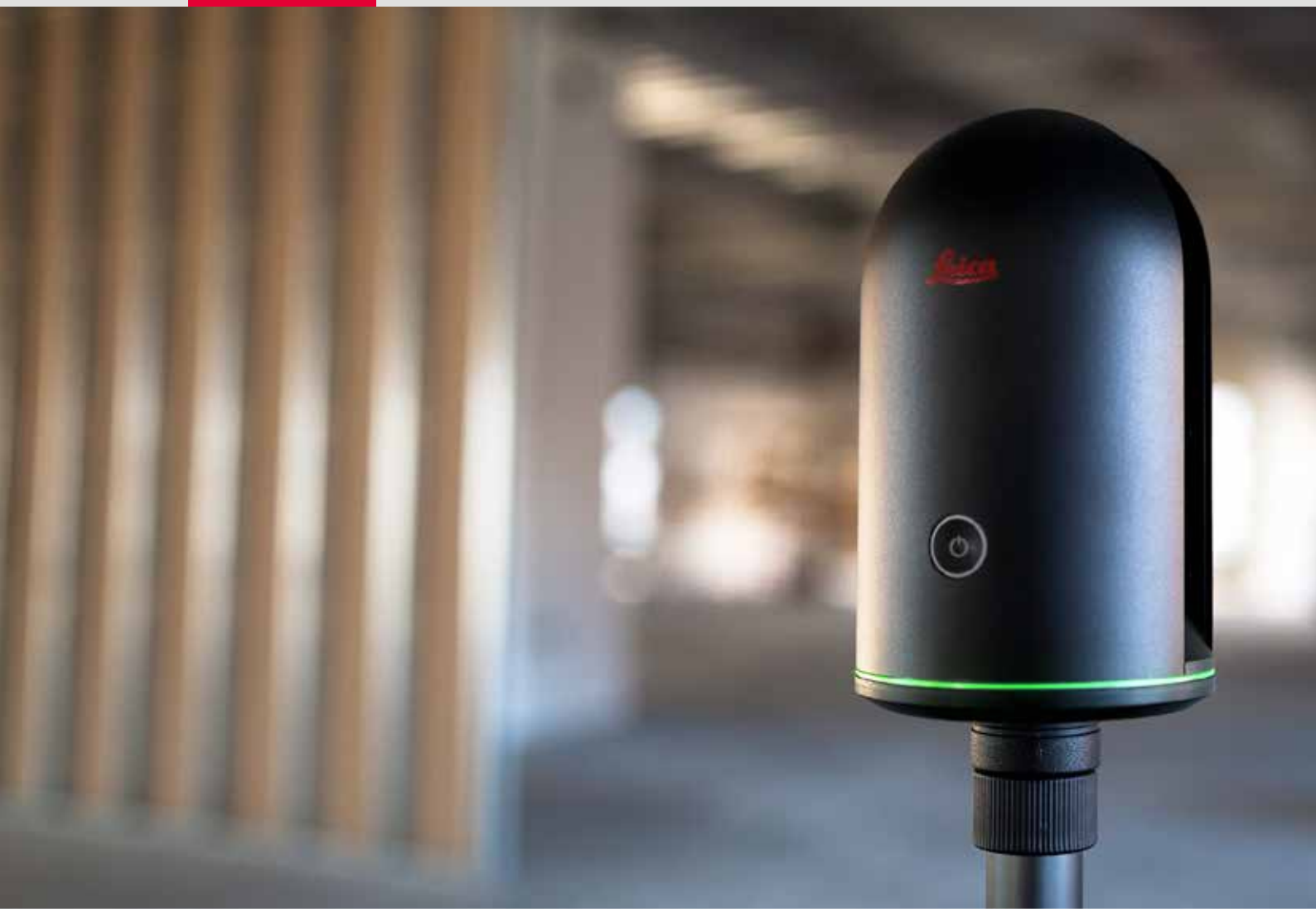
Leica Geosystems
World leader in spatial measurement

PART OF HEXAGON

leica-geosystems.com

- when it has to be **right**

Leica Geosystems



No matter the task, scope or environment, Leica Geosystems supplies the solutions that help professionals get it right.

Trust. More than a feeling. A fundamental difference.

Every day, tens of thousands of professionals put their trust in Leica Geosystems and in the projects that our solutions help them develop. Projects come in every shape and size – from building a bridge or an office tower to manufacturing an aircraft or race car, from making the maps to taking the measurements that help us understand and improve the world we live in.

However diverse their projects, our customers have one thing in common: their successes, profits, businesses, jobs – even their lives and the wellbeing of others – depend on getting it right. They depend on precise and accurate measurements, performed efficiently, reliably and consistently.

These professionals put their trust in their measurements – and in our measurement and spatial technologies. With so much at stake, there's no room for errors or for compromise.

