PELiCO

Improving customer OTD while facing a strong ramp-up in production

How a leading US-based industrial equipment manufacturing group leveraged data to reduce part shortages and increase the Clear to Build rate

Key achievements in a 8 weeks timespan

-30%

Part Shortages

93%

Clear to Build rate*

+12%

OTD Improvement

-20%

Reduction in Overtime

***Clear to Build rate (CTB rate)** is the percentage of work orders that can proceed without delays due to part shortages.

Clear to Build formula: number of WO with no shortage on BUY part / Total of WOs

Context & Challenges

This industrial equipment group was evolving in a complex production and supply chain environment while facing a strong ramp-up

Ramp-up

70%
YoY Compound Annual Growth Rate (CAGR)

+8,380
Purchase Orders

49%
OTD

Value at stake

$598M	Net Sales in 2023
$9.6M	Financial impact of blocked WIP
14.7%	Past Due Purchase Orders
$119M	Blocked WIP

Goods produced

HVAC: Heating, Ventilation & Air Conditioning for Industrial Equipment

Due to the success of its latest HVAC system, this industrial equipment group was facing challenges to ramp-up its production

Daily disruptive factors occurring frequently...

- **Part shortages**
- **Late supplier deliveries**
- **Quality issues**
- **Specific customer requests**

...hindered factory operations...

- Difficulties to **align teams & prioritize subjects**
- **Time consuming spreadsheets** maintenance
- **Firefighting mode** creating high stress levels amongst teams
- **Lack of visibility** on factory forecasts & performance

...affecting supply chain performance

- Delayed **customer deliveries**
- Costly **last minute solutions**
- **Clear to Build rate below expectations**
- Sub-optimal **manpower management**

Process latency, inaccurate data and inadapted tooling made the daily adjustment to these disruptions even more challenging

70% **of operations teams' bandwidth** is allocated to piecing together the data required to adjust repair planning to factory disruptions

Data preparation & analysis

▸ Multiple data tables required

Multiple Excels & Dashboards

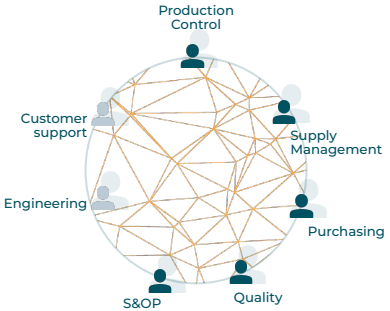
1 Line of Balance spreadsheet / Supplier

ORACLE

Supply & Demand dashboards

1 Clear to Buy spreadsheet / Plant

▸ Complex cross-functional coordination



Cross-functional collaboration

Wrong decisions taken as they were based on:

- Inaccurate information
- Siloed data
- Partial data

On top of this challenging context, this HVAC manufacturer faces an additional complexity factor: the Engineering to Order

The added complexity factors of Engineering to Order

Systematic customization

Each order is customized (weight, height or materials), which also requires BOMs to be created accordingly.

As a result, the BOM cannot be anticipated further than 7 weeks out of the delivery date, when engineers start to work on the order.

Daily early shipping requests

Customers involved in renovation or building processes also have to adapt to the disruptions they face.

For every contractor bailing on them, they'll email the factory teams to adjust the shipping date.

High pressure on OTD commitment

Industrial HVAC products are tightly tied to renovation or building processes.

As a result, OTD is a critical component.

Uncertainty + complexity = crushing stress

Due to the pressure they face, Supply teams tend to challenge Engineering teams a lot, resulting in tensions.
Teams have to deal with a double uncertainty (the ones of their customers and plant) and experience crushing stress.

