

SPATIAL MAP • SOLUTION 06 / 07

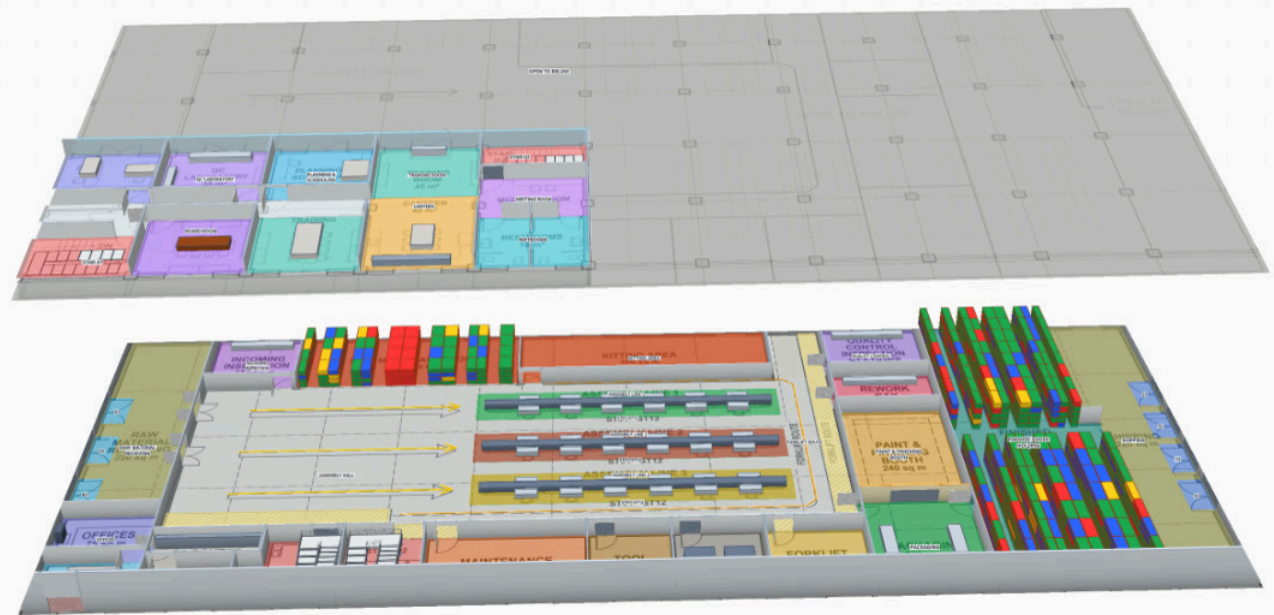


Supply Chain

From dock to line to truck, live in 3D.

EVERY LOT • EVERY LINE • EVERY SHIPMENT • LIVE

 SUMMIT ASSEMBLY PLANT



01 — THE CHALLENGE

One missing part stops the whole line.

In a busy plant, the problem is rarely a lack of data — it is that docks, stores, lines and quality each see their own piece. A late truck, a held supplier lot or a skipped inspection only becomes visible when a line runs dry or an order ships short.



01

Trucks start late

Late inbound and outbound trucks hold up receiving and shipping.

176

OF 666 DOCK SLOTS STARTED LATE • 14 DAYS



02

Parts run out mid-shift

One missing part starves a line and short-ships orders.

518 min

OF SHORTAGE DOWNTIME • 7 DAYS • THE #1 STOP REASON



03

Skipped quality checks

Carriers slip past inspection without anyone noticing.

9

WIP CARRIERS SKIPPED QC • 12 HOURS

AT A GLANCE

2

FLOORS MODELLED

7

RECEIVING & SHIPPING DOCKS

3

ASSEMBLY LINES

351

RFID WIP CARRIERS

99

CONNECTED DEVICES

02 — THE LIVE TWIN

Your plant, live in 3D.

📍 SUMMIT ASSEMBLY PLANT · 2 FLOORS

We model your building to scale — docks, raw store, kitting, lines, QC, packaging and finished goods — and layer every data source on top. Structure, material flow, RFID carriers and docks stay in one browser view that anyone in the plant can open.