That's a responsibility we take seriously and that's why we are proud they choose Leica Geosystems - when it has to be right.

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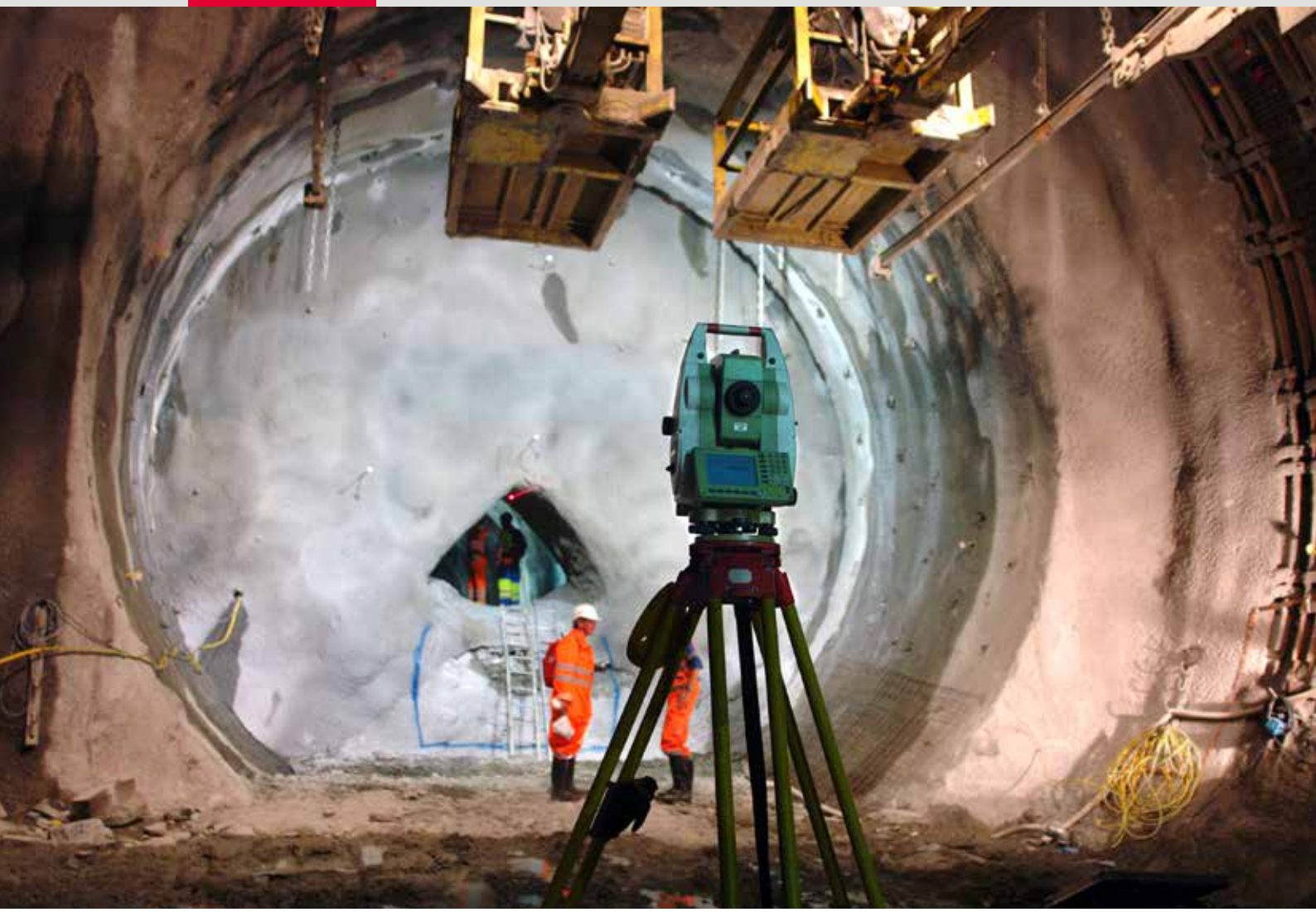


Gotthard Tunnel in Switzerland - the world's longest and deepest rail tunnel.

Success. Helping you shape the future and the world we live in.

Leica Geosystems is focused on our customers' success. Our solutions help professionals capture, analyse, work with and understand spatial information. Leica Geosystems' products and services are trusted for their dependability and ability to increase productivity, and they have been for close to 200 years.

A range of highly advanced core technologies – EDM (Electronic Distance Measurement), GPS/ GNSS technology, 3D laser scanning, tilt and angle measurement and point cloud generation and analysis are applied to the needs of a wide range of industries.

The resulting comprehensive portfolio of products and services coupled with a dedication to customer service and support generates innovative solutions that open up new opportunities for our customers' growth.

