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Traditional procurement and collaboration methods are no longer enough

Traditional procurement and collaboration methods have become outdated and inherently inefficient in today's world and to survive, our industries have no option but to embrace change. As we shift into an environment where infrastructure, technology and entire supply chains need to work together, share data and drive change to achieve carbon reductions to meet net zero, we can no longer simply believe that today's model is sufficient.

This State of the World report is important as whilst the topic is broad it does highlight the increasing need for action. Below are some of the key factors that demonstrate why traditional procurement is no longer fit for purpose and that the way we all work has to change.

Lack of flexibility: Traditional procurement methods are characterised by rigid and sequential processes, which can be slow and inflexible. They follow a linear path from project initiation to contract award, often resulting in lengthy procurement cycles. In today's fast-paced business environment, organisations require more agile and responsive procurement approaches.

Limited supplier engagement: Traditional procurement tends to be a one-way process where the buyer sets requirements and seeks bids from suppliers. This approach restricts supplier involvement and collaboration during the early stages of project planning, limiting opportunities for innovation and value creation. Modern procurement recognises the value of early supplier involvement and emphasises strategic partnerships, but these models still do not fully engage manufacturers, software developers, engineers etc early enough in the process to ensure that every effort to reduce carbon and optimise is undertaken.

Focus on lowest cost: Traditional procurement methods often prioritise selecting suppliers either solely or primarily based on the lowest price. While cost is an important consideration, it should not be the sole determining factor. This focus is going to become increasingly stark as carbon reductions are required and low-carbon solutions may not always be the cheapest option. Emphasising the lowest cost can also lead to quality issues, delivery delays, as well as increased risk. Modern procurement recognises the importance of considering total cost of ownership, quality, sustainability and other factors.

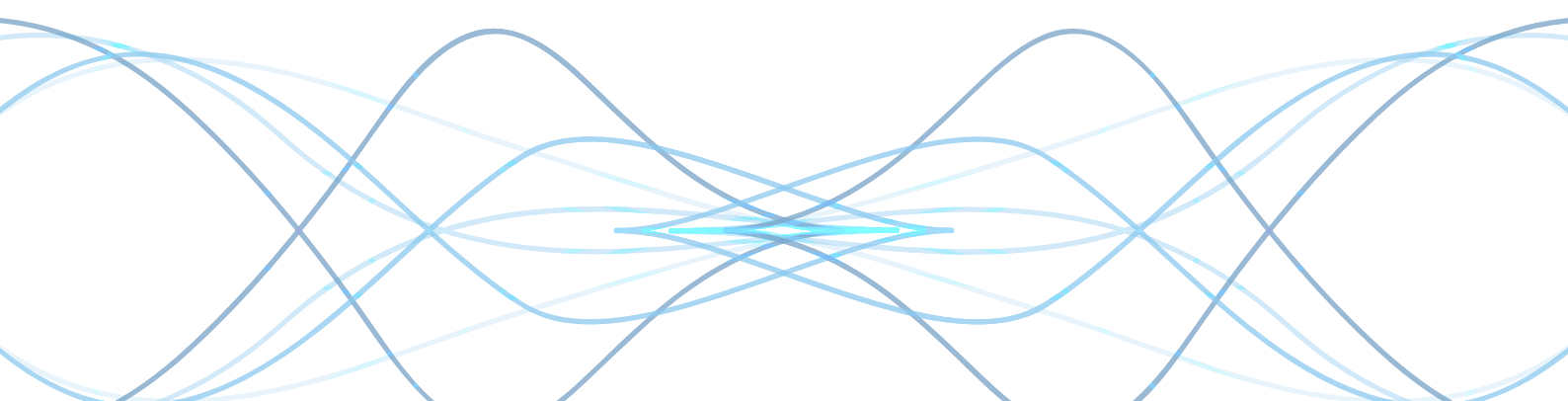
Limited transparency and accountability: Traditional procurement processes may lack transparency, making it difficult to track and evaluate processes and outcomes. This can lead to a lack of accountability and potential corruption. Modern procurement practices prioritise transparency, fairness and accountability to ensure ethical and efficient procurement processes.

Inefficient use of technology: Traditional procurement methods often rely on user-based, manual, or even paper-based processes, which can be time-consuming, error-prone and resource-intensive. Artificial intelligence can and will play a role in changing this going forward. With advancements in technology, organisations can leverage digital tools and platforms for streamlined procurement processes, automated data analysis and improved decision-making.

