2024 Top Challenges, Trends, and Technology

in Construction & Engineering

IFS



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About the survey

Spanning 14 countries and 825 respondents, the **2024 Global Construction and Engineering Study**, commissioned by IFS and conducted by market research firm Censuswide, provides unique insights into how rapidly the sector is evolving and how business leaders are overcoming challenges and embracing new opportunities.

In an industry battling long-standing profitability concerns while undergoing diversification into new business models, revenue streams and geographies, digital immaturity poses significant barriers to growth and scalability.

This eBook, sharing analysis on the findings by senior IFS Construction Industry Directors Kenny Ingram and Chris Knight, reveals how respondents are prioritizing their modernization strategies and embracing new trends. It also highlights technology adoption plans, and **the ways that digital ERP solutions can provide compelling solutions**.

2024 Global Survey Overview

The **sample reflects on the entire industry**–spanning not only different types of organizations, but also varying respondents' areas of responsibility, business models, company sizes, and operating geographies. With only 10% of companies operating in a single domestic market, **the importance of globalization is clear**. And with most respondents holding positions at VP level and above, the **research findings showcase the viewpoints of business leaders**.



37%

operate in 5 – 10 countries



$250M to over $5BN

annual revenue

(73% >$500M)



100-50K+

employees

(59% with >1K+)



61%

are VP and above

(36% C-level execs)

Who did we survey?

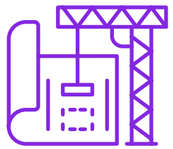
Respondents' Subindustries



31%
Engineering Contractor/EPC



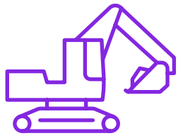
28%
General Contractor



16%
Engineering Consultant



14%
Property Developer



11%
Specialty Contractor

Construction Execution Models



48%
Subcontract Construction packages



30%
Self-perform (own labor force)



12%
Mix of models

Top 5 challenges companies are facing today

When asked to cite the top challenges facing their organization, the data reveals a very diverse spread of issues, with very little variance: no stand-out issues are consistently identified, indicating that companies are likely overwhelmed – **struggling to prioritize which challenges should be dealt with first**.

#1



24%

Having timely, real-time and accurate management information as a single source of truth

#1	24%	**Having timely, real-time and accurate management information as a single source of truth**
#2	23%	Improving project and business margins / addressing profitibility concerns
#3	23%	Mitigating project and business risk
#4	23%	Overcoming supply chain issues including shortages of construction materials and prices increases
#5	23%	Maintaining regulatory compliance (i.e., building codes, sustainability mandates etc.)



This also suggests **layers of complexity that vary from project to project**, all consistently and repeatedly posing threats to the business.

This diverse commonality of recurring issues also corresponds with a **disjointed business system landscape,** overreliance on Excel, and a **failure to adopt modern technology**.

Top 3 most important short-term goals

When we look at the most important short-term goals, we see **32% of respondents rank business diversification as a major priority.** This move is driven by the high risk of relying on unpredictable revenues from a small, highly competitive number of large contracts to build assets.



Grow the business by diversification:

(e.g., enter new markets, offer new services, create new partnerships/joint ventures to embrace bigger projects)

Improve digital maturity

and/or create a company-wide strategy for more effective use of technology

Leverage data more effectively

to improve things like project estimating, budgeting, forecasting and more

Diversifying and growing the business

Companies are moving beyond the realms of a traditional project centric business for several reasons. **By diversifying into areas such as facilities and service management—taking responsibility for maintaining and operating assets across their lifespan—revenue is recurring and predictable.** This increases the market value and financial viability of the business while also reducing risks associated with economic uncertainty.

Diversification also indicates a fundamental shift in the value proposition of a construction or engineering firm. Driven by customers wanting total asset lifecycle support, it is **forcing companies to evolve beyond just designing, planning and constructing assets, to becoming partners that offer more long-term value**.

Other examples of business diversification include offsite and prefab manufacturing and operating a rental model for constructed assets.



