IFS

Beyond the build: selecting future-proof software designed for Construction and Engineering

Best-of-Breed point solutions, Financial and Accounting platforms or an industry-specific Cloud ERP platform? Your guide to making a future-proof decision.

Building digital maturity. Choosing software for an industry in flux.

According to the 2024 IFS global research study, 63% of construction and engineering businesses are in the market for a new ERP system in the next one to two years.

Legacy finance, accounting and Enterprise Resource Planning (ERP) systems, a myriad of standalone point solutions and complex webs of static spreadsheets are putting companies at risk, preventing effective financial control, lowering profit margins and productivity levels, and hindering business growth and diversification.

Construction and engineering organizations seeking modern digital solutions to run their projects and finances face a choice between fragmented tools and unified platforms. Best-of-breed project tools promise deep functionality in specific areas (for instance, estimating and scheduling and project planning) but often lead to data silos and integration headaches. Traditional financial ERP systems deliver robust accounting capabilities but lack the project- and industry centric solution depth built-in to manage complex construction and engineering operations seamlessly.

A third option, modern industry-specific ERP cloud platforms, combines vertical expertise with enterprise-wide integration, enabling firms to control projects end-to-end on a single system. But, as this guide explains, not all industry specialist platforms are equal.

This eBook examines these three dominant system strategies for construction and engineering firms: best-of-breed solutions, financial/accounting platforms and industry-specific cloud ERP platforms. It will:

- Explain the strengths and limitations of each approach
- Offer guidance on selecting a solution fit for today's needs while supporting tomorrow's growth, market trends, and business diversification
- Show how a unified, industry-focused ERP like IFS Cloud delivers unique competitive advantages through integrated Project Financial Control

> **On average, 41% of respondents' projects overrun their budgets and schedules. Over half (54%) make less than the original budgeted margin.**

Source: IFS C&E global research study

The ERP Landscape in the Construction and Engineering Sector

Traditionally, construction and engineering firms have relied on two extremes of software strategy: either a patchwork of best-of-breed applications or a generic corporate ERP focused on finance.

Best-of-Breed C&E Solutions are specialized tools tailored to functions like project planning and scheduling, cost estimation, procurement and site management. The benefit is depth: teams get features built specifically for construction workflows (for example, detailed BIM integration or collaboration). However, **the drawback is fragmentation**: using separate systems for different tasks leads to **disconnected data, inconsistent reporting, and complex integrations** to tie everything together. Organizations often struggle with manual data transfers and reconciliation across silos. Over time, maintaining these integrations adds cost and risk. This approach usually results in spreadsheets scattered across the business in an attempt to manage most business processes effectively.

Financial/Accounting ERP Platforms are general-purpose enterprise systems (or modules typically of larger ERPs) handling accounting, financials, and Human Resources. The benefit is a strong core: they provide robust company-wide financial control, compliance, and back-office processes. However, **they lack industry context: standard ERPs don't usually provide the project and industry-centric capabilities that C&E operations demand**. Project and contract managers end up exporting data to spreadsheets or adopting niche tools because the ERP can't handle complex projects, contracts, change orders, progress billing, bills of quantities, project budgeting and cost control or field operations. **A traditional finance system alone is simply insufficient for managing large construction or engineering projects end-to-end.** In short, they manage historical accounting but do not provide effective project financial control which is critical to maximize and control project margins.

More recently, however, a third option has gained traction, with the emergence of **industry-specific cloud ERP platforms designed by experts from the field for project-driven sectors like construction and engineering**. These systems (exemplified by the IFS Cloud platform) offer deep vertical functionality integrated into a single enterprise platform. **They aim to deliver the best of both worlds: all the specialized capabilities needed to run projects and the broad ERP functions (such as finance, HR and procurement) in one solution.** For construction and engineering firms, this means one source of truth for project financial control, resources, assets, and more, without the complexity of bolting together multiple products.

Best-of-Breed Tools

Specialized point solutions (e.g. project management, estimating) with deep functionality, **but cause fragmented data and costly integrations**.

Financial Platforms

Robust general ledger and accounting systems, **but weak in project-centric operations** – often requiring spreadsheets and add-ons for construction needs.