Approach

To facilitate the transition to its platform, Pelico mapped existing processes through users' shadowing

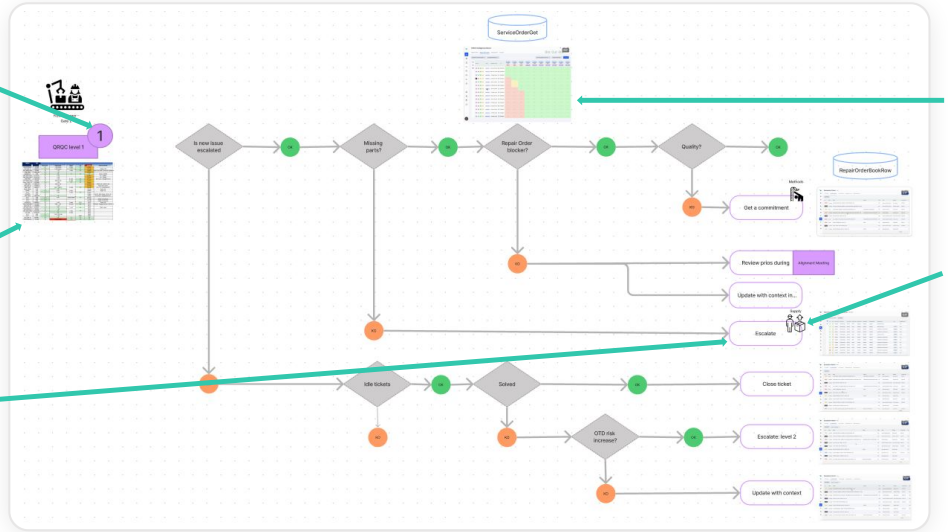
To ensure a smooth transition to these new processes, the plant leans on Pelico's team to map their existing processes during on-site user shadowing sessions.

Mapping of existing operational routines

1. Mapping of recurring questions that are systematically addressed during operational routines

2. Mapping of manual tools used to support current operational routines

3. Mapping of actions and outcomes connected to the operational routines



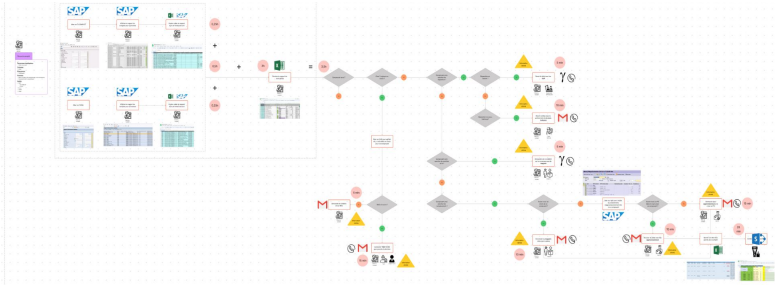
Identification of improvement opportunities

1. Automatization of actions with Pelico functionalities, by displaying the right data for each recurring question

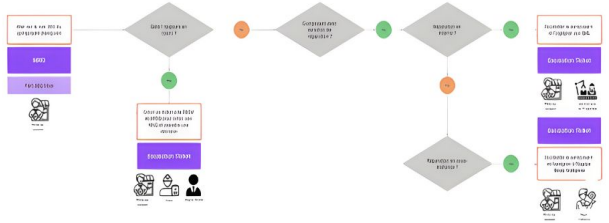
2. Identification of streamlined, data-driven decisions & cross-functional collaboration opportunities (e.g, simplification of routines)

Thanks to this mapping, Pelico was implemented to support the productivity and efficiency of those routines

ROUTINES MAPPING BEFORE PELICO



ROUTINES MAPPING AFTER PELICO



Time to complete the routines per perimeter: **2 hours** vs. **10 minutes**.

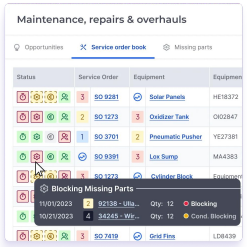
Number of tool(s) required: **6** vs. **1**.

Time required to find a mitigation strategy for each bottleneck: **18 minutes** vs. **5 minutes.**

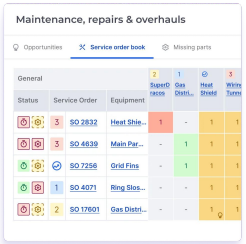
Once in place, Pelico centralizes all the data in a single platform to accelerate supply chain operations

The industrial equipment group migrated its most structuring routines to the supply chain operations management platform.

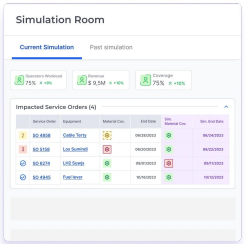
Each team (Production Control, Supply, Customer Support…) can collaborate from the platform and benefits from the same level of information.