● Structure

3 assembly lines, raw materials store, finished goods racks.

● Material flow & lines

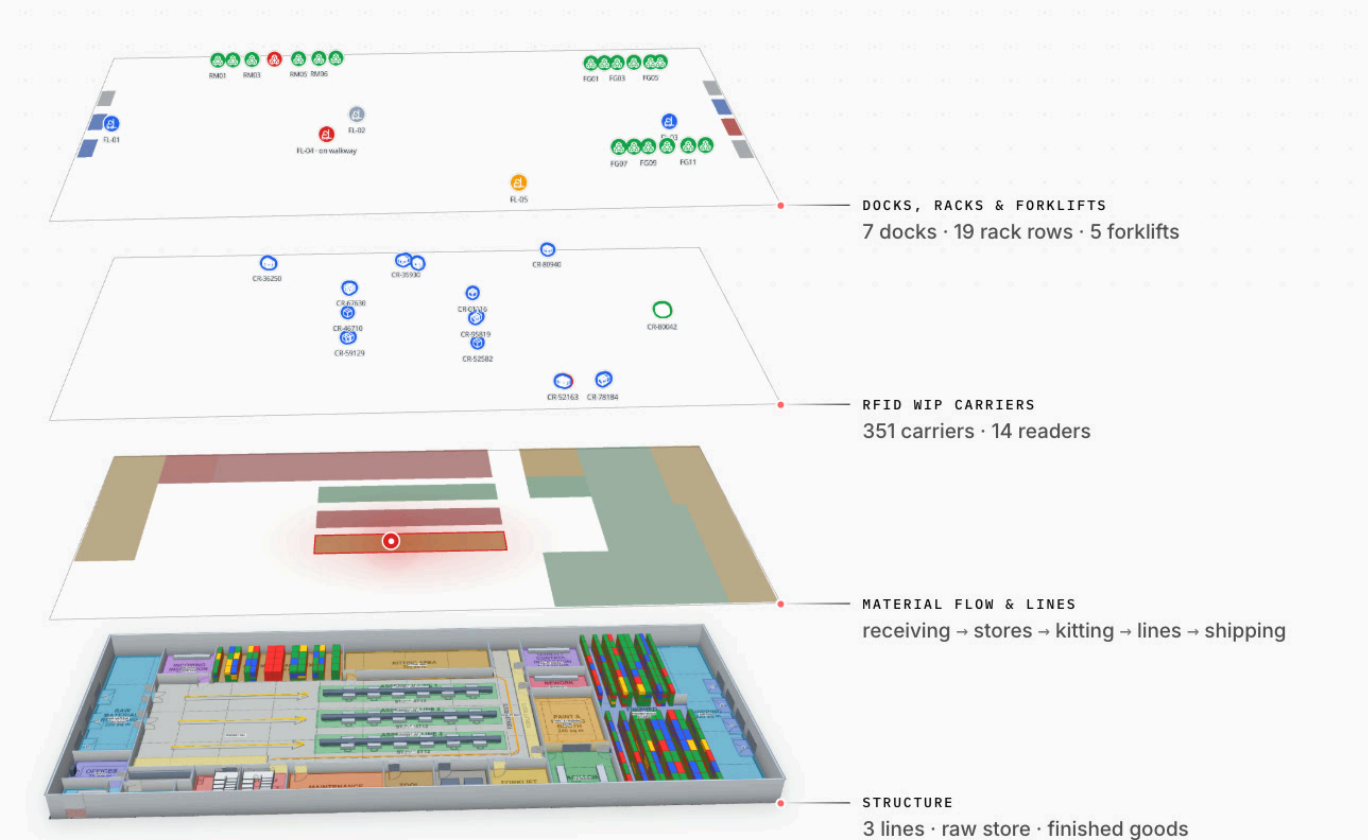
Receiving → stores → kitting → lines → shipping, tinted live.

