Autodesk Policy Recommendations to the Trump-Vance Administration and 119th Congress

Design & Make a Stronger Economy: Policies to Modernize Design, Construction & Manufacturing

January 17, 2025

Dear President-Elect Trump and Members of the 119th Congress,

Congratulations on your elections. This pivotal moment presents extraordinary opportunities to strengthen the foundations of our economy, empower our workforce, and position American industries to lead globally. With focused leadership, we can chart a path of innovation, resilience, and growth that benefits all Americans.

At Autodesk, we share your vision for a stronger, more dynamic economy. As a global leader in design and make software, we empower architects, engineers, manufacturers, and builders to improve the nation's roads, bridges, and public infrastructure, scale up building and construction, and manufacture more innovative products. Our technologies drive efficiency, resiliency, sustainability, and cost savings, and together, we can seize this moment to modernize our industries and amplify their potential to power long-term growth.

Enclosed are policy recommendations we believe will help drive meaningful economic progress. These include initiatives to accelerate the digital transformation of infrastructure and manufacturing, scale workforce development for needed job opportunities, and promote the development and adoption of artificial intelligence and other advanced technologies to improve efficiency and competitiveness in building, construction, and manufacturing. By focusing on these critical areas, the Trump Administration and Congress can lay the groundwork for a thriving economy that not only meets today's demands but also positions us for decades of success.

The challenges we face are significant, but so is our collective capacity to overcome them through American ingenuity, perseverance, and collaboration. Please consider Autodesk a committed partner in this effort—we are ready to provide insights, technology, and expertise to support this important work.

Sincerely,

Andrew Anagnost
President and Chief Executive Officer
Autodesk, Inc.

Autodesk congratulates President-elect Trump, Vice-President-elect Vance, and those elected to serve in the 119th Congress. We look forward to collaborating with the new Administration and Congress to support the building, construction, and manufacturing industries. In 2023, the construction and manufacturing sectors combined accounted for 14.6% of U.S. Gross Domestic Product (GDP). Together, we can drive job creation, enhance the design and construction of public infrastructure, improve manufacturing processes, and contribute to sustained economic growth.

Autodesk makes software for people who make things

Headquartered in California, we are a global leader in design and make software for architecture, engineering, construction, manufacturing and media and entertainment.

Building and **construction firms** and **transportation agencies** and **planners** use our software to design and manage the construction of buildings, highways, transit systems, and other public infrastructure.

Manufacturers of all sizes use our software to design products and fabricate them using digital and other advanced manufacturing processes.

Digital artists use our software to create visual effects for film, TV and video games.

Autodesk uses the power of the cloud, artificial intelligence (AI), and other innovative technologies to give our customers increasingly powerful tools to help them design and construct better buildings and infrastructure and design and manufacture more innovative products, in ways that save time and money, reduce waste, and improve resiliency. Examples include our work with the Ohio Department of Transportation that saved significant time and costs on highway construction, and with General Motors to develop more lightweight auto parts.

Building, construction, and manufacturing face challenges through supply chain issues, inflation, and skilled-labor shortages. However, recent federal and private investments, bolstered by continued leadership from government and targeted public policies, show promise to grow industrial innovation and global competitiveness in these nationally important industries.

The Trump-Vance Administration and Congress have an historic opportunity to leverage the transformative potential of technology to address these challenges. In architecture, engineering, construction, and manufacturing — industries Autodesk serves – digital tools can address capacity challenges, including the growing demand for housing, public infrastructure, and manufactured products. Currently this demand outpaces investment, skilled labor, and materials. By adopting digital design and production paired with investments in skills training, these industries can boost productivity, reduce waste, enhance resiliency, and highlight the ingenuity of American businesses.

This approach not only mitigates cost overruns, project delays, and material inefficiencies but also fosters the creation of sustainable, high-quality buildings, infrastructure, and products while opening new, higher-paying job opportunities.

While the private sector will continue to drive innovation, there are measures the government can adopt to maximize the productivity and competitiveness of these industries. These measures can eliminate inefficiencies, reduce costs for building and infrastructure owners and manufacturers in both the private and public sectors, and ensure the U.S. remains a leader in these critical fields. Working together, we can unlock the full potential of these industries and their workforce and strengthen the foundation of our economy.

