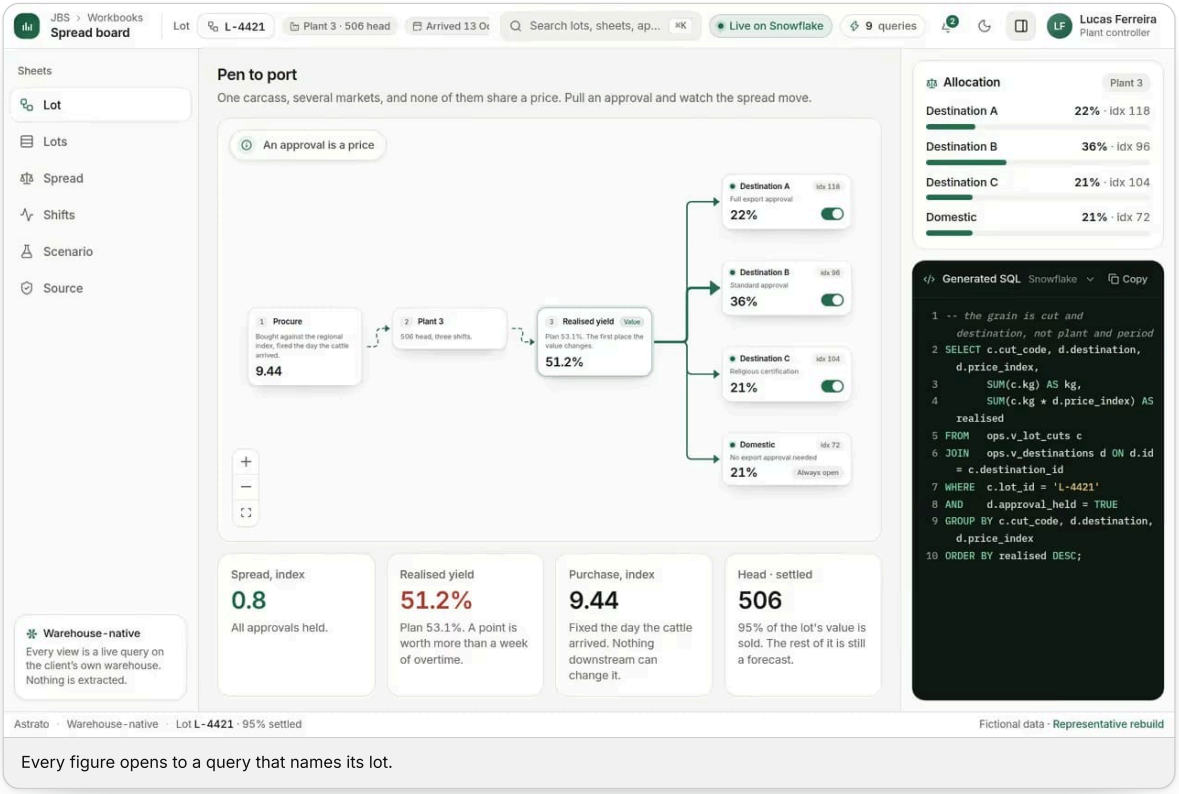
04

PROVING THE SOURCE

The supplier you buy from

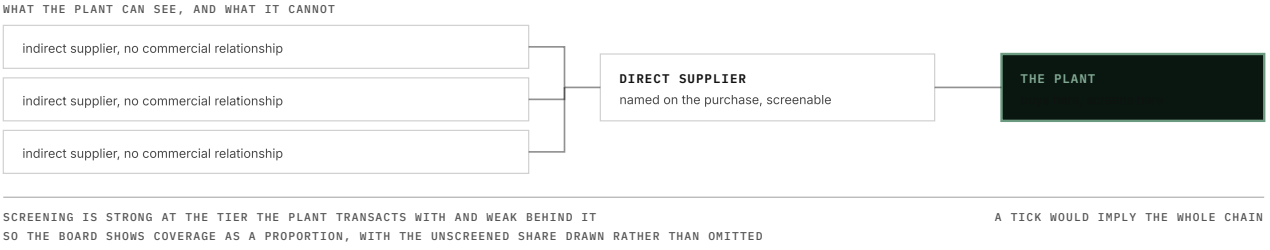
is not the only supplier

Sourcing compliance in Brazilian beef is a live and public issue for this company, and it is genuinely a data problem rather than a policy one. The difficulty is not screening the farm you bought from. It is the farm that sold to that farm.



Every figure opens to a query that names its lot.

