

2023 STATE OF DESIGN & MAKE

Architecture, Engineering, and Construction (AEC) Summary

Leaders in AEC industries give us insights into their biggest business challenges and opportunities.



The **State of Design & Make** report is a global, annual study for leaders who design and make places, objects, and experiences. It identifies the most pressing **drivers of change** that are **shaping today's business decisions** to help leaders **prioritize and invest in the future**.

Autodesk partnered with Ipsos, a leader in global research and insights, to **survey and interview 2,565 leaders, futurists, and experts** who shared their points of view on the obstacles they are facing and opportunities they are identifying.

Read the full **State of Design & Make** report—including all glossary terms and research insights

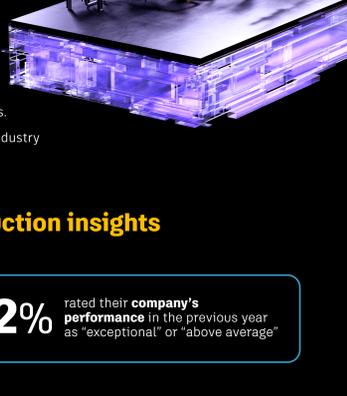
BUSINESS RESILIENCE EMERGES AMID UNCERTAINTY

Cross-industry summary

Business leaders and experts across industries reported that the **future global landscape feels more uncertain** than it did three years ago. However, most also said that their **companies are prepared to respond to this uncertainty**.

A company's digital maturity made a big difference in this. Respondents who identified their company as being **more digitally mature** said they are prepared to **handle change at higher rates** than those from less digitally mature companies. More digitally mature companies were also planning on **increasing investments** in the next three years at higher rates.

Those whose companies are keeping up with the pace of change in their industry are more likely to say their organizations have plans to increase existing services, offer new services, and potentially expand into new markets.



Architecture, engineering, and construction insights

79% of respondents in AEC industries said that the **future growth** of their company will depend on digital tools

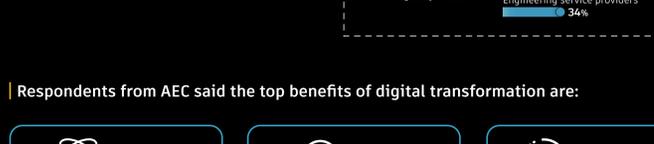
52% rated their **company's performance** in the previous year as "exceptional" or "above average"

Over the next three years, respondents in AEC industries said the **top areas for increased investment** are:

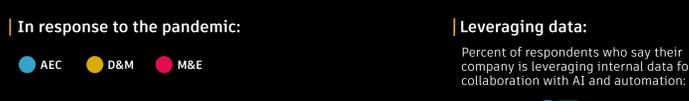


Companies on their digital transformation journey

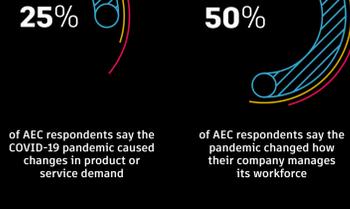
Digital transformation is defined as "the digital conversion between data and processes." Companies were asked where they see themselves on this journey.



Respondents from AEC said the top benefits of digital transformation are:

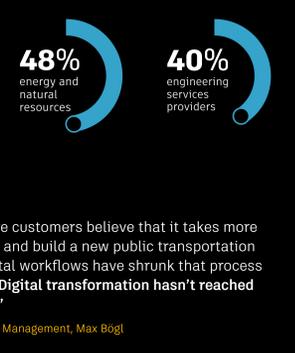


In response to the pandemic:



Leveraging data:

Percent of respondents who say their company is leveraging internal data for collaboration with AI and automation:



Many civil infrastructure customers believe that it takes more than 20 years to design and build a new public transportation line—but, in reality, digital workflows have shrunk that process to less than five years. **Digital transformation hasn't reached the broad industry yet.**

Andreas Rau, Head of Product Management, Max Bögl

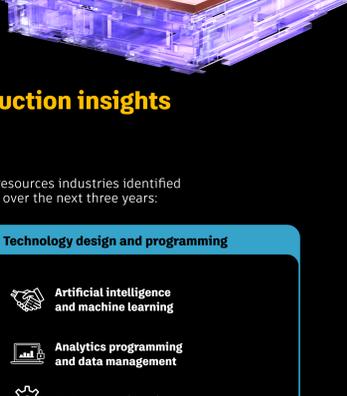
THE COMPETITION FOR TALENT HEATS UP

Cross-industry summary

Seventy-two percent of respondents industry-wide said that the **workforce has evolved more in the past three years than it had in the previous 25 years**.

