

A REVIEW OF TRIMBLE DIMENSIONS 2023

The invigorating geospatial vibes in Vegas



13.6 billion meticulously collected data points.

In the rapidly evolving landscape of geospatial technology, the annual Trimble Dimensions gathering is a dependable beacon for the surveying and mapping fields, providing a panoramic view of the current state and future trajectory of the sector. This year's knowledge update took place in Las Vegas from 6-8 November.

Trimble Dimensions 2023 kicked off with an electrifying opening keynote that not only showcased the industry's adaptability and precision, but also tied into the excitement surrounding the eagerly awaited Formula 1 event in Las Vegas. The spotlight was on reality capture as it was demonstrated how leading US survey firm [SAM](#) expertly mapped the F1 circuit using [X7](#) and [X12](#) laser scanners. The result was a stunning visual representation of The Strip, composed of

The keynote featured Mark Gallagher, a seasoned F1 executive with over 30 years of high-performance motor racing experience who has demonstrated a passion for leveraging technology and data to enhance risk management and driver safety. In his light-hearted presentation, he shared a fascinating glimpse into the dynamic world of F1, exploring strategies for success in the business of winning. Gallagher's insights covered aspects of high-performance leadership, technology utilization and teamwork, all of which are essential for both on-track and off-track success – and equally apply in the geospatial industry.

"A lot can change in a year, and that's why we convene annually," remarked Rob Painter, Trimble's president and CEO, summing up the dynamic nature of the industry. Famous NHL hockey legend Wayne Gretzky's quote, "Skate where the puck is going," resonated throughout the keynote, symbolizing the industry's proactive stance towards embracing new technological trends and developments.

Where, what and why?

Trimble Dimensions is traditionally focused on the essence of connecting the 'where', the 'what' and the 'why'. In the 2023 edition, artificial intelligence (AI) was clearly an overarching theme. While acknowledging that AI is a transformative force, the event also emphasized that AI is only as good as the data it utilizes. The importance of high-quality data for AI emerged as a fundamental narrative.

The event's global significance was underscored by the 4,000 participants from 50 different countries. The attendees represented a broad spectrum of surveying and mapping professionals, spanning enterprise resource planning, civil design, construction, building scanning, architecture and asset management.

In their presentation, Trimble's Chris Trevillian, director product management GNSS, and Riley Smith, marketing director, monitoring and tunnelling, took the attendees on a journey through the inherent power of geospatial data. Participants engaged in discussions on prevalent trends within the survey industry, and identified data quality, reality capture, AI, automation, drone technology and recruitment as recurring themes. The presenters underlined the key role of geospatial data in catalysing transformation across diverse industries. Recognizing that geospatial data serves as the backbone for innovation and progress, they urged professionals not to stay in the background, but rather to spotlight their contributions.

The realization that approximately 56% of the Earth's surface currently remains unmapped prompted discussions on how to encourage future professionals to join the geospatial industry. Initiatives like Trimble employees visiting schools and the ['Get Kids into Survey'](#) programme were hailed as crucial steps in nurturing the surveyors of tomorrow.



During his keynote, Rob Painter, president and CEO of Trimble, wove in connections to the Formula 1 Grand Prix in Las Vegas.

Current state of surveying

One event highlight was the panel discussion on the current state of surveying by panellists including Farrah Etcheverry, Ronald Ssengendo, Andy Zoutewelle, Davey Edwards and Jean-Yves Pirlot. In fact, one panel member took to the stage carrying an issue of *GIM International*, which was a high-profile reminder of the important role of trade publications! During the discussion, the panellists stressed the need for robust dialogue between industry professionals, academia and policymakers. Jean-Yves Pirlot accentuated the responsibility of surveyors to maintain high standards, as people entrust their property based on the profession's educational level and trustworthiness. Andy Zoutewelle advocated aligning surveyors' licensing and education pathways with those of engineers and found some optimism amid concerns about a shortage of new surveying professionals. Farrah Etcheverry posed thought-provoking questions about the ongoing debate on higher education requirements and accessibility, sparking conversations about how to support young surveyors in their career pursuits.

Ronald Ssengendo shed light on the evolving role of surveyors in African countries, where technological advances are challenging traditional perceptions. He proposed a model inspired by the accountancy sector, with a focus on professional examinations and recognized qualifications. In view of the urgency created by the aging workforce, Davey Edwards, representing the National Society of Professional Surveyors (NSPS), declared a mission to attract the next generation of surveyors for 2023 and beyond.

Emerging markets and technological frontiers

The Trimble Dimensions 2023 programme included too many sessions to mention them all here, but one topic that deserves more attention among those working in the geospatial industry, according to Ronald van Coevorden (senior key account manager linear corridors/mobile mapping) is fibre broadband. Providing fibre-to-the-home (FTTH) for millions of households and businesses represents a massive amount of potential work for surveyors, not least because wireless 5G also relies on fibre. However, the developers of fibre networks are often unfamiliar with the possibilities offered by the geospatial sector. Van Coevorden stated that mobile mapping is an extremely useful tool for the FTTH challenge as it can save up to 60% of time, so it can play an essential role in fulfilling the FTTH ambitions across the globe. Moreover, Lidar-based mobile mapping of the streets can be combined with other technologies such as ground penetrating radar (GPR), and the marriage of AI with point clouds can also generate considerable benefits in the context of fibre-to-the-home mapping. The [Trimble MX9](#) was presented as a suitable solution for FTTH: a complete field-to-finish mobile mapping solution that combines hardware, intuitive field software and integrated office software.



View on the famous Las Vegas Strip, a stretch of Las Vegas Boulevard.

Diving into other technological frontiers, Trimble Dimensions 2023 highlighted the possibilities of autonomous technologies. The discussion expanded to encompass Lidar processing – including the rapid evolution of Lidar mapping in conjunction with uncrewed aerial vehicles (UAVs or 'drones') – as well as simultaneous localization and mapping (SLAM), automated object detection, and the fusion of AI with autonomy. However, Kevin Andrews, strategic marketing manager autonomy, emphasized that AI enhances human capabilities rather than replacing them.

Boris Skopljak, vice president of Trimble's surveying and mapping division, offered insights into the changing landscape and widening scope for geospatial professionals. For example, reality capture has become omnipresent over the past decade. Skopljak highlighted the transformative role of UAVs, stating: "What drones have done for the industry is incredible." Nevertheless, despite the influx of new technologies, the need for skilled surveyors remains paramount to ensuring the profession's continued relevance. Furthermore, Skopljak acknowledged the challenges posed by handling big data and emphasized the importance of effective data governance.

The shift from the exchange of static geospatial files to the seamless, real-time sharing of geospatial data was underscored. [Trimble Connect](#) is a solution that actively involves all project participants, allowing them to comprehend the project holistically from the broader perspective to the finest details. Thanks to ensuring the timely delivery of precisely what is needed by seamlessly uniting individuals, technology and information, it has already been embraced by over 30 million customers.

Pivotal role

Trimble Dimensions 2023 was an invigorating event offering a multifaceted view of the geospatial industry and Trimble's pivotal role within it. The versatility of the industry was apparent through the various sessions and the ensuing discussions, as well as through interactions on the exhibition floor. As technological advancements continue at a rapid pace, the annual update at Trimble Dimensions helps professionals across the geospatial spectrum to remain well-equipped to navigate the challenges and opportunities that lie ahead. Next year's edition of Trimble Dimensions will be held in Las Vegas from 11-13 November 2024.



Trimble Dimensions 2023 took place at The Venetian Resort in Las Vegas.