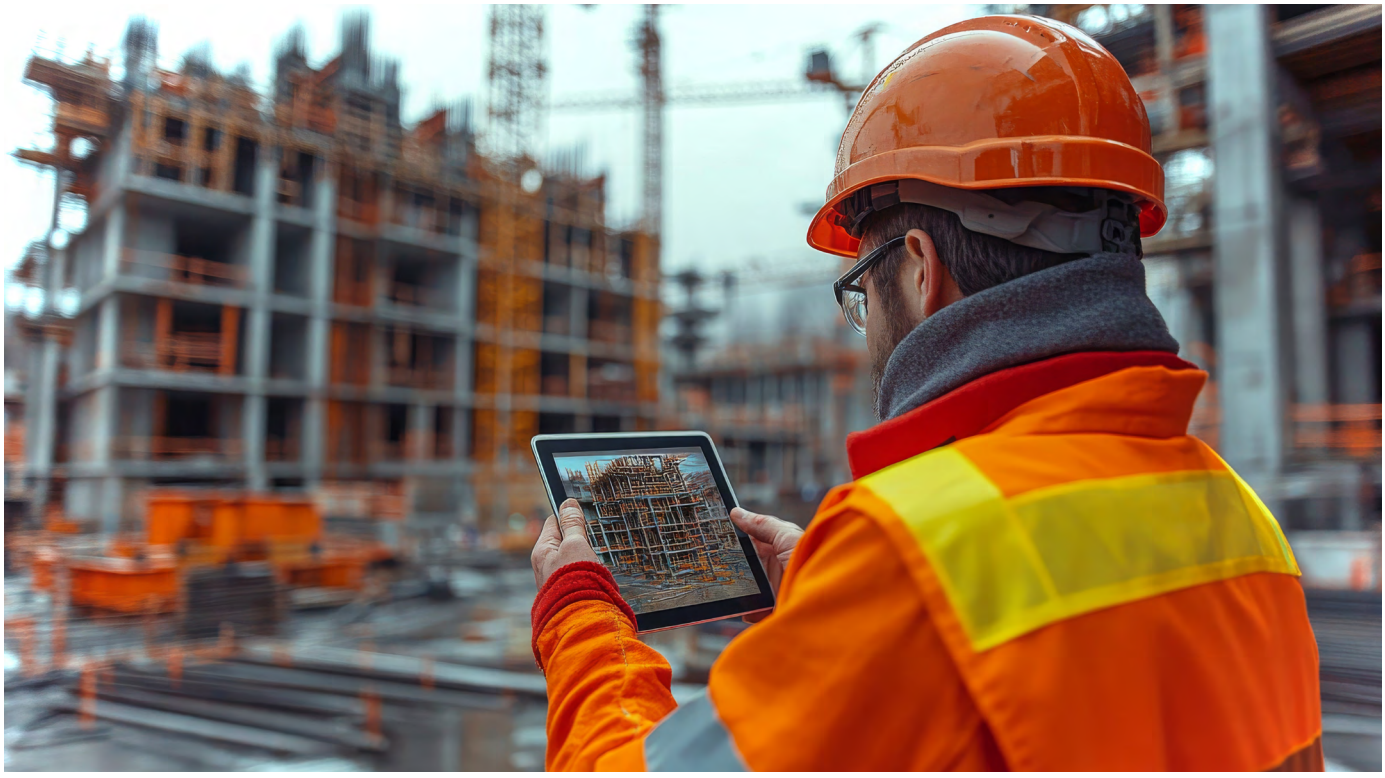
Industry Cloud ERP

Unified solution designed for C&E, **combining vertical project controls with enterprise-wide processes** on one platform.

Comparing Strategies – Capabilities at a Glance

Capability	Best-of-Breed Tools	Financial/Accounting ERP	Industry Cloud ERP (IFS Cloud)
Project Financial Control	Partial support	Weak support	End-to-end, real-time control
Modular/Prefab Support	External add-ons required	None (no manufacturing)	Built-in modular manufacturing
Asset Lifecycle (EAM)	Separate asset system needed	Not included	Integrated EAM module
Service & Facilities Management	Third-party add-on	Not included	Native Service capabilities
Industrial AI & Analytics	Rare or point solutions	Rare	Embedded AI/ML tools
Integration Complexity	High – many interfaces	Medium	Low – single platform

Table: Key differences between Best-of-Breed solutions, generic Financial ERPs, and an industry-specific ERP like IFS Cloud.