In a complex world, Leica Geosystems customers measure success in many different ways because every project is different, none is routine, and all are important. We are proud that our measuring, positioning and analysing solutions have contributed to some of the world's most exceptional projects.

In the following spectacular projects and in the thousands more our customers complete each year, precise, accurate measurements play a critical role. So we measure our performance through our customers' success.

Opening the world's longest, deepest rail tunnel with precise measurement

At 57 kilometres long, the Gotthard Tunnel in Switzerland is the world's longest and deepest rail tunnel. Leica Geosystems surveying and monitoring solutions were used to ensure drilling from both sides of the mountain in the Swiss Alps met precisely in the middle. With total stations and GNSS solutions, the surveying consortium VI-GBT was able to ensure the tunnel construction took place precisely on course. In addition, Leica Geosystems monitoring solutions were also used in the project. With lakes and dams above the tunnel construction, using automated devices, VI-GBT ensured no deformations occurred and the dams stay structurally sound. With no major delays in construction, inauguration of the tunnel, an event of global interest, took place on time.

Advancing Mexico's transportation infrastructure

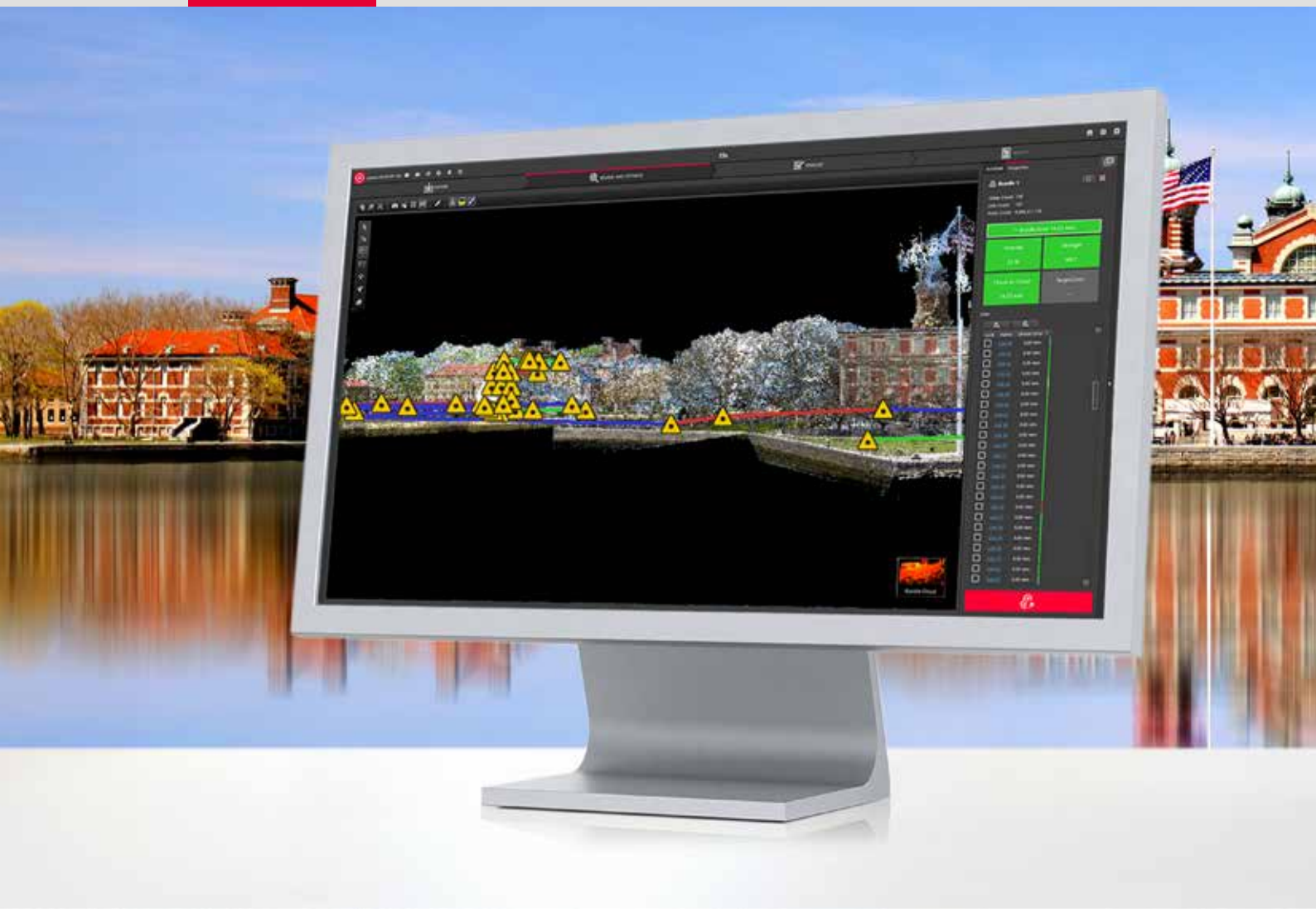
The Mexico City New International Airport (NAICM) features six runways and will serve up to 120 million passengers per year. With millions of people and hundreds of businesses relying on the airport, effective transportation infrastructure is critical. Along with the NAICM, a 57.7-kilometre railway will connect Toluca and Mexico City. Consortium IUYET, a leading Mexican civil engineering firm, is involved in the construction. The firm uses a variety of Leica Geosystems solutions to capture, model and analyse the data, such as total stations, rail maintenance and refurbishment, GNSS receivers, digital levels, UAVs, lasers, and measurement software. Using the combined technology allowed for easy access, and the firm will efficiently complete the project on time.

