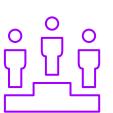


The digital brief for property and construction

Each month, we speak to a different industry leader about their approach to innovation and emerging trends impacting the sector. For this edition, we talked with Lendlease's William Ruh about his take on the state of play of digital transformation in the property sector and his predictions of the game changers that lie ahead:





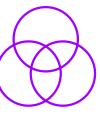
Lendlease Podium and the 'phygital' workplace

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In conversation with Lendlease's William Ruh

From mainframes to the metaverse, William Ruh has spent his entire career at companies like Cisco and General Electric, playing a part in the technology transformations that have shaped our world. Today, as CEO of Lendlease Digital, he has set his sights on one of the least disrupted sectors in the world: property.

"It makes up 40% of the world's GDP," says Ruh. "What can happen if we re-imagine the property world?" That's what he's working on answering at the company, while driving further success for Lendlease Podium, a property lifecycle platform that incorporates digital products and services to support the industry. The platform has recently appeared on Fast Company's World Changing Ideas List. Central to Ruh's work is the application of data analytics and Al to property development and construction, but he's also keenly aware that everything could change tomorrow.

"Whatever you build tomorrow is good for one day. There needs to be a constant shift of applying and changing best practices for the needs of the future."

We talked to Ruh about Lendlease's three-pronged digital strategy, why digital twins are essentially crystal balls and what he believes that future looks like today (with the disclaimer that it could all change tomorrow).

"Change is driving at such a pace that if you don't embrace an agile leadership style, you're not going to succeed."



William Ruh **Chief Executive Officer** Lendlease Digital

What one word describes you best?

Passionate.

I throw my full self into anything I'm working on and feel very passionate about it.

Can you talk about your career journey to date and your role as the CEO of Lendlease Digital?

I'm an old hand in the software game. This is my 39th year working in this industry. I came from the very early days, in the late seventies, early eighties, when there were a lot less people working in computer science. It was a very different game, with mainframes, etc. I've worked in the software business, both on the buy side and the sell side, and in the creation of technology products. I had a startup mid-career and helped Software AG, one of the oldest independent software firms in the world, transform from mainframe-based software to a modern software capability. I worked at Cisco on the product side and for MITRE, where we helped the government envision how to use technology to rethink intelligence systems—for example, spy satellites.

I've always been involved in technology transitions over the years. At Cisco and General Electric it was about digital transformations—my true passion. Eight years ago at Cisco, I was involved when John Chambers was there and it was in growth mode. Cisco came out of the first internet bubble and John drove the company around growth. It was a marvelous time to be there because we went from \$19 billion of revenue to \$40 billion when I left. Cisco moved from just being a company with a few

products to having 30-40 market leading products, to reinventing what video meant, to figuring out the Internet of Things and the nature of networks that move from people-based to machine-based. That led me to rethink what the digital future would look like for many companies and opened the door to General Electric. At GE we created the idea of a chief digital officer as a driver of digital transformation and strategy for the company and focused on moving from traditional products to embedding digital ones in the future, while taking the relationship between digital and IT into account.

I joined Lendlease in 2019 because I think how we develop, construct and asset manage properties is about to be transformed. This is the least digitized industry on the planet and it makes up 40% of the world's GDP. What can happen if we re-imagine the property world? The good news is, I think property technology is now one of the highest-level investments in venture capital (VC). I've been lucky to have seen all sorts of transformations in my career but I have loved my last 20 years where it's been all about digital transformation.

What are you trying to achieve with Podium—your property lifecycle platform incorporating digital products and services—and how do you see it transforming the construction industry?

Our digital strategy is a three-horizon model.

Horizon one is the business-as-usual IT. But it's not really business as usual; it's about having the right foundation to be a digital company and make the transformation to cloud. How do you ensure cyber security is embedded in the core of how you build things? And how do you zero baseline your application environment?

Horizon two is how we think about our investments in new initiatives. We now have a single decision-making body across the company that I oversee, which comes up with a more strategic view of initiatives. We want to get them done in a 12- to 18-month period and that has fundamentally changed the way we think about investing.

