

IMPRESSIONS FROM HXGN LIVE GLOBAL 2022

A Journey into the New Reality



In which direction is the geospatial industry heading? Which core activities will companies focus on? How will the rapidly progressing technological advances shape the future? The recent edition of HxGN Live Global in Las Vegas formed an important hub for professionals who wanted to get a clear picture of what lies ahead in the field of mapping and surveying – and also, as became apparent during the event, increasingly outside of it.

[Hexagon](#) is unquestionably a digital reality solutions powerhouse, so it came as no real surprise that attendees were immersed in the very latest in sensors, software and autonomous technologies at the company's flagship conference, HxGN Live Global 2022, earlier this year.

Everything was dazzlingly showcased,

with the packed auditorium being addressed by passionate Hexagon executives on a huge stage supported by stunning audiovisuals. The billion-dollar company's vision of the future was interspersed with updates, product launches and other announcements. But what is the philosophy behind the technological developments, and how will they influence the surveyor's work?

Metaverse

HxGN Live Global 2022 was held at The Venetian Resort in Las Vegas, USA, from 20-22 June. The key buzzword this year was definitely 'metaverse'. One problem with buzzwords is that they often conceal the real meaning rather than conveying it efficiently. However, in Las Vegas, the discussions fortunately went deeper. According to the Open Geospatial Consortium, the metaverse is "the internet transformed by real-time 3D technologies, but the impact of real-time 3D is also transforming geospatial. In the metaverse, the real world and the internet will merge – and geospatial information and technology will be key to that combination." In a keynote on this topic, called 'Where the Metaverse Meets Business', Hexagon CTO Burkhard Boeckem likewise emphasized that geospatial and the metaverse are intertwined. He described the metaverse as "a journey into the new reality" that is transforming the industry. That journey goes hand in hand with new technology created by Hexagon, he explained, as he zoomed in on all the ingredients needed to create a smart digital reality – ranging from advanced photogrammetry and remote sensing solutions enriched with artificial intelligence (AI) and robotics, to GIS and building information modelling (BIM).



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Sustainability


For this keynote, Boeckem was joined on stage by Erik Josefsson. He is CEO of [R-Evolution](#), Hexagon's sustainable innovation and green-tech investment subsidiary aimed at reinventing and empowering the industry to address complex environmental risk. According to Josefsson, sustainability is "the biggest business opportunity of the 21st century". He backed up this statement with examples of digitalizing solar energy production and capturing enormous amounts of CO₂ in seagrass forests. Earlier that morning, Ola Rollén had hosted a breakfast briefing for the media representatives who were covering the event. Rollén, who from 31 December will be [succeeded as president](#) and CEO of Hexagon by Paolo Guglielmini, outlined four major shifts that he believes will change the geospatial industry and the work of surveyors over the next decade: from purchase to subscription, from automation to autonomy, from fossil fuels to renewables, and from digital twin to smart digital reality. By 'smart digital reality', Hexagon means that a virtual model has the potential to be much more than merely a digital copy of the outdoor space. The interplay of static and live data sources together can show what happens in reality.

The Democratization of Geospatial

Traditionally, the geospatial industry was dominated by land surveyors and GIS professionals. Based on data acquired using high-tech devices mounted on terrestrial, airborne or mobile platforms, they deployed their specialist knowledge and skills to locate and map real-world elements. The resulting insights were mainly used to support architecture, engineering and construction (AEC) projects or to solve land management challenges. However, recent technological advancements have made it easier to gather larger volumes of much more detailed and accurate geospatial data. Moreover, it is now possible to combine multiple data sources to create 3D models of environments, including buildings and other physical features – and even digital twins of entire cities – at a much lower cost than ever before. The wider availability of such data has opened up countless new possibilities for the application of geospatial solutions in a whole range of previously unexplored sectors. This democratization of geospatial has profound implications for the future direction of companies like Hexagon, and this became increasingly apparent during the HxGN Live event.

Digital Twinization

While the metaverse was a common thread running through the conference, many of the topics discussed during the numerous sessions were related to digital twins and the underlying geospatial technology. This makes sense, because digital twins can be regarded as an important building block of the metaverse in terms of making the physical world accessible in a virtual environment. But what does this mean in practice? How is 'digital twinization' benefiting everyday life and society in general? At HxGN Live, Hexagon's long-standing experience of combining inputs from reality-capture sensors with advanced visualization software and tools to enable remote, location-based intelligence clearly shone through. The company demonstrated how smart digital realities can be used to enhance on-site situations and activities, improving performance and efficiency. For example, while working with an asset, mechanics and engineers can gain direct access to step-by-step instructions on how to repair it. This can help to streamline maintenance tasks while reducing material waste and re-work.

 Ola Rollén kicked off HxGN Live 2022 with a keynote on “What Stands in the Way Becomes the Way”™.


People-centric

There is no doubt that digital technology is irreversibly changing the face of mapping and surveying. But despite the shift from automation to autonomy, skilled professionals are still badly needed. For instance, now that digital twins are moving to the forefront, they will increasingly be called upon to deliver meaningful information from the model back to the physical world. Therefore, in the midst of this celebration of some mind-blowing technological advancements – many of which sparked a truly enthusiastic reaction from the audience, who had travelled to Las Vegas from all over the globe – it was refreshing to see a people-centric message presented in one of the primetime sessions. “In a world of technology, people make the difference,” said Thomas Haring, president of Hexagon's Geosystems division, in a joint keynote together with Craig Martin, president of the company's US/Canada and ANZ arm. “Nobody knows what surveyors are doing, until they don't do it anymore,” stated Martin.

Their well-attended keynote focused on the need for a new generation of surveyors and geospatial experts, and how to attract them to the industry. They likened the surveying profession to computer programming, which used to have a stuffy image; it was only for nerds. Now, many years later, programming has evolved into a hip and trendy job. So how can we ensure that surveying/geospatial data professionals become perceived as cool too? Haring concluded the session with a call to action for the industry: spread awareness and create enthusiasm. Does getting kids into surveying seem like an unattainable goal? Is it pointless to try to tempt more youngsters to study geomatics? To quote Ola Rollén during his [keynote](#): “The day before something is truly a breakthrough, it's a crazy idea.”

Next-generation Laser Scanner: The New Leica BLK360

Hexagon seized the opportunity of HxGN Live 2022 to announce the all-new [Leica BLK360](#), designed to significantly streamline reality capture and facilitate the fast creation of meaningful deliverables. This advanced precision imaging laser scanner from Leica Geosystems is equipped with rapid scanning and visual inertial system (VIS) technology that automatically combines scans on-site. As a result, it takes just 20 seconds to capture a full Lidar scan with spherical images, making it more than five times faster than the original BLK360. The new BLK360 can be controlled using the Leica Cyclone FIELD 360 mobile app. Full data synchronization between Wi-Fi-enabled devices supports automated workflows, resulting in quicker production of complete datasets.

 GIM International's Wim van Wegen got his hands on the all-new Leica BLK360 laser scanner solution during its launch at HxGN Live 2022.