THEME 3 · NEW WAYS OF BUILDING

Build Once, Repeat Often

Connected construction, from concept to delivery with a platform approach

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PLEASE NOTE

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TRIMBLE · CONNECTED CONSTRUCTION

Connecting the physical and digital worlds

We enable customers in essential industries to gain deep insights, make intelligent decisions and get the hard work done.

$3.59bn

revenue in 2025

11,500+

people in 2025

40+

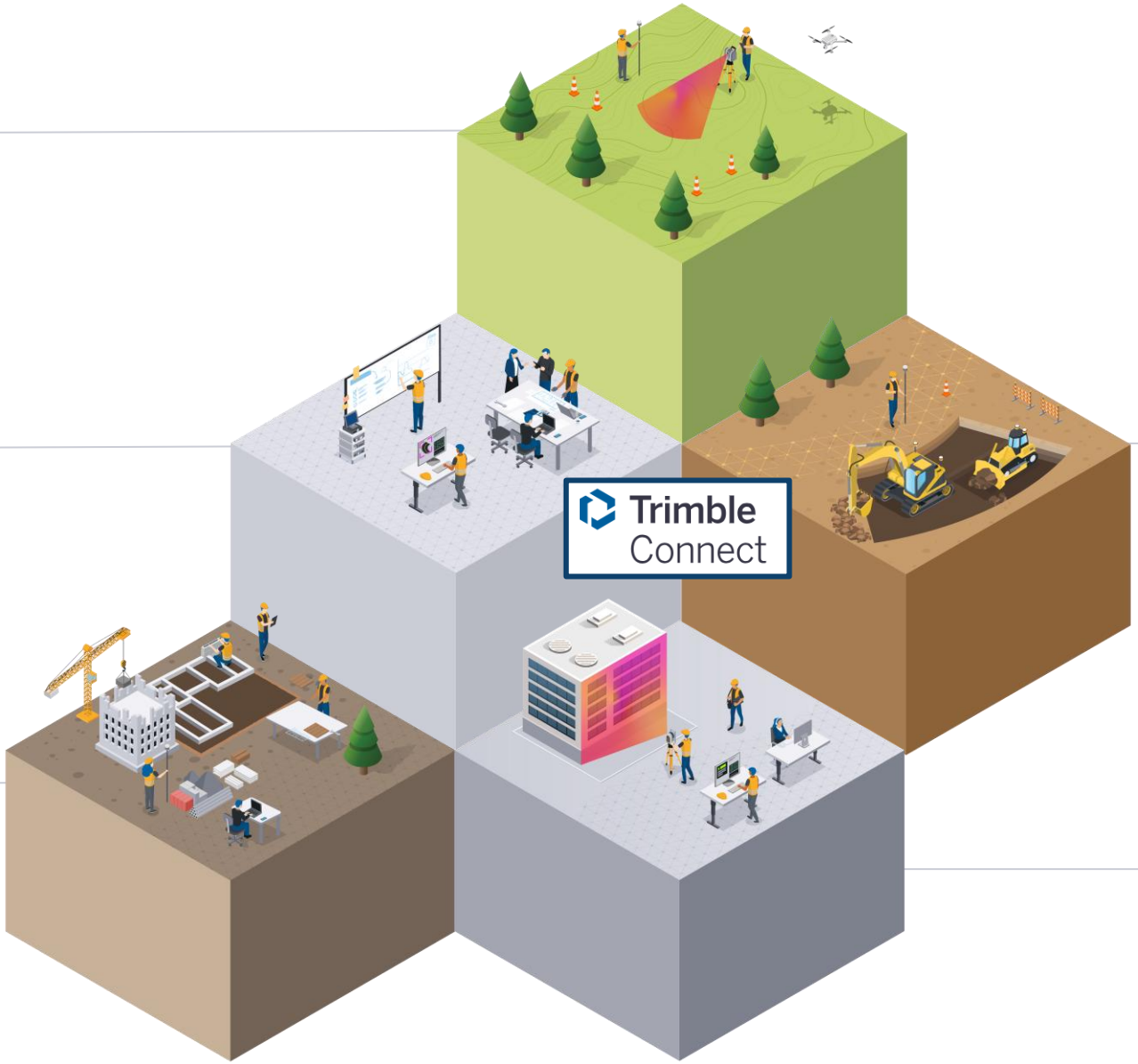
countries where our people work

$631m

invested in R&D in 2025, 17% of revenue

Source: Trimble full-year 2025 results (10 February 2026) and 2025 annual report. Customers work in over 175 countries.

