



ADDMANUCHAIN

Customer Discovery Strategy: Sprint 01

MISSION TEAM [SPECIAL OPS UNIT]

ALEX VANE – PhD Student / Founder (Lead)

DR. SARAH CHEN – Technical Advisor, Material Science Dept

MARCUS THORNE – Industry Mentor, fmr. VP Operations Shell

JESSICA LOWE – Partner Champion, TechStars Energy

Digital inventory + approval + certification workflow for on-demand additive manufacturing in remote industrial operations.

THE COST OF DISCONNECTED OPERATIONS



CURRENT STATE: OPERATIONAL FRICTION & RISK



TARGET ENVIRONMENT:
Remote operations (Oil & Gas, Mining, Maritime, Offshore).



THE PAIN POINT: Unplanned downtime due to unavailable critical parts and slow approvals.



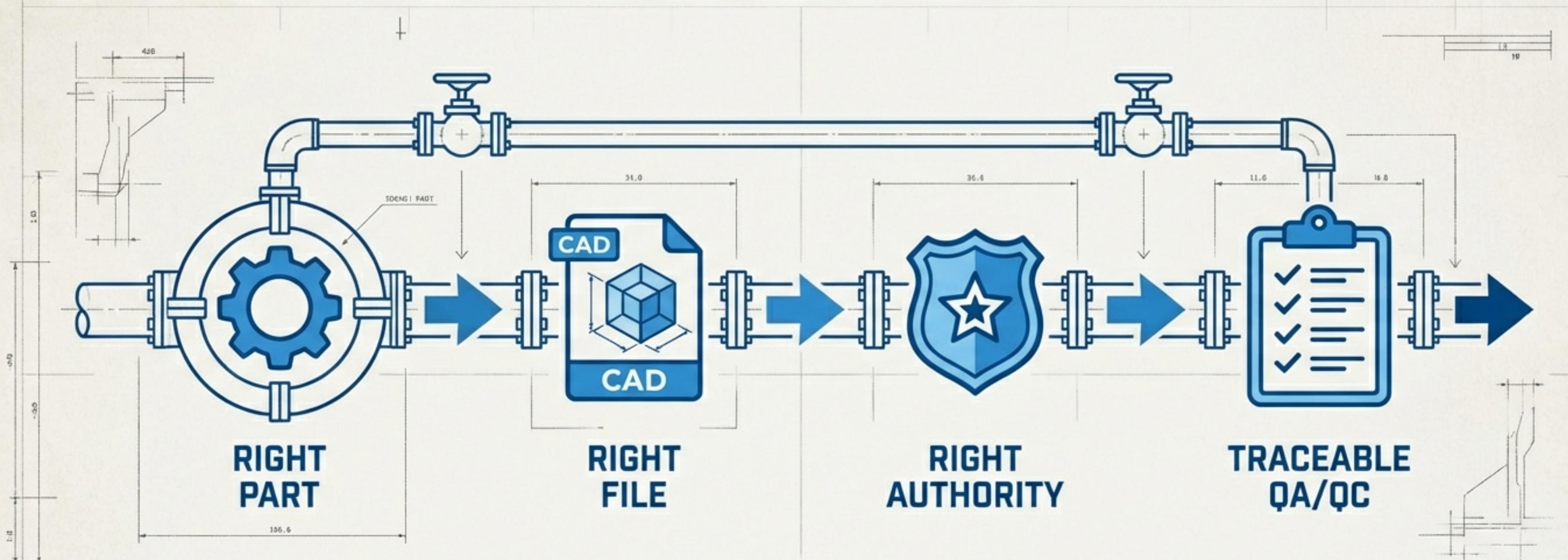
THE WORKFLOW FAILURE:
Reliance on ad-hoc printing, scattered spreadsheets, and email chains.



THE RESULT: High decision latency and significant risk of uncertified production.

FIGURE 61: CORRODED COMPONENT, OFFSHORE ENVIRONMENT - ZOOMED VIEW.

ESTABLISHING A GOVERNED DIGITAL INVENTORY



THE SOLUTION

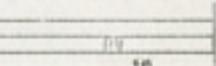
A controlled digital inventory and manufacturing workflow.

CORE MECHANISM

Enforcing governed access, documentation, and certification-ready traceability.