FIG. 007 · DIRECT AND INDIRECT



The honest screen here is an uncomfortable one. It shows how much of the chain has actually been checked and leaves the rest visible instead of resolving it to a green tick. A compliance indicator that cannot distinguish between checked and unknown is worse than no indicator, because it converts an open question into a false answer.

05

RESEARCH

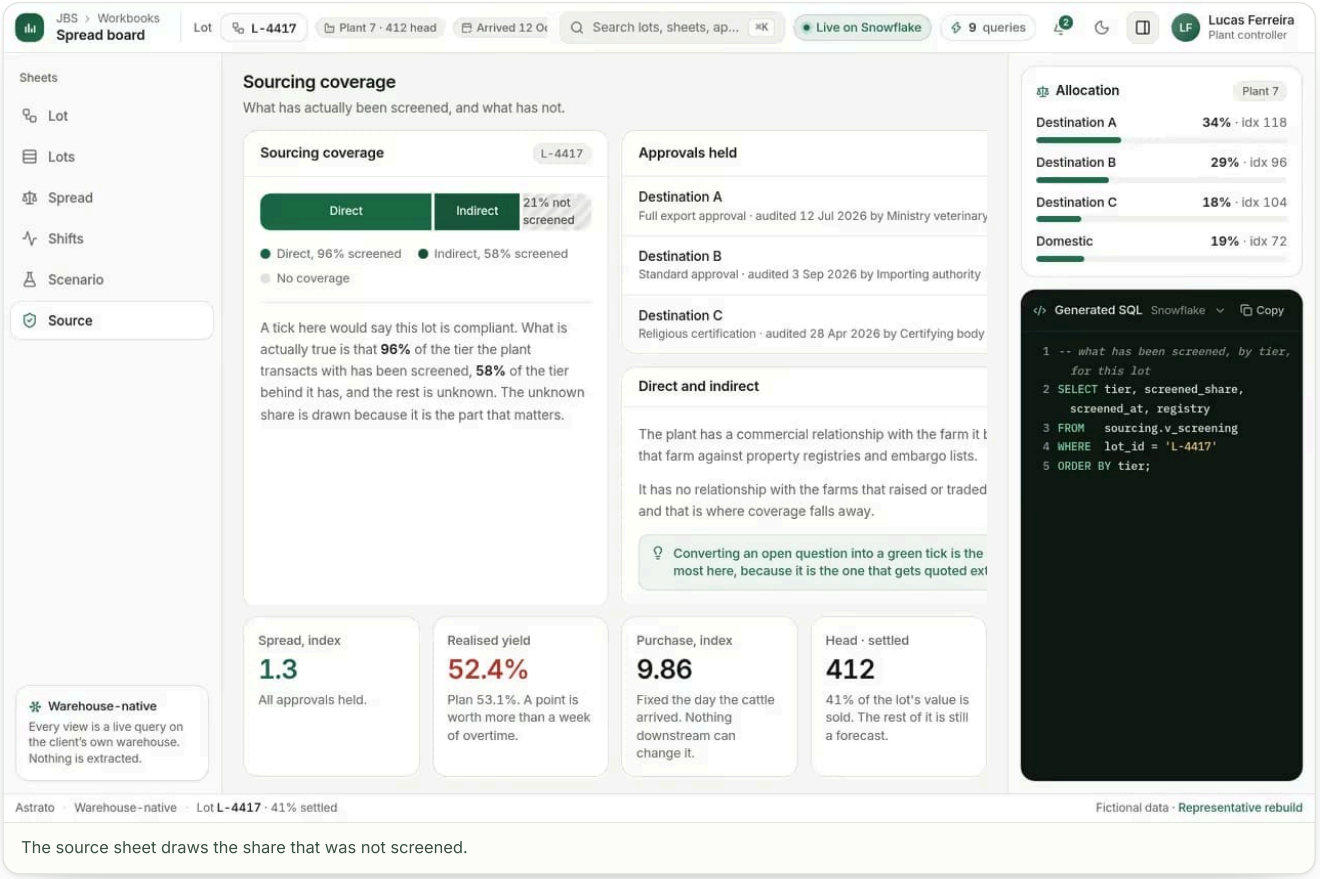
The plant manager already had a better number

As with the other engagement on this platform, the people closest to the operation had already solved their own version of the problem, and the reporting layer's job was to stop them each solving it differently.

I will say about research here only what a reconstruction can honestly support. The recurring finding in this kind of work, and the one that shaped the board, is that operational people do not distrust dashboards because the dashboards are ugly. They

distrust them because they have been burned by a number that moved without explanation, and they have each built a private spreadsheet whose provenance they can personally vouch for.

