NetMind Manufacturing AI Suite

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Supporting Information for **Made Smarter** Technology Directory

What we do: Document Intelligence, Voice Analytics & AI Support for UK Manufacturers

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1) Product / Service / Project

NetMind Manufacturing Al Suite — Document Intelligence, Voice Analytics & Al Support

2) Description of Solution's Capability

- **Document Intelligence (IDP):** Parse technical/quality PDFs and scans (drawings, SOP/Work Instructions, QC/COA, PPAP, supplier compliance, maintenance logs) into structured data (tables, key-value, layout-preserving Markdown/JSON). Scales to high volume (1M+ pages/day).
- Al Customer & Dealer Support: A citation-grounded assistant that answers directly from manuals, BOMs, quality and warranty policies to reduce escalations and speed up responses.
- Al Voice Analytics: Transcription, speaker diarisation, and sentiment/intent recognition on service and call-centre audio to surface recurring issues and product insights.
- **Social & Warrant Feedback Mining:** Consolidates warranty/RMA data, service tickets, and external sources (social media, app reviews) to detect themes and early quality signals.
- Deployment & Integration: Cloud / on-prem / private cloud; OpenAI-compatible APIs; integrates with ERP/MES/PLM/quality/CRM systems; enterprise-grade security (encryption, audit, RBAC) with optional UK/EU data residency.

3) How does your solution solve business challenges?

- **Lead-time reduction:** Automates parsing & validation in document-heavy workflows (quoting, PPAP, supplier onboarding), cutting delays and manual effort.
- Quality & compliance: Detects early signals from warranty, recall, and service data; validates
 PPAP/supplier files for completeness and traceability.
- First-time-fix (FTF): Improves resolution rates and lowers escalations with a unified,
 citation-based support assistant.
- Addressing skills gaps: Captures expert know-how into searchable, actionable guidance for frontline staff.
- Low-risk adoption: Delivered via a 2–4 week pilot on a single line or product family, with measurable KPIs and minimal system changes.

4) Any other information

- **Security & compliance:** End-to-end encryption, audit logs, RBAC; aligned with UK standards (e.g., Cyber Essentials). Optional UK/EU data residency.
- Scalability & cost: On-demand inference APIs and dedicated endpoints for private models;
 pay-as-you-go usage for easy scaling.
- **Developer-friendly: OpenAI-compatible APIs** and Model Context Protocol (MCP) tool catalogue for rapid integration.

Representative Manufacturing Use Cases

- OEM / Equipment maker support assistant: Answers dealer and customer queries with cited sources from manuals, BOMs, and warranty; auto-logs tickets with context and suggests spare parts/consumables.
- PPAP & supplier quality automation: Extracts and validates supplier dossier fields, flags missing elements, and updates quality systems.
- Warranty & field feedback analytics: Identifies recurring failure modes from calls, tickets, warranty claims and social/app reviews to support continuous improvement.

Low-Risk Pilot & Implementation (2–4 weeks)

 Week 0 — Requirements & data handshake: Define objectives and KPI baseline; collect sample docs/audio/tickets.

- Week 1 Pipeline setup: Deploy IDP, support assistant, or voice analytics on a narrow scope.
- Week 2 Integration & dashboards: Connect to ERP/MES/quality/CRM; build KPI dashboards and feedback loops.
- **Week 3–4 Pilot run:** Operate in production, measure impact, and deliver ROI summary plus rollout plan.

Technical Architecture (high level)

- **Inputs:** PDFs/scans (drawings, SOPs, QC, PPAP), audio (WAV/MP3), service tickets, warranty/RMA, social/app reviews.
- Processing: OCR & layout parsing → NER/table extraction → speech-to-text & diarisation → topic/sentiment analysis → retrieval-augmented QA with citations.
- APIs: OpenAI-compatible chat/completions; deploy private models as dedicated endpoints.
- **Outputs:** Structured JSON/CSV, dashboards, suggested actions, updates to ERP/MES/PLM/quality/CRM.
- **Governance:** Access control, encryption, audit, retention policies.