While **best-of-breed environments** can cover many functions, **they demand heavy integration and still leave gaps in business needs,** especially in enterprise-wide visibility. Point solutions developed by smaller software vendors also tend to **become unsupported over time,** putting companies at risk of IT security and user support issues.

Financial platforms provide a unified core, **but lack many construction-specific functi**ons, forcing workarounds. Only an **industry cloud ERP** offers ***both*** comprehensive project capabilities and full integration out-of-the-box.

It comes with **built-in industry best practices** and **tried-and-tested use cases** by some of the world's leading construction and engineering companies. It also reduces IT overhead, ensures data consistency, and allows real-time insights across departments. They also offer a **solid, modern digital platform** to make it easy to take advantage of emerging technologies and gives the organization the **agility to quickly expand** through regional or solution offering diversification.

Traditional ERP? Best-of-Breed Solution? Or IFS Cloud ERP?

Shortlist of essential questions to ask your ERP vendor

Choosing an ERP for a construction/engineering business is a high-stakes decision. Asking the following questions should help inform your decision criteria.

1. Project-Centric Financial Control

Does the system truly support project-driven accounting and control?

Ensure the ERP can manage project estimates and bidding, bills of quantities, budgets, costs (i.e., material, labor, subcontract and equipment rental/hire), revenues, and project forecasts and project cost control, progress and earned value and risk and opportunity management as core capabilities (not as an afterthought). It should offer features like sales and subcontract/value management, change order management, project profitability analysis and project and company cash forecasting. **If an ERP's project financial control is partial or weak, it will not meet the needs of a Construction and Engineering business.** This is arguably the top differentiator to look for, as it directly affects business risk and margin control.

Discover how IFS Cloud empowers Chief Financial Officers.

Learn more

2. Vertical Feature Depth

Can it handle industry-specific requirements out-of-the-box?

Look for support of construction-specific processes such as sales and subcontract management, estimating, bill of quantities support, progress billing (applications for payment), retention handling, joint venture projects, supply chain, inventory and procurement capabilities, equipment rental/hire process support, project budgeting, forecasting and cost control, etc.

Also consider whether it supports related disciplines like Equipment Asset Management and rental (for businesses that own assets and have equipment and plant business units, service and facilities management, or manufacturing for prefabrication or modular construction. **A best-in-class choice will have purpose-built functionality for the construction and engineering domain** so that your business is not forced into costly customizations or third-party add-ons.

Explore how IFS Cloud ERP offers built-in industry functionality.

Learn more

3. Unified Platform (Integration)

How many systems will you need to integrate?

Evaluate to what extent the ERP platform covers your needs within one solution. The more unified, the better – it reduces integration cost and data latency. **The ideal is a single platform that spans projects, finance, supply chain, human capital management, etc., with low integration complexity.** If an option requires many bolt-on's for full functionality, consider the ongoing overhead and IT risk that entails.

See the difference that a composable ERP platform makes.

Learn more

4. Scalability and Flexibility

Will the system scale across your business models and future growth opportunities? Will it support modern construction methods like modular and prefabricated builds?

For firms operating in multiple regions or diversifying services and business units, **the ERP solution you select should handle multi-company, multi-currency, and multi-geography deployments.** It should also be flexible enough to accommodate different business models (construction and engineering contracts, service and rental contracts, equipment maintenance and rental and manufacturing) under one umbrella. Check if the vendor **has successful references in your sub-industry and global deployment scale.** Cloud-based delivery can offer easier scalability and evergreen software updates for ongoing innovations and access to emerging technology.

Discover how IFS Cloud supports industrialized construction.

Learn more

5. Embedded Analytics & AI

Does the system offer modern capabilities like real-time analytics, AI, and automation?

While not strictly necessary on day one, these features are increasingly critical for future competitiveness. **An ERP with embedded Industrial AI (for example, delivering predictive analytics and intelligent scheduling) and automation will help you leverage data for efficiency gains.** Remember that a robust reporting and dashboard capability is essential for project-driven organizations to monitor performance continuously.

