



Prototype Fabriq

This project aims to integrate AI powered solutions for a lean manufacturing company in order to achieve business outcome of reduce MTTR and operation excellence, Fabriq based on the existing solution.

Detailed document

Phase 1 Company/product research

Fabriq is a lean manufacturing solution for shop floor management.

It provides solutions for operation managers and team managers to report, detect and resolve operational issues and facilitate communications across sites and teams leveraging visual management assets and tickets management systems.

Company / product research top 3 insights:

1. Three main user segments for Fabriq:

- Operator / team member who operates in the shop floor running daily operations, including incident reporting, maintenance of machines and production lines
- Line supervisor / Team leader who is responsible for the production line, runs shop floor management meetings on a daily basis, tracks incidents resolution
- Continuous development / operational excellence manager who is responsible for the site operation across plants, improving overall operational ritual and system

2. Top 3 competitors

MaintainX : AI powered maintenance and asset management

QAD Redzone: Vertical focus (food and beverage), programmatic, coach driven continuous improvements

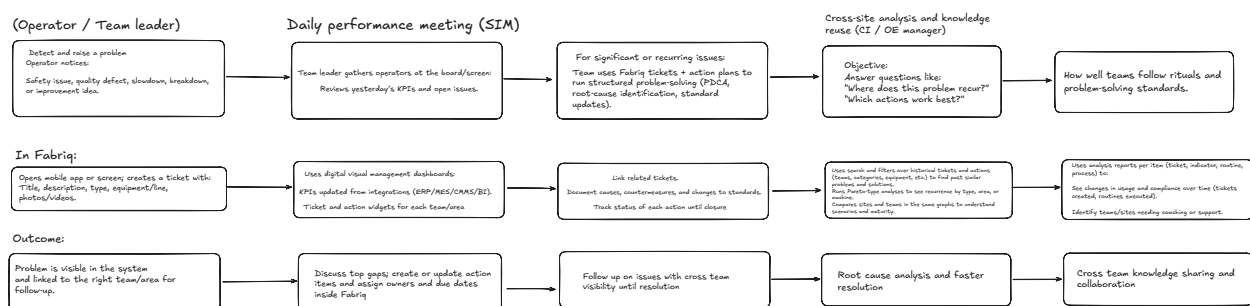
Tervene: operational excellence connected worker platform

3. Company strategy

Expansion to across sites and region expansion

Software and high touch CSM for all customer tiers

Phase 2 User flows and user problem prioritization



User problems prioritisation:

- Cognitive friction when moving between team-level, personal, and cross-functional plans.
- A potential expansion area for external collaboration.

▼ User Journey 1

Team vs personal vs cross-functional plans

- During a daily SIM on Line 1, the team opens a team action plan for "Reduce changeover time on Line 1.
- From that meeting:
 - **The line leader creates a team action:** "Standardise changeover checklist for Line 1."

- **A maintenance tech creates a personal action:** "Verify quick-release clamps on machine A by Friday."
- **A quality engineer creates a cross-functional action in a plant-level plan:** "Harmonise changeover parameters across all packaging lines."

Where cognitive friction appears:

- The maintenance tech is not sure:
 - Whether their personal action is visible in the Line 1 team plan.
 - How their action links to the plant-level harmonisation project.
- The CI manager wants to see all actions related to changeover across levels but has to click through multiple plans and boards because:
 - The interconnections are "not always intuitive," and the notion of "personal plan of actions" is "peu claire" in reviews.

Indicators of this friction (in Fabriq data):

- Many small, similar actions spread across:
 - Personal plans.
 - Team plans.
 - Site-level plans.
- Low usage of filters/links that connect actions across levels (few actions tagged with common themes like "changeover" or "SMED").
- Users asking support "where should I put this action?" or "why don't I see my task in the team plan?" (reported qualitatively as confusion around plans).

▼ User Journey 2

Example use case

- An operations Manager has a packaging line supplied by Supplier X (film, labels, caps).
- Internally, Fabriq shows many tickets:
 - Film tearing on Line 3, multiple SKUs.

- Label misalignment at high speed.
- Increased micro-stops after a new batch from Supplier X.

