Transforming the way the world works
Across industries and around the world, Trimble innovation enables economic breakthroughs while enhancing safety, boosting compliance, and reducing environmental impact.
The business of transformation

Trimble is transforming how the world’s work gets done. Our industry-specific solutions integrate advanced capabilities that help customers tackle some of the greatest challenges their industries face including:

- Producing more food per acre at lower cost and with lower environmental impact.
- Constructing, maintaining and operating roads, railways and other civil infrastructure more quickly, safely and cost-efficiently.
- Building, maintaining and operating residential and commercial buildings in less time, at lower cost, while improving safety, regulatory compliance and reducing carbon footprint.
- Transporting goods, in reduced time and at reduced cost, while improving safety, regulatory compliance and reducing carbon footprint.
- Managing large fleets of service vehicles to improve customer service while lowering costs, improving safety and reducing environmental impact.
- Producing and distributing energy, water and natural resources more quickly, safely and cost-efficiently, with greater compliance.

Our solutions are also used extensively in the public sector at the national, federal, state and local level to manage critical assets, improve public safety and security, and boost efficiency and transparency.

The benefits of transformation

By applying innovative technology to solve business challenges, Trimble customers gain access to better information to enable better decisions, improving their operations and reducing risk. Benefits include:

**Economic breakthroughs**
- Enhanced productivity and return on investment (ROI)
- Higher yields, reduced costs, less waste
- Better utilization of assets and workers

**Quality, safety & compliance**
- Improved quality of data, measurement and work
- Enhanced operator and worker safety
- Greater regulatory compliance and transparency

**Reduced environmental impact**
- Reduction in use of fossil fuels
- Reduction in use of chemicals and water
- Reduction in waste; enhanced reporting
The way the world works in more than 150 countries

A global company transforming work wherever it needs to be done.

Trimble solutions are at work in more than 150 countries and have been used everywhere from North Pole expeditions to Antarctic surveys, from re-measuring the height of Mount Everest to helping rescue miners trapped deep underground. Our regional offices and manufacturing centers are located in more than 35 countries, with research and development centers in 15 countries spanning 12 time zones, and our global partner network provides local sales, consulting, training, technical support, service and repair in over 125 countries.
Trimble transforming / The work of agriculture

Trimble precision agriculture solutions are revolutionizing traditional farming to feed a hungry world.

Feeding the world’s booming population requires maximized farm production. Precision agriculture has revolutionized traditional farming practices by enabling farmers to increase efficiencies, enhance productivity and improve crop performance—all while reducing costs and optimizing inputs. Using precision agriculture technologies, farmers can put the right input, in the right amount, in the right place, at the right time—and fine-tune their farming practices year after year.

Precision Agriculture

Automating the control and guidance of farm machinery enables growers to operate day and night, in all types of weather and conditions, through all phases of production. Precision agriculture technology increases productivity, reduces driver fatigue and decreases inputs. Utilizing the extreme precision of Trimble’s solutions results in higher yields using the same amount of land. Precision control also reduces overlaps and enables more intelligent use of water, chemicals and other inputs throughout the growing cycle.

Precision guidance further reduces waste by enabling the harvester to automatically follow the exact row patterns used in planting months before. Data gathered during harvesting is fed back into the process the next season for more intelligent application of water, nutrients and chemicals. The analytics and farm management data gathered throughout the growing cycle enables growers to fine-tune their practices year after year.

Connected Farm

Farmers use the Trimble Connected Farm™ dashboard to monitor real-time information about the location, productivity and activity of their assets, workers and resources. Real-time diagnostics and remote trouble-shooting allow problems in the field to be solved by remote specialists, while machine-to-machine communications between vehicles in the same field streamline operations through data and information sharing. Rainfall totals, weather forecasts and commodity prices can also be monitored in the Connected Farm dashboard on an operator’s smart phone, tablet or guidance display. Overall benefits include the facilitation of real-time decision-making to improve fleet efficiency, reduce downtime and increase productivity.