THE OUTCOME

Reduced decision latency.
Elimination of uncertified production risks.



SPRINT #1 STRATEGIC OBJECTIVES

01. VALIDATE THE PAIN

- Identify top 3 recurring downtime scenarios (unavailable parts, documentation gaps, delays).
- Confirm ownership (Operations vs. Maintenance vs. QA).

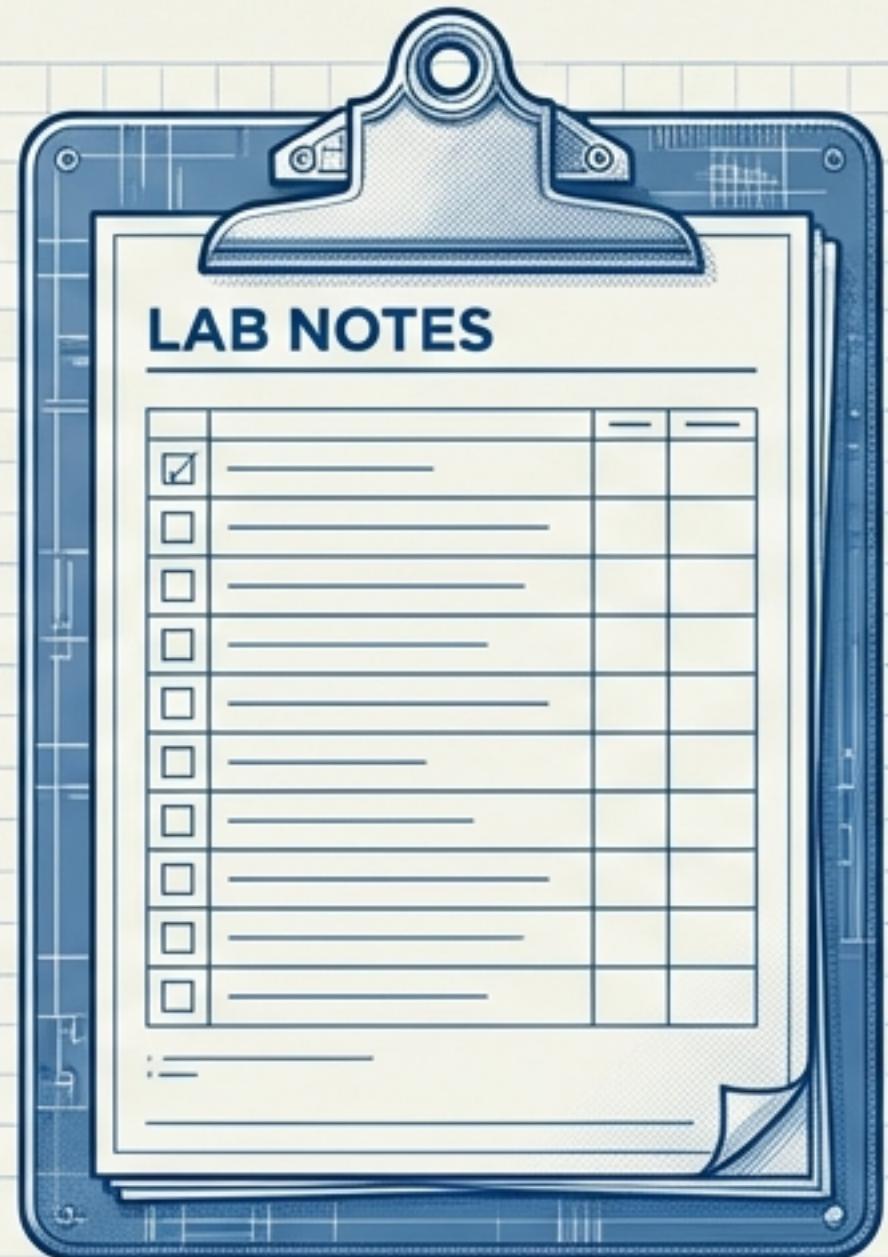
02. VALIDATE THE WORKFLOW

- Map the 'as-is' process:
Need > Request >
Approval > File >
Pile > Print > QC >
Install.
- Pinpoint breakpoints:
Missing files, unclear authority, liability blocks.