Moving a capital city forward

In Riyadh, Saudi Arabia, one of the world's largest construction projects is underway. The city's first rail metro will have six lines with 85 stations covering 176 kilometres and be able to move up to 3 million passengers a day. Strukton, in charge of surveying one of the new lines, has been tasked with capturing data for topographic surveys, as-built checks, volume calculation, and inventorying existing utilities. The technology company specialising in rail systems and civil infrastructure is in charge of stakeouts for construction and deviation monitoring. Using Leica Geosystems total stations, GNSS receivers, lasers and levels, and measurement software, Strukton is well on its way to completing the project on time and budget.

Understanding the snowmelt

The western Arctic of Canada has recently experienced significant increases in near surface ground temperatures. To better understand how the Arctic tundra will respond under further climate change, the Marsh Lab Trail Valley Creek (TVC) research group from Wilfrid Laurier University is studying this changing hydrology. The team used two Leica GS10 GNSS receivers and two CS20 field controllers to collect point type data. With Leica Captivate field software, the team collects and organises the data while Infinity survey software is used to filter the collected field points. The research collects data on all components of the water cycle and aims to understand how further temperature increases will affect the local and regional freshwater systems.



Scope. Covering the globe. Spanning your workflow.

Leica Geosystems' customers are active across a wide spectrum of industries, and what our customers measure is equally diverse. Sometimes it's a single point, a height above sea level, the distance between two walls. Sometimes, many points are involved, as complex objects are positioned and assembled with millimetre-level precision or an entire building face is scanned to create a 3D drawing. Sometimes, a complete city must be captured and analysed to create accurate maps, multilevel representations and 3D fly-through models.

From measurement to map to model

Like no other company, Leica Geosystems offers solutions for all these needs. From a painter calculating paint volumes to an engineer designing a bridge to a surveyor optimising wireless phone tower coverage. Leica Geosystems' solutions encompass a workflow that transforms raw data into useful information, turning measurements into maps and maps into models that capture the real world. With the broadest range of competencies within the geomatics industry, Leica Geosystems delivers a comprehensive range of

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capture | reference | measure | analyse | present

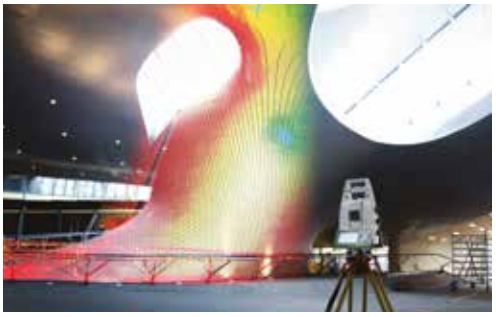
Leica Geosystems provides hardware that captures everything from individual points at a survey site to mass data from airborne sensors and 3D laser scanners.

Leica Geosystems offers solutions that reference measurements against a wide range of data sources, including building plans, GIS databases, topographical maps and CAD CAM systems.

Leica Geosystems delivers a range of tools to work with spatial information such as photo-grammetric analysis of imagery or engineering projects.

Leica Geosystems specialises in software to extract visual features from aerial imagery and to identify deviations from design.

Leica Geosystems delivers advanced software solutions to present spatial information – often in 3D – such as city models, as-built models of structures, site surveys, and preservation projects.



From a single point to a 3D scan of a complex structure, we bring accuracy, reliability and innovation to every step of the workflow.

products that work together in a complete, end-to-end workflow. Systems that integrate and operate consistently allow our customers to work faster, more efficiently and more productively.

Not every Leica Geosystems customer operates across the entire workflow; many have specialised needs within one phase. All benefit, however, from the breadth of expertise we offer, the depth of our research, and the commitment to each other's success. Our customers recognise the advantage of sourcing solutions from a single supplier who can meet their needs – both today and tomorrow, as demands change, business expands, and activities grow more complex.