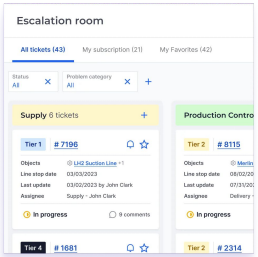
Alignment of all teams on a single source of data



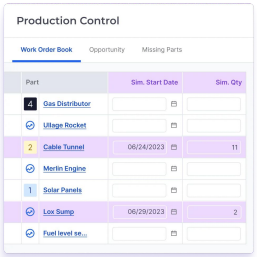
Early anticipation of bottlenecks



Fast decision making

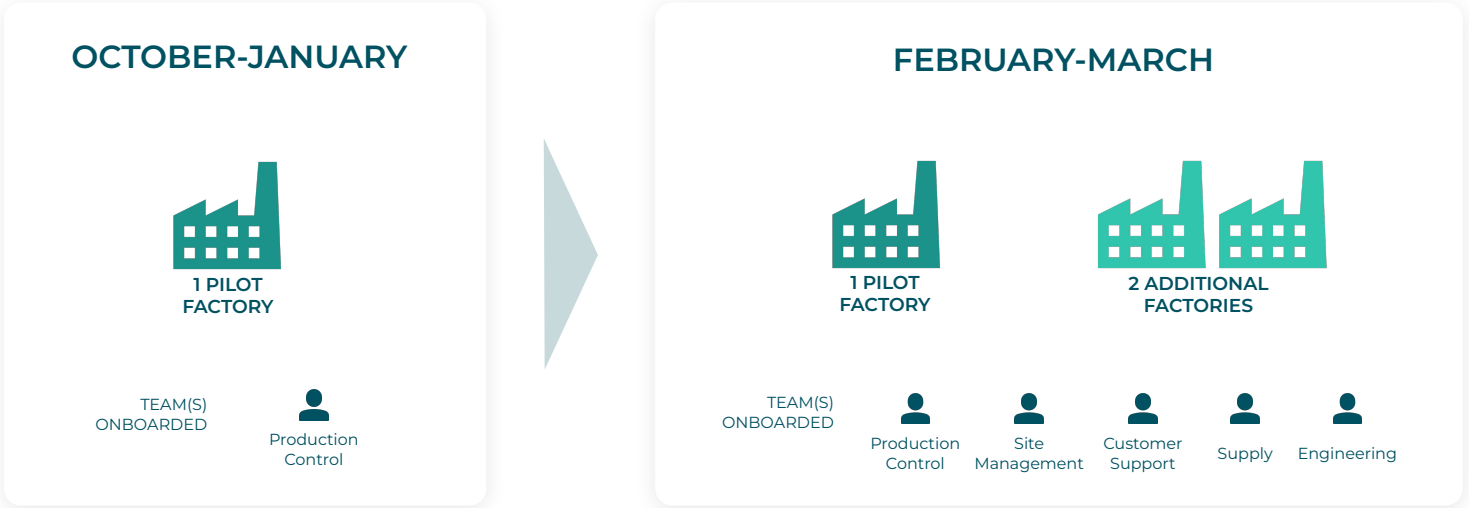


Streamlined cross-team collaboration



Quick simulation of alternative scenario

Deployment plan set: rolling out Pelico to additional sites in less than 4.5 months, expanding from 1 factory to 3 teams across 3 factories



To ensure optimal user adoption, **this US-based group is adopting an iterative and gradual approach**, starting with its flagship factory and its production control team.