Trimble UK AECO software



01
Survey

3D Scanning Solutions

02
Design

Trimble. Tekla Structures
Trimble. Tekla Tedds
Trimble. Tekla Structural Designer
Trimble. SketchUp
Trimble. ProDesign
Trimble. Stabicad

03
Estimate

Trimble. Tekla PowerFab
Trimble. Luckins
Trimble. Estimation MEP
Total Estimating

04
Build

Trimble. FieldLink
Trimble. SiteVision
Trimble. Business Center

05
Manage

Trimble. Field View
Trimble. ProjectSight
Trimble. Tekla PowerFab
Trimble. Viewpoint for Projects

SETTING THE SCENE

Big industry. Big losses.

£230bn

Approximately per year of output across the UK and Ireland

£11–48bn

a year lost to rework, if 5–21% of that output is lost

5–21%

of project value lost to rework

98%

of major projects overrun budget

Up to 11 hrs

wasted per person, every week

Sources: ONS (Great Britain, £185bn) · CSO Ireland 2025 (€51.6bn, about £44bn) · Get It Right Initiative (5% direct, 21% total cost of error) · McKinsey Global Institute · JLL UK Construction Outlook 2025. Totals and the £11–48bn range are our estimates.

THE ROOT CAUSES, AND ONE FIX

Why do project costs disappear?

CAUSE 01

Rework

Wrong drawing revisions and coordination clashes mean work is done twice. 5–21% of project value, every time.

CAUSE 02

Data silos

Information fragmented across email, spreadsheets and WhatsApp means no one ever has the full picture.

CAUSE 03

Delays and waiting

RFIs sitting unanswered in email chains halt fabrication and installation dead while costs keep running.

CAUSE 04

Key person risk

When knowledge lives in one person's head or inbox, any absence causes disproportionate and costly disruption.

CAUSE 05

Material waste

Poor coordination between design, procurement and delivery causes over-ordering and idle stock on site.

CAUSE 06

Admin overhead

Time lost manually creating reports, chasing approvals and duplicating data across systems that don't talk.

One root cause connects them all: disconnected workflows. That is what Trimble solves.

WHY IT MATTERS NOW

Regulators and standards want the evidence

ENGLAND

Building Safety Act 2022

Higher-risk buildings need a golden thread: a complete, up-to-date record of design, construction and change.

IRELAND

BCAR

Inspection plans and certificates of compliance, validated before a building is occupied.

EU AND UK

Carbon is next: CBAM

EU CBAM is live. UK CBAM starts 1 January 2027. Embedded emissions need verified data.

STANDARDS BEHIND THE EVIDENCE

ISO 19650 Information management	**ISO 27001** Information security	**ISO 9001** Quality management	**EN 1090** Steel and aluminium structures	**EN 13369** Precast concrete products	**ISO 6412** Pipework isometrics

Built to spec is not enough. You need the evidence.

CONNECTED CONSTRUCTION

Concept to delivery on one record

01	02	03	04	05	06	07
Survey	Concept & Estimating	Design & detailing	Drawings & RFIs	Production	Predict	Close the loop

Trimble Connect · Common Data Exchanger

Data from every Trimble product exchanges through Connect. One current record. One Platform

WHERE IT USUALLY BREAKS

Re-entering data between systems. Late changes that miss a step. Out-of-date drawings.

WHY OFFSITE NEEDS IT

A factory repeats whatever information it is given. So the data has to be right first.

OPEN, NOT LOCKED IN

Open formats like IFC. An advisory body on the buildingSMART council. Open APIs too.

01 · SURVEY

Start with the real site

HOW IT WORKS

Survey it, then share it

Survey the site with Trimble hardware. Push the data to the cloud, into a Trimble Connect project.

WHAT IT GIVES YOU

One view of the space

Architects, engineers and the client all see the space they have to work with. Same data from day one.



Examples: Trimble survey hardware · Trimble Connect · Field Link

Test the options and the cost

TODAY

Try systems early

Sketchup for early design. Parametric tools like Rhino and Grasshopper. Test systems before the design is fixed.