Below we offer recommendations in four areas to support these goals:

Modernizing Building, Construction, and Infrastructure

Accelerating Manufacturing

Fostering Artificial Intelligence and Technology Development

Bolstering Workforce Development

Policy recommendations
Modernizing building, construction, and infrastructure

Recent federal investments, such as the Infrastructure Investment and Jobs Act (IIJA), the Federal Aviation Administration (FAA) Reauthorization Act, and the Water Resources Development Act, have laid a foundation for modernizing the nation's infrastructure. Digital design and construction technologies provide a key tool to maximize the impact of these government investments, enabling more innovative, cost-effective, and resilient public infrastructure. The IIJA and FAA Reauthorization bills included provisions that had strong bipartisan support aimed at fostering use of Advanced Digital Construction Management Systems (ADCMS), which include digital design and construction tools. For example, the IIJA created a Federal Highway Administration (FHWA) program to provide grants to state departments of transportation to foster their adoption of ADCMS technologies. These initiatives were an important start, and further action is needed to deliver world-class infrastructure.

In the building sector, digital design and construction technologies, especially Building Information Modeling (BIM), can significantly reduce costs, improve productivity, accelerate project timelines, reduce waste and rework, and improve energy efficiency. The General Services Administration (GSA), Department of Defense (DoD), U.S. Army Corps of Engineers (USACE), and other federal agencies should lead by example, maximizing efficiency through better use of these technologies in federal building and infrastructure construction.

Autodesk Recommendations:

Maintain significant investments in the nation's public infrastructure. Build on recent investments in surface transportation, airports, water systems, and other infrastructure projects. Ensure continued, significant funding to support economic growth, jobs, and quality of life with world-class infrastructure. An early opportunity for this will be reauthorizing surface transportation programs that expire in September 2026.

Drive digital transformation of public infrastructure development. Develop a government-wide strategy to promote and facilitate use of digital tools in the design and construction of public infrastructure projects. This should include expanding the FHWA ADCMS grant program for state departments of transportation and developing similar programs for transit, rail, airports, water systems, and other infrastructure sectors.

Improve federal building construction productivity and asset management. Promote widespread adoption of BIM and other digital design and construction tools on GSA, DoD, USACE, and other federal building construction projects to boost productivity, cut costs, and improve efficiency. Utilize digital twins and other advanced processes to enhance the management of government-owned and funded assets.

Accelerating manufacturing

Geopolitical tensions, global emergencies, and supply chain disruptions have underscored the [urgent need for the U.S. to modernize its industrial base through investment in advanced manufacturing](#). However, this effort faces significant challenges including skills and labor shortages and outdated equipment. Many small and medium-sized enterprises (SMEs) still rely on machines and processes that are decades old, hindering their competitiveness.

Technological advances present a transformative opportunity for manufacturers to overcome these obstacles while driving productivity, profitability, growth, and resilience. Smarter products and shifting consumer preferences toward high-quality, customizable, and sustainable goods offer agile manufacturers a competitive edge. Where once cutting-edge manufacturing technologies were exclusive to large companies; SMEs now have access to similar capabilities at much lower costs.

Emerging technologies, including AI, are poised to enhance U.S. manufacturing competitiveness. AI tools are already enabling manufacturers to address challenges more efficiently and sustainably, while augmenting creativity and decision-making. Combined with cloud-enabled collaboration and data management, robotics, digital twins, and advanced manufacturing techniques, these tools empower manufacturers to boost efficiency, reduce errors, and adapt supply chains to deliver smarter, premium products.

Despite this potential, SMEs—the backbone of a resilient domestic supply chain—cannot fully benefit from these advances without targeted policy support that incentivizes investment in technology adoption. Burdened with outdated infrastructure, SME's risk being left behind, threatening U.S. manufacturing competitiveness. Investing in SME digital transformation is essential for revitalizing American manufacturing and securing its future in a global economy.

Autodesk Recommendations:

Accelerate digital transformation for small and medium manufacturers. Targeted tax credits and financing assistance for modernizing software and machinery are essential to enhancing the sector's resilience and the industry's global competitiveness.

Encourage the development and adoption of interoperability standards. Industry standards that improve interoperability of hardware and software tools used in manufacturing will promote better sector efficiency. This will enable manufacturers to upgrade or integrate their technologies more easily and cost effectively.