Working together with these professionals, we solve problems, develop new ideas and invent new technologies. It is this collaboration that ultimately shapes Leica Geosystems' products and services, drives our customers' businesses and improves the world in which we all live.

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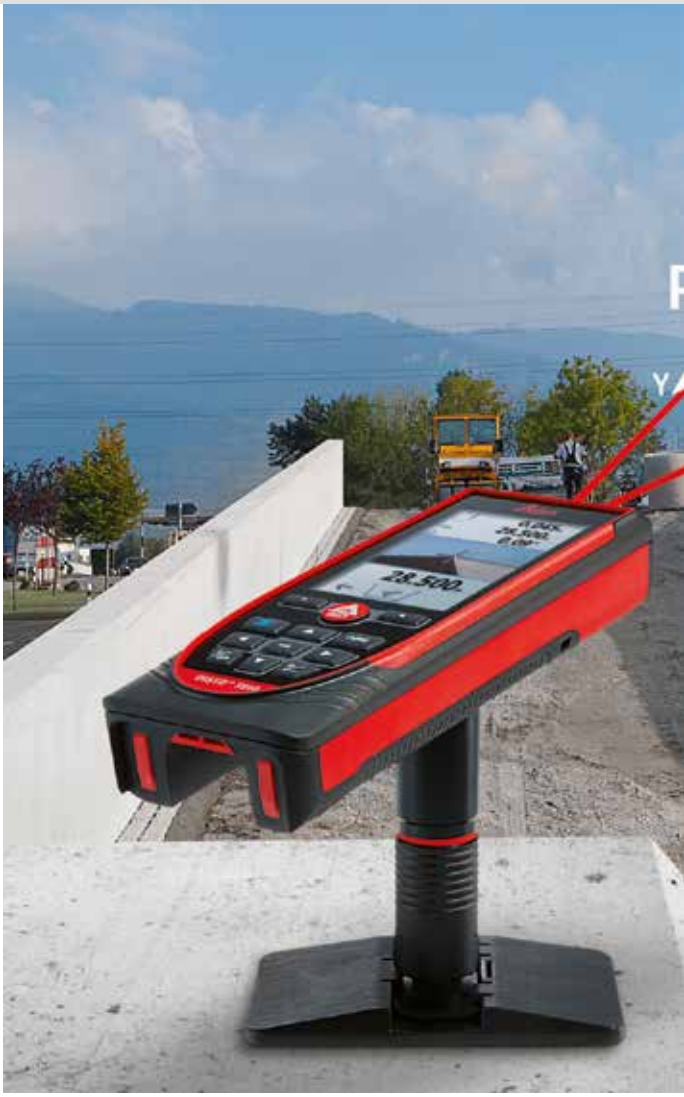


