



Asset Lifecycle Management: A Strategic Imperative for the Future Utility

The Case for Change

Utilities are facing a critical convergence of challenges. From decarbonization and electrification to climate volatility and digital disruption, the pressure to modernize is intensifying. Aging infrastructure, increasing regulatory scrutiny, and higher customer expectations have stretched existing models, while technologies like IoT, AI, and predictive analytics create new potential to optimize performance and extend asset value by unifying operations. But that potential remains largely untapped.



According to the **IFS Global Utility Survey**:

- 100% of respondents have initiated digital transformation, but only one-in-five (20%) have completed it.
- 36% of respondents cited asset management as having a key impact on digital transformation.
- 37% identified improved asset lifecycle management as one of the top business drivers for adoption of enterprise software systems across the utilities sector.

Progress on sustainability is equally constrained:

- 46% of C-Suite decision-makers have simply reached the stage of establishing timelines and goals for meeting sustainability targets.
- Less than a third (31%) of respondents overall have hit their first sustainability milestones.

To move forward...

- 43% of respondents say they are primarily improving asset efficiency
- 42% are investing in more energy-efficient assets and infrastructure.

These results highlight a common thread: while the urgency to act is well understood, both strategy and execution are lagging. Many utilities are clear on the outcomes they need to achieve, but lack a detailed roadmap for how and where to invest, and how to build the operational and digital maturity needed to get there. Unlocking progress requires a new operating model for managing assets, risk, performance, and sustainability. **That model is Asset Lifecycle Management.**

What Asset Lifecycle Management Delivers for Utilities

As defined by PwC, Asset Lifecycle Management (ALM) is the process of optimizing the life of an asset and the value gained from it throughout its lifecycle. In context, ALM gives utilities a way to turn transformation goals into measurable outcomes. It provides a structured, data-driven approach to managing physical assets across their full lifecycle - from planning and procurement to operation, maintenance, and retirement.

ALM addresses the barriers surfaced in the IFS Global Utility Survey and across the wider industry. It enables a shift from reactive firefighting to proactive, risk-based asset planning. This allows utilities to proactively manage risk, preventing a future accumulation of risk due to chronic under-investment or suboptimal investment. It also allows capital to be deployed more strategically, ensuring that funding is directed to the projects and infrastructure that offer the greatest operational and financial return, while protecting reliability and service obligations.

Operationally, ALM unifies data and decision-making across finance, operations, maintenance, and the field. It supports predictive maintenance, aligned capital planning, and near real-time visibility into asset performance, cost, and risk. This reduces outages, accelerates regulatory reporting, and strengthens investment governance.

Crucially, ALM embeds ESG accountability into the core of asset strategy. It enables utilities to integrate ESG constraints and targets into the planning process along with their other strategic objectives, so that asset investment strategy can be inherently aligned with ESG strategy. Once ESG is codified into corporate strategy, utilities can track emissions, monitor sustainability KPIs, and support audit-readiness using consistent, system-wide data. It also helps address workforce transition by digitising institutional knowledge and guiding less experienced teams through AI-powered decision support.

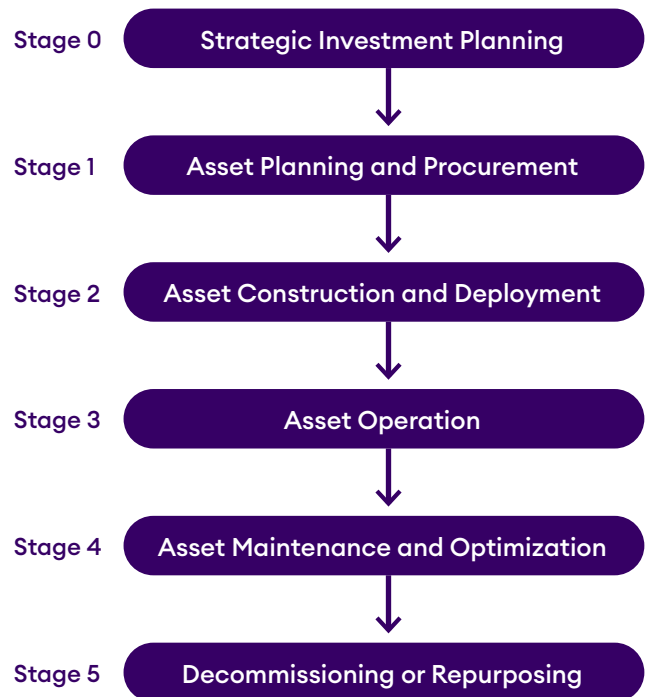
In summary, ALM transforms asset management from a cost centre into a strategic enabler. It supports financial discipline, regulatory alignment, and long-term resilience, making it foundational for utilities that want to modernise for a more resilient future.