How can embedded industrial AI help your business?

Learn more

6. Vendor Industry Expertise

How deep is the solution provider's understanding of modern construction and engineering challenges?

A vendor that actively develops industry-specific functionality and has a community of construction and engineering users will likely deliver more value out-of-box. Ensure the roadmap aligns with construction industry trends (for instance, support for BIM integration, IoT on jobsites and mobile field apps).

Discover why IDC Research highlights IFS for industry expertise

Learn more

7. Total Cost and ROI

What is the expected total cost of ownership over a 5–10-year period?

A best-of-breed multi-point solution, using some existing tools, may initially appear competitive, but integration and maintenance costs quickly add up. **An integrated solution** might have a higher upfront cost but **yield a better ROI through improved control and project margins, increased agility and lower IT overhead.** Look at case studies and ask for reference clients to gauge realized benefits like reduction in cost overruns and improvement in project reporting cycle times.

In "The Business Value of IFS Cloud", IDC analysts share that organizations leveraging IFS Cloud have reported significant benefits, including **enhanced operational efficiency, improved production planning**, and **streamlined reporting processes.**

The study also highlights value improvements such as:

414%
three-year return on investment

11-months
payback on investment period

$2.5M
average annual staff efficiency benefits

27%
less time spent per budgetary cycle

18%
reduction in the time required to close period-end accounting

To support today's construction and engineering sector's needs and tomorrow's growth, a leading, industry-designed cloud ERP should offer:

- **Improved Project and Business Control and reduced business risk**
- **Enable best practice project and business process to be adopted**
- **Improved repeatable and predictable project performance**
- **Increased agility to enable sustainable controlled growth**
- **Real-time forecasting and analytics**
- **Seamless collaboration across departments and partners**
- **Compliance and audit readiness**
- **A future-proof architecture with deployment flexibility**

"IFS Cloud provided comprehensive benefits across various business solutions. The ERP system offered complete business transparency, resource savings, and up-to-date functionalities such as AI, enhancing efficiency and information availability. It provided a unified view of capacity and resource availability, eliminating the need for Excel-based tools and preparing organizations for future workloads."

IFS Cloud Customer

Profitability starts with Integrated Financial Project Control. Increase your business performance with IFS Cloud.

Accurately understanding and controlling project costs is the **difference between profit and loss.** If project data is generated from stand-alone transactional systems, or held in isolated spreadsheets, vital time and energy is lost. Your business needs **total project financial insights in real-time** to detect problems, surface the causes, and intervene to take corrective action.

That's why embedding truly integrated Project Financial Control – managing, forecasting, and optimizing financial performance across an entire project lifecycle – should be the number one priority when evaluating a new ERP platform.

Why fragmented or inadequate construction and engineering systems fail

Disconnected Systems and Data Silos
When the supporting project financial control processes are spread across multiple non-integrated systems and Excel spreadsheets, it's difficult to consolidate data and trust the accuracy of the information. Teams lack a single version of truth for project financial status. This often results in delays identifying problems – e.g. a cost overrun might only be noticed many weeks after a month-end when finance tries to reconcile the numbers.

Inaccurate Forecasting and Budgeting
Without integrated project information, forecasts are based on stale or partial information. It's hard to predict final project cost or cash flow reliably if your ERP isn't tracking actual costs and revenue, time, commitments, change orders and progress in real time. Surprises accumulate, leading to budget overshoot.

Inefficient Change Order Contract Management
Projects invariably have scope changes and contract modifications. In siloed setups, a change order's financial impact might not flow into the forecasting system promptly. Managing contracts and variations on spreadsheets or separate apps causes errors and missed revenue or claims.