Results

It only took 1 month for the flagship plant's team to go from tech setup to value transformation. The secret? A fast and high user adoption

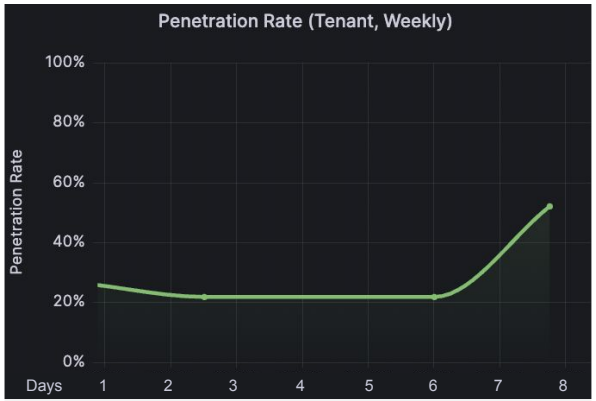
time-to-value*

Daily data sent by the plant
J0

- Daily data being pushed to Pelico servers

First user win*
J+8

- Order sent to a sister plant to avoid a line stop thanks to Pelico



- 60% of users started deriving value from Pelico in 8 days

Within 2 months, the pilot plant seamlessly migrated its two most critical routines to Pelico, resulting in important time savings

ROUTINE 1

Clear to Build review

Routine: Team reviews the equipments having all the parts ready to be assembled.

People: 10 | **Tool(s)**: Spreadsheet(s) **| Pace:** WEEKLY

ROUTINE 2

Identification of part shortages

Routine: Piecing together the up-to-date data to chase missing components.

People: 25 **| Tool(s)**: Spreadsheet(s), CRMs, ERPs, emails **| Pace:** DAILY

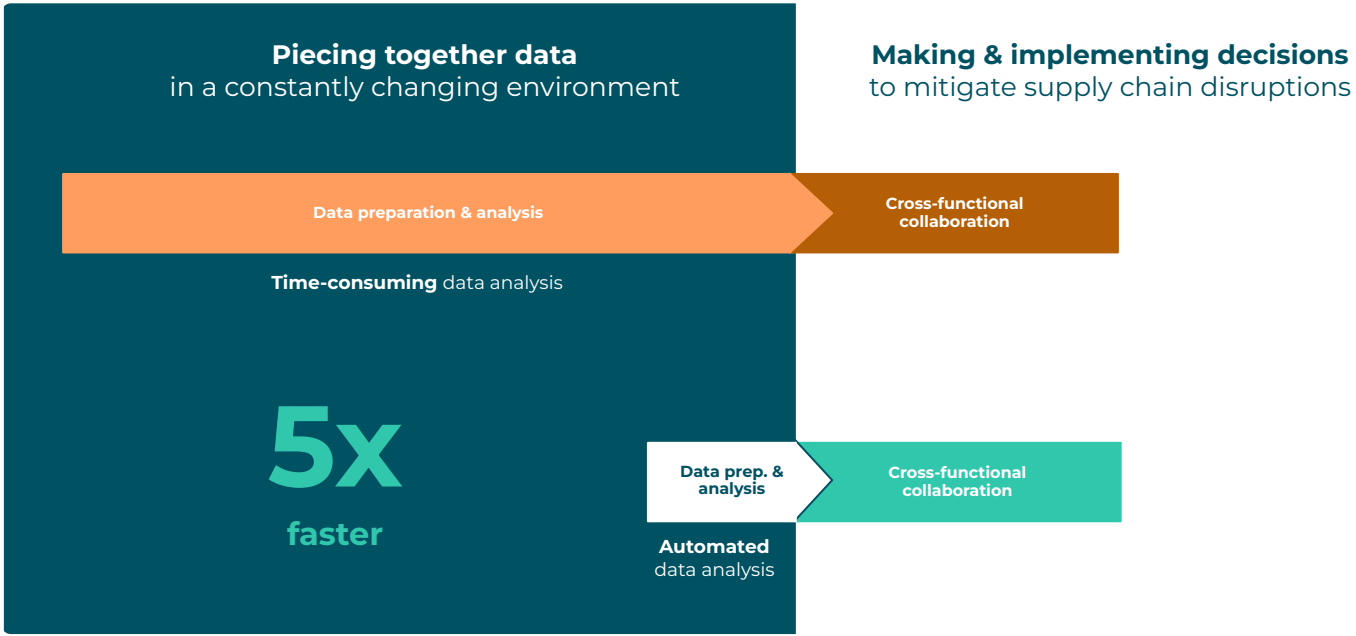
-90%

Time to quantify the Clear to Build (CTB)