A central board does not win that argument by being prettier. It wins it by being auditable: every figure can be opened to the query that produced it, every definition is stated where it is used rather than in a glossary nobody opens, and every number that changed since last week can say what changed it.



The source sheet draws the share that was not screened.

06

THE FLOW

From the pen to the port, and back into the price

The path a lot takes, and the two points where what happens physically changes what the lot is worth.

FIG. 008 · PEN TO PORT

WHERE THE PHYSICAL FACT CHANGES THE COMMERCIAL ONE

01	02	03	04	05	06
PROCURE	**PROCESS**	**REALISED YIELD**	**ALLOCATE TO MARKET**	**SHIP**	**SETTLE**
bought on an index	plant and shift	the value changes here	approvals decide the price	cold chain to port	last cut sold, spread closed

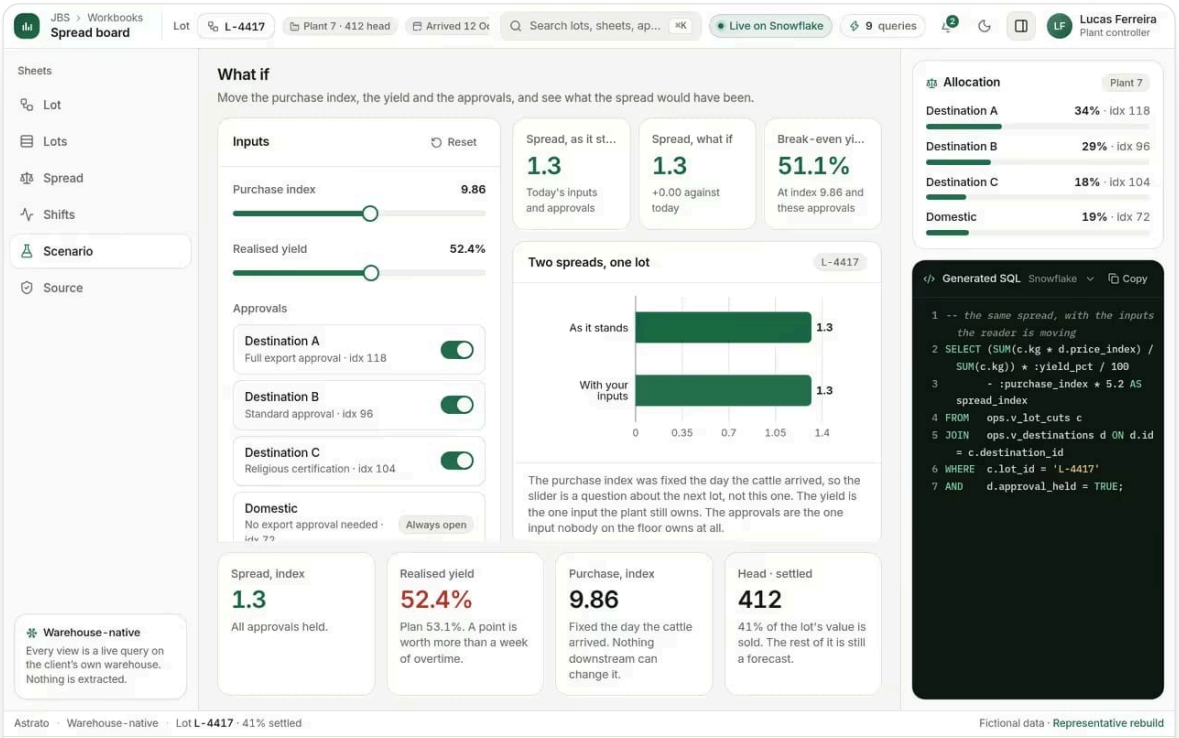
THE TWO MARKED STAGES ARE WHERE A PHYSICAL FACT BECOMES A COMMERCIAL ONE. EVERY OTHER STAGE ONLY CARRIES IT.
THE BOARD SHOWS THE SPREAD FORMING ACROSS ALL SIX, RATHER THAN WAITING FOR THE SIXTH.

Yield and allocation are the two stages worth instrumenting hard, because they are the only two where the number changes for a physical reason rather than an accounting one.

07

Five decisions, and what each one cost to hold

The design calls that carried weight on this file, each with the thing that forced it.



What moved, in the product: a scenario settles nothing.

01

WAS BROKEN

The realised spread on a lot could only be stated once every cut had been sold, which in practice meant a weekly number arriving after the decisions it should have informed.

WHAT I CHANGED

The board shows a spread that is still forming, with a settled proportion attached: how much of the lot's value is actually sold against how much is inventory held at an assumption.

