

# A better world designed and made for all

FY21 IMPACT REPORT



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# Overview

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# A message from our President and CEO

“I believe the path to sustainable long-term financial returns is defined by the needs of our stakeholders—particularly those of our customers.”

**Andrew Anagnost**  
President and Chief Executive Officer



A year ago, we were already acutely aware of the importance of the momentous decade ahead. And yet, 2020 surprised and tested us in unprecedented ways. I reflect on the year—one defined by a global pandemic, worldwide demands for racial justice, rising inequality, political instability, and a warming climate—with a mix of humility and optimism.

Above all, the year demonstrated the critical importance of adapting to our ever-changing world. I was profoundly inspired by the enduring strength and resilience of our global community, and that of Autodesk customers, employees, and partners worldwide. I remain humbled and grateful that Autodesk is supporting and empowering newly distributed workforces to accelerate digital transformation and use the full power of the cloud to design and make things in entirely new ways.

Looking to the decade ahead, I am encouraged by the momentum behind stakeholder capitalism and the drive to measure and improve environmental, social, and governance performance alongside financial returns. In fact, I believe the path to sustainable long-term financial returns is defined by the needs of our stakeholders—particularly those of our customers. More and more of our customers are aligning their growth goals with the UN Sustainable Development Goals, showing a balanced approach to creating value.

It’s been over a decade since we launched our first sustainability report at Autodesk. This year marks a new chapter for us, having sharpened our impact strategy to accelerate positive outcomes.

We remain steadfast in our commitment to work as a business, and in partnership with our customers and industries, to:

- Enable better energy and material choices reducing GHG emissions and waste;
- Accelerate the design and make of products and places that are safer, healthier, and more resilient; and
- Advance equity and access, while helping people learn, adapt, and prosper through change.

## Partnering with customers

Undeniably, our largest opportunity to create positive impact at scale is by supporting our customers with the technology they need to unlock insights, make better decisions, and achieve superior outcomes. Our software platform helps automate complex processes and transform data into actionable insights that empower innovators to improve the impact of everything they design, make, own, and operate. Cloud solutions and connected data environments fuel innovation—across technology, processes, supply chains, and industries. This opportunity is only accelerating.

Over the last year, we announced acquisitions of Pype, Spacemaker, and Innovyze to help customers automate and gain insights on construction process efficiency, sustainable building site layouts, and water infrastructure projects. We launched the Autodesk Certification Program to empower professional users and students worldwide to learn new skills and created an online platform of learning pathways for each of the industries we serve.

### Advancing industries

Still, progress today demands that we work beyond industries to accelerate cross-sector collaboration and catalyze industry-wide innovation. Last year, Autodesk, the Autodesk Foundation, and Autodesk employees expanded our philanthropic giving to respond to COVID-19, natural disasters, racial injustice, and rising inequality. During the year, Autodesk and the Autodesk Foundation gave \$16.8 million, and \$28.9 million in Autodesk software, to nonprofits and social enterprises worldwide. Employees across 38 countries donated a record \$2.42 million, bolstered by both 2:1 and 1:1 matching from the Autodesk Foundation.

We also believe in engaging governments to drive public policies around the world that enable people to design and make a better world. Last year, we led an effort with other technology brands to urge Congress to include support for workforce development, including digital skills, in COVID-related relief legislation.

### Improving our operations

We continue to lead as a business, advancing our sustainable business practices and empowering employees to make a positive impact. We achieved our target of net-zero carbon emissions as we launched the Autodesk Carbon Fund with an updated price on carbon. We are now announcing our next science-based GHG emissions reduction target, balancing our focus on efficient operations with our net-zero carbon and 100% renewable energy commitments.

We are equally committed to building a more diverse workforce with a strong culture of belonging. Autodesk’s Board of Directors is 50% women, and 45% of our executive team is women. We are working to create an inclusive environment and I’m proud that every regular employee of the company is viewed as an owner through stock grants or long-term cash incentives. Finally, we are announcing new goals that will increase diversity throughout our general employee base and leadership roles.

The last year proved without a doubt that we live in an increasingly interconnected and fragile world. While the challenges remain daunting, our collective potential is stronger than ever. Now is our time to work together—to blur boundaries, break barriers, unleash talent, and unlock insights across industries.

This decade demands more action from all of us and I am optimistic that collectively we will rise to the challenge. Please join us on our journey to design a more sustainable, resilient, and equitable world.

Sincerely,



**Andrew Anagnost**  
President and Chief Executive Officer



“Our largest opportunity to create positive impact at scale is by supporting our customers with the technology they need to unlock insights, make better decisions, and achieve superior outcomes.”

**Andrew Anagnost**  
President and Chief Executive Officer

# FY21 highlights

## 50%

women on Autodesk's Board of Directors and

## 45%

women on executive team

## Net-zero

GHG emissions across our business and value chain

## 50%

reduction in Scope 1 and Scope 2 GHG emissions target established (by fiscal year 2031, compared to fiscal year 2020)

## \$16.8 million

in funding made by Autodesk and the Autodesk Foundation

## \$28.9 million

in Autodesk product donations

## \$2.42 million

in employee giving

## \$1.60 million

in traditional volunteering and Pro Bono Consulting hours

## 21,700

traditional volunteering hours and

## 6,730

Pro Bono Consulting hours

## Regular employees viewed as owners

through stock grants or long-term cash incentives

## Total carbon

solutions enhanced to support integrated understanding and management of building operational and embodied carbon

## Diversity and belonging

objectives and goals announced

Supported employees, customers, and communities throughout the

## COVID-19 pandemic

Performance data included in this report is based on the Autodesk fiscal year when noted, and the calendar year otherwise. The Autodesk 2021 fiscal year ran from February 1, 2020, through January 31, 2021. Performance data covers Autodesk's global operations, unless otherwise stated. In some cases, segments in tables do not add up to the total due to rounding. Dashes indicate where data was unavailable. All dollar amounts listed are in USD.

# Our company

Today our solutions span many industries, empowering innovators everywhere.

Our customers—from architecture and engineering to construction, from product design to manufacturing, from media to entertainment—have a broad, global reach.

By empowering our customers to combine technologies and harness their data to unlock actionable insights, we unleash talent and fuel innovation across processes, supply chains, and industries—creating new paths to efficiency, sustainability, and growth.

At Autodesk, we believe that when you have the solutions to design and make insightfully, you have the power to make better decisions and achieve superior outcomes. The power to design and make a better world for all.



## Architecture, Engineering & Construction

Our architecture, engineering, and construction products improve the way building, infrastructure, and industrial projects are designed, built, and operated.



## Design & Manufacturing

Our product development and manufacturing software provides manufacturers in automotive, transportation, industrial machinery, consumer products, and building product industries with comprehensive digital design, engineering, manufacturing, and production solutions.



## Media & Entertainment

Our digital media and entertainment products provide tools for digital sculpting, modeling, animation, effects, rendering, and compositing for design visualization, visual effects, and games production.

# 62 million<sup>1</sup>

professionals worldwide

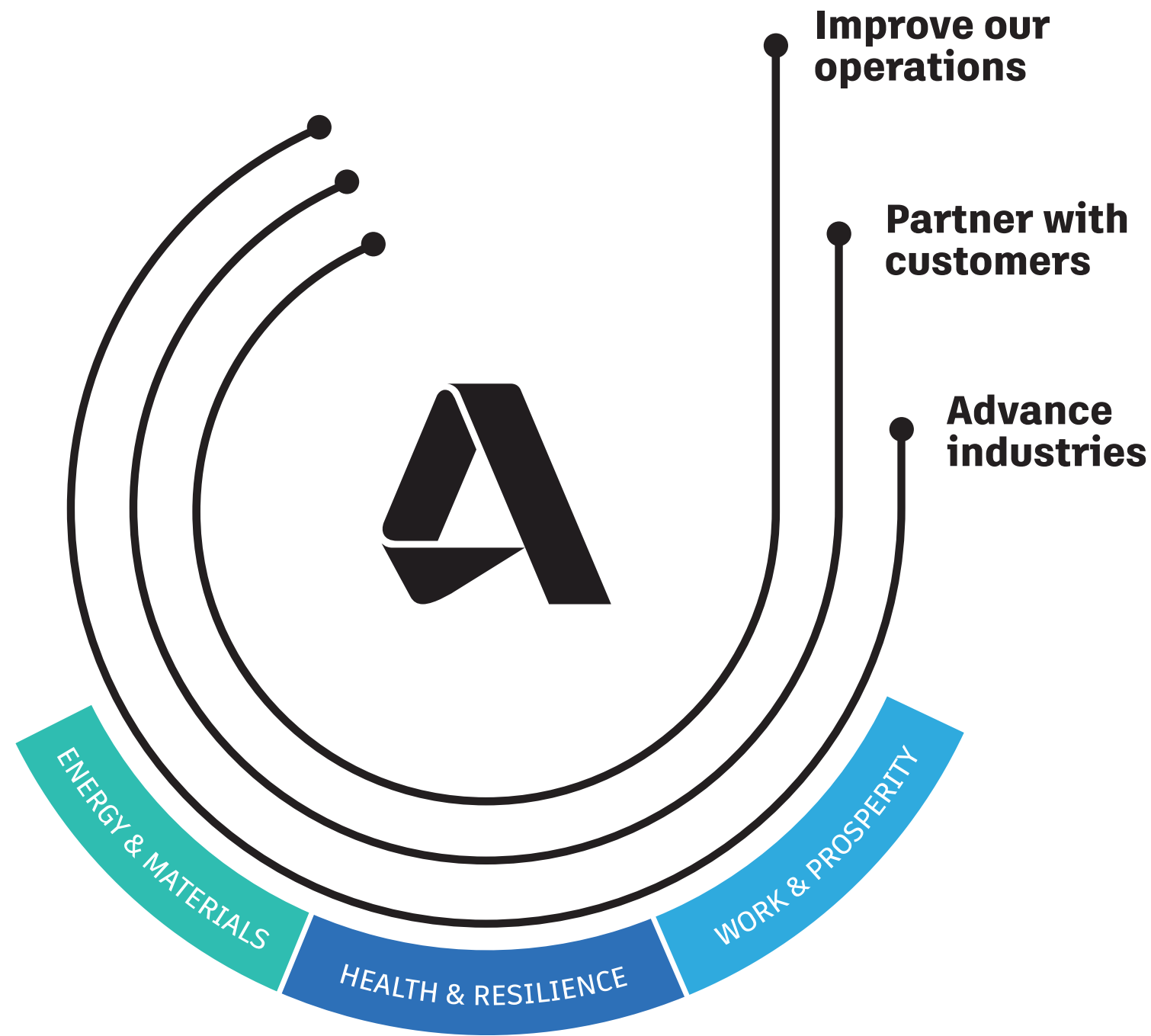
<sup>1</sup> [investors.autodesk.com/static-files/503a84bf-00e2-4ed4-87f0-771596bc15e4](https://investors.autodesk.com/static-files/503a84bf-00e2-4ed4-87f0-771596bc15e4)

# Our impact strategy

Progress demands that we work within our business, in partnership with our customers, and beyond our industries—together advancing a more sustainable, resilient, and equitable world.

We focus our efforts to advance positive outcomes across three primary areas. These impact opportunity areas are derived from the UN Sustainable Development Goals and have been focused through a multi-pronged process to align the top needs of our stakeholders, the important issues of our business, and the areas we are best placed to accelerate positive impact at scale.

**+** Learn about assessments that inform our impact strategy.



## Energy & Materials

Enable better energy and material choices, reducing carbon emissions and waste. Encompasses key aspects related to energy, materials, waste, and supply chain.



## Health & Resilience

Accelerate the design and make of places and products that are safer, healthier, and more resilient. Encompasses key aspects related to safety, health, well-being, resilience, and adaptation.



## Work & Prosperity

Advance equity and access, and facilitate the acquisition of in-demand skills of the future. Encompasses key aspects related to diversity, inclusion, mindset, skills, and learning.

Advance sustainable business practices, set the standard in our culture, governance, and operations, and align and activate diverse employees to make a positive impact at work.

Empower innovators to harness data, automation, and insights to optimize the impact of design and make decisions to advance a more sustainable, resilient, and equitable world.

Accelerate industry transformation through cross-sector collaboration, policy advocacy, and by catalyzing innovation between and beyond our industries.


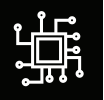



**+** Learn more about how we drive progress toward the UN Sustainable Development Goals.



# Philanthropy

This was a defining year for philanthropy at Autodesk. Autodesk and the Autodesk Foundation facilitated grants and impact investments, the donation of Autodesk software solutions, and Autodesk employee volunteer hours—while further weaving impact into our corporate investment strategy. We also called on corporate and Foundation resources to address two crises: a global pandemic and racial injustice.

	<b>\$16.8 million</b> in funding made by Autodesk and the Autodesk Foundation during fiscal year 2021 <sup>2</sup>
	<b>\$28.9 million</b> in Autodesk software donated to more than 2,000 nonprofits and startups worldwide
	<b>\$1.60 million</b> in traditional volunteering and Pro Bono Consulting hours

 See detailed performance metrics in the Data summary.  See the Employee impact at work section for more information.

<sup>2</sup> The Autodesk Foundation funds its portfolio through a donor advised fund (DAF).

## The Autodesk Foundation

The Autodesk Foundation supports the design and creation of innovative solutions to the world’s most pressing challenges. We use grants and impact investments, donated Autodesk technology, and Autodesk employee volunteer hours to support nonprofits and startups to scale innovations—advancing a more sustainable, resilient, and equitable world. In addition, we mobilize Autodesk employees and resources in response

to natural and human-made crises and support rebuilding efforts to address systemic challenges and mitigate future damage. Since 2014, the Autodesk Foundation has facilitated over \$37 million in grants, impact investments, and donations, over \$160 million in Autodesk-donated software solutions, and nearly 170,000 Autodesk employee volunteer hours, collectively reaching more than 6,000 nonprofits and startups.



## Portfolio impact

Rigorous impact measurement practices optimize long-term impact in both traditional philanthropy and investing. The Autodesk Foundation’s impact measurement and management efforts guide the Foundation’s funding decisions and shape Autodesk’s corporate impact investments for societal benefit.

Through this work, we are gaining important insights into the complexity of opportunities presented by impact measurement. As we advance and scale Autodesk’s impact strategy, we plan to apply these learnings to better enable customers to measure and manage impact—and drive collective progress.

**In fiscal year 2021, the Autodesk Foundation’s grantee portfolio received an aggregate of approximately \$8 million in funding and achieved the following:**

	<b>770,000</b> metric tons of CO <sub>2</sub> e emissions mitigated, with the potential to reduce more in the future		<b>25 million+</b> individuals reached with resilient solutions in housing and infrastructure, energy access, agricultural productivity, and workforce development		<b>4,000+</b> people supported in landing jobs with an average wage gain of \$19,000
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These impact metrics rely on data aggregated and sourced from financial reports, annual reports, organizational key performance indicators, and self-reported data from the Autodesk Foundation portfolio. Some metrics, such as CO<sub>2</sub>e emissions, were audited by a third party.

# Energy & Materials

Demands for more and cleaner resources grow as the global population and standards of living continue to increase. We envision a low-carbon future with minimal pollution and waste, where renewable energy powers our world and materials maintain value while cycling through a circular economy. Autodesk remains steadfast in our commitment to advance sustainable business practices as a net-zero carbon company. We have an even more crucial role to play in equipping our customers and other innovators to better understand the impact of design and make decisions on energy and materials use in the context of other objectives, enabling them to make choices that benefit their companies and the world.

## Improve our operations

- Driving net-zero carbon emissions
- Our carbon footprint

## Partner with customers

- Architecture, Engineering & Construction
- Design & Manufacturing
- Media & Entertainment

## Advance industries

- Catalyze innovation
- Accelerate collaboration
- Shape policies

Improve our operations

# Driving net-zero carbon emissions


We are proud to announce that Autodesk is now a net-zero greenhouse gas (GHG) emissions company across our business and value chain, following through on our commitment set last year. This achievement comes on the heels of attaining our decade-long science-based GHG emissions reduction target the prior year.

This year, building on these successes, we're committing to two new science-based GHG emissions reduction targets: to reduce Scope 1 and Scope 2 GHG emissions by 50% by fiscal year 2031, compared to fiscal year 2020, and to reduce Scope 3 GHG emissions per dollar of gross profit by at least 25%, during the same timeframe. These new targets have been modeled to align with the latest climate science 1.5°C pathway. When we launched our first target in fiscal year 2010 and released our methodology, C-FACT, under an open source license, it helped launch the science-based target movement. We are proud to continue supporting science-based target setting with Science Based Targets initiative to make this a common practice across industries.


The following commitments and targets demonstrate our broad and bold approach in this area. Our [Environmental Policy](#) underpins the company's efforts in our own operations and with our products and services.

## Commitments

Continue to report climate change information in mainstream financial reports


 See Autodesk FY2021 Annual Report.

Continue to conduct responsible corporate engagement in climate change policy

 Learn more

Continue to use an internal price on carbon

Continue to integrate sustainable design capabilities into our products and services

 Learn more

Engage our top suppliers to set greenhouse gas emissions reduction targets

## Targets

**Net-zero carbon** emissions for Scopes 1, 2, and 3 annually, beginning fiscal year 2021

**ACHIEVED IN FY2021 (AND ONGOING)**

**100%** renewable energy powering our facilities, cloud services, and employee work from home by fiscal year 2021

**ACHIEVED IN FY2021 (AND ONGOING)**

**50%** reduction in Scope 1 and Scope 2 GHG emissions by fiscal year 2031, compared to fiscal year 2020

**IN PROGRESS**

**25%** minimum reduction in Scope 3 GHG emissions per dollar of gross profit by fiscal year 2031, compared to fiscal year 2020

**IN PROGRESS**

## To drive progress on these commitments, we created the Autodesk Carbon Fund in fiscal year 2021.

This fund enables us to invest in the efficiency targets set by our new reduction commitment and continue to “zero out” all remaining emissions each year with investments in renewable energy and certified carbon offset and removal projects. The fund is created by applying our internal price on carbon, which we increased to \$10 per metric ton in fiscal year 2021, across our Scopes 1, 2, and 3 footprint.

We invest Autodesk’s Carbon Fund in projects that align with our impact opportunity areas and balance our commitment to achieving net-zero carbon in our operations with advancing decarbonization solutions across industries. We assess investment opportunities based on carbon reductions, scalability, co-benefits, business relevance, and climate equity. Our four Autodesk Carbon Fund investment areas are ranked by priority, but each one is critical to achieving net-zero carbon.

## Autodesk Carbon Fund investment priorities



### Efficiency

Investing in efficiency projects across our business and value chain improves our performance while reducing costs and managing the overall growth of our GHG footprint. Prioritizing efficiency decreases the need to invest in renewable energy and offsets.

[+ Learn more](#)



### Renewable energy projects

We are committed to using 100% renewable energy in our operations. Since fiscal year 2016, we have continued to meet our RE100 commitment and purchased 92,500 MWh of renewable energy. In fiscal year 2021, in addition to our offices and cloud, we began purchasing renewable energy for all employees working from home, which was especially important during the COVID-19 pandemic.



### Net-zero carbon leadership

This includes resources and support that equip Autodesk and others with best practices to attain net-zero carbon.



### Carbon offsets and removal projects

We invest in carbon offset and removal projects to address any GHG emissions that remain after making the investments above. During fiscal year 2021, we invested over \$1 million in six projects that offset 126,000 metric tons of CO<sub>2</sub>e emissions.

[+ Learn more](#)

Improve our operations

# Our carbon footprint

**Procurement:** We strive to embed sustainability into our purchasing practices, from our events and IT equipment to vendors and office supplies such as paper. Starting in fiscal year 2021, we partnered with CDP to engage our suppliers and enhance collaboration and disclosure on improving environmental measurement and performance. This supports our company-wide commitment to net-zero carbon.

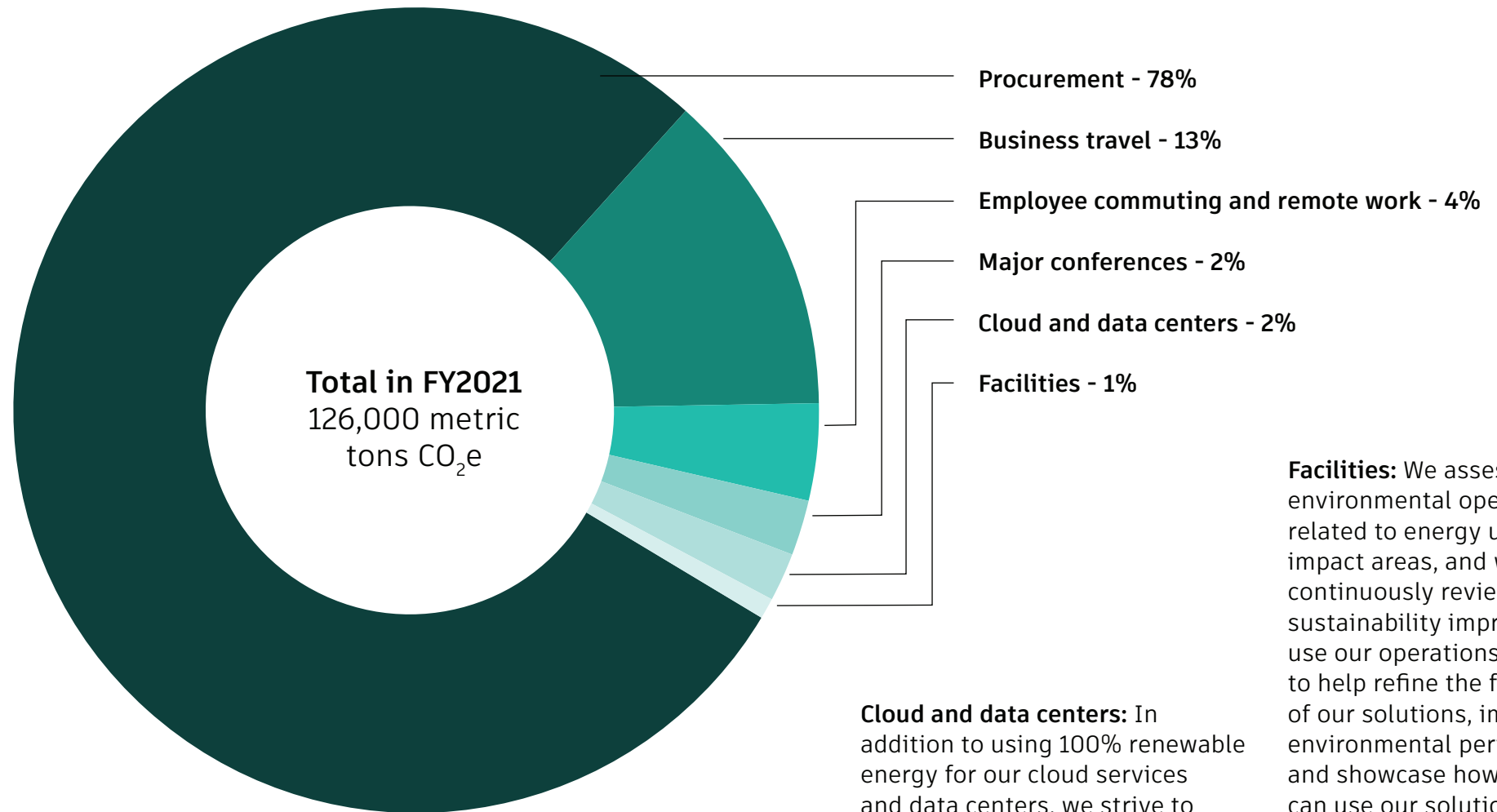
**Business travel:** We seek to reduce the GHG emissions of business travel through virtual meetings, partner education, a green rating system for hotels, and by incorporating sustainability expectations into our standard meeting contracts. To support more informed decisions, in fiscal year 2021 we started to provide employees with information about GHG emissions when they purchase flights through our online booking system. We are also working to decarbonize our fleet through the use of hybrid leased vehicles. Emissions in business travel dropped 80% year over year, largely due to COVID-19 travel restrictions.<sup>3</sup> We're exploring opportunities to maintain this through expanded use of virtual collaboration moving forward.

**Employee commuting and remote work:** To account for the impact of remote workers, in fiscal year 2021 we included GHG emissions associated with home office energy consumption in our footprint (as a part of the employee commuting category based on the GHG Protocol) and purchased corresponding amounts of additional renewable energy and carbon offsets.<sup>3</sup> We plan to continue this practice moving forward.

**Major conferences:** Autodesk University and One Team Conference (our annual channel partner and sales summit) are both carbon neutral, including the events, attendee travel, and GHG emissions related to virtual participation.<sup>4</sup> We achieve this by enhancing efficiency, providing virtual attendance options, reducing waste, and purchasing carbon offsets.<sup>3</sup>

**Cloud and data centers:** In addition to using 100% renewable energy for our cloud services and data centers, we strive to minimize data center energy use through server virtualization and selection of efficient equipment that meets respected industry standards, and by streamlining our code. To further decrease environmental impact, we plan to shift more of our data centers from Autodesk facilities to cloud infrastructure providers, which increases efficiency due to higher infrastructure capacity utilization. These efforts help us provide customers with a faster, more reliable experience, with reduced environmental impacts.<sup>3</sup> Our cloud services have been carbon neutral since fiscal year 2016.

