Design and Manufacturing

Leaders in manufacturing industries give

challenges and opportunities.

us insights into their biggest business

(D&M) Summary

The State of Design & Make report is a global, annual study for leaders who design and make places, products, 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

EMERGES AMID UNCERTAINTY Cross-industry summary

BUSINESS RESILIENCE

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

Business leaders and experts across industries reported that the

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.

Design and manufacturing insights

company will depend on digital tools

Over the next three years, respondents in D&M industries said the top areas for increased investment are:

of respondents in D&M industries said that the **future growth** of their company will depend on digital took

Automotive and other transportation 69% project outcomes Consumer products **73**% Additional manufacturing sectors* 69%

Developing new products and/or services

Consumer products 76% Additional manufacturing sectors **70**%

Automotive and other transportation

68%

76%

transformation are defined

as "more digitally mature" **

rated their company's

performance in the previous year

as "exceptional" or "above average"

Data management and analytics

Tech to deliver

72% Consumer products **76**% Additional manufacturing sectors 67% Companies on their digital transformation journey

Automotive and other transportation

Digital transformation is defined as "the digital conversion between data and processes." Companies were asked where they see themselves on this journey. Respondents in D&M were less likely, compared to other industries, to say their organizations are "more digitally mature."

Product and/or

service innovation

Additional manufacturing sectors

Automotive and other transportation

29%

34%

Additional manufacturing sectors

Consumer products

Automotive and other transportation

Consumer products

M&E

M&E

6% **22**% **48**% **23**% More digitally mature Less digitally mature Companies in the early Companies that are approaching or middle stages of the or have already achieved their

AEC (architecture, engineering, and construction) More digitally mature

Reduced

costs

journey are defined as

"less digitally mature"

More digitally mature

(media and entertainment)

Respondents from D&M said the top benefits of digital transformation are: Launch products

More digitally mature

D&M

Simplify planning and make better business decisions

Percent of respondents who say their

company is leveraging internal data for collaboration with AI and automation:

In response to the pandemic: Leveraging data:

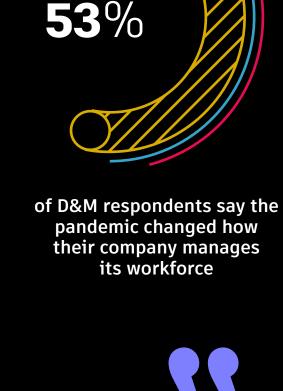
D&M **AEC 30**%

of D&M respondents say the

COVID-19 pandemic caused

changes in product or

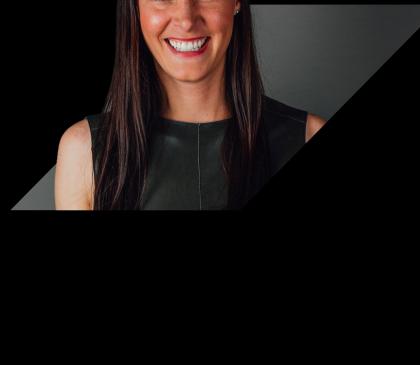
service demand



D&M TOTAL

automotive and other transportation additional consumer services manufacturing

sectors



THE COMPETITION

in the previous 25 years.

disruptions." Samantha Snabes, Co-founder, re:3D Inc FOR TALENT HEATS UP **Cross-industry summary**

Product

D&M TOTAL

formulation

Customer

engagement and experience skills

60%

automotive and other

transportation

Over the next three years, the manufacturing industry needs

diversification. Widening the supply chain by supporting more

raw materials suppliers and regional hubs that fabricate critical

to prioritize trade skill development and supply chain

components will create more competition in the market,

industry will still be functional if there are supply chain

business opportunities, and jobs. It will also ensure that the

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

tools for companies looking to fill talent gaps.