03. VALIDATE CONSTRAINTS

- Determine non-negotiables: Certification, audit trails, security.
- Identify the smallest credible 'first use case' (trial without org risk).

INVESTIGATION AREA: OPERATIONAL PAIN & OWNERSHIP



LAB NOTES

HYPOTHESIS 1 (PAIN REALITY)

BELIEF: Downtime stems from part availability + approval latency, not manufacturing capability.

- **TEST:** Interviewees provide specific incidents where delays were caused by decision/file access.

HYPOTHESIS 2 (OWNERSHIP)

BELIEF: Maintenance/Reliability owns the pain, but QA/Compliance holds the veto.

- **TEST:** Decisions consistently route through QA/compliance gates before action.

HYPOTHESIS 5 (VALUE TRIGGER)

BELIEF: Value is created by reducing time-to-authorized-action during failure.

- **TEST:** Stakeholders point to metrics like MTTR (Mean Time To Recovery) or downtime hours.

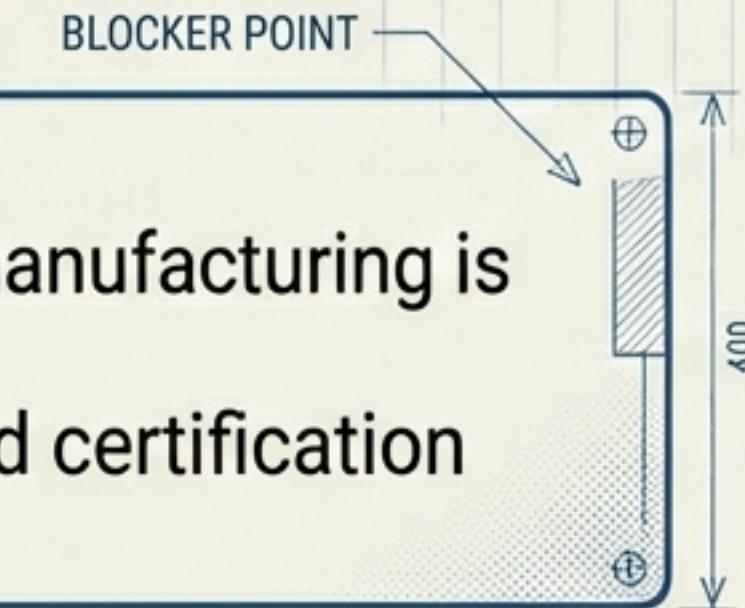
INVESTIGATION AREA: STRUCTURAL BLOCKERS



HYPOTHESIS 3 (CORE BLOCKER)

THE BELIEF: The main barrier to on-demand manufacturing is trust and certification, not printer access.

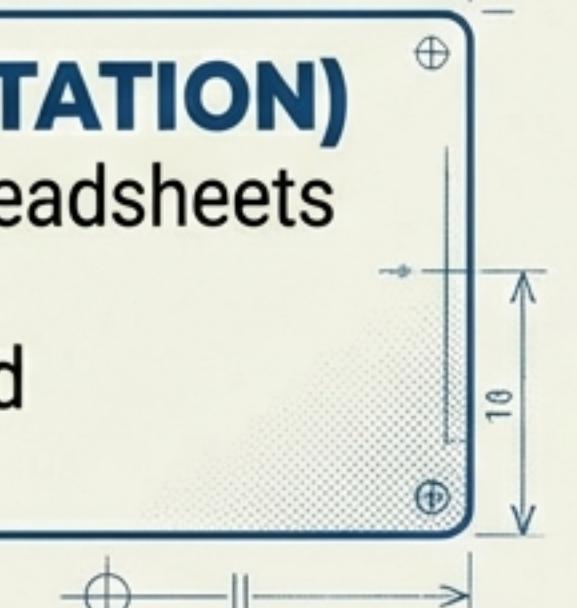
THE TEST: Stakeholders cite liability, audit, and certification risks as reasons to avoid printing.



HYPOTHESIS 4 (WORKFLOW FRAGMENTATION)

THE BELIEF: Workflows currently rely on email + spreadsheets + tribal knowledge, leading to context loss.

THE TEST: Multiple stakeholders describe duplicated requests, missing versions, or unclear approvals.