The benefits of precision agriculture and the Connected Farm extend well beyond the increased efficiency, safety and profitability of farming operations. The reduced use of fuel, water, chemicals and other inputs means more food can be produced on less land, with fewer resources and reduced environmental impact. A win for everyone.

Bruce Fulk Uses CenterPoint RTX

Bruce Fulk farms 3,500 acres (1,416 hectares) of dry land corn and raises 300 head of cattle and 400-500 yearlings. He began using the satellite-delivered Trimble CenterPoint™ RTX™ correction service in March of 2012.

“With CenterPoint RTX, I don’t have any overlaps or skips. My row shutoffs on my planter shut the seed off at the end of the row where it should be, and the stress and strain on the operator is so much less. I’ve found the accuracy to be better than advertised. It’s almost dead on all the time. Perfect.”

—Bruce Fulk

HOW TRIMBLE TRANSFORMS THE WORK OF AGRICULTURE

10% Input reduction using prescription maps for variable-rate applications with Field IQ™

20% Input savings using Trimble guidance solutions

30% Reduction in water usage using Trimble water management solutions

Trimble Connected Farm Across the Growing Cycle
The work of heavy civil construction

Transforming work processes to design, build, maintain and operate the world’s critical infrastructure.

A prosperous world requires robust infrastructure. The heavy civil construction industry builds and maintains the world’s road, rail, port, airport, pipeline, power and other critical infrastructure. Trimble continues to transform this industry’s work across the entire planning, design, build and operate lifecycle through the deployment of advanced automation solutions, precision machine control, 3D software and domain-specific applications, site positioning, mobile technologies and real-time connectivity.

The Trimble Connected Site™ leverages real-time wireless data flow between the office and job site, streamlining workflows from the initial design to the finished project.

Application Software

Trimble Heavy Civil Construction software allows contractors to confidently manage their fleets and assets, wirelessly transfer data in real-time, create 3D construction models, and prepare and manage design data for on-machine use. Contractors can wirelessly synchronize data between the field and office, remotely monitor and support field systems and monitor site productivity. Design models created in the office are sent in real-time to machine operators and field crews, increasing efficiency, reducing rework and saving money.

In the office, project supervisors and equipment managers and other personnel have a complete view of site productivity — including quantity, usage and locations of key materials, assets and fleets. Information can be shared across the organization for better communication and decision-making.

Machine Control

Trimble machine and paving control solutions provide machine operators with in-cab, real-time positioning for guidance and control of the machine, allowing them to accurately grade, compact and pave to specification. Trimble Grade Control systems help contractors finish faster with less rework, less staking, less checking, lower cost and fuel use, reduced downtime or re-work and improved material yields.

Marine Construction

Marine construction presents its own unique challenges and requirements. Trimble marine construction systems are proven to deliver the accuracy and reliability required in a marine environment.

Astrolabe ZH Ltd, a New Zealand marine construction surveying consultancy, was tasked with setting up the precise positioning systems related to the digging of an offshore trench and placement of a 3-km-long ocean outfall pipeline. In order to merge hydrographic survey data with the dredging process to ensure no over-dredging or under-dredging occurred, they chose Trimble’s marine systems.

Using Trimble RTK GPS on the project, the contractor realized rapid mobilization and calibration of equipment, the ability to give progress updates to the client immediately and the capability to work fast and maintain productivity despite difficult conditions.

Malphrus Construction Company

“With Trimble systems...it takes less time to do the work, and do it right. We’re completing projects sooner, and we’ve literally cut our re-work by 70 percent using the GPS system.”

Joe Keiffer, General Superintendent, Malphrus Construction Company, Ridgeland, South Carolina, USA

M. Hanna Construction

“We have proven through our experience and collecting data over the past five years that GPS grade control gives us a 28 to 33 percent increase in productivity.”

Tony Clark, Manager, M. Hanna Construction, Houston, Texas, USA

PT Thiess Indonesia

“If we can have 5 to 20 millimeters more accuracy in our materials purchasing and utilization, that’s thousands of dollars saved per road; it can take a project from breaking even to making a profit.”