Prioritizing digitalization

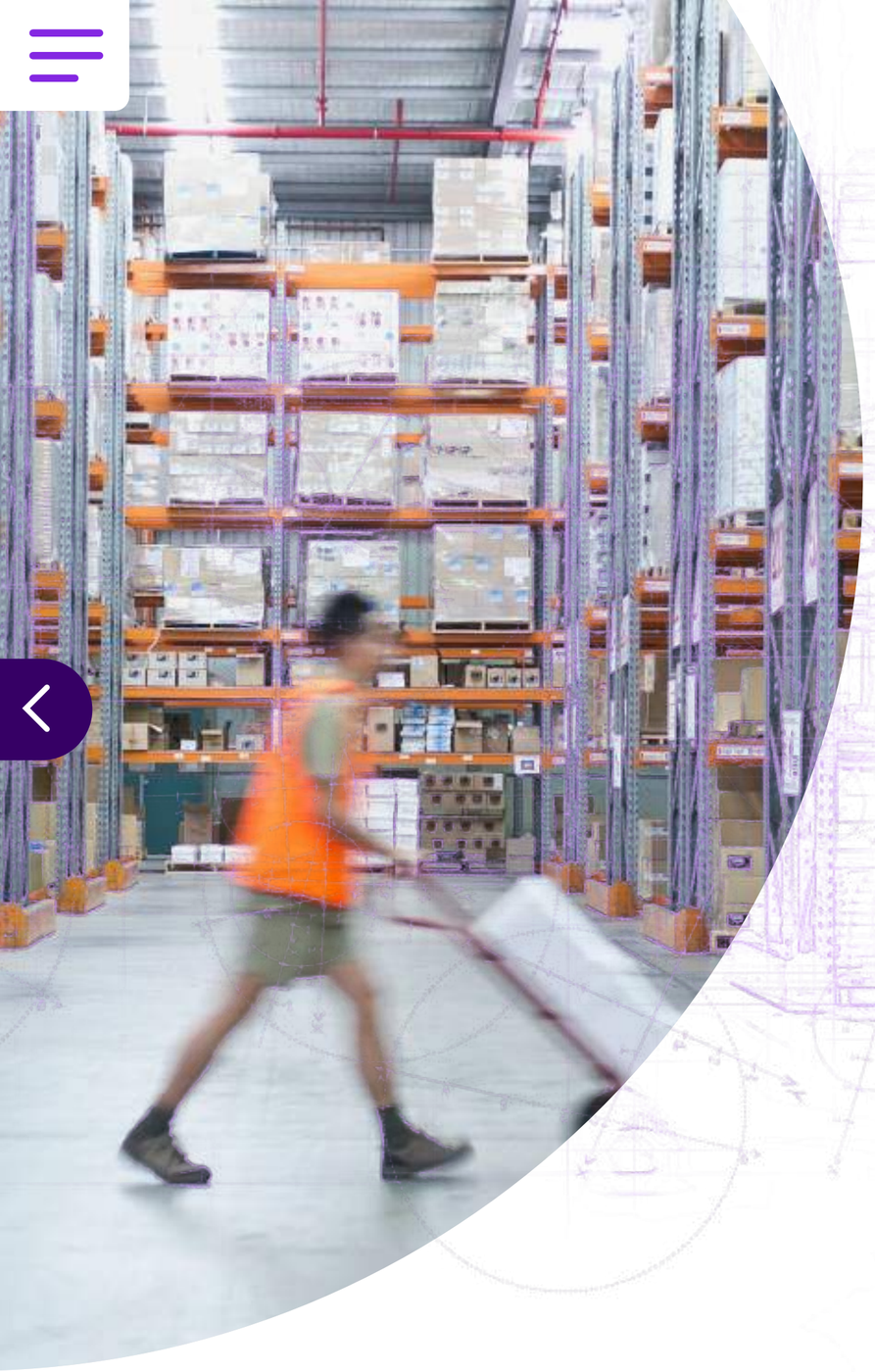
There is a growing self-awareness across the industry that delaying digital transformation is no longer a viable stance.

Now 30% of companies prioritize using technology more effectively, with 29% wanting to improve the accuracy and speed of management reports. Businesses simply cannot embrace diversification without leveraging technology and centralizing data management.

Not only must companies streamline and automate complex singular operations of unique project after unique project, but they must also overcome compounding complexity resulting from new partnerships, joint ventures and service offerings.

An agile, digital integrated platform that goes beyond traditional construction needs is now essential to exploit this competitive advantage of diversification at scale.





Profitability analysis and performance

One of the most challenging issues facing construction and engineering organizations is ensuring projects remain profitable: protecting estimated margins, preventing over-spends, and avoiding contractual penalties caused by unforeseen delays and over-runs.