Horizon three is about big, transformative, higher risk things. Podium is our high risk, high reward initiative. <u>Lendlease Podium</u> is an end-to-end digital platform that provides the property and construction industry with insights and clarity never experienced before—aiming to transform the industry's entire value chain. We asked —given our innovation and knowledge—can we incubate a few products, from design automation to property insights and asset services to go to market, that become game changing capabilities? There are two components

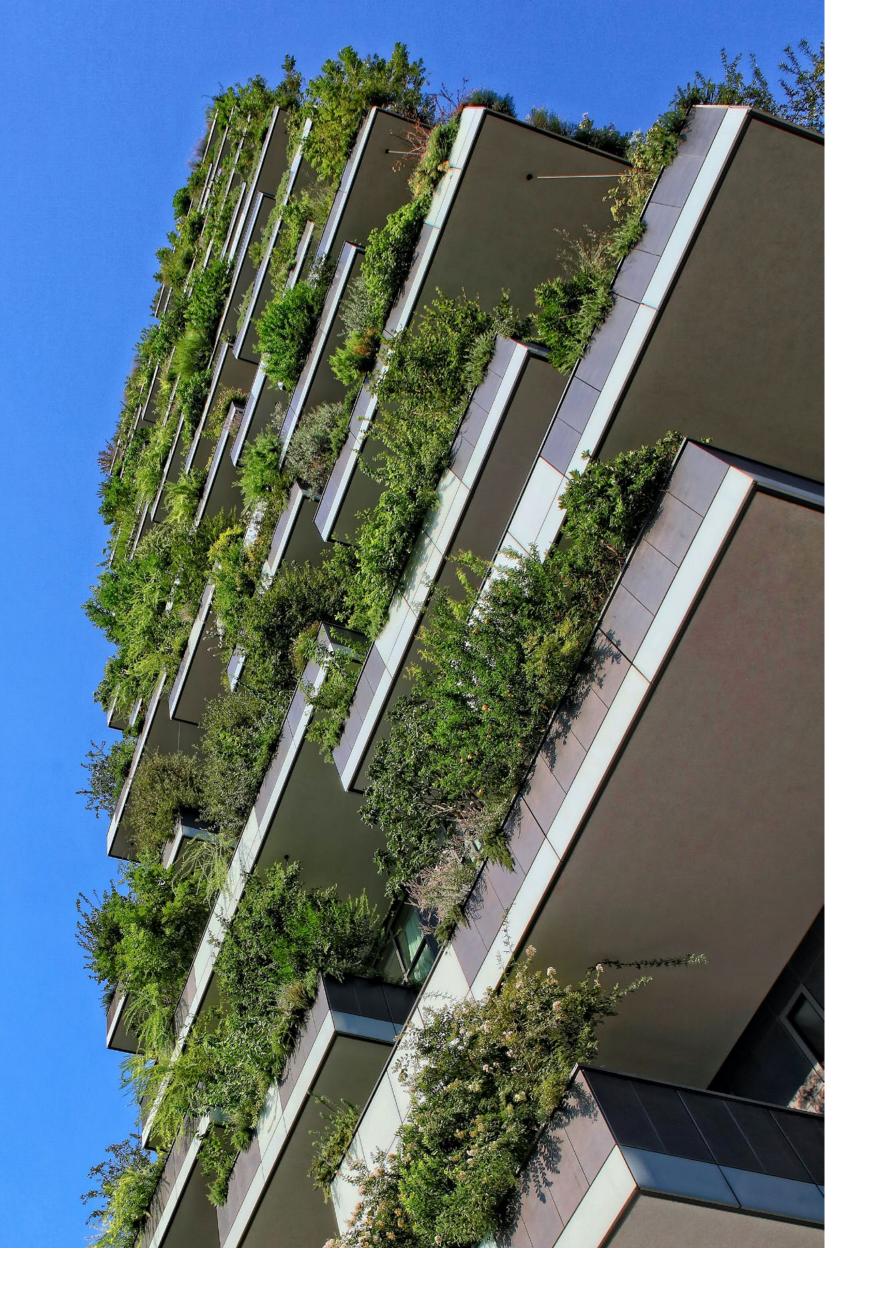
to that. One is Podium for development: how we automate the development environment and help to create more collaboration and digital twinning between the developer, architect, engineers and everybody else involved.

