

5 BENEFITS OF POWERING DECISIONS WITH INSIGHT

How to unlock true project visibility
for building owners

 **AUTODESK**





The modern building owner faces new challenges every day, hindered by siloed legacy workflows that cause costly miscommunications and delays throughout the project lifecycle.

Wherever they happen in the process, the fact is disjointed teams and incompatible systems mean less revenue in owners' pockets.

The key to maximizing the value of your assets, time, and money lies in increasing visibility. Unlocking that visibility requires leveraging project data across teams and workflows. Better insight leads to better investments – because how can owners provide checks and balances when they are left in the dark?

Read on to discover how to power your decisions with insight using a connected data environment in the cloud.

Key challenges for building owners

Fractured or siloed teams

Many organizations lack a unified approach to AEC building workflows. The greater the size of the organization, the more distributed their teams and approach. Valuable data is lost during the handoffs between the planning, design, building, and operations phases.

Accurate forecasting

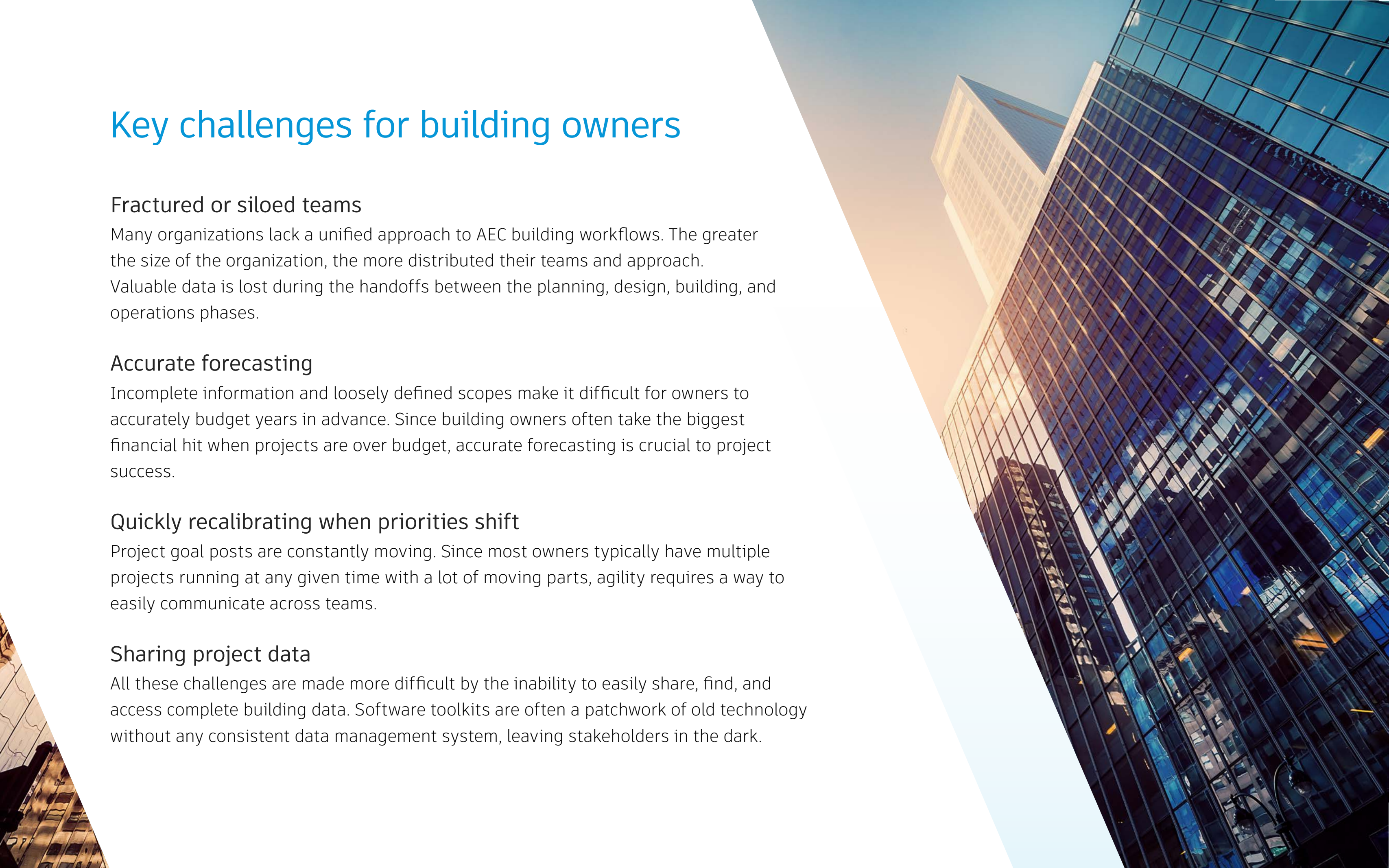
Incomplete information and loosely defined scopes make it difficult for owners to accurately budget years in advance. Since building owners often take the biggest financial hit when projects are over budget, accurate forecasting is crucial to project success.