● RFID WIP carriers

351 carriers read by 14 readers, reader by reader.

● Docks, racks & forklifts

7 docks · 19 rack rows · 5 forklifts.



3

ASSEMBLY LINES

7

DOCKS

351

RFID CARRIERS

03 — LIVE RFID PLAYBACK

Every carrier, moving, live.

📍 SUMMIT ASSEMBLY PLANT · GROUND FLOOR

The twin is not a picture — it is live. Every RFID read moves its carrier on the map, and the built-in history player replays any shift, so you can see exactly where work-in-progress waited, queued or went missing.



- **Line 3** **STARVED**
Stations waiting for parts.
- **Kitting Area** **BEHIND**
Kits not keeping pace with the lines.
- **RM04** **STOCK ON HOLD**
A supplier lot held at incoming inspection.

351

WIP CARRIERS RFID-
TRACKED

22,417

UNITS BUILT · 7
DAYS

680

DOCK APPOINTMENTS
· 14 DAYS

04 — INBOUND & OUTBOUND

Every dock, every truck. Live.

RECEIVING DOCKS R1-R3 · SHIPPING DOCKS S1-S4

Dock status, appointments, door sensors and pallets in one view. A blocked shipping dock, a door held open or an expedite order still unloading is pinned to the exact door — not buried in a spreadsheet.

R2 · UNLOADING

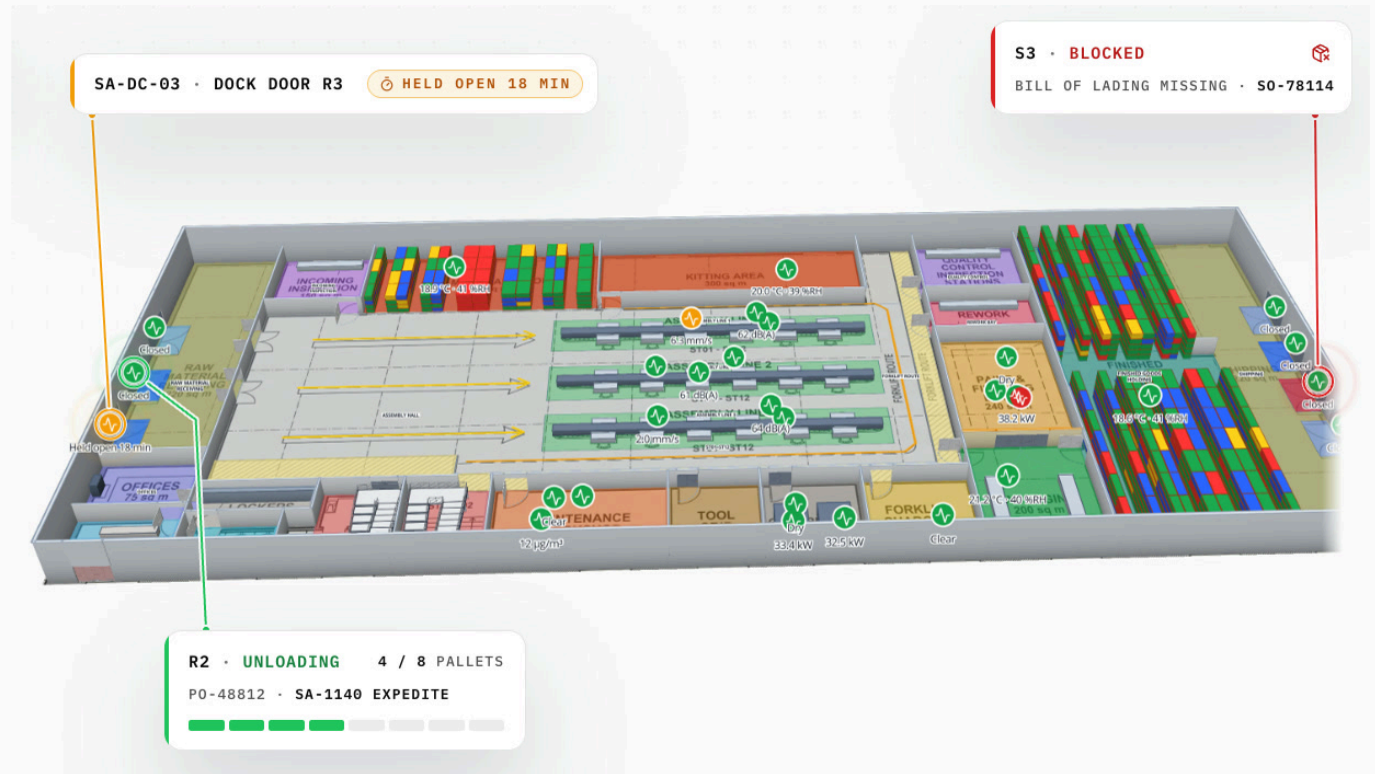
PO-48812 · SA-1140 expedite · 4 of 8 pallets.