TODAY

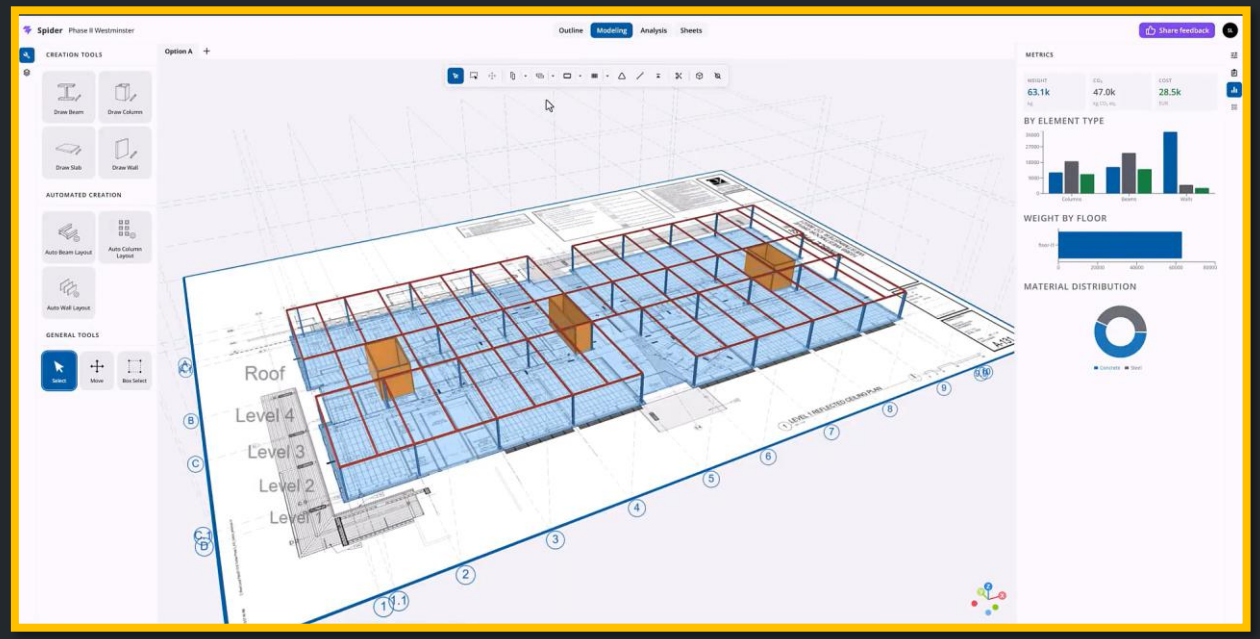
Estimate as you go

Pull in data with live pricing of objects & materials. Compare suppliers to the spec. Nest materials and advanced BOM’s

NEXT · DIRECTION OF TRAVEL

AI-driven optioneering

Try multiple materials and systems. Compare each on cost, carbon impact and speed of build.



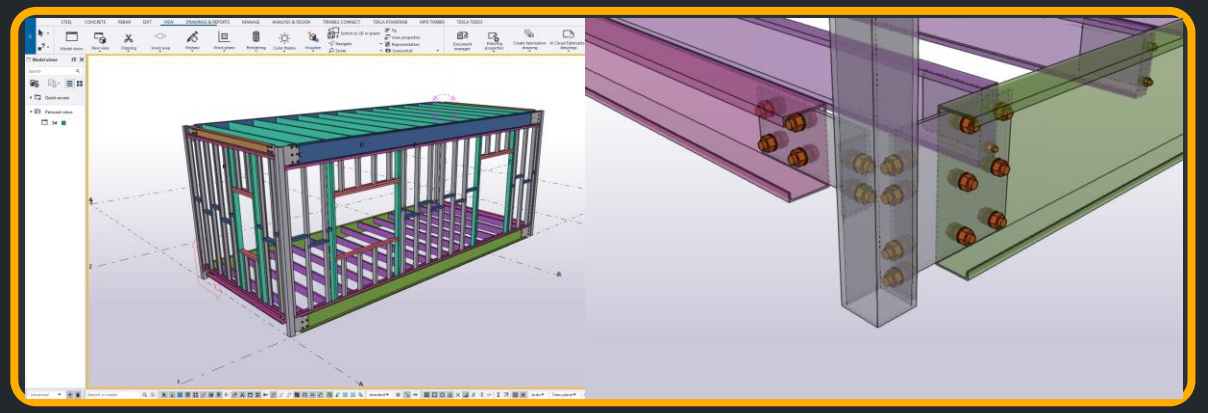
AI sorts the options fast. A human reviews and signs off the design.

Examples: Rhino · Grasshopper · Total Estimating · Luckins Live · Trimble Materials

Change the geometry. Keep the detail.

Parametric components

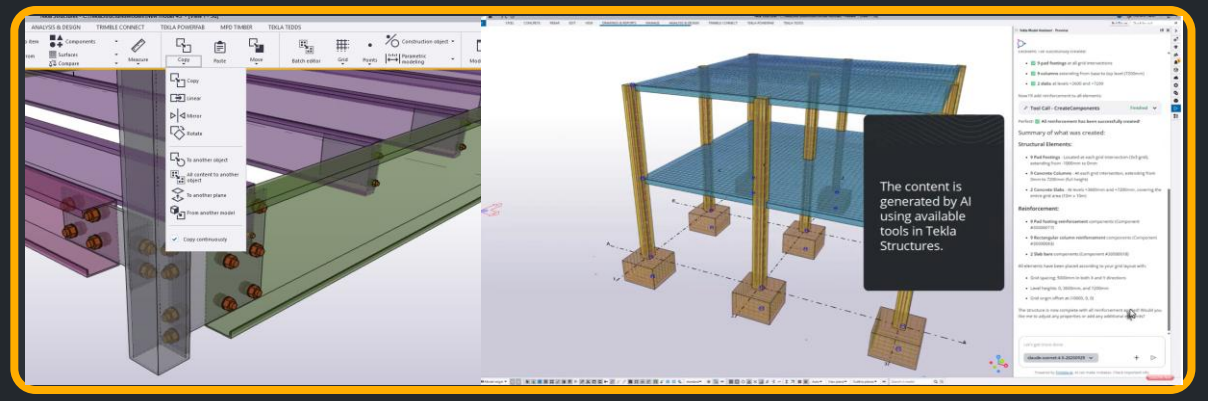
The detail stays the same. Only the geometry changes. Modules of any length, width or height keep the same components, because they move with the geometry.



