



Evolving APQP4Wind with AI

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Global Quality

Why now?

Your data has a Story to Tell



Economic Pressure & Competitiveness

- Year-over-year efficiency and cost-out pressures.
- Demand better, cheaper and faster alternatives like AI, automation.



Technology shift

- AI is democratized and ready to do the heavy lifting.
- AI allow experts to focus on root causes and problem solving than creating or formatting manual documents.



Cognitive overload

- Amount of data increased and brain capacity can no longer process the sheer volume of input manually and generate insights.



Complexity & Risk Increase

- Product complexity & Risk increased
- Critical APQP deliverable (*FMEAs, Control Plans, PPAP etc.*) are trapped in disconnected, static spreadsheets.

Classification: Public

Why now?

Paradigm Shift to Predictive Zero-Defect Intelligence

Traditional Quality

Siloed Static Documents



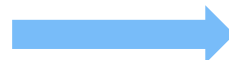
Manual data creation & entry



Manual Planning & Tracking



Reactive Compliance



AI powered Quality

E2E connected knowledge

**Context-aware Auto generation
from historical wisdom**

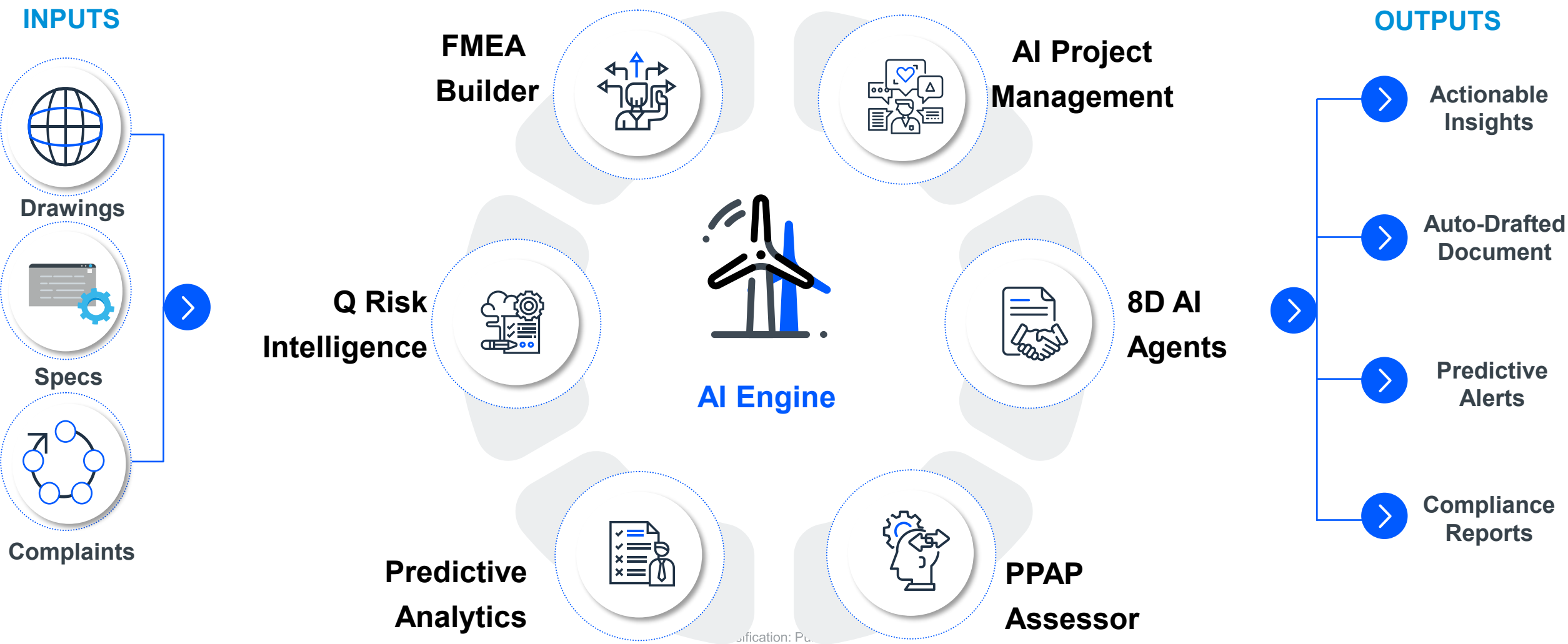
**AI supported Risk identifications &
planned Activities**

