

INFRASTRUCTURE

Why engineering consultants switch to Autodesk.

Four advantages of leaving legacy infrastructure software behind.





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Introduction

Legacy infrastructure software is holding engineering firms back

Infrastructure projects generate more data than ever, but too much of it remains fragmented, unstructured and difficult to put to work. As project complexity and owner expectations rise, engineering consultants need a better way to turn that information into insight: connecting people, data and workflows across planning, design, construction and operations.

These firms aren't just looking for a new design tool. They're looking for a better way to connect people, data and workflows, across the entire asset life cycle.

That's why they're switching to Autodesk.



“Our primary focus is to design transportation structures that we can proudly pass on to future generations. Such projects are no longer viable without implementing BIM processes.”

SINAN ALEMDAR

Board Member and EVP, EMAY Engineering

01

Bring multidisciplinary teams together from planning through to operations

Modern, resilient infrastructure depends on connected workflows. Owners, engineers, contractors, operators and maintenance teams all need access to the same trusted information throughout the asset life cycle.

Autodesk's open, interoperable platform connects every stakeholder through a common data environment (CDE), creating a shared foundation for planning, design, construction, operations and long-term asset management.

81%

of transportation leaders say that interoperability improves project outcomes

83%

believe improved data interoperability would enhance collaboration

82%

agree that better access to data contributes directly to more resilient infrastructure





Key benefits:

- ✓ Improve coordination across every project phase
- ✓ Connect owners, engineers, contractors and operators
- ✓ Reduce silos with a single source of truth
- ✓ Support better handover into operations

“Siloed data is a big issue. Each department has valuable data, but I don’t think it’s utilised well. By appropriately combining these data, we can enhance our productivity.”

TETSUHIRO KURAHASHI
BIM Manager at Nippon Koei

Connect data across every phase of the infrastructure life cycle

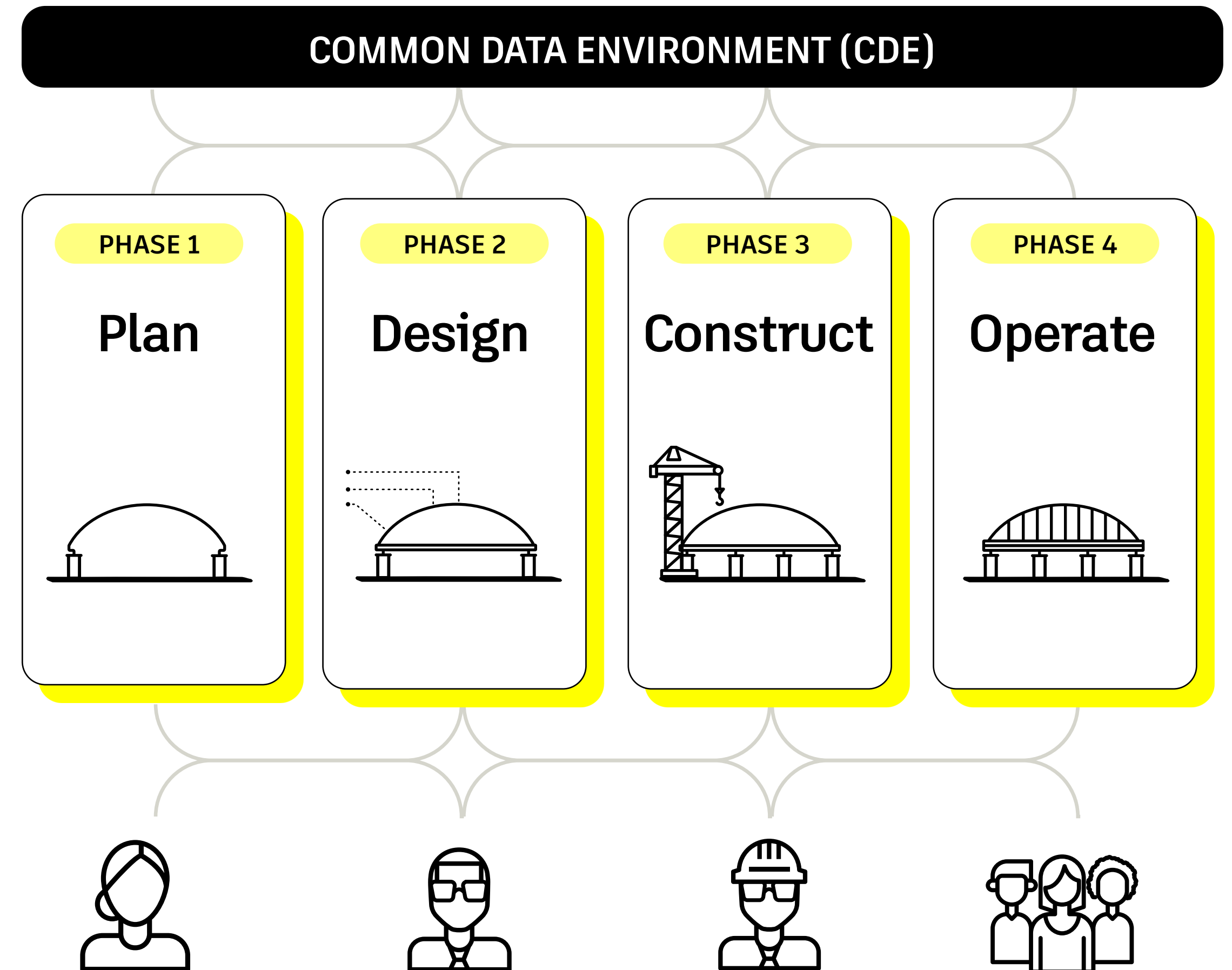
Infrastructure projects rely on information from many different systems, but that information is often trapped in disconnected applications and formats; especially with legacy solutions.