I'm also extraordinarily passionate about Podium Property <u>Insights</u>, where you take data and deliver new outcomes to people. We're starting with commercial customers that are going through foundational changes. For example, nobody knows what the workspace of the future will look like. Companies use terms such as hybrid workplace, like we know what that means, then send out notices that three days in the office is mandatory. That's not working. We must figure out what a hybrid workspace of physical and digital will look like and how sustainability and health play into that. No one's returning to the workplace unless they know it's sustainable and healthy. Then, how do you get the cost structure right and create an environment where the workspace is agile? Because whatever you build tomorrow is good for one day. We believe that when it comes to the workspace, there will be a constant shift of applying and changing best practices for the needs of the future. In the next ten years, companies will go through far-ranging changes. To prepare, we need to learn everything we can about employees and work out

how to make workspaces more productive and hybrid, so employees feel their company's culture is evolving to retain them. The good news is that once you put the employee at the center of the space, that same model can be used for customers in a retail setting, or a patient in the healthcare space, etc. Put them at the center of your thinking and ask, is the space setup right? Every company, stadium, retailer or healthcare organization must reimagine the physical to align to the digital. And we're building the data analytics capability to allow people to control that destiny.

Podium is the enabler of autonomous buildings and the sustainability ambitions of our industry. The Podium platform aims to fill a large gap in the market that will see technology maximize efficiency across the entire property lifecycle—transforming how we design, build and operate. By harnessing technology like Podium, the market players will be able to optimize their choice of partners, suppliers and sustainable materials, creating less material waste and choosing and harnessing renewable energy sources.

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Lendlease is committed to achieving net zero carbon emissions by 2025 and absolute zero emissions by 2040. What's the role of digital technologies in achieving this, particularly digital twins?

Sustainability is run on spreadsheets and reports. If you look at regulatory requirements, it's oriented around collecting data and reporting in a backwardlooking way. People in sustainability know what the right answers are and what we should be doing at construction sites—for example, moving away from diesel—but what we need to do is more complex.

For example, we must change the materials we use and make sure that our suppliers are meeting those objectives as well. Our construction projects are incredibly complex and we can't become more sustainable without more automation, analytics, and machine learning to give us the insights we need. Digital twin technology will be key to extracting value from analytics and machine learning. It can help us model a complex system, whether that's a building or a jet aircraft engine. By generating that model and software using real data, you can begin to understand its behavior, look at processes and build something before you build it.

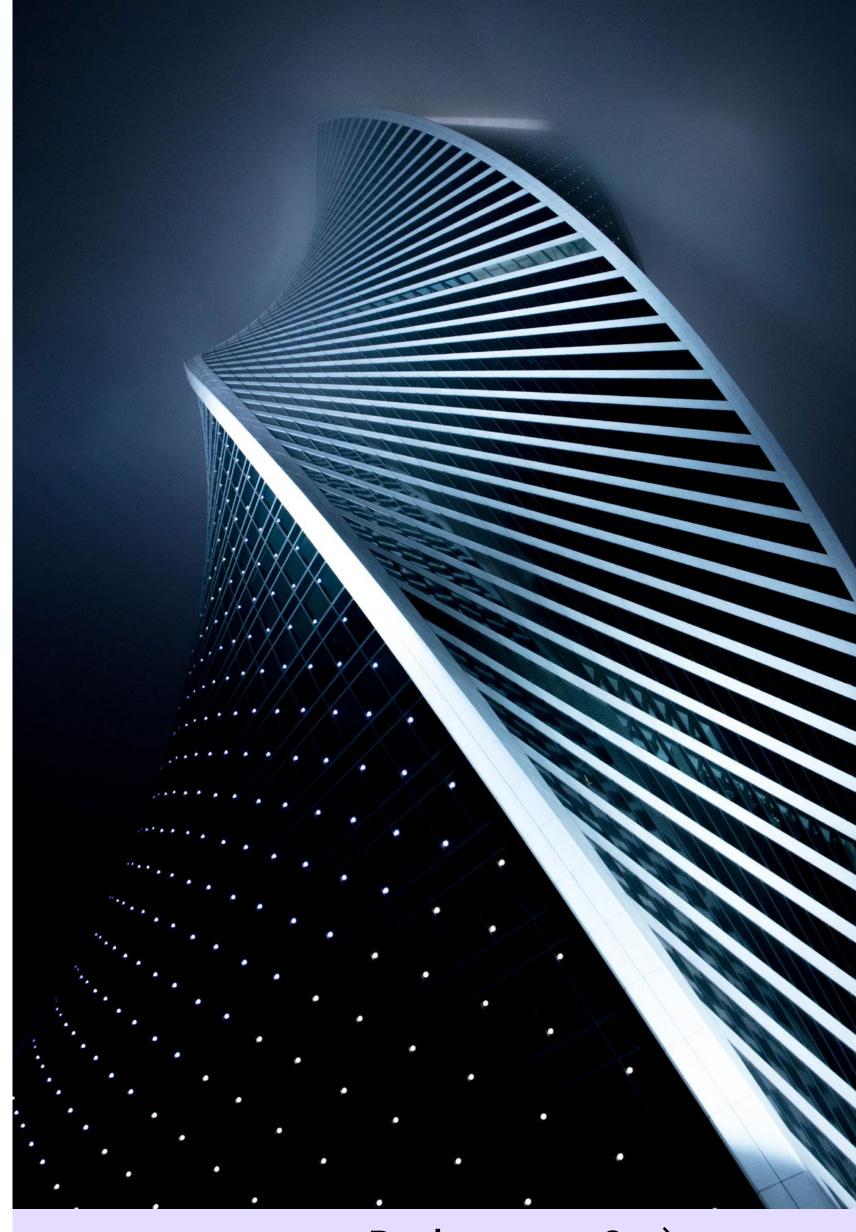
You can test hypotheses on fuel efficiency or other elements. Digital twins allow us to explore millions of different alternative scenarios and make better decisions about what we should do in the physical world. Until you do this, you can't deal with the complexity of everything that goes into sustainability.

