Global Digital Transformation Survey Report

Industry Report: CONSTRUCTION

Digital Transformation Delivering Business Outcomes

shaping tomorrow with you

Contents

Introduction: The construction industry and digital transformation

This report contains analysis of the construction industry data from the 2017 Fujitsu Global Digital Transformation Survey. The research was conducted to find out more about how business leaders are responding to digital transformation challenges, and to identify what initiatives they are undertaking in the area. We received 1,614 responses from business leaders across 15 countries, including 113 from respondents in the construction industry.

Digital technologies such as the Internet of Things (IoT) and Artificial Intelligence (AI) are being embedded into core value-generation processes in business and society, transforming people's work and daily lives and generating innovation. This is digital transformation. Business leaders around the world are becoming aware of the power of digital transformation, and taking action to realise its huge potential.

Today, digital technologies are moving into the heart of everything we do, changing the way businesses and people work, how they live and how they innovate. In the new digital society, digital transformation and digital co-creation become business norms. Digital co-creation means blending your business expertise and digital technology, and creating new value – together with ecosystem partners and customers – to shape a better future.

Digital transformation initiatives usually start from the testing phase, then a Proof of Concept (PoC) and a Proof of Business (PoB) phase, and then shift to the implementation phase. But new technology alone is not sufficient for digital transformation. New talents, and people who have different skills and innovative ways of doing things, are required. Leadership, agility and co-creation with partners are very important elements.

The theme of the Global Digital Transformation Survey is aligned with the story of Fujitsu Technology and Service Vision, which sets out our vision and insights into how business leaders can leverage digital transformation in business and society, enabling and creating a better future.

The Fujitsu Technology and Service Vision can be downloaded from the following link:
URL: http://www.fujitsu.com/global/vision/

Key findings

- Manufacturing is the top specific functional area for digital transformation in organizations in the construction industry, with 52.2% of organizations reporting projects in that area.
- The most positive outcome of digital transformation is strengthened relationships with customers , with more than half (51.3%) of construction industry respondents reporting this as the most positive outcome. Many organizations also report a strengthened competitiveness of products (46.3%) and increased revenue (40.0%).
- Key factors in delivering digital transformation are strong leadership (mentioned by 22.4% of construction industry respondents), and streamlined organizations/processes and the creation of a culture for digital transformation (each 16.3%).
- Almost one quarter (23.9%) of construction industry leaders say it is important to have a strong technology partner to achieve digital transformation. They believe these technology partners need to have strong technological capability and an understanding of the organization's business (both mentioned by 19.5 respondents).
- Most construction industry respondents believe that artificial intelligence (AI) represents an opportunity (84.1%), rather than a threat (just 6.2%). Almost as many (79.3%) believe that AI will enhance people's capabilities in the future, but 61.4% believe that jobs may be displaced.
- Business leaders in the construction industry believe that creativity and imagination is the most important capability needed in the digital era. It was rated the most important capability by nearly one quarter (23.9%) of respondents. Next most important is a professional knowledge of the a specific business function (16.8%), followed by professional knowledge of digital technologies (14.2%). This indicates a strong perception that a balance of skills is needed to drive digital transformation.

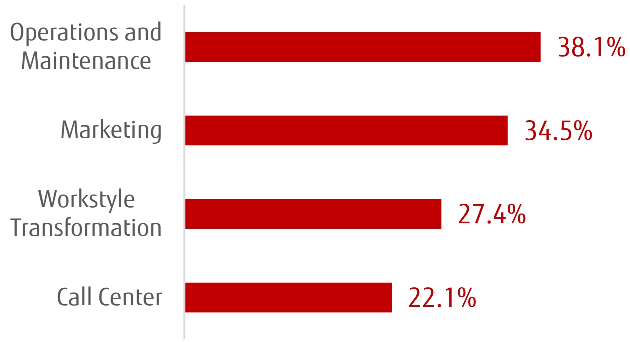
What is the focus of digital transformation?