The survey data shows 91% of respondents report projects are routinely overrunning on budget, schedules, or both.

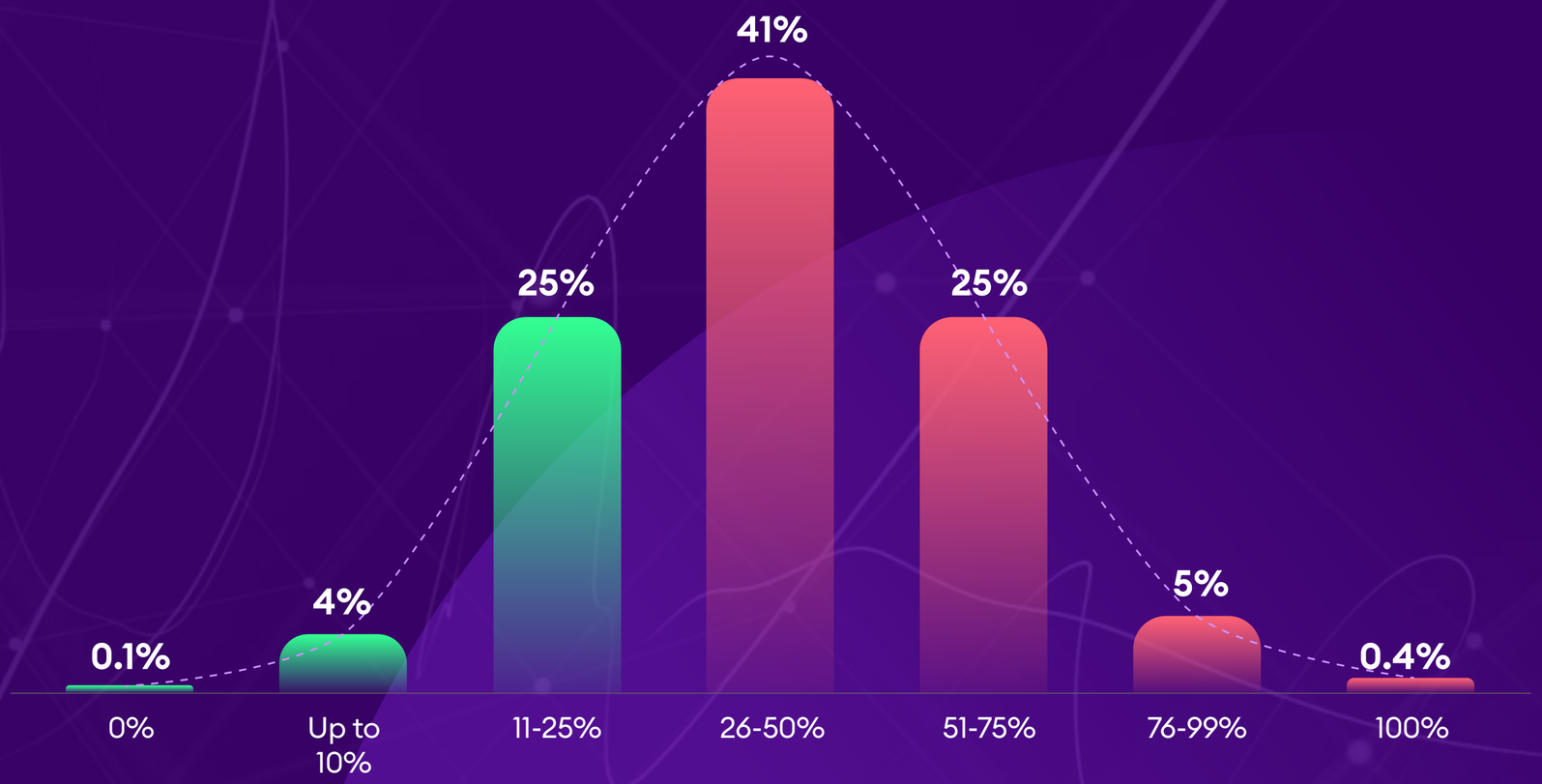
Given the complex multi-type, multi-region, multi-project landscape, one of the principal causes is the lack of a single source of truth. Without a digitally-integrated platform, project status is not visible in real time. Information is hidden in disparate, often offline systems and spreadsheets, resulting in inaccurate and dated reporting. Issues only become visible to management after the event, when it's too late to act.