Mihir Surtees, Manager of Survey and Technology, PT Thiess Indonesia, Sorong, Indonesia

 HOW TRIMBLE TRANSFORMS HEAVY CIVIL CONSTRUCTION*

| Improvement in Earthworks and Reduced Number of Passes | 30% |
| In Overall Project Improvements | 30% |
| Reduction in Surveying and Engineering Time | 55% |

*Numbers compiled from Trimble customer stories on trimble-productivity.com

Trimble transforming the way the world works
With Trimble solutions, customers around the world are finding it is possible to build smarter buildings by using smarter tools.

Architects, engineers, contractors and building owners play distinct roles in the design-build-operate continuum, and each uses different purpose-built tools for their tasks. Developed for the highly specialized needs of the professionals who use them, Trimble solutions encourage collaboration, maximizing productivity and profitability across the project workflow, while reducing errors, waste and re-work.

Building Owners
For those planning or managing capital construction projects, success depends on delivering projects on time, on budget and within a forecast economic window—in the face of rapidly changing market conditions. Trimble addresses the needs of our building owner clients by providing easy access to business intelligence, enabling them to track, plan, oversee and collaborate with greater levels of accuracy, cost savings and confidence. Data collected during the construction process also helps ensure the completed building will function as the owner or occupiers intended and that building staff are prepared to effectively operate and maintain its systems and equipment.

Architects
Architects need intuitive, flexible tools that allow for creativity and iteration in design. Trimble solutions—including SketchUp Pro—help architects bridge the design-build gap, unifying project knowledge around easily sharable models that are compatible across the construction lifecycle and teams, and enabling them to adapt design choices in a fast-changing project landscape.

General Contractors & Construction Managers (GC/CM)
Trimble technologies help our GC/CM clients connect on the go and manage even the most exacting and detailed projects while staying on schedule and on budget. With unprecedented ability to access and create project histories, conceptual cost models, bottom-up cost estimates and more, Trimble solutions help keep projects on schedule, on budget and to specification.

Mechanical, Electrical & Plumbing (MEP) Trades
The MEP trades design and install the complex heating, ventilation, air conditioning, electrical, plumbing and other systems that are critical to a building’s ability to function. Trimble’s suite of MEP hardware and software solutions are employed from the field to the office, from 3D modeling and estimating to assessing existing conditions and layout. With our integrated technology portfolio, MEP customers can lower their risk and maintain margins, regardless of project parameters.

Structural Engineers, Planners & Manufacturers
Engineers, fabricators and construction professionals across the globe use our building information modeling (BIM) software—such as Tekla Structures—to create, manage and share reliable, constructible, digital information throughout the design-build-operate lifecycle. Trimble software takes them from a conceptual design to the actual processes of fabrication, erection and construction management, regardless of material size or complexity, helping the construction industry improve quality, increase profits, minimize errors and reduce risk.

Klorman Construction
Klorman Construction, based in Los Angeles, specializes in structural concrete high-rise building construction and uses Trimble’s suite of software and hardware technologies to produce cutting-edge work faster and at less cost than competitors.

Company President and CEO Bill Klorman believes the key to surviving in the current economic climate is to produce the same amount of building in smarter ways, with better planning and more efficient use of labor. To do that, Klorman Construction has embraced Trimble’s lifecycle approach to vertical construction. By fabricating steel, concrete forms, HVAC systems and more from constructible model elements, Klorman is able to achieve increased field efficiencies.

Klorman routinely uses the following Trimble solutions to achieve absolute data transparency and real-time cost accounting: Trimble SketchUp, Tekla Structures, Tekla BIMsight, Meridian Prolog and Trimble Robotic total stations.
Helping the world's on-land commercial vehicle industry achieve environmentally cleaner and more efficient fleets.

