Story 4 of 9 — Technology · Infrastructure

Bentley Year in Infrastructure 2026: digital twins and AI take centre stage

منبع: Bentley Systems — ۷ لینک · (با منبع مستقل دوم) تأییدشده · وضعیت صحت: · سنگاپور ،۲۰۲۶ اکتبر:
https://www.bentley.com/news/bentley-systems-announces-winners-of-the-2026-year-in-infrastructure-awards/



Figure 1 — news photograph for story 4 (generated from the improved pack prompt; stories 5–9 carry the aixhse.ir signature).

From the editors

A digital twin is a grand name for an old, simple idea: fail on the model first, then build in reality. When a dam or pipeline engineer can see in the model where pressure rises or a leak starts, there is no need to wait for reality to repeat the same mistake at real cost.

The news

Bentley Systems announced the winners of its 2026 Year in Infrastructure awards in Singapore, covering more than 300 projects from 53 countries across 12 categories. Digital twins and AI stood out across the entries: live models of dams, pipelines, c

and transport networks used to simulate, monitor and predict before problems become real failures.

What do the numbers say?

Derived calculation: 300+ projects across 53 countries is about 5.7 projects per country, and across 12 categories about 25 projects per category. The spread shows digital twins are no longer one country's experiment or one project type's tool.

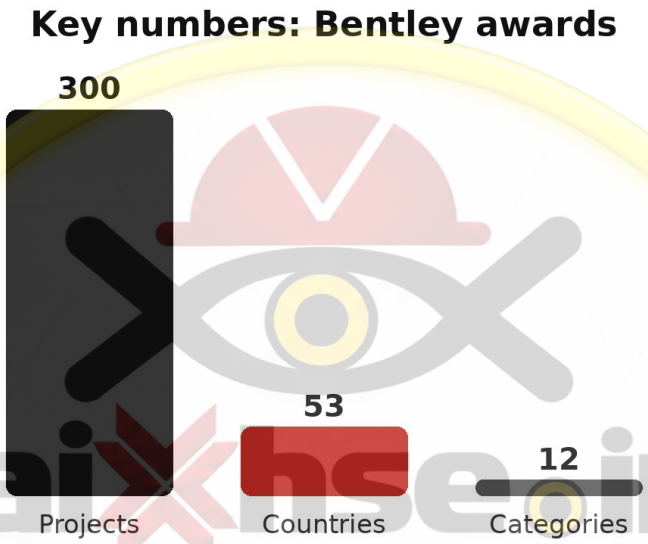


Figure 2 — chart/diagram for story 4, built from the story's own numbers.

Analysis

- A twin is a live model, not a picture: it must be fed by real field data or it quickly becomes decoration.
- Simulation before construction lets teams test failure scenarios cheaply — and learn from them safely.
- Monitoring plus prediction is the real prize: spotting a trend early is cheaper than repairing a failure late.
- AI adds pattern-finding across huge data sets, but it does not replace engineering judgement about what the pattern means.
- For older assets, even a simple, updated model beats no model: decisions without a model are usually guesses.



Figure 3 — flowchart for story 4.

What it means for Iran and aixhse.ir

For Iran, the message is not “buy and install”. It is “bring modelling from the margin to the centre”: start with one critical asset, keep its model updated, and practise decisions on the model first. At aixhse.ir we follow the same logic: a clear picture of the current state, before a decision.

Practical table

Step	Action
Start with one asset	Model one critical asset fully instead of everything thinly.
Keep the model current	An old model builds false confidence — worse than no model.
Connect field data	A model without real data is only a pretty picture.
Practise decisions on the model	Test failure scenarios in the model before acting in reality.

Limits of the story

An award is not a safety certification: winning a digital-twin award does not prove a project is safe. The story reports recognised projects, not an independent safety audit of each one.

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Calculation method: percentages and averages come from the story's own numbers with basic arithmetic; they are not new claims. Publisher: https://aixhse.ir