**Facilities:** We assess our facilities' environmental operating practices related to energy use and other impact areas, and we work to continuously review and make sustainability improvements. We use our operations as test cases to help refine the functionality of our solutions, improve our environmental performance, and showcase how customers can use our solutions to meet their sustainability objectives. Due to the pandemic and facility shutdowns, emissions in this category decreased by 25% in fiscal year 2021 compared to the prior year. Our offices have been powered by 100% renewable energy since fiscal year 2016.



See detailed performance metrics in the Data summary.


<sup>3</sup> Greenhouse gas emissions from business travel are included in Scope 3: "Business travel" and Scope 1 (related to fleet business travel). Emissions from facilities are included in Scope 1, Scope 2, and Scope 3: "Waste generated in operations" and "Leased assets." Emissions from data centers are included in Scope 2 (related to purchased electricity) and Scope 3: "Purchased goods and services." Emissions from major conferences are included in Scope 3: "Purchased goods and services."

<sup>4</sup> Autodesk University has been carbon neutral since fiscal year 2016; One Team Conference since fiscal year 2017.

# Creating positive impact through low-carbon projects

Through the Autodesk Carbon Fund, we support a range of projects globally to enable Autodesk to attain net-zero GHG emissions. In addition to reducing GHG emissions, these projects deliver positive outcomes in alignment with our broader impact opportunity areas.

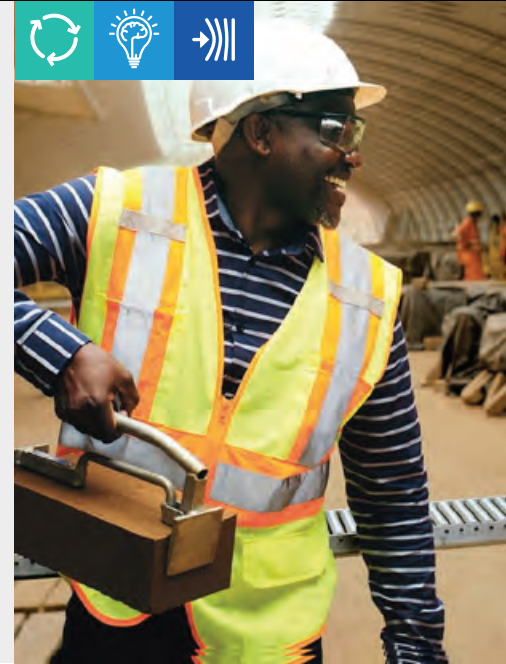
During fiscal year 2021, we offset 126,000 metric tons of CO<sub>2</sub>e through the below projects, ensuring net-zero GHG emissions across our business and value chain, while delivering positive co-benefits.

 Please see our most recent [CDP Climate Change disclosure](#) for more detail about governance, strategy, risk management, and performance in this area.

## 14Trees

### Sustainable building in Malawi

The DURABRIC™ Programme by 14Trees promotes the manufacture, distribution, and use of stabilized soil bricks that do not require firing and reduce the use of wood for fuel. This alleviates deforestation, protects biodiversity, and reduces GHG emissions. The bricks are made using just earth, sand, cement, and water. By providing on-site training, the project helps ensure local manufacturers and builders learn new skills to adopt the new technology.



## BURN

### Efficient cookstoves in Kenya

An Autodesk Foundation customer, Burn Jikokoa™ stoves dramatically reduce toxic smoke exposure in the home, saving lives, cutting CO<sub>2</sub> emissions, and reducing household expenses. The stoves are manufactured in a state-of-the-art solar-powered factory in Nairobi that directly employs more than 100 people and offers equal opportunities to women in a traditionally male industry.



## Aqua Clara

### Water purification in Kenya

Aqua Clara brings affordable water filters to communities in Kenya, eliminating the need to boil water before drinking. The filters provide safe water, improving health and saving lives, as well as cutting carbon emissions and protecting local forests.



## TIST

### Reforestation in Uganda

The International Small Group and Tree Planting Program creates long-term income and sustainable growth for local communities, providing education and skills training to subsistence farmers to plant trees on their land. The farmers retain ownership of the trees and their products and receive a share of carbon-related revenues from the developer. The project distributes GPS-enabled handheld devices to each small group, enabling the creation of a real-time database of trees planted and their monitoring.

## Boreholes

### in Uganda

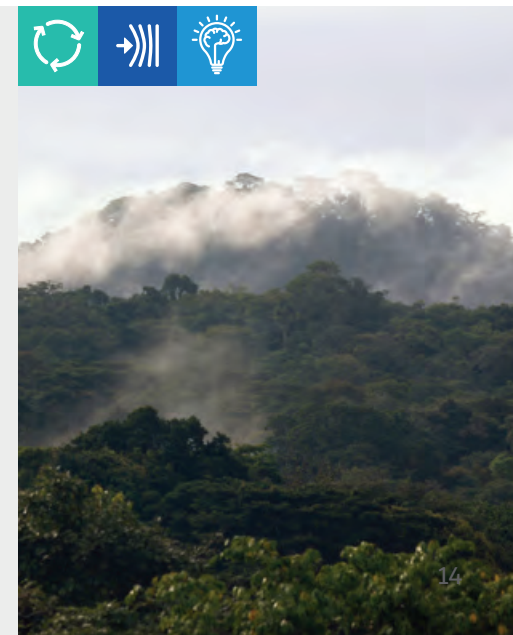
This program identifies and rehabilitates water boreholes in sub-Saharan Africa that have fallen into disrepair through lack of parts or expertise, and provides ongoing maintenance to ensure a consistent and high-quality water supply. This removes the need to boil water to make it safe, reducing wood and charcoal use and improving health, livelihoods, and the environment.



## Gola

### Rainforest protection

This project conserves the forested areas of the Gola Rainforest National Park, a global biodiversity hotspot in Sierra Leone. The conservation of 68,500 hectares of tropical forest protects threatened and endangered species and works to improve livelihoods of impoverished communities living in and around the forest.



Partner with customers

# Architecture, Engineering & Construction

Our customers are increasingly working to make net-zero energy buildings, reduce embodied carbon, reduce construction waste, and develop smart and sustainable cities.

The buildings sector represents 19% of GHG emissions globally<sup>5</sup> and 38% of energy- and process-related emissions: 28% from operational energy consumption and 10% from the production of building materials such as cement, metal, and glass.<sup>6</sup>

Reducing operational energy consumption in new and existing buildings remains a high priority for Autodesk and many of our customers. Tackling the embodied carbon of building materials also offers great potential for near-term improvement, since those materials will account for about half of the climate impacts of projected new building construction between 2020 and 2050.<sup>7</sup> Reducing the impacts of construction is essential, since that industry consumes more than half of all extracted raw materials<sup>8</sup> and generates upwards of 36% of the waste stream in the developed West.<sup>9</sup> Up to 30% of construction activity on-site is related to rework,<sup>10</sup> and as much as 30% of construction material is wasted on-site,<sup>11</sup> costing time, money, and natural resources.

Global demographic trends compound the urgency of reducing these impacts. As the global population

continues to urbanize over the next 30 years, the construction industry will need to build an average of 13,000 buildings every day<sup>12</sup> and 700,000 miles of road per year.<sup>13</sup> Industry demand will continue to rise for solutions that enable architects, engineers, and contractors to support this rapid growth more sustainably by improving energy and materials productivity while managing embodied carbon thoughtfully.

Our customers are increasingly working to make net-zero energy buildings, reduce embodied carbon, reduce construction waste, and develop smart and sustainable cities. Research conducted by Autodesk in 2020<sup>14</sup> determined that about half of the companies surveyed have dedicated budgets for carbon management and/or green building certification solutions, and about 90% of survey respondents stated they are likely to invest in carbon management in the future. Providing automation tools to support these objectives affordably and at scale is central to our sustainability efforts. The Autodesk® Architecture, Engineering & Construction (AEC) Collection and Autodesk® Construction Cloud help enable customers to achieve these outcomes.

## Total carbon

We support customers with tools that tackle the total carbon impacts of the building lifecycle. The Embodied Carbon in Construction Calculator (EC3), incubated at the Carbon Leadership Forum with input from nearly 50 industry partners, helps customers choose carbon-smart materials that have lower embodied carbon. It uses information from publicly available datasheets, enabling building professionals to quickly compare different materials. These comparisons can now be done in minutes by general practitioners, rather than taking days and whole teams as in years past. Project materials data can be transferred directly from Autodesk® BIM 360® with the free, easy-to-use EC3 app. The materials data available through EC3 has more than doubled since the tool was launched in 2019.

To address carbon associated with building operations, Autodesk® Insight® (formerly Insight 360) technology empowers architects and engineers to design more energy-efficient buildings with advanced simulation engines and building performance analysis data integrated in Revit. By combining

design data in a cloud-based environment, design teams can visualize trade-offs with high accuracy. This scalable tool works from early conceptual design through to build, and is a central place of record for building energy.

5 [ipcc.ch/site/assets/uploads/2018/02/ipcc\\_wg3\\_ar5\\_chapter9.pdf](https://ipcc.ch/site/assets/uploads/2018/02/ipcc_wg3_ar5_chapter9.pdf), Chapter 9: Buildings.  
 6 [globalabc.org/sites/default/files/inline-files/2020%20Buildings%20GSR\\_FULL%20REPORT.pdf](https://globalabc.org/sites/default/files/inline-files/2020%20Buildings%20GSR_FULL%20REPORT.pdf)  
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 10 [researchgate.net/publication/291000555\\_Cost\\_Management\\_in\\_Construction\\_Projects\\_Rework\\_and\\_Its\\_Effects](https://researchgate.net/publication/291000555_Cost_Management_in_Construction_Projects_Rework_and_Its_Effects)  
 11 [sciencedirect.com/book/9780123814753/waste](https://sciencedirect.com/book/9780123814753/waste), Chapter 15: Construction Waste.  
 12 According to [internal research](#) with market research firm Statista.  
 13 [Internal research](#) with Statista.  
 14 The six industry sectors targeted in the online carbon management survey in May 2020 included architecture, MEP, structural engineering, civil engineering, construction, and facilities. The survey targeted 450 respondents in the United States, from medium-sized companies (250 to 4,999 employees), the majority of whom were carbon management decision makers.



Image courtesy of Skanska USA

## Skanska USA

# Constructing the most sustainable building in the Southeast

The Kendeda Building for Innovative Sustainable Design is a 36,978-square-foot facility at Georgia Institute of Technology that has been called the most sustainable building in the Southeast US and used the Living Building Challenge criteria to guide every decision. The regenerative building gives back more than it takes from the environment, and boasts a green roof, a solar panel canopy, cisterns for rainwater collection and reuse, and surrounding vegetable gardens that provide food throughout the year. There are even beehives on-site.

During construction, the team at Skanska USA worked to divert and reuse waste materials instead of sending them to landfill. For example, 25,000 linear feet of two-by-fours were reclaimed from another construction project onsite, reducing waste and saving money.

Using Autodesk technology, the design team tracked costs and changes in real time. For instance, when two classrooms were relocated and the auditorium ceiling lowered, the design team used Autodesk® Revit® and Assemble tools paired with virtual reality to rapidly price, model, and get sign-off on the new design. And during construction, BIM 360 facilitated communication and collaboration between contractors, designers, and the owner.

[Learn more](#)

To minimize a project’s total carbon, it is essential to look at operational and embodied carbon together to understand and manage the trade-offs between the two. We began investing in 2020 to expand Insight into a tool that does that, to inform design. HVAC systems are often the single largest contributor to building energy use—and therefore operational carbon—so solutions for mechanical, electrical, and plumbing engineers are essential. Right-sizing HVAC systems saves upfront costs, lowers energy consumption, and reduces carbon emissions. Autodesk Revit provides integrated modeling and systems analysis, helping engineers to make data-driven decisions from the start. Built using OpenStudio and EnergyPlus, the technology is fully open and extensible. And now, as part of the Revit 2022 update, systems analysis contains a new output report that automatically provides engineers with HVAC system sizing and selection data in a format they are familiar with, and can be customized for specific requirements.

We are expanding on these capabilities for building energy analysis and in 2020 began exploring an application of machine learning that harnesses the power of generative design and artificial intelligence to make building energy analysis faster and easier than before. This research prototype uses large datasets of building models to predict energy performance, and enables users to quickly identify options that are optimized for energy performance. We began pilot testing this feature with customers in early 2021. Our initial experimentation has shown that always-on, real-time energy analysis is within reach.

## Operations

The Autodesk Tandem platform, in public beta beginning in early 2021, extends the value of BIM to operations so projects can start digital and stay digital. The BIM data created throughout a project’s lifecycle is used to create a digital twin of the asset. At the project’s completion, the digital handover of rich data to owners will give them the ability to create

a robust digital twin and add business intelligence around operations. Among other benefits, this can support improved maintenance and enable assets to operate at their highest performance, including energy efficiency. Autodesk Tandem and digital twins are part of the broader digital transformation, where every system becomes more and more connected as data is generated. Last year, Autodesk became a Founding Member of the Digital Twin Consortium, an organization collaborating on digital twin best practices and standards.

## Integrated environmental analysis

In 2020, Autodesk announced the completion of its acquisition of Spacemaker. This tool helps architects, planners, and developers improve project outcomes by enabling real-time analysis at the first stages of concept design. This includes wind, sun, density, noise, and view analysis and more. Data-driven decision making at the start of a project can empower better sustainability fundamentals.

## Adaptive reuse

In some cases, the lowest impact building is one that has already been built. Making the most of existing structures through adaptive reuse avoids demolition waste and reduces procurement of new material, greatly lowering a project’s embodied carbon compared to building new structures. Complementing these savings, the building envelope and mechanical systems can be upgraded to benefit from the latest technologies. This approach will be essential to decreasing overall GHG emissions associated with buildings to levels required to meet climate change targets, as experts predict that 90% of real estate development in the next decade will focus on the renovation and reuse of existing structures.

[Learn more](#)



### Lean construction

Lean construction, enabled by Autodesk Construction Cloud, supports higher-quality, more-efficient construction projects by allowing general contractors, subcontractors, and owners to optimize workflows to increase overall productivity and reduce risk throughout the project lifecycle. When tradespeople are empowered to make decisions that affect the project schedule, bottlenecks are avoided, waste is reduced, and projects proceed more smoothly. Expanding these capabilities, we acquired Pype in 2020, which uses artificial intelligence and machine learning to extract and process data from project plans and specifications, improving project quality, efficiency, and risk management.

### Infrastructure

More efficient road network systems have the potential to reduce energy consumption, local pollutant emissions, delays, and traffic congestion, while improving safety.

Autodesk also helps customers understand and reduce environmental impacts associated with roadways and transportation infrastructure. Using the integrated multi-modal Mobility Simulation engine for Autodesk® InfraWorks®, designers can create animated simulations of transit, parking, personal, and/or taxi-mode modeling. Metrics such as person-hours traveled, person-kilometers traveled, multi-modal level of service calculations, and economic and environmental assessments help planners understand the relative impacts of different scenarios. This supports the development of more efficient road network systems, which has the potential to reduce energy consumption, local pollutant emissions, delays, and traffic congestion, and improve safety.

**+** See a summary of Autodesk Architecture, Engineering & Construction solutions that enable sustainable design.

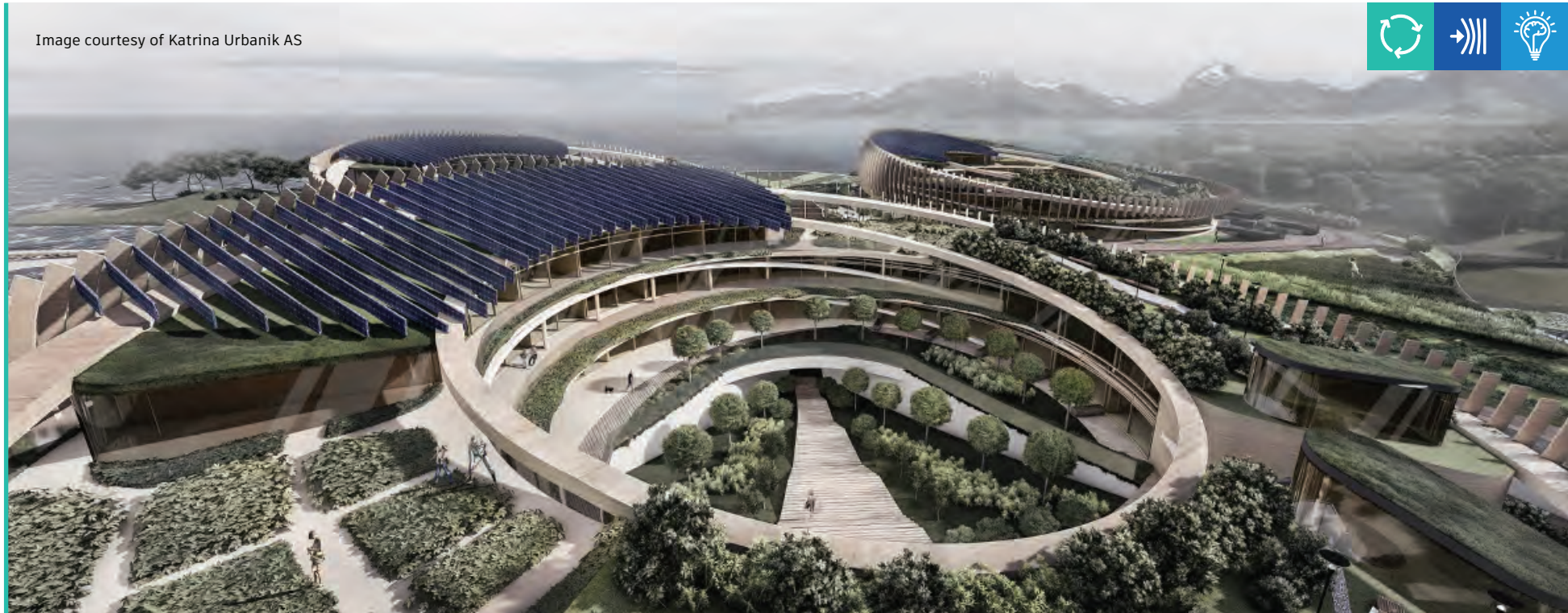


Image courtesy of Katrina Urbanik AS



Salvage: Katrina Urbanik

## Imagining a WILD new world

Katrina Urbanik AS has a bold vision for WILD—a floating human-made island conceived as both a residential development and a travel destination. Located in Norway, WILD is designed to produce its own power, fresh water, food, and heat. The development includes housing, greenhouses, solar panels, a car park, and a tidal energy plant.

Special attention was paid to the island façade, made of self-curing bio-active concrete that absorbs CO<sub>2</sub>. Local species of mussels will grow on the façade. Using Dynamo and Revit, the design team compared façade options in relation to daylight penetration and solar insulation and quickly created and tested multiple project scenarios.

WILD is designed to produce its own power, fresh water, food, and heat.

The designers use BIM 360 cloud-based services to connect project teams for full project visibility, real-time status, multi-discipline coordination, and design collaboration. As the review phase of the WILD project nears completion during the pandemic, the collaboration afforded by BIM 360 technology has been even more important. With the Autodesk AEC Collection, the team has saved 30% of design time, successfully meeting deadlines and enabling more sustainable outcomes.

Learn more




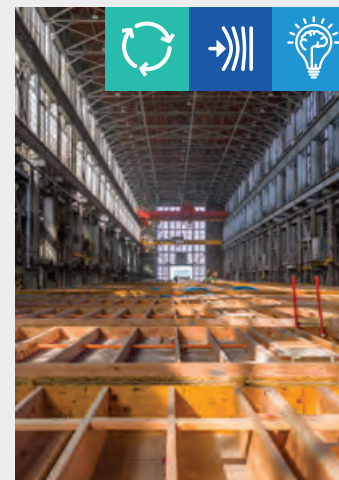
Norconsult and AF Gruppen

## Coastal highway project uses BIM to reduce carbon emissions


A new Norwegian road authority with an eye on emerging technologies and sophisticated BIM techniques tapped Norconsult and AF Gruppen for the design and construction of Route E39, a 15-mile stretch of the 680-mile Coastal Highway project. The project aims to eliminate the need for ferries and cut travel time in half with fixed connections and improved roads between fjords along the route, which links business regions to housing, labor, and service markets. This \$490 million project includes five tunnels, several large interchanges, and bridges, including Trysfjord Bridge, the world's largest balanced concrete cantilever bridge of its kind.

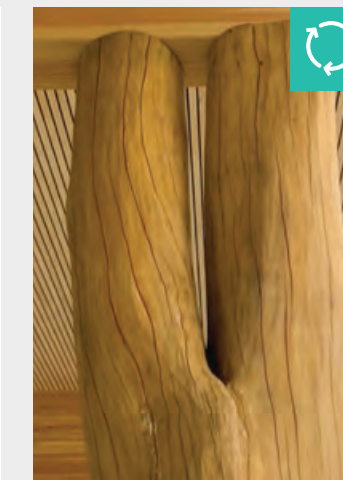
Using generative design tools, Revit and Dynamo scripts, and the cloud-based Autodesk Forge® viewer, Norconsult was able to federate and visualize data across multiple platforms, reducing materials and waste and improving constructability. The road authority attached an ambitious goal to the project: to reduce carbon emissions associated with construction by 20%. Detailed parametric design reduced the amount of concrete needed, enabling a 15% reduction of CO<sub>2</sub> emissions for the Trysfjord bridge alone.

 [Learn more](#)



Reducing waste and GHG emissions through industrialized construction with Factory\_OS

 [Learn more](#)



Inspired design and construction give felled trees a whole new life


 [Learn more](#)

Image courtesy of Norconsult and Baezeni

Partner with customers

# Design & Manufacturing

Approximately 19% of global greenhouse gas emissions are from the manufacturing industry,<sup>15</sup> and by 2050 the growth in population and associated demand for consumer goods will require at least twice the energy<sup>16</sup> and materials<sup>17</sup> currently used. These impacts and trends, combined with customer demand for more environmentally friendly products as well as new environmental regulations, are driving manufacturers to commit to sustainable and circular outcomes in their work. Manufacturing companies that address these opportunities could see potential revenue of \$338 billion from new sustainable products and services in the short to medium term.<sup>18</sup>

To address sustainability challenges and meet their commitments, many Autodesk customers are implementing smarter and more efficient design and manufacturing approaches, increasing materials productivity, developing more circular business models, reducing energy use, and enhancing supply chain responsibility.

In 2020, we conducted a survey of designers, engineers, and procurement, operations, and production professionals in a range of design and manufacturing industries<sup>19</sup> in the United States to better understand the impact of sustainability issues in those areas.

**30%**

of respondents stated regulation and compliance as the most important motivation to reduce environmental impact; cost savings (24%) and competitive advantage/differentiation (21%) also rated high.

**64%**

of respondents stated that reducing material waste in production was the top environmental priority in decision making, followed by materials used in product design (63%) and operational energy use during production (62%).

**95%**

of respondents stated that reducing environmental impact is a part of their role, with 64% stating it is a core part.

**46%**

use technology tools from a third-party supplier for material selection, and 40% to minimize energy consumption.

Complementing this assessment, in 2020 we surveyed attendees at a virtual Industrial Designers Society of America conference on sustainable design. Material choice, design for disassembly, manufacturing optimization, and waste reuse were among the areas where participants expressed the greatest priority and need for assistance. We'll use these insights as we develop the next generation of tools and features to support sustainable design across our products.

<sup>15</sup> [iea.org](http://iea.org).  
<sup>16</sup> Ari Kahan, "EIA Projects Nearly 50% Increase in World Energy Usage by 2050, Led by Growth in Asia," 24 Sep. 2019, [eia.gov](http://eia.gov).  
<sup>17</sup> Julian M. Allwood, Michael F. Ashby a, Timothy G. Gutowski b, Ernst Worrell, "Material Efficiency: A White Paper," Jan. 2011, [sciencedirect.com](http://sciencedirect.com).  
<sup>18</sup> Global Climate Change Analysis 2018," CDP, 2019, [cdp.net](http://cdp.net).  
<sup>19</sup> The 10 industry sectors targeted in the online carbon management survey in October 2020 included automotive, building product manufacturing, consumer products (durable goods, appliances, and electronics), industrial machinery, manufacturing (engineering service providers and machine shops), plastics, and transportation (aeronautics, rail, and other). The survey targeted 600 respondents in the United States, from companies with 1 to 25,000+ employees, involved in specific job functions such as design, engineering, procurement, operations, and production.

Image courtesy of Decathlon




Decathlon

## Revolutionizing bicycle design and production

French sports equipment manufacturer, Decathlon, is reimagining the biking experience with a lighter, stronger, customizable, and more sustainable bicycle.