INVESTIGATION AREA: ADOPTION & ECONOMICS

ADOPTION FEASIBILITY STUDY



ADOPTION CHECKLIST



HYPOTHESIS 6 (ADOPTION UNIT)

THE BELIEF: The smallest adoptable unit is a governed “approved-to-produce” workflow for one part family.

THE TEST: Stakeholders can name a single category suitable for a controlled pilot.

VALUE PROPOSITION ASSESSMENT

HYPOTHESIS 7 (WILLINGNESS-TO-PAY)

THE BELIEF: WTP aligns with risk avoidance + uptime protection, not “cheaper printing”.

THE TEST: Stakeholders prioritize auditability and authorization over unit cost savings.

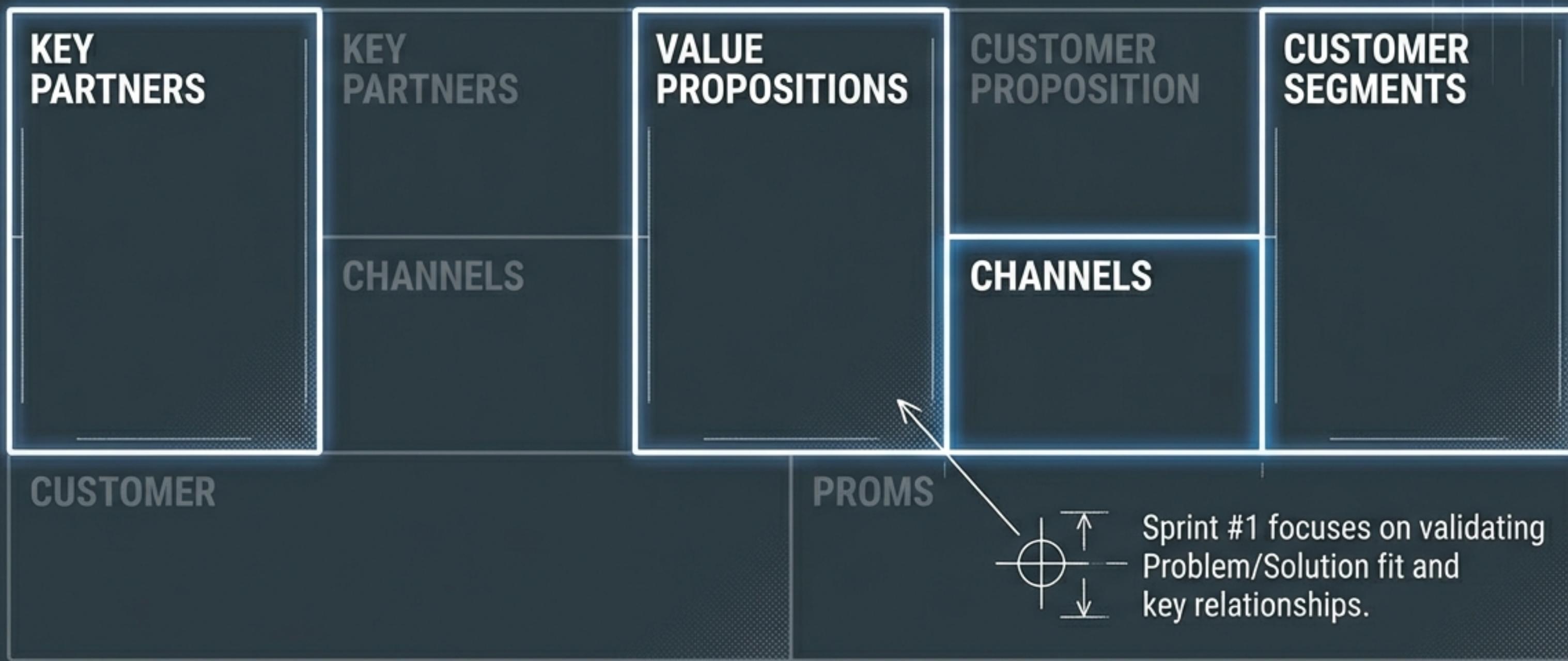


VALUE PROPOSITION ASSESSMENT



THE STRATEGIC BLUEPRINT

Business Model Canvas – Sprint #1 Focus



ECOSYSTEM PROFILE: SEGMENTS & PARTNERS

CUSTOMER SEGMENTS



- **Remote Operators:** Offshore platforms, FPSO support, marine fleets, mining sites.
- **Internal Stakeholders:** Maintenance, reliability, supply chain, QA/QC, compliance.