Percentage of projects that overrun budgets and schedules

The survey data shows

71%

of respondents report that from one- quarter up to 100% of their projects are routinely overrunning on budget, schedules, or both.



The fragility of profit margins

The research data reveals that **over half (54%) of respondents' projects fail to meet their projected margin**.

This highlight the need for accurate project visibility at every stage as well as real-time, integrated project financial control to ensure that workstreams have the cashflow and resources available to sustain them. It also reinforces that contract variations should automatically update the budget and project plans. Here is yet another driving force in the industry for improving digital maturity.

Unlike most ERP solutions which manage past performance and mid-project corrections to preserve margins, **IFS Cloud helps manage the future in order to improve profitability.** It also integrates four critical areas to provide total project control: financial accounting, cost and revenue transactions, project cost control and project and contract management.



Gaining a competitive edge

Some of the most revealing insights from the research center around the top competitive differentiators.

The top two differentiators – delivering projects on time and delivering the lowest project cost – echo the sentiment that most companies cannot achieve these goals currently.

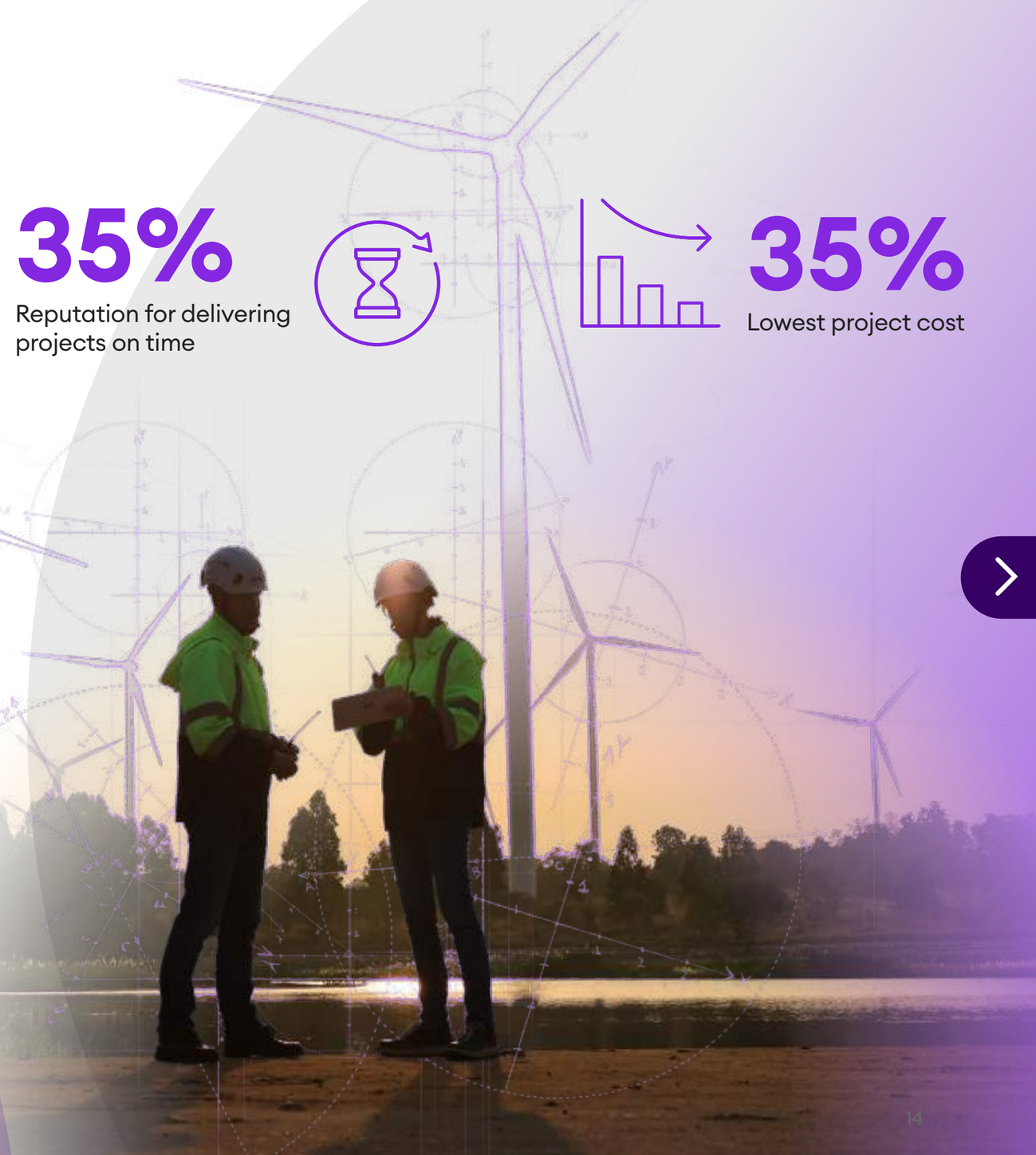
It also underpins the spread of challenges cited earlier, particularly **the lack of real-time and accurate information as a single source of truth**, which prevents companies from delivering projects on-time and on-budget.