Design and manufacturing insights

Skills of the future

Seventy-two percent of respondents industry-wide said that

Remote work and a reputation for **sustainability** are important

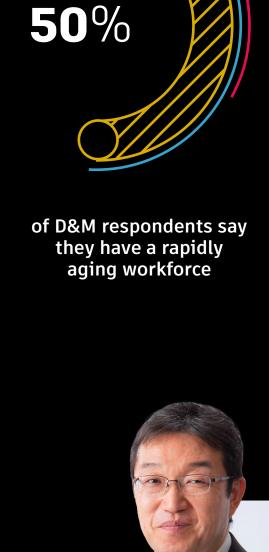
the workforce has evolved more in the past three years than it had

Respondents in the automotive and other transportation industries identified the following as the most important skills for the company's workforce over the next three years:

Innovation and business development

Ability to manage **Knowledge of-and** Ability to work within a business model that remote teams ability to uncovernew industry trends leverages digital transformation

Talent challenges: **Talent solutions:** In the next three years, my company plans to invest more in technology-focused training. D&M AEC M&E





44%

of D&M respondents say their company culture is

slow to adapt to the needs of younger generations

66% **69**% additional consumer manufacturing services sectors

Percent of respondents who agree:



Sustainable actions

D&M

D&M led the way in some actions:

AEC

Automotive and other transportation

Additional manufacturing sectors

Automotive and other transportation

Consumer products

Consumer products

SUSTAINABILITY DRIVES

87%

85%

87%

85%

71%

Design and manufacturing insights

M&E

Designed products considering environmental impact

Respondents identified what their companies are doing to be more sustainable.

Decreasing waste from production and/or using more recycled materials

Developed or invested in more energy-efficient processes or machinery

said **customers**

33% Different groups are influencing organizations to create and meet sustainability goals: said employees are influential Automotive and other transportation **55**% Consumer products 70% Additional manufacturing sectors 65%

Automotive and other transportation

Additional manufacturing sectors

Consumer products

participants

42%

architecture, engineering,

media and entertainment

and construction

One of the biggest challenges for sustainable materials is

aviation where sustainable products were released too early,

making them work commercially. There are examples in

and they couldn't stay in the marketplace or keep their

responsible for approximately 5% to 10% of an aircraft's

competitive advantage. The aircraft cabin is currently

75%

77%

73%

Additional manufacturing sectors 75%

CO2 emissions. However, the latest research and technology developments and cabin innovations we are currently working on will contribute to reducing these figures, for example, by weight reduction or circular materials." Stefan List, Head of Cabin Market Insights, Airbus RESPONDENTS DATA

quantitative

survey respondents

Australia **262**

China **215**

India **197**

Japan **220**

Europe

France **202**

Italy **109**

Germany **254**

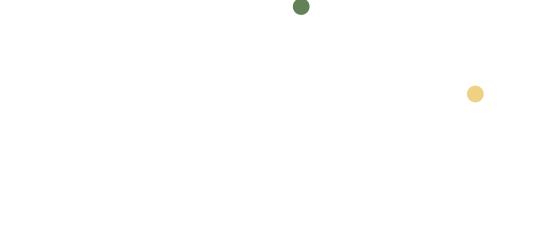
Netherlands 101

Sweden **104**

South Korea **110**

D&M 14% Automotive, aerospace, and other transportation design and manufacturing 11% Manufacturing (other) **Industrial machinery 8%** Process manufacturing **8%** Education 7% Building products and fabrication 6% Life sciences manufacturing 5% **APAC**

Consumer products*





including all glossary terms and research insights

Leaders **69**% Large company, 5,000+ employees Access the full **State of Design & Make** report—

Life Sciences Manufacturing, Process Manufacturing, and Manufacturing Other. ** Values do not add up to 100% due to rounding. Source: Autodesk, 2023 State of Design & Make report and study data

<u>United</u> States **351**

31%



Medium company, 20–4,999 employees

Read full report

31%

* Includes Building Products and Fabrication, Industrial Machinery,

United Kingdom 257 27% Small company, 1–19 employees

Experts









AUTODESK