Changing business landscape: The business landscape has evolved significantly in recent years, with globalisation still important, but also with a rise in protectionism, technological advancements and changing customer expectations will not always align to such shifts. Traditional procurement methods may struggle to adapt to these changes and may not effectively address emerging risks and challenges, such as supply chain disruptions, cybersecurity threats and sustainability requirements.

There is a major upshift in the requirement for intelligent electrical devices and BMS for the optimisation of buildings. This further exacerbates the need for clients to engage early with technology vendors to manage supply and demand risk. For example, demand for intelligent electrical distribution and the rise in electric heating and electric vehicle infrastructure is growing as the urgent need to decarbonise accelerates electrification and digitisation of buildings and infrastructure. Due to this growing demand, technology providers are increasingly prioritising certain customer types that are focused on intelligent solutions.

Emphasis on value creation: Modern procurement practices recognise the importance of value creation beyond cost savings. Organisations now aim to achieve strategic objectives, such as innovation, sustainability, social responsibility and risk mitigation, through their procurement activities. Traditional procurement methods are still widely used across the globe and going forward will not be sufficient to adequately address these broader objectives.



In response to these limitations, many organisations are adopting modern procurement approaches, such as strategic sourcing, collaborative procurement, e-procurement and supplier relationship management. These approaches aim to overcome the shortcomings of traditional procurement methods and align with the evolving needs and challenges of the business environment.

Schneider Electric stands at the forefront of digitalisation within the procurement domain, leading the transition from traditional to modern procurement practices worldwide.

This journey might be a bumpy one for the construction sector being considered the least efficient sector in world industries (figure above) and if we were to embark on the journey to achieving net zero, drastic change is inevitable.

Schneider Electric endeavoured on a mission to relocate employees scattered across 17 disparate sites in Grenoble and unite them in three state-of-the-art sustainable buildings.

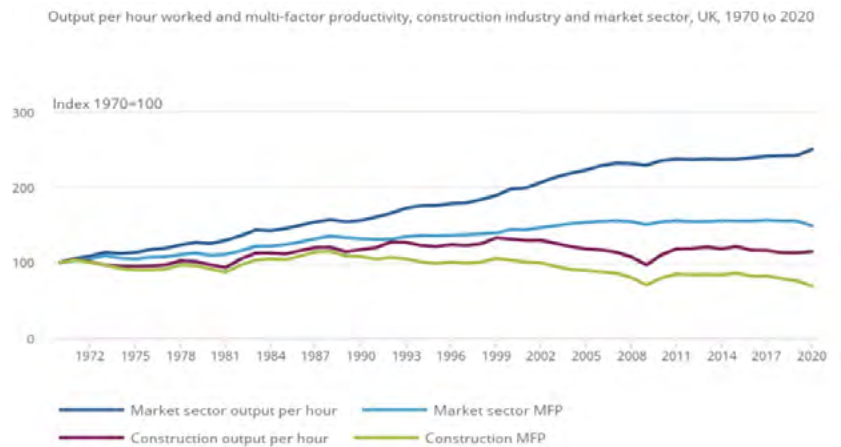
Firstly, Technopole is a major retrofit project that reduced 14 sites to a four-building campus.

The Challenge:

- With no sustainability credentials, the challenge was to update existing office buildings to meet sustainability targets and accreditations
- Difficult to add new technology and no data visibility
- Reduce the number of sites and incorporate smart technologies to foster collaboration, improve the workplace and attract talent

The Solution:

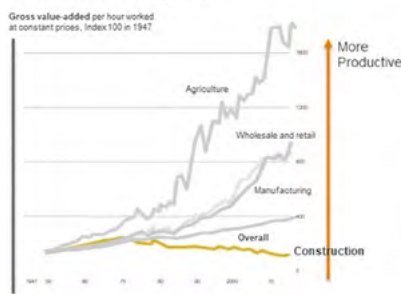
- Digitise: Data-driven design and build via BIM modelling and energy simulation
- Decarbonise: Reduce energy consumption with pace and meeting room management. Uses geothermal heat pumps, 100% green energy electric supply and is smart-grid ready.



