# Process Tracking & Data Strategy Proposal Business Report

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Role:

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#### 1. Context

This project was developed as part of my Computing and Data Analysis studies, using real workplace observations as the foundation. The aim was to design a practical, anonymised case study showing how better data control and workflow tracking could improve efficiency, reduce costs, and prepare for future growth.

# 2. Why Data Control Matters

Current system relies on paper job cards and manual tracking.

- Lack of visibility → bottlenecks, delays, inconsistent stock control.
- No data history → weak forecasting and quoting accuracy.
- Opportunity: improve workflow visibility to strengthen planning, reduce waste, and base decisions on facts rather than guesswork.

#### 3. Workflow Overview (Proposed Future State)

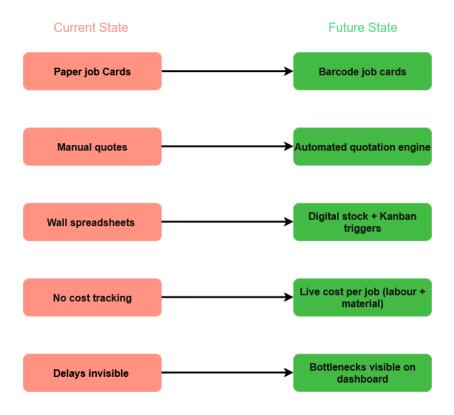
Sales  $\rightarrow$  Quotation  $\rightarrow$  Engineering  $\rightarrow$  Requisition  $\rightarrow$  Barcode Scans at Each Stage  $\rightarrow$  Live Dashboard  $\rightarrow$  Delivery.

Key elements:

- Automated quoting → real-time material + labour costs.
- Engineering integration → ensures drawings/specs feed directly into job setup.
- Barcode-based tracking → jobs scanned at each department.
- Dashboard → live job status, bottleneck visibility, cost analysis.
- Kanban stock management → prevents shortages and waste.

# 4. Key Improvements & Benefits

FabriCo Transformation: Current vs Future State



# 5. Estimated Business Impact (Annual)

- Delay reduction → £4,900
- Better quoting (win 1 job/month) → £60,000 revenue
- Bottleneck fixes → £12,000
- Accountability boost (10 min/day saved across staff) → £10,400
- Waste reduction → £5,200
- ≈ £92,500 / year potential value

# 6. Business Opportunity - Data Centre Readiness

The UK data centre market is projected to exceed £100bn investment over the next decade.

Fabrication demand includes **panels**, **racks**, **housings**, **and precision sheet-metal components** — all of which directly align with our current capabilities.

ISO compliance, traceability, and lean workflows are baseline requirements to qualify. With our expertise in panel enclosures, modular frames, and precision fabrication, we are already a natural fit.

While **barcode-based tracking** is not mandatory, adopting it would act as a **strategic enabler**:

- Improves accountability and cost transparency.
- Strengthens credibility with large contractors.
- Positions us for smoother entry when pursuing data centre contracts.

In short, the match is already there: our product range, skills, and agility make us a **perfect fit to compete with established suppliers** in this sector. These upgrades are not essential for today's operations but adopting them now ensures we are prepared to win **high-value**, **data-centre projects** as opportunities open.

#### 7. Future Vision

- Short term: streamline internal processes, dashboards, and cost tracking.
- Medium term: extend digitalisation with client portals and real-time dashboards for improved transparency.
- Long term: evolve toward Industry 5.0 with Al-driven forecasting, digital twins, and human-centric automation.

#### 8. Conclusion

This project demonstrates that moving from paper-based processes to a datadriven workflow could save around £92k/year through reduced waste, better planning, and improved efficiency. But the real value goes beyond internal gains: it positions the company for the next stage of growth.

The data centre sector is a potential game-changer. It is one of the fastest-growing markets in the UK, with massive long-term investment. Crucially, the company already manufactures many of the products required — electrical enclosures, modular frames, housings, and precision sheet-metal parts. The fit is natural; introducing greater traceability, efficiency, and compliance would only strengthen competitiveness and open doors to larger opportunities.

Implementing barcode tracking, live dashboards, and structured data control provides exactly that. These tools do more than optimise the shop floor — they create

the transparency, reliability, and professionalism that align with data centre expectations. In short, the company doesn't need to reinvent itself; it needs to refine how it operates, and in doing so, it can step confidently into a market where the opportunities are transformative.