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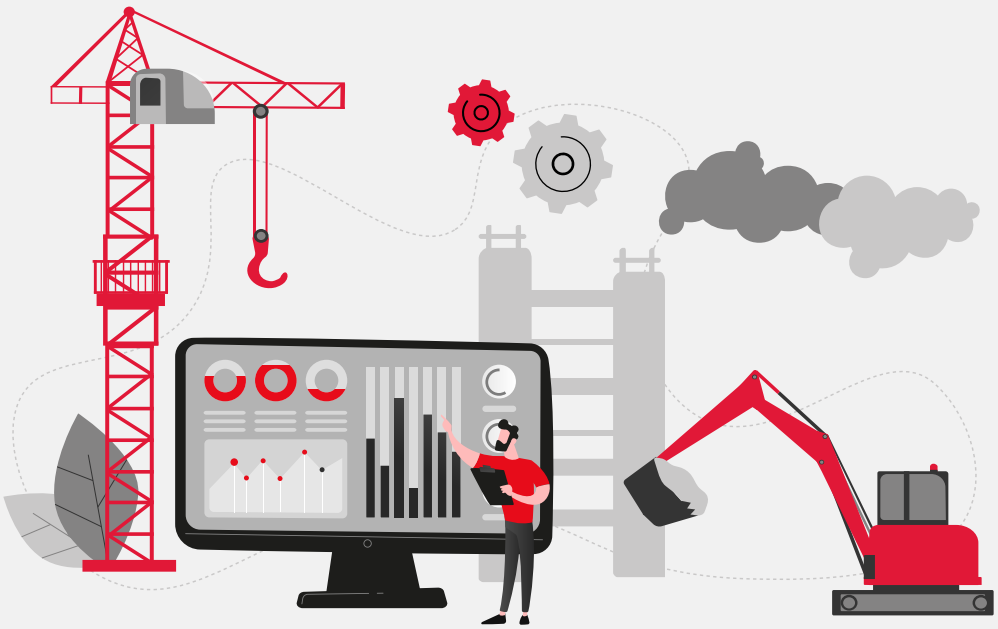
Asset Lifecycle Servitisation: The new business revenue model for the construction sector



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In recent years, more and more Construction firms have sought to outsource the maintenance of their assets throughout the whole lifecycle.

Construction companies have faced numerous challenges, including diminishing margins for capital projects, Covid-related disruption and sporadic revenues. This new ‘servitisation’ business model offers constructors a potential lifeline.

But contracting-for-outcomes arrangements require a complete change in mindset. In particular, construction companies must manage complex, but potentially lucrative, performance-based contracts as well as accurately modelling whole-life costs.

In this white paper, we will look at the opportunities presented by the full asset lifecycle business model, along with the transformative digital journey involved – including the potentially vital role of IFS Cloud solutions, delivered by Muzulu – and the enterprise software capabilities construction firms must embrace if they are to compete successfully.

Construction meets operation and maintenance

Construction projects would traditionally be managed and delivered in two phases, typically by two companies. The construction phase is financed by capital expenditure, while the subsequent operation and maintenance of the built asset is financed as operating expenditure.

Increasingly, however, this is changing. General contractors – faced with thin margins, high risks and minimal profits for building assets – are realising that they are walking away from potentially huge sums of money once an asset is built. Contracts to operate and maintain these built assets involve substantial amounts, with their maintenance needs stretching out over several decades.

Best practice annual spending on industrial asset maintenance costs is 3% or less; this indicates that a maintenance contract for a building would typically fall within 3-5% of the total asset cost per year. One study of the 100 tallest buildings to be dismantled found that they had an average lifespan of 42 years. Over this lifespan, maintenance contracts would be worth 120-200% more than the original cost of the build.

Moreover, the guarantee of significant operating revenues post-build allows contractors to lower their initial construction tender bids, thereby increasing competitiveness and winning more projects.

Profitability in construction no longer resides in creating a building or asset, but in delivering a total package spanning integrated project and lifecycle management. This gives construction and facilities management companies opportunities to significantly grow their business with long-term revenue streams.