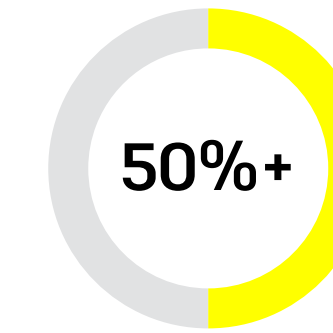
Autodesk's open, interoperable platform allows data to flow seamlessly across planning, design, construction and operations.

Instead of manually moving data between systems, engineering firms can connect people, information and workflows in their common data environment (CDE), creating a single source of truth throughout the entire asset life cycle.

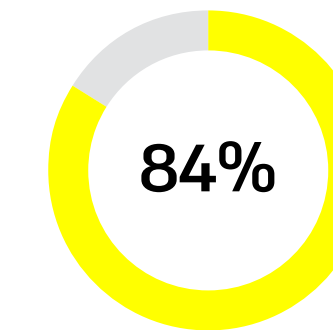
With Autodesk, engineering firms can:

- Connect BIM, GIS and project data in one interoperable ecosystem
- Reduce manual data transfers and duplicate information
- Improve collaboration across all project teams
- Support a connected digital thread from planning through to operations and maintenance

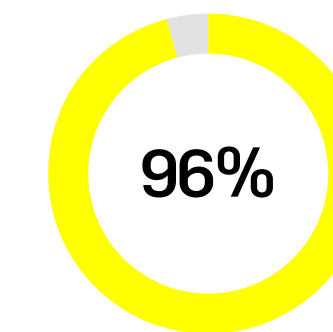




of transportation leaders have had project rework because of poor interoperability



of transportation leaders say poor data management impacts their project delivery



of all data goes unused in engineering and construction and 90% of that is unstructured*

“There are always varying levels of digital maturity among agencies, contractors and consultants. When those gaps exist, they often lead to fragmented workflows, data gaps and ultimately rework on projects.”

JAY MEZHER

Digital Delivery Practice Lead,
Mott MacDonald

Make better decisions today, and build for what's next

The decisions made today shape the infrastructure communities will depend on for decades. But with growing volumes of project data spread across teams, tools, and systems making informed decisions – and preserving that information for the future – is increasingly difficult.