Using the generative design capabilities of Autodesk® Fusion 360® software, Decathlon has already designed and produced a prototype bicycle fork. By eschewing carbon fiber (the industry standard for performance bikes, but also difficult to recycle) and planning instead to 3D-print these bicycles from aluminum, Decathlon aims to reduce both the raw materials and transportation-intensive shipping required to build and deliver this futuristic racing bike.

Generative design, the Autodesk technology at the heart of these projects, is a form of artificial intelligence that provides hundreds of potential solutions to a given design problem. Powered by Fusion 360, the technology uses algorithms, machine learning, and computational geometry to quickly generate multiple solutions that meet the precise requirements set by the design engineer.

 [Learn more](#)



### WNDR Alpine

## Engineering skis using sustainable materials derived from microalgae

WNDR Alpine (pronounced “wonder”) is a ski equipment manufacturer based out of Salt Lake City, Utah, that uses Fusion 360 software to engineer skis from sustainable, high-performance materials derived from microalgae instead of petroleum. Fusion 360 enabled the WNDR team to significantly reduce the amount of waste generated during production by about two pounds of landfill input per manufactured ski. Additionally, microalgae is a renewable resource, maturing in five to seven days—compared to millions of years for fossil fuels.

Matt Sterbenz, the founder of WNDR, says, “We’re able to bring the ski to life on the screen and identify areas where we can streamline the [production] process, so that we’re only using as much of our urethane as we’re actually going to need in the final good. Without Fusion 360, we would not be able to realize these waste savings. Using Fusion 360 enables us to have this rate of acceleration to market,” he adds. “The speed of innovation it provides WNDR Alpine is unparalleled, because it gives us the ability to react to trends before any of the big brands can step in.”

To help advance the industry, WNDR invites other companies to explore the benefits of microalgae in everything from tennis shoes to jackets and even other brands of skis.

[Learn more](#)

## The Autodesk® Product Design & Manufacturing Collection and our cloud platform support sustainable design in a broad range of areas.

### Generative design

Generative design capabilities in Fusion 360 can inform part consolidation and material use reductions. New features added in 2020 improve users’ ability to estimate costs by defining specific materials for manufacturing processes within a given scenario. The recommendation settings panel, also new during the year, enables users to customize and determine the relative importance of criteria for exploring the outcomes of a study.

[Learn more](#)

### 3D printing

Fused Filament Fabrication simulation in Fusion 360, new in 2020, saves materials by helping users to predict and avoid common print failures. The Additive Build Extension unlocks extra additive manufacturing technology to help users produce lighter, stronger, better-performing parts while reducing material use, waste, and cost.

[Learn more](#)

### Manufacturing

Enhanced 3D Adaptive and Pocket toolpaths in Fusion 360 Manufacture workspace reduce machining time and energy use. The Arrange tool, a simplified version of Nesting added to Fusion 360 in 2020, helps optimize material yield by laying out cutting patterns to minimize waste. Utilizing automation to integrate design and manufacturing processes also helps designers and engineers achieve productivity boosts and deliver more sustainable products.

### Factories

The Autodesk® Factory Design Utilities for Inventor® add-on supports efficient planning and validation of factory layouts and equipment placement to maximize production performance. This helps save time, money, energy, and materials that are often wasted due to poor design and inefficient production cycles, which create bottlenecks, machine idling, and slow product runs. Manufacturers can reduce energy use by up to 25% and increase productivity through smart and connected manufacturing techniques.<sup>20</sup>

### Simulation

Explicit Dynamics Analysis, introduced in 2020, supports design for durability by simulating failure over time. Tolerance analysis helps users better understand the impact of mechanical fit and performance and explore multiple scenarios to enhance quality in part production, reducing waste.

See a summary of Autodesk Design & Manufacturing solutions that enable sustainable design.

<sup>20</sup> McKinsey Global Institute, The Internet of Things: Mapping the Value Beyond the Hype.



Image courtesy of PlasticRoad

PlasticRoad

## A prefabricated road made of recycled plastic

“Our goal is to develop the most sustainable infrastructure in the world,” says Anne Koudstaal, Director of Product at the Netherlands startup, PlasticRoad. Their signature product—a prefabricated road made of recycled plastic—is a solid step toward sustainability.

One important objective for PlasticRoad was to manage water runoff to help control flooding. The road they designed houses an ingenious water management system—prefab hollow road sections collect rainwater, which then dissipates slowly into the ground without causing dangerous runoff.

PlasticRoad has numerous additional advantages compared to conventional asphalt roads. A

PlasticRoad lasts three times longer, can be constructed in less than a third of the time, and results in up to 72% less CO<sub>2</sub> emissions. In addition, PlasticRoad does not require complex excavation work, heavy foundations, or concrete slabs or asphalt.

Finite element analysis (FEA) software from Autodesk played an important role in the development of this product. PlasticRoad engineers used FEA to simulate physical forces such as pressure on the road and material fatigue to inform engineering decisions.

After building two pilot cycling paths, the company is ready for larger projects and is in talks with cities and municipalities to build not only cycle lanes, but also roads, parking lots, and schoolyards.


 [Learn more](#)




Image courtesy of Greendzine

Greendzine

## Low-speed EVs, faster to market

Greendzine, a startup based in Bangalore, India, is using design modularity to fight poor urban air quality. The company creates low-speed electric vehicles (EVs) for personal and industrial use—more quickly than anyone else in the industry. Using Autodesk® Fusion 360 and Inventor® software to create 3D models, designers produce new prototypes using 3D printing—part of an accelerated product development strategy they call “concept to product in 90 days.” So far, the product line consists of a two-wheeled personal commuter EV; a sporty, three-wheel EV; and an order-picking vehicle tailored for commercial warehousing operations. The company is part of Autodesk’s Technology Impact Program, which donates software to organizations that promote environmental or social good. Ultimately, Greendzine’s aim is to develop EVs that are not only affordable but also sustainable, making electric mobility the preferred choice in India.

**90 days**  
from concept to product

 [Learn more](#)

Partner with customers

# Media & Entertainment


The media and entertainment industry is challenged to meet the demands of a tremendous increase in content consumption globally, and many companies are accelerating their digitization plans. While this creates opportunities for individuals and studios worldwide, our customers are also increasingly working to manage and reduce their environmental footprints. Autodesk helps by enabling cloud-based rendering, supporting virtualized workflows, and advancing relevant third-party standards and principles.

Media and entertainment companies often have thousands or tens of thousands of servers for simulation, rendering, and other tasks. Shifting to cloud-based solutions can reduce GHG emissions, since those services are typically more efficient than company-owned and managed servers. Through partnerships with cloud service providers, Autodesk customers can use tools like Arnold global illumination renderer on-premises or in the cloud. With our virtualization policy and cloud rights that come with the software, customers can also bring solutions such as Autodesk® 3ds Max®, Maya®, and Arnold software, and Arnold to the cloud and purchase compute time (including through our carbon neutral cloud services).

Replacing energy-intensive workstations with lighter footprint local devices, and moving to fully virtualized cloud-based workflows, can also reduce energy consumption. One example is Untold Studios, an independent creative studio based in London that makes content across music, TV, and advertising. Artists use simple monitors to connect to virtual machines, enabling seamless remote collaboration and making it easier for the company to scale and accommodate project workload. The studio currently uses Autodesk® Shotgun® production management software, Maya 3D digital content creation tools, and Flame® VFX and finishing tools for final compositing.

Large productions such as films, episodic content, and games often involve the collaboration of many studios. This can involve multiple versions of animated characters, visual effects, and other digital assets, which increases the use of IT equipment and energy. Autodesk is working with the Academy Software Foundation on open source standards to decrease the need for multiple versions of digital assets, as well as simplifying customer workflows in-studio and between studios.

To advance progress toward a more sustainable cloud, we are a signatory to [The Corporate Colocation and Cloud Buyers' Principles](#), a project of the Future of Internet Power Collaborative Initiative.



Shifting to cloud-based solutions can reduce GHG emissions, since those services are typically more efficient than company-owned and managed servers.

Advance industries

# Catalyze innovation

Through the Autodesk Foundation, we invest in entrepreneurs and innovators scaling early-stage technologies that have the potential to dramatically reduce greenhouse gas emissions. In addition to startups, we fund accelerators, incubators, and impact funds to bolster the growth of the climate startup ecosystem, increasing the number of climate technologies that reach commercialization. We prioritize sectors where our design and make expertise is particularly beneficial, such as renewable energy, electrification of transportation and refrigeration, building and industrial energy efficiency, and materials innovation and efficiency.

From electric aircraft to high-efficiency and low-emission home heating and cooling systems, the Autodesk Foundation portfolio is accelerating the transition to a low-carbon future.

7

startups and ecosystem partners scaling innovative technologies that reduce greenhouse gas emissions

21%

of Autodesk Foundation portfolio funding in fiscal year 2021



We currently invest in the United States, where emissions per capita exceed those of most other nations, but we recognize the importance of also enabling sustainable growth of technologies that combat climate change in both emerging and developing markets.

[Read the Autodesk Foundation's Low-carbon Innovation impact brief.](#)

BamCore

## Reducing carbon emissions with bamboo



Image courtesy of BamCore

BamCore, a building technology startup, that manufactures prefabricated wall systems from timber bamboo was added to Autodesk Foundation's portfolio in 2020. The company's hollow wall framing solution shrinks a building's carbon footprint and speeds up construction. Builders using BamCore's Prime Wall system can eliminate 80% of wood studs, headers, and posts, saving materials and time. Because the panels are hollow, they transfer less heat and cold between inner and outer surfaces and can hold more insulation, lowering energy costs for the final occupant.

Using the Autodesk Forge platform, BamCore builds a 3D model of the panels that is then shared with the trades so they can design in mechanical, engineering, and plumbing features before panel fabrication. This interactive design fosters collaboration and streamlines the design, bid, and build process.

Once the plans have been finalized, the BamCore panels are precut at the factory to millimeter accuracy for every door, window, outlet, and access panel. MEPI maps and nail patterns are drawn onto the panels to eliminate rework and to speed installation. The walls are numbered, palletized, and delivered to the jobsite. No heavy equipment is required. Three laborers with a pneumatic nail gun can do the installation in half the time of conventional construction.

[Learn more](#)

Factor[e] Ventures

## Powering energy, agriculture, waste, and mobility solutions



Image courtesy of Factor[e] Ventures

Factor[e] Ventures is a team of impact venture builders providing risk capital and technical resources to early-stage entrepreneurs turning challenges in energy, agriculture, mobility, and waste into decarbonized solutions for emerging markets. Autodesk Foundation has invested in Factor[e] since 2017, supporting their industrial design team to scale impact-forward innovations.

Factor[e] provides its portfolio companies with in-house industrial design support to facilitate product and system design, development, and manufacturing while reducing costs, helping them scale faster with less risk and greater impact. Each organization in Factor[e]'s portfolio requires rapid cycles of product development, which they are able to achieve with donated software and technical training and resources from Autodesk's Technology Impact Program. Factor[e]'s portfolio uses Fusion 360 and Inventor to design and improve innovations such as solar conduction dryers, motor sensors, electric motorcycles, and biogas generation technologies.

[Learn more](#)

Advance industries

# Accelerate collaboration

Overcoming global challenges like climate change requires new ways of working together and sharing information to develop and scale novel solutions.

We are proud to work with experts, trendsetters, and leaders to shape best practices, share our expertise and learn from others, and join our voices to create systems change. This year we worked with industry organizations like ENCORD and the Lean Construction Institute to shape best practices on efficiency in the construction process. We also partnered with Ceres BICEP, the Bay Area Business Council on Climate Change, and the Digital Climate Alliance to shape public policy on green building at multiple scales.

We are proud to be members of collaborative organizations including:



# Shape policies

## Enabling more sustainable construction and manufacturing

The building industry is increasingly focused on making net-zero buildings, reducing embodied carbon, minimizing construction waste, and building smarter, more resilient, and more sustainable cities. Manufacturers are developing more sustainable products—like lighter-weight car parts that lead to better fuel efficiency—and reducing waste in manufacturing through rapid prototyping, additive manufacturing, and other processes driven by digital tools. But action by private industry alone isn't enough. We cannot meaningfully address climate change without significant government action. We collaborate with policymakers and other companies to spur more sustainable construction and manufacturing.

Autodesk supports policies and international efforts to promote measurement and reduction of carbon emissions, energy efficiency, and waste reduction in our industries, as well as broader market-based efforts to tackle climate change.

We cannot meaningfully address climate change without significant government action.

These include:

Fostering use of technology to design and construct sustainable infrastructure and buildings that produce less waste, limit the use of carbon-intensive materials, and improve energy efficiency.

Developing embodied carbon reporting and reduction policies.


Supporting training and other programs that promote the use of advanced manufacturing technologies that help design more sustainable products and reduce waste in the manufacturing process.


Adopting market-based carbon reduction programs.

During fiscal year 2021, we engaged with government officials, nonprofit organizations, and other entities to advance policies focused on clean buildings and sustainable infrastructure.

## Advancing digital transformation in the manufacturing and architecture, engineering, and construction industries

Autodesk believes better use of technology can help transform the design and construction process so that it is more innovative, efficient, safer, more sustainable, and better managed throughout its lifecycle. We support public policies that foster greater adoption of digital design and construction tools for public infrastructure and building projects, including those that support the use of BIM and construction management technologies.

 [Learn more](#)

 [See our recent CDP Climate change disclosure for a detailed list of climate-related policy engagements.](#)



# Health & Resilience

The social and environmental challenges we face today are evolving and accelerating as the impacts of climate change, water quality and scarcity, and other pressing issues globally continue to increase in severity and intensity. We prioritize the health, well-being, and safety of our employees, who advance our efforts in this area. They create and deliver the practices and technologies that our customers and other innovators can use to design and make products and places that are safer, healthier, and more resilient. We envision a future that is free from preventable illness and injury, where infrastructure is designed to withstand natural disasters, and products, buildings, and entire cities are made to foster healthy and resilient communities.

- Improve our operations
  - Resilience and well-being
  - Employee health and safety
- Partner with customers
  - Architecture, Engineering & Construction
  - Design & Manufacturing
  - Media & Entertainment
  - Supporting customers during the pandemic
- Advance industries
  - Catalyze innovation
  - Accelerate collaboration

Improve our operations

# Resilience and well-being

Autodesk is committed to supporting the resilience and well-being of our employees. This is essential, since a rewarding career and personal life depend in part on good health and peace of mind. Investing in this area also enables our employees to continue driving positive impact throughout Autodesk, with our customers, and in our communities and beyond.

## Personal resilience

Personal resilience, closely related to well-being, is the ability to adapt, grow, and bounce back from disruption or change—and with COVID-19, we are facing one of the most disruptive events in recent memory. The need for resilience—personal, economic, societal—is paramount.

Autodesk’s resilience initiative focuses on three main pillars: inner well-being, social connection, and physical health. Launched in 2020, the initiative provides employees with resources they need to personally thrive and achieve impact in their work, building skills and supporting our customers in solving critical global challenges. These skills better equip employees individually, and collectively, for future disruptions that may affect both their work and personal lives.



Each month, we share a resilience-focused toolkit on a different aspect of personal and workforce resilience, such as managing stress and anxiety, achieving a growth mindset, and active listening. Autodesk’s internal self-guided learning and development platform, MyLearning, offers training, tools, and insights to help employees master the three resilience pillars. In addition, our Global Resilience Advocates are a group of passionate employee volunteers who champion the Autodesk Resilience learning resources to inspire and organize colleagues around resilience skill building to have a greater impact individually and in their work. Advocates help improve awareness of resilience and well-being resources—including our internal online hub—and enhance a culture of resilience at Autodesk.

Given the extraordinary and challenging circumstances during the last year due to the COVID-19 pandemic, we also provided employees globally with seven additional paid holidays to help recharge.

## Benefits My Way

Employees have different needs and lifestyles, so we offer a variety of benefits. In January 2021, we expanded our wellness reimbursement program by introducing Benefits My Way. This program provides our employees increased flexibility to support their physical, emotional, and financial wellness. With a broad range of eligible items and activities, employees can receive reimbursements that encourage a healthy lifestyle. Employees in the United States receive up to \$1,000 per year in reimbursements (amount varies by country).


The following categories include a long list of eligible items, such as:

- 
**Physical**  
 Gym and sports club membership fees, activity trackers, camping equipment, activity/sports equipment, and fitness trainers
- 
**Emotional**  
 Arts and crafts supplies, hobby classes, massages, music instruments and lessons, relationship workshops, sleep assistance equipment and programs, and yoga classes
- 
**Financial**  
 Animal adoption fees, childcare services, elder care services for family members, financial advice, planning, and seminars/classes, legal services, and student loan repayment

## Employee Assistance Program

Autodesk’s Employee Assistance Program and stress management program provide our employees and their families additional support when needed. These resources cover a broad range of areas, such as:

- 
**Life issues**  
 Stress management, relationships, health and well-being, and work-life balance
- 
**Financial services**  
 Budgeting, getting out of debt, credit, collections, saving, and investing
- 
**Family issues**  
 Parenting, child care, pregnancy, infertility, and adoption
- 
**Work matters**  
 Career development, coworker relationships, and job stress
- 
**Legal services**  
 Estate planning, real estate, landlord-tenant disputes, and IRS concerns

 See additional detail about benefits available to employees in the United States, including health and wellness, financial, time away (including parental leave), everyday living, and more.

Improve our operations

# Employee health and safety

At Autodesk, we work to maintain a strong health and safety culture. We help our employees work safely and productively through participation in programs that mitigate occupational safety risks in our workplaces. All company sites have emergency response plans, and many also have safety committees and emergency response teams to help keep our employees safe.

The health, safety, and productivity of our people have remained high priorities during the pandemic. Autodesk has worked to minimize the impact of COVID-19 on our employees by providing flexible hours, offering new employee holidays to avoid burnout, offering reimbursements to employees to improve their home workspaces, and providing resources and support for inner well-being, social connection, and physical health. Another key element of Autodesk’s internal response was regular communications from CEO Andrew Anagnost and other leaders, as well as ongoing updates on our internal website regarding items such as infection rates, local government regulations, and vaccine tracking. Already high employee engagement scores increased over the course of the pandemic, as measured by the company’s regular survey of employee sentiment.

Ergonomic injuries can be a leading source of risk, in the office setting or at home. To prevent this, we offer an online ergonomic self-assessment safety and training program that tracks personal ergonomic risks identified by employees and suggests alternative work habits to potentially resolve those issues. During 2020, in response to the pandemic, we provided increased guidance for employees in home-based settings. If issues persist despite the employee’s best efforts, professional ergonomists are available to provide further assessments and recommend corrective measures, including work habit changes and, in some cases, workstation modifications.

During 2020, the recordable incident rate at Autodesk (including home-based work) equaled 0.02, compared to the NAICS software industry rate of 0.2 for 2019 (the most recent year available). Our days away, restrictions, and transfers (DART) rate equaled 0.00.

**+** See details in the Data summary.



Partner with customers

# Architecture, Engineering & Construction

From project planning and construction, through use and end of life, worker and user safety and wellness are key priorities in the architecture, engineering, and construction and infrastructure sectors. We help customers manage the construction process and model and maintain optimal levels of airflow and natural light to deliver healthy, resilient, and productive spaces. Through our partnership with Esri and by using InfraWorks Mobility Simulation, we also help customers find safer spaces to build by enabling them to model the impacts of wildfires, floods, landslides, and other hazards.

The [Construction Resiliency Playbook](#) includes examples, insights, and actionable steps about how to be more resilient in construction, covering issues such as creating stronger technology and data programs and making teams, business models, and processes more resilient. One future-proofing step the Playbook recommends is for companies to embrace industrialized construction. Utilizing innovative building techniques such as design for manufacturing and assembly (DfMA) and prefabrication, firms can move make and operate information up into design. Industrialized construction is growing in use and importance in the industry, as it helps companies achieve certainty in cost and schedule and enables teams to adapt to rapid, unexpected changes.

The [Smartvid.io Safety Suite](#) helps to reduce construction project risk in the areas of safety, productivity, and quality through an industry-tuned artificial intelligence (AI) platform, Vinnie. When used with Autodesk BIM 360, Vinnie acts as a virtual safety manager, enabling teams to observe and analyze video to detect potential safety issues on-site. With separate modules for observations, monitoring, and predictive analytics, the platform helps reduce incident rates by enabling a predictive-based safety approach. All project team members can access Smartvid data via BIM 360 Project Home.

**From project planning and construction, through use and end of life, worker and user safety and wellness are key priorities in the architecture, engineering, and construction and infrastructure sectors.**

Construction IQ, in Autodesk® BIM 360® Build and Autodesk Construction Cloud platform products, applies analytical techniques and machine learning to transform data into simple and actionable insights.

The daily risk assessment feature uses algorithms to sort through hundreds or thousands of project issues, and to categorize and prioritize the highest risk projects, subcontractors, and issues that need attention each day. When used as an assistant to manage risk in conjunction with current safety processes and real-world experience, Construction IQ helps construction project teams detect high-risk defects early and analyze safety hazards and patterns of unsafe behavior.

During COVID-19, health recommendations are changing the way people move as they return to the workplace. The InfraWorks Mobility Simulation tool models people’s movement, bringing data-driven insight to physical distancing needs and efficiency of travel. Indoor air quality and proper ventilation make a significant difference for employee and customer safety. With Autodesk® CFD software, computational fluid dynamics simulation can be used to identify areas of risk and then explore multiple mitigation strategies for occupant safety—before making any physical changes to the building. Dynamo and Generative Design in Revit bring informed decision making to design exploration, whether for designing for the safe arrangement of desks, the width or spacing of aisles, or other needs. As more people return to the workplace, these types of design

decisions take on new significance. Our offerings can help create more resilient spaces that support teams working anywhere.

[Learn more](#)

As schools everywhere struggled to reintroduce in-person learning, VA+, the BIM consulting division of Colorado firm Vertical Arts Architecture, turned to InfraWorks solutions to model how students would arrive, move to their classrooms, and remain within small groups. Generative Design in Revit software helped explore classroom layout for physical distancing, providing VA+ an insightful, data-driven approach to getting students safely back on campus.

[Learn how Autodesk is helping customers respond to COVID-19.](#)


[See a summary of Autodesk Architecture, Engineering & Construction solutions that enable sustainable design.](#)



Tilbury-Douglas (previously Interserve)

## From exhibition center to COVID-19 clinic in nine days

In March 2020, international construction and support services company Tilbury-Douglas was called on to help in the UK's battle against COVID-19. Their task was to transform the National Exhibition Center (NEC) in Birmingham into a clinical facility to be used for general medical care of COVID-19 patients, ensuring local hospitals had the capacity to provide intensive care for the most serious cases. The project involved collaboration across multiple organizations, including the National Health Service (NHS) and the Ministry of Defense, so the team needed a solution where all colleagues could access project data and communicate necessary changes quickly and easily. With Autodesk® Plangrid® software, part of Autodesk Construction Cloud, the project was set up within hours. All stakeholders could access up-to-date drawings and records remotely, accurately track and record changes, and easily pull and print reports. The handover, like the construction phase, was smooth and speedy—and the NHS Nightingale in Birmingham was built in just nine days.

 [Learn more](#)

City of Medellín

## Tackling rapid urbanization in Medellín



Image courtesy of Empresa de Desarrollo Urbano



The city of Medellín in Colombia is tackling rapid urbanization with a comprehensive neighborhood improvement project that advances quality of life for its most vulnerable communities. A public entity, Empresa Desarrollo Urbano de Medellín (EDU) aims to improve water purification, transportation, sanitation, parks, and infrastructure networks, as well as building safer housing for people living at high risk of dangerous landslides. The EDU team is using the Autodesk AEC Collection to integrate with the city's geographic information systems data, creating 3D visualizations to communicate with the residents. EDU estimates that their planning process is 45% faster, thanks to BIM tools in Autodesk® Civil 3D®, InfraWorks, Revit, Navisworks®, and Insight software. A model-based approach improves quality as well, with the team estimating that the new housing will be 28% more efficient and constructible.


 [Watch the video](#)

Notre-Dame de Paris cathedral

## Restoration of Notre-Dame cathedral embraces BIM technology



Through an official patronage with the public establishment dedicated to the conservation and restoration of Notre-Dame de Paris cathedral, Autodesk is contributing design and construction solutions, including BIM support, an intelligent data and 3D geometric modeling process, and technical expertise. The innovative digital approach to the project includes cloud collaboration, as well as a common data environment that serves as a central repository for all project information, giving all permitted stakeholders access to the latest data and documentation. Historical data created using reality capture technologies allowed Autodesk to create a 3D BIM model of the cathedral as it existed before the catastrophic fire. The resulting historical digital record will increase resiliency for future events and restoration.

 [Learn more](#)

## Water

Water, the world’s most critical resource, is a key focus for Autodesk’s material resource and health and resilience efforts. Globally, 2.2 billion people lack access to safely managed drinking water services,<sup>21</sup> and 25% of the global population lives in countries experiencing high water stress.<sup>22</sup> Nearly nine trillion gallons of water are lost each year worldwide due to prolonged leaks and pipe breaks,<sup>23</sup> and \$1.9 trillion in water infrastructure investment is needed globally.<sup>24</sup>

**\$1.9**  
trillion

in water infrastructure investment is needed globally.