Internal view (for plant only) might include:

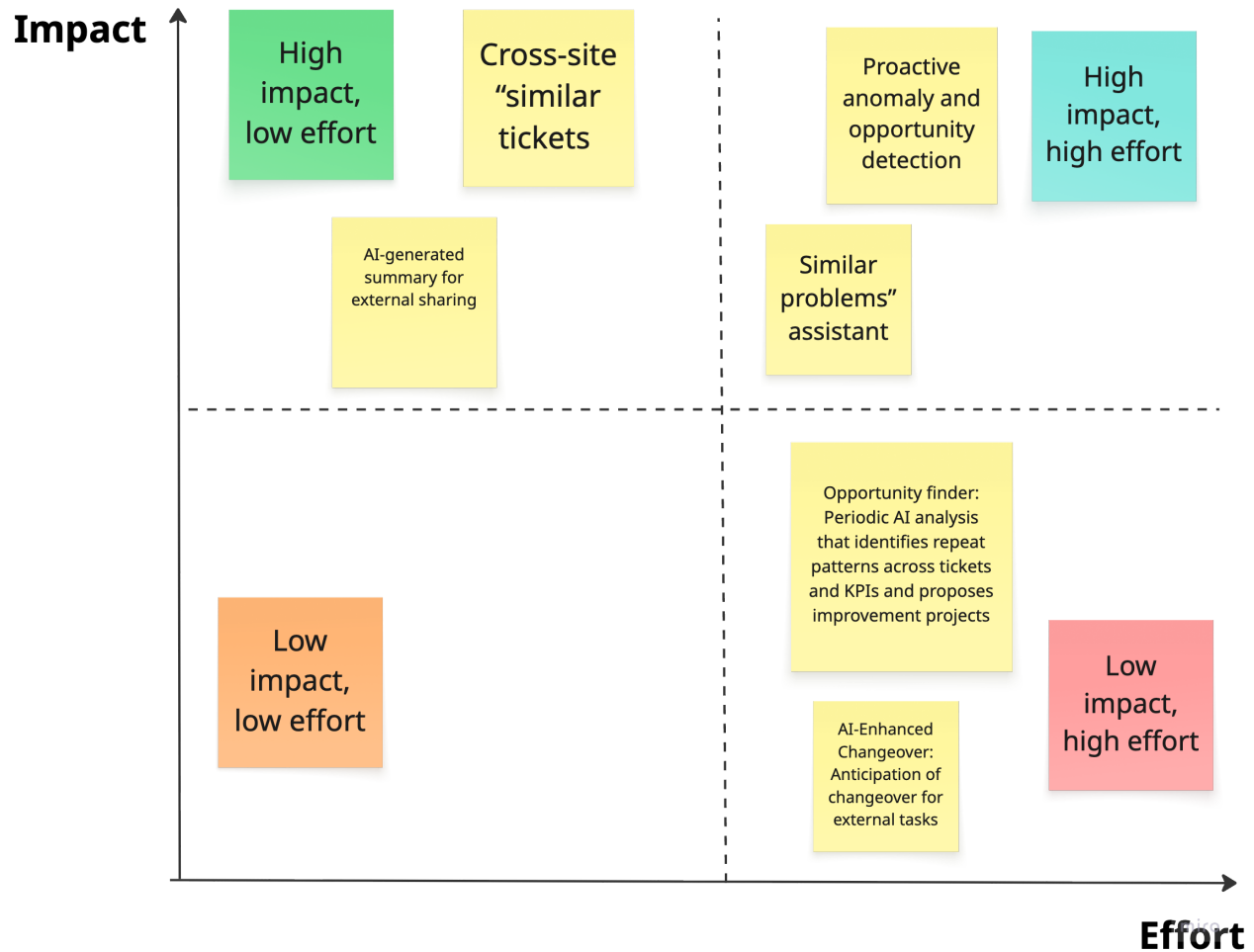
- Detailed OEE losses by shift.
- Operator comments blaming “bad batches” and internal set-up errors.
- CI notes on changeovers, staffing, and training.

The operational manager felt challenged to communicate those information with related data points only to external stakeholders while maintaining the relationship

Phase 3 Solution space integrated with AI

Feature	Problem it Solves (user words)	How it works	Why it works (user behavior → business outcome)
Cross-site “similar tickets / similar problems” assistant	La notion de plan d'actions personnel est peu claire. Les interconnexions des différents plan d'actions ne sont pas toujours intuitives.	Semantic search over tickets, actions and KPIs When a new problem is raised, Fabriq surfaces similar past issues (even from other countries/languages) with root causes and resolutions. AI-generated action suggestions	For Users: Operators: Guided ticket creation : auto suggestion, classification, similar tickets suggestion and action suggestion CI/OE managers: Auto detection of recurring issues and patterns across tickets and KPIs, suggestion improvements Plan Corporate leaders: Summarisation of performance and ritual

			For Business: Impact: less “reinventing the wheel,” improved cross-site learning, and a differentiated story vs. connected-worker tools that are more local.
AI-generated summary for external sharing	Je me demande comment je pourrais me servir de fabriq pour échanger des informations et des points chauds avec mes fournisseurs et mes clients	User ask: how can we use Fabriq to share information and “points chauds” with suppliers/customers? AI summary that: Highlights a few key hot spots (“points chauds”) relevant to that supplier/customer. Strips out internal noise (internal blame, sensitive KPIs, confidential improvement discussions).	For users: Resolve hot spot communication with external stakeholders
Proactive anomaly and opportunity detection		• AI KPI watchdog • Opportunity finder: Periodic AI analysis that identifies repeat patterns across tickets and KPIs and proposes improvement projects • AI-Enhanced Changeover: Anticipation of changeover for external tasks	Impact: moves Fabriq from “dashboard that you interpret” to “assistant that highlights where to act,” while keeping humans in the loop.