The Only Complete Asset Lifecycle Management Solution

According to the IFS Global Utility Survey, the most common barriers to digital transformation include difficulties using enterprise software, measuring ROI, and aligning priorities. These challenges reflect a deeper issue: **fragmented systems and disconnected data are slowing progress and limiting returns across utility operations.**

IFS solves this with the only complete ALM solution built for utilities. Our AI-powered platform manages every stage of the asset lifecycle. From long-term strategic planning to daily execution, in a unified environment. This eliminates the silos, manual processes, and integration gaps that undermine performance and delay progress.



At the start of the lifecycle, IFS' AIP Solution helps utilities evaluate trade-offs, assess risk, and prioritize investments by value, cost, and ESG impact. Approved plans flow seamlessly into integrated workflows for capital project delivery, asset and work management, field operations, and maintenance—right through to end-of-life decisions on decommissioning, replacement, or repurposing based on real-time performance, cost, and risk data.

Continuous operational and financial data sharing creates a closed-loop system. **More than 200 embedded AI capabilities** maximize capital equipment and workforce utilization, improve procurement efficiency, provide predictive insights, automate routine tasks, and support faster, more confident decisions. This connected, AI-driven approach allows utilities to adapt in real time, improve outcomes, and future-proof operations.

Benefits include:

- Improved capital planning and ROI transparency
- Predictive insights that reduce outages and extend asset life
- Smarter scheduling and optimized work bundling that lowers operations and maintenance spend
- Increased efficiency, faster response time, streamlined work order generation and better inventory management
- More accurate and faster ESG, regulatory, and audit reporting
- Faster, more confident decisions across departments
- Preserve institutional knowledge as staff leave and reduced reliance on an aging workforce

Customers using IFS have achieved:



37%

more efficient capital assets teams



25%

reduction in maintenance costs



50%

faster equipment or site outage resolution



414%

three-year ROI, with an average 11-month payback period

Unlike other vendors that offer disconnected solutions for asset, project, and service management, IFS offers a more accountable, agile, and future-ready solution for Utilities, one equipped to align day-to-day operations with long-term strategic transformation.

We will now explore how ALM, as a strategic framework, enabled by IFS, supports transformation in:

- Power Generation
- Transmission & Distribution
- Water & Waste Utilities



Power Generation: Driving Decarbonization Through Smarter Asset Strategy

Power Generation organizations are under pressure to modernize portfolios, reduce carbon intensity, and justify investment in a shifting energy landscape. In Europe and Australia, fossil plant retirements must be balanced with growing renewable capacity. In the Middle East, long-term infrastructure investment spans natural gas, nuclear, and renewables.

By applying ALM principles, leaders can manage aging infrastructure while scaling new capacity. Predictive maintenance, asset performance data, and AI-driven forecasting reduce unplanned outages and optimize O&M budgets.

IFS also helps generation leaders link asset decisions to long-term capital planning, ensuring that every investment supports reliability, decarbonization, and profitability goals. Workforce transformation is supported through digital workflows and AI-driven insights that preserve institutional knowledge and help upskill new technicians with guided processes.

This enables capital alignment and improves operational reliability and emissions outcomes. IFS replaces fragmented legacy tools with a unified solution that empowers utilities to make investment decisions based on risk, lifecycle value, and sustainability priorities.

Strategic Value for Power Generation:

- Reduce forced outage rates and improve fleet efficiency
- Align investment decisions to decarbonization and profitability targets
- Standardize performance across thermal, renewable, and hybrid portfolios
- Support workforce transition with embedded knowledge and digital guidance

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IFS serves as an important component within our IT and data architecture landscape, hosting core processes and data assets so we can address cost, efficiency, and automation.”

Chief Information Officer, Stockholm Exergi



Transmission & Distribution: Unify utility operations to ensure reliability, safety and affordability

T&D utilities must modernize rapidly while navigating complexity, regulatory pressure, constrained resources, and growing expectations for safe, affordable, and reliable service.

ALM from IFS gives T&D operators a connected, data-driven framework to anticipate outages, mitigate safety hazards, prioritize cost-effective grid upgrades, and deploy crews based on asset risk and workforce capability. It enables utilities to align long-term capital strategy with day-to-day operational execution in one unified, improving reliability, safety, and financial performance.

As part of the IFS offering, **Integrated Grid Planning** from Asset Investment Planning by IFS' AIP Solution allows utilities to align investment decisions across generation, transmission, and distribution. This helps break down silos, uncover bundling opportunities, and account for interdependencies that influence performance, cost, and system reliability.