To help customers address a broad range of water-related issues, in early 2021 Autodesk acquired InnoViz, which creates software to enable more cost-effective and sustainably designed water distribution networks, water collection systems, water and wastewater treatment plants, and flood protection systems. InnoViz has about 3,000 customers, including many of the world’s biggest cities.

This acquisition expands our capabilities in this critical area and complements other solutions we offer. In extreme weather, the Green Stormwater Infrastructure (GSI) tool for InfraWorks can help in multiple ways. Green stormwater management—using techniques such as green roofs, bioretention, permeable pavement, and rain gardens—builds resilience by helping to reduce stress on urban drainage and water treatment systems, avoiding flooding and minimizing surface runoff that can contaminate waterways. Green roofs can also help to regulate indoor building temperatures, improving building energy performance. Infiltration reclaims

stormwater runoff and allows for groundwater recharge. The GSI tool combines rapid design and real-time analysis with BIM, so:

- Civil engineers and landscape architects can sketch and model green infrastructure in 3D to meet local performance requirements or sustainability standards;
- Planners can determine the best way to implement green infrastructure on a site, neighborhood, or district scale.

To help engineers assess flood risk in coastal areas and low-lying urban floodplains, Autodesk partnered with Hydronia to release RiverFlow2D Flood Simulation (FS) for InfraWorks. The collaborative effort enables InfraWorks users to simulate, visualize, and animate 2D flood events directly in the InfraWorks model environment while utilizing the FS shallow water equation model. Once users assign the inflow and outflow boundaries and define parameters for the simulation, InfraWorks passes the data to Hydronia RiverFlow2D for computation. By matching the simplicity of 2D flood simulations with an immersive 3D model, users can quickly set up and perform inland and coastal flood simulations.



Image courtesy of L&I Construction, Water & Effluent Treatment - IC

### New Delhi clean water project saves time and money with 3D BIM design

[Learn more](#)

<sup>21</sup> WHO/UNICEF Joint Monitoring Program for Water Supply, Sanitation and Hygiene (JMP)

<sup>22</sup> World Resources Institute—National Water Stress Rankings

<sup>23</sup> Waterworld—According to World Bank data estimates

<sup>24</sup> Global Infrastructure Hub 2020



Image courtesy of Arcadis



### Arcadis

## Harnessing cloud collaboration and 3D modeling to address a public health crisis

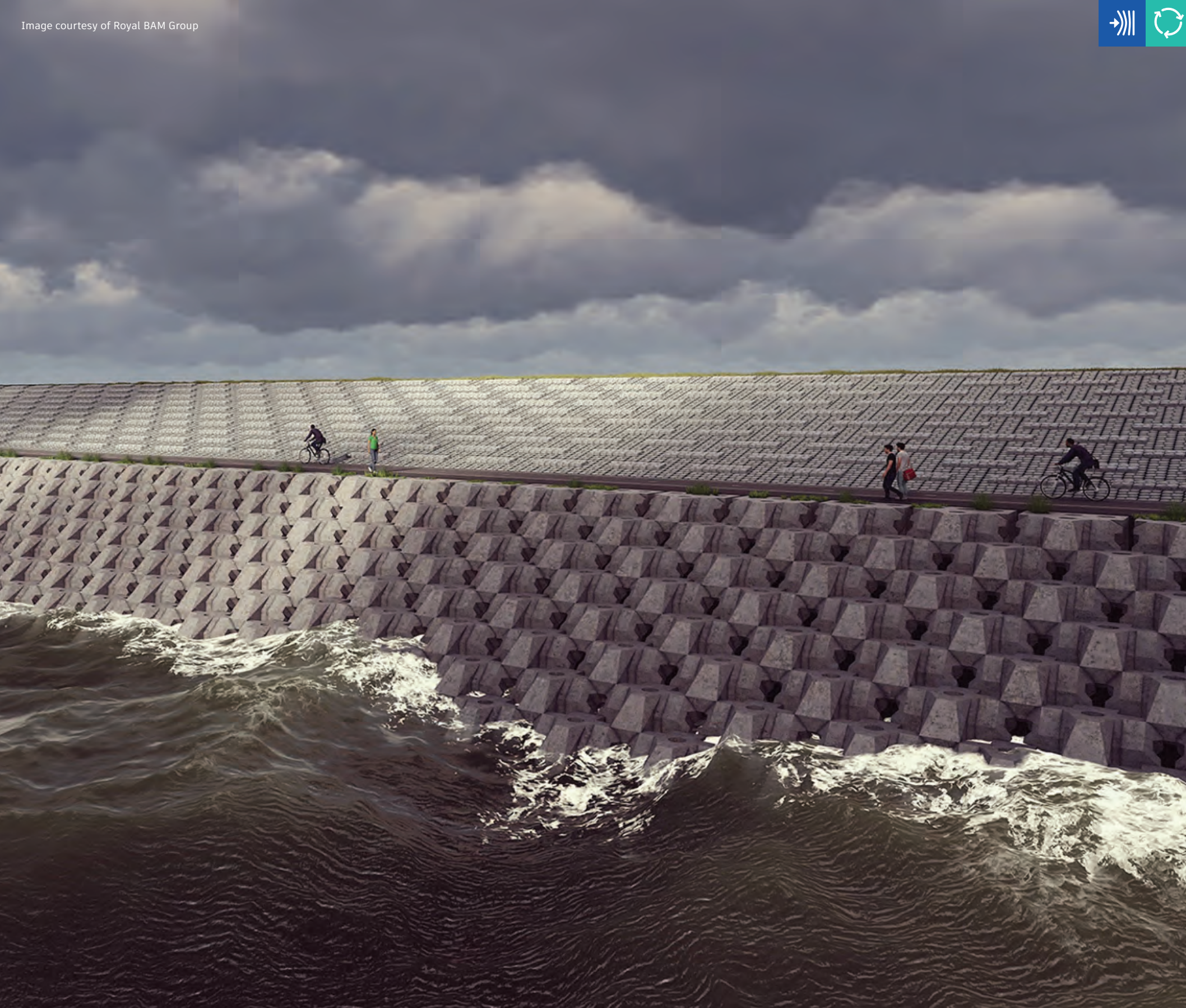
In 2014, Arcadis, a leading global design, engineering, and management consultancy, was tasked with designing and managing the construction of a water system upgrade in Toledo, Ohio. The city had suffered a toxic algal bloom that compromised its aging water system.

Arcadis met the challenge with the help of Autodesk technologies. The project team spanned a range of disciplines and geographic locations from Ohio to Florida. But with the help of Autodesk’s cloud collaboration solutions, such as Autodesk® BIM 360® Design (now BIM Collaborate Pro), every team member could interact with project data in real time, saving over 1,000 design hours and enabling Arcadis to deliver the project design on time. When it came time to manage construction, Autodesk® ReCap® and InfraWorks software enabled the Arcadis team to monitor construction with rich as-built models that could also be used for augmented and virtual reality experiences.

In the spring of 2020, just as Arcadis brought the new water system online, another crisis emerged: the global COVID-19 pandemic. Using BIM Collaborate Pro, workers were able to visit the jobsite virtually and maintain safe workplaces, reinforcing for Arcadis that cloud collaboration is vital to the future of a resilient AEC industry.

[Learn more](#)


Image courtesy of Royal BAM Group




The Afsluitdijk

# Reinforcing the largest dam in the Netherlands with digital construction and BIM

For more than 85 years, the 32-kilometer Afsluitdijk dam has been a hallmark of Dutch hydraulic engineering, but sea level rise and climate change have made revitalization necessary. The complex, multidisciplinary project includes raising and strengthening the dam with 75,000 innovative prefabricated concrete blocks; reconstructing the lock complex with two pumping stations; creating access ways for migrating fish; and designing a bicycle path while widening the emergency lanes. With more than 500 people from architecture, civil engineering, and construction working together during the design and preconstruction process, effective cross-discipline collaboration was key to the project's success. Teams are using Revit with Autodesk Construction Cloud solutions and Assemble to integrate 3D modeling and streamline review cycles, reducing design coordination time by as much as 80%. And digital construction and prefabrication helped achieve an estimated 56% reduction in CO<sub>2</sub> emissions compared to alternative solutions. When completed, the dam is expected to withstand a once-in-every-ten-thousand-year storm.

 [Read the case study](#)

 [Watch the video](#)

**80%** ↓  
in design coordination time

**56%** ↓  
estimated reduction in CO<sub>2</sub> emissions

Partner with customers

# Design & Manufacturing


The COVID-19 pandemic has required much of the work on manufacturing projects to be done remotely. Combining the industry’s history of adaptability with advanced collaboration technology is helping product designers and manufacturers remain resilient in the face of new challenges.

Working from home requires new approaches that replicate the type of in-person collaboration engineering teams are accustomed to. Autodesk collaboration software helps teams securely access data, conduct design reviews, and stay productive wherever they are. Cloud-hosted Fusion 360® Team software is enabling team members to access and share data by centralizing all design changes, comments, and markups made from various teams, so everyone can easily see how the project is progressing.

Factory shutdowns and massive shifts in demand have caused disruption to supply chains globally, and companies are finding they must adapt their strategies to reduce risk and ensure production continuity. Autodesk® PLM software is helping companies manage and collaborate with new and existing suppliers by centralizing information, automating supplier reviews, and streamlining a secure procurement process.

Around the world, companies are reopening for business under a dramatic change of conditions. Physical distancing measures have created a need for reconfigured production lines that ensure employee safety. In addition, during the last year many companies across the globe have pivoted manufacturing to produce medical supplies that help fight the spread of COVID-19 and extend lifesaving measures for more patients. Factories must be flexible to be as safe as possible through this transition. Digital factory tools like Autodesk® Factory Design Utilities help teams redesign layouts, incorporate new safety elements, evaluate the impact on productivity, and plan an efficient implementation.

Combining the industry’s history of adaptability with advanced collaboration technology is helping product designers and manufacturers remain resilient in the face of new challenges.

 Watch the video


 See a summary of Autodesk Design & Manufacturing solutions that enable sustainable design.




Image courtesy of the Ventilator Project

## The Ventilator Project

# Robotics experts collaborate to solve COVID-19 ventilator shortage

When Tyler Mantel’s startup company was put on hold due to the COVID-19 pandemic, he was inspired to launch a nonprofit organization, The Ventilator Project, to help solve the nation’s ventilator shortage. He assembled an impressive group of volunteers—from The White House, Cornell University, Google, the San Francisco 49ers, among other places—and relied solely on donations. Manufacturing a good quality, low-cost ventilator was a challenge well-matched for robotics experts. The team used Fusion 360 to collaborate on the first prototype of AIRA, as they’ve named the device, with feedback from doctors helping them rapidly iterate new and improved versions. The current version of AIRA is designed to be manufactured as quickly and cost-effectively as possible. “We don’t want to over-optimize for cost,” Mantel says. “Safety is first and foremost.” Mantel anticipates being able to manufacture thousands of ventilators by the end of the summer.

 Learn more



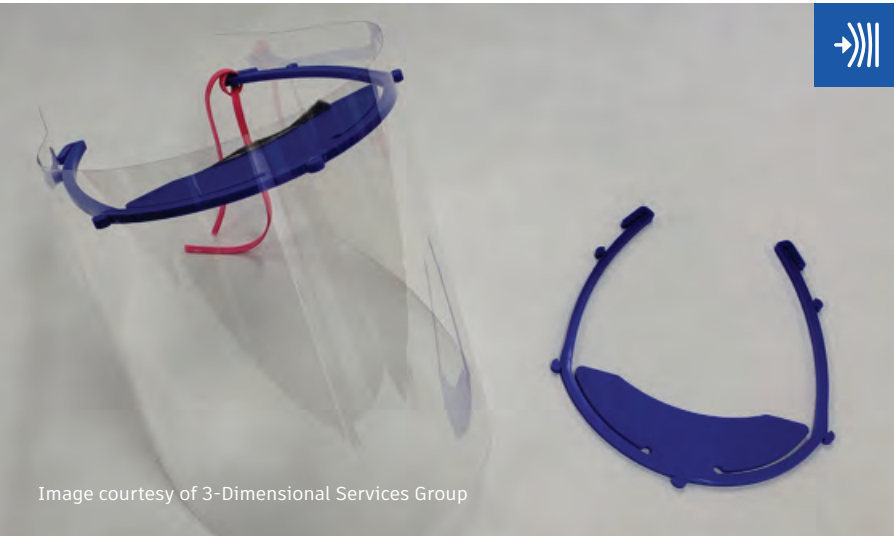



Image courtesy of 3-Dimensional Services Group

3-Dimensional Services Group

## Automotive part company pivots to round-the-clock PPE production

When Kia Motors Manufacturing Georgia asked 3-Dimensional Services Group, based in Rochester Hills, Michigan, to help produce face-shield headbands for health care, workers on the front lines of the COVID-19 pandemic, the company quickly pivoted from prototyping chassis and seat-frame assemblies to manufacturing personal protective equipment (PPE). To expedite the process, the team used Autodesk® PowerMill® and Moldflow® software, which helped them gain flexibility and improve automation, decreasing the time from design to shop floor by as much as 40%. In the first four weeks, 3-Dimensional manufactured more than 135,000 headbands, with plans underway for 465,000 more with the possibility of doubling those volumes if needed. Employees are working round-the-clock shifts, with modifications to keep them safe.

 [Learn more](#)

American Air Filter International


## Cleanroom design software optimizes design and delivers bills of material to the factory floor

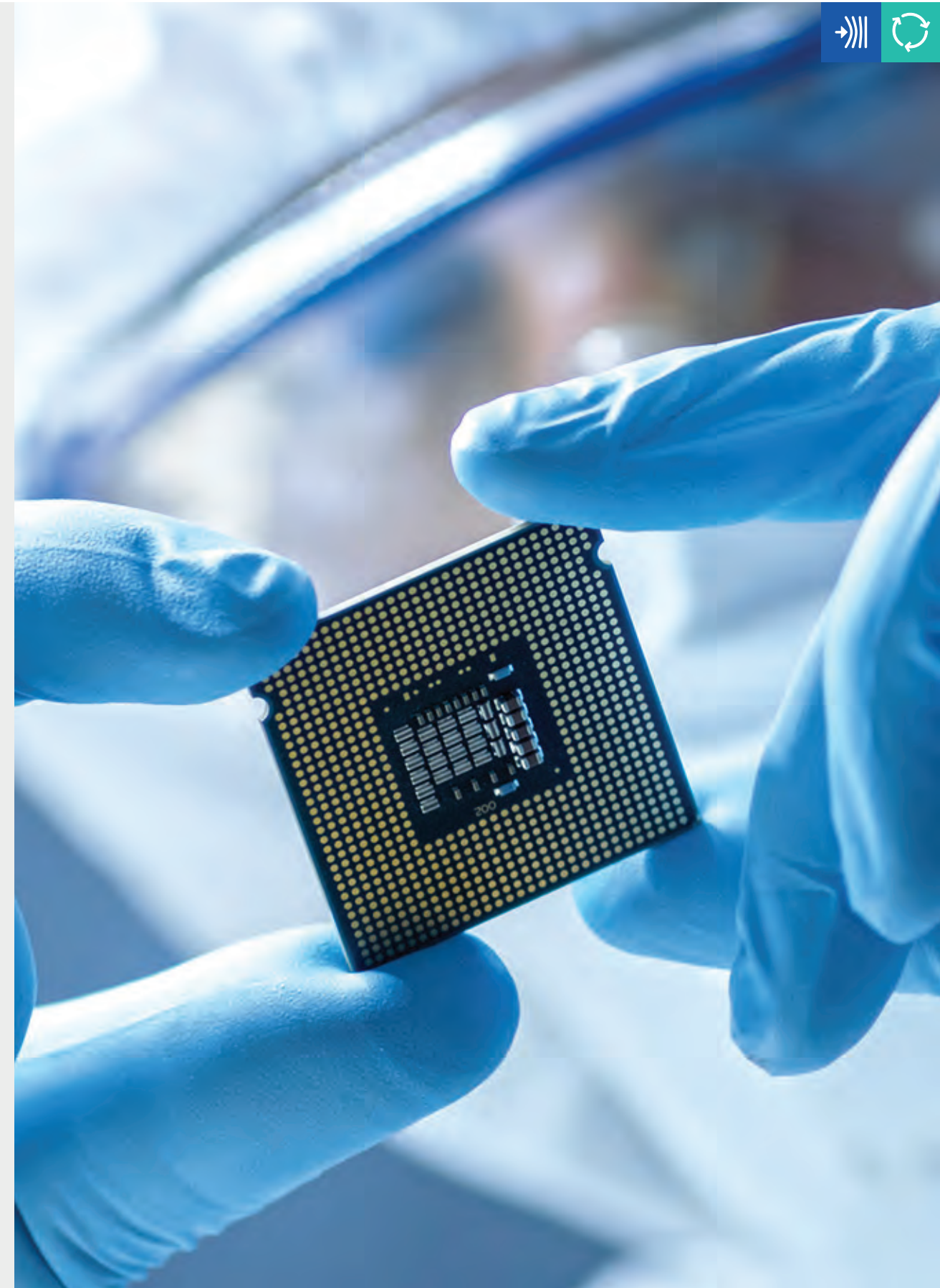
American Air Filter International (AAF), based in Louisville, Kentucky, has been supplying air-filtration solutions for 100 years and is the largest air filtration company in the world. Many of AAF's customers—in the nuclear, life-science, health care, and microelectronics industries, for example—require high-purity filtration systems that must meet a multitude of international standards while also reaching sustainability goals and reducing the cost of system ownership.

To help customers achieve their compliance, sustainability, and cost goals, AAF developed VisionAir Clean software, which uses the Forge platform and enables customers to build custom filtration systems using Revit drawings within BIM environments, as well as 3D models created in Inventor.

Customers can run simulations and perform calculations at the design and specification stage, so energy consumption and total cost of ownership comparisons are instantly calculated and displayed.

With VisonAir Clean, AAF has been able to streamline its sales process and take a more active role in helping its customers solve challenging air-filtration and equipment selection problems. Sean O'Reilly, Global VP HP Sales & Innovation, says, "A project could be developed from concept design right through to scheduling for manufacturing in minutes. The possibilities from the Forge platform, we believe, are endless."

 [Learn more](#)





Partner with customers

# Media & Entertainment

The medical illustration team at the Centers for Disease Control (CDC) routinely collaborates with researchers and scientists to develop compelling 3D imagery, animated videos, and motion graphics that convey health risks such as parasites, bacteria, viruses, and more. From creating the ubiquitous 3D image of the COVID-19 coronavirus to developing an [animated hearing loss video](#) or designing a 3D printed model of a birth defect, the team leans on a range of 3D content creation applications, including Autodesk 3ds Max tools for modeling, animation, and VFX and Arnold technology for rendering. In designing the iconic COVID-19 coronavirus image, they used 3ds Max to make a precise, high-contrast image with strong details and textures to best help the public visualize and understand the invisible threat. Since then, they have animated the virus image, creating a version that rotates.



Learn how Autodesk is helping customers respond to COVID-19.

Image Courtesy of Alissa Eckert, MSMI; Dan Higgins, MAMS

# Supporting customers during the pandemic

We are devoted to giving our customers the support and resources they need during the ongoing pandemic. As the crisis began, we offered free commercial use of several cloud collaboration tools through the Autodesk Extended Access Program. To further aid our customers, we set up our [COVID-19 Autodesk Resource Center](#), which provides useful information on remote work, resources for small businesses, community connection forums, information on Autodesk’s support for education and remote learning, and industry resources. The site also describes how our customers are responding to and reinventing themselves during the pandemic and provides ideas on navigating a post-COVID-19 world.

As the crisis began, we offered free commercial use of several cloud collaboration tools through the Autodesk Extended Access Program. To further aid our customers, we set up our COVID-19 Autodesk Resource Center.

From June through August 2020, we also offered the Autodesk® Customer Furloughed and Laid Off Worker Training Program (Autodesk Customer FLOW Program). Delivered through the Autodesk Services Marketplace, this program provided complimentary professional training by participating Autodesk Authorized Training Centers. More than 6,300 individuals around the world received complimentary training at a value of up to \$300 for the many products and workflows covered in the Program, including Autodesk® 3ds Max, BIM 360 products, Civil 3D, Fusion 360, Inventor, Maya, Revit, Shotgun, and Vault.


## Architecture, Engineering & Construction

As jobsites began to shutter in the spring of 2020, Autodesk created a COVID-19 rapid response team to support the construction industry’s accelerated transition to remote working and virtual collaboration. We created free, [COVID-specific site safety templates](#) for use in for use in BIM 360 and Plangrid to help jobsites manage the new safety compliance requirements, as well as an Autodesk® BuildingConnected® [preconstruction qualifications toolkit](#) as teams managed the project restart process. Research webinars conducted with Fails Management Institute (FMI) also helped to identify best practices for [virtual collaboration](#) and early [construction recovery outlook](#) for the “return to better.”

Autodesk also launched a resiliency campaign and [COVID-19 hub](#) as part of its Digital Builder daily construction blog. With categories such as Tips & Tools, Stories, Trends, and Product News, the hub covers topics that range from the recovery of the Irish economy to subcontractor prequalification to how diversity is vital for the future of the construction industry—all with the common theme of helping customers achieve resiliency during a global pandemic.

Autodesk is also helping our AEC customers and their customers return to work quickly and safely. Our tools can help create more resilient spaces that support teams working anywhere. From physical distancing and people movement to safer air quality, Autodesk tools and resources can help AEC customers solve for the design challenges of COVID-19.

The pandemic has accelerated digital transformation within AEC. In fact, a 2020 International Data Corporation report estimated the pandemic will speed up digital transformation by five years. Our report, [Reimagining AEC](#), includes findings from more than 50 thought leaders on the top trends impacting the industry post-COVID-19.

 [Learn more](#)

## Design & Manufacturing

We are also supporting our design and manufacturing customers by connecting resources and people looking to help those with pressing needs. Our [design and manufacturing hub](#) includes information about open-source design efforts for new solutions for PPE and life-saving devices, design review and validation, and manufacturing on demand. In addition, the hub features customers who are contributing to solutions, such as the [3-Dimensional Services Group](#), which manufactured more than 135,000 face-shield headbands for health care workers in just four weeks.

## The Reimagined Workplace

A year after the pandemic began, it’s evident the nature of work and the workplace has changed. The report, [Strategies for Growth in the Reimagined Workplace](#), sponsored by Autodesk and written by senior tech industry analyst and TED talker Susan Etlinger, examines key shifts we are seeing as a result of the pandemic; explores the role of the distributed workplace as an engine for growth; and includes insights from leaders across a range of industries and disciplines.




Advance industries

# Catalyze innovation

Through the Autodesk Foundation, we invest in entrepreneurs and innovators scaling technology-based solutions that improve resilience in low resource communities most vulnerable to climate change. We focus our investments on the built environment, agriculture, energy access, and water and sanitation, where technology and design and make can have the greatest positive impact.

From retrofitting homes in Colombia to better withstand earthquakes to mass manufacturing design-forward handwashing and drinking stations for children in Kolkata, India, the Autodesk Foundation portfolio fosters health and enhances community resilience through technological innovation.

 Read the Autodesk Foundation's Resilient Communities impact brief.

**22**

nonprofits and startups fostering health and community resilience through technological innovation

**51%**

of Autodesk Foundation portfolio funding in fiscal year 2021



We focus on regions most vulnerable to climate change, including sub-Saharan Africa, the Indian subcontinent, Southeast Asia, and South America.

## Health and resilience during COVID-19

COVID-19 has underscored the need for improved health care capacity, infrastructure, and supporting systems, and demonstrates the critical importance of personal, economic, and societal resilience. In 2020, Autodesk Foundation joined a consortium of 25 companies that committed \$22 million in funding to global, national, and San Francisco Bay Area solutions to address [COVID-19](#).

To support Autodesk Foundation customers most impacted by COVID-19, we deployed accelerated funding renewals and stability funding and used new forms of financing, including debt obligations and convertible notes. These efforts supported the solvency of our portfolio organizations, which tend to be earlier-stage and more vulnerable to cash flow shocks.



Build Health International

## Expanding community health care with energy-efficient design

Build Health International (BHI) designs, builds, and equips high-quality and sustainable health care facilities in under-resourced regions of the world. Since 2018, BHI has received funding from Autodesk Foundation, creating access to dignified health care in areas of the world with inadequate infrastructure.

BHI was trained on four Autodesk technologies (Revit LT®, InfraWorks, Insight, and Civil 3D) to design high-quality, low-cost, and energy-efficient hospitals in rural Haiti, like the Saint Rock Hospital, and beyond. By running their existing Revit files through Insight 360, BHI identified unnecessary lighting, which reduced the one-time cost of constructing the building as well as the long-term energy costs.

“BIM gives us the power to understand how design choices affect energy use. We use the model to find ways to keep buildings cool and well-lit while minimizing reliance on electricity.”