Reuse the details

Today: Copy details from earlier models. AI assistants create standard details. Agents find where to use them.

Next · direction of travel: Agents learn from past models in the cloud and suggest iterations.



AI sorts the data fast. A human reviews and signs off the details.

Examples: Tekla Structures · Trimble Connect

03 · COORDINATE BEFORE SITE

Check it before it hits site

01 · MODEL

Bring the trades together

Structure, MEP and facade in one federated model. Run clash checks across all of them.

02 · AR

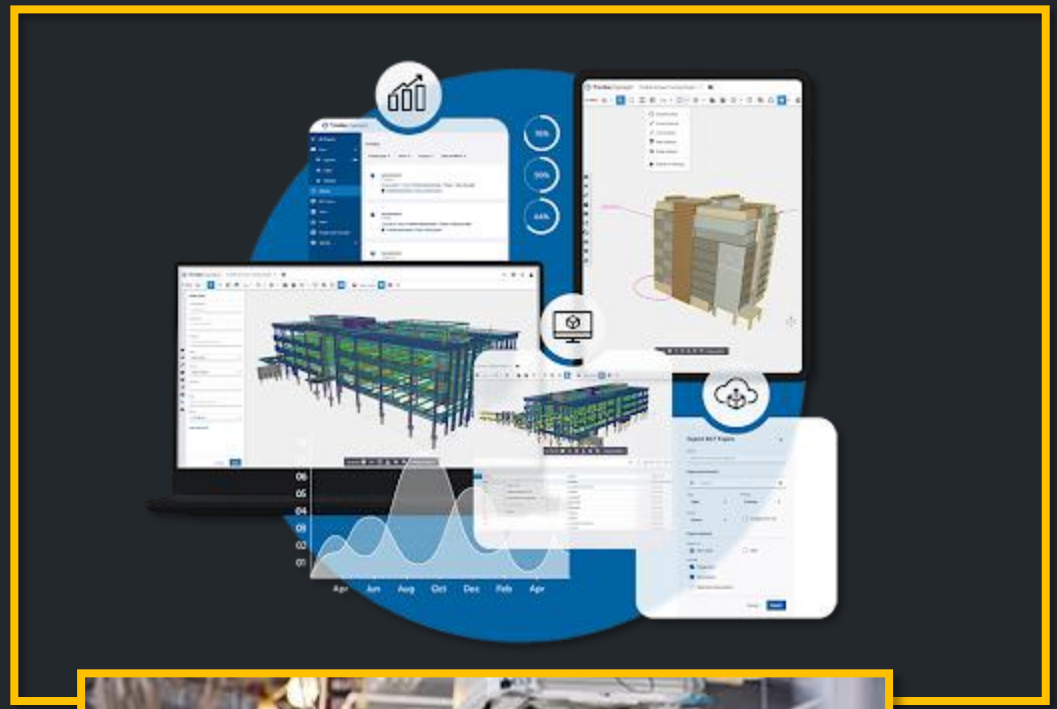
See it on site in AR

View the model in situ before anything is built. Check for clashes by eye, on the real site.

03 · RESOLVE

Fix it in the model

Raise each clash as an issue for the right person. Fix it in the model, not on site.