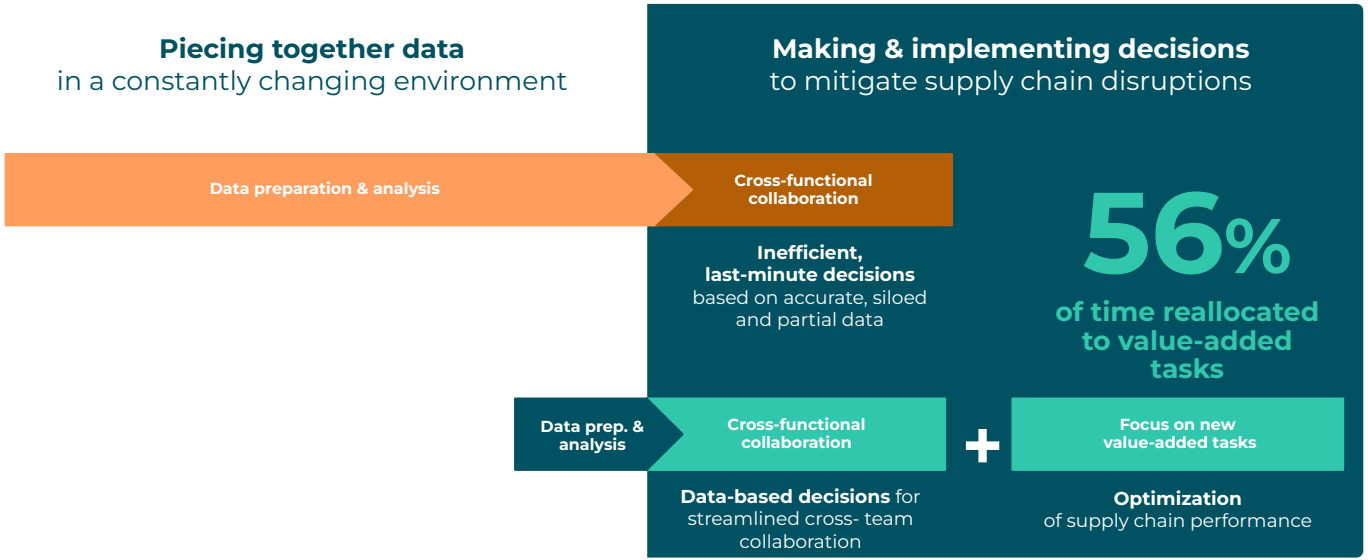
-80%

Time to identify daily part shortages and find mitigation actions

Team improved its productivity by 80% in data preparation & analysis, leading to decisions made 5x faster



Team made better decisions and reallocated 56% of the time saved to value-added tasks



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Users’ feedback

USERS' FEEDBACKS

"We have this big order coming in, 150 units [approx. $15M], we thought we'd be fine but we discovered we'll be short 100 compressors thanks to Pelico."

Site Supply Chain Operations Director

At first, our supply chain manager and I have been running Pelico in parallel of our manual Clear-to-Build calculations. We quickly noticed we could fully rely on the platform, since it was able to help us getting ahead of some shortages that our traditional process was missing.

Plant Director

Plant Direction & Supply Chain Operations

"Yesterday, we discovered a flow control valve —crucial to 264 unique parent equipments— was running short in the next few weeks. Thanks to Pelico, we identified we could salvage an $80K customer order if we got a partial delivery in the short term."

Site Supply Chain Operations Director

USERS' FEEDBACKS

Buyers & Supply Chain Manager

"When I know that a PO wouldn't be delivered on time because the last two POs were past due, Pelico helps me to simulate cancelation of the third PO. The platform then shares this worst-case scenario with both planning and the supplier during review. It's very helpful."

Buyer

"As a Supply chain manager, I now task my Buyer to use Pelico's stock transfer opportunity with SLP as a fallback solution if the supplier does not reply within next two weeks."

Buyer and Supply Chain Manager

"We detected a shortage from Pelico even though we 'knew' that it was not. What happened is that Pelico highlighted a peculiar demand for 3000 pieces on a planned order. Nobody was aware of it and it did not show on the Excel Clear to Buy. "

Buyer and Planner

PELiCO

SUPPLY CHAIN OPERATIONS MANAGEMENT PLATFORM

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