Digital twins are the future for almost everything we do; build it, test it, look at all the options and make a great decision. This is how we will make decisions in the future. All technology at one time looked like magic, then it turned into reality and then you got used to it. Digital twins are like crystal balls. With digital twins, you can predict the future far better than anything out there and allow yourself to move faster, save money and grow.

Everyone's talking about metaverse. But businesses are struggling to understand how to apply it to business scenarios. Is the metaverse applicable to your industry?

I remember everyone had an AI product the minute Al became the term du jour. And I see that now with metaverse companies. But I do think there's meaning underneath. A lot of this has been worked on for the past decade; AR and VR are the cornerstone products and most people have VR. We think of that as the metaverse and social media companies see that as the next iteration of getting people further embedded into their social environment. I'm not convinced that's the greatest thing for the world but I do think there's no stopping that.

The idea that we're going to live more and more in the digital world is how I think about the metaverse. We're pretty far away from what that will be like. For example, are non-fungible tokens (NFTs) really going to have the same value as a physical Van Gogh? I think they will, eventually. Things will have value when there's a uniqueness to it because that's what people want. We're in the early days of the metaverse, which provides an umbrella term for the blockchain, NFTs, AR/VR and the future of social. A key question is, do we want to live in the metaverse or not? I actually like the physical world a lot. The hardest thing in the world is not the digital par—it's making the digital and physical work together. The people who figure that out are going to be the next generation of winners. If you look at Tesla, they did a nice job of bringing the physical and digital together in a totally new way to make a product that people want.



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What skills will Lendlease need to develop to achieve your goals?

Today there is a war for talent, especially in technology. People have more options than ever. But you have to think beyond that and consider what continuous learning means—it means you're always developing the talent you have to help them move forward. The skill sets that we need will evolve. Take property development: data analytics and AI will automate more and more of the process for people, so developers must be able to trust the technology. If they don't, they'll never change their processes and take advantage of the technology. And there's nothing worse than having an old process with new technology. In the future, we can't think just in terms of digital talent and non-digital talent. We've got to bring all digital talent to the forefront.

Leadership skills are also changing; you must be continuous learners and have an agile mindset. If you are agile, you continue to adjust and embrace the reality of the moment. For example, mandating people to come back to work won't work. We must make the workplace agile for people, to drive them to come in and be inspired. Change is driving at such a pace that if you don't embrace an agile leadership style, you're not going to succeed. However, when building complex, multi-use precincts, these things aren't easy in an agile environment. The decisions you make oftentimes aren't implemented for a few years and we're building things that will live for 100 years. How do you build a beautiful precinct that is meant for the moment but is agile enough to deal with change over 100 years when we don't know what will change? Agility will be at the center of every industry and of the next generation of leadership and talent.

What inspires you most?

Continuous learning. I'm inspired by the fact that there's so much change. I think most people don't deal well with change—it can make you nervous. But once you embrace it and realize that it's coming, you start to figure out the context of that change for where you are and for new products and services. Whatever we finish tomorrow for our digital transformation isn't the be all and end all. We will move on to questions around the metaverse and how we learn what the future of interacting, hybrid work, or homes will look like.

Embracing continuous learning and realizing that there can be sheer enjoyment in that when it's coupled with solving real problems, inspires me. What gets me up every day is embracing the fact that we live in a time with so much change. You can fight it or you can lean into it, learn, and become inspired to go and change what you're doing and be a part of bringing really positive things into the world. Today, I'm in the property world and I get inspired by figuring out how to move from being the least digital to the most digital. The possibility of solving that excites me, and I'm learning every day.