Quickly recalibrating when priorities shift

Project goal posts are constantly moving. Since most owners typically have multiple projects running at any given time with a lot of moving parts, agility requires a way to easily communicate across teams.

Sharing project data

All these challenges are made more difficult by the inability to easily share, find, and access complete building data. Software toolkits are often a patchwork of old technology without any consistent data management system, leaving stakeholders in the dark.





Why now?

Acceleration of digitization

The Covid-19 pandemic has sped up the pace of digital transformation by seven years – with companies acting to implement these changes 20-25 times faster than expected.

Aging infrastructure

The effort and costs that go into operating and upgrading older buildings are increasing, with 72% of current U.S. buildings being more than 20 years old and built with little to no concern for energy savings. With renovation, reuse and retrofit work at an all-time high, owners are relooking at their portfolio mix to maximize operational performance and asset resiliency.

Sustainability

Owners are being driven by the environmental impacts of construction, and given that buildings are responsible for roughly 40% of a city's carbon footprint, they need to look for ways to optimize their assets to reduce climate impact and consumption of power, heat, or water. Owners are also concerned with their aging portfolio infrastructure, so having more resiliency in how they adapt and manage risk using data insights is critical.

Solution: BIM + cloud based common data environment = total project visibility

The first step to total project visibility is moving project designs from desktop-based applications to a “common data environment” (CDE) in the cloud – a digital space where all project-related data lives. A CDE makes that data accessible to the entire team throughout the project lifecycle, giving owners the insight they need to find constructability problems, reduce risk, and deliver better projects.

Within the CDE, building information modeling (BIM) data can be referenced anytime by everyone on the project team. Instead of juggling emails and spreadsheets, teams communicate directly through the CDE, creating a truly connected experience.

Unified data management means that a detailed digital record of every component of a completed structure – including information on the process that structure underwent throughout construction – can be passed to the owner, increasing their understanding of the built asset they now own and empowering them to make better decisions while enabling more predictable and profitable outcomes.

This is true project visibility... and it all starts with a cloud-based common data environment.



Here are 5 benefits of powering decisions with insight.

