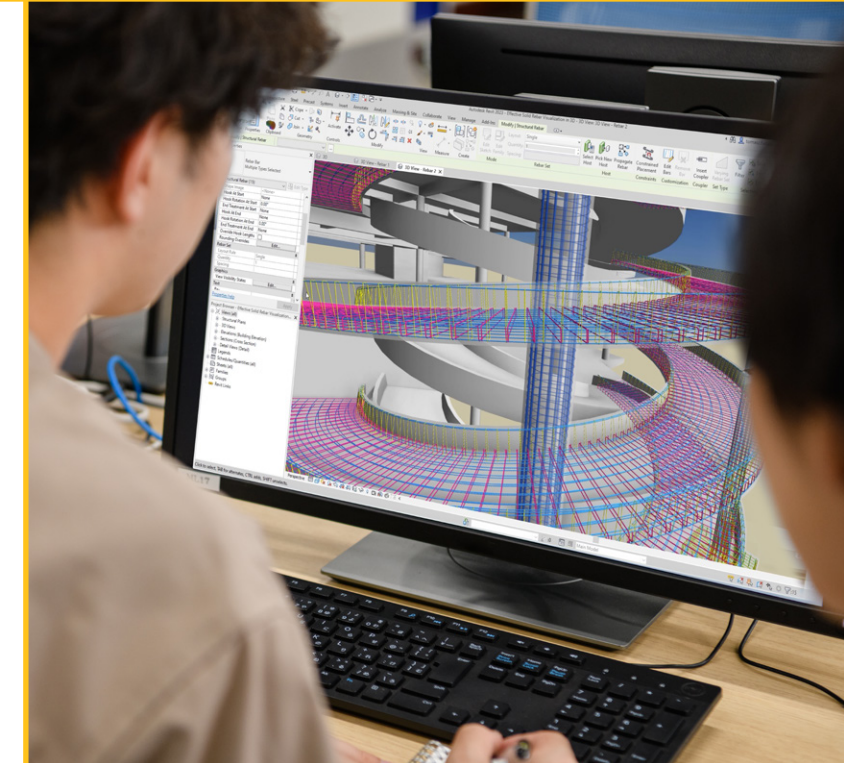




Achieving business growth in building products and fabrication

How to improve operational efficiency—and the bottom line





In 2024, the Federal Reserve lowered interest rates for the first time in four years.¹

Those improved market conditions—combined with other macroeconomic forces like population growth—have led to a 10% increase in US construction projects.²

To manage this uptick in projects, many firms are digitizing their workflows: 65% of architecture, engineering, and construction leaders now say their company is digitally mature.³

Where customers are going, building product manufacturers should follow. Let's look at two key strategies building product leaders can use to maximize growth with digitization:

¹ <https://www.jpmorgan.com/insights/outlook/economic-outlook/fed-meeting-september-2024>

² https://fmicorp.com/uploads/media/Q1_2024_BP_Market_Outlook_FINAL.pdf

³ <https://www.autodesk.com/design-make/research/state-of-design-and-make/business-resilience/digital-maturity/aeco>

Strategy 1: Reinforce business-wide operational efficiency by managing everything from your project schedule to your suppliers—all in one place.

This will help you:

- Deliver projects faster and get your products installed on time
- Reduce errors and rework leading to cost overruns
- Leverage data insights to benefit future work

Strategy 2: Enhance customer satisfaction and avoid commodification with product innovation, services, and BIM.

This will help you:

- Promote your solutions and products to AEC clients in a Building Information Modeling (BIM) format they can use
- Differentiate your business with not just your product's capabilities, but your ability to customize and configure your solutions to meet client needs
- Explore innovation and monetization opportunities by offering new services

Strategy 1: Reinforce business-wide operational efficiency

Every second counts when you're navigating a strict project schedule. But delivering on time can be difficult if—**just like 70% of manufacturers**⁴—your teams rely on manual data entry.

Dependence on manual data entry can lead to human error, cause silos, or give teams out-of-date information to work with—all of which can cause critical delays that affect your bottom line.

Streamlining collaboration across multifunctional teams is critical to ensuring projects stay on track.