By connecting asset strategy, capital planning, and execution across business units, IFS helps utilities improve capital efficiency, coordinate project timing, and deliver greater system-wide performance while staying aligned with regulatory and ESG goals. IFS also supports audit readiness and compliance tracking through unified data and real-time visibility. In the field, embedded digital workflows guide execution, capture expert knowledge, reduce safety risks, and cut maintenance costs through AI-powered recommendations that help crews work faster and smarter.

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The biggest benefit is that we now have an end-to-end solution. We can start off with a rough idea of the projects we need to undertake to achieve our strategy and then track that investment all the way through to delivery and benefits realization.”

**Neil Tansley, Asset Modeling Manager,
National Grid, IFS Copperleaf Customer**

Strategic Value for T&D:

- Improve reliability and reduce outage duration through predictive insight while lowering maintenance spend
- Enhance workforce safety and efficiency with AI-powered, skills-based scheduling that matches the right crew to the right job
- Balance regulatory and safety risk with long-term capacity planning and data-led investment for affordable grid expansion
- Unify capital planning across the grid to enable coordinated, high-value execution
- Maintain operational continuity and affordability through digital knowledge transfer and streamlined work processes

Water & Waste Utilities: Resilience for a Resource-Stressed Future

Aging assets, water scarcity, and regulatory pressure are stretching utility budgets and operational capacity. In Europe and Australia, utilities are mandated to reduce leakage and improve sustainability performance. In the Middle East, infrastructure expansion must meet rising urban demand while managing desalination and reuse.

IFS enables water and waste utilities to apply ALM as a unifying framework that drives cost control, service reliability, and infrastructure longevity. With condition-based maintenance, capital planning, and mobile workforce tools in one solution, utilities can prioritize high-risk assets, streamline field repairs, and demonstrate compliance with confidence.

IFS supports evolving regulatory frameworks and ESG targets by providing a centralized view of asset performance and system efficiency. It also helps utilities retain institutional knowledge by embedding expert practices into guided digital workflows that support newer team members in the field.

Strategic Value for Waste and Water:

- Reduce leakage and extend pipeline lifespan with predictive maintenance
- Optimize pump and treatment performance to meet sustainability goals
- Demonstrate regulatory readiness with embedded compliance tracking
- Address workforce constraints through digitized expertise and mobile tools

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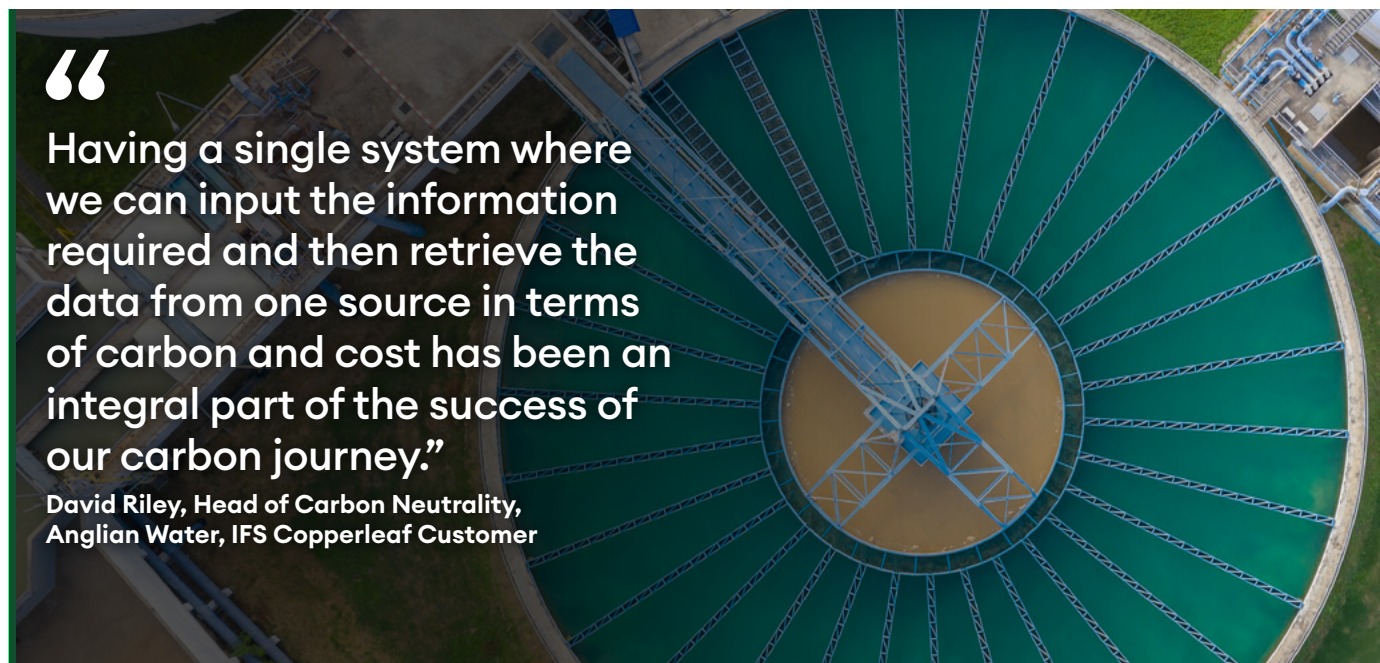
It was important to select a technology vendor that truly understood the unique challenges faced by a utility organization of our size.”