01 Connected teams

Improve project handover through collaboration

02 Risk management

Identify and manage risks via accurate forecasting

03 Cost savings

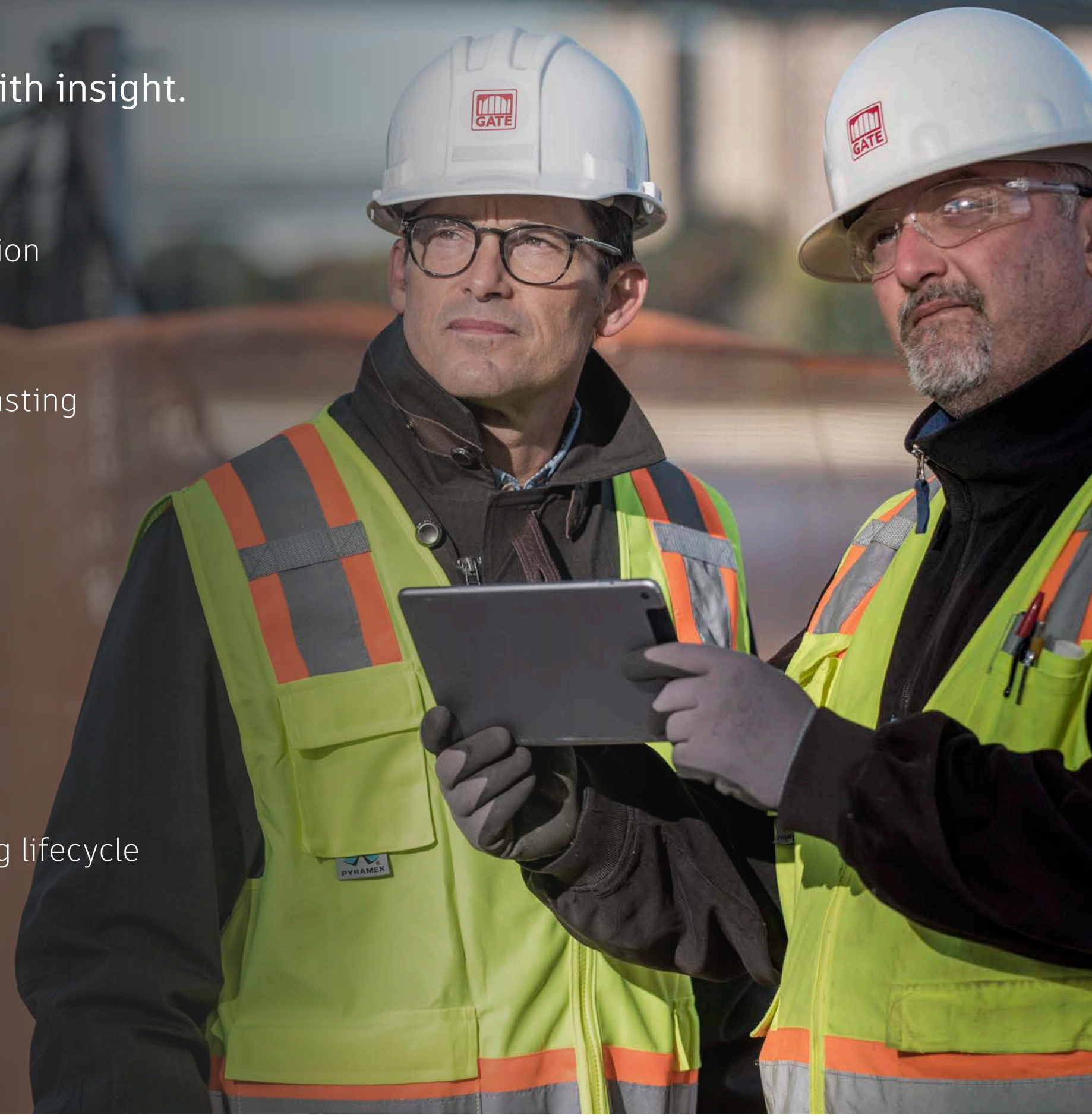
Reduce redundancy and increase revenue

04 Schedule savings

Streamline processes and avoid costly delays

05 Better asset performance

Maximize value throughout the entire building lifecycle



01

“In the model, all designers, planners, and suppliers speak the same language – it’s like a kind of symphony where people meet, and everything comes together.”

