

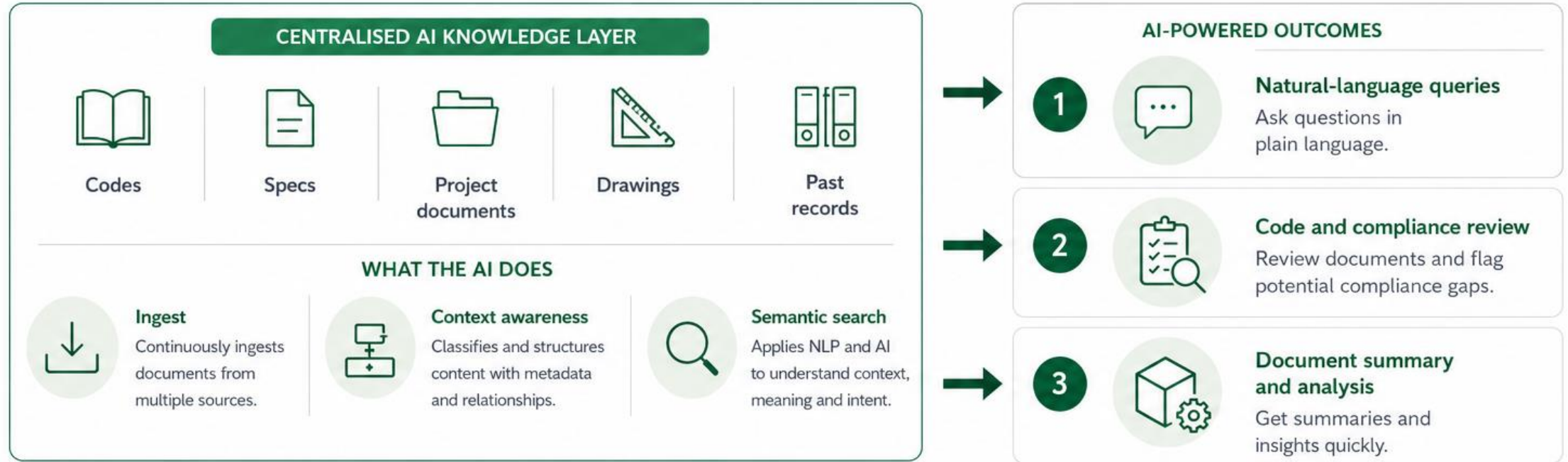
AI Use Cases for the Built Environment

As of 20 July 2026



1. Knowledge Management with AI Querying and Review

Centralised AI knowledge management across codes and project documentation, enabling faster code compliance queries, document review, engineering design checks, and specialised design analysis.



Before AI

- Information scattered across multiple systems
- Manual search and review across large volumes of documents
- Error-prone reviews with risk of missing critical information

With AI

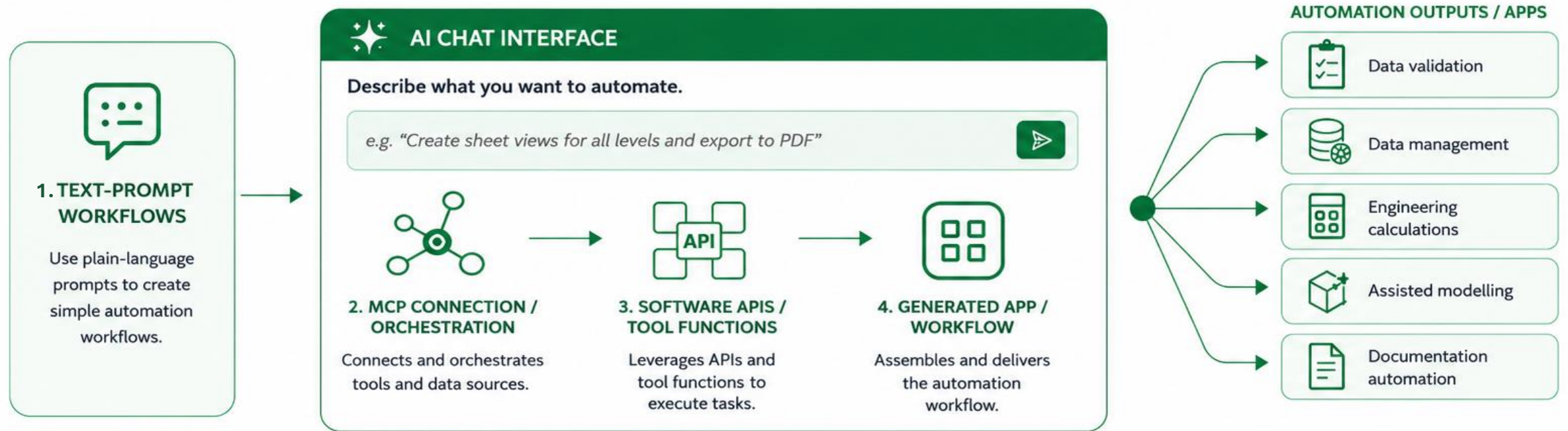
- Unified, searchable repository of codes and project knowledge
- Natural language search for rapid information retrieval
- AI-assisted review to identify potential compliance issues