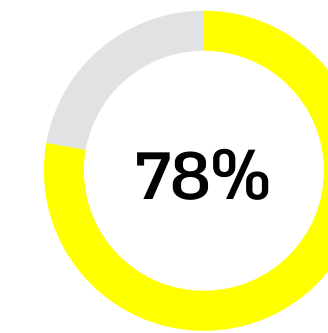
Autodesk connects people, workflows and data in a cloud-first, open, interoperable platform, giving engineering firms and their project partners access to trusted information throughout the project life cycle. By connecting BIM, GIS and other project data, firms can identify risks earlier, automate manual processes and make faster, more informed decisions while creating a digital foundation that can evolve with changing owner requirements and technologies.

The result is better decisions today and infrastructure that is more resilient, adaptable and ready for what comes next.

Autodesk enables firms to:

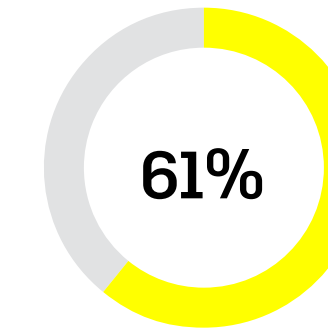
- Identify risks earlier and reduce costly rework
- Make faster, more informed decisions with connected, trusted data
- Standardise workflows and automate repetitive processes
- Connect BIM, GIS and other technologies in an open ecosystem
- Scale digital project delivery as owner requirements and technologies evolve
- Deliver infrastructure designed for long-term performance and maintainability





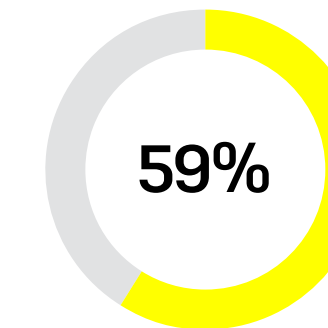
78%

of transportation leaders say
collaboration improves outcomes



61%

report time savings from
better collaboration



59%

report improved project quality

“Everybody should be looking at
the same data. People can work
in different tools, as long as the
information itself is consistent and
trustworthy.”

AMANDA COLEMAN

Engineering Innovation & Digital Center Manager,
Port of Portland

Turn project data into lasting value for owners

Engineering firms create enormous amounts of valuable data throughout planning, design and construction. But at project handover, that information can be fragmented across files, formats and systems, leaving infrastructure owners with data that is difficult to access, understand and use to operate their assets.

Autodesk helps engineering firms deliver more than a completed project. By connecting and structuring project information across an open ecosystem, firms can provide owners with a digital representation (digital twin) of the asset that carries trusted project data forward into operations and maintenance

This creates an opportunity for engineering firms to become longer-term digital partners to their owner clients, helping them establish the data foundation for digital twins and giving operations teams better access to the information they need to manage, maintain and improve their assets over time.

- Structure and connect project data so it remains usable beyond design and construction
- Deliver richer digital handovers instead of disconnected files and documents
- Provide owners with a trusted data foundation for digital twins
- Connect BIM, GIS and other asset information across an open ecosystem
- Help operations and maintenance teams access the information they need throughout the asset life cycle
- Extend their value to owner clients beyond traditional project delivery





84%

of transportation leaders say poor data management impacts project efficiency

79%

agree AI accelerates solving tough engineering problems by making workflows more efficient

71%

have implemented, or will implement, cloud-based workflows

“We are stewards of data... Our role is to understand what data is important... and make it available to the rest of the organisation.”

AMANDA COLEMAN

Engineering Innovation & Digital Center Manager,
Port of Portland

Switch to the future of transportation infrastructure

The future of infrastructure won't be built on disconnected, legacy software.

Leading engineering firms are switching to Autodesk to connect teams, unify data and deliver infrastructure that performs better, from planning and design through to operations and long-term maintenance.

Switching to Autodesk means gaining:

- Connected teams
- Connected data
- Better decisions across the asset life cycle
- A scalable foundation for digital project delivery

Ready to switch to Autodesk? →





Autodesk is changing how the world is designed and made. Our technology spans architecture, engineering, construction, product design, manufacturing, media and entertainment, empowering innovators everywhere to solve challenges big and small. From greener buildings to smarter products to more mesmerising blockbusters, Autodesk software helps our customers to design and make a better world for all.

For more information visit:

autodesk.com/uk/industry/transportation