Include factory design, construction, and operations in manufacturing initiatives. Leveraging digital tools to design, build, and operate factories is a key opportunity for manufacturers to realize savings and efficiencies that support business growth. For example, digital twins provide a multi-dimensional view of how a factory is designed, built, and operating, which allows for performance optimization and reduced down-time caused by maintenance issues. Any initiatives supporting U.S. manufacturing should prioritize the development of the most advanced digital factories.

Continue to support the Manufacturing USA Institutes and Manufacturing Extension Partnerships (MEPs). Continued funding for these programs is crucial to supporting innovation, regional manufacturing ecosystems, and SMEs. These resources can also drive specialized initiatives focused on accelerating SME digital transformation.

Fostering artificial intelligence & technology development

AI will be a key tool driving modernization of the building and construction and manufacturing industries. Key applications include designing more energy efficient buildings and resilient public infrastructure, identifying safety risks on construction sites, and streamlining product design in manufacturing. These, and other AI use cases for these industries, save time and money on projects, reduce waste, and improve resiliency.

[The construction industry generates enormous amounts of data, but by some estimates 95% of this data goes unused](#) – including material usage, sourcing information, energy consumption, transportation logistics, and waste production during the building process. AI can harness this data to improve decision-making on material use and energy consumption, accelerate project timelines, reduce waste, and cut costs. This has immense potential to benefit public infrastructure development.

In [manufacturing](#), AI empowers SMEs by streamlining design processes, enabling predictive equipment maintenance, improving quality control, and creating digital twins for process optimization. To fully realize AI's potential, these industries must make significant progress in adopting digital design and make processes. The policy recommendations listed below can play a key role in driving this digital transformation. Additionally, the Trump-Vance Administration and Congress should advance policies that accelerate AI development, build public trust, and mitigate risks. [Striking the right regulatory balance](#) will be critical to fostering innovation while ensuring AI is deployed safely and responsibly.

Autodesk Recommendations:

Foster data sharing to improve AI. In many industry sectors, data-sharing among industry participants will be needed to provide sufficient data to train AI models so they can produce accurate and insightful outputs. Public policies should create policies and frameworks to support data-sharing in economically critical industry sectors, like construction and manufacturing, while protecting privacy and proprietary information.

Support development of AI safety standards and risk management programs. The government should continue to support important initiatives to develop AI safety and risk management standards, including the National Institute of Standards and Technology (NIST) AI Risk Management Framework and the U.S. AI Safety Institute, and require organizations to implement risk management programs. Autodesk is contributing to the development of standards and guidelines for safe and trustworthy AI through participation in the [U.S. AI Safety Institute Consortium (AISIC).](#)

Establish uniform national technology laws. We support ongoing efforts to develop federal risk-based AI regulations and a strong national consumer privacy law to ensure safe and trustworthy deployment of technology. It is essential that technology laws and regulations align and are consistent and interoperable to ensure uniform requirements and protections across the country.

Supporting a future-ready workforce

Strong building and construction and manufacturing sectors are foundational for American competitiveness and security, offering millions of good-paying jobs that do not require a college degree. However, both industries face an acute skills and labor shortage. The manufacturing sector is expected to have 3.8 million unfilled jobs within the next decade due to skills gaps, while the construction workforce shortage is predicted to be over half-a-million in 2025.

Information technology is playing an increasingly important role in these industries, boosting productivity and efficiency. According to Autodesk's 2024 Design and Make Report, business executives in these fields identify AI and digital skills as top skills needed for future success. With proper training, the American workforce can capitalize on these advancements. Government support for workforce development and digital skills training is critical to addressing the scale of this challenge.

Autodesk Recommendations:

Invest in critical industry skills. Government should invest in training programs for key sectors like manufacturing, infrastructure, and construction to ensure economic competitiveness and help displaced workers upskill for these in-demand fields.

Support adoption of digital, STEM, and industry-led training. Initiate programs that connect business and educators to identify skills gaps and develop tailored curriculums to train students and mid-career workers. Strengthening the school-to-career pipeline is essential for building a resilient, digitally skilled workforce. Digital and STEM skills are particularly critical.

Promote and modernize apprenticeship programs. Apprenticeship programs have long opened doors to high-wage manufacturing and construction careers. Expand and invest in flexible, industry-led apprenticeship programs that provide on-the-job training and create career pathways.