While every established business has an accounting system, and historic data from completed projects, managing project financial control is far more complex. These four key areas are not standalone requirements; they need to interact with each other:

- Financial Accounting
- Cost and Revenue Transactions
- Project and Contract Management
- Project Cost Control

IFS Integrated Project Financial Control

Financial Accounting

- General Ledger
- Purchase Ledger
- Sales Ledger
- Cash Management

Project Cost Control

- Project Budgeting
- Project Cost Monitoring
- Project Periodic Review
- Project Cast Forecast

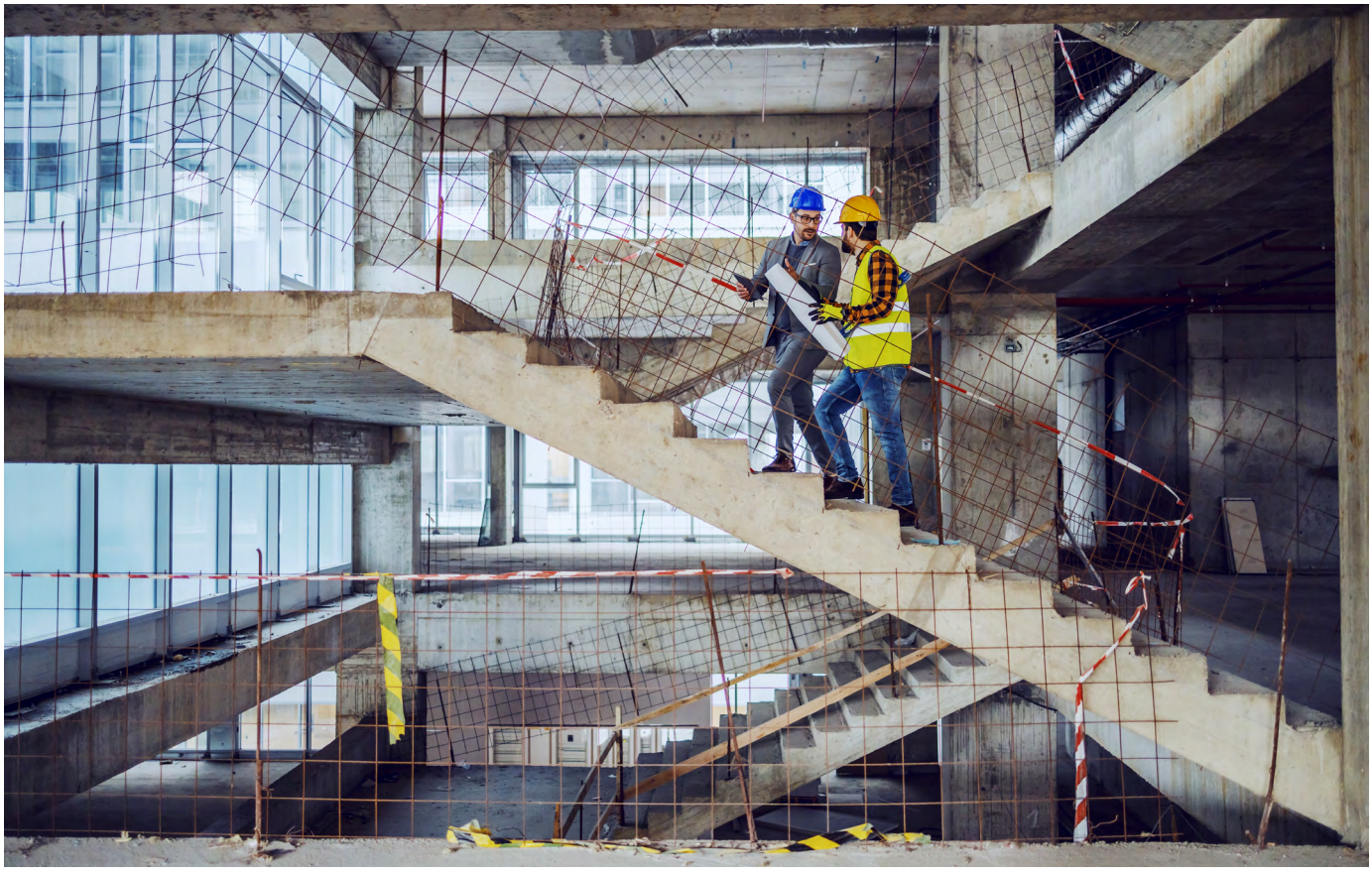
Cost and Revenue Transactions

Purchase Orders	PO Receipts
Purchase Requisitions	PO Returns
Labor Time Sheets	Expenses
Subcontract Valuations & Certs	Sales Contracts Apps & Certs
Internal equipment rentals	External equipment rentals
Accrual & Adjustments	Retentions

Project & Contract Management Processes

Project Plan	Project Estimating
Procurement/ Manufacturing Plan	Risk and Opportunities
Labor Resource Plan	Sales Contract Value
Material Plan	Subcontract Values
Equipment Plans	Variations/Contract changes
Site Work Plan	Progress and Earned Value

Common Coding (CBS, WBS, Resource Codes, Suppliers...)