Till Moczarski, Project Manager for Digital Planning, Porsche

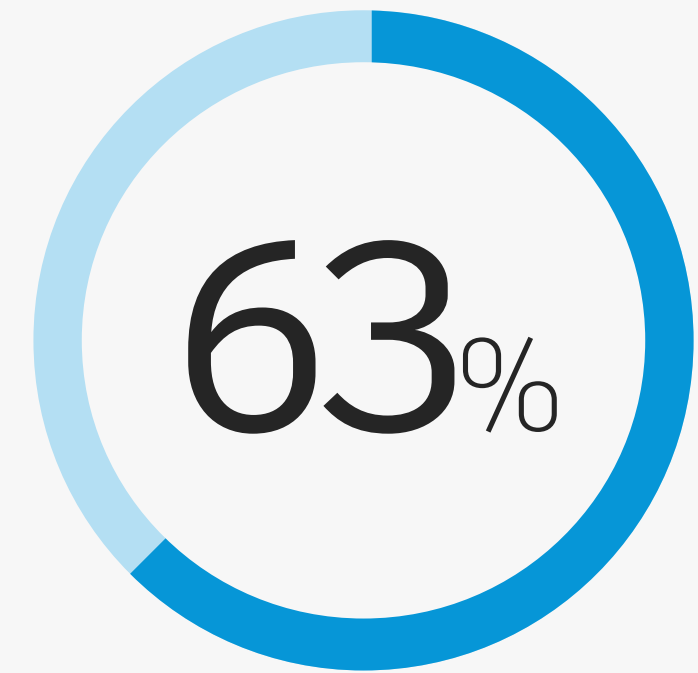
Connected teams

A typical construction project is made of multiple teams across all phases of its lifecycle.

Owners, designers, GCs, and subcontractors all use different systems, which makes integration and communication harder and limits the usage of project data. Teams are also often geographically disconnected, leading to communication breakdowns and a lack of transparency. Decision makers within owner organizations need better visibility across projects, while project managers need more synergy within their AEC teams.

A cloud-based common data environment brings teams and BIM data together, enabling easier collaboration from a single source of truth. Whether in the office or on the job site, everyone collaborates through connected devices in the cloud. Building owners can gain visibility into project performance with an integrated design and construction platform that supports quality and safety programs, RFIs, submittals, costs, and daily reporting.

Unified data management also streamlines the handover experience between project phases, reducing costly errors and re-work. It’s official—the insight and transparency granted to owners through a cloud-based CDE improves collaboration and supply chain management, end-to-end.



of construction companies
are using three or more
mobile applications

Source: JB Knowledge 2020 Construction Tech Report

02

“We orchestrated the whole project in BIM 360 with schedules linked to models. During construction, we validated activities as they happened. It’s important to not just have a solid plan, but also to validate progress against it. Delays, defects, and surprises are less likely when you align what’s happening in the field—as it happens—to what’s in the plan.”

Paddy Ryan, Program BIM Lead, Mace Technology

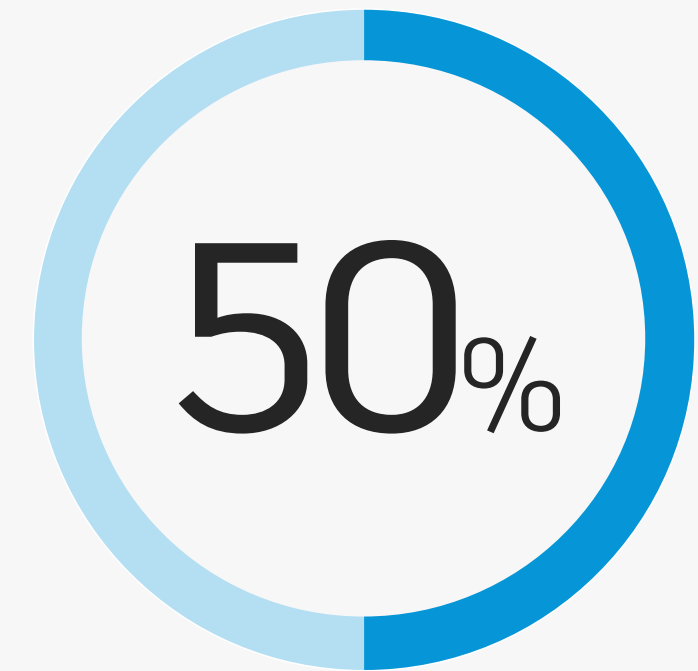
Risk management

Some might think the GC bears all the risks throughout the project execution phase, but building owners must understand they are also taking on risks with every project.

