

Cooperation Essential for Successful Digital Transformation of Engineering



The amount of transformation required in the construction and infrastructure business is huge. That is one of the main conclusions emerging from the Bentley Year in Infrastructure Conference which is being held in Singapore from 10-12 October 2017. The digitalisation of the industry will take a lot of effort, and geospatial data plays a key role in this process. There seems to be no reason for surveying and mapping professionals to worry about the future of their jobs.

During the Alliance Partner Panel, consisting of representatives of four major partners of Bentley Systems – Topcon, Siemens, Microsoft and Bureau Veritas – it became clear that cooperation is vital in order to make the transition to the digital twin really happen. With construction being a 10 trillion dollar a year business, many chances lie ahead for the

geospatial community. Ray O'Connor, CEO of Topcon, said his company is very happy with Bentley's efforts to bring together companies from different backgrounds in order to create a full digital solution for the construction and infrastructure sector. "If you don't solve the workflow issue, you won't have a solution at the end of the day," he stated.

Reliable geospatial data

Michael Schneider, global head and general manager of the international power technologies of Siemens, agreed with him and called the alliance with Bentley "a perfect fit". Digital technologies are key enablers to allow energy systems around the world to undergo the most fundamental change ever: from fossil to renewable fuels. Artificial intelligence (AI) and the Internet of Things (IoT) will be important pillars in the digitalisation of infrastructure, according to Jacques Lubetski of Bureau Veritas. And, in great news for the geomatics experts, geospatial data was described as another pillar and as actually forming the foundation for the era of the digital twin.

"Reliable data is essential for the digital twin," Ray O'Connor emphasised. He explained that Topcon is part of the alliance for its role in enabling collection of that data. He pointed out that his company's products and solutions are increasingly finding their way into the industry. He sees enormous chances ahead in view of the rapidly growing world population and the rising demand for new infrastructure. According to O'Connor, major companies such as those within the Alliance Partner Panel must team up to deliver efficient solutions.

Lagging behind

The architecture, engineering and construction (AEC) industry has a clear need for efficient – i.e. digital – solutions. The adoption of building information modelling (BIM) is one key aspect, but today's changing world means that the AEC industry must take further action and fast. Solutions are available and, as Ray O'Connor mentioned, the industry should seriously consider adopting them. With statistics showing that 80 percent of construction projects either turn out to be way more expensive than expected or are finished late, O'Connor could have a valid point.