KEY PARTNERS

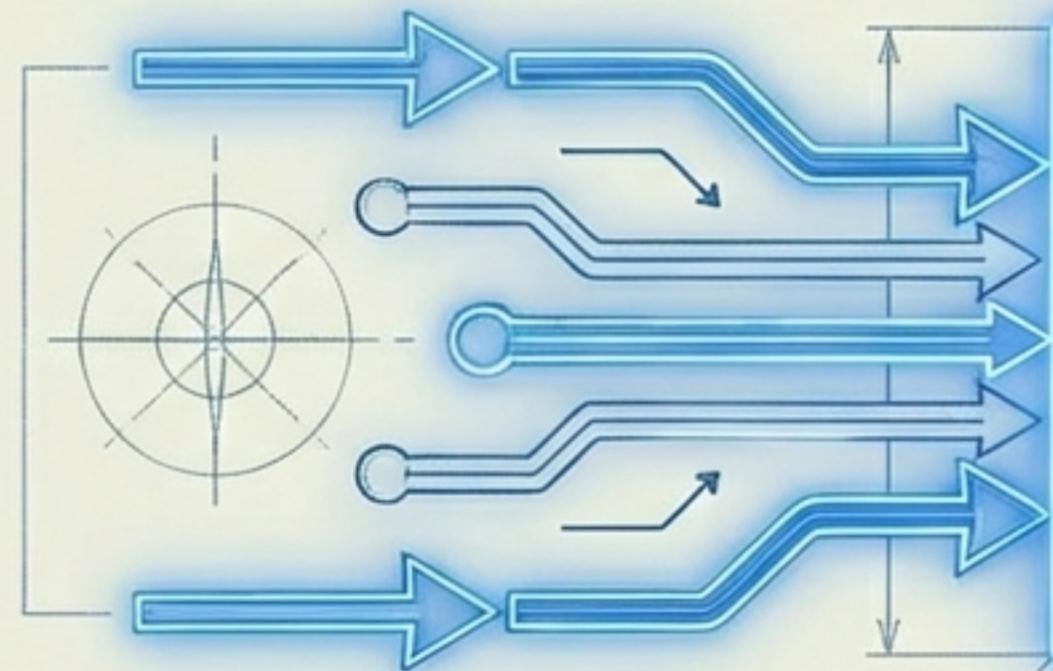


- OEMs (parts/files restrictions).
- Testing labs / Certification authorities.
- Industry associations.

RELATIONSHIP STRATEGY: High-touch discovery leading to pilot; onboarding via one controlled workflow.