Jim Ansara, Founder BHI


 Learn more



Image courtesy of Chevy Thom



BuildX Studio

## Designing affordable circular housing

“Ultimately, we want all new buildings to be net-zero carbon buildings,” says James Mitchell, co-founder and CEO of [BuildX Studio](#), a design-and-build firm based in Nairobi, Kenya. Autodesk Foundation has funded BuildX Studio’s innovations in circular affordable urban housing innovation in East Africa since 2019.

A primary aim for all BuildX projects is to replace high-carbon methods and materials with locally sourced, low-carbon alternatives. Another objective is to create opportunities for women in construction. Half of BuildX’s construction workers, and more than half of its office employees and leadership, are women.

BuildX’s focus on sustainability doesn’t end with features such as energy-efficient appliances

and water-saving fixtures. BuildX also works to reduce embodied carbon, the carbon associated with materials and the building process itself, which accounts for 11% of a building’s total carbon emissions. BuildX Studio uses BIM 360 and Autodesk® AutoCAD® software to analyze building information and generate sustainable design solutions that consider lighting, ventilation, material use, climate responsiveness, and the building lifecycle.

The [Sachibondu Rural Health Centre](#), completed in 2019, illustrates the firm’s sustainability strategy. More than 80% of the building materials were sourced or produced locally, and the project employed 120 local workers, half of them women. The hospital is now accessible to tens of thousands of people across Zambia, Angola, and the Democratic Republic of Congo.


 [Learn more](#)



Image courtesy of Habitat for Humanity ShelterTech



Habitat for Humanity International’s Terwilliger Center for Innovation in Shelter


## Accelerating access to adequate shelter

To bring innovation into the affordable housing sector, Habitat for Humanity’s Terwilliger Center launched ShelterTech, a global innovation platform advancing entrepreneurial housing solutions with the potential to radically improve the lives of low-income families.

In 2020, with financial and technical support from the Autodesk Foundation, ShelterTech launched new accelerator programs in Southeast Asia and in the Andean region of South America, supporting housing product and service innovations advancing shelter goals in the context of the COVID-19 pandemic.

Participants in ShelterTech receive the business support and mentorship they need to successfully launch and scale housing innovations for vulnerable communities. Program participants are eligible to access Autodesk software from Autodesk’s Technology Impact Program. Habitat for Humanity has benefited from Autodesk Technology Impact Program to build affordable housing with the Autodesk AEC Collection since 2015.

“We are pleased to invest in ShelterTech to identify and support creative new solutions to the affordable housing crisis around the globe. With an increasingly crowded planet, the need to design and build safer, more resilient housing infrastructure is paramount. We’re eager to see what talented entrepreneurs in Southeast Asia can do with the right mix of expertise, technology, and financing,” says Joe Speicher, Autodesk Foundation Executive Director.

 [Learn more](#)

Advance industries

# Accelerate collaboration

The global pandemic demonstrated that we can accomplish amazing things when working together. Through collaboration, we can achieve outcomes that aren't possible alone. Last year, we had a three-pronged strategy focusing on response, recovery, and resilience in collaboration with organizations and projects such as ISAIC, Oak Ridge National Laboratory, Unilever, and the Dyson School of Engineering at Imperial College London to co-develop solutions for custom PPE, testing, and tracing challenges posed by the COVID-19 pandemic. We also worked with industry organizations like World Geospatial Industry Council, buildingSMART International, and ACEC to shape practices and standards that will bring more resilience to global infrastructure and the built environment.

We are proud to be members of collaborative organizations including:



# Work & Prosperity

Automation technology, including artificial intelligence, is needed to help businesses and society meet the demands of a growing and urbanizing global population. We recognize that technological change drives disruption, and Autodesk is committed to helping workers adapt and thrive. We believe employees prosper by adopting a mindset of continuous learning, acquiring the most in-demand skills, and securing the most fulfilling roles. We also believe employers and industries succeed when they recruit, retain, and promote a diverse and inclusive workforce. We're putting people at the center of the future of work transformation by investing in our employees, customers, and communities.

## Improve our operations

- Company culture
- Learning and organization development
- Employee impact at work
- Diversity and belonging

## Partner with customers

- Education
- Industry trends
- Architecture, Engineering & Construction
- Design & Manufacturing
- Media & Entertainment

## Advance industries

- Catalyze innovation
- Accelerate collaboration
- Shape policies

Improve our operations

# Company culture

Everything we do at Autodesk begins with our employees. We drive better business outcomes by empowering our people to achieve the new possible—shaping the world and their future. We deliver a world-class employee experience, enabling our people to thrive and realize their potential—and by extension, help our customers achieve better outcomes for their products, their businesses, and the world.


## The Autodesk Culture Code

The Autodesk Culture Code defines our shared values, behaviors, and ways of working that are at the heart of our company. It applies to all of our employees, everywhere we do business. We are highly intentional about living our Culture Code by building all-employee learning experiences and opportunities where everyone can bring their best selves to work every day. All customers and communities should experience our culture in our interactions with them each day.

Our Culture Code starts with our commitment to being a Customer Company. For Autodesk to be successful, our customers must be successful. To make that happen, we must be as committed to providing an exceptional customer experience as we are to delivering exceptional products. Every Autodesk employee takes on the responsibility for understanding our customers—their needs, their expectations, and their experiences.





## Our Values

Our Values define how we at Autodesk work, both as individuals and as a company, and express the essence of who we are. They make it clear what we believe and what we expect of those who work with us. Our Values are organized around how we think, how we feel, and what we do. They guide all of our actions.

- 
**Think**  
 Smart, innovative, adaptable
- 
**Feel**  
 Inclusive, impactful, humble
- 
**Do**  
 Courageous, accountable, pragmatic

## Ways We Work

The Ways We Work describe the principles that guide our decision making and underlay our policies and procedures. They help us understand how we operate as team members, as departments and functions, and as a company. The Ways We Work help build a rich understanding of what we expect of ourselves and our colleagues.

- 
**One Autodesk**
- 
**Empower Decision Makers**
- 
**Authentic Selves**
- 
**Demonstrate Integrity**



## Living our Culture

To help build our Culture Code into all aspects of our work life, we have launched a series of all-employee learning experiences and activities we call Culture Sprints. Sprints provide skills and reflective exercises that help employees bring aspects of our Culture Code to life. We put our Culture Code into action with team conversations, and with manager-led workshops to help teams identify actions they can take to overcome barriers of living our culture as a company. More than training, our Sprints help us develop new behaviors, mindsets, and shared language to operationalize our culture in sustained and meaningful ways. Each Sprint gives us the opportunity to examine our current actions, identify roadblocks, and apply practical solutions. By the end of each Sprint, participants form new habits and processes, both individually and organizationally, to make our culture real at Autodesk.

All employees at Autodesk participate in our Sprints through learning paths designed for both individual exploration and team sessions. So far, we have conducted three Sprints.

Through these and other efforts, we will continue to strengthen and embed our Culture Code throughout the company, as shown in the report sections that follow.

### Courage (2019)

Our first Sprint focused on courage, the foundation of our culture transformation toward becoming a Customer Company. Courage fosters an environment where it's safe to speak up and say the hard things, but in ways that allow others to listen and hear us –and where we remain open to hearing what others have to say. Through the Sprint, we learned about three components of courage as a company: how to foster psychological safety, how to listen openly, and how to respond and challenge constructively.



Following the Courage Sprint, the average Autodesk employee score on a survey question about feeling the ability to speak one's mind without suffering negative consequences increased from

**71 → 79**  
(on a scale of 1–100)

### Empower Decision Makers (2020)

Empowering decision makers leads to faster, more robust, and more effective decisions. The Empower Decision Makers Sprint directly builds on our efforts to strengthen courage across Autodesk. When we have the courage to debate ideas and engage in more inclusive decision-making practices, we make better decisions.



Following the Empower Decision Makers Sprint, the average Autodesk employee score on a question about satisfaction with how decisions are made at the company increased from

**67 → 74**  
(on a scale of 1–100)

### Belonging (2021)

Belonging is not just a business imperative, it's a moral imperative, and integral to truly living our Culture Code. As a global company that works in more than 40 countries and speaks dozens of languages, we believe that embracing differences and building belonging helps us all do our best work and thrive. The Sprint brings us together to learn, to listen, and to explore what belonging means to us individually, as teams, and as a company.

[+](#) Learn more

## Employees as owners

In fiscal year 2021, we launched a new program that makes all regular employees eligible for equity grants, or for long-term cash incentives in countries where this isn't allowed. This represents a \$30 million investment in our people to help align them toward long-term value creation and foster an ownership mindset. This program included a one-time equity grant to all eligible employees that did not have unvested stock, expanded our new-hire grant program, introduced more frequent vesting periods, and increased funding for the program.

Improve our operations

# Learning and organization development

MyLearning connects users to the world's largest collection of professional learning content with over

## 250,000

courses and more than three million articles and videos from 1,300 sources.

To empower innovators to solve important design and make, business, environmental, and societal challenges, we must support our employees to thrive so that they can create the best products and experiences for our customers, because great employee experiences translate into great customer experiences.

Like our customers, our employees need to adapt their skills to the changing work environment. Putting skills at the center ensures we are focused on equitable employee experiences, as skills are objective, quantifiable, and transferable. Through our Work & Prosperity initiative, activated via our Culture framework, we are reimagining learning and organization development at Autodesk with a focus on skills that are key to the Future of Work.

In 2020, we engaged in multiple initiatives to better understand our current state and identify critical gaps in both technical and behavioral skills. One initiative was to define skills that are critical to our corporate strategy and the Future of Work. We held focus groups and stakeholder interviews, and conducted a Voice of the Learner survey across the company to help shape our strategy pertaining to skills that will

be most important to Autodesk's ongoing success and to inform our future learning and organization development strategies.

Activating our manager community was key to our preparation for the Future of Work. As part of our management enablement focus, we launched [Managing@Autodesk](#), which includes a Managers Portal to curate targeted information for our community, a Playbook for Success to clarify expectations and resources, and 16 Learning Pathways to focus on skill development.

To help employees upskill on the job and navigate their development, we launched MyLearning, which connects users to the world's largest collection of professional learning content from both inside and outside Autodesk—over 250,000 digital courses and more than three million articles and videos from 1,300 sources. The pandemic presented an opportunity for us to democratize learning by moving to a digital learning environment. Our global portfolio of training curriculum shifted to 100% virtual learning and proved to be so successful, this transformation will continue beyond the pandemic. In addition to skill building, we also provided innovative

required compliance courses for all Autodesk employees through the Autodesk Learning Center: annual training on our Code of Business Conduct; Basics of Privacy; and Safety and Security Training.

The pandemic hasn't slowed our growth; we hired more than 2,000 new Autodesk employees in 2020. We quickly revamped our New Employee Onboarding (NEO) experience to make it global, consistent, and interactive. Emphasizing active engagement of new employees, the four-day program includes live storytelling, hands-on activities, and journey mapping using artificial intelligence. The NEO program focuses on reinforcing our Culture Code, so all new employees receive the support, resources, and information they need to feel inspired and experience a sense of belonging from the start.

With equitable development in mind, we sponsored external leadership programming for our underrepresented populations and enhanced our internal development program to cultivate future leaders. We reimagined our Emerging Leaders program to include a fair and transparent selection process, which included a blind application review. Once selected, each Emerging Leader was matched

with a professional coach and experienced innovative skill-building opportunities, such as virtual reality simulations and robust on-the-job learning projects. The program was so successful, we will double our efforts next year with two cohorts.

As we reflect on an unprecedented year, it's clear learning and organization development is a catalyst to build resilience and drive transformation. We are committed to continuing to prioritize learning and capability building to drive lasting behavior and mindset shifts. Through intentional design and delivery of learning experiences that scale and broaden access, we help our employees thrive and realize their potential. And through organizational development services, we enable the organization to thrive.

Improve our operations

# Employee impact at work

Whether building sustainability capabilities into our tools, volunteering time and skills to nonprofit partners or local communities, or activating others within our business to make a positive impact at work, our employees—and our culture of impact—are what enable us to bring Autodesk’s vision of a better world to life.

We encourage all of our employees to get involved in impact-led professional development opportunities such as Pro Bono Consulting, take advantage of sustainability-related benefits, and contribute time, expertise, and money to nonprofits. The more our employees are engaged with making a positive impact, the more they can work to enable our customers to achieve their impact goals.

In a year when many organizations and individuals needed extra support, Autodesk employees responded by donating record amounts to nonprofits around the world. They contributed more Pro Bono Consulting time than ever and supported over 4,000 organizations globally through giving and volunteerism.

## FY21 highlights

**\$2.42 million**

in employee giving (up 67% year over year)

**21,700**

traditional volunteering hours worth more than \$580,000

**6,730**

Pro Bono Consulting hours (up 56% year over year) worth over \$1 million




## Enabling Autodesk sales employees to drive sustainability

In 2020, Autodesk launched Making the Future, a sales incentive program that rewards Autodesk sales teams for helping customers achieve outcomes aligned with the United Nations Sustainable Development Goals. The first year of this contest was a success with finalists ranging across all account sizes and industries. Winners included Salvage, Titan, Long and Partners, and Trane Technologies.

We support our sales and field staff with information and resources to help customers achieve more sustainable outcomes. This past year we launched the Sustainability Leader—G.O.A.L. Program to further enable our sales employees by developing their knowledge and skills to support customers on their sustainability journeys and create positive impact with the Autodesk technology platform.

## Employee volunteering

From the first day on the job, Autodesk full-time employees are given 48 paid hours a year to volunteer for causes most important to them (part-time employees receive 24 paid hours a year). More than 200 Autodesk Impact Champions in over 40 offices worldwide inspire their colleagues to lead with impact, including through our annual Global Month of Impact, when employees unite for common cause. During September 2020, more than 1,000 Autodesk employees gathered in 60-minute sessions that provided unique opportunities to support Autodesk Foundation’s efforts in alignment with our impact opportunity areas.

 [Learn more](#)

## Pro Bono Consulting

We invite Autodesk employees to apply their expertise—ranging from engineering and design to marketing and communications—in support of nonprofits and social enterprise startups addressing pressing social and environmental challenges in alignment with our impact opportunity areas. This can involve 1:1 Pro Bono Consulting (online hour-long consulting engagements), Pro Bono Team Projects (teams of three to five employees volunteering their skills for one to three hours a week over 12 weeks), and Pro Bono Immersion (teams of five to ten employees volunteering their professional skills on-site for two weeks with an Autodesk Foundation portfolio customer).



### Penguin Watch

Autodesk volunteers helped scientists understand the changing lives and environment of penguins by counting and classifying more than 152,000 images of penguins in remote regions.



### Proximity Designs

Autodesk Pro Bono Consultants provided graphic design and animation expertise to help explain the benefits of bio-pesticides to rural farmers in Myanmar, who are increasingly reachable through digital channels.



### Missing Maps

Autodesk volunteers assisted COVID-19 response and resilience efforts by adding health facilities and other critical points to maps used by humanitarian organizations to identify and support communities in undermapped areas.



### Bridges to Prosperity

Autodesk Pro Bono Consultants created a virtual experience, with compelling video and imagery, to enable donors to visit Bridges to Prosperity bridge building sites during COVID-19.



### CareerVillage

Autodesk volunteers helped more than 2,300 learners make informed decisions and set career goals by providing advice and encouragement on CareerVillage.org during our Global Month of Impact.



### Black Artists + Designers Guild

Autodesk Pro Bono Consultants collaborated with the Black Artists + Designers Guild to build an interactive, photorealistic environment called The Obsidian Virtual Concept House, showcasing an enlightened way of dwelling for Black families.



Improve our operations

# Diversity and belonging

At Autodesk, diversity fuels our innovation and belonging unites us in our shared mission to help people imagine, design, and make a better world. We have established strategic priorities and set measurable goals to foster a diverse, inclusive, and equitable workplace where employees of all identities and backgrounds feel like they can bring who they are to a place they belong.

In 2015, Autodesk established a Diversity and Belonging (D&B) function and since then our efforts have matured and continue to evolve. In 2020, we took a big leap forward by bringing the D&B team and the Culture team together globally under a single leader to reflect the strong interdependence between D&B and the Autodesk Culture Code (Our Values and Ways We Work). This integrated approach creates greater synergy and helps ensure that D&B is embedded in our cultural DNA.

In 2020, we also launched a major initiative to revamp our global diversity and belonging strategy. As part of this process, we invited employees from more than 25 countries and over 44 offices—representing all levels and functions and a rich mix of demographics—to join focus groups to share their feedback, ideas, and experiences. In addition, we engaged our top executives through a strategy advisory group and analyzed data that reflects many different aspects of diversity and belonging.

Based on the insights gained from this process, our senior leadership team established three strategic change levers:

- 

**Attract a diverse workforce**
- 

**Expand leadership diversity**
- 

**Foster a culture of belonging**

Next, we set three-year objectives and aspirational goals for each of these strategic change levers. In the following sections, we describe the programs and activities underway to achieve these goals.


We are building and measuring the success of our programs through data-driven analysis and insights. For example, we regularly conduct an Insights survey via the third-party Glint employee survey platform to assess the engagement and belonging experience of different demographic groups. In the most recent survey, in April 2021, the overall company engagement score placed us in the top 10% in Glint’s all company benchmark, and slightly below the top 10% for belonging. In addition, we are committed to eliminating gaps in employee experience, as measured by the engagement and belonging scores that correlate to different identity dimensions including race, ethnicity, gender, business group, and geography.

## Attract a diverse workforce

At Autodesk, we’re committed to building a diverse workplace and a culture of belonging. Attracting a diverse workforce requires a holistic, multifaceted approach. We work to integrate inclusive hiring practices into every step of our recruitment process, including evaluating and revising job descriptions to be more inclusive, using market intelligence to identify locations with strong diverse pools of talent, and incorporating early career recruitment into our hiring plan to develop and cultivate talent from a wide variety of sources, such as Historically Black Colleges and Universities (HBCUs) and Hispanic Serving Institutions (HSIs).

To help us successfully attract, interview, assess, and onboard diverse talent, our custom-designed Hiring Manager Bootcamp trains all hiring managers in Autodesk’s hiring principles and inclusive recruiting practices. In 2020, we redesigned this program as a fast-paced five-day virtual workshop, with critical updates to diversity and belonging content. Highly rated by participants, the program is required for all people managers.

External alliances are also key to reaching diverse candidates. We have more than 15 alliances with organizations such as Lesbians Who Tech, AfroTech, /dev/color, and Power to Fly.

 [Learn more](#)

Through the Autodesk Tech Program, we are collaborating with four HBCUs in the United States, offering student stipends and mentoring in partnership with our technical business units. The ultimate aim of the Tech Program is to provide a conduit into an early career program at Autodesk. Through 2020, 20 students, 7 university faculty and staff, and 20 Autodesk advisors and collaborators have participated in this program.

These efforts are yielding positive results with more job candidates who identify as women (globally) and people of color (in the United States) than ever before. For example, 39.4% of external hires during fiscal year 2021 were women. Partly as a result, women increased from 33.4% of Autodesk’s overall workforce globally at the end of fiscal year 2020 to 34.5% at the end of fiscal year 2021. In the United States, 5.9% of external hires during fiscal year 2021 were Black. This contributed to the rise from 1.7% of the US workforce that Black employees represented at the end of fiscal year 2020 to 2.4% at the end of fiscal year 2021.

# Diversity and belonging objectives and goals

## Attract a diverse workforce

**OBJECTIVE**

Increase representation of women in tech, women in sales, and underrepresented people of color employees in the United States

**GOALS (BY THE END OF FISCAL YEAR 2024)**

Increase the number of women in tech roles globally by

**25%**<sup>25</sup>

Increase the number of women in sales roles globally by

**25%**<sup>25</sup>

Increase the number of US employees who are underrepresented people<sup>26</sup> of color by

**30%**

Increase the number of US Black employees by

**100%**

## Expand leadership diversity

**OBJECTIVE**

Increase geographic and demographic diversity of leadership

**GOALS (BY THE END OF FISCAL YEAR 2024)**

Increase the number of leaders (director and above) based in EMEA, APAC, Japan, Canada, and LATAM by

**10%**

Increase the number of leaders (senior director and above) in the United States who are people of color<sup>27</sup> by

**40%**

Increase the number of Black and Latinx leaders (senior director and above) in the United States by

**300%**<sup>25</sup>

## Foster a culture of belonging

**OBJECTIVE**

Transform our culture so that all employees feel they belong

**GOALS (BY THE END OF FISCAL YEAR 2024)**

Reduce gaps between all demographic groups and company-wide survey scores on belonging to

**5 points or less**

Reduce gaps between all demographic groups and company-wide survey scores on engagement to

**5 points or less**

Launch diversity and belonging training company-wide, and achieve greater than

**75%** employee participation

<sup>25</sup> Compared to the beginning of fiscal year 2022.

<sup>26</sup> Underrepresented people of color includes the following United States EEO-1 categories: Black, Latinx, Native Hawaiian or Pacific Islander, Native American, or Alaska Native.

<sup>27</sup> People of color includes the following United States EEO-1 categories: Asian, Black, Latinx, Native Hawaiian, or Pacific Islander, Native American or Alaska Native, Two or More Races.



## Autodesk named 2021 Best Place to Work for LGBTQ Equality

Autodesk earned a 100% rating and was named a 2021 [Best Place to Work for LGBTQ Equality](#) on the Human Rights Campaign Foundation’s Corporate Equality Index, the national benchmarking tool on corporate policies, practices, and benefits pertinent to lesbian, gay, bisexual, transgender, and queer employees.

## Expand leadership diversity

We are expanding leadership diversity from the Board of Directors to senior leadership to all areas of the organization.

### Commitment to diversity on our Board of Directors

Autodesk was recently recognized by two publications for outstanding gender diversity on our Board of Directors, with women making up 50% of our 10-member Board. In a [Bloomberg article](#) that tracks and analyzes female board membership, we ranked in the top 10 of S&P 500 companies. In addition, we tied for first place in a July 2020 ranking of the 25 tech companies with the most gender-diverse boards conducted by [The Org](#).

### Expanding senior leadership diversity

Our commitment to attracting and recruiting diverse talent extends to our senior leadership team. In February 2021, we announced the appointment of a new Chief Financial Officer, Chief Technology Officer, and Senior Vice President, all of whom expand the diversity of our senior leadership. Forty-five percent of our executive team is women.

### Growing diverse leaders from within

We are committed to the growth and development of all our employees. Some programs target specific demographics as part of our commitment to diversity and belonging. For example, Autodesk is a proud participant in the McKinsey Black Leadership Academy, which creates opportunities for rising Black leaders to network and build strong relationships with leaders from other organizations.

We also offer several professional and leadership development opportunities for all employees, including our Emerging Leaders Program and Employee Leadership Program/Autodesk Leadership Program. All of our training programs are offered globally. The introduction of MyLearning puts the learner in the driver seat to consume and utilize learning in new and innovative ways. Learning and development is a key part of Autodesk’s employee strategy, so we will continue to introduce more programs and evolve our existing offerings for all employees.

Autodesk’s Board of Directors is 50% women, and 45% of our executive team is women.

In addition, all employees can participate in the Autodesk Mentorship Program, either as a mentor, mentee, or both. The program is designed to break down the barriers of meeting and learning from colleagues around the world. We provide all participants with a toolkit of resources and guidance. As of May 2021, we had 2,500 active members in the program. The latest offerings include two new tracks launched in April 2021, Autodesk Mentorship Circles and Flash Mentorship. These take individual mentorship to the next level by providing mentorship opportunities in both group and short-term formats.

### Globalizing Autodesk leadership

As a global company, it is critical that our leadership reflects the perspectives of our customers around the world. Therefore, we have prioritized growing our leadership capabilities globally by increasing the number of leaders outside of the United States.

## Foster a culture of belonging

We are committed to building a culture of belonging at Autodesk by listening deeply to our colleagues about their experiences, providing education on the principles of belonging, implementing programs to embed those principles in our culture, and most importantly, fostering collective accountability for building belonging at Autodesk.

### Employee Resource Groups

Our Employee Resource Groups (ERGs) are on the front lines of transforming our culture, and this year we went further to make sure they are positioned to make an impact. Each ERG is sponsored by a member of our Executive Leadership Team, and our ERG leaders are supported as a critical extension of our D&B team. We have seven voluntary, employee-led groups: The Asian Network, Black Network, Latinx Network, Pride Network, Veterans Network, Women’s Network, and Young Professionals Network. All play key roles in driving professional development, building partnerships with local communities, advancing recruitment efforts, and supporting a culture of mentorship and coaching. During April 2021, we held ERG Week, featuring guest speakers along with a robust suite of global activities intended to increase participation. We held more than 25 ERG-led events during 2020.



Learn more

### Belonging Sprint

In March 2021, we kicked off our four-month-long all-employee Belonging Sprint to bring employees together to learn, listen, and explore what belonging means to us individually, as teams, and as a company. Herminia Ibarra, Professor of Organisational Behaviour at London Business School and an expert in authentic leadership, keynoted the kickoff event.

The Foundations of Belonging virtual workshop enables managers to lead their teams through reflective prompts and commitments. The program identifies everyday practices for inclusive teams,

emphasizing norms and behaviors that collectively shape the experience of each team member, to create the conditions for team success. It also analyzes how unexamined team norms—such as airtime domination, overvaluing status, and groupthink—can block the potential for all team members to contribute.