Digital transformation is undertaken in many functional areas. The survey asked construction industry business leaders about the extent to which digital transformation has been implemented in four key cross functional business infrastructure areas common to most organizations: marketing, work style transformation, operations and maintenance, and call centers.

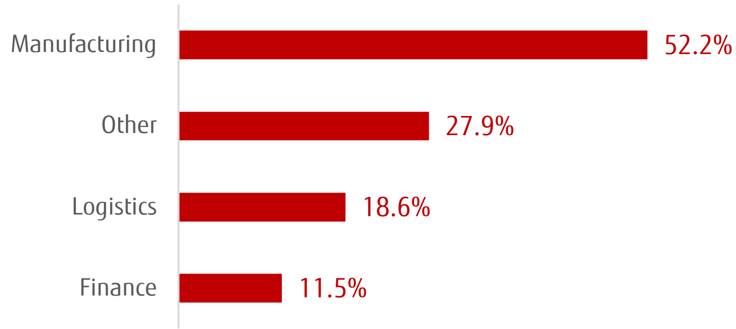
Of these functions, digital transformation is the most likely to take place in operations and maintenance, where projects are underway or have been implemented in more than one third (38.1%) of organizations in the construction industry. Marketing (34.5%), workstyle transformation (27.4) and call centers (22.1%) are also areas in which a significant amount of digital transformation is taking place.

The survey also asked about the status of digital transformation in more industry specific functions: logistics, finance, manufacturing, and others specific to the construction industry. More than half (52.2%) of companies in the construction industry have implemented or are implementing digital transformation process in manufacturing, and one quarter (27.9%) in specific functional areas. These are followed by logistics (18.6%) and finance (11.5%)

What is the functional focus of your digital transformation? (cross functional)



What is the functional focus of your digital transformation? (specific functions)



How advanced are organisations on their digital journey?

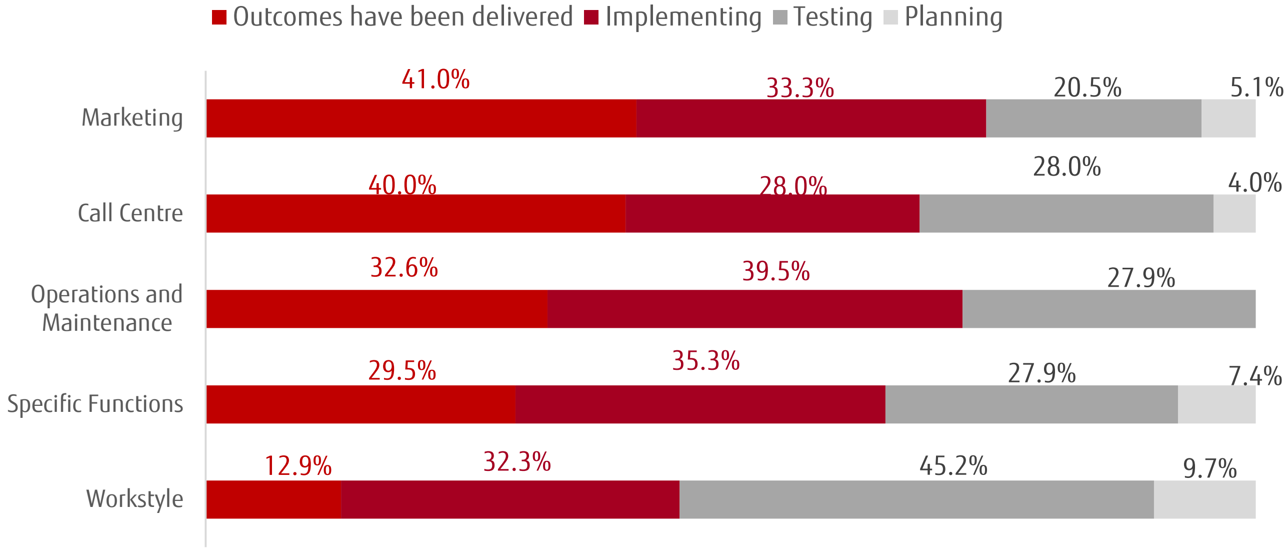
The highest level of delivered digital transformation outcomes in the construction industry is in marketing (41.0%), followed by call center (40.0%) and operations and maintenance (32.6%).