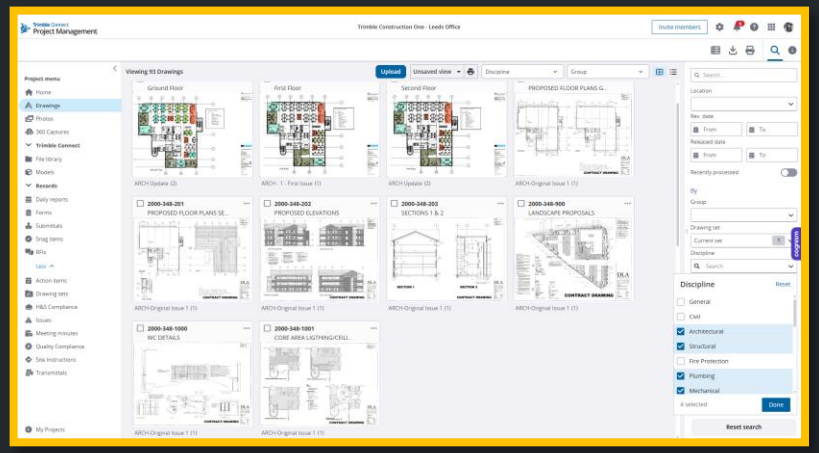


Examples: Trimble Connect · Trimble Connect AR · SiteVision

Streamlining and Standardising Drawing Workflows

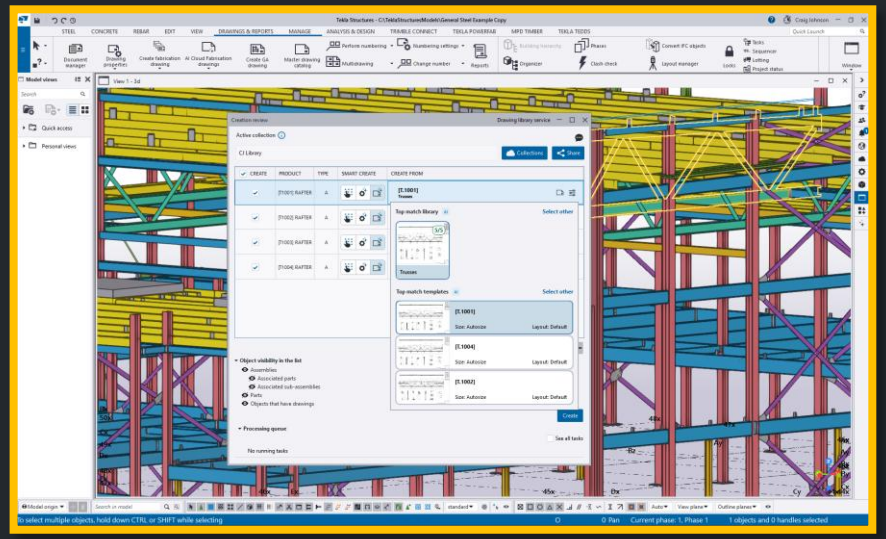
AI reads, files and links

AI reads each drawing, applies the drawing and revision number and files it to ISO 19650. It also reads section references and links each one to the right drawing.



AI learns how you draw

Host your drawings in the cloud. Machine learning teaches the system how you want them to look.



AI sorts the data fast. A human reviews and signs off.

Examples: Tekla Structures · ProjectSight · Trimble Connect · ISO 19650 · ISO 6412

From drawing to approval

RFIs and submittals on the record

Raise and track them in ProjectSight against the current drawing. Every answer is recorded.

Compare what changed

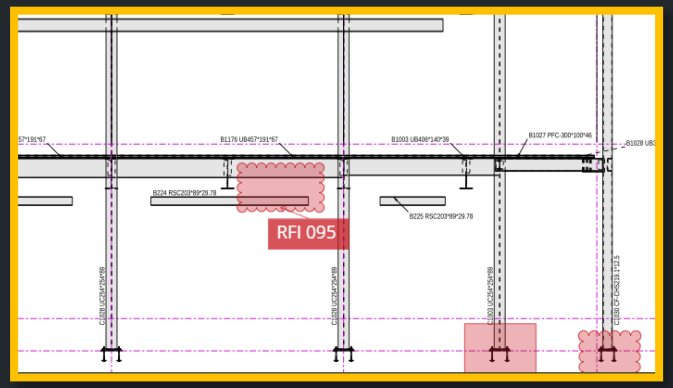
Today: Compare drawings and IFC models by colour mapping.

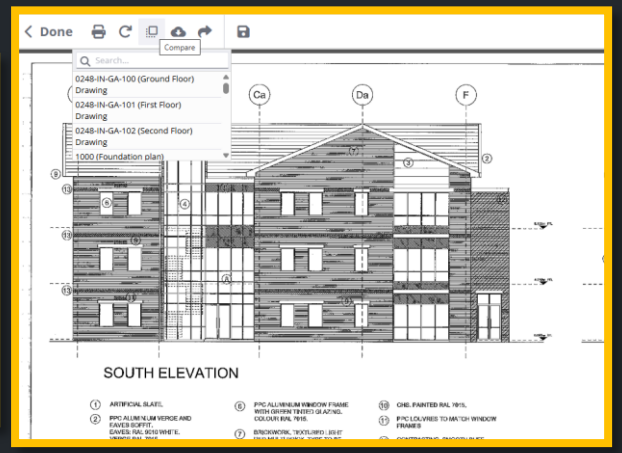
Next · direction of travel: AI compares and summarises the changes.