WHY IT HOLDS

A late complete number is worth less than an early honest partial, as long as the partial says how partial it is.

02

WAS BROKEN

I was asked for confidence intervals on the unsettled portion.

WHAT I CHANGED

A completion percentage instead of an interval.

WHY IT HOLDS

An interval invites the reader to take the midpoint as the answer. A completion percentage makes them ask how much has happened, which is the question that actually has a knowable answer.

03

WAS BROKEN

Reporting keyed on plant and period, because that is how plants are managed, so a bad week looked like a plant problem whatever had actually caused it.

WHAT I CHANGED

The model keys on cut and destination and rolls up to plant and period from there.

WHY IT HOLDS

Price is decided per cut per market. Keying anywhere coarser averages away the only dimension that explains the movement.

04

WAS BROKEN

Export approvals were tracked as a compliance list in a different department from the one that owned the margin.

WHAT I CHANGED

Approval status sits on the same screen as the spread, with the volume currently depending on each approval shown beside it.

WHY IT HOLDS

An approval is a price. Keeping it on a compliance page means the commercial consequence of losing one is discovered rather than anticipated.

05

WAS BROKEN

Sourcing compliance was presented as a tick, which could not distinguish between a chain that had been checked and one that could not be.

WHAT I CHANGED

Coverage is shown as a proportion with the unscreened share drawn rather than omitted, separating direct from indirect suppliers.

WHY IT HOLDS

Converting an open question into a green tick is the failure mode that matters most here, because it is the one that gets quoted externally.

08

OUTCOME

Two per cent does not **forgive** a rounded chart

HELD TO THE DESIGN TARGETS IN THE BLUEPRINT; NO OUTCOME WAS MEASURED

IT WORKED IF	RESULT	STATUS
No spread appears without how settled it is	0 spreads shown without a settled proportion	HELD IN THE REBUILD
A live approval visibly moves the route	4 destinations with a live approval; pulling one redirects the share	HELD IN THE REBUILD
Readers adopt it and decide sooner	Not measured, so not claimed	NOT MEASURED

BRL 416.9bn
net revenue, FY2024
PUBLIC · ABOUT USD 77.2bn

2.3%
net margin
BRL 9.6bn NET PROFIT ON THAT REVENUE

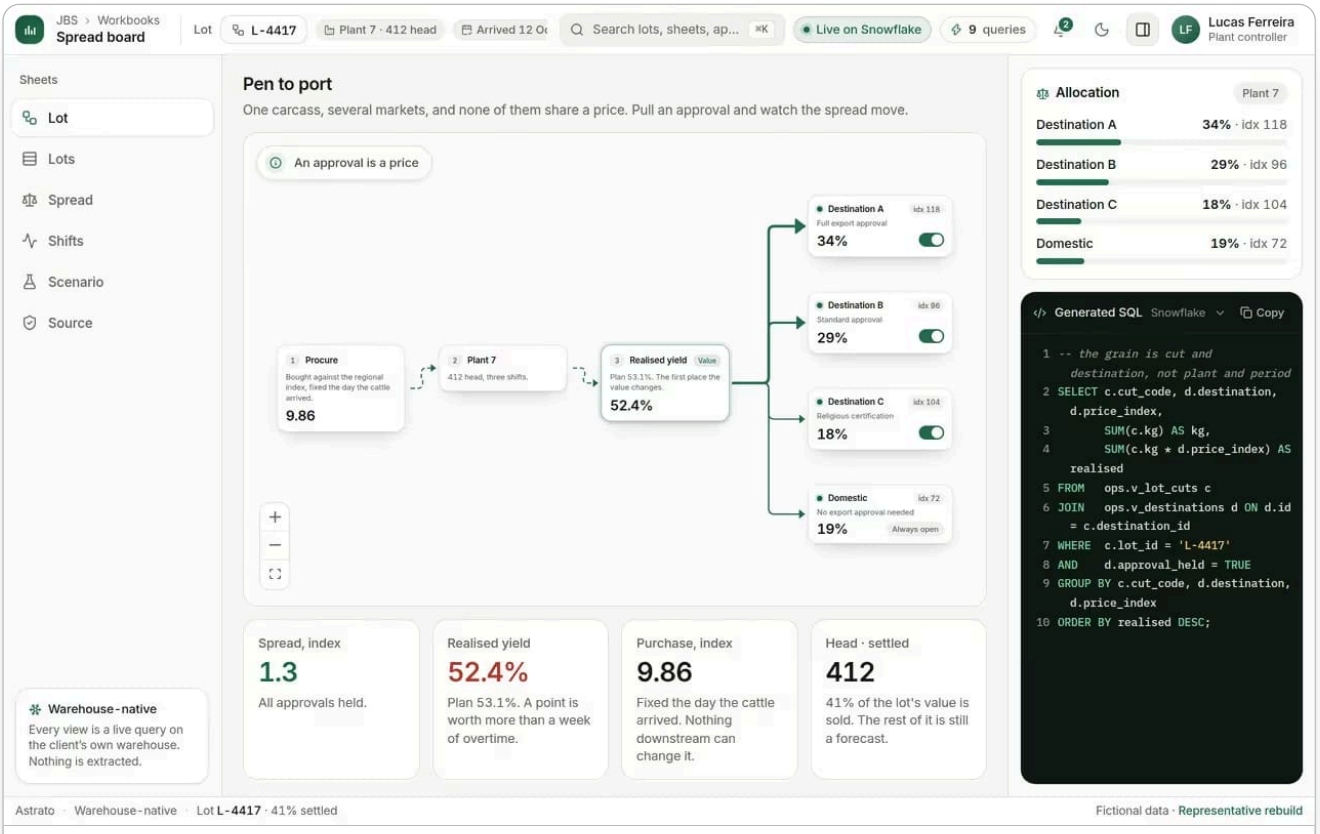
~190
countries sold into
PUBLIC · 300,000+ CUSTOMERS