Depth. We measure our performa

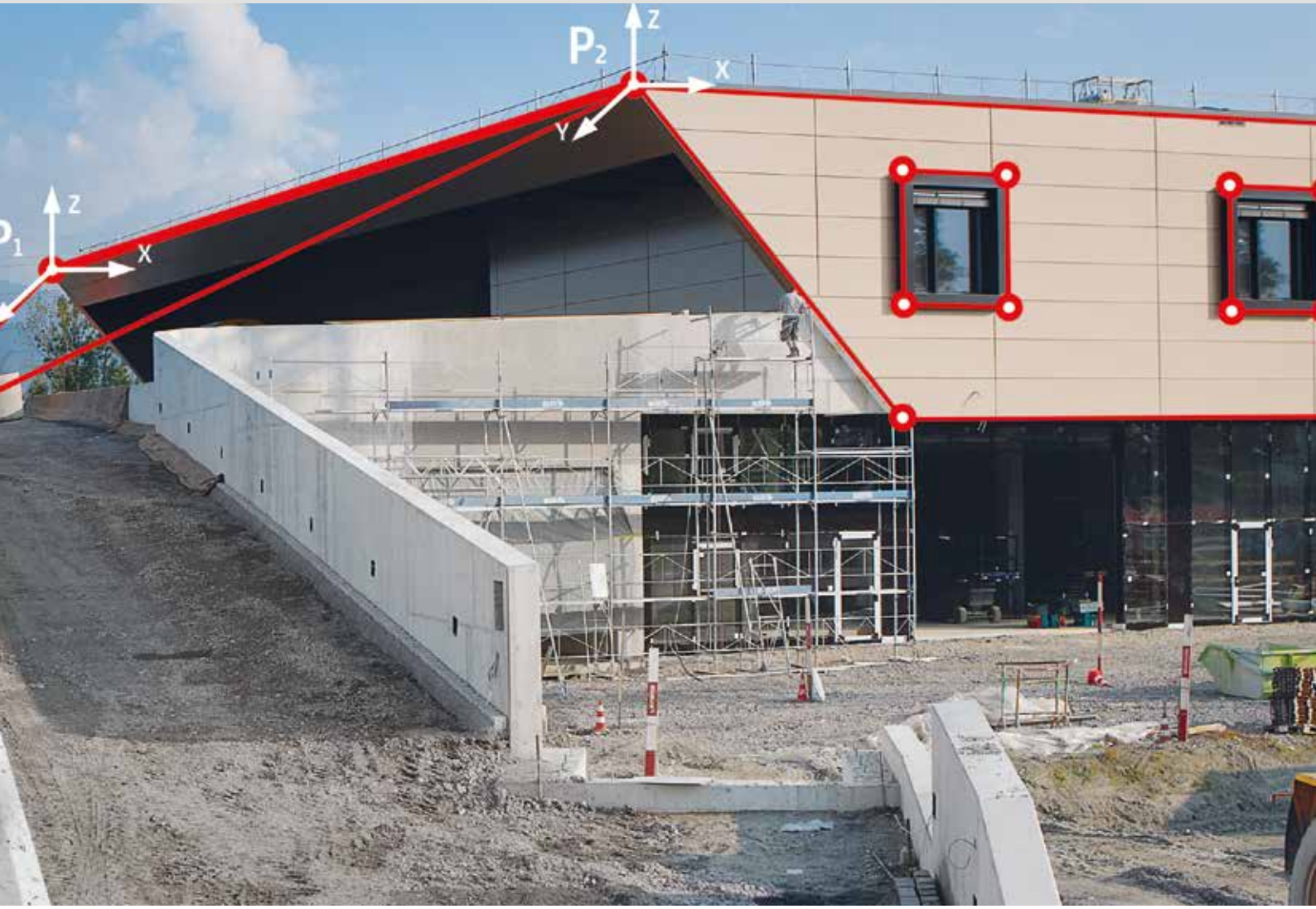
Leica Geosystems is committed to understanding customers' needs and to exceeding their expectations. Increasingly, geospatial solutions encompass more than products, hardware or software; today's customers demand comprehensive solutions that include an extensive range of services, too.

Uniquely responsive
Many companies have been Leica Geosystems customers for decades. In fact, the typical Leica Geosystems user is fiercely loyal and reluctant to use alternatives. What lies behind this loyalty is an appreciation of the significant role customer service and support play in the success of every project. Our customers trust us to keep their equipment up and running all the time.

Not that support means dependence – increasingly, our offerings empower customers to execute processes themselves that they traditionally outsourced. Along with support for all of our own products, Leica Geosystems is also a recognised leader in support for a wide range of third-party geospatial software products.

Uniquely focused
Leica Geosystems has established an enviable reputation for high-quality products, and we are constantly investing to maintain this leadership position. We have never compromised quality, striving to deliver the maximum value over the life of our products. Leica Geosystems' customers understand the difference, and recognising the importance of consistent, accurate measurements, they choose us for reliable results and dependable service every time.

As a company, we take an especially broad view of quality in the belief that minimising the environmental impact of all our activities is also a reflection of the ever higher standards that we aim for.



nce through our customers' results.

Uniquely innovative
The unparalleled commitment of Leica Geosystems' research and innovation is reflected in our history of "world's firsts":

1921 First portable opto-mechanical theodolite
1925 First aerial photography camera
1969 First infrared-based distancer
1984 First GPS for surveying
1991 First industrial laser tracker
1993 First handheld laser distance meter
2004 First universal GPS/TPS system - Leica System 1200
First mobile CMM - Leica T-Probe and Leica T-Scan
2005 First total station with integrated GPS - Leica SmartStation
2008 First future proof GNSS system - Leica GPS1200+
2009 First handheld laser distance meter with digital color display and tilt sensor - Leica DISTO D5
2011 First airborne laser scanner with 500 KHz pulse rate - Leica ALS70
2012 First 3D laser scanner with WFD technology - Leica ScanStation P20
2013 First MultiStation - Leica Nova MS50
2015 First Self-Learning Measurement Instruments - Leica Nova MS60, Leica Nova TS60, Leica Viva TS16
2016 First and smallest imaging laser scanner - Leica BLK360
2016 First hybrid airborne sensor combining oblique and nadir imaging with LiDAR technology - Leica CityMapper
2017 World's fastest GNSS RTK Rover - Leica GS18 T

In total, Leica Geosystems holds more than 2,000 patents, many of them registered in the past decade.

Uniquely trusted
Leica Geosystems' commitment to innovation and quality has a single goal: understanding and supporting the customer's workflow. The results are a product portfolio, a service offering, and a comprehensive range of solutions that are unique in the market.

In turn, these customers have rewarded Leica Geosystems with their trust. Every day, in a million different ways, we continue to strive to earn that trust, wherever, whenever it has to be right.