To get started, you'll need a cloud-based, common data environment for teams to work in.

A common data environment enables architects, engineers, and construction clients to get the right information at the right time to move a project forward. Plus, you'll be able to streamline digital workflows for delivery, installation, and operation.

⁴ <https://manufacturingleadershipcouncil.com/seventy-percent-of-manufacturers-still-enter-data-manually-2-37141/?stream=all-news-insights>

A few questions to ask yourself are:

1. Where can you improve communication?

Reduce reliance on emails and spreadsheets through a common data and communication environment so that project data doesn't fall through the cracks.

2. What workflows cause the most delays?

Identify areas that create productivity bottlenecks so issues like over production, human error, and duplicate tasks are avoidable as project complexity grows.

3. How can data benefit your future work?

Leverage insights from every project so that teams don't have to start from scratch. You can also use data to mitigate any future risk by maintaining audit trails in the event regulations change.





How a common data environment can reduce the costs of bringing products to market:



Faster workflows

- **Less manual data entry, and more automation.** Leave more time for your teams to focus on the innovations that will help you stand out to customers.
- **Better communication with a single source of truth.** Provide easier access to files for your team, regardless of what format they're in, and where in the world they are located.
- **Fewer errors, and less risky projects.** Reduce unwelcome surprises down the line by ensuring all teams work with accurate, up-to-date information.



Improved supply chain visibility

- **Fewer silos.** Connect suppliers to your systems so relevant information is shared with them in real time, including changes to product orders, timelines, or materials.
- **An easier supplier audit process.** Assess suppliers based on factors like whether they typically meet scope and deadline or by comparing them with other suppliers.
- **More agile teams.** Enable your teams to quickly identify parts, know their use in your designs, and switch suppliers if needed—improving their ability to react to any compliance or regulation changes.



Better decision-making

- **Data-driven decisions.** Use business analytics tools to monitor project status, manage deadlines, track different suppliers, follow stakeholder activity, and more.
- **More successful product launches.** Use real data captured by service and maintenance teams to see how your products are performing in the field, then use those insights the next time you bring a new version of your product to market.

Strategy 2: Enhance revenue growth and customer retention

Staying competitive requires building product manufacturers to set themselves apart with product quality and innovation.

Digitization can enable your teams to collaborate with everyone on a jobsite by utilizing a common cloud-based data environment.

What's more, when your processes and workflows are digitized, your stakeholders can also get full project visibility. In turn, this can help you manage issues and cost overruns to increase the accuracy of your estimates.

For example, if you're manufacturing an elevator for a building, your teams can co-ordinate with other stakeholders in your cloud environment to ensure all the materials needed are delivered and electricity is running before going on site.

This can also make you a more reliable partner for your customers, since products can be delivered and installed on time rather than being stuck in order backlogs.

Thanks to automation, you can also minimize time consuming errors or tasks, helping you manufacture better-quality products even faster. This will give your teams more time to explore new monetization opportunities to improve customer loyalty further, like digital installation services, predictive maintenance apps, or digital twin-ready smart solutions.





Strategies to improve revenue growth and retention across an end-to-end project:



Sales

- **Create better quotes.** Enable sales teams to quickly create quotes using the engineering data in your cloud environment, so they can get the correct specs locked in early.
- **Generate custom designs in minutes.** Use product generators to create new custom designs in minutes, with the help of automation and your product data.
- **Help customers visualize every product.** Build a 3D showroom or product configurator that's connected to your engineering data in a cloud platform. This provides customers with instant access to your latest product offerings, plus the ability to compare the best options for their unique projects. They can then download the associated BIM data in a few clicks.



Delivery

- **Improve visibility between production and field delivery.** When everyone can see the status of each project in your cloud platform, it's less likely for products to sit in inventories or distribution centers.