Nearly one third (29.5%) of industry-specific digital transformation projects have been delivered, and 12.9% of workstyle transformation projects.

(Note that this chart aggregates the industry-specific areas on the previous chart.)

The results indicate that digital transformation is quite advanced amongst organizations in the construction industry. The great majority of projects are in the process of being implemented or have delivered on their outcomes, with some in the testing phase and relatively few in the planning phase.

Which best describes the progress of the digital transformation?



What are the benefits of digital transformation?

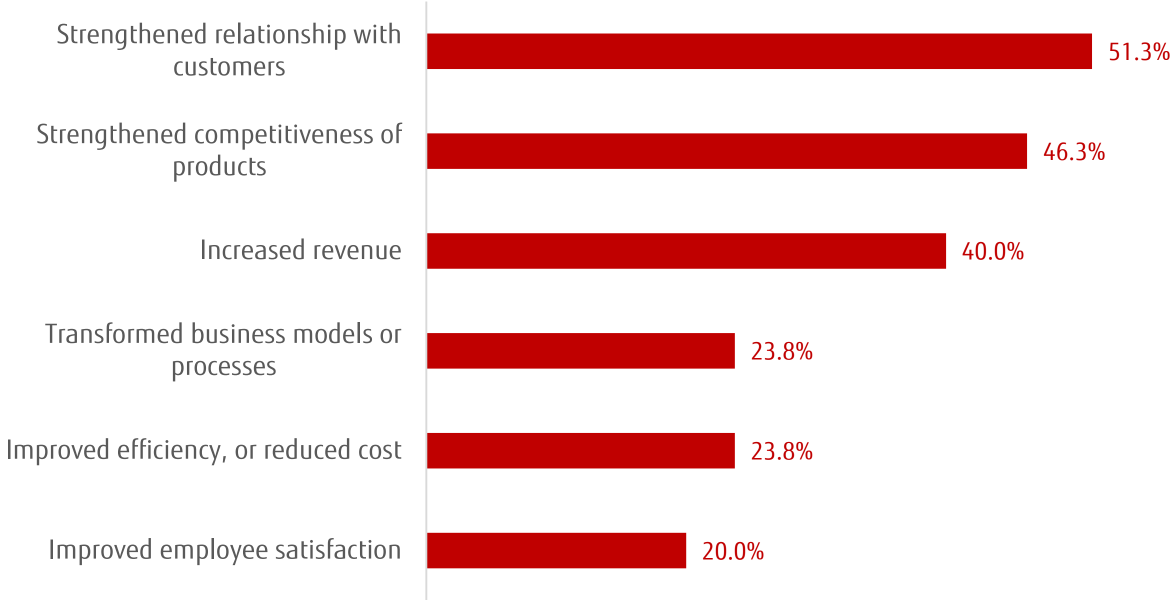
The survey asked construction industry business leaders what kind of outcomes have been delivered through their digital transformation projects. More than half (51.3%) say that the greatest benefit of digital transformation has been a strengthened relationship with customers

Nearly half (46.3%) say it has strengthened competitiveness of products, and almost as many say it has increased revenue (40.0%).

Other benefits are the transformation of business models or processes (23.8%), improved efficiency or reduced cost (23.8%), and improved employee satisfaction (20.0%).

The results indicate the many benefits of digital transformation in the construction industry. The effects are felt across the organization, not just on the bottom line.

Which outcomes has digital transformation delivered to your organization?