35%

Reputation for delivering projects on time

35%

Lowest project cost

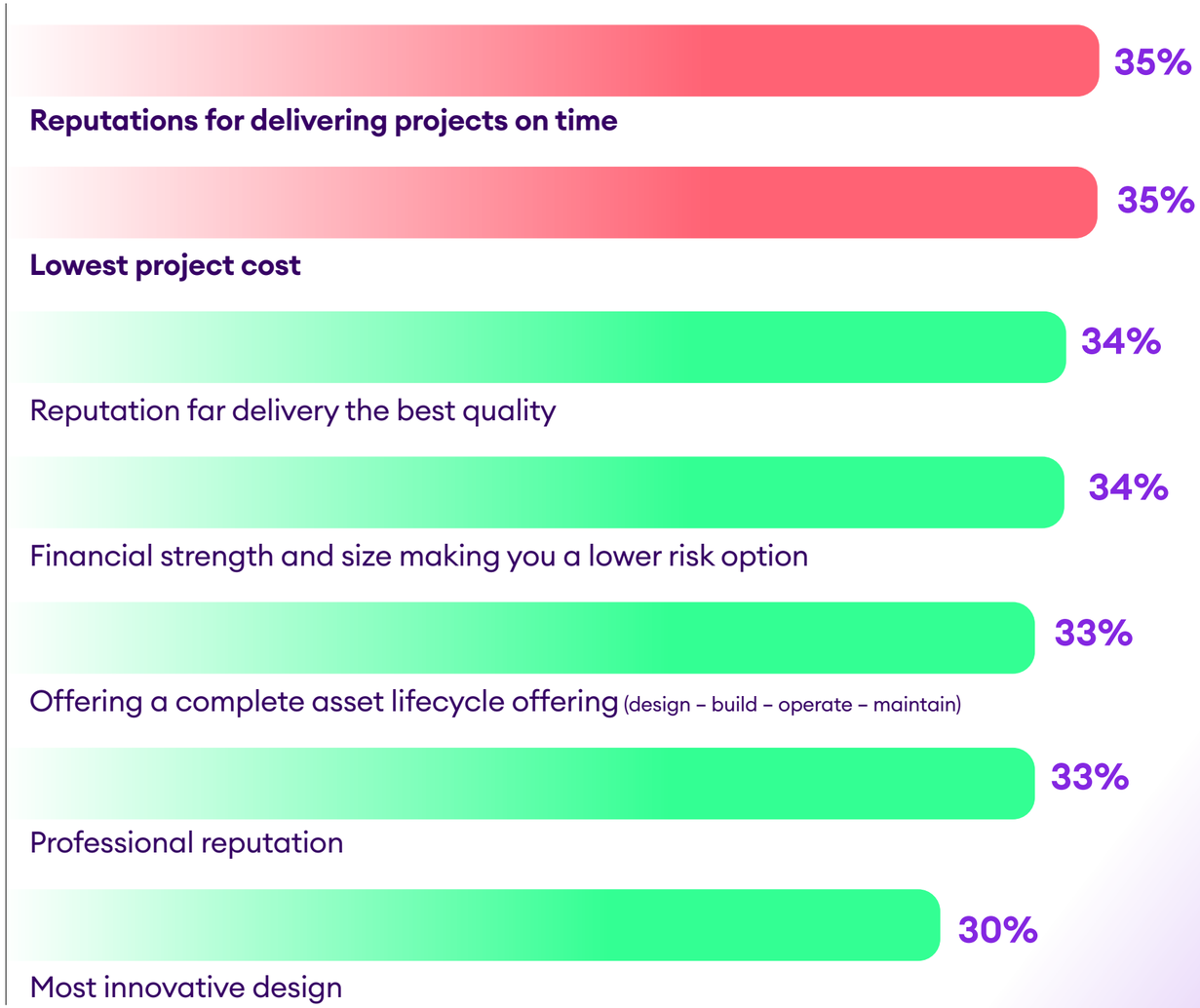


The 7 top competitive differentiators

The variance of only 5% between the top-ranking differentiators reinforces that there are many ways companies can gain an edge in increasingly competitive markets.