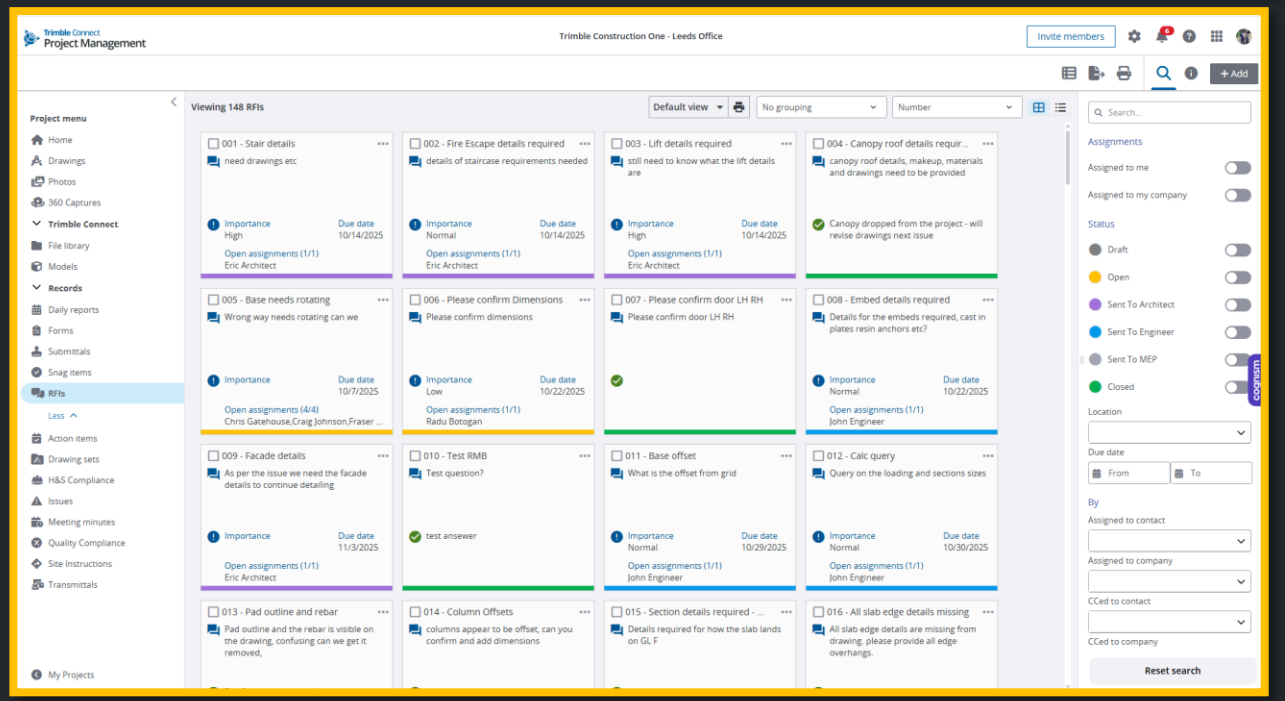
NEXT · DIRECTION OF TRAVEL

Check documents against each other

AI reads drawings, specs and contract terms together. It flags conflicts, each linked to its source identifying risks.







05 · PRODUCTION

From model to work packages

01 · ROUTE

The model sets the route

Model data assigns routing: welding, cutting, drilling, finishes. Routing and attributes estimate production times.

02 · BUY

Buy or make, from the model

Standard parts are flagged as buy-ins. Map them to inventory to see what to order and what to make.

03 · BILL

On site triggers the invoice

Record items as on site. That drives invoicing, by percentage complete or when project milestones are met.



Estimated times plan the schedule. Progress and traceability come back.

BEYOND THE MODEL

Standardise the process too

01 · SITE

Standardise the forms

Forms, inspections, anything you record. Same ones across the project, so they are quicker to fill in and read.

02 · FACTORY

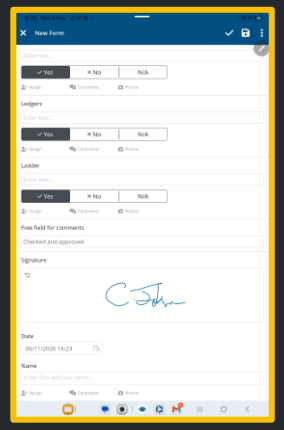
Standardise the factory

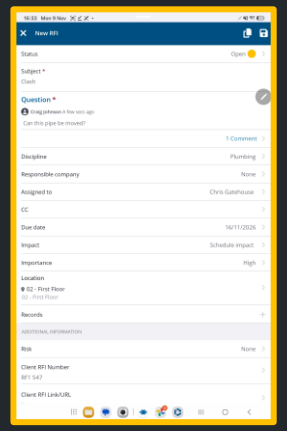
Use routing and defined checkpoints. Each one records data for progress reporting.