Predictive Zero-defect Operations

Classification: Public

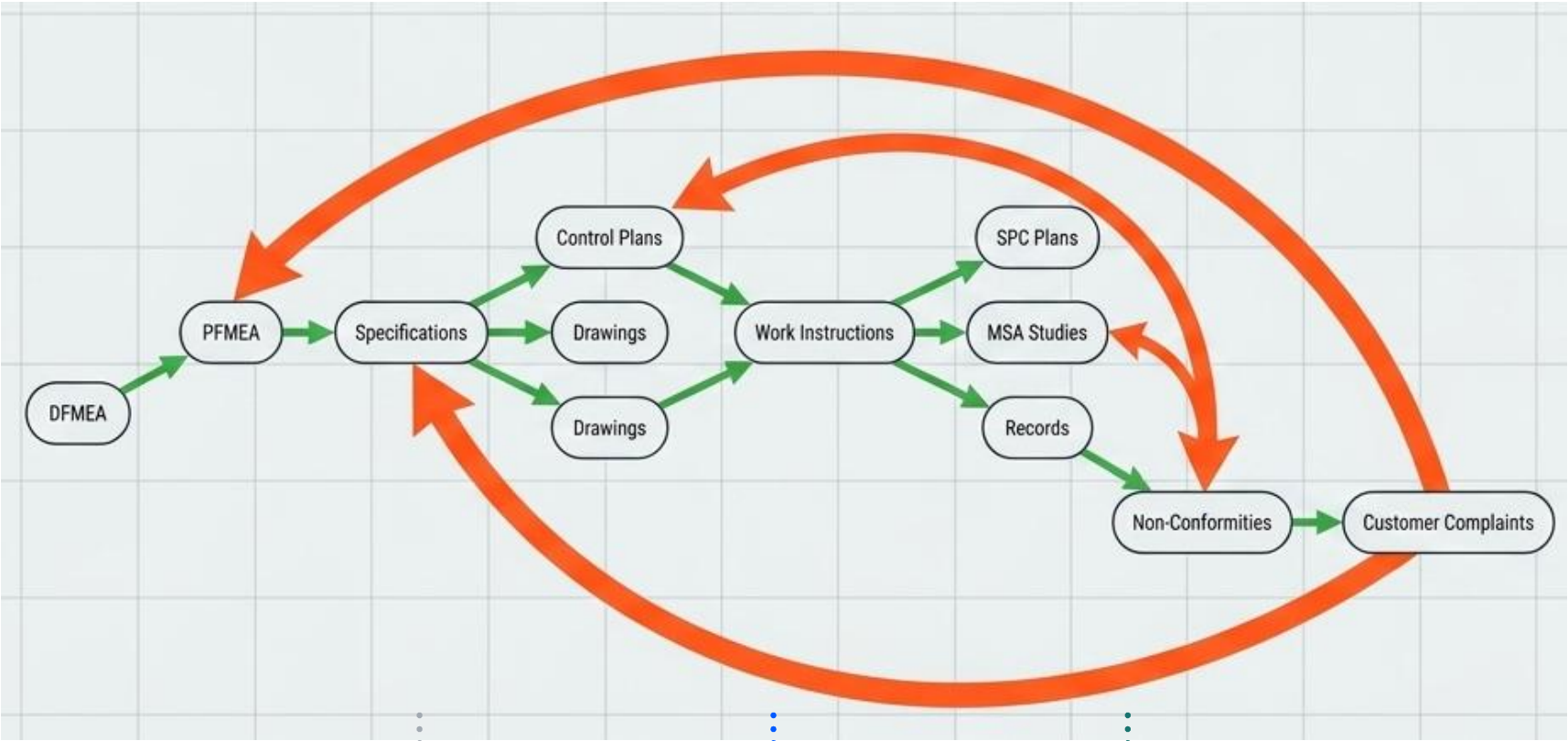
What & Where to adopt AI

APQP and Quality AI Engine



Quality Risk Intelligence

Use case



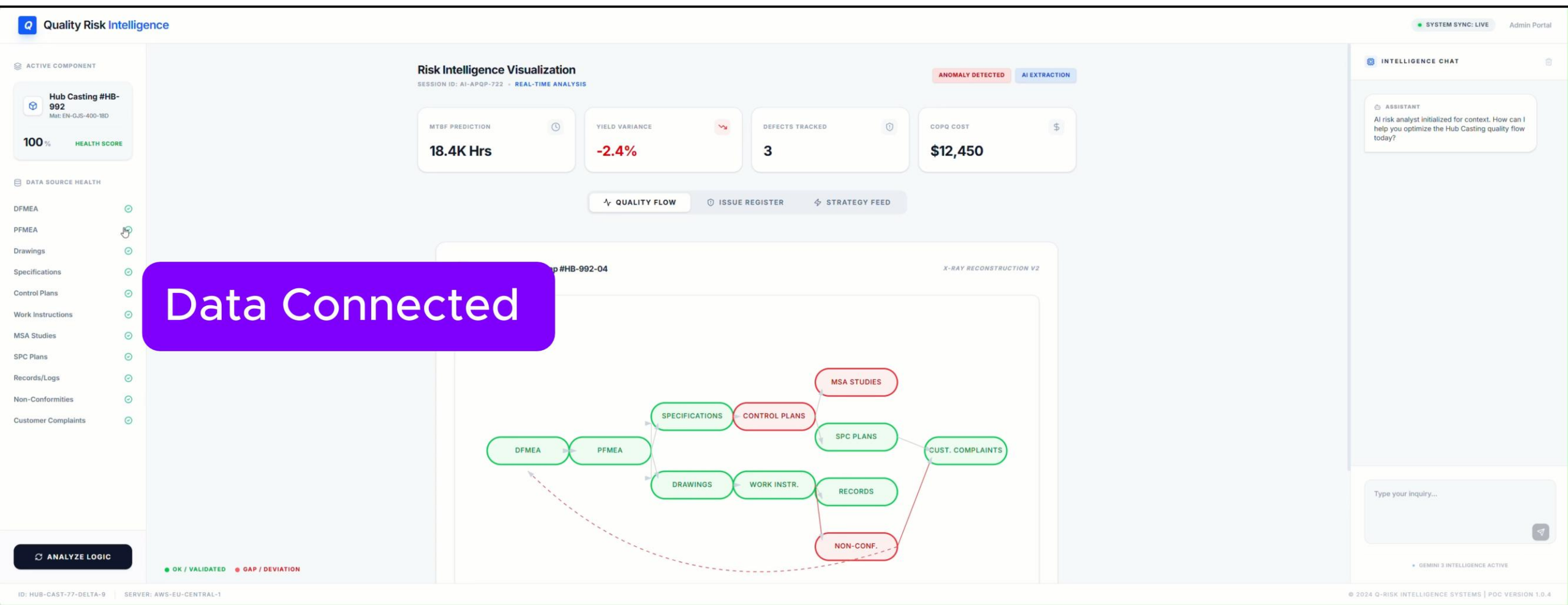
Cross Document Parsing
Analyzes DFMEAs,PFMEAs, and all deliverables end2end

Automated Gap Detection
Flag critical tolerances missing between disconnected documents

Prescriptive Analytics
Generate exact actionable recommendations to fix quality chain