Chief Technology Officer, Suffolk County Water

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Having a single system where we can input the information required and then retrieve the data from one source in terms of carbon and cost has been an integral part of the success of our carbon journey.”

**David Riley, Head of Carbon Neutrality,
Anglian Water, IFS Copperleaf Customer**



Global Spotlight

How Exelon is Driving Utility Transformation Through Asset Lifecycle Management

Why Exelon Is Implementing an Asset Lifecycle Management Framework

Exelon, one of North America's largest energy delivery companies, initiated its Asset Lifecycle Management journey to replace its oldest enterprise system. What began as a need to eliminate technical debt quickly evolved into a business-led transformation initiative focused on long-term operational value and customer outcomes.

Rather than treating ALM as a traditional IT upgrade, Exelon positioned it as a strategic enabler of key business goals:

- Strengthening the core systems that support asset and work management
- Improving capital project planning and execution
- Transitioning from time-based to condition-based maintenance
- Enhancing reliability with an audacious goal of “perfect blue sky” performance
- Enabling faster adoption of advanced analytics, AI, and data-driven decision-making

Exelon made it clear that delivering improved service to customers was the guiding principle behind every objective, and that modernizing the enterprise required more than just new technology.

Why IFS Was Selected as Exelon's ALM Partner

IFS was selected as the platform to power Exelon's ALM transformation based on both technical capability and strategic fit. The company sought a partner that could deliver speed to value, process standardization, and future readiness.

Key reasons for choosing IFS included:

- A cloud-native, composable platform aligned with Exelon's broader IT architecture
- Preconfigured, out-of-the-box functionality that reduces complexity and customization
- Seamless integration with existing tools such as Azure, Boomi, and Microsoft 365
- An agile implementation model that enabled Exelon to go live with initial users within months
- A collaborative, utility-savvy team that demonstrated deep understanding of the industry

IFS provided not just a robust enterprise solution but a trusted partnership to help Exelon continuously evolve its operations and support strategic objectives. The result has been a transformation program that delivered rapid progress, built internal confidence, and established a strong foundation for future innovation.

Listen to how Exelon is transforming Asset Lifecycle Management with IFS here



Conclusion: Asset Lifecycle Management as a Board-Level Catalyst for Utility Transformation

Asset Lifecycle Management is not a single software solution, but a strategic and composable operating model that drives enterprise-wide transformation. But to succeed, that strategy must be enabled by a technology foundation built for the unique complexity presented by Utility Organizations.

IFS provides the only complete ALM solution built to support every phase of the asset lifecycle in a single platform, with IFS.ai delivering agentic intelligence across operations. This directly addresses the barriers revealed in the IFS Global Utility Survey:

Bridging the digital gap: By modernizing core processes and connecting data across finance, operations, and assets, IFS closes the divide between transformation strategies and real execution.

Accelerating sustainability progress: AI-driven insights guide investment into energy-efficient assets and help track performance against targets, enabling utilities to move from goal-setting to milestone delivery.

Securing knowledge and workforce resilience: Embedded intelligence preserves institutional expertise and supports less-experienced teams, reducing the risks of an aging workforce.

Aligning strategy with daily action: Continuously learning AI agents link long-term plans to real-time decisions, ensuring every investment and operational choice delivers measurable outcomes.

Utilities that adopt ALM with IFS are already achieving faster and more confident decisions that deliver greater reliability, lower costs, improved sustainability performance, and stronger risk management. They are also better prepared for future challenges such as grid evolution, resource scarcity, regulatory scrutiny, and workforce transition because strategy and execution are unified on a single, AI-enabled platform.

In a sector where misaligned strategy or stalled execution can mean the difference between resilience and risk, ALM amplified by Industrial AI is no longer optional. It is the essential infrastructure for utilities to decarbonize, digitize, and transform at pace. With IFS, ALM becomes sustained, enterprise-wide impact.

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.