The Sprint focuses on individual as well as team experiences and learning, including workshops on The Power of Empathy, Mitigating Bias in Decision Making, Belonging Micro-Learning, and Inclusive Team Dynamics.

### Dialogue Spaces

Dialogue Spaces are open to all employees to speak courageously and listen with curiosity, offering a safe environment for people to share their stories and build a deeper understanding of one another. Autodesk has partnered with Bravely, a confidential coaching service that supports individuals and workplace health, to foster discussions about aspects of identity that impact our employees in the workplace. Bravely events intensively introduce and reinforce critical concepts of allyship and working together more inclusively and equitably through storytelling, educational content, and active group sharing. The events ignite self-discovery and connection that can be further explored through individualized coaching and conversations between colleagues.

### Speaker series

We also launched our diversity and belonging speaker series, which sparks dialog by inviting outside experts to engage the entire Autodesk community in conversations about identity and difference. Belonging Spaces facilitated by Autodesk employees after each event offer colleagues across the company the opportunity to discuss the expert’s books and podcasts in small groups.



## Advancing racial justice

The issue of racial justice in America was brought to the fore in 2020 with the deaths of Ahmaud Arbery, Breonna Taylor, George Floyd, and others. The more recent occurrences of violence against the Asian community in the United States and globally are also appalling and unacceptable. At Autodesk, we champion the effort to end violence and injustice, and we are committed to doing our part to create opportunities for mutual connection and empathy among all people. Autodesk condemns hate, racism, and violence and stands with our employees, neighbors, and communities around the world.


Our ERGs have played an important role in supporting our employees during these difficult times. In response to the events of 2020, the Autodesk Black Network partnered with the D&B team to support our Black employees and drive lasting change at Autodesk and beyond. This included providing learning and restoration sessions for Black employees to connect and support

one another and delivering a company-wide listening session to give voice to employees’ experiences and pain of racism. Similarly, our Autodesk Asian Network is mobilizing to support our Asian employees in response to recent violence impacting the Asian community. We published an employee resource guide, and have planned listening sessions and a series of activities to bring the community together for Asian Pacific American Heritage Month in May 2021.

Over the past year, Autodesk Foundation has committed more than \$300,000 to frontline organizations fighting for racial justice, ending police brutality, and actively advancing equality for Black, Asian, and Pacific Islander communities, including: Equal Justice Initiative, Black Futures Lab, Campaign Zero, Runway, Oakland African American Chamber of Commerce Relief Fund, Advancing Justice-Asian Law Caucus, the National Asian Pacific American Women’s Forum, and the Center for Asian American Media

(CAAM). The Foundation’s response and rebuilding grants and support have benefited from collaboration with the company’s D&B team and ERGs representing the people and communities impacted. Beyond this funding, the Foundation has committed to integrating diversity, equity, and inclusion goals throughout its work, from how it sources new organizations for its portfolio to the impact it seeks to realize through its grantmaking and impact investing.

**Our customers can play an important role in advancing racial justice, including in urban development.**

 Read [six Black perspectives](#) on how architects can help unbuild inequities rooted in racism, heal communities, and restore social justice through their work.





## Supporting pay equity

Autodesk is committed to pay equity for our employees. We conduct an annual pay analysis to compare pay levels of different demographic groups. We've also implemented Fair Pay at Hire which means that we no longer ask employees about their prior company compensation in the United States. We are transparent about our salary structures, bonus targets, and equity guidelines to let employees know how they compare to our definition of market.

To attract, retain, and support our highly qualified employees, we offer competitive compensation and benefits, which include an element of choice to meet

the needs of our diverse and global population. In fiscal year 2021, we made changes to our equity strategy, expanding our grant program eligibility for new hires and existing employees. As part of this strategy, we made a one-time equity grant to all regular employees with no unvested equity, in countries where equity grants are allowed, to align all employees to the long-term success of the company and encourage an owner mindset.

Autodesk monitors equal pay, and conducts full analyses on compensation ratios.

## Supplier diversity

At Autodesk, we use our purchasing power to increase diversity and inclusion in our supplier base, helping to grow jobs and wealth in underserved communities. We value our impactful relationships with small and person of color-owned, women-owned, veteran-owned, service-disabled veteran-owned, and LGBTQ+-owned businesses. Creating a supplier base that reflects the demographics of Autodesk's marketplace provides us with access to better ideas and ways to innovate. We have engaged with diverse suppliers for many years and are now planning to help these business owners expand their capabilities by connecting them with mentoring, training, and business development opportunities. In addition, to increase our awareness and engagement with diverse businesses, Autodesk joined the National LGBT Chamber of Commerce and the Western Regional Minority Supplier Development Council.

We are excited to begin the rollout of this program in fiscal year 2022. By fiscal year 2026, we aim to spend 25% of qualified spend in the United States with US-based diverse businesses. Although currently focused on the United States, we are exploring expanding our program to other regions.

Partner with customers

# Education

At Autodesk, we believe in lifelong learning that's personalized, portable, and pragmatic. We're motivated by professionals, students, and teachers who embrace today's most complex challenges and deliver solutions that aim to produce lasting positive impact. We aren't just helping students and lifelong learners peer into the future—we're helping them create it.

## Our primary areas of focus in education are:



### Convergence

New connections are fueling innovation across technology, processes, supply chains, and industries. Educational institutions can benefit by combining technologies and harnessing data to unlock insights that transform how things are designed, made, owned, and operated. Engineering and design education must evolve to address industry convergence across disciplines, technology, and skills.



### Sustainability

We're working with educational institutions to integrate sustainability concepts into instruction, helping students make better choices related to energy and materials. By revitalizing engineering, machining, and manufacturing curricula, we provide students and teachers the power to design and make more efficiently, with less environmental impact.



### Futureskilling


We're empowering students, educators, and lifelong learners to develop the skills necessary today to help solve tomorrow's most pressing design and engineering challenges. In other words, we futureskill by providing the mindset, skillset, and toolset to accelerate careers and help people thrive in industry. Beyond simple upskilling and reskilling, futureskilling prepares designers, makers, and doers for tomorrow's jobs.




# Autodesk resources available to professionals, students, teachers, parents, and school administrators include:




**Autodesk Education Community** enables students, faculty, and educational institutions to access Autodesk’s professional-grade software portfolio at no charge.<sup>28</sup> In fiscal year 2021, students and educators accessed millions of educational licenses for Autodesk software.

 [Learn more](#)


**Autodesk Design Academy** offers projects, courses, webinars, and more for educators and design students at all levels. During fiscal year 2021, the site received more than 1 million new and returning visitors.

 [Learn more](#)


**Autodesk Knowledge Network**, a repository of more than a million contributions from Autodesk, its community, and its partners, includes more than 250 videos and articles related to sustainable design.

 [Learn more](#)


**Autodesk Certification Program** provides educational resources and product certification for professional users and students worldwide, both instructor-led and self-paced. These industry-recognized credentials help customers market their job readiness. In 2020, we launched our online platform that offers learning pathways in architecture, engineering, and construction as well as product design and manufacturing. Millions of architects, mechanical engineers, and design professionals worldwide benefit from an Autodesk Certification.

 [Learn more](#)

**Autodesk University**, a learning community for design and engineering professionals from around the globe, offers conference experiences and free access to online learning resources year-round. In fiscal year 2021, the Autodesk University website received nearly 2.7 million visits, and users watched more than 122,000 hours of instructional video, as well as 36,000 hours on additional distribution channels such as YouTube.

 [Learn more](#)

**Tinkercad** has evolved from its roots as the first browser-based CAD tool to become an all-purpose 3D design, electronics, and coding application for kids, hobbyists, and designers. Tinkercad® is easy to use and learn and helps students create and collaborate on artistic objects of increasing complexity. Developed in partnership with teachers, Tinkercad offers easy-to-incorporate lesson plans for use online or in the classroom that align with standards such as Common Core, ISTE, and NGSS.

 [Learn more](#)

<sup>28</sup> Free Autodesk software and/or cloud-based services are subject to acceptance of and compliance with the terms and conditions of the software license agreement or terms of service that accompany such software or cloud-based services. Software and cloud-based services subject to an Educational license may be used solely for Educational Purposes.

Partner with customers

# Industry trends

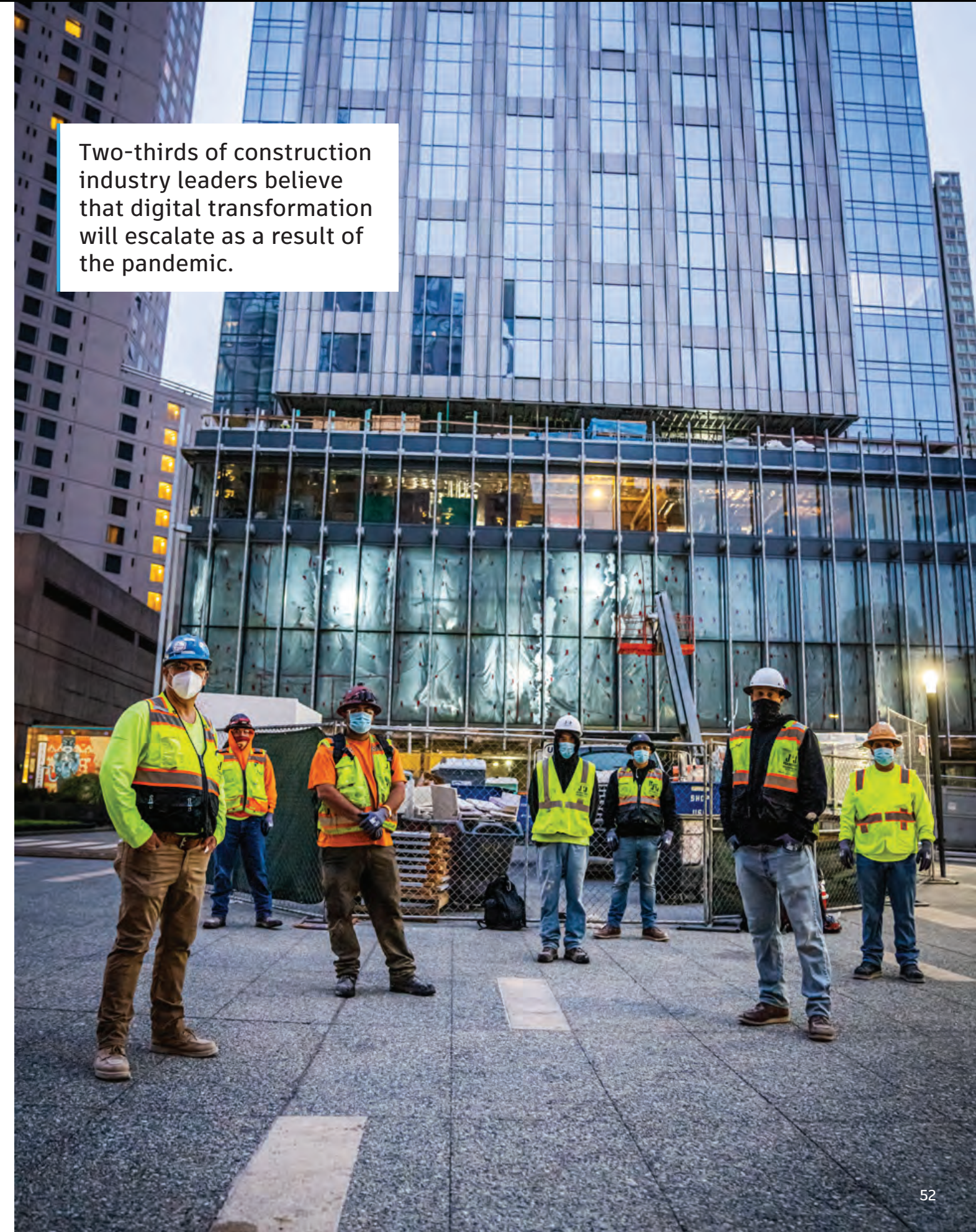
Industry transformations that have profound impacts on workers, including digitization, have accelerated due to the COVID-19 pandemic. According to a recent McKinsey study, two-thirds of construction industry leaders believe that digital transformation will escalate as a result of the pandemic, and more than half of respondent companies have started to invest more to adjust to this new future.<sup>29</sup> We see similar trends in manufacturing, as 87% of manufacturing companies are investing in digital transformation during the global pandemic.<sup>30</sup>

These broader trends are fueling a skills mismatch globally, as the supply of relevant skilled labor cannot keep up with the increased rate of technological change. Academia and educational institutions worldwide are struggling to prepare individuals for the skills of the future. This places some of the burden on companies to upskill and train their own workers to ensure that they have the talent they need to succeed.

The global skills mismatch correlates with a global rise in inequality and growing regional inequities. Technology and the labor market are not the only causes, but they are related. A striking 56% of respondents in a 2020 survey expressed a belief that capitalism as it exists today does more harm than good.<sup>31</sup> Addressing workforce adaptability in an equitable way—and advancing inclusive stakeholder capitalism that maximizes prosperity for all—have become business imperatives.

Autodesk is committed to helping our customers thrive in an era of unprecedented technology and business transformation. We provide insights, technology, and training to help workers learn new skills, collaborate with artificial intelligence in new ways, earn professional credentials, and secure new jobs and future careers.

Two-thirds of construction industry leaders believe that digital transformation will escalate as a result of the pandemic.



<sup>29</sup> McKinsey, "The Next Normal in Construction" May 2020

<sup>30</sup> Fictiv, 2020 "State of Manufacturing Report, [docsend.com/view/7pq8477zibmr9day](https://docsend.com/view/7pq8477zibmr9day)

<sup>31</sup> [edelman.com/trust/2020-trust-barometer](https://www.edelman.com/trust/2020-trust-barometer)

Partner with customers

# Architecture, Engineering & Construction

Cloud-based architecture, engineering, and construction solutions have the potential to democratize access to opportunities and foster more inclusive industries.


Autodesk’s cloud solutions in AEC—such as those in Autodesk Construction Cloud—support remote and virtual work environments for AEC practitioners. With apps available in more than a dozen languages, all stakeholders can navigate securely through models, capture feedback, and make decisions together in real time.


Digital transformation helps AEC professionals work smarter to improve the user experience and reduce costs by automating product development processes with tools such as Generative Design in Revit that take advantage of artificial intelligence and machine learning. Traditional processes to develop and validate design concepts typically limit exploration to only a handful of possible alternatives due to time constraints. Generative design is disrupting this process by simultaneously exploring a variety of possible design outcomes and generating a variety of potential alternatives—with the data to show how each ranks against a designer’s original criteria.

Through the [Autodesk Certification program](#), AEC professionals can gain the knowledge and skills to create high-quality building and infrastructure designs; optimize projects with integrated analysis, visualization, and simulation tools; and improve predictability by maximizing constructability and project coordination.

In the construction industry, Autodesk’s bid management technology—BuildingConnected Pro and Bid Board Pro—helps owners and builders find reliable partners for every job using our Builders Network. Project teams can access over a million


construction professionals in our network, simplify bid workflows, and manage subcontractor risk in real time. To increase the diversity of firms bidding for projects, customers can break down bid packages to smaller scopes of work, making it easier to engage the community, attract talent, and build new relationships. And prequalifying subcontractors enables project teams to be more inclusive, specifically focusing on Disadvantaged Business Enterprises (DBEs).

 [Learn more](#)

 See a summary of Autodesk Architecture, Engineering & Construction solutions that enable sustainable design.


**Read an interview with Angela Battle, Director of Subcontractor Diversity at Sellen Construction, on building a more inclusive construction industry.**

**Learn how Sellen Construction engages its “digital core” to improve the lives of others.**

 [Learn more](#)



**Innovation in industrialized construction, automation, and workforce training with Factory\_OS**

 [Learn more](#)



**New Zealand City Rail Link project goes all digital with BIM and generative design**


 [Learn more](#)

Image courtesy of Link Alliance

Partner with customers

# Design & Manufacturing

Smart manufacturing—the widespread digitization of manufacturing practices, including product design, supply chain, production, distribution, and sales—can help businesses become more efficient, enhance worker safety, and facilitate worker training. It can also help companies be more agile, which is crucial in today’s rapidly changing environment, when companies need to introduce new products into their manufacturing environment quickly and retool, retrain, and execute.

The Autodesk® Product Design & Manufacturing Collection provides professional-grade tools to help our customers streamline processes and prepare for the future. Automated processes such as parametric modeling and generative design can improve workflow, and smart technologies like artificial intelligence and machine learning go hand-in-hand with smart manufacturing data analysis.

Cloud collaboration tools for manufacturing, such as Autodesk Vault, Forge, and Fusion 360® Manage technology, are helping organizations collaborate from a single source of data, streamline multiple processes, manage their global supply chain in the cloud, and create custom applications. More than ever, product development relies on keeping teams and data connected across all departments and locations and providing workers the skills they need to help drive this digital transformation.

Through the Autodesk Certification program, designers and engineers can gain the knowledge and skills to streamline the product development process, create high-performing product designs and production system layouts, and connect teams and data from design through manufacture.



See Certifications.



See a summary of Autodesk Design & Manufacturing solutions that enable sustainable design.



Partner with customers

# Media & Entertainment

The media and entertainment industry is undergoing a transformation as content creators innovate to meet the demands of a dramatic increase in content production globally. Studios are utilizing technology to produce high-quality content while expanding beyond the traditional model of large teams based in the same location. This creates new and expanded opportunities for individuals and studios worldwide.

Autodesk is committed to empower anyone, anywhere, to create amazing entertainment and media experiences by providing tools that enable artists to deliver new levels of creativity, collaboration, productivity, insight, and scale with production in the cloud. We are accelerating the industry's transition to the future of production by disrupting traditional processes with new ways of working. Moving forward, we will continue working to drive better collaboration through open standards, open project development ecosystems, and interoperability of tools and platforms.

Our tools help teams collaborate more effectively, increasing productivity and saving time and money. For example:

- Using Shotgun for production management and creative review enables producers to track every step of production, helps ensure artists are working on the right shot at the right time, and supports efficient review and approval by visual effects and animation supervisors and directors.
- Machine learning tools in Flame isolate visual elements to detect human faces, bodies, and sky replacements, completing tasks in minutes that used to require hours.
- Cached playback in Maya enables artists to see animations immediately, supporting more efficient review and rapid iteration.
- In 3ds Max, retopology tools help designers rapidly optimize the geometry and quality of 3D models used for animations.
- The Autodesk® Media & Entertainment Collection comprises a broad set of tools, including Autodesk® Maya, Arnold, 3ds Max, MotionBuilder®, and Mudbox® technology, that enable powerful, scalable workflows for complex visual effects, animation, and rendering.



## Virtual animation studio collaborates to make *Mila*

*Mila*, a short film by Cinzia Angelini, demonstrates the trend of teams working virtually, all in the cloud, to democratize and decentralize the content creation process. Supported by Autodesk and others, and created in part using Autodesk Maya, Arnold, and Shotgun software, this film about war from a child's perspective was produced through the collaborative efforts of an international team of 350 volunteers from more than 35 countries—the largest independent virtual animation studio ever created. Having recently completed the film, our customer Cinesite Studios will be helping with *Mila's* anticipated release in 2021.

[Learn more](#)



Advance industries

# Catalyze innovation

Through Autodesk Foundation, we invest in entrepreneurs and innovators who prepare workers to thrive in the era of automation. We invest in solutions, policies, and research that help workers and employers prosper now—and in the future. We recognize the crucial role that a range of organizations play, including government, employers, educational institutions, and others.

7

nonprofits and ecosystem partners that help at-risk workers prosper in the era of automation

28%

of Autodesk Foundation portfolio funding in fiscal year 2021



We invest in organizations in the United States and the UK, and our research also includes Asia Pacific and Europe.

[Read the Autodesk Foundation's Future of Work impact brief.](#)

## Industrial Sewing and Innovation Center (ISAIC)

### Fashioning a more sustainable future



Image courtesy of ISAIC



The Industrial Sewing and Innovation Center (ISAIC), a nonprofit based in Detroit and Autodesk Foundation portfolio organization, is working to rebuild domestic clothing manufacturing around human-centered values, advanced technologies, and sustainability in people and processes. The organization's 12,000-square-foot, state-of-the-art factory was nearly completed and set to begin manufacturing small, high-quality apparel orders. But due to the COVID-19 pandemic, ISAIC shifted gears to PPE production. During 2020, ISAIC's factory produced thousands of pleated medical-grade masks and thousands of sewn isolation gowns and surgical masks—while supporting local businesses and workers.

ISAIC provides a proprietary training curriculum and paid apprenticeships for skilled labor in a factory where workers earn equity as part of their employment. ISAIC, which has a presence in several US states, offers training and credentialing programs for industrial sewers, tests new technologies in advanced apparel manufacturing, and creates career paths for upward mobility. The organization is working with the Autodesk Foundation to develop programs enabling apprentices to train virtually and practice the advanced skills needed in modern manufacturing.

[Learn more](#)

## JFFLabs

### Adopting new workforce technology to help people thrive



Image courtesy of JFF



JFFLabs mobilizes visionary entrepreneurs, investors, corporate changemakers, and workforce leaders who are committed to the mission of prioritizing economic mobility for workers and learners. An innovative market-facing unit of JFF—a national nonprofit that drives transformation in American workforce and education systems—JFFLabs brings new approaches to vexing challenges. The team accelerates and invests in technologies that can create positive changes and deploy them, while also partnering with employers and workforce systems to promote new practices that advance worker well-being.

Autodesk Foundation invests in JFFLabs' targeted focus on driving systemic change through new technology, investments, and entrepreneurship. With its ability to connect startups and employers to people and organizations and its status as a partner on workforce issues, JFFLabs is driving impact at scale across the United States. By accelerating the adoption of effective new training technologies, JFFLabs provides a critical connection between traditional systems and new approaches.

[Learn more](#)





Colloqate Design

## Advancing racial justice through architecture

Colloqate Design, a New-Orleans based architecture and design justice firm, focuses on civic, communal, and cultural spaces through the lens of racial justice.

Colloqate’s current project, the Defrag House, is an interactive installation that highlights housing conditions and issues in New Orleans. Both a gallery space to honor stories of the disenfranchised and a community gathering space, the Defrag House sums up Colloqate’s mission: to organize, advocate, and design spaces of racial, social, and cultural equity. The Defrag House was designed using Fusion 360 donated via Autodesk’s Technology Impact Program.

Community engagement is central to Colloqate’s design process. Co-founder Bryan C. Lee Jr. says a favorite part of his job “is introducing communities that are historically disinherited from the design process into the core of that design process ... We’re striving for spaces that acknowledge, repair the past, that make fair in the present, remove barriers moving forward, and then influence the outcomes of our communities in perpetuity.”

[Learn more](#)



Image courtesy of Zinc



Zinc

## Preparing the workforce to thrive in the age of automation

Zinc is a mission-based venture builder that combines entrepreneurship, science, and creativity to help solve important social issues. Among these is the impact of automation and globalization on jobs and communities; specifically, the widespread fear that new technologies and global spread could leave behind a whole range of people and places. Autodesk Foundation supports Zinc’s mission to prepare the workforce to thrive in the age of automation by connecting them with a wide range of new B2C and B2B solutions for industries as diverse as education and health care to housing and transportation. Zinc is looking to refocus attention on what workers want from work, and supporting the creation of new user-centered products and services that unlock new opportunities for people hard-hit by automation and globalization.

[Learn more](#)

# Autodesk Technology Centers

The Autodesk Technology Centers catalyze new possibilities for making through the power of connection. They bring together a global network of innovation leaders, data-enabled fabrication workshops, and curated experiences to empower innovators in achieving the new possible. With physical sites in San Francisco, Boston, Toronto, and Birmingham, UK, the Technology Centers are a connection engine where resident teams can combine cross-industry or cross-continent collaboration with hands-on construction and fabrication. From exploring ideas on the future of design to testing new methods of production, industry teams within and outside of Autodesk can conduct speculative and thought-leading work pertaining to design and make technology.

Prior to the COVID-19 pandemic, the programming for each center was strongly tied to its physical site. The closure of these sites inspired the team to pivot to cloud-native programs. This enabled the Technology Centers to shift their focus from local to global innovation and reimagine what the future of making could look like. With the development of the Oversight Network, a redesigned version of the Technology Centers' residency program, the centers were able to onboard resident teams from over 20 countries in 2020, increasing their global footprint and impact. The enhancement of digital programming and experiences (targeted at bringing a cross-section of innovators together) resulted in more resident team collaborations that pushed the boundaries of workflow coordination and production. With the addition of the Connected Workshops initiative, which will integrate equipment and facilities around data, the Technology Centers are well positioned to accelerate fostering global open innovation through a hybrid model approach.