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Insights

Perspectives from Accenture experts on topics related to this month's featured interview.



Sustainability in engineering and construction

How to drive the green revolution in in the engineering and construction industry.



Manufacturing in the Metaverse

How the emerging metaverse continuum and digital twins will impact industrial and manufacturing operations.



Accelerate industrial speed to market

New Accenture research identifies a group of Industrial high performers who are leveraging technologies to significantly accelerate their speed to market. Find out how they got there.

Spotlight

The Industrialist second anniversary!

The journey began in the summer of 2020 and The Industrialist has been covering the trends and rapid transformations of the industrial sector ever since. From its inception, The Industrialist had endeavored to be the essential guide to the industrial industry—where you can discover how industrial companies create and compete, the new business practices and trends to watch, and which individuals are inventing and shaping the future of the industry.

This month, we are **celebrating two years of the digital publication**, and the industry thought leaders, innovators and CXOs who helped make it happen. On behalf of Accenture and the whole Industrialist family, we would like to thank you for reading—we look forward to sharing another year of insights and inspiration with you.



The People that helped make it happen



Ogi Redzic CDO Caterpillar



Takaaki Ishii COO Nippon Express



Emmanuel Lagarrigue Former Chief Innovation Officer Schneider Electric



Blake Moret CEO **Rockwell Automation**



Michael G. Vale **EVP** 3M



Hanna Hennig CIO Siemens



Maciej Kranz CTO KONE



Dr Eberhard Veit Managing Partner of Supervisory Board Office 4.0-velT



Jay Timmons President & CEO NAM



Julie Ragland CIO Navistar



Eric Chaniot General Manager Cross Industry Solutions Microsoft



Elke Eckstein President & CEO Enics



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Tarak Mehta Former President Electrification ABB



Dr Katherine Beumelburg Chief Strategy & Sustainability Officer Schlumberger



Jean-Pascal Bobst CEO **Bobst Group**



Peter Weckesser CDO & Member of the **Executive Committee** Schneider Electric



Inclosing

Like many emerging technologies, experts differ in how to define the metaverse and there is a great deal of hype around the topic. Most of the focus is on consumer applications, and many dismiss it as too futuristic. We have a different view. The metaverse is actionable today and industrial leaders must be ready – even though there is currently more activity in B2C than in B2B industries.

What are practical implications for industrial companies in today's metaverse?

At Accenture, we define the metaverse as an evolution of the internet that enables a user to move beyond "browsing" to "inhabiting" a persistent, shared experience that spans the spectrum of our real world to the fully virtual and in between. As such, we believe the metaverse will be a continuum of rapidly emerging capabilities, use cases, technologies and experiences; and with it still in its early stages, organizations and people have the opportunity to shape the metaverse responsibly—from ownership of data, inclusion and diversity, and sustainability, to security and personal safety. This work is beginning now.

We are on the threshold of a new decade of digital transformation. The metaverse will transform how businesses interact with customers, how work is done, what products and services companies offer, how they make and distribute them, and fundamentally how they operate their organizations or act as a partner within an ecosystem. Industrial leaders need to fundamentally reimagine how they will approach their business for the next decade, starting now. A key priority is investing in the technology foundation that will enhance their ability to adapt to future change as the landscape evolves. That includes expanding the use

of cloud technologies— which is now a must for every industrial business. Similarly, continuing to focus on advances in areas like VR and AR and invest in digital twins is vital, as these will be a central component of the industrial metaverse.

The insights provided by Lendlease's William Ruh in this edition of the Industrialist highlight why organizations should pay attention to the metaverse and technologies like digital twins. However, it takes more than technology alone; agility, speed, a digital culture starting at the top and the way people interact with technology are significant factors in digital success and essential for future market leadership. With over 60 years of experience creating places, Lendlease is one of the few organizations in the world that operates across the entire real estate value chain while innovating at speed. Great interview, thank so much, William!

Best regards,



Thomas Rinn Senior Managing Director, Global Industrial Lead, Accenture

About The Industrialist

The Industrialist is our monthly digital magazine that puts game-changing perspectives in the spotlight. It combines thought-provoking content and insights, to keep you on top of what's new in the industrial industry.

Featuring different CXOs and diverse views, you can be inspired by leading innovators, explore the latest trends, tools, technologies, and innovations, and ignite your industry interest with transformational thought leadership.

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