In a world of fluctuating fuel costs and just-in-time delivery, Trimble Transportation & Logistics and Field Service Management solutions bring efficiency and visibility into fleet operations for cleaner, greener, safer and more profitable operations. Our solutions increase driver and back-office efficiency by driving down fuel usage and operational costs. Monitoring fuel use and idling enables a fleet's carbon footprint to be measured and reduced—powering environmentally cleaner and more efficient fleets. Fleet operators around the world use the innovative and integrated fleet mobility platform and back-office systems from Trimble to get data-driven business intelligence, enabling better decisions to be made that lead to greater overall profitability, safety and customer satisfaction.

Trimble Transportation & Logistics (T&L)
Trimble T&L is a leading provider of end-to-end technology solutions to for-hire motor carriers, private fleets, freight brokerage, third-party logistics providers and energy service companies of all sizes worldwide. These enterprise-class technologies provide the full lifecycle of planning, optimization, execution and measurement of transportation operations to increase productivity, improve efficiencies and enhance safety via T&L’s Mobile Resource Management solutions, enterprise software and analytical tools.

Trimble Field Service Management
Trimble’s Field Service Management provides visibility into field and fleet operations so businesses can streamline efficiency and increase productivity. The Field Service Management suite includes fleet management, work management and scheduling, worker safety and mobility solutions that transform the effectiveness of work, workers and assets in the field. This cloud-based portfolio allows Trimble to offer customers industry-specific, enterprise-level solutions for exceptional performance and ease of use.

Long Haul Fleet Performance
"We saved $35,000 after two weeks; $105,000 after 45 days. Achieving ROI in about a month far exceeded our expectations.”
P&S Transport, Birmingham, Alabama

"Safety and risk management is on everybody’s mind these days with CSA (Compliance Safety Accountability), and PeopleNet is a great asset in this area. Safe Mode prevents drivers from performing certain functions while the truck is moving; Speed Monitoring, powered by SpeedGauge, warns drivers when they exceed posted speed limits. We can even monitor seatbelt usage.”
Randy Black, Manager of Fleet Technology, Shaw Industries Transportation

Field Service Fleet Performance
"With GPS and vehicle management systems now installed in 5,000 vehicles, Cos saves more than 2 million gallons of fuel and at least $2 million in fuel costs each year. The fleet management solutions also enable the company to reduce its carbon footprint by cutting over 25 million pounds of CO2.”
Mark Leiserberger, Director of Fleet Operations, Cos Enterprises

"Carrier saves $1 million each year in fuel costs.”
Denis Cross, Fleet Manager, Carrier

HOW TRIMBLE TRANSFORMS THE WORK OF TRANSPORTATION & LOGISTICS AND FIELD SERVICE MANAGEMENT
Trimble Fleet Solutions Help Companies Achieve Tangible Cost Savings According to Aberdeen Group Surveys

| Improvement in Workforce Productivity | 9% |
| Increase in Service Revenue | 11% |
| Reduction in Vehicle and Operating Costs | 21% |
| Reduction in Fuel Consumption | 22% |
| Reduction in Idle Times | 25% |
| Reduction in Daily Mileage | 31% |
| Improvement in Fleet Utilization | 32% |

*Aberdeen Group Field Service January 2013 and Service Workforce and Fleet Management May 2009

Trimble transforming / The work of transportation and logistics
The work of cadastral and geospatial professionals

The convergence of Trimble geospatial technologies is migrating data into intelligence for better decision-making in organizations around the world.

Trimble geospatial technologies are transforming the work of professionals across the globe engaged in surveying, mapping, GIS, 3D modeling, land administration and the environment. The integration of sensors, customized field applications, real-time communications, field and back-office data processing, modeling and analytics facilitates a productive workflow, data exchange and high-quality deliverable—driving efficiency, productivity, safety and value in focused industries. The convergence of Trimble geospatial technology delivers accurate data intelligence enabling better decision making.

Surveying
Surveyors in more than 100 countries, across a range of industries and the public sector, see breakthroughs in productivity, quality, efficiency and safety through their use of Trimble advanced surveying solutions, such as: High Definition Global Navigation Satellite Systems (HD-GNSS); robotic high-precision total stations; unmanned aircraft systems (UAS); mobile mapping and laser scanners to measure precise angles, distances, images and specific points; advanced field and office software; and real-time data connectivity between field and office. The resulting high-quality data can be automatically delivered in an actionable format to office engineers, enabling processing to begin immediately and reducing field rework.