03 · PLATFORM

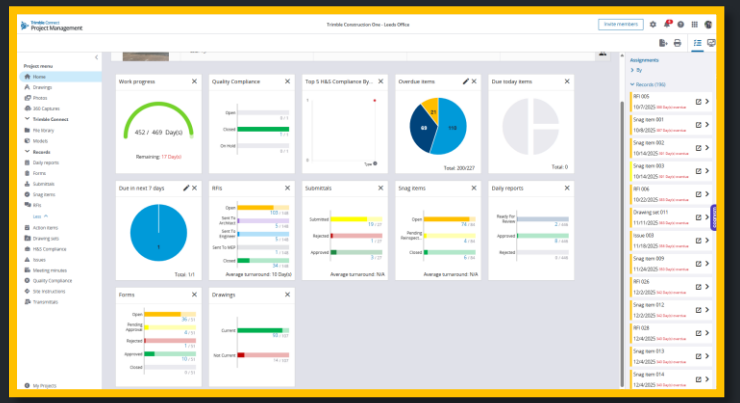
One platform, one record

One place for the data streamlines the workflow. Use dashboards and colourise the model to visualise data









Standard process. Standard data. Better decisions.

06 · PREDICT

Know before it slips

One view: office, factory, field

Design, fabrication, manufacturing and installation data in one place, talking to each other.

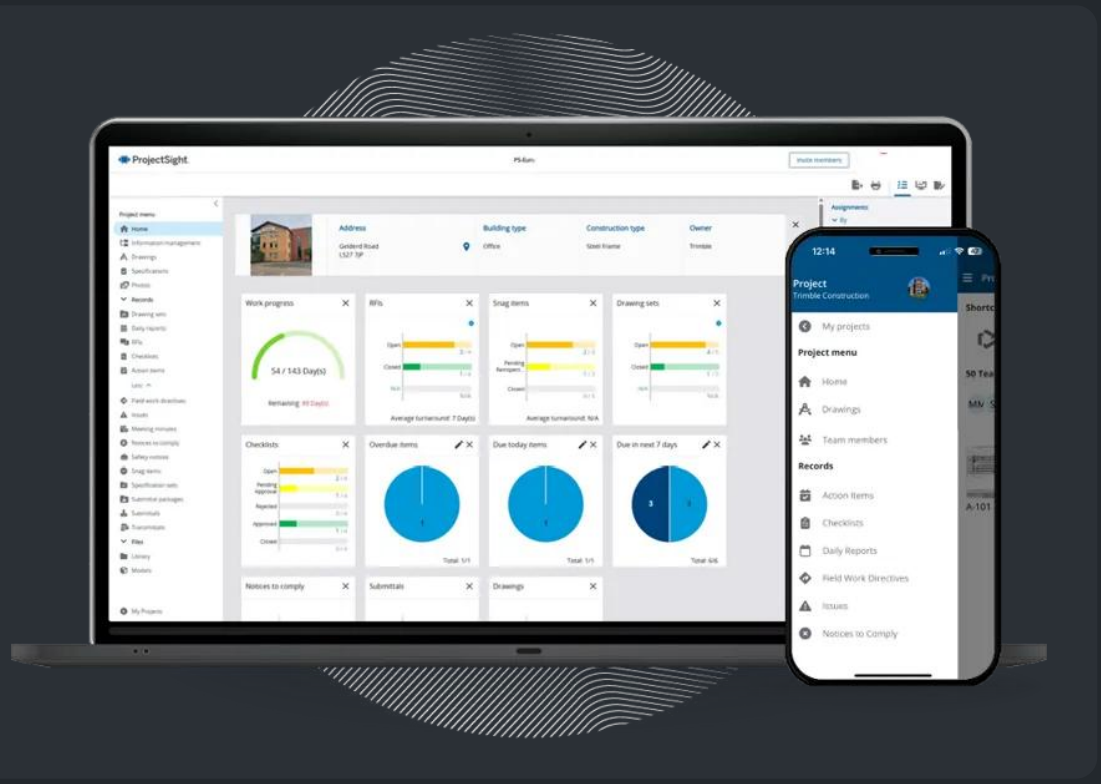
Predict from live data

Check progress against the schedule. Record issues as they happen. Predict cost, schedule and completion.

NEXT · DIRECTION OF TRAVEL

From predictive to prescriptive

Projects reach site in phases, so there is a window to correct course. AI suggests where to put resources.



