

How a project team cut costs by 50% and kept delivery moving during urgent value engineering

sensat



A UK water company within a major AMP programme faced a serious cost challenge on a capital civils upgrade scheme.

Following Early Contractor Involvement (ECI) pricing, a single project's civils package came back at £7m — well above the acceptable cost envelope. The team had to find significant savings immediately, without stalling delivery or missing critical programme milestones.

Using Sensat, the project team brought value engineering in-house, enabling them to test, measure, cost, and present revised options in days instead of weeks.

THE PROBLEM

The scheme involved complex pipe routes, chambers, and infrastructure layouts across 26 projects.

When the civils pricing exceeded budget, the project was at risk of entering a prolonged redesign cycle. The team needed to:

- Identify major savings quickly
- Rework layouts and routes
- Quantify changes
- Present credible revised costs to steering groups

All without pausing the programme, slow to get alignment across teams, and easy for critical issues to surface too late.

The workaround wasn't working

Traditionally, value engineering followed a slow cycle:

- Consultants redraw revised CAD layouts
- Quantity Surveyors manually remeasure and reprice
- Updated designs are presented in static PowerPoint decks
- Stakeholders review without full spatial context

Each iteration could take 4–6 weeks.

This created a “limbo period” where the PM was waiting for drawings, waiting for take-offs, and waiting for approvals — while programme pressure continued to build.

How Sensat was used

The team stopped using static slides and started using Sensat as a live, spatial workspace:

- **Visual Benchmarking:** They imported the original outline designs and contractor VE options into one shared view.
- **Live Sketching:** Using geospatial markup tools, they drew revised pipe routes and infrastructure layouts directly onto the 3D site context.
- **Instant Quantities:** They used spatial measurement tools to quantify changes (lengths, areas, and volumes) instantly, bypassing the wait for manual QS take-offs.
- **Rapid Costing:** Measurements were exported to Excel and combined with contractor unit rates to produce internal cost estimates in hours.
- **Interactive Approvals:** The team used Sensat live in steering group sessions to compare design options side-by-side, giving stakeholders the clarity needed to make immediate decisions.

What previously required multiple handovers between teams was completed internally and collaboratively.



What changed for the delivery team

Internalised design control

Design leads and PMs could test “what-if” scenarios in the morning and have a costed, visual answer by the afternoon - without waiting on external consultant schedules.

Reduced rework

Quantities and feasibility were validated spatially before formal submission, increasing confidence that revised designs would not bounce back again.

Faster stakeholder alignment

Seeing revised layouts overlaid on the real-world site allowed steering groups to understand trade-offs immediately and make decisions in days rather than weeks.

The result

From £7m to £3.5m

Civils package reduction on a single project (50% reduction)

Four weeks

removed from the redesign cycle

Savings of over 100 weeks

Scalable across a 26-project programme, this approach also delivers significant capital reduction.

Why this mattered

For the project delivery team, this was not just a cost exercise.

It turned a potential delivery stall into a controlled, repeatable workflow. Instead of waiting on drawings and revised estimates, the PM could lead value engineering in real time, maintain momentum, and keep the programme on track despite intense budget pressure.

Where this approach works best

This is critical for ECI phases, projects under regulatory cost pressure, or complex infrastructure schemes where rapid internal alignment is the difference between staying on track and losing months to redesign cycles.

See how you can run a value engineering session on your own site.

Speak to the team and see Sensat in action.

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