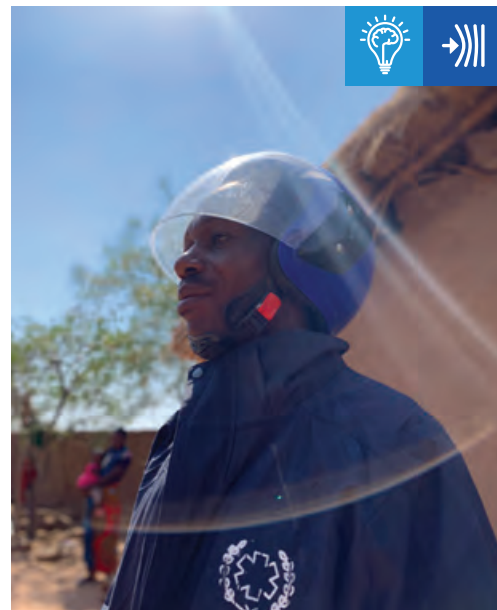
**Marion Surgical**, a maker of surgical simulators, is hoping to change the field of surgical education by building the world's first virtual reality and haptic feedback training platform for surgeons. Haptic feedback on the fully customizable simulators helps surgeons improve muscle memory, which can potentially increase the overall quality of surgical and medical care for patients.

[Learn more](#)



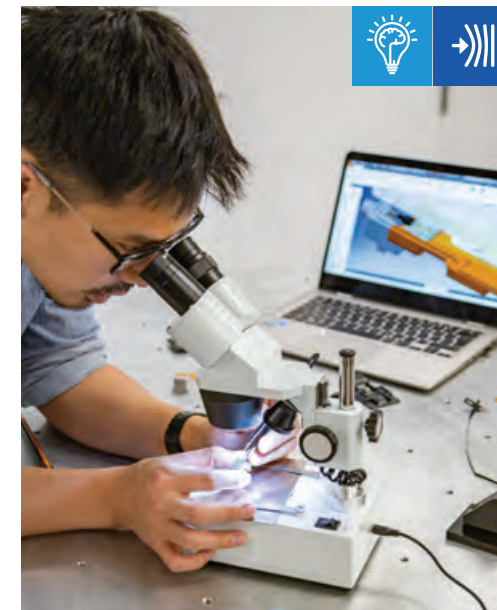
**Cosm Medical** is combining a new ultrasound technology with data science and 3D printing to create Gynethotics, the world's first custom gynecological prosthetic, so more people can live and age with dignity and grace.

[Learn more](#)



**The Okoa Project** is a nonprofit dedicated to increasing access to health care in rural communities through the creation of innovative technologies. Their primary product is a motorcycle ambulance trailer that can transport a patient, medical supplies, and one other person. The Okoa production workshop is in Mbeya, Tanzania.

[Learn more](#)



**ForceN Inc.** provides a digital sense of touch for high-reliability robotics in surgery, manufacturing, and aerospace/defense. This provides immediate use in human teleoperation and simple automation as well as recording a library of tactile data for training future semi/fully autonomous systems.

[Learn more](#)

Coral reefs—one of the ecosystems hardest hit by climate change—are typically very time-consuming to restore. **Coral Maker** is founded on the idea of repurposing existing manufacturing technology to quickly mass produce live corals for reef restoration. Integrating concepts from the manufacturing industry (automation, mass production, 3D printing) with those from coral science (propagation, fusing and recoating surfaces), Coral Maker's process bypasses much of the calcification required for coral colonies to achieve adult size.

[Learn more](#)



**Flux Marine** is bringing the electric vehicle revolution to the marine industry. The team has designed a clean, powerful, and reliable electric outboard motor system to be manufactured and marketed to commercial, military, and recreational boating sectors.

[Learn more](#)



Advance industries

# Accelerate collaboration

This past year, the inequities people face across society were thrust into the spotlight. Creating an inclusive future will require more collaboration across industries and sectors. Ensuring the global workforce remains resilient is increasingly a collaborative effort. We are eager to continue working with customers, companies, governments, and civil society to deliver a more inclusive and resilient future. To do so, we have collaborated with organizations such as the World Economic Forum’s Reskilling Revolution, JFF’s Recover Stronger initiative, and the Bay Area Council to ensure companies develop more inclusive talent strategies and workers are well equipped to succeed in their careers.

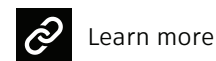
We are proud to be members of collaborative organizations including:



# Shape policies

## Scaling up skills development for the future of work

We support policies that help workers take advantage of the new jobs and tasks that technology will create and broadly share the gains of technology across all racial and income groups. We believe that strong government investment in making the workforce future-ready is critical. This includes investing in training for industries critical to economic vitality, including construction and manufacturing, supporting public and private investment in quality short-term learning and upskilling, and funding career and technical education.



We believe that strong government investment in making the workforce future-ready is critical.

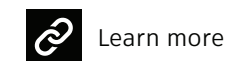
## Advancing equal opportunity, diversity, and inclusion

As a company leading technological transformation, it is our responsibility to create opportunities for people from all backgrounds to participate and thrive in the future of work. We support policies that:

Promote safe, fair, and equitable workplaces free from discrimination.

Increase opportunity and diversity in science, technology, engineering, arts, and mathematics (STEAM) fields and in digital design, construction, and manufacturing, and to promote the advancement of women and minorities into senior leadership positions within these industries.

Enable the United States to attract a diverse pipeline of talent through immigration to support growth of the US economy.



# Governance

The way we conduct our business is as important as the products we sell. We maintain robust and transparent processes to govern Autodesk as well as our impact strategy. We build trust with our employees, customers, investors, communities, and other stakeholders by acting with integrity and demonstrating strong and consistent values. As a technology company, protecting the privacy and security of our customers' data through rigorous policies, systems, and practices is essential. More broadly, we promote and protect human rights across our value chain. To drive progress across industries, we promote public policies that align with our impact opportunity areas in an open manner.

- Corporate governance
- Company strategy
- Accountability
- Privacy and data security
- Ethics and compliance
- Human rights
- Suppliers and business partners
- Public policy

# Corporate governance






The Autodesk Board of Directors provides independent leadership in the exercise of its responsibilities. Our management oversees a strong system of internal controls and compliance with corporate policies and applicable laws and regulations.

Our directors have a mix of critical skills and diverse perspectives, and their backgrounds include leadership roles in the technology industry, in academia, and internationally. Our Board consists of 10 members, of which 90% are independent and 50% are women.

We believe the highest standards of corporate governance and business conduct are essential to running our business in a sustainable manner, serving our stakeholders, and maintaining our integrity. We have devoted substantial attention to our corporate governance and have established policies such as our Corporate Governance Guidelines, which set forth the principles that guide our Board in overseeing corporate governance, maintaining its independence, evaluating its own performance, and setting corporate strategy. The Board reviews our governance practices, corporate governance developments, and stockholder feedback on a regular basis to ensure continued effectiveness.

Our Board is committed to ensuring that stockholder feedback informs our strong governance practices. Members of our management team and our Board participate in annual stockholder outreach to discuss topics such as executive compensation programs, diversity, sustainability, board composition, and governance. This outreach enables us to gather feedback from a cross section of Autodesk’s stockholder base, maintain an open dialog, and ensure that we have an in-depth understanding of our stockholders’ perspectives.

Learn more about corporate governance at Autodesk:

-  [Corporate governance guidelines](#)
-  [Committee charters](#)
-  [Committee composition](#)
-  [Autodesk executive bios](#)
-  [Board of Directors bios](#)



## Company strategy

Each year, relevant members of CEO staff drive our Strategic Intent and Strategic Realization processes to facilitate annual and long-term planning for the company. The Strategic Intent process focuses on understanding our business, customer, market, and industry dynamics to determine our multi-year intent for our business, product development, and go-to-market strategies. Through this process, we develop corporate goals and strategic intents in relevant areas, including Impact. Each goal has accountability from the relevant executive vice president, the CEO, and the Board.

Following Strategic Intent, our Strategic Realization processes focus on the strategies and tactics to realize progress toward our long-term intent in the following year. Throughout the Strategic Intent and Strategic Realization processes, Autodesk evaluates and considers general industry and planetary trends and shifts in market preferences, including issues related to climate change and sustainability, which cut across our three overarching impact opportunity areas: Energy & Materials, Health & Resilience, and Work & Prosperity.

## Accountability

Ultimately, our CEO has the highest level of direct responsibility for driving progress in our impact opportunity areas of Energy & Materials, Health & Resilience, and Work & Prosperity. CEO staff reviews progress on Strategic Realization and relevant goals quarterly. The Autodesk Board of Directors reviews annual Strategic Intent and Strategic Realizations and regularly reviews status. CEO staff and the Autodesk Board of Directors are regularly informed by Autodesk's Vice President, Sustainability, and President and CEO, Autodesk Foundation, who oversees coordination of efforts across these impact opportunity areas.



# Privacy and data security

The privacy and security of our customers' data is critically important to Autodesk. We are committed to incorporating the core principles and requirements of applicable global laws into our global privacy and data protection program.

## Privacy

We build privacy into our products, services, culture, and processes to keep pace with evolving regulations and customer expectations. We believe our customers should have choices regarding their data and we are committed to being transparent about what data we collect, and how it's used, shared, and stored.

We follow Privacy by Design principles that govern the treatment of data owned by Autodesk or under our control. These are applied worldwide and reflected across the company in development plans, business plans, and day-to-day operations.

We follow Autodesk's Privacy Principles (see box) and perform privacy impact assessments where personal data is collected or used. Our employees and contingent workers are required to comply with our privacy policies, standards and guidelines. We also provide general and role-specific privacy training to our workforce.

The [Autodesk Transparency Report](#) explains our policy on responding to requests for customer data by government agencies for law enforcement purposes, and provides statistics on the types of requests we receive and our responses.



### Autodesk Privacy Principles

- Be transparent about our actions and intent
- Present individuals with clear and actionable choices
- Practice purposeful collection, use, and retention of data
- Use data for the purposes for which it was collected
- Only share data with third parties in limited and approved ways
- Be accountable for enforcement of these Privacy Principles



### Autodesk privacy statements

- The [Autodesk Privacy Statement](#) explains how we handle personal data, how such data can be accessed and updated, and how we protect this data when interacting with third parties.
- The [Cookie Statement](#) describes the way we use cookies, tags, and pixels in our applications. It contains a link to a tool for users to set their cookie preferences.
- The [Children's Privacy Statement](#) addresses how we collect, process, store, and delete children's personal data.
- The [Candidate Privacy Statement](#) describes how we collect, process, store, and delete personal data about job applicants and prospective candidates.



### Protecting consumer privacy and fostering emerging technologies

We support technology policies that enhance consumer trust, enable innovation, and promote global trade in technology products and services. This includes enacting a strong federal privacy law in the United States that gives consumers better information about, and control over, how their personal data is collected and used, enhances obligations on companies handling this data, and raises standards and provides consistent protections for consumers throughout the country.

We are a member of [BSA | The Software Alliance](#) and [Information Technology Industry Council \(ITIC\)](#) and support their work advocating for public policies that improve privacy protections.



Learn more

## Data security

The Autodesk security framework was designed around industry standards to ensure consistent security practices, enabling us to build secure, run secure, and stay secure.

Autodesk implements security policies based on industry best practices. We regularly conduct internal and external audits, attestations, and third-party security assessments to monitor for changes in the environment, test our policies and procedures, and identify new and emerging risks. We meet our obligations under the General Data Protection Regulation and the California Consumer Privacy Act. [Read FAQs.](#)

We continuously monitor the environment for threats and take detective, corrective, and protective measures to ensure a swift response when incidents do occur. Autodesk Security responds to any

[security incidents or vulnerabilities](#) detected internally or reported through external parties, and we publish [security bulletins and advisories](#) regarding vulnerabilities that could adversely affect Autodesk products or services. Our systems are designed to be scalable and resilient, to ensure [availability](#) to customers.

We have selected industry standard attestations and certifications for our products—SSAE-16 AT 101 SOC 2 attestation, ISO 27001, ISO 27017, and ISO 27018 certifications.



See a detailed summary of attestations and certifications associated with Autodesk products and services.



### Build secure

Embedding security into our products is a critical part of securing our customers' investment in Autodesk products and services.

We build security into our products and services from the ground up.



### Run secure

Securing our infrastructure is another critical way that we protect the confidentiality, integrity, and availability of our customers' information.

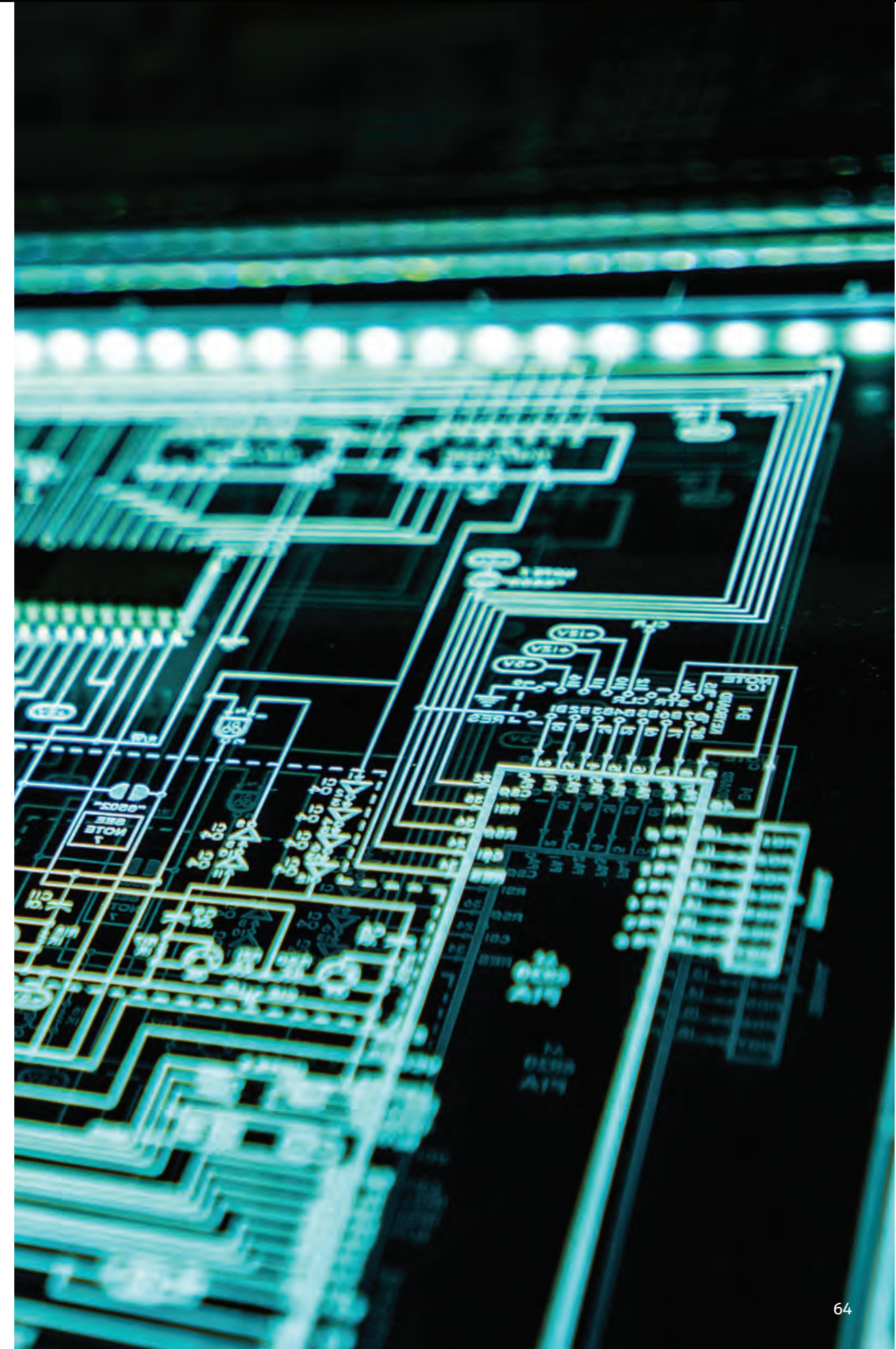
We also build security directly into our products and deployment infrastructure.



### Stay secure

Gaining visibility into our environment offers us valuable insight into persistent suspicious activity, active security incidents, and ongoing exploits impacting Autodesk and our customers.

We take proactive steps to defend against these threats with the appropriate incident response.





# Ethics and compliance

At Autodesk, we recognize that every group and individual involved in our business, from our investors to our resellers to our customers and coworkers, holds a stake in the future of our company. Our success comes from our shared commitment to acting as One Team. Delivering on that commitment requires that our relationships with each other be founded on trust and respect, which we must earn every day by always adhering to the highest standards of ethical business conduct.

In February 2021, we introduced a new [Code of Business Conduct \(CoBC\)](#). It is aligned with our Culture Code and articulates standards of conduct meant to ensure we do what’s right for all our stakeholders.

All active Autodesk employees are required to complete annual training on our CoBC, which 100% achieved for fiscal year 2021. Our officers, directors, contingent workers, and global subsidiaries are also required to abide by our CoBC.

Our CoBC includes instructions for reporting possible violations of Autodesk policies or practices. Autodesk’s [Business Ethics and Compliance Hotline](#) enables employees and third parties to report suspected violations for investigation and resolution.

We are committed to complying with all applicable anticorruption laws and regulations. This includes the US Foreign Corrupt Practices Act, the UK Bribery Act, and any similar local regulations in the areas where we operate. Partners must abide by these same standards while conducting business with or on behalf of Autodesk.

In addition to anticorruption training provided to all employees as a part of annual CoBC training, we offer specialized anticorruption training to employees who work in roles of heightened risk.


All active Autodesk employees are required to complete annual training on our CoBC, which 100% achieved for fiscal year 2021.

# Human rights

Autodesk promotes and protects human rights wherever it does business. The [Autodesk Human Rights Policy](#) describes our commitments in this area, as well as how we promote human rights among our employees, suppliers, business partners, and customers.

Autodesk supports and upholds human rights as outlined in the International Bill of Human Rights, which includes the [Universal Declaration of Human Rights](#), the [International Covenant on Civil and Political Rights](#), and the [International Covenant on Economic, Social, and Cultural Rights](#). We also support the rights described in the [ILO Declaration on Fundamental Principles and Rights at Work](#).

 View our [Conflict Minerals Policy](#) and [Autodesk Limited’s Statement on Countering Slavery and Human Trafficking](#).

 Learn more about our approach and performance in areas related to human rights such as [diversity and belonging](#), [employee health and safety](#), and [privacy and data security](#). Autodesk Foundation also supports human rights through investments that drive progress related to [Energy & Materials](#), [Health & Resilience](#), and [Work & Prosperity](#).

# Suppliers and business partners

Our [Partner Code of Conduct](#) outlines the standards and practices we require our partners to follow while conducting business with or on behalf of Autodesk. It also specifies that business partners must support internationally recognized human rights and comply with all applicable laws and regulations regarding health and safety in the workplace, the eradication of human trafficking and slavery, and the elimination of child labor. We also require our partners to support fair labor practices.

# Public policy

Autodesk advocates for public policies around the world that enable people to design and make a better world for all. We champion public policies in the following areas:

[Advancing digital transformation in the manufacturing and architecture, engineering, and construction industries](#)


[Enabling more sustainable construction and manufacturing](#)

[Protecting consumer privacy and fostering emerging technologies](#)

[Scaling up skills development for the future of work](#)

[Advancing equal opportunity, diversity, and inclusion](#)

Autodesk does not contribute to individual political candidates. We have a long-standing global policy prohibiting contributions at any level. The company does not have a political action committee. Rarely, Autodesk may engage with 501(c)4s or on ballot measures, but publicly discloses those engagements.

 Learn more about our public policy efforts, political contributions policy, required disclosures such as federal lobbying reports, and a list of trade associations, think tanks, and other organizations we belong to that advance important company interests and public policy goals.



# Appendix

Impact strategy assessments

Data summary

Sustainability-enabling solutions

United Nations Global Compact index

United Nations Sustainable Development Goals index

Sustainability Accounting Standards Board index

# Impact strategy assessments

Our impact strategy is informed by understanding our most important risks and opportunities and those of our customers, including through processes such as our biennial Enterprise Risk Management process, assessment of our customers’ public goals (see table), regular strategic foresight assessments, and regular impact materiality assessments.

In 2020, before the COVID-19 pandemic, BSR conducted a materiality assessment for Autodesk in the context of updating our impact policies. Inputs included internal interviews with experts, internal assessments, executive workshops, industry assessments, and external benchmarks. Through this process, BSR developed an extensive list of issues. It assessed each based on the importance to sustainability and the influence on Autodesk’s business success, and determined the following list of important impact issues for the company.

## Important issues identified (in alphabetical order)

- Board compensation, independence, and diversity
- Business resilience and adaptation
- Climate change risk, resilience, and adaptation
- Collaborative industry partnerships for sustainability
- Company energy use and climate change
- Customer satisfaction
- Data protection and security
- Digital inclusion and access
- Employee health, safety, and wellness
- Ethical business practices and compliance
- Global diversity and inclusion
- Improper use/Sale of ICT
- Inclusive supply chains
- Intellectual property rights
- Local sustainability impacts
- Product energy efficiency
- Public policy and partnerships
- R&D and local innovation
- R&D partnerships
- Responsible marketing
- Social application of ICT
- Sustainable product design/product stewardship
- Systemic risks from technology disruptions
- Talent acquisition, retention, development, and growth
- Technology in communities/ICT enablement
- Transparency and reporting

## UN Sustainable Development Goals prioritized by Autodesk customers<sup>32</sup>

SDG	UN Sustainable Development Goal	%
	Climate Action	69%
	Responsible Consumption and Production	65%
	Affordable and Clean Energy	64%
	Industry, Innovation, and Infrastructure	64%
	Sustainable Cities and Communities	50%
	Decent Work and Economic Growth	46%

<sup>32</sup> Percentage of customers assessed with a goal in each area. Based on a fiscal year 2020 Autodesk assessment of more than 1,300 customers’ public sustainability goals, spanning industries, geographies, and sizes.

# Data summary

- 33 Data for fiscal year 2020 and fiscal year 2021 are calculated using the market-based accounting method. This value reflects purchased renewable energy and carbon offsets.
- 34 Gold Standard certified carbon offsets were applied to Scope 1, 2, and 3 emissions.
- 35 Autodesk's fiscal year 2021 greenhouse gas verification statement can be accessed [here](#).
- 36 In fiscal year 2021, the fleet emissions estimation methodology was refined to reflect vehicle-specific emissions factors. Fiscal year 2020 fleet emissions were restated to align with the fiscal year 2021 methodology.
- 37 Data for fiscal year 2020 and fiscal year 2021 are calculated using the market-based accounting method, which takes into account purchased renewable energy offsets.
- 38 These data are calculated based on the economic input-output lifecycle assessment model, using industry-specific emissions factors in conjunction with Autodesk's spend. In fiscal year 2021, the US EPA's environmentally extended input-output emissions factors are used, and fiscal year 2020 emissions were recalculated and restated to align with this factor set.
- 39 Emissions for "capital goods" were calculated based on annual spend.
- 40 In fiscal year 2021, the FERA emissions calculation methodology was refined to use market-based factors for the electricity-related emissions. The fiscal year 2020 FERA emissions were recalculated and restated to align with the fiscal year 2021 methodology.
- 41 Business travel emissions have been calculated using actual data and the economic input-output lifecycle assessment model. In fiscal year 2021, air travel data are based on flights flown (rather than transactions), and fiscal year 2020 air travel emissions were restated using flights flown to align with the fiscal year 2021 methodology.
- 42 In fiscal year 2021, remote worker GHG emissions are included, and fiscal year 2020 remote worker GHG emissions were calculated and added to align with the fiscal year 2021 methodology.
- 43 In fiscal year 2021, the end-of-life treatment of sold products emissions were less than 0.5 metric tons CO<sub>2</sub>e and are rounded to zero in this table.
- 44 Scope 3 indirect energy reported includes energy from remote work, events, cloud, and data centers.
- 45 Fiscal year 2020 RE100 achieved using previously reported methodologies and boundaries.
- 46 LEED certifications as of January 31, 2021, include facilities in Beijing, China; Mumbai, India; Tel Aviv, Israel; Milan, Italy; Singapore; and the following in the United States: San Francisco, California; San Rafael, California; Boston, Massachusetts.
- 47 Includes waste from major conferences and facilities. Data are extrapolated to our full real estate portfolio based on square footage of sites where data are available.