Close the loop

TODAY

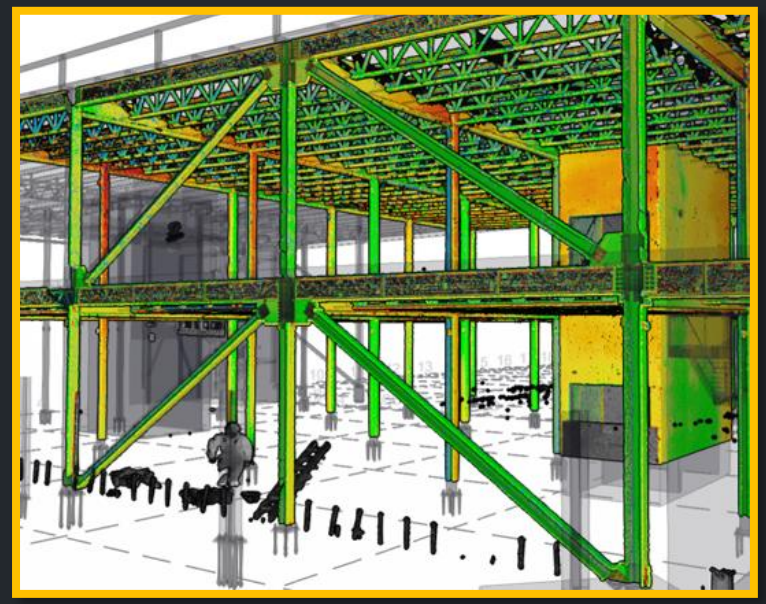
Scan it. Push it back.

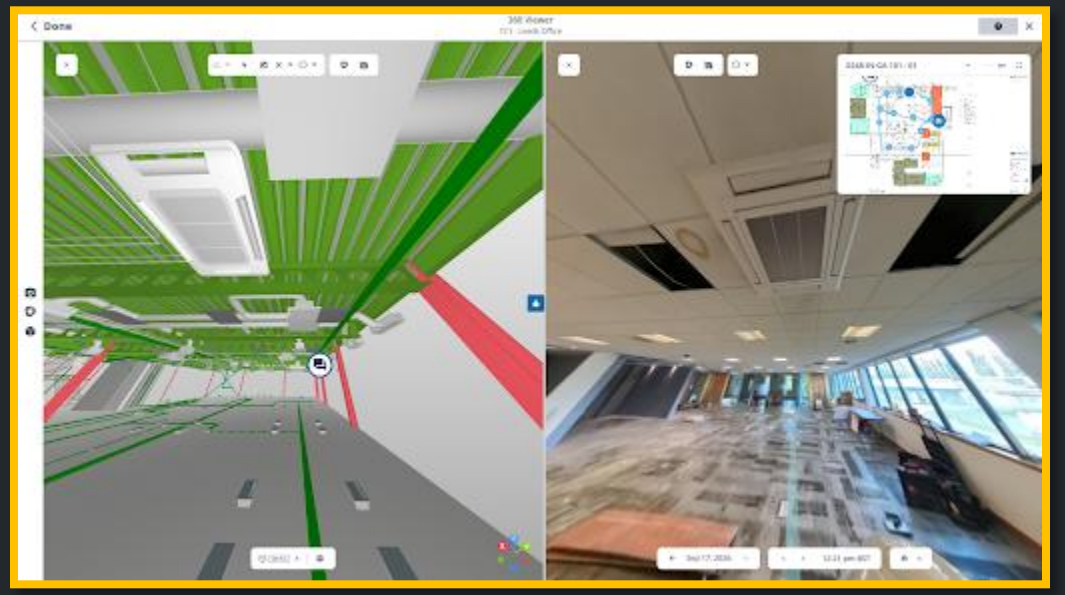
Push geospatial scans back to the model to check accuracy and completion percentages. Walk the site with 360 cameras and wearables.

AI ON TOP

Place it in the model

AI maps the 360 walk-around to the IFC model and drawings, so you know where you are. It then creates BCF topics, snags, work orders and to-dos for site.





Examples: Trimble scanning hardware · ProjectSight 360 · Trimble Connect

KEEP A PERSON IN THE LOOP

AI proposes. People sign off.

01 · STRENGTH

AI is fast with the data

AI sorts through huge amounts of data in seconds. That is its strength. Use it there.

02 · SIGN-OFF

A person reviews and signs off

Design sign-off is critical. Regulation puts duties on people and companies, not on software. AI will get some things wrong, so check before it goes out.

03 · TRAIL

Every change leaves a record

Gain full insight, who accepted it, when, and on which revision. Link each finding to its source, so a person can check it. Use AI to summarise that data for you

AI does the data. Humans review and sign off.

Examples: ProjectSight sign-offs · Trimble Connect · ISO 19650

TAKEAWAYS

Three key things to make it repeatable

01

Agree your standards

Parts, details, forms, inspections and naming. Understand any machine limitations and processes

02

Automate the repeatable bits

Start where the work is already the same every time. Review where the rework is. Rationalise the similarities.

03

Protect the thread

One record in one platform. No re-keying from survey to site.

Where does your data get re-keyed today?