How does IFS Cloud stand apart? The difference is being future-focused.

IFS Cloud is a **fully integrated ERP solution** combining all four capabilities, as well as accounting, to **deliver seamless control and visibility**. Unlike traditional ERP software which is rooted in managing past performance and reactive corrections to preserve margins, **IFS Cloud is future-focused,** providing tools that allow faster decision-making based on real-time data and predictive outcomes.

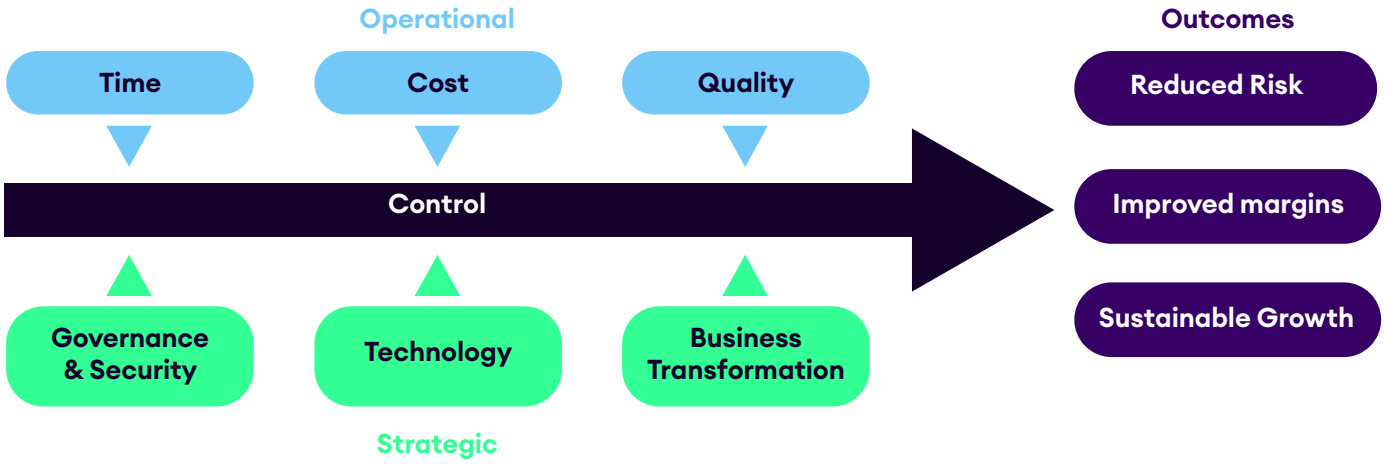
Spanning estimating, budgeting, cost tracking, revenue recognition, project invoicing, and forecasting in one integrated system, **IFS Cloud enables proactive decision-making.** For example, as soon as a purchase order is issued or a change order is approved, it appears in the project's cost forecast and cash flow projection. Project managers and executives can see up to date "forecast at completion" vs. budget at any time, and drill down into variances. This live transparency **means risks (overspends, profit erosion) can be identified and mitigated early,** not after the fact.

Moreover, **integrated contract and change management** ensures every scope change is tied to budget updates and client billing where applicable.

Forecasting tools in an industry ERP access accurate data from the field and procurement, improving their precision. In short, Project Financial Control evolves from a **monthly bookkeeping exercise** into a **daily, data-driven** discipline with the right ERP system.

IFS Cloud also provides a **single core data repository** – a single source of truth across the enterprise, in real-time. Comprising a composable, evergreen ERP business suite, operational workflows deliver accurate and real-time transactional information designed to **help you make timely strategic decisions.** In addition, IFS supports the need to perform periodic project processes such as period end snapshots and periodic project forecasts.