Mitigating risk comes down to ensuring smooth handover between project phases. Disconnected analog workflows cause information loss and an inability to accurately predict costs and asset performance, all leading to greater risk for the owner.

A cloud-based common data environment gives owners better visibility to design and construction data including project status, changes, and problems. This lets owners identify potential risks, intervene to prevent major cost-overruns and schedule delays, and ensure the highest quality completed project every time.

Bringing all the stakeholders’ BIM data into one central location also allows team members to identify clashes or disagreements early in the project lifecycle. While typically a GC function, owners can now have transparency into this process, providing checks and balances to ensure owners are managing their own risks.



of project costs are
allocated to managing
risk and predictability

*Source: Bryden Wood, UK, published in Passing the Baton,
North American Engineering Executive Council*

03

“We fixed many, many problems on the computer that normally you would fix in the field. We think it saved us hundreds of thousands of dollars.”

David Duncan, CEO, Silver Oak Cellars

Cost savings

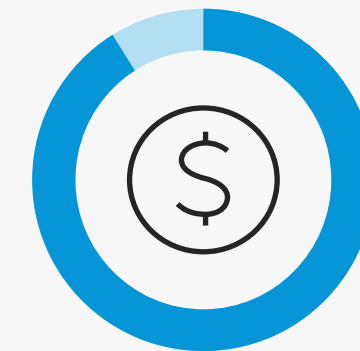
Siloed legacy systems cause costly delays and redundancies, with building owners often taking the biggest financial hit.

The visibility and control provided by a common data environment enables owners to improve margins and boost the value of their assets.

Informed investment decisions require real-time access to current and historical performance of building assets, which is readily available through a connected data environment in the cloud. Having visibility into design intent, constructability and building performance up front gives building owners more accurate cost predictability. Within the CDE, owners can view budgeted versus actual cost and manage the change order process 100% digitally.

These valuable data insights let owners improve forecast accuracy and avoid unexpected projects. By gaining a deeper understanding of existing assets, building owners ultimately increase revenue, reduce asset lifecycle costs, and maximize property resale values.

Thanks to cloud-based BIM collaboration, one project for Brown University saw:



90% COST
REDUCTION



20% TIME
SAVINGS

Source: <https://www.autodesk.com/customer-stories/burohappold>

04

“Our design-build speed and agility benefit from Revit and the Autodesk BIM solutions, and helped us achieve our current level of success. The software helps us to tap into the information we need to quickly make the decisions we need to make and bring new WeWork spaces to life.”

Dave Fa, Chief Product Officer, WeWork USA

Schedule savings

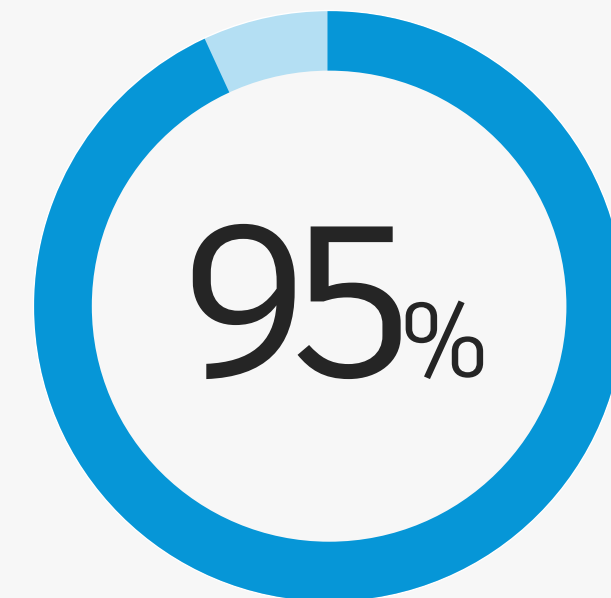
With owners juggling so many projects at once, time consuming tasks like scheduling and paperwork become difficult to keep up with.

