# How to read each story (template)

- Context: who, what they do, where the manual work is today
- Pain: short list of issues worth money
- To-be workflow (user journey): human steps + what the Pipeline Manager does
- Pipeline (blocks): Sources → Ingest & Parse → Understand → Verify → Orchestrate
  → Outputs
- Governance: residency, PII handling, audit trail
- KPIs / targets (pilot-year): what we measure (align with your KPI slide)
- Deploy & tier fit: SaaS vs On-prem, Basic / Pro / Enterprise
- Image brief: one-liner for a 16:9 diagram in your "HOW IT WORKS" style

# A) Personal / Solo

# Story A1 — Independent Field Inspector (images + PDFs → verified reports)

# Context

A single-person contractor does factory site inspections for OEMs. They take photos/video on site and write reports later.

#### Pain

- Nights lost compiling photos, notes, and standards references
- Missed non-conformities; inconsistent wording; slow report turnaround

# To-be workflow (user journey)

- 1. Inspector uploads **photos/video** from phone; drags the **customer checklist PDF**.
- 2. Pipeline Manager proposes a prebuilt "Inspection Report" pipeline.
- 3. Vision agent auto-labels findings; doc agent drafts the report; verify step flags any missing photos for a checklist item.
- 4. Inspector reviews, adds comments, e-signs, shares to client portal.

# Pipeline (blocks)

• Sources: Images, Video, Checklist PDFs, Past reports

- Ingest & Parse: OCR, captions, embeddings → Buckets
- Understand: Vision (defect tagging), Embedding + K/V extraction
- Verify: Checklist coverage, photo-to-item linkage, date/location EXIF match
- Orchestrate: Route to "Report Gen" agent → export PDF + JSON
- Outputs: Signed report, defect gallery, CSV of findings

Local device encryption; no PII; keep 180-day retention.

# KPIs / targets (pilot-year)

- Turnaround time: 48–72h → same day
- Missed items: -60%; Client acceptance first pass: ≥90%

## Deploy & tier fit

SaaS, **Basic**. Usage metering: media minutes + docs.

# **Image brief**

"Phone Images/Video + Checklist PDF → Ingestion → Vision tag → Verify checklist → Generate report → (a) client."

# B) Small Business (≈10-50 FTE)

# Story B1 — HR Consultancy (CVs & compliance packs → shortlist + audit trail)

#### Context

Small HR consultancy screens 500+ CVs/month for industrial clients; each hire requires a compliance document pack.

#### Pain

- Manual CV parsing; inconsistent screening notes
- Compliance packs assembled by hand; no lineage

# To-be workflow

- 1. Drag & drop CVs (PDF/Doc) + job spec.
- 2. Agent extracts skills, history, red flags; ranks candidates.
- 3. Compliance pack generator collects ID/proof docs, validates against checklist.
- 4. Client receives a **shortlist** + audit report.

# Pipeline (blocks)

- Sources: CV PDFs, Job description, Identity docs, ERP/BPM job reqs
- Ingest: OCR/Parsers → Buckets
- **Understand:** K/V + entity extraction; embeddings; similarity to job spec
- Verify: Required docs present; dates/IDs match; duplicate check
- Orchestrate: Ranker agent → Pack builder agent → E-signature
- Outputs: Ranked shortlist, compliance pack PDF, lineage graph

#### Governance

PII masked at rest; DLP for ID numbers; access by client project.

# **KPIs / targets**

- Time per req: 6h → 1h
- Pack completeness on first try: ≥95%
- Audit finding rate: 0

# Deploy & tier fit

SaaS, **Pro** (needs 3–5 agents, higher model quota).

# **Image brief**

"CVs + Job Spec → Parse → Rank → Verify (docs checklist) → Pack → Client."

# Story B2 — Precision Machine Shop (work orders + images → traceable QA)

#### Context

Small shop makes custom metal parts; customers require **traceability** (work order  $\leftrightarrow$  photo evidence).

# Pain

- Photos not linked to work order/step; QA PDF later assembled by hand
- Rework due to missing proof

#### To-be workflow

Operator scans QR on work order; takes photos per step; pipeline binds media  $\rightarrow$  step  $\rightarrow$  requirement; generates QA dossier.

# **Pipeline**

- Sources: ERP work orders, Step checklists, Images/Video
- Ingest: OCR/metadata; Buckets
- **Understand:** Vision tags (finish, dimensions screenshot), entity linking to order/step
- Verify: Step coverage, timestamp within operation window
- Orchestrate: QA dossier generator + dashboard
- Outputs: QA dossier PDF, step lineage graph, exceptions queue

On-prem bucket mirror optional; 3-year retention.

#### **KPIs**

- Late dossiers: -80%
- Chargeback reductions: -50%
- First-pass yield: +5-10%

### Deploy & tier fit

On-prem (shop floor), Pro.

# **Image brief**

"ERP WO → Photos per step → Link → Verify coverage → QA PDF."

# C) Mid-Market (≈100–1,000 FTE)

# Story C1 — Pharmaceutical QA (batch records + lab images → compliance pack)

# Context

GxP manufacturer assembling **Batch Manufacturing Records (BMRs)** with lab images and equipment logs.