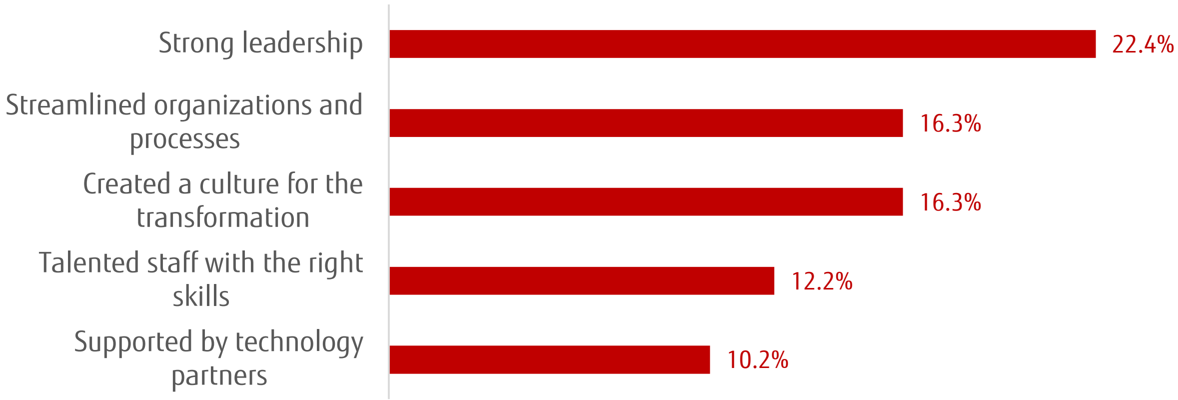
What are the key success factors and inhibitors in digital transformation?

Digital transformation is not just about introducing new technologies. In order to deliver successful outcomes, organizations need strong leadership and talented staff with the right skills.

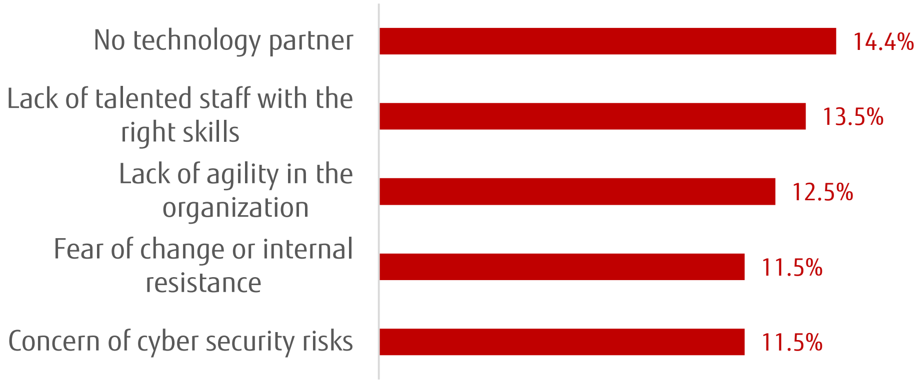
The survey asked construction industry business leaders what they believed to be the key factors for successful digital transformation. At the top of the list is strong leadership (22.4%), followed by streamlined organizations and processes (16.3%), the creation of a culture for the transformation (16.3%), talented staff with the right skills (12.2%), and support from technology partners (10.2%).

The survey also asked about which factors hindered digital transformation. The most often mentioned was the lack of a technology partner (14.4%), a lack of talented staff with the right skills (13.5%), and a lack of agility in the organization (12.5%). Fear of change or internal resistance and concern over cyber security risks were each mentioned by 11.5% of construction industry respondents.

Which factors were key in delivering digital transformation outcomes?



Which factors hindered the progress of digital transformation?