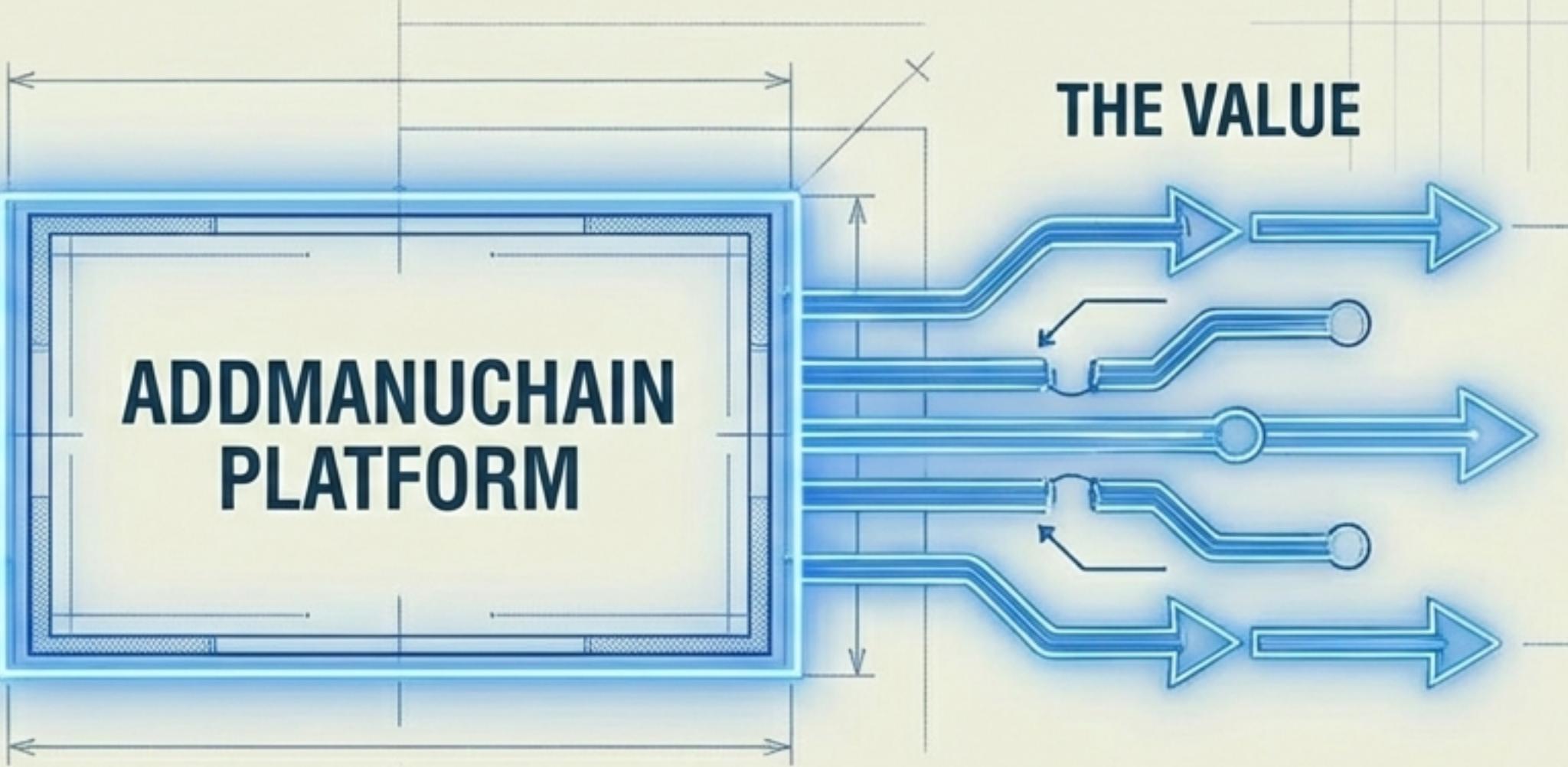
THE VALUE EXCHANGE MODEL

THE REVENUE/CHANNELS



- Subscription per site/fleet.
- Governance fees.
- Channel: Industry Intros & LinkedIn.
- Channel: O&G/Maritime Conferences.

THE VALUE



- Reduce time-to-authorized-action.
- Governed digital inventory.
- Traceable QA/QC + Audit trail.
- Controlled access authority gates.

TARGET STAKEHOLDER PROFILES

MAINTENANCE SUPERVISOR



Owns downtime incidents & MTTR pain.

QA/QC MANAGER



Holds veto power.
Cares about certification/audit.

SUPPLY CHAIN LEAD



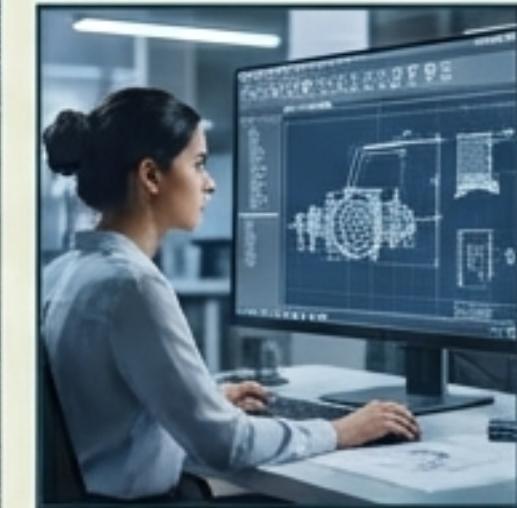
Cares about lead times and vendor constraints.

COMPLIANCE / HSE



Enforces governance and liability.