Mapping and GIS
Organizations throughout the planet use Trimble’s GIS data collection solutions to rapidly collect, store, manipulate and analyze large amounts of spatially accurate data for displaying information about a host of economic, environmental, social and political activity. Mobile GIS enables field teams to respond to changing conditions immediately and make important management decisions with confidence.

Mobile and Aerial 3D Mapping
Departments of Transportation, governments and private sector clients are using Trimble’s high-precision 3D mobile data capture solutions to collect accurate data at highway speeds, and then extract intelligence and information. Automatic detection and feature interpretation and extraction capabilities in Trimble eCognition® and Trimble Trident Analyst software enable these organizations to inventory signs, utility poles and other assets, or analyze clearance zones for placement of these assets. Trimble aerial sensors and laser scanners paired with intuitive software allow the capture and transformation of GIS images into intelligent information.

Land Administration Solutions
With rapid global population growth, accurate mapping and registration of land is necessary to develop and sustain a successful economy. But limited funds and resources mean that land organizations and businesses need to find more efficient ways of ensuring data accuracy. Trimble’s Land Administration solutions provide these organizations with the most advanced geodetic control, field collection, data processing and decision support technologies for the development and subsequent management of land administration projects.

HOW TRIMBLE TRANSFORMS THE WORK OF CADAstral AND GEOspATIAL PROFESSIONALS

<table>
<thead>
<tr>
<th>Percentage</th>
<th>Description</th>
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<tbody>
<tr>
<td>20%</td>
<td>Reduction of On-the-Job Health, Safety Risks and Office Post-Processing Hours</td>
</tr>
<tr>
<td>25%</td>
<td>Increased Efficiency With Resource Allocation</td>
</tr>
<tr>
<td>30%</td>
<td>Reduction in Overall Project Costs</td>
</tr>
<tr>
<td>50%</td>
<td>Increase in Field Productivity in Challenging Environments and Field Data Capture</td>
</tr>
</tbody>
</table>

Enabling Better Decisions

eCognition
Professionals around the globe have used Trimble’s eCognition software suite to improve productivity through the automation and interpretation of images and geospatial data. eCognition imports a variety of geospatial data and fuses them together into a rich stack of metadata for modeling, analysis and identification of changes in existing data.

The state of Ohio taxes property owners based on the property’s percentage of impervious surface. Rather than using standard property assessment methods, which can be costly and insufficient, the state used eCognition software to automatically extract impervious surface information on a per-parcel level from collected LiDAR and CIR data, resulting in reliable information, as well as savings in time and personnel.

A number of factors can affect insurance rates. In Australia, one insurance company determines rates based on risks related to storm damage. To make this assessment, they required a cost-effective method of obtaining information on roof material and its distance to large trees per building. The company used eCognition’s automatic extraction capabilities to extract the required information from collected LiDAR and RGB data.

Vegetation management is necessary for local governments to ensure the safety and upkeep of their communities; this includes ensuring vegetation does not overhang power lines. To develop a vegetation maintenance schedule, one municipality used eCognition to regularly extract information on vegetation and determine which vegetation requires pruning, thereby streamlining work order processes and preventing unnecessary crew dispatch.

eCognition enables organizations of all kinds to obtain information that may be otherwise difficult or even impossible to attain.
Trimble solutions are changing how Energy, Natural Resource and Utility operations enhance productivity, safety and compliance, and manage their internal resources with precision.

ENVIRONMENTAL SOLUTIONS
Meeting New Monitoring Regulations
The State of California recently passed stringent legislation regulating the control of gaseous emissions from Municipal solid waste landfills. This act created an immediate cost burden on landfill owners through new requirements for sampling and reporting Total Organic Carbon (TOC). Field Solutions, Inc. (FSI) is working with landfills to be compliant with these new regulations. Using the Trimble SiteFID™ Integrated Landfill Gas solution—developed by Trimble for this exact application—FSI is now helping solid waste landfills meet the state’s directive by providing innovative tools for improving their monitoring workflow, productivity and accuracy, while reducing both costs and human errors.