Field Installation

- **Reduce costs and tap into new opportunities.** Ensure employees on the construction site can report issues early with a platform that connects both construction and office-based teams in real time. This can reduce cost overruns or quality issues caused by subcontractors, and it can also help you tap into new business opportunities through industrialized construction and prefab.
- **Reduce on-site mistakes.** Support contractors bringing all disciplines together in BIM coordination models by helping them identify and resolve clashes in 3D, before shipping your products on site. This can also reduce potential on-site material waste, helping your clients improve sustainability and conform to new SEC regulations.⁵

⁵ <https://www.sec.gov/newsroom/press-releases/2024-31>



Service

- **Monetize a new customer service.** Develop your own app and create a new service for customers that connects product data and operating information. This will allow you to make recommendations for predictive maintenance and monitoring.
- **Offer a smoother handover process.** Develop accurate as-builts of your solutions along with access to digital installation manuals for owners and operators to use in their buildings. This is hugely beneficial for clients that require a digital twin—a dynamic, digital representation of a physical asset that evolves in real time—for facility operations and maintenance.
- **Use smart solutions.** If your products enable a digital twin, customers can do things like enhance their energy efficiency to comply with new sustainability regulations.



Courtesy of Viewrail

How adopting automation grows business for Viewrail



Viewrail, a leading manufacturer of staircase systems, is rapidly adapting their engineering processes to fulfill custom orders and meet an increase in demand.

By using automation, the Viewrail team has reduced design time from four hours to two minutes, and a stair generator has increased the number of completed monthly orders from 12 to 150. Over the course of just two years, this has helped lead to an estimated 50% increase in business growth, year over year.

"...now we're at the point where, in a couple of minutes, you can put in the numbers, hit the button, and the stair generator will pull all of our parts... It will figure all of this stuff out and throw it together complete with production drawings, customer prints and lately, our machine code for generating some of the stuff for physically manufacturing it."

Ryan Rittenhouse,
Engineering Automation Specialist, Viewrail

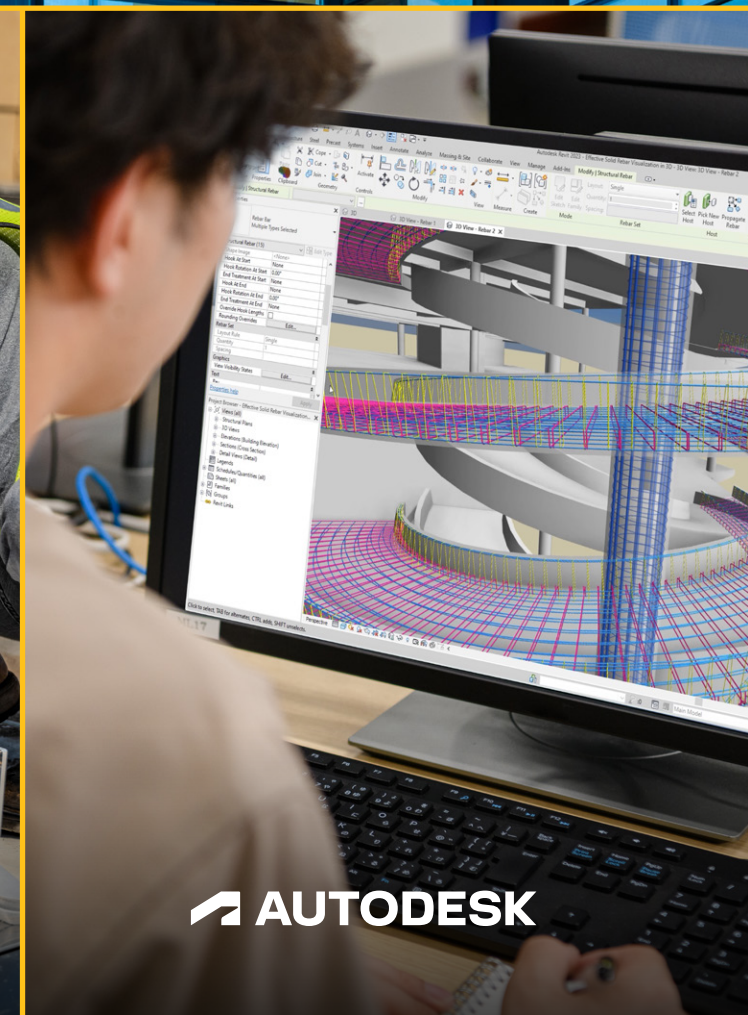
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