S3 · BLOCKED

Bill of lading missing · SO-78114.

SA-DC-03 · Dock door R3 · HELD OPEN 18 MIN

Door sensor alert at the receiving wall.



176 / 666

DOCK SLOTS LATE · 14 DAYS

26.4%

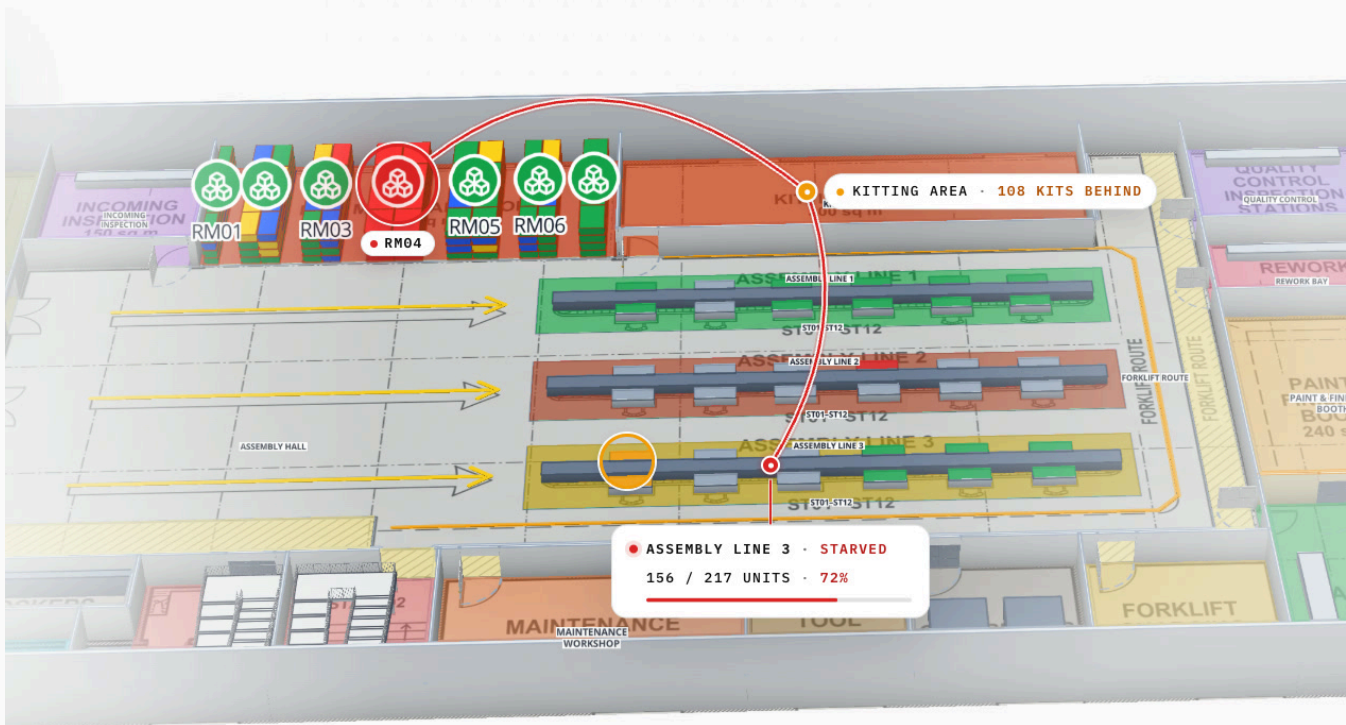
LATE-START RATE

05 — TRACE ANY SHORTAGE

One held lot, traced to the line.