In these results we also see a reflection of the **total asset lifecycle support being demanded by the market**, and with “the most innovative design”, the **market trend towards more sustainable, modern construction methods**.

Modernizing processes and improving technology use as an organization also increases your financial strength, making you a more attractive choice to potential clients.



Modernizing IT system landscapes

An overarching theme from our research is the level of complexity in the typical IT system landscape. On average, organizations are using nine software systems on a regular basis. As a result, respondents identified three top objectives for modernizing their technology systems:

1. **Adopt cloud-based technology that is easier to maintain and keep updated with the latest functionality (46%)**
2. **Adopt flexible software solutions that enable us to add & remove capabilities as our business evolves (46%)**
3. **Integrate systems more effectively for better data and more streamlined processes (41%)**

The appetite for change. Over half of companies are seeking a new solution, with the majority (63%) expected to select a new ERP within the next 1-2 years.



55%

of those surveyed confirmed that they were in the market for a new ERP solution

Top 5 expected benefits from a new ERP platform

#1



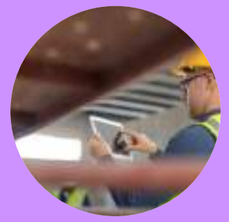
Improved agility to make it easier to grow and/ or diversify the business

#2



Better resource, labor and equipment utilization

#3



Easy to integrate best of breed software tools

#4



Reduced IT costs by simplifying business system landscape

#5



Increase business valuation

(share price)

Technology adoption: What you need now and next

Sentiment on technology adoption plans reveals a wide list of business requirements that extend beyond simply the construction of assets.

Industrial AI will help the sector rapidly improve digital maturity; it will have a significant impact on forecasting, risk management, productivity simulation, and project margins. Moreover, it can improve sustainability, reduce waste, automate processes and improve project delivery performance.

The desire to adopt AI and digital twins is also **validating the need for centralized and standardized data management**. Without trusted, enterprise-wide data, these innovations cannot be leveraged.



Respondents currently have project planning (44%) and project estimating (41%) implemented



Respondents plan to implement chatbots / virtual assistants (39%) and AI and/ or Machine Learning (39%)



Digital twins (12%) are most ranked on respondents' wish list

IFS Cloud ERP helps your business thrive

The wide variety of capabilities already, or planned to be, implemented indicates the many demands construction and engineering companies face and explains the historic tendency to adopt multiple best-of-breed solutions to address them … as well as Excel spreadsheets to fill in the inevitable gaps.

IFS Cloud reduces business system architecture complexity by providing a single, enterprise-wide digital backbone that manages multiple critical functions and easily integrates to a smaller number of specialist applications.

It helps businesses to quickly unlock value with **established, industry-designed solutions** while also **delivering evergreen updates** and **modern user interfaces** to attract the next generation of talent.