In addition, nobody understands more than building owners that time is money – the more redundancies and re-work that can be eliminated on the job-site, the more revenue the owner will see at the end of the day.

Currently, a lack of design standards creates inefficiencies across projects, leading to incompatible operations data from asset to asset after a project. A cloud-based common data environment’s standardized approach to digital deliverables lets owners increase speed of design and reduce time to construction.

Without collaborative BIM tools, project teams spend countless hours updating Revit models, which, at the end of the day, are not useful to the owner. A connected data environment in the cloud ensures the entire team is working off the same model in real-time, meaning owners can consistently access and monitor building information. This enables agile and efficient business operations throughout design and construction.

With BIM 360 as a common data environment, urban housing company Brusnika reduced the time of design coordination by



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“The Autodesk tools enabled us to design a process to collect asset data throughout design and construction and publish it [to a common data environment]. With the support of the software, the process helped us to achieve our goal of having a fully-populated CMMS [computerized maintenance management system] before patients walked in the door.”

Chet Howard, Facilities Operations Director, Arkansas Children’s Hospital

Better asset performance

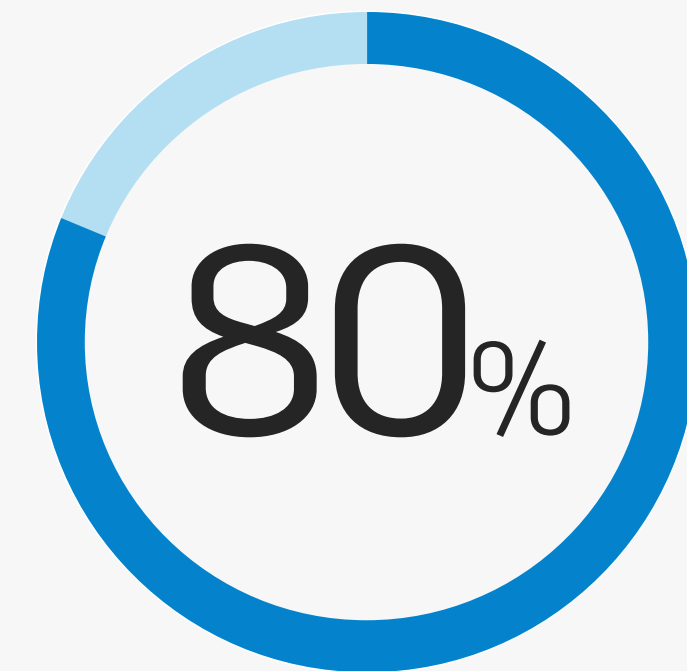
Asset management is one of the biggest challenges for building owners.

How do you make the most of your assets not just during the design and construction process, but also well into the future throughout the building’s lifecycle?

A connected data platform gives owners effective maintenance tracking and ease of access to building data, which reduces asset downtime in the long term. Intelligent building data is also provided to lifecycle management systems in a standardized format, lowering operational and maintenance costs. In addition, improved asset condition monitoring lets owners identify risk areas in aging infrastructure and extend equipment service life, while as-built storage allows for better long-term efficiency and resiliency of operating assets.