Control – The Vital Ingredient



Rich capabilities spanning the construction and engineering project and asset lifecycle

Fully integrated **industry-specific capabilities within IFS Cloud deliver functionality and flexibility** that neither generic ERPs nor collections of point solutions can match. For example, further differentiators and benefits from IFS Cloud include:

Integrated Equipment Asset Management and Rental

Construction and Engineering firms that also operate or maintain assets (or need to manage their equipment fleet) get built-in asset lifecycle management. IFS Cloud's **Equipment Asset Management and Rental solution manages maintenance schedules, asset tracking, rental management and inspections within the same platform.** Competing ERPs often require a separate Equipment business unit software solution. It is essential if a best-of-breed strategy is chosen. For many companies, having project delivery and equipment operations together is a major advantage.

IFS ranked #1 market share leader in Enterprise Asset Management (EAM) by revenue in the Gartner® Market Share: Enterprise Software, Worldwide, 2024 report.

Learn more

Service, Facilities and Maintenance Services

Similarly, **IFS offers native service management capabilities.** If a construction and engineering firm has a service division (for warranty work, facilities management, maintenance services etc.), the scheduling of technicians, work orders, and service contracts is part of IFS Cloud. There's no need to bolt on a third-party service system. This is a differentiator because post-project services are an increasing revenue stream in many companies (for example, maintaining built assets). IFS enables a unified approach – from construction completion straight into servicing with continuity of data (assets, spare parts and customer history).

Manufacturing for Modular and Prefabrication

The industry is embracing new industrialized construction methods that are impacting both on-site and offsite work including modular building, and prefabrication to improve efficiency. **IFS Cloud has built-in manufacturing and assembly modules that support these processes**. It can handle production orders, factory planning, and supply chain for modular components within the same system that manages the on-site construction project. Competing approaches often force companies to use separate manufacturing software since generic construction software doesn't support it. With IFS, a firm doing modular construction gets an integrated ERP covering both factory and construction processes. This flexibility to support new construction methods is a significant competitive differentiator for IFS Cloud.

Embedded Industrial AI and Analytics

IFS Cloud comes with **embedded artificial intelligence and machine learning capabilities (IFS.ai),** that provide predictive insights and automation across processes. IFS.ai also supports industrial IoT integration – useful for tracking equipment usage or progress via sensors on a jobsite.

While "AI" is rare or an afterthought in many legacy systems, IFS bakes these innovations in. IFS Cloud customers can leverage out-of-the-box predictive analytics (like optimizing maintenance schedules) without custom development.

What is IFS.ai?

IFS.ai is the embedded AI layer within IFS Cloud. It continuously learns from your project, finance, and asset data to deliver predictive insights, automate repetitive tasks, and power intelligent decision-making across the entire project lifecycle. Unlike bolt-on AI tools, it's part of the core platform – no integrations or separate tools required.

Low Integration Complexity (Single Platform)

Because IFS Cloud unifies so many functions (such as project and contract management, finance, procurement, HR, asset and service), it drastically reduces the need for external integrations. **Data flows seamlessly across modules** – for instance, procurement tie directly into project costs; time tracking feeds project actuals; and finance and project cost control are one and the same. **The platform approach means lower IT overhead** (one system to maintain, one set of upgrades) and faster information flow. By contrast, a best-of-breed landscape might need dozens of interfaces and data synchronization routines that are costly to build and maintain. Even compared to other ERPs, **IFS's strategy of offering a single comprehensive product** (not a conglomeration of acquired software elements) leads to a more coherent, plug-and-play solution footprint.

What makes IFS Cloud different to other solutions?

Vertically Integrated Construction ERP solution on a single platform

Solution Strength Areas	Traditional ERPs	IFS Cloud	Construction/ Engineering-Only ERPs
Finance	●	●	
HR	●	●	
Procurement	●	●	
Project Cost Control		●	●
Contract Management		●	●
Equipment & Resources		●	●
Engineering		●	
Business Development		●	
Project-Based Manufacturing		●	
	✖ Lacking industry focus & expertise ✖ Reliance on many separate products not integrated to core ERP ✖ Weak Engineering & Construction-specific capabilities ✖ Typically large, complex projects and slow time to value	✔ One Single Product Solution for vertically integrated businesses ✔ Construction & Manufacturing Industry expertise ✔ Modern & Open Architecture ✔ Fast time to value	✖ No support for vertically integrated business model ✖ No manufacturing / modern methods of construction ✖ Typically older technology ✖ Weaker administrative ERP (Finance/HCM/Procurement) ✖ Typically country-centric (weak global presence)

IFS Cloud ERP: Developed in collaboration with Construction & Engineering sector for over 25 years.