Key Benefits

Faster information retrieval, more consistent reviews, and better reporting and analytics

2. AI-Enhanced BIM Workflow

Leverage AI to streamline BIM workflows, such as AI-assisted modelling, automating tedious documentation and repetitive tasks, and simplifying BIM data management and checking.



Before AI

- Labour-intensive BIM documentation workflows
- Manual checking for missing or incorrect BIM data
- Limited automation due to reliance on scripting specialists

With AI

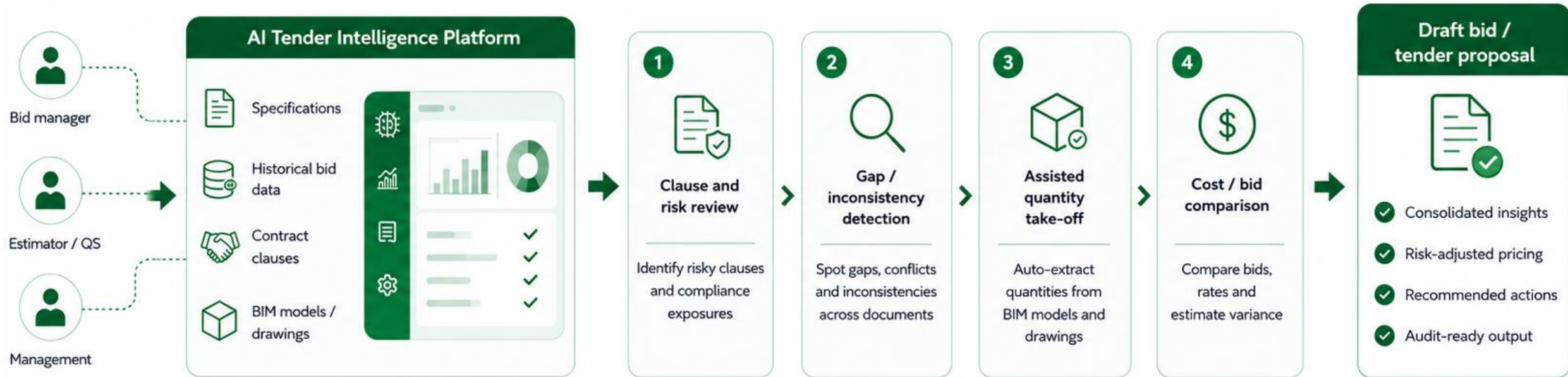
- Automate BIM workflows using natural language
- Automated generation of views, schedules and sheets
- AI-driven BIM quality checks and issue detection

Key Benefits

Faster model development, improved model quality and data consistency, more efficient coordination

3. Tender, Cost and Contract Management

AI enhances tender preparation and evaluation through intelligent document analysis—reviewing specifications, bids, and contract clauses to identify gaps, risks, and inconsistencies. AI provides intelligence to improve accuracy and streamlines tasks such as cost estimation and quantity take-offs.



Before AI

- Labour-intensive quantity take-offs and tender document review
- Risk of missed gaps, conflicts and contractual issues
- Reliant on experienced staff, with limited knowledge transfer

