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Claire Rutkowski

Chief Information Officer, Bentley Systems

Claire Rutkowski leads Bentley Systems’ global IT organisation, responsible for shaping and delivering a technology agenda across its global business. She has received numerous awards, most notably in Constructech’s Top 50 Women in Construction.

Which technologies will revolutionise the surveying, space or spatial sectors in 2022?

The surveying industry has seen tremendous changes in technology, with drones and laser scanning being used to capture 3D data more quickly than ever before. Additionally, we are seeing an increase in global navigation satellite systems, which are expected to continue through 2024, giving us more detailed and specific data. Moreover, greater computational capability is on the way, driving greater speed to analyse large amounts of data. However, using these advances require a highly skilled and diverse workforce, so we should be putting energy into ensuring we have the right people ‘ready’ at the right time.

How can the industry play a role in the recovery from the COVID pandemic?

The architecture, engineering and construction industry will play an integral role as we recover from the pandemic. Infrastructure spending bills around the world are aiming to improve assets and create jobs, helping economies recover and stemming inflation. Our use of space has fundamentally changed. There is increased online shopping, reducing the demand for retail space, and increasing the demand for warehousing. Less office space is needed, which will be converted to hotels in many cases. Our industry will be responsible for reorientating our use of space so that we may recover in places that make us feel more comfortable, rather than in half-empty office buildings and malls.

How is Australasia placed in the global context? Are we racing ahead or falling behind?

Despite the limitations that were faced during the pandemic, Australia’s construction industry continues to grow. According to Infrastructure Australia, the country is well positioned to take advantage of opportunities post-pandemic. Australia’s infrastructure networks have been relatively resilient as the country’s engineers and

architects have been able to work on major construction projects during the COVID-19 pandemic. In addition, Australia has unique and successful public-private partnerships across its industry, so much so that Oxford Economics and Guy Carpenter have listed Australia as a Top 10 global construction market for 2030. Australia is set to continue to race ahead in developing its local construction industries, with the federal and state governments promising to continue their investment in infrastructure.

Which challenges or opportunities should the industry be focused upon?

Hybrid working is here to stay. And our industry needs to make that happen efficiently. We need to identify new commercial vehicles to sell our services. Charging hourly fees is a race to the bottom, and in our global environment, the competition from lower-paid labour sources is fierce. We need to adopt newer technologies and systems such as 4D and 5D BIM and use digital twins to deliver infrastructure in smarter and more valuable ways. And we need to develop a strong and diverse pipeline of professionals to staff our firms.

What do you think your customers are looking for in 2022?

I believe owners and operators are looking for us to more effectively use the data we already have, to increase efficiencies. We could, for instance, streamline internal processes to deliver designs more quickly by making more-informed decisions, and by providing more accurate budgets and schedules. Similarly, the build/construct phases can be enhanced with a greater use of data to generate accurate estimates, design the most efficient way to construct and create a more accurate timeline. By applying constant surveying and reality capture data in the build/construct phases, everything can be kept on track by measuring as-is progress to a to-be digital twin, and spotting problems remotely. ■