

# Podium

The Future is  
Already Here,  
and it is  
Autonomous  
by Design





It is no coincidence that art can be found in the term, artificial intelligence. As we navigate our current reality and the wisest paths forward to recalibrate, innovate and create the digital present and future that we want and require, our industry is reminded of how central the nexus of art, design and data is for the construction of a digital renaissance in the building and property sector.

The data led renaissance being spearheaded by Lendlease can only be achieved collaboratively and that is what makes Podium and its new raft of recently announced partners in digital innovation, so transformative.

At this year's Lendlease annual conference, Autonomous21, the most progressive minds in the property and data realms intersected to collaborate on digital futures for the built environment. At the heart of each path forward was the primacy of data in the discourse. The series of partnerships announced with Google, Accenture, Schindler Group, Stora Enso and Johnson Controls solidified the core movement to align the industry into a new frontier that ensures a greener, cleaner, healthier built future.

"The places of the future won't be judged by how technologically advanced they are, but by how well they adapt to the changes in interdependencies of the built world, by how well they learn, adapt and respond to the needs of the people and the natural environment," explains Lendlease Digital CEO, William Ruh. This is the Lendlease vision for building innovation, the Autonomous Buildings vision.

In order for the future proofed built environment to be adaptive, responsive and work in unparalleled collaborative ways, data is the key.

"People don't want smart buildings, people want smart outcomes", Ruh states. As our collective communities develop plans for climate change solutions and post pandemic futures, the use of data and multi-level extensions like IoT will help shape our responses to challenges more than ever before.

Futurist Dr. Timothy Chou, Stanford Cloud Computing Lecturer and Blackbaud Board Member, concurs adding, that "if Covid has taught us anything, it is that nothing is local. The experience of the pandemic has accelerated all our uses of technology, whether it is to watch movies or order essentials to driving a digitally led recovery in all industries."

In establishing this data driven recovery and resurgence of the building industry in a new paradigm, Lendlease Digital and its partners have embarked on a collaborative journey with a clear and shared purpose to address four key aspects: sustainability, wellness, productivity and human experience.



# Re-defining Collaborative Digital Futures with Podium

The collaborative journey has its foundations in a landmark agreement with Google which will see Lendlease integrating new artificial intelligence (AI), machine learning (ML), and smart data features into the Lendlease Podium property lifecycle platform. The duo will also align on joint market initiatives to drive sustainability projects industry-wide.

Significantly, Lendlease is in the process of transferring their data from eight global data centres which are placed across four continents by 2022 and shifting all to Google Cloud.

Lendlease is trailblazing across the industry to show how this shift will increase operational efficiency and drive enhanced reporting and analytics capabilities.

The building and construction industry has a loaded carbon footprint, historically contributing to around 40% of global emissions, the tension to redress the balance has only escalated as demand for housing and building soars with population growth. Yet the radical solutions are not conceptual nor visionary, they are present, potent and being implemented globally and via autonomous built design strategies.

“By running on the cleanest cloud in the industry, Lendlease will gain increased efficiency, lower its environmental footprint, and be able to offer its clients greater information about the lifecycle of building projects. Working together, we will also spearhead digital transformation across the global property and construction industry, and enable companies to drive towards a healthier, more sustainable future,” said Alister Dias, Vice President, Google Cloud in Australia and New Zealand.



# Unlocking Data Treasure via the Supply Chain

The digital revolution in construction does not only reside in the data centres and control sensor rooms. It demands a fundamental restructure of the way the construction industry works from end to end.

Lendlease partner, Stora Enso is a leading global provider of renewable solutions in biomaterials and wooden construction. Their ethos is to continuously develop new digital tools and services to simplify the construction industry and assist them to choose and use the climate friendly option of wood.

Stora Enso, like Lendlease, believe that innovation does not happen in isolation and the key is to enable an open and transparent collaboration together with industry partners and stakeholders.