Quality Risk Intelligence

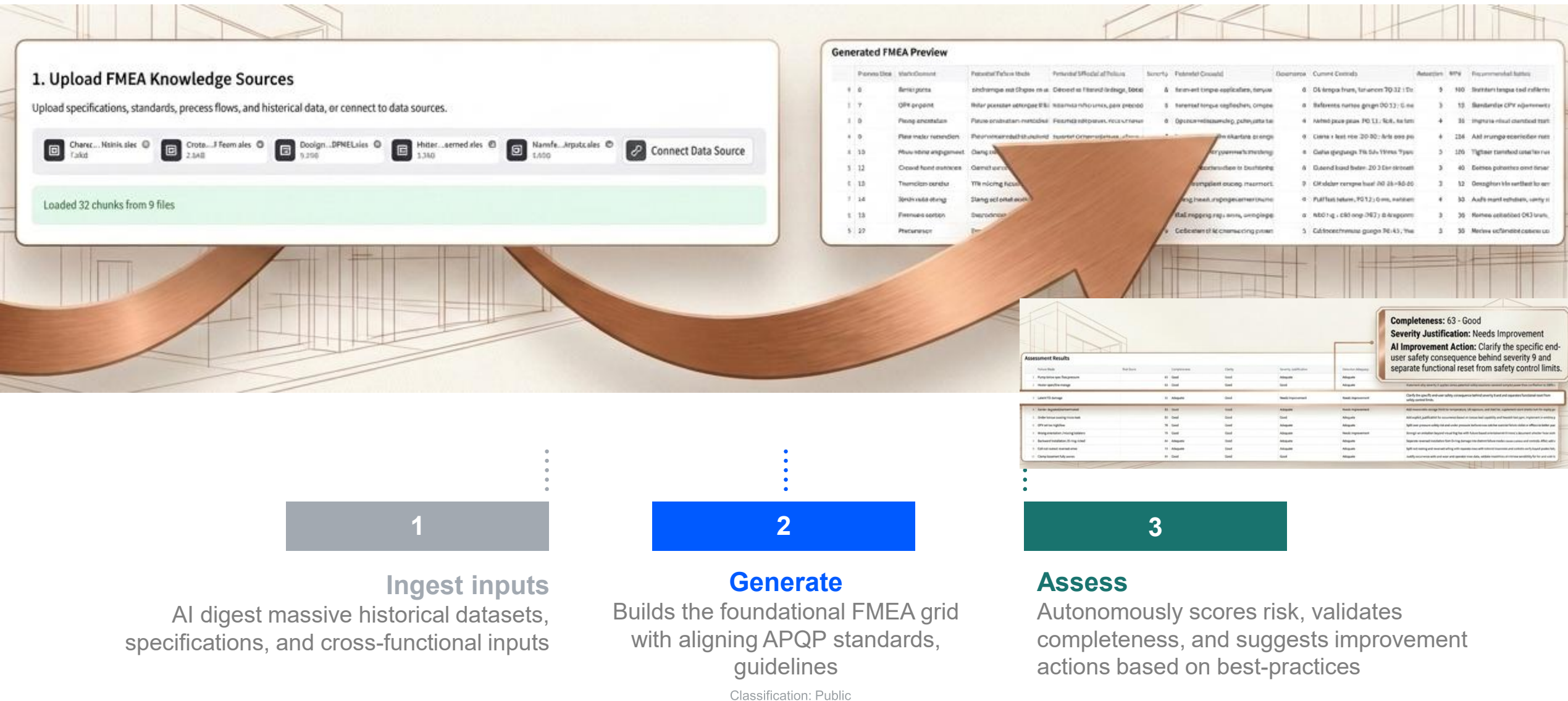
Demo



Classification: Public

AI-powered FMEA Generation & Assessment

Use case



AI-powered FMEA Generation & Assessment

Demo

FMEA Builder & Quality Assessor

[Generate FMEA](#) [Assess FMEA Quality](#) [My Documents](#) [How to Use](#)

1. Upload FMEA Knowledge Sources

Upload specifications, standards, process flows, and historical data

 Upload

200MB per file • PDF, DOCX, XLSX, TXT

2. Upload FMEA Template (Optional)

If no template is uploaded, a standard FMEA structure will be used automatically.

Upload your FMEA template (docx, pdf, txt, or xlsx) — optional

 Upload

200MB per file • PDF, DOCX, TXT, XLSX

3. Describe the context (optional)

Add any special instructions such as business unit, risk scoring method, or stakeholders

Generate FMEA Document

Reset Session

Classification: Public

Agentic 8D & A3 AI Agents

Use case



Human in the Loop : The AI proposes countermeasures, but the human expert remains the ultimate validator, ensuring process safety

1

AI problem optimizer

Refines the vague, subjective problem reports into crisp, data-backed statements

2

Assisted Root Cause

Guides teams through 5whys & fishbones by referencing historical failures.

Classification: Public

3

Automated countermeasures

Automatically drafts proven action plans based on global lessons learned

8D & A3 AI Agents

Demo

Smart Methodology Starter

Initialize your A3 with AI Intelligence or a custom canvas.



Project with AI Support

Describe your problem and let AI architect the solution flow.

PROBLEM DESCRIPTION

e.g. The Gearbox Housing machining line is a bottleneck process... over the last 8-12 weeks experienced frequent unplanned downtime on CNC-07...