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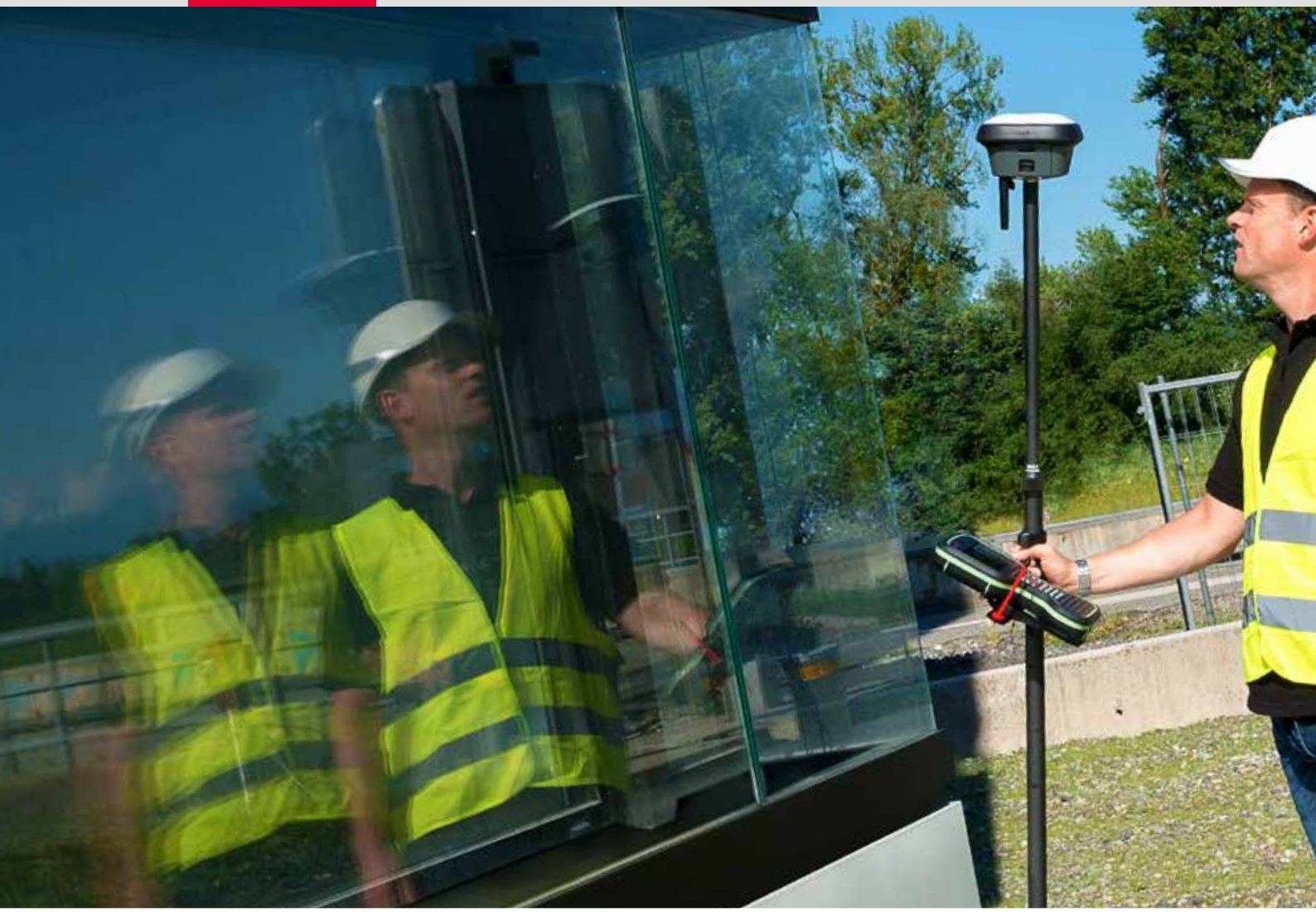


Reliable. Capturing reality. Shaping the future.