Source: Office of national statistics – Labour productivity and multi-factor productivity⁵

Traditional methods are inherently inefficient

The lowest efficiency gains over the last 60 years



Source: McKinsey Global Institute, World Green Building Council

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Source: Schneider Electric (graphic) McKinsey Global Institute, Green World Building Council (Data)

10-20% higher construction cost due to a lack of coordination

170 million tons per year of materials go to waste

"Non-quality in European construction represents **€80bn** of waste per annum."
(The European Construction Institute)

The Outcome:

- 46-48kWh sqm per year (Target 45kWh)
- Platinum LEED in Operations certified (91 points)
- Platinum LEED Design Build +Construction (83 points)
- Smart grid and solar ready
- Space and meeting room management to increase safety and efficiency

This project began in 2014 and adopted traditional procurement methods. Schneider Electric learned that retrofitting to this scale was not going to be possible via said traditional methods, as a result, they needed to upskill various supply chain players to deliver the desired outcomes. This of course added cost to the project.

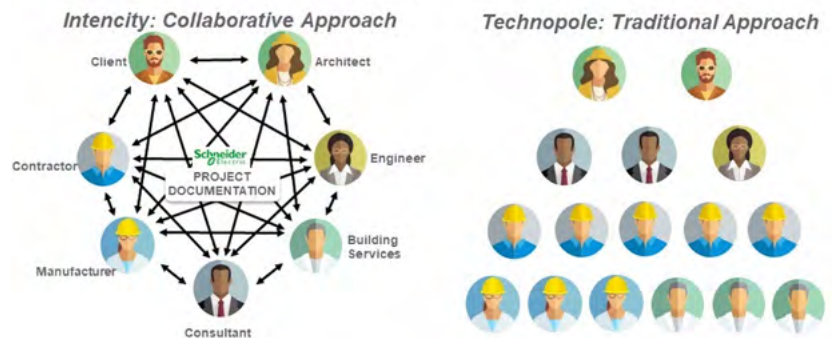
Secondly, Intencity, Schneider Electric's net-zero new build project, also in Grenoble. This project showcases the transformative power of software industrialisation and modern procurement, where BIM 4 models and collaborative software played a pivotal role.

What is unique about IntenCity?

- It is an all-electric building with all heating, cooling, and cooking equipment powered by electricity only.
- The building is designed to consume only 37kWh per sqm per year, which is approximately 10% of the average consumption of a comparable building.
- IntenCity generates 970MWh from onsite renewable energy sources. This is enough to power 200 homes and is provided by wind turbines and 40,000 sqft of photovoltaic panel - enough to cover 15 tennis courts.
- Nestled between two rivers, it uses energy from groundwater in the aquifer to power the heating and cooling for most of the year.
- It is part of a microgrid and is able to share energy with a local university and other neighbouring buildings.
- It uses integrated lighting and climate control technologies that allow sub-segments of spaces to be deactivated when unoccupied, driving down energy usage and the resulting carbon footprint.
- It is a fully flexible design: the interior can be fully rezoned in software, i.e., all the building controls can be re-assigned without rewiring.
- Sun-tracking technology allows the building to balance daylight harvesting and shading perfectly to ensure the lowest possible energy consumption.
- It is designed to report its LEED certification data to the Arc Skoru platform automatically.
- The building is undergoing a two-year commissioning cycle to maximise decarbonisation efforts. The building operation is closely monitored to identify additional opportunities to avoid waste.
- This project is the culmination of a zero-carbon buildings research project which was initiated in 2008.

Schneider Electric enforced the lessons learned from Technopole for the IntenCity project, taking a different route toward the procurement market. Schneider selected appropriate parties who could deliver outcomes to BIM Level 4. This project showcases the transformative power of software industrialisation and modern procurement, where BIM 4 models and collaborative software played a pivotal role. By employing a streamlined machine process, the project was completed within the allocated budget and on time.

Traditional methods are inherently cost driven, complex, inefficient & conflicted



Source: [Designing for Facility Management 2.0: Changing how digital systems are specified to achieve smart building outcomes](#)

This success story highlights that the need for change extends beyond software alone; it underscores the significance of transforming the entire process, fostering a collaborative environment where all parties work together harmoniously.

Throughout the projects (starting in 2014), Schneider Electric conducted a study of all available software packages the industry uses, from design to completion; architect to cost consultants and project managers to technical engineers. What we discovered is that the software packages were not designed to work together; they were all legacy systems.

Through this study, Schneider and its partners have determined that with traditional procurement and delivery methods, it will be extremely difficult to achieve net zero carbon goals. The way forward must be modern procurement, data sharing and collaborative agnostic software. As highlighted by this report the journey to net zero is not just a carbon journey it is going to be a data and intelligence-driven one.