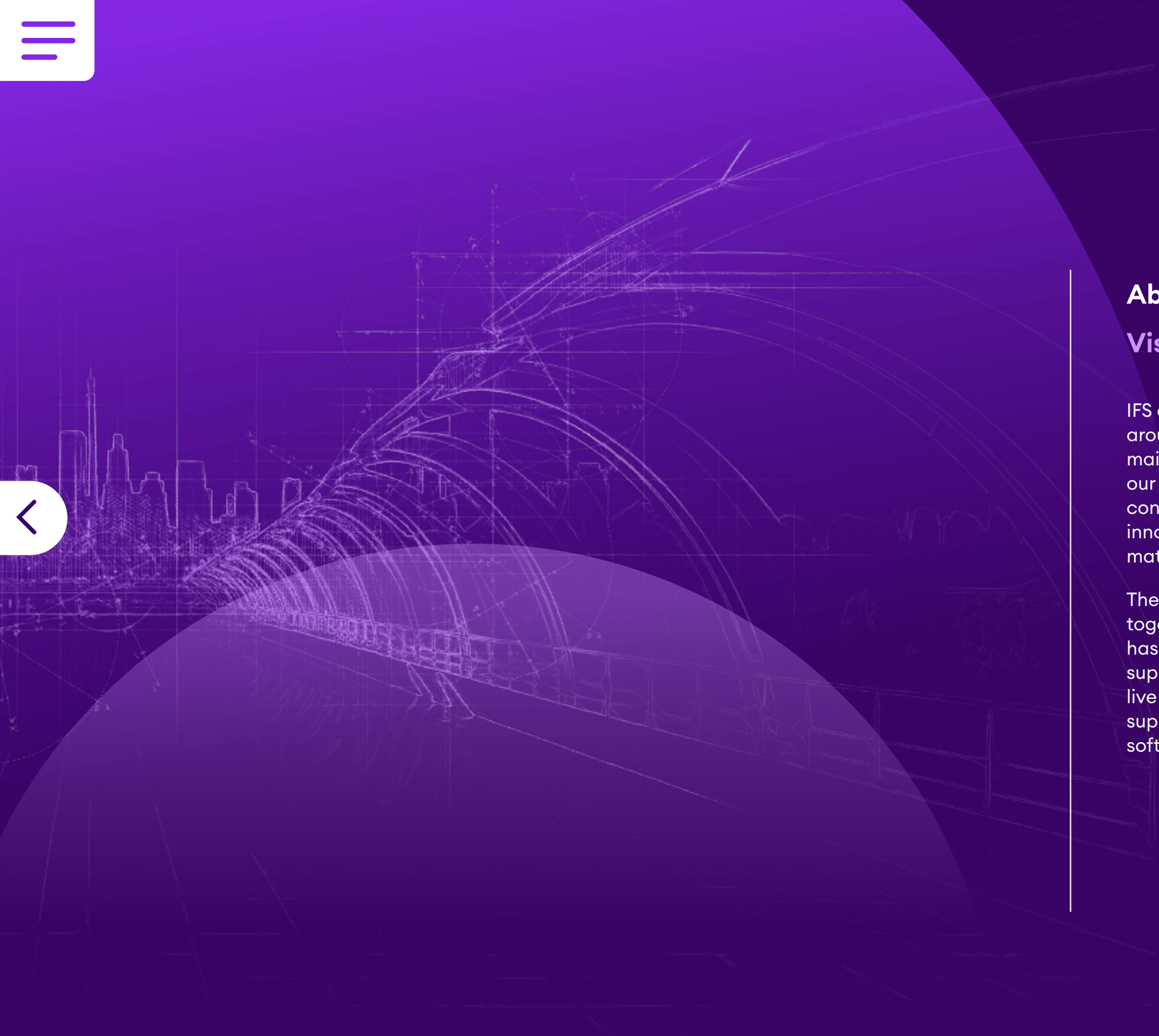
Gain agility and flexibility for future growth

Good decision making starts with accurate financial intelligence with a single source of truth across the enterprise. In addition to offering real-time, single-sourced data, IFS Cloud is also composable so that companies can easily add, remove and configure new capabilities as needed. Be it creating new joint ventures or adding new service offerings, the solution provides agility and flexibility, enabling you to diversify and embrace business opportunities.

Within IFS Cloud **IFS.ai delivers industrial AI capabilities that lead to improved accuracy, efficiency, and decision-making in business operations.**

By adopting IFS Cloud, your company gains a future-proof, digital ERP backbone. Designed to help organizations embrace modern construction methods across the entire value chain and asset lifecycle, it supports future business growth while protecting vital profit margins on every project.





About IFS

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IFS develops and delivers cloud enterprise software for companies around the world who manufacture and distribute goods, build, and maintain assets, and manage service-focused operations. Within our single platform, our industry specific products are innately connected to a single data model and use embedded digital innovation so that our customers can be their best when it really matters to their customers - at the Moment of Service™.

The industry expertise of our people and of our growing ecosystem, together with a commitment to deliver value at every single step, has made IFS a recognized leader and the most recommended supplier in our sector. Our team of over 6,000 employees every day live our values of agility, trustworthiness, and collaboration in how we support our 6,500+ customers. Learn more about how our enterprise software solutions can help your business today at ifs.com.