The full asset lifecycle model: selling and buying outcomes

More asset owners, both in the public and private sectors, are moving towards service and outcome-based models. As the aviation sector has embraced ‘power by the hour’ contracts for aircraft engine flying uptime, so too we can envisage parallel scenarios for the build and operation of assets: hospital or hotel contracts awarded on quotas for guaranteed usable beds or rooms, for instance.

There’s also a downstream impact. Subcontractors – such as a heating, ventilation and air conditioning company – could price for ongoing operation, maintenance and availability of installed systems within a project.

Longevity, quality, viability and maintenance costs could all be impacted by giving constructors cradle-to-grave responsibility for built assets. Constructors who intend to simply hand over a building have no direct interest in minimising whole-life costs or total ownership costs – but if they’ll operate and maintain the building through its lifetime, it is in their interest to design and build it so as to maximise efficiency and sustainability, minimising degradation and ensuring that it’s cost-effective to run, maintain and repair.

The ultimate outcome of the full asset lifecycle model in construction, therefore, is that it helps clients enjoy the best value from their investment over its lifetime.

The role of digitalisation and enterprise software

Globally, it is still rare for constructors to provide lifetime operation and maintenance service. However, in the UK, it's likely that around 20% of construction companies also offer facilities management business units.

The adoption of transformative digital technologies – industry-honed enterprise software, including IFS Cloud delivered by Muzulu – is playing a pivotal role in helping businesses make a servitised (service-based) offer a reality.

Real-time data, full visibility and comprehensive insight enable companies to deliver entirely new capabilities, including service-level agreements (SLAs), field service scheduling and optimisation. Increasingly, companies are using software to manage maintenance and obtain the visibility, performance reporting and control needed to implement the asset lifecycle business model.

The impact of off-site manufacturing

Construction-integrated manufacturing – offsite or modular – sees factory-made modules and components shipped to construction sites so they can be assembled and installed. New entrants are disrupting traditional construction by embracing this approach.

For example, BoKlok – the homebuilding joint venture between retailer Ikea and constructor Skanska – has built 12,000 homes across Scandinavia and is now developing sites in the UK. Modern construction methods are used to construct wood-built homes off-site, with Ikea fittings in place, and then transported to the site for assembly.

The off-site manufacture model offers greater efficiency as well as high quality and predictable costs, eliminating costly delays caused by bad weather. Construction is also faster, less wasteful, and can be done with minimal skills.

But to embrace this shift to modular construction, traditional contractors must change radically. They must be able to implement effective supply chain management, track inventory and co-ordinate the delivery of prefabricated parts.

IFS Cloud solutions, delivered by Muzulu, allow companies to plan and optimise operations, standardise processes and manage all the external parties involved in project design, manufacturing, engineering and logistics.

Building Information Modelling (BIM), digital twins and understanding risk

Accurately understanding and quantifying cost and risk are two of the biggest barriers to bidding for fixed-price maintenance contracts, which can run for many years.

A 3D digital BIM model is about more than just design. The latest BIM technologies can also factor in other dimensions, such as time and scheduling, to inform construction. They also enable accurate Lifecycle Analysis, a cradle-to-grave assessment of the environmental impact of a product, asset or service.

Here we can already see the opportunity to integrate directly to an ERP, allowing operation, maintenance and refurbishment elements to be calculated from the model data when tendering. IFS Cloud, delivered by Muzulu, allows BIM asset data to be integrated into all stages of the lifecycle asset process.

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Be a disrupter – but don't be disrupted

Becoming a disrupter in the construction sector need not be a disruptive process itself. One of the best aspects of the best-of-breed enterprise software approach is that once a traditional constructor has embraced an IFS Cloud solution delivered by Muzulu, it can rapidly evolve to deliver best-practice asset lifecycle operation, maintenance and service.

Any required management, operational and other capabilities are simply added via seamlessly integrated modules, rapidly delivering sustainable business value through profitable and diversified new asset lifecycle revenue streams.

As a trusted IFS Authorised Service Partner with decades of expertise, Muzulu is dedicated to helping your business grow. Book a call with us today to find out more about how IFS Cloud solutions delivered by Muzulu can help your organisation thrive.

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