## Carbon footprint

	FY2020	FY2021
Greenhouse gas (GHG) emissions including carbon offsets [metric tons CO <sub>2</sub> e] (market-based) <sup>33</sup>	160,000	-
Renewable energy purchases [metric tons CO <sub>2</sub> e]	22,000	37,700
Carbon offset from other projects [metric tons CO <sub>2</sub> e] <sup>34</sup>	69,000	126,000
Greenhouse gas (GHG) emissions [metric tons CO <sub>2</sub> e] (market-based) <sup>35</sup>	229,000	126,000
GHG emissions intensity [metric tons CO <sub>2</sub> e/million US\$ revenue]	52	33
GHG emissions intensity [metric tons CO <sub>2</sub> e/employee]	17	11
GHG emissions intensity [metric tons CO <sub>2</sub> e/1,000 active square feet]	75	52
Scope 1: Direct emissions from owned/controlled operations [metric tons CO <sub>2</sub> e] <sup>36</sup>	983	867
Scope 2 Market-based: Indirect emissions from the use of purchased electricity, steam, heating, and cooling [metric tons CO <sub>2</sub> e] <sup>37</sup>	101	102
Scope 2 Location-based: Indirect emissions from the use of purchased electricity, steam, heating, and cooling [metric tons CO <sub>2</sub> e]	11,100	10,200
Scope 3: Upstream [metric tons CO <sub>2</sub> e]	228,000	125,000
Purchased goods and services <sup>37,38</sup>	78,800	65,200
Capital goods <sup>38,39</sup>	27,100	30,500
Fuel- and energy-related activities (not included in Scope 1 or Scope 2) <sup>40</sup>	919	802
Transportation and distribution <sup>38</sup>	6,650	5,900
Waste generated in operations	411	114
Business travel <sup>38,41</sup>	96,300	17,800
Employee commuting <sup>37,42</sup>	17,700	4,470
Leased assets <sup>38</sup>	67	92
Scope 3: Downstream [metric tons CO <sub>2</sub> e]	4	2
Transportation and distribution	3	1
End-of-life treatment of sold products <sup>43</sup>	1	-
Energy use [MWh]	83,300	116,000
Direct energy use (scope 1)	4,380	3,890
Indirect energy use (scope 2)	32,300	29,400
Other indirect energy use (scope 3) <sup>44</sup>	46,700	82,500
Renewable electricity purchases [MWh]	55,700	92,500
Renewable electricity [as a percent of total indirect energy use from electricity] <sup>45</sup>	100%	100%
Number of facilities with LEED certifications <sup>46</sup>	15	14
Buildings with LEED certification [as a percent of total active square footage]	0.27	0.25
Waste generation <sup>47</sup>	6,570	1,640
Landfill diversion rate	0.53	0.50
Environmental violations and fines	0/\$0	0/\$0

# Employees

	FY2019	FY2020	FY2021
Number of employees <sup>48</sup>	8,900	11,200	11,500
Regional breakdown of employees [percent of employees]			
Americas	52.0%	54.8%	54.1%
Asia Pacific	24.0%	22.9%	23.9%
Europe, Middle East, Africa	24.0%	22.3%	22.0%
Total turnover <sup>48</sup> [percent of employees]	18.5%	13.1%	7.1%
Voluntary turnover <sup>48</sup> [percent of employees]	9.1%	9.5%	5.1%
Employee engagement <sup>49</sup> [score from 1–100]	79	79	83
Training budgeted per employee globally, approximate [US\$]	\$1,000	\$1,000	\$1,050
Incident rates <sup>50</sup>			
Recordable incident rate	0.2	0.2	0.02
Days away, restrictions, and transfers (DART) rate	0.01	0.05	0.00
Fatalities	0	0	0
Gender diversity <sup>48</sup>			
Overall workforce			
Male	67.6%	66.5%	65.4%
Female	32.2%	33.4%	34.5%
Choose not to state	0.1%	0.1%	0.1%
Leadership <sup>51</sup>			
Male	74.2%	68.0%	68.1%
Female	25.8%	32.0%	31.9%
Tech workforce <sup>52</sup>			
Male	80.3%	79.6%	78.0%
Female	19.6%	20.3%	21.8%
Choose not to state	0.1%	0.1%	0.1%
Sales workforce <sup>53</sup>			
Male	74.0%	73.1%	71.6%
Female	25.6%	26.5%	28.2%
Choose not to state	0.3%	0.4%	0.2%
Workforce hired in last 12 months			
Male	58.0%	61.7%	59.6%
Female	41.1%	37.7%	39.4%
Choose not to state	0.9%	0.6%	1.0%
US ethnic diversity <sup>48,54</sup>			
US workforce			
White	66.0%	66.0%	63.7%
Asian	23.7%	23.0%	24.2%
Hispanic or Latino	6.1%	6.5%	6.6%
Black or African American	1.7%	1.7%	2.4%

	FY2019	FY2020	FY2021
US workforce (continued)			
Native American or Alaska Native	0.3%	0.3%	0.3%
Native Hawaiian or Pacific Islander	0.2%	0.2%	0.2%
Two or More Races	1.9%	2.2%	2.4%
Not specified	0.1%	0.0%	0.1%
US leadership <sup>51</sup>			
White	75.9%	77.6%	76.0%
Asian	18.2%	16.4%	17.6%
Hispanic or Latino	2.8%	2.9%	3.4%
Black or African American	1.8%	1.4%	1.3%
Native American or Alaska Native	0.4%	0.3%	0.3%
Two or More Races	1.1%	1.4%	1.6%
US tech workforce <sup>52</sup>			
White	50.9%	51.5%	51.2%
Asian	41.9%	41.0%	41.4%
Hispanic or Latino	4.0%	4.1%	4.0%
Black or African American	1.2%	1.1%	1.5%
Native American or Alaska Native	0.1%	0.1%	0.1%
Native Hawaiian or Pacific Islander	0.1%	0.2%	0.2%
Two or More Races	1.7%	2.0%	1.6%
Not specified	0.1%	0.0%	0.1%
US sales workforce <sup>53</sup>			
White	85.2%	83.7%	82.1%
Asian	3.7%	4.5%	4.3%
Hispanic or Latino	6.7%	7.1%	7.2%
Black or African American	1.7%	2.4%	3.8%
Native American or Alaska Native	0.9%	0.6%	0.6%
Two or More Races	1.5%	1.7%	1.8%
Not specified	0.2%	0.0%	0.2%
US workforce hired in last 12 months			
White	57.5%	61.5%	54.1%
Asian	29.5%	25.7%	29.4%
Hispanic or Latino	7.0%	7.4%	6.3%
Black or African American	2.8%	2.7%	5.9%
Native American or Alaska Native	0.1%	0.1%	0.5%
Native Hawaiian or Pacific Islander	0.4%	0.4%	0.0%
Two or More Races	2.5%	2.1%	3.2%
Not specified	0.3%	0.1%	0.7%

<sup>48</sup> Data are as of the end of the fiscal year noted.

<sup>49</sup> Represents the average employee engagement score on a scale of 1–100 from employees who responded to questions that measure different aspects of employee engagement. These data are reported on a calendar-year basis. Fiscal year 2021 corresponds to calendar year 2020, and so forth.

<sup>50</sup> For consistency, we use US Occupational Safety & Health Administration (OSHA) definitions to record incident data worldwide. Rates are calculated based on the OSHA standard using 200,000 labor hours, which is equivalent to 100 employees working a full year. Contingent workers are not included in incident rates. Data reflect injuries and illnesses at all sites worldwide, and are reported on a calendar-year basis. Fiscal year 2021 corresponds to calendar year 2020, and so forth.

<sup>51</sup> Leadership as defined as Director and above roles.

<sup>52</sup> Tech workforce as defined according to Radford categorization.

<sup>53</sup> Sales workforce as defined according to Radford categorization.

<sup>54</sup> Some historical data were restated to reflect an enhanced calculation methodology. In addition, the sub-categories “Native American or Alaska Native,” “Native Hawaiian or Pacific Islander,” “Two or More Races,” and “Not specified” were added to improve transparency.

## Philanthropy

	FY2019	FY2020	FY2021
Company and Foundation monetary contributions <sup>55</sup> [US\$]	\$8,460,000	\$9,700,000	\$16,800,000
Company product donations <sup>56</sup> [US\$]	\$26,400,000	\$39,900,000	\$28,900,000
Employee giving [US\$]	\$1,300,000	\$1,440,000	\$2,420,000
Foundation match of employee giving of time and money [US\$] (also included in the "Company and Foundation cash contributions" line above)	\$1,240,000	\$1,620,000	\$2,850,000
Employee traditional volunteer hours <sup>57</sup>	24,100	29,700	21,700
Value of traditional volunteer hours <sup>57</sup> [US\$]	\$555,000	\$755,000	\$589,000
Employee pro bono volunteer hours (donated to nonprofits and impact-related startups) <sup>58</sup>	2,610	4,320	6,730
Value of pro bono hours <sup>59</sup> [US\$]	\$280,000	\$550,000	\$1,010,000

<sup>55</sup> Data reflects combined monetary giving from Autodesk, Inc., and the Autodesk Foundation.

<sup>56</sup> Autodesk calculates its product donations at commercial value. These data do not include the value of products granted to students, faculty, and educational institutions at no cost through the Autodesk Education Community.

<sup>57</sup> Autodesk does not track what percentage of traditional volunteer activities take place during company time. Value of traditional volunteer hours aligns with annual valuation from Independent Sector (\$27.20 per hour was indexed in July 2020).

<sup>58</sup> Value updated for FY2020 to reflect changes in calculation methodology.

<sup>59</sup> Value of pro bono hours based on hourly rates for various skills cited by Taproot Foundation. ([taprootfoundation.org/do-probono/pro-bono-valuation](https://taprootfoundation.org/do-probono/pro-bono-valuation))

# Sustainability-enabling solutions

## Architecture, Engineering & Construction

Our architecture, engineering, and construction solutions enable more sustainable design, engineering, construction, and operations—empowering our customers to unleash the talent of their teams and unlock the insights to accelerate better outcomes for their business, industry, and the built world.

Autodesk® AutoCAD®, CAMduct™, CFD, Civil 3D®, Formit®, FormIt® Pro, InfraWorks®, Insight, Navisworks®, ReCap™, Revit®, Robot Structural Analysis Professional, Spacemaker, and Autodesk Construction Cloud software

<p><b>Building design and engineering</b></p>	<ul style="list-style-type: none"> <li>• Design high-performance buildings</li> <li>• Conduct energy analysis at key project stages</li> <li>• Optimize HVAC system design</li> <li>• Use clash detection during design to reduce waste in construction</li> <li>• Reduce embodied carbon through design and material specification</li> <li>• Plan for smart decommissioning and materials recovery</li> <li>• Improve structural material efficiency</li> <li>• Optimize site planning with AI</li> </ul>
<p><b>Infrastructure</b></p>	<ul style="list-style-type: none"> <li>• Plan and design infrastructure for resilience and adaptation to climate change</li> <li>• Visualize projects in the context of the surrounding built and natural conditions</li> <li>• Perform simulations to assess environmental and social impacts of designs</li> <li>• Conduct traffic flow and mobility impact studies</li> <li>• Optimize inland and coastal flooding projects</li> <li>• Manage bioretention and green stormwater infrastructure</li> <li>• Reduce roadway embodied carbon and natural resource inputs</li> </ul>
<p><b>Construction</b></p>	<ul style="list-style-type: none"> <li>• Reduce embodied carbon through low-carbon material procurement</li> <li>• Minimize waste in MEP fabrication and installation</li> <li>• Support lean production planning and execution to reduce waste and streamline schedule</li> <li>• Improve site safety</li> <li>• Modularize design and maximize prefabrication</li> <li>• Minimize scrap in fabrication</li> <li>• Increase precision to maximize built performance</li> </ul>



# Sustainability-enabling solutions

## Design & Manufacturing

Our product design and manufacturing solutions enable more sustainable design, manufacturing, production, and operations—empowering our customers to unleash the talent of their teams and unlock the insights to accelerate better outcomes for their products, business, and industry.

Autodesk® AutoCAD®, Factory Design Utilities, Fusion 360®, Inventor®, Vault

<p><b>Material efficiency and circularity</b></p>	<ul style="list-style-type: none"> <li>• Improve materials efficiency, create lighter products, and reduce waste with generative design</li> <li>• Consolidate components for easier assembly/disassembly and reduced inventory with generative design</li> <li>• Make greener material choices</li> <li>• Nest pieces to optimize flat sheet cutting and reduce waste</li> <li>• Optimize material yield with the Arrange tool, a simplified version of Nesting</li> <li>• Optimize additive manufacturing print settings for material efficiency and quality, and minimize waste</li> <li>• Minimize waste by repairing parts with hybrid manufacturing</li> <li>• Analyze tolerances to increase quality and reduce scrap</li> <li>• Reduce redundant part creation or ordering through geometric duplicate detection and part standardization</li> <li>• Reduce machining cost and waste while maintaining proper fit with tolerance analysis</li> <li>• Design for durability with FEA simulations enhanced with Explicit Analysis</li> </ul>
<p><b>Energy efficiency and smart manufacturing</b></p>	<ul style="list-style-type: none"> <li>• Design, simulate, and create energy-efficient electronics and machines</li> <li>• Reduce energy use in production by optimizing machine runtime and cooling cycles</li> <li>• Plan and validate factory layouts to maximize production performance and resource use</li> <li>• Improve product power consumption with electronics cooling simulation</li> </ul>
<p><b>Responsible supply chain</b></p>	<ul style="list-style-type: none"> <li>• Audit suppliers to help ensure product quality and compliance</li> <li>• Increase quality through failure analysis and reports</li> <li>• Comply with regulations with material and supplier declaration</li> </ul>

# United Nations Global Compact index

In 2011, Autodesk endorsed the United Nations (UN) Global Compact, a voluntary initiative that outlines 10 principles in the areas of human rights, labor, environment, and anticorruption. This Impact Report and the policies and codes we've posted online serve as our Communication on Progress for fiscal year 2021 and describe how we are integrating these principles into our business. The table indicates where relevant content can be found. In 2015, Autodesk also endorsed Caring for Climate—an initiative led by the UN Global Compact, the UN Environment Programme, and the secretariat of the UN Framework Convention on Climate Change—aimed at advancing the role of business in addressing climate change. Information about Autodesk's progress against the Caring for Climate commitments can be found in the Climate change section and in the company's CDP submission.

“We endorse the principles of the United Nations Global Compact, which align with our company values to operate ethically and responsibly. We support collective action to address global challenges, such as climate change, corruption, and human rights and labor abuses, and we embrace our role as a corporate citizen to make a positive impact in these areas.”


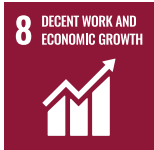




**Andrew Anagnost**  
President and Chief Executive Officer, Autodesk

UN Global Compact principle	Response
<b>Human rights</b>	
Principle 1: Businesses should support and respect the protection of internationally proclaimed human rights; and	<a href="#">Suppliers and business partners</a> ; <a href="#">Human rights</a> ; <a href="#">Autodesk Human Rights Policy</a> ; <a href="#">Autodesk Partner Code of Conduct</a>
Principle 2: make sure that they are not complicit in human rights abuses.	<a href="#">Suppliers and business partners</a> ; <a href="#">Human rights</a> ; <a href="#">Autodesk Human Rights Policy</a> ; <a href="#">Autodesk Partner Code of Conduct</a>
<b>Labor</b>	
Principle 3: Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining;	<a href="#">Suppliers and business partners</a> ; <a href="#">Autodesk Human Rights Policy</a> ; <a href="#">Autodesk Partner Code of Conduct</a>
Principle 4: the elimination of all forms of forced and compulsory labor;	<a href="#">Suppliers and business partners</a> ; <a href="#">Autodesk Human Rights Policy</a> ; <a href="#">Autodesk Partner Code of Conduct</a>
Principle 5: the effective abolition of child labor; and	<a href="#">Suppliers and business partners</a> ; <a href="#">Autodesk Human Rights Policy</a> ; <a href="#">Autodesk Partner Code of Conduct</a>
Principle 6: the elimination of discrimination in respect of employment and occupation.	<a href="#">Diversity and belonging</a> ; <a href="#">Suppliers and business partners</a> ; <a href="#">Human rights</a> ; <a href="#">Autodesk Code of Business Conduct</a> ; <a href="#">Autodesk Human Rights Policy</a> ; <a href="#">Autodesk Partner Code of Conduct</a>  Autodesk does not tolerate discrimination or harassment based on a person's race, color, creed, religion, national origin, citizenship, age, gender, sexual orientation, marital status, mental or physical disability, or any other classification protected by law. This protection applies to all Autodesk employees and contingent workers worldwide. We require all managers with US employees to complete harassment training every two years.
<b>Environment</b>	
Principle 7: Businesses should support a precautionary approach to environmental challenges;	<a href="#">Driving net-zero carbon emissions</a> ; <a href="#">Our carbon footprint</a>
Principle 8: undertake initiatives to promote greater environmental responsibility; and	<a href="#">Driving net-zero carbon emissions</a> ; <a href="#">Our carbon footprint</a> ; <a href="#">Autodesk CDP submission</a> ; <a href="#">Autodesk endorsement of Caring for Climate</a>
Principle 9: encourage the development and diffusion of environmentally friendly technologies.	<a href="#">Driving net-zero carbon emissions</a> ; <a href="#">Our carbon footprint</a> ; <a href="#">Autodesk CDP submission</a> ; <a href="#">Autodesk endorsement of Caring for Climate</a>
<b>Anticorruption</b>	
Principle 10: Businesses should work against corruption in all its forms, including extortion and bribery.	<a href="#">Ethics and compliance</a> ; <a href="#">Autodesk Code of Business Conduct</a> ; <a href="#">Autodesk Partner Code of Conduct</a>

# United Nations Sustainable Development Goals index

The [United Nations Sustainable Development Goals](#) provide an important framework to drive social, environmental, and economic progress globally. Although Autodesk addresses all 17 goals to varying degrees, we focus particularly on the following goals to maximize our positive impact with our customers and through our products, operations, and philanthropic activities.

## United Nations Sustainable Development Goals

SDG	Description
 <p>7 AFFORDABLE AND CLEAN ENERGY</p>	<p>We are committed to using 100% renewable energy in our operations, and to helping customers develop buildings, infrastructure, and products that are energy efficient and accelerate the use of clean energy. Through the Autodesk Foundation, we support nonprofits and social enterprises working to expand access to renewable energy.</p> <p><b>Customer story:</b> <a href="#">Powering energy, agriculture, waste, and mobility solutions</a>  <b>Learn more:</b> <a href="#">Energy &amp; Materials: Improve our operations</a>; <a href="#">Energy &amp; Materials: Partner with customers</a>; <a href="#">Energy &amp; Materials: Advance industries</a></p>
 <p>8 DECENT WORK AND ECONOMIC GROWTH</p>	<p>We invest in our employees, customers, and communities, to put people at the center of the future of work transformation. Diversity fuels our innovation and belonging unites us in our shared mission to help people imagine, design, and make a better world.</p> <p><b>Customer story:</b> <a href="#">Fashioning a more sustainable future</a>  <b>Learn more:</b> <a href="#">Work &amp; Prosperity: Improve our operations</a>; <a href="#">Work &amp; Prosperity: Partner with customers</a>; <a href="#">Work &amp; Prosperity: Advance industries</a></p>
 <p>9 INDUSTRY, INNOVATION AND INFRASTRUCTURE</p>	<p>We collaborate with customers, nonprofits, and social enterprises to create infrastructure designed to better withstand natural disasters and the impacts of climate change, and products, buildings, and entire cities that foster healthy and resilient communities. We support more inclusive and sustainable industries through our business operations and products.</p> <p><b>Customer story:</b> <a href="#">Reinforcing the largest dam in the Netherlands with digital construction and BIM</a>  <b>Learn more:</b> <a href="#">Health &amp; Resilience: Partner with customers</a>; <a href="#">Health &amp; Resilience: Advance industries</a>; <a href="#">Diversity and belonging</a></p>
 <p>11 SUSTAINABLE CITIES AND COMMUNITIES</p>	<p>Urban centers will play a pivotal role in sustainability in the coming decades, as populations continue to swell. We collaborate with customers to design, build, and maintain more sustainable, safe, and resilient cities, and we support nonprofits and social enterprises to drive innovation in this area.</p> <p><b>Customer story:</b> <a href="#">Tackling rapid urbanization in Medellín</a>  <b>Learn more:</b> <a href="#">Energy &amp; Materials: Partner with customers</a>; <a href="#">Energy &amp; Materials: Advance industries</a>; <a href="#">Health &amp; Resilience: Partner with customers</a>; <a href="#">Health &amp; Resilience: Advance industries</a></p>
 <p>12 RESPONSIBLE CONSUMPTION AND PRODUCTION</p>	<p>We are working to drive progress toward a future with minimal pollution and waste, where materials maintain value while cycling through a circular economy. We equip our customers, nonprofits, and social enterprises to better understand the impact of design and make decisions on materials use, supporting them to make choices that benefit their companies, communities, and the world.</p> <p><b>Customer story:</b> <a href="#">Constructing the most sustainable building in the Southeast</a>  <b>Learn more:</b> <a href="#">Energy &amp; Materials: Improve our operations</a>; <a href="#">Energy &amp; Materials: Partner with customers</a>; <a href="#">Energy &amp; Materials: Advance industries</a></p>
 <p>13 CLIMATE ACTION</p>	<p>Autodesk is a net-zero GHG emissions company across our business and value chain, beginning in fiscal year 2021, and we are driving progress toward new science-based GHG emissions reduction targets. We collaborate with customers, nonprofits, and social enterprises to develop innovative solutions and help tackle climate change.</p> <p><b>Customer story:</b> <a href="#">Low-speed EVs, faster to market</a>  <b>Learn more:</b> <a href="#">Energy &amp; Materials: Improve our operations</a>; <a href="#">Energy &amp; Materials: Partner with customers</a>; <a href="#">Energy &amp; Materials: Advance industries</a></p>

# Sustainability Accounting Standards Board index

This index includes and references information related to the Software & IT Services Sustainability Accounting Standard.

Topic	Reference code	Metric	Response
Environmental Footprint of Hardware Infrastructure	SASB TC-SI-130a.1	(1) Total energy consumed, (2) percentage grid electricity, (3) percentage renewable	<a href="#">Data summary: Carbon footprint</a>
	SASB TC-SI-130a.3	Discussion of the integration of environmental considerations into strategic planning for data center needs	<a href="#">Driving net-zero carbon emissions</a> ; <a href="#">Our carbon footprint</a>
Data Privacy and Freedom of Expression	SASB TC-SI-220a.1	Policies and practices relating to behavioral advertising and user privacy	<a href="#">Privacy and data security</a>
	SASB TC-SI-220a.3	Total amount of monetary losses as a result of legal proceedings associated with user privacy	<a href="#">Autodesk FY2021 Annual Report</a>
	SASB TC-SI-220a.4	(1) Number of law enforcement requests for user information, (2) number of users whose information was requested, (3) percentage resulting in disclosure	<a href="#">Autodesk Trust Center–Data Protection and Privacy</a>
	SASB TC-SI-220a.5	List of countries where core products or services are subject to government-required monitoring, blocking, content filtering, or censoring	<a href="#">Autodesk Trust Center–Data Protection and Privacy</a>
Data Security	SASB TC-SI-230a.1	Security incidents	<a href="#">Autodesk Incident Response Program</a>
	SASB TC-SI-230a.2	Approach to identifying and addressing data security risks, including use of third-party cybersecurity standards	<a href="#">Autodesk Trust Center</a>
Recruiting & Managing a Global, Diverse & Skilled Workforce	SASB TC-SI-330a.1	Regional breakdown of employees	<a href="#">Data summary: Employees</a>
	SASB TC-SI-330a.2	Employee engagement	<a href="#">Data summary: Employees</a>
	SASB TC-SI-330a.3	Percentage of gender and racial/ethnic group representation for (1) leadership, (2) tech workforce, and (3) sales workforce	<a href="#">Data summary: Employees</a>
IP Protection & Competitive Behavior; Managing Systemic Risks	SASB TC-SI-520a.1	Total amount of monetary losses as a result of legal proceedings associated with anticompetitive behavior regulations	Autodesk did not have any losses in fiscal year 2021 as a result of legal proceedings related to competitive issues.
	SASB TC-SI-550a.1	Status of Autodesk Cloud Services	<a href="#">Autodesk Cloud Services Health Dashboard</a>
	SASB TC-SI-550a.2	Business continuity risks related to disruptions of operations	Autodesk’s Global Business Continuity Program seeks to: Protect the business and people from threats to our operations such that critical business functions may incur an unacceptable interruption caused by: <ul style="list-style-type: none"> <li>– Impact to our facilities</li> <li>– Threats or outages affecting critical systems, applications, and data</li> <li>– Impact to or loss of key vendors</li> <li>– Regional events such as natural or man-made disasters, acts of war, or terrorism</li> <li>– Long-term occurrences, such as pandemics</li> </ul> Protect shareholders from threats to company reputation related to any of the incidents listed above
Activity Metric	SASB TC-SI-000.A	Total subscriptions	<a href="#">Autodesk FY2021 Annual Report</a>



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#### **Forward-looking statements**

This report includes estimates, projections, and other forward-looking statements within the meaning of Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934. These forward-looking statements generally are identified by the words “may,” “believe,” “could,” “expect,” “anticipate,” “estimate,” “intend,” “strategy,” “future,” “opportunity,” “plan,” “should,” “will,” “would,” and similar expressions. Forward-looking statements are based on current expectations and assumptions that are subject to risks and uncertainties that may cause actual results to differ materially. We describe risks and uncertainties that could cause actual results and events to differ materially in our reports filed with Securities and Exchange Commission. We undertake no obligation to update or revise publicly any forward-looking statements, whether because of new information, future events, or otherwise.

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