ENGINEERING LEAD



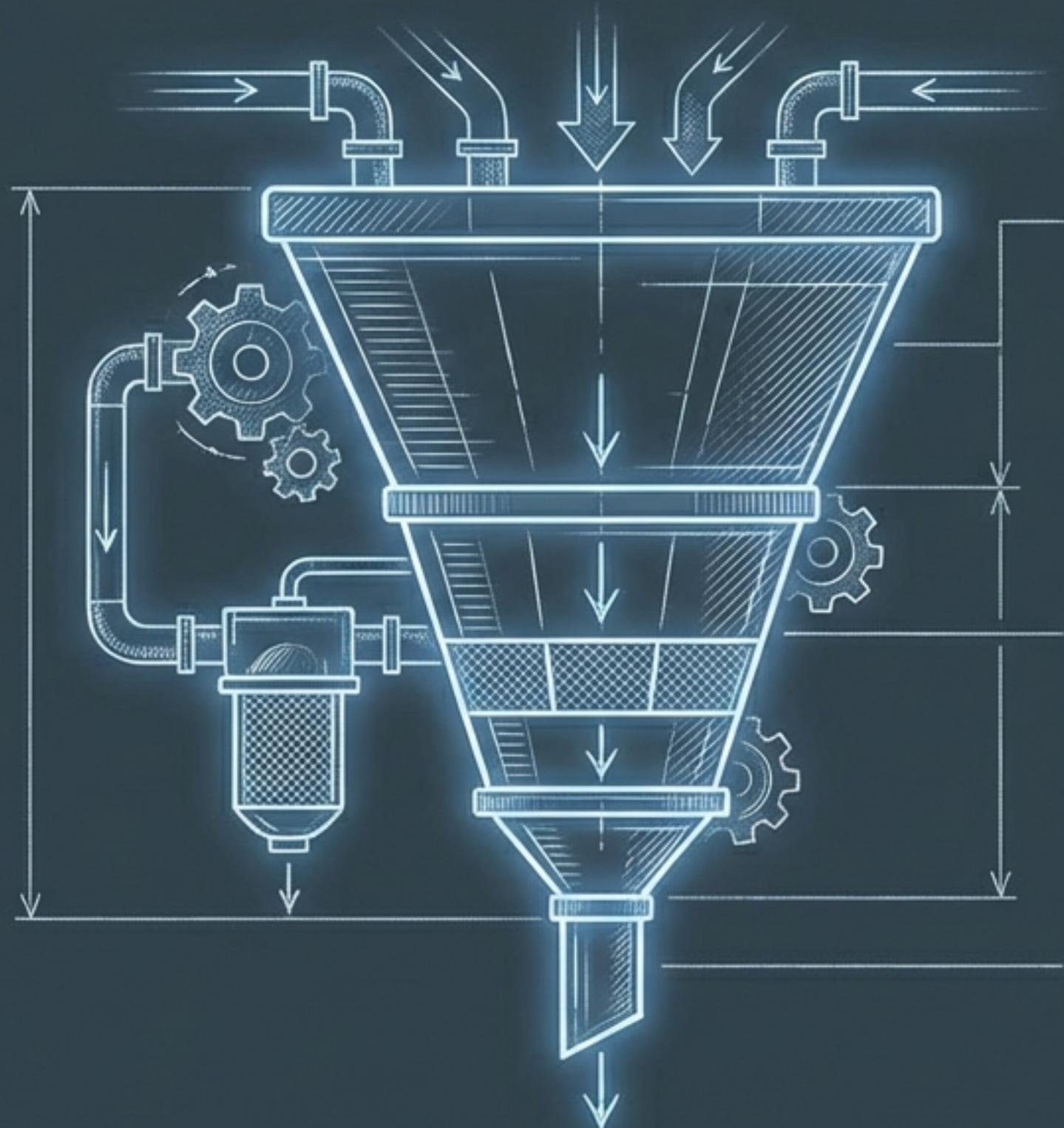
Owns file versioning and change control.

HOOK: Studying how remote operations approve critical parts to reduce downtime without increasing compliance risk.

WEEK 1 TACTICAL OUTREACH

SOURCING:
LinkedIn
(Targeted roles),
Partner networks,
Industry events.

METHOD:
20–30 minute
structured
interviews.



OUTREACH
30–50 Contacts
(Cold email, LinkedIn,
Warm intros)

BOOKED
8–12 Interviews Scheduled

COMPLETED
5–8 High-Quality Interviews

SPRINT #1 DELIVERABLES