With AI

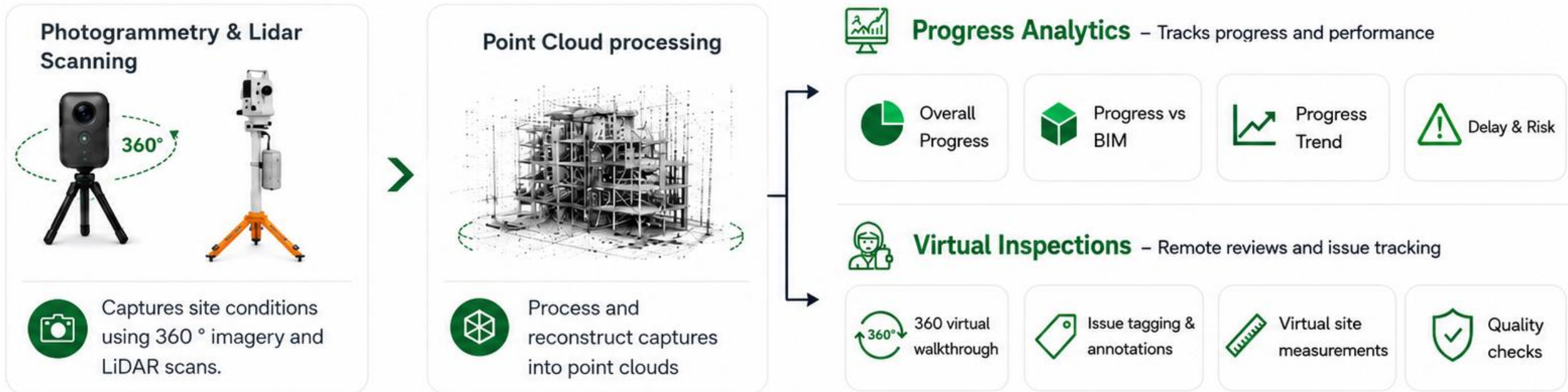
- AI-assisted quantity take-offs and tender document review
- AI-assisted bid proposal /contract drafting and decision support
- Access to historical bids, pricing data and tender outcomes

Key Benefits

Faster tender preparation and evaluation, improved risk and gap detection, more accurate cost management, more efficient contract administration

4. AI-Assisted Inspections and Progress Analytics

AI analyses 360° site captures to generate a digital twin, automatically tracking construction progress, validating as-built works against BIM, and producing data-driven progress insights.



Before AI

- Physical site inspections and manual recording and tracking of issues
- Manual comparison against BIM
- Labour-intensive progress validation and reporting

With AI

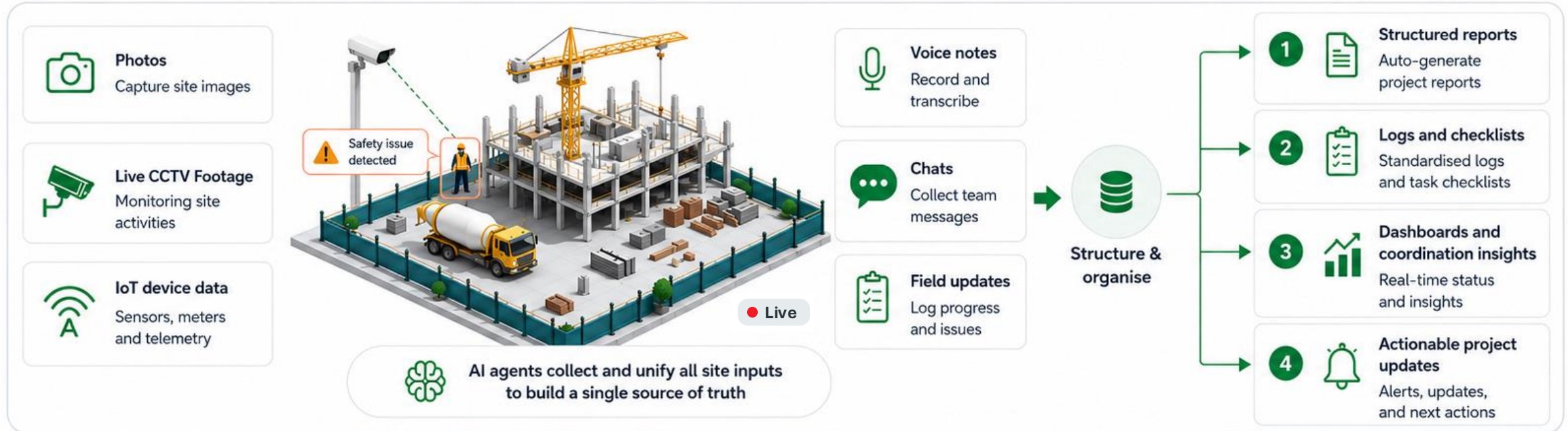
- Automated site capture and digital twin creation
- AI validates as-built works and tracks progress against BIM
- AI-assisted analysis on progress, delay and risk

Key Benefits

Reduced site visits, improved project visibility and oversight, progress analytics for faster, data-driven project decisions.

5. Site Documentation & Project Management

AI agents automate site documentation and project coordination by converting photos, chats, and field updates into structured reports, logs, and dashboards—reducing manual administration, improving data consistency, and enhancing project visibility, coordination and decision-making.



Before AI

- Project updates scattered across multiple communication channels
- Tedious compilation of incident reports and site records
- Delayed visibility of issues, risks and follow-up actions

With AI

- AI consolidates updates from photos, chats and field records
- AI-assisted tracking of issues, risks and action items
- Real-time updates of dashboards for better insights

Key Benefits

Faster and more structured site documentation, timely tracking of project issues and follow-ups, and better decision-making.