 GENERATE AI DRAFT

 START BLANK CANVAS

KNOWLEDGE TRANSFER STARTERS



Industrial & Manufacturing
BENCHMARKED STRUCTURE



Pharmaceuticals & Biotech
BENCHMARKED STRUCTURE



Energy & Utilities
BENCHMARKED STRUCTURE



Logistics & Supply Chain
BENCHMARKED STRUCTURE



Financial Services
BENCHMARKED STRUCTURE



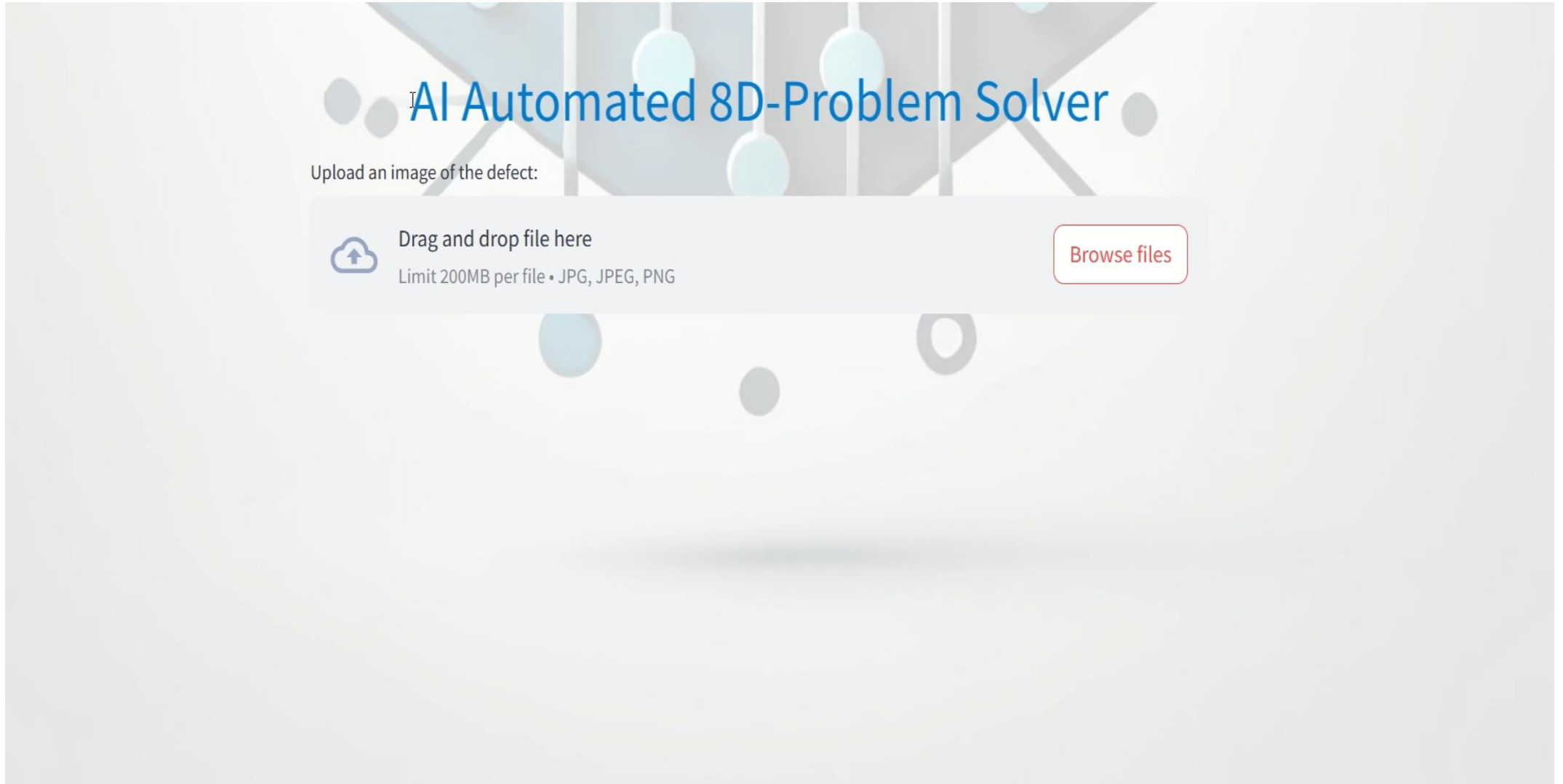
Academic Research
BENCHMARKED STRUCTURE

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Vestas

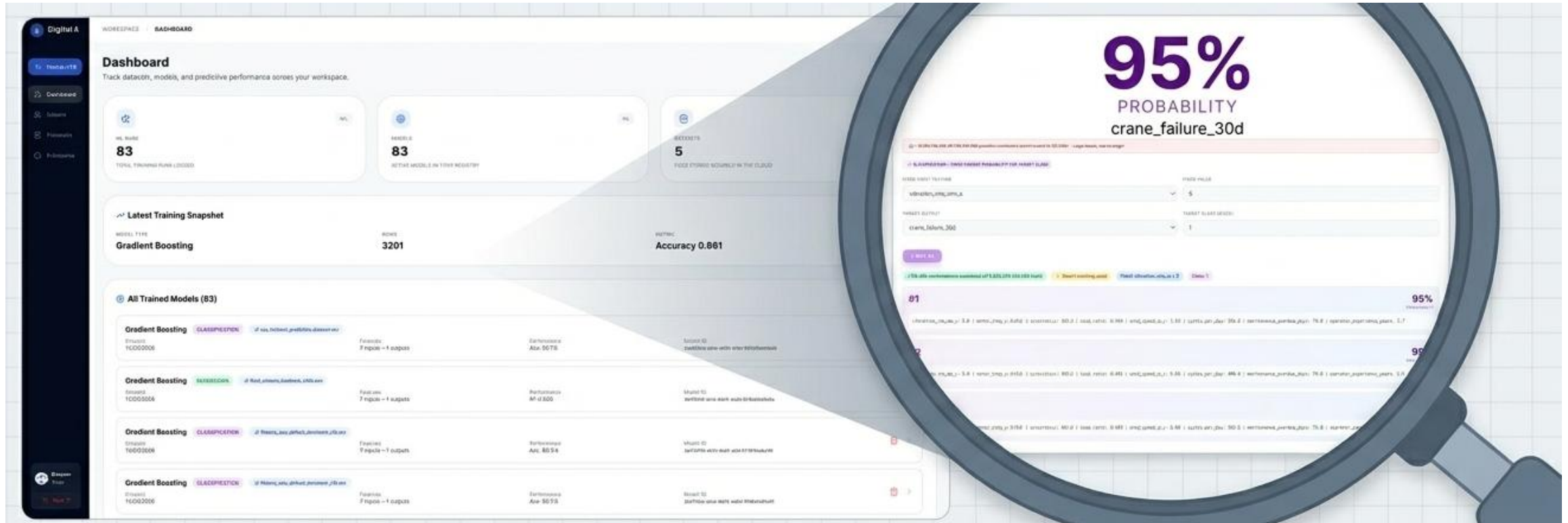
8D & A3 AI Agents

Demo



Predictive Analytics via Machine Learning

Use case



1

Why Machine Learning?

Enables proactive Q management by moving beyond reactive analysis to predict potential failures before they occur

2

Anomaly Detection

Analyzes vast datasets to detect subtle correlations and anomalies that are impossible for humans to spot manually

3

Prescriptive Outcomes

Provides actionable recommendations to mitigate risks, optimize processes, and prevent defects

Predictive Analytics via Machine Learning

Demo

ML Workbench

Train models from your dataset and deploy predictions to the cloud.

Dataset

0 ROWS

Drag & drop your file here

or click to browse

.CSV

.XLSX

.XLS

Recent Runs

93

Random Forest

12/05/2026

Gradient Boosting

10/04/2026

Gradient Boosting

09/04/2026

Neural Network (MLP)

23/03/2026

Neural Network (MLP)

23/03/2026

Train your first model to unlock results.