Remote work and a reputation for **sustainability** are important tools for companies looking to fill talent gaps.

Leaders from more digitally mature companies are **investing in technology, hiring from a broader geographical area, and implementing new training programs**.



Architecture, engineering, and construction insights

Skills of the future

Respondents in the architecture, engineering, and energy and natural resources industries identified the following as the most important skills for the company's workforce over the next three years:



Talent challenges:



Talent solutions:

In the next three years, my company plans to invest more in technology-focused training. *Percent of respondents who agree:*



Sometimes, new graduates' knowledge appears to be outdated in comparison to our industrial practices. ...We've developed tutorials based on our own patent **about our internal employees acquire knowledge about our internal development and patents.**

Minglai Ma, Chief of Engineering Research Institute, China Construction Eighth Engineering Division Corporation (CCEEDC)

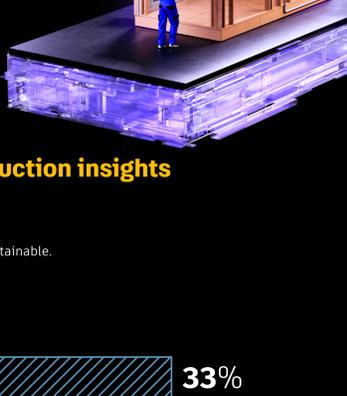
SUSTAINABILITY DRIVES BUSINESS VALUE

Cross-industry summary

The majority of business leaders and experts said it is **important for their companies to achieve their sustainability goals. Nearly 90% of respondents said that their industry/organization has made changes to improve sustainability.** However, only 17% strongly agree that they are proud of their company's sustainability initiatives.

Eighty percent of respondents said that improving **sustainability practices is a good long-term business decision.** More than half also said it is a good short-term decision.

Furthermore, nearly 20% of respondents said **sustainability measures will eventually account for a substantial portion of revenues.**



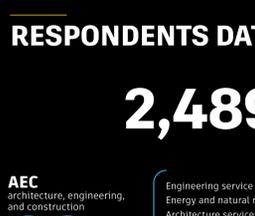
Architecture, engineering, and construction insights

Sustainable actions

Respondents identified what their companies are doing to be more sustainable. AEC led the way in the following actions:



Different groups are influencing organizations to create and meet sustainability goals:



When you're talking about making progress on decarbonization, a major component comes down to cost. We have clients that are very interested in carbon reductions and are accurately valuing the cost of emissions, but we also have clients who are not at that stage yet. **At the end of the day, important carbon reductions may not get implemented if they're not also cost-effective.**

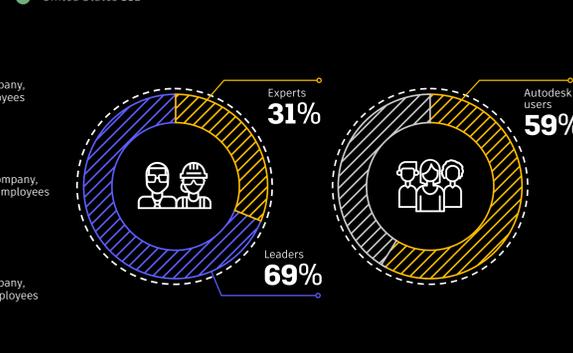
Dalton Ho, Regional Sustainable Design Leader, Associate, Perkins&Will

RESPONDENTS DATA

2,489 quantitative survey respondents + **76** interview participants



- APAC**
- Australia 262
 - China 215
 - India 197
 - Japan 220
 - South Korea 110
- Europe**
- France 202
 - Germany 254
 - Italy 109
 - Netherlands 101
 - Sweden 104
 - United Kingdom 257
- AMER**
- Canada 107
 - United States 351



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