~270k
people
PUBLIC · SOURCES VARY, SEE NOTES

As on the Novo Nordisk file, every figure in that band is public and none of them is a result of this work. There is no adoption number and no efficiency claim on this page, because I cannot show you the measurement.

The design position I will defend is the one the margin forces. **In a two per cent business, the conventional dashboard virtues are actively harmful.** Rounding is harmful because the profit lives inside the rounding. Smoothing is harmful because the variance is the signal. A single headline number is harmful because it averages across cuts and markets that have nothing to do with each other. Almost every default a charting library gives you is tuned for a business with room to be approximate, and this is not one.

What I would tell another designer taking this on: find out what the margin is before you design anything. It is a single number and it silently sets the tolerance for every decision you are about to make. At forty per cent you are designing for comprehension. At two per cent you are designing for precision, and those are not the same brief wearing different clothes.



The outcome, running: the lot from the pen to the port.

What I would do differently

01 **Find who owns each input before drawing the screen.** The export gate was tracked as a compliance list by people who did not own the spread, so a market shutting mid-lot showed up as a bad week.

02 **Agree targets with a way to measure them.** This file sets targets, not results, because no adoption was recorded. The targets should have come with their measurement.

SEE ALSO

004 · Novo Nordisk

The other reporting layer on Astrato: a number that carries the basis it was computed on.

003 · Safe Space

Measures agreed before the rollout, so the result could not be read kindly afterwards.

SOURCE NOTES

This case file is a reconstruction. The engagement was real and was delivered on Astrato, the Snowflake-native platform described in case file 002. The delivered artefacts, screens and results are covered by confidentiality and are not shown here. The problems on this page are real and public, the design decisions are the ones I argue for in this situation, and the screens were rebuilt for this site rather than exported from the work.

No figure on this page is a measured project outcome. Nothing claims an adoption rate, a yield improvement or a margin gain, because that evidence cannot be shown.

Company figures are from JBS S.A.'s published FY2024 reporting: net revenue BRL 416.9bn, about USD 77.2bn, up 14.6% in reais; net profit BRL 9.6bn, about USD 1.8bn. The 2.3% net margin is those two figures divided.

Roughly 270,000 people, and more than 300,000 customers in approximately 190 countries, from JBS company reporting. Headcount figures differ between sources, with 270,000 and 280,000 both published; the lower figure is used here.

The operational detail (three-clock spread formation, cut-and-destination grain, plant-level export approvals, direct against indirect supplier screening) is how this industry works and is not specific to any confidential material. Deforestation-free sourcing and indirect-supplier traceability are long-running public issues for Brazilian beef and for this company specifically.

No per-plant, per-market or per-lot figure appears anywhere on this page or in the running product. The product uses fictional data throughout.

The visual identity here is informed by the green that JBS's 2023 identity uses for sustainability, not copied from it. No logo, wordmark or trade dress is reproduced. JBS publishes no hex values for its current identity.

← PREVIOUS

Novo Nordisk · the number that was true twice

NEXT → · BACK TO THE FIRST

OI Design System · a design system that remembers why

Shad Abbaslou
Product Design Lead · London
withcontexts.com
Last updated 31 Oct 2026

LinkedIn ↗ Read the CV