ERP solutions for the Construction & Engineering industry are not all created equal. Working closely with customers for over 25 years, **IFS is the only vendor to invest in and continuously develop a truly complete integrated cloud ERP solution** for the specific needs of the Construction and Engineering industry. This is why IFS is trusted by some of the world's largest organizations.

Today, **IFS represents a major global ERP construction and engineering player that, while big enough to matter, remains small enough to care,** acting directly on customer feedback to drive research, innovation and continuous product improvement. It is this investment and deep sector experience that differentiates the IFS solution from more generic ERP solutions that are not capable of supporting the construction and engineering execution processes inside their core ERP solution.

Further, **in a sector embracing diversification and new revenue streams, IFS offers a future-proof platform** to support the functionality needed to support acquisitions, growth and multi-region expansion.

The latest platform, **IFS Cloud, is now trusted by the world's largest construction and engineering companies** to run projects, manage contracts and subcontractors, control project costs, maintain and hire assets, manufacture off-site and more.

Our customers are leading companies across the entire sector, spanning Construction Engineering, and Shipbuilding and Maritime, selecting IFS Cloud to enhance operational efficiency and project financial control in mission-critical areas.

- Commercial
- Industrial
- Residential
- Real Estate
- Infrastructure
- Speciality Contracting
- EPC Contractors
- Renewable Energy
- Design & Engineering Consultancy
- Modular Construction
- Prefabricated Building Components
- Precast Construction
- Mechanical & Utility Systems
- Infrastructure Modules
- Shipbuilders
- Marine Contractors

> **"IFS Cloud provides a seamless, unified system. Following our merger/acquisition, both companies were already using IFS. The flexibility of IFS Cloud allows us to tailor it to our needs, driving business culture and facilitating organizational change."**
>
> IFS Cloud, Engineering Professional Services Customer

Source: IDC Business Value of IFS Cloud Study, April 2025

> “IFS supports all areas of our business, providing complete transparency across all entities and top consolidation. Using the same processes everywhere saves resources and internal efforts. As a modern solution, we stay up to date with the latest releases and functionalities like AI, enhancing efficiency and information availability for all users.”
>
> IFS Cloud, ERP Customer

Source: IDC Business Value of IFS Cloud Study, April 2025

Build a successful future with IFS Cloud for Construction and Engineering

Selecting a **modern industry-focused ERP** sets the foundation for both immediate improvements and long-term agility. Firms that have adopted IFS Cloud report improved project delivery performance and better decision-making through more accurate, timely information.

Replacing fragmented systems with an integrated solution **increases efficiency, reduces errors, and allows organization to respond faster** to challenges or new business opportunities, both now and in the years to come.

To find out more, and explore IFS Cloud Construction and Engineering videos, webinars, white papers, eBooks and resources, visit our industry page.

About IFS

IFS is the world's leading provider of Industrial AI and enterprise software for hardcore businesses that make, service, and power our planet. Our technology enables businesses which manufacture goods, maintain complex assets, and manage service-focused operations to unlock the transformative power of Industrial AI™ to enhance productivity, efficiency, and sustainability.

IFS Cloud is a fully composable AI-powered platform, designed for ultimate flexibility and adaptability to our customers' specific requirements and business evolution. It spans the needs of Enterprise Resource Planning (ERP), Enterprise Asset Management (EAM), Supply Chain Management (SCM), and Field Service Management (FSM). IFS technology leverages AI, machine learning, real-time data and analytics to empower our customers to make informed strategic decisions and excel at their Moment of Service™.

IFS was founded in 1983 by five university friends who pitched a tent outside our first customer's site to ensure they would be available 24/7 and the needs of the customer would come first. Since then, IFS has grown into a global leader with over 7,000 employees in 80 countries. Driven by those foundational values of agility, customer-centricity, and trust, IFS is recognized worldwide for delivering value and supporting strategic transformations. We are the most recommended supplier in our sector. Visit ifs.com to learn why.

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