UPLOAD DATASET

LOAD MODEL (93)

SAVE TO REPOSITORY

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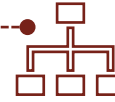
Vestas®

How to Adopt AI in APQP

One tool does not fit All – Selecting right tool for the problem

Fine-Tuning

Best for : Company specific AI models
Example Use case : FMEA generation in company format



Agentic Flow

Best for : Guided problem solving and multi tasking
Example Use case : Formulating root-causes



RAG/Semantic Search

Best for : Document discovery + Knowledge
Example Use case : Finding past 8Ds



Deep Learning (Computer vision)

Best for : Visual Inspection
Example Use case : End-of- line weld check



Data Engineering (Medallion)

Best for : Data Readiness
Example Use case : Structuring legacy databases



Data Analytics (BI)

Best for : Pareto analyses
Example Use case : Top 5 defects



Automation Tools

Best for: Connecting apps & automating repetitive tasks
Example Use case: Sending reminders for APQP deliverables/actions

Machine Learning

Best for : Predictive maintenance
Example Use case : Predicting crane downtime

How to Adopt AI in APQP

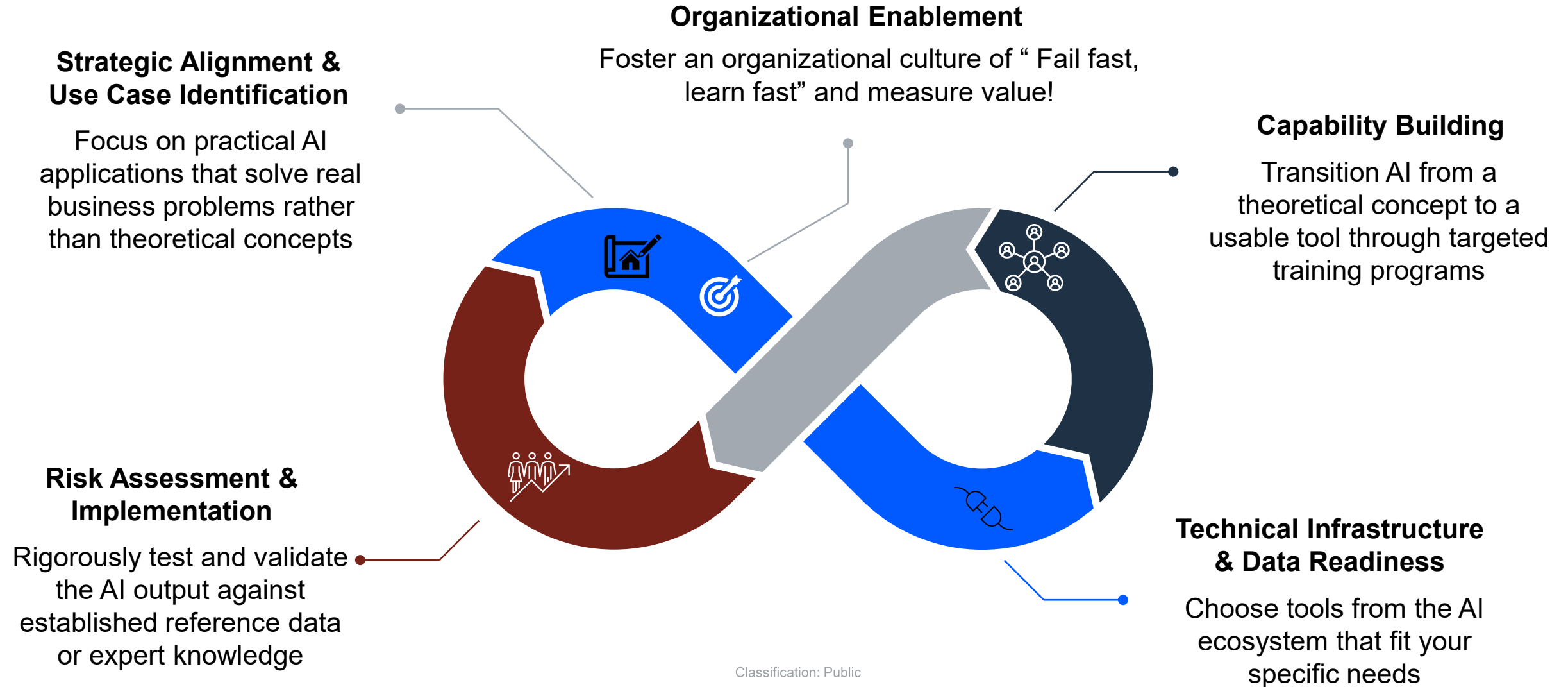
Upskill, Empower, Infrastructure, Governance



Classification: Public

How to Adopt AI in APQP

Upskill, Empower, Infrastructure, Governance





Thank you

Classification: Public