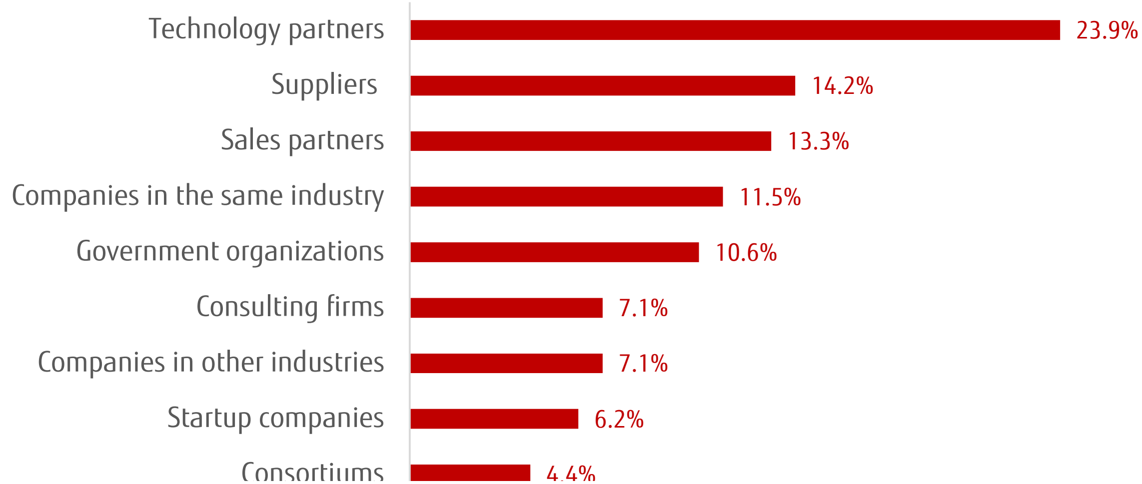
How important is a strong technology partner for digital transformation?

Success in digital transformation requires cooperation with external partners. Business leaders in the construction industry were asked which types of partners were most important.

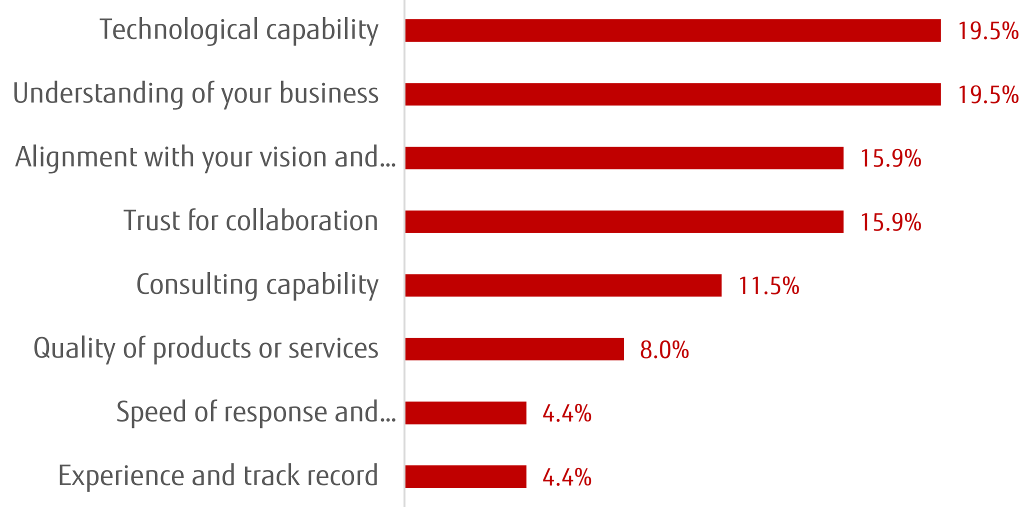
The most highly rated were technology partners, ranked as most important by nearly one quarter (23.9%) of respondents. Other important partners were suppliers (14.2%), sales partners (13.3%), and other construction industry companies (11.5%).

 Respondents were also asked about what they expect from a technology partner. The most important attributes are technological capability an understanding of the organization's business (both mentioned by 19.5% of construction industry respondents) and an alignment with the organization's vision and strategy and trust (both 15.9%).

Which partners are important to collaborate with for digital transformation?



What do you expect from a technology partner for digital transformation?