📍 RAW MATERIALS STORE → KITTING → LINE 3

Search any rack, lot or part and the twin flies to it. Here a supplier lot held at incoming inspection is traced through the kitting area to the assembly line it is starving — the root cause and its impact on one screen.



518 min

SHORTAGE DOWNTIME · 7 DAYS

72%

LINE 3 VS PLAN

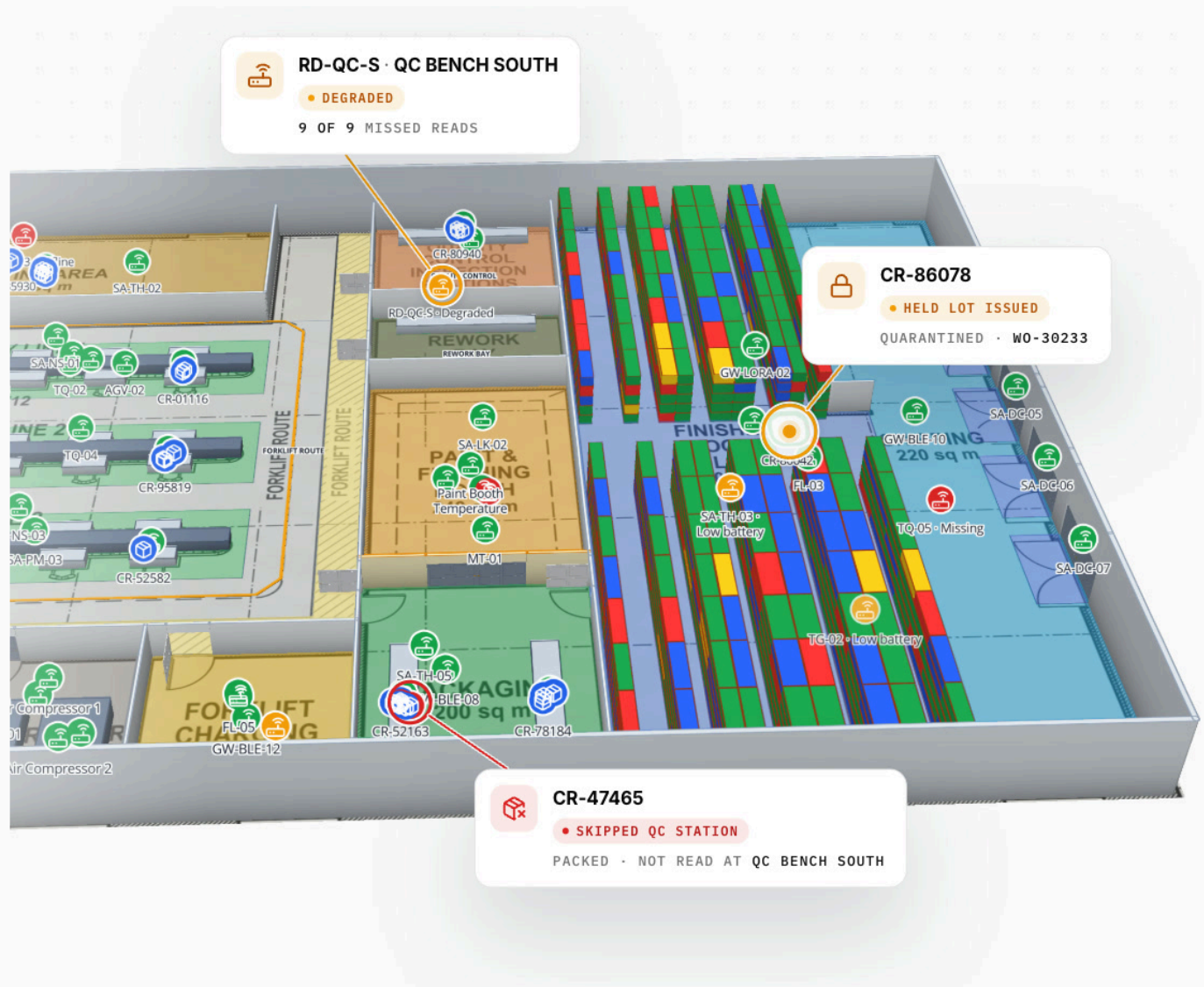
06 — RFID WIP TRACKING

Every carrier, reader by reader.

📍 LINES · QC · PACKAGING · FINISHED GOODS

RFID readers at every stage follow each work-in-progress carrier. Carriers that skip a quality station, readers that start missing reads, and held lots that reach the line are flagged where they happen.

- **CR-47465** **SKIPPED QC STATION**
Packed, but never read at QC Bench South.
- **RD-QC-S · QC Bench South** **DEGRADED**
9 of 9 missed reads trace back to this reader.
- **CR-86078** **HELD LOT ISSUED**
Quarantined material issued to WO-30233.