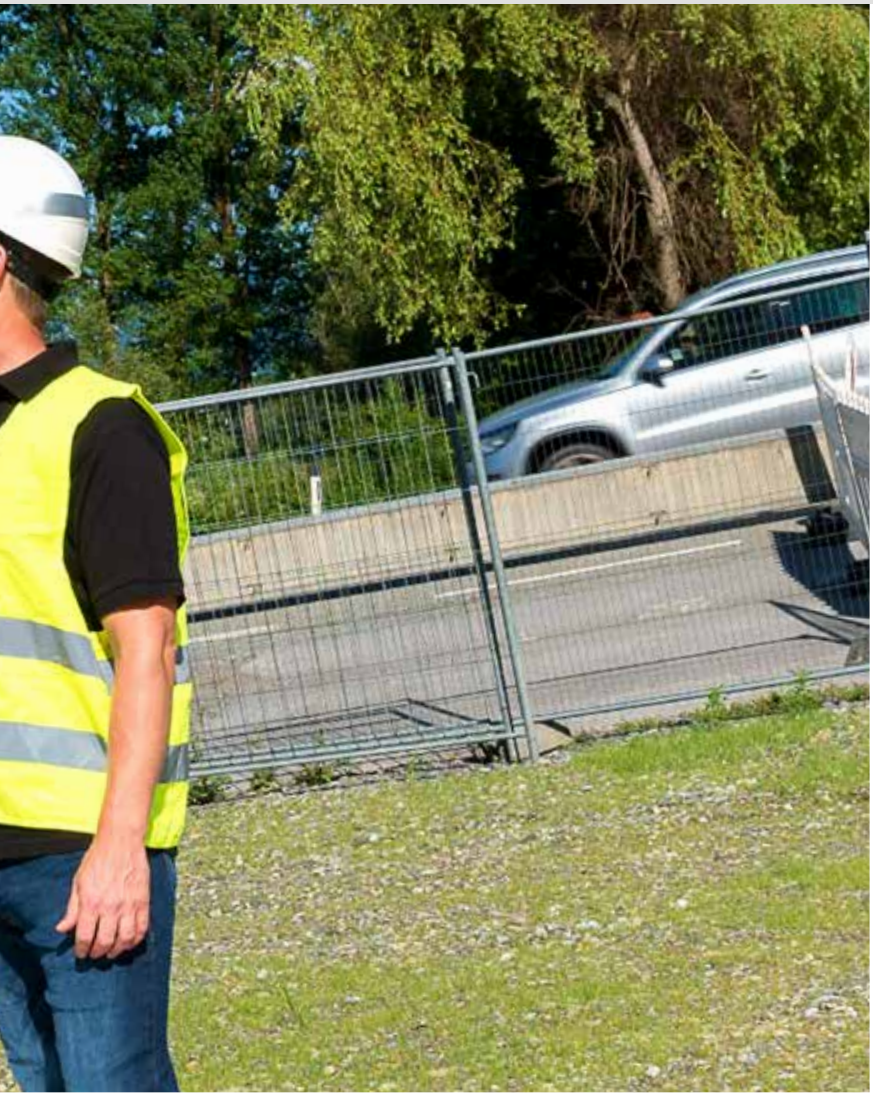
active Customer Care

From its start in a small Swiss town almost two centuries ago, Leica Geosystems has established a tradition of quality, innovation and dedication to customer satisfaction.

Building on a heritage of excellence
International and Swiss at the same time, today Leica Geosystems is a global enterprise with more than 3,800 employees serving customers in some 120 countries. Those customers tell us they continue to work with Leica Geosystems because of our truly exceptional support and service.

It's a concept we call Active Customer Care - a true partnership, a commitment to the trust customers place in Leica Geosystems. From education and training, through ongoing support, to assistance in keeping equipment in top condition - around the clock and around the globe - Leica Geosystems guarantees productivity and performance.

We're proud of those who make this promise come true - the people of Leica Geosystems. A highly educated, unusually talented team that spans the globe, dedicated to customer success, and committed to excellence. A team that applies its expertise and ingenuity to create innovative technologies, develop outstanding products, and deliver exceptional customer service.



Creating a better world, day by day
We're impressed by our customers, both current and yet to be, the professionals who use Leica Geosystems' solutions daily, with whom we work to solve problems and create new solutions. Your achievements - be they dams, homes, maps, automobiles, pipelines, parking decks, precision tools, models, theme parks, nature preserves or any one of a myriad of other projects - are what shape the future and lend significance to what we do.

All around the globe, wherever mankind is measuring, improving and protecting the world, Leica Geosystems' solutions are there. We are proud to be the partner you trust - when it has to be right.

- **We pride ourselves on our partnerships with our customers – working together to shape the future.**

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Leica Geosystems – when it has to be right

Revolutionising the world of measurement and survey for nearly 200 years, Leica Geosystems is the industry leader in measurement and information technologies. We create complete solutions for professionals across the planet. Known for innovative product and solution development, professionals in a diverse mix of industries, such as surveying and engineering, building and heavy construction, safety and security, and power and plant trust Leica Geosystems for all their geospatial needs. With precise and accurate instruments, sophisticated software, and trusted services, Leica Geosystems delivers value every day to those shaping the future of our world.

Leica Geosystems is part of Hexagon (Nasdaq Stockholm: HEXA B; hexagon.com), a leading global provider of information technology solutions that drive productivity and quality across geospatial and industrial landscapes.

Swiss Technology
by Leica Geosystems

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