▼ P1 Cross-site "similar tickets / similar problems" assistant

Extends the existing Similar Tickets feature with richer AI assistance, targeting knowledge reuse across plants.

- **Semantic search over tickets, actions and KPIs**
 - AI embeddings over ticket titles, descriptions, causes, and actions across all sites.
 - When a new problem is raised, Fabriq surfaces similar past issues (even from other countries/languages) with root causes and resolutions.
- **AI-generated action suggestions**
 - For operators / team leaders

- Guided ticket creation (auto-classify type, equipment, severity).
- Similar tickets and suggested actions when raising or updating a problem.
- AI could reduce this by, for example, suggesting:

“Your new action ‘Verify quick-release clamps’ looks related to the project ‘Reduce changeover time on Line 1’ and plant initiative ‘Harmonise changeover parameters’. Do you want to link them?”
- For CI / OE managers
 - Automatic detection of recurring patterns across tickets and KPIs; suggested improvement projects.
 - AI-written summaries of analyses for SIM or management reviews.
- For plant / corporate leaders
 - Narratives on performance and ritual adherence (“maturity reports”) instead of manual PowerPoint prep.
- **Multilingual support**
 - Inline translation and normalisation of terminology when surfacing tickets from other languages.

Impact: less “reinventing the wheel,” improved cross-site learning, and a differentiated story vs. connected-worker tools that are more local.

▼ P2 AI-generated summary for external sharing

User ask: *how can we use Fabriq to share information and “points chauds” with suppliers/customers?*

AI summary of sensitive communication with external stakeholders:

- Highlights a few key hot spots (“points chauds”) relevant to that supplier/customer.
- Strips out internal noise (internal blame, sensitive KPIs, confidential improvement discussions).

AI-generated external “points chauds” summary for Supplier X could look like:

"Over the last 6 weeks, we have observed three recurring issues connected to materials from Supplier X:

- Increased film tears on Line 3 for SKUs A12 and B07, particularly during the night shift, leading to additional setup and cleaning time.*
- Higher rate of label misalignment at speeds above 180 units/min, requiring operators to slow the line.*
- Spike in minor machine stops correlated with new film batch codes F-23-08 and F-23-09.*

We would like to review with you:

- Potential tolerance or specification checks on these batches.*
- Recommendations on optimal tension and temperature ranges for these films.*
- Any recent changes in material or process on your side.*

This summary only reflects issues observed on our lines; detailed internal productivity and organisation data are kept on our side."

What the AI is doing:

- Selecting only tickets/actions tagged with Supplier X (or its materials).
- Aggregating them into 2–3 clear "points chauds" (themes).
- Removing:
 - Internal KPIs (exact downtime, OEE).
 - Internal comments ("operator not trained", "planning error").
- Formatting in a neutral, collaborative tone suitable for external partners.

You could implement this as:

- A button on a supplier-specific dashboard: "Generate external summary for Supplier X."
- A panel that lets a manager edit and approve the AI summary before sending it as a PDF or email.

▼ P3 Proactive anomaly and opportunity detection

loses the gap with advanced analytics competitors while staying consistent with Fabriq's UI-driven value.

- AI KPI watchdog
 - Monitors key KPIs (scrap, micro-stops, cycle time) and automatically:
 - Flags unusual shifts, lines, products.
 - Suggests likely causes using correlations with tickets and actions.
- Opportunity finder
 - Periodic AI analysis that identifies repeat patterns across tickets and KPIs and proposes improvement projects:
 - "X recurring stoppages per week on line 3 due to changeovers: consider SMED project."
- **AIEnhanced Changeover** : Using **Software-Defined Automation (SDA)**, the system can reduce this downtime by over **70%**.
- **The Action**: The AI agent anticipates the end of the 500ml run by monitoring material levels. It automatically begins preparing "external" tasks (ordering the next batch of glass bottles to the line).

Impact: moves Fabriq from "dashboard that you interpret" to "assistant that highlights where to act," while keeping humans in the loop.

Phase 4 PRD and prototyping

PRD

<https://claude.ai/public/artifacts/3b3be35e-ac65-4bd4-a862-5c70dd1d85b3>

Prototype

https://ai.studio/apps/drive/10HcpcDGMAIW1AA3ybYOTr_E2mKQKTQKG