### Pain

• Manual review; deviations missed; audit scramble

# To-be workflow

- 1. Connect LIMS, MES, equipment logs, scanned BMR pages, microscope images.
- 2. Pipeline extracts parameters, links to spec limits, flags deviations.
- 3. Auto-builds eCTD-ready compliance pack with lineage.

# **Pipeline**

- Sources: LIMS, MES, PDFs, Images, Sensors/APIs
- Ingest: OCR/parsers; Buckets
- Understand: K/V, entities (lot, operator), embeddings; rule engine for specs
- Verify: Cross-validate lot IDs, time windows, spec conformance
- Orchestrate: Deviation routing → CAPA draft → Pack generator
- Outputs: Deviation log, CAPA draft, compliance pack, audit trail

#### Governance

On-prem/private cloud; role-based access; immutable audit log.

#### **KPIs**

- Review time per batch: -60-70%
- Deviation detection sensitivity: +30%
- Audit observations: -50%

# Deploy & tier fit

On-prem, Enterprise.

# Image brief

"LIMS/MES + PDFs + Images + Sensors → Extract → Verify specs → Route CAPA → Compliance Pack."

# Story C2 — 3PL Logistics (POD images + EDI docs → dispute automation)

### Context

A regional 3PL handles Proof-of-Delivery (POD) photos, signed slips, and EDI 214/210.

# Pain

• Chargebacks from "missing proof"; manual reconciliation across EDI + images

## To-be workflow

- 1. Ingest POD photos, signed slips, EDI feeds.
- 2. Cross-link shipment → stop → document; verify SLA windows.
- 3. Auto-reply pack for disputes; dashboard of at-risk shipments.

### **Pipeline**

- Sources: EDI, Photos, PDFs, TMS API
- Ingest: OCR/embeddings; Buckets
- Understand: Entity linking (BOL, PRO, stop), vision "signature present"
- Verify: SLA window, geo/time consistency, completeness
- Orchestrate: Dispute pack generator → email/API submit
- Outputs: Pack PDFs, exceptions queue, ops dashboard

Data separation per shipper; 1-year retention.

## **KPIs**

- Dispute cycle time: -70%
- Chargeback recovery: +30-50%
- Manual touches per shipment: -60%

### Deploy & tier fit

SaaS or virtual private cloud, **Pro**.

# Image brief

"EDI + POD photo + Signed slip → Link → Verify SLA → Auto dispute pack → \$ recovered."

# D) Enterprise (1,000+ FTE)

# Story D1 — Energy Utility (asset inspections video + SCADA → risk scoring)

# Context

Utility must inspect transmission assets (drones, trucks) and reconcile with **SCADA** alarms and maintenance history.

### Pain

Petabytes of video; weak linkage to asset & alarm; slow triage

#### To-be workflow

- 1. Connect drone video, images, SCADA events, EAM/CMMS work orders.
- 2. Vision models detect defects (corrosion, vegetation); link to asset registry.
- 3. Risk model scores assets; Pipeline Manager routes work orders automatically.

# **Pipeline**

- Sources: Video/Images, SCADA, EAM/CMMS, GIS
- Ingest: Stream → captions + keyframes; Buckets
- Understand: Vision (defect classes), embeddings; graph link to asset & history
- Verify: GPS/asset match; alarm correlation within window
- Orchestrate: Risk scoring agent → WO creation via API → notify crews
- Outputs: Ranked risk dashboard, WO list, evidence clips

#### Governance

Strict residency; network-isolated **on-prem** cluster; auditing.

#### **KPIs**

- Triage time: days → hours
- Unplanned outages: **-10-20**%
- Truck rolls avoided: -15%

# Deploy & tier fit

On-prem, Enterprise (custom models, SLOs).

# Image brief

"Drone Video + SCADA + EAM → Detect → Link to asset graph → Risk score → Auto work order."

# Story D2 — Global Manufacturer (AP/Procurement docs + ERP → touchless matching)

### Context

Multi-ERP landscape; invoices, POs, GRNs across regions.

# Pain

Low straight-through match; duplicate vendors; compliance leakage

## To-be workflow

- 1. Pipelines ingest invoices (PDF/EDI), POs, GRNs, vendor master.
- 2. Extraction + fuzzy matching; anomaly rules; human review only for exceptions.
- 3. Continuous vendor deduping; compliance checks (tax IDs, sanctions).

### **Pipeline**

- **Sources:** ERP(s), Invoices PDF/EDI, Vendor master
- Ingest: Parsers/OCR → Buckets
- Understand: Line-item extraction, entity resolution, embeddings
- Verify: 3-way match (PO/GRN/Invoice), tax rules, duplicate detection
- Orchestrate: Exceptions queue, auto-post to ERP, monthly compliance report
- Outputs: Posted vouchers, exceptions, audit & savings dashboard

Privately peered cloud or on-prem; SOX audit trail; PII masking.

#### **KPIs**

- Straight-through processing: **+40–60**%
- Duplicates & overpayments: -70%
- Cycle time: -50%

# Deploy & tier fit

VPC or on-prem, **Enterprise**.

# Image brief

"Invoices + PO + GRN + Vendor master → Extract → Verify 3-way → Exceptions → Autopost."