2,309

RFID READS

14

READERS

99.6%

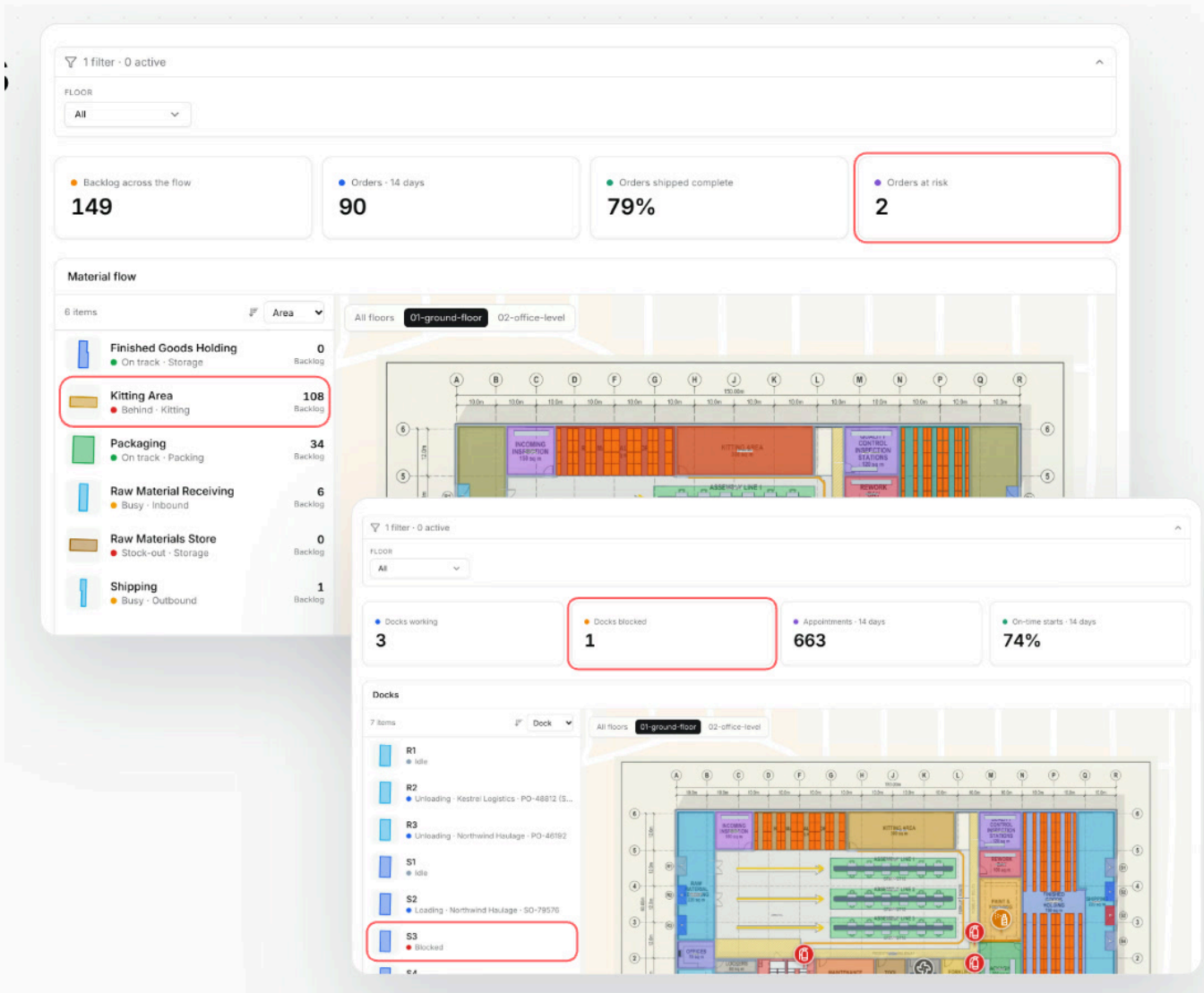
READ OK

07 — REPORTS, READY

Orders, docks and lines in one report.

Every map layer feeds reports your teams already use — built around your KPIs and ready from day one. Each report keeps its live map, so a number always leads back to the exact place it comes from.

- Material Flow & Orders — backlog across the flow, orders shipped complete, orders at risk.
- Receiving & Shipping Docks — docks working and blocked, appointments, on-time starts.
- Kitting Area behind and the blocked S3 dock highlighted straight from the floor.



79%

ORDERS SHIPPED
COMPLETE

2

ORDERS AT RISK

74%

ON-TIME DOCK
STARTS

08 — CONNECTED TECHNOLOGY

Connects what you already run.

New RFID, BLE and sensor networks sit alongside the equipment you already own. Utility meters and forklift telematics are connected as they are — no rip-and-replace.

99

DEVICES ON ONE MAP

88.9% **99.87%** **351**

ONLINE NOW 7-DAY UPTIME RFID CARRIERS



14

RFID readers

LLRP • 4 ANTENNAS EACH



37

Sensors

DOOR, POWER, CLIMATE, CO₂, LEAK, VIBRATION



17

BLE tags

TOOLS, TUGGERS, AGVS, LINE LEADS



18

Gateways

BLE • LORAWAN • MODBUS • LLRP



8

Utility meters

EXISTING • MODBUS TCP



5

Forklift telematics

EXISTING • WI-FI



Connects what you already run

13 existing devices — compressor and paint-booth meters, chargers and the forklift fleet — feed the same map as the new readers, tags and sensors.

PROTOCOLS

LoRaWAN

BLE 5.0

Modbus TCP

LLRP

Wi-Fi

Zigbee

WHAT WE DELIVER

Built for your plant. Like no other.



Your plant, built in 3D

A custom twin of your own building, every floor.



One map, every device

Readers, tags, sensors and meters together — with playback.



Dock-to-dock WIP tracking

Every RFID carrier followed reader by reader, exceptions flagged.



Alerts with location

Shortages, holds and blocked docks pinned where they happen.



Reports your teams use

Orders, docks, OEE and quality, built end-to-end for you.

HOW WE WORK

1 Discover

We walk your sites with your teams and agree the questions the solution must answer.

2 Model

We build your buildings as a live 3D twin — every floor, room, rack and door, to scale.

3 Connect

We integrate the readers, sensors, cameras and systems you have, and add what is missing.

4 Configure

Alerts, playback and reports are set up around your workflows and KPIs.

5 Run & evolve

We support the solution and extend it as your operation changes.

LET'S MAP YOUR OPERATION

contact@spatialmap.io

spatialmap.io

Tell us about your sites — we design, build and run the solution around them.