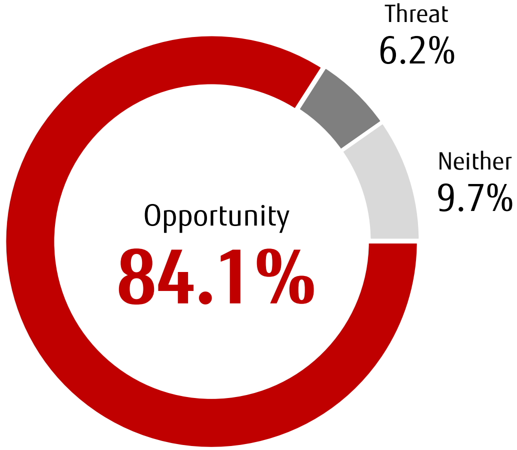
What is the potential of Artificial Intelligence?

The survey asked US business leaders three questions about perceptions of artificial intelligence (AI).

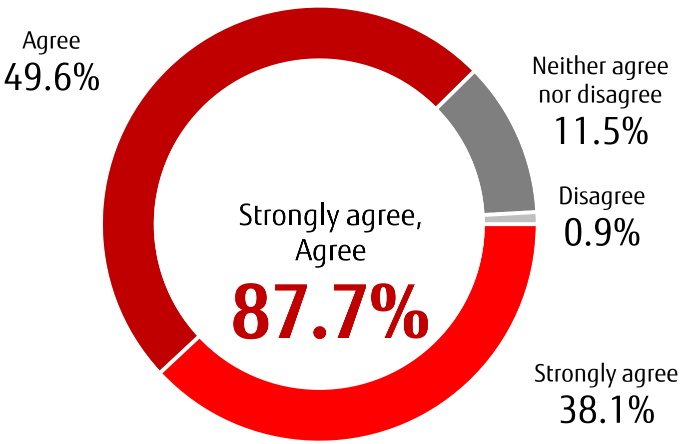
Of the respondents surveyed, 84.1% see AI as an opportunity, with just 6.2% seeing it as a threat. But there is some ambivalence about its effects.

Most survey respondents strongly agree (38.1%) or agree (49.6%) that AI will enhance people's capabilities in future, but they also believe that AI will be used for work currently performed by people (23.9% strongly agree, 40.7% agree).

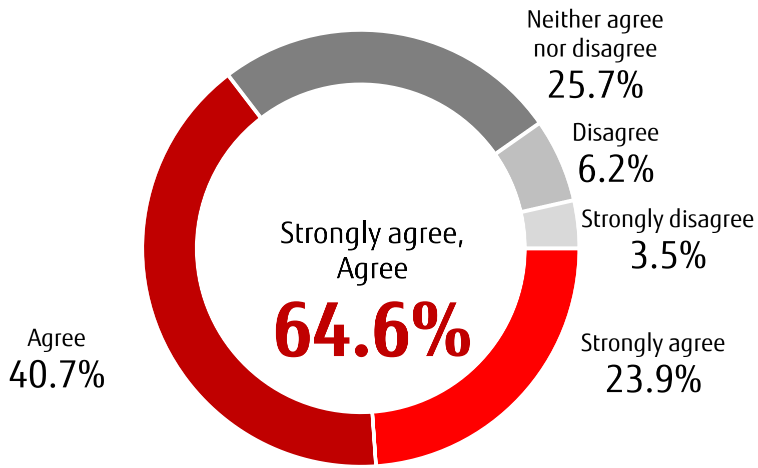
Is AI an opportunity or a threat?



Will AI enhance people's capabilities in the future?



Will AI substitute for people's work in the future?



What are the key skills and capabilities required in the digital era?