David Blomquist, Head of Digitalisation, Wood Products for Stora Enso said, “Stora Enso runs an extensive digitalisation program with the aim to develop competitive advantage and drive the digital transformation in the building sector. We are working on solutions for collecting and transferring data throughout the value chain, from project feasibility phase through to the operation and maintenance of the building and even until demolition where we can re-use or recycle the materials.”

This is sustainability in motion, through the use of data resources and materials are being monitored and more carefully managed, a sustainable Life Cycle Assessment (LCA) approach becoming more vital than ever.

“One of the next big challenges is to identify suitable standards within the Digital Twin and Digitalisation field for material management and Life Cycle Assessment ledgers. Alike what the car and vessel industry have secured by Original Equipment Manufacturer (OEM) and their Digital Twins,” he added.

Automation across the construction industry has been slow to move but Lendlease partner, Schindler Group, is also driving the automated revolution across manufacturing.

Michael Dobler, Senior Vice President, Global Key Accounts & Large Projects, Schindler Group explained that the success of autonomous practices in the building industry is first of all based on the availability of the technology that allows for such autonomy, such as automated planning, robotics in construction, and modular off-site construction.

“Equally or even more important are partnerships. The industry will only be able to implement aligned processes and interfaces among industry participants by coming together, in order to allow for a seamless application of technology across the entire value chain. The partnership between Lendlease and Schindler will help us to bring automation in construction to a new level,” he said.

Schindler integrated their elevator offering in the Lendlease Podium platform and on prefabricated elevator shaft modules which already contain pre-installed elevator components. And on the topic of prefabricated elevator shaft modules: of course, the interfaces to the building are key, so these areas can only be driven forwards with partnerships.





# Accelerating Data to Empower Buildings and People

The leverage of data insights and their implementation through the whole ecosystem of the construction industry will be accelerated via Lendlease's Global Strategic Partnership with Accenture. The alliance serves to show the property industry how to embrace data and insights to achieve better outcomes including sustainability with Lendlease Podium.

The real challenge with sustainability is to create a framework that everyone understands - and data makes that understanding not only possible, but implementable.

Lendlease has committed to absolute zero emissions by 2040 and Accenture has also committed to net-zero emissions by 2025. The path to sustainability demands key changes including the move to 100% renewable energy, ensuring real time insights are delivered to the people operating and using spaces ensuring decisions can be made for the benefit of the environment.

Lendlease Podium Property Insights is intended to be rolled out to over 80 Lendlease and 150 Accenture buildings and precincts around the world. The priority in phase 1 of the partnership will be Australia and Asia.

Charlotte Bizeau, Real Estate, Engineering & Construction Lead for ANZ, Accenture said that the joint alliance will help to "institutionalise digital and make data the topic from the board room to the building."

"It is not just about collecting the data, the value is in the analysis of the data and ensuring that the insights allow the customer to make the right decision at the right time. We are helping companies to unlock the value of data for the future of the industry," she added.

Another key protagonist of the digital transformation in the building and construction ecosystem is Johnson Controls.

Alvin Ng, Vice President and General Manager of Johnson Controls explained that the sustainability inflection point has changed, tracing your carbon footprint is no longer about monitoring electricity bills and usage.

"It has evolved from digital reporting into digital management. You need dynamic, continuous data in order to monitor and get insights to control and automate. Without digital you can't go through the process of the continual improvement of the building. Digital is the foundation and sustainability is the forcing function in order to drive digital across all buildings and infrastructure."

Johnson Control's OpenBlue platform and Lendlease Podium together will deliver those outcomes of sustainability as the industry collectively evolves from reporting into management of data.

Lendlease's technology partnerships are pioneering a revolution in one of the last industrial sectors which is steeped in 'heritage' conventions. It is a paradigm shift and one that can only be achieved through collaboration and unified vision. Lendlease has been working with the driving forces in digital, data, innovation and sustainability to develop a unified vision for the autonomous built environment that will produce a greener, safer, healthier and future proofed altruistic foundation for the industry as a whole.



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