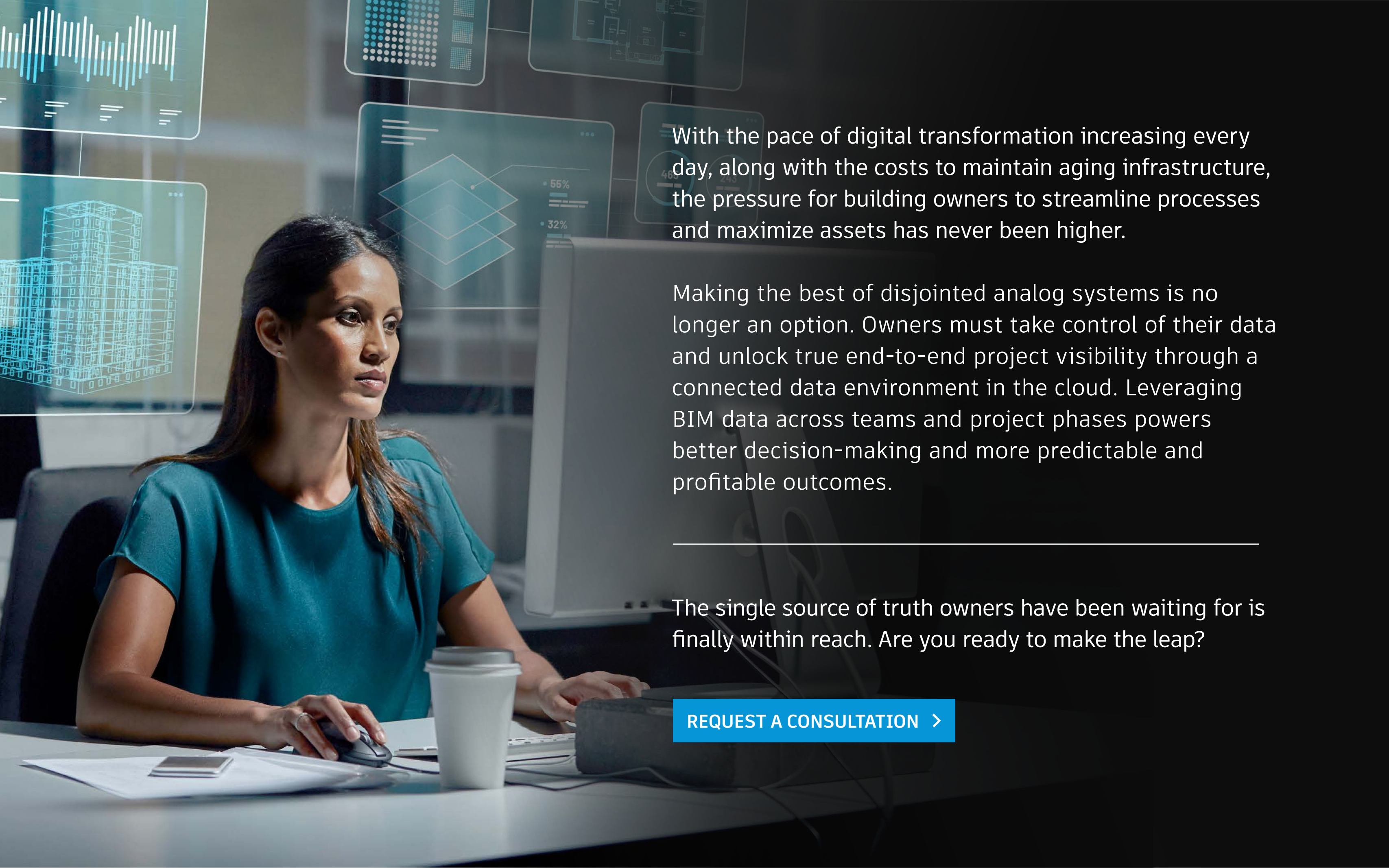
Having all this building data captured in a central location also enables the use of digital twin technology, giving owners on-demand, real-time understanding of physical assets to better anticipate, monitor, and control asset performance. For owners looking to get the most out of their investment, a cloud-based common data environment is a gift that keeps on giving.

Operations and maintenance costs
of a building account for



of a building’s life-cycle costs,
often exceeding the building’s initial
construction costs by three times.

Source: <https://www.wbdg.org/resources/design-for-maintainability>



With the pace of digital transformation increasing every day, along with the costs to maintain aging infrastructure, the pressure for building owners to streamline processes and maximize assets has never been higher.

Making the best of disjointed analog systems is no longer an option. Owners must take control of their data and unlock true end-to-end project visibility through a connected data environment in the cloud. Leveraging BIM data across teams and project phases powers better decision-making and more predictable and profitable outcomes.

The single source of truth owners have been waiting for is finally within reach. Are you ready to make the leap?

[REQUEST A CONSULTATION >](#)