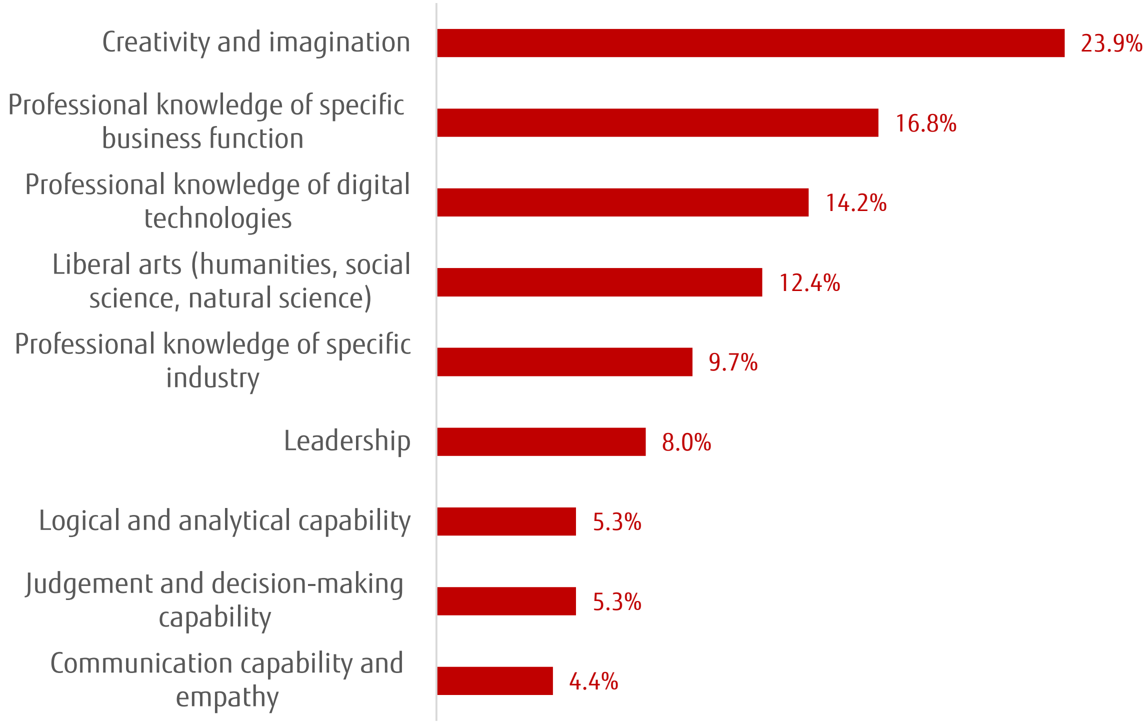
Business leaders in the construction industry believe that creativity and imagination is the most important capability needed in the digital era. It was rated the most important capability by nearly one quarter (23.9%) of respondents.

Next most important is a professional knowledge of the a specific business function (16.8%), followed by professional knowledge of digital technologies (14.2%).

Other important capabilities are the liberal arts (12.4%) and a professional knowledge of specific industries.

The range of capabilities mentioned indicates that there is a strong perception that a balance of skills is required to drive digital transformation – it is not just about technical capabilities.

What are the most important capabilities people need in the digital era?



About the survey

Survey topics:

- Current awareness of digital transformation: Fields, progress, outcomes, factors behind success, issues
- Co-creation in digital businesses: Required partners, elements required of technology partners
- AI (artificial intelligence) awareness: Perspective on AI, skills required during the digital age

Survey method:

- Online

Fieldwork period:

- February 2017

Survey respondents:

- Company size: Medium and large (at least 100 employees and sales of at least USD 1 million during the previous FY)
- Respondents: Management (CEOs, CMOs, CFOs, CIOs, CDOs, CSOs) and decision-makers equivalent to management

Sample composition and size:

The survey was of 1,614 business leaders in 15 countries, 9 of which were separately analyzed and across 18 industry sectors, 6 of which were separately analyzed.

Countries surveyed were:

- Americas: Canada (56)
- Europe: Finland (56), Germany (103), France (103) Spain (103), Sweden (52), United Kingdom (103)
- Asia: China (103), Indonesia (52), Japan (309), Republic of Korea (55), Singapore (103), Thailand (52)
- Oceania: Australia (106)

Major industries surveyed were:

- Construction (113), Finance/Insurance (138), IT/Communications (195), Manufacturing (314), Medical/Health/Welfare (98) and Wholesale/Retail (137).

Download the Global report at: http://www.fujitsu.com/global/microsite/vision/insightful-stories/survey1/

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A Note Concerning Future Projections, Forecasts and Plans

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