RAIL
Challenges in Building China’s LanXin Railway
When completed in 2015, LanXin Second Railway will be the world’s highest operating train and one of the fastest. Facing environmental factors and geographic challenges, the design team required precise equipment to provide continuous control over soil compaction and depths. To achieve these precise measurements, along with the detailed documentation required by the China Ministry of Railroad, the contractor selected Trimble CCS9000 Compaction Control System for its intelligent compaction capabilities, and can now ensure the compaction work consistently meets the tight specifications of the project and provides proper documentation.

MINING
Safe and Cost-Effective Aerial Surveying in Namibia
Surveying an open-pit mine can be a hazardous undertaking. In order to obtain accurate volume measurements, it is necessary to pick up edges which provide a means to verify the current shape of a mine. The Namibian Mining Survey Services (NMSS) selected the Gatewing 100X, a revolutionary aerial mapping and surveying system, because it provides a means to conduct surveys quickly, accurately and cost-efficiently, with minimal risk to health and safety.

By using an unmanned aircraft system (UAS), NMSS estimates it can potentially save more than 95 percent in mobilization costs associated with bringing in resources from outside the country to conduct surveys.

SUSTAINABLE ENERGY
Creating High-Quality Alignments for Wind Farm
Mortenson Construction, one of North America’s principal full-service wind power contractors and a leader in renewable energy construction, was asked to provide a design plan for a road network that would string five mountain ridges and install approximately 100 wind turbines and the associated infrastructure. Looking to create a highly competitive solution, Mortenson Construction selected Trimble Quantm™ Alignment Planning system. The system automated the complex calculation required to investigate a range of alternative alignments and aided in the analysis and decision-making process. The team was able to easily provide feedback and quickly run new analyses when required. Not only did the system substantially reduce alignment planning time, it delivered optimized routes that met all constraints.

Enabling Technologies
Monitoring
The measurement of motion over time plays a vital role in project safety and management. For infrastructure, construction, mines and natural structures, it’s important to understand what is moving, and by how much. Monitoring provides the information needed to support safe, economical and efficient operation of projects and structures.

Positioning Services
The global Trimble CenterPoint RTX network provides high accuracy, real-time data to high-precision GNSS users around the world.

Advanced Devices
Trimble’s advanced positioning, timing and RFID technologies enable millions of people to locate themselves, communicate wirelessly, and control and track critical assets, wherever in the world they may be.
Trimble solutions are used throughout the world to help improve the quality and safety of life.

National, regional and local governments and NGOs around the world apply Trimble technologies in areas as diverse as land, asset and forestry management, public safety, environmental management, provision of active geodetic infrastructure, monitoring of dams, volcanoes and earthquake faults and disaster recovery. Trimble often donates equipment to aid in post-disaster relief efforts around the world following major disasters such as earthquakes, tsunamis, wildfires and floods.

Malaria Prevention in Kenya

The United States' Centers for Disease Control and Prevention (CDC) tested the effectiveness of insecticide-treated bed nets in reducing malaria. Using Trimble GPS equipment in Kenya, they mapped precisely where the nets were, and were not being used, in order to track subsequent outbreaks of malaria. Using this data helped researchers determine that treated bed nets, when correctly used, decreased outbreaks of malaria.

China Earthquake Recovery

When a 7.9-magnitude earthquake hit western China’s mountainous Sichuan Province in May 2008, it killed about 70,000 people and left over 18,000 missing. More than 15 million people lived in the affected area, including almost 4 million in the city of Chengdu. The earthquake devastated the region’s geodetic and cadastral infrastructure. The Province installed Trimble VRS network technology during the reconstruction project to handle the high demands placed on it by surveyors and other users and detect any aftershock resulting in displacement of 2 cm or more. As a result, the Province once again has a reliable, accurate GNSS network.

Improving Farming Techniques

Nearly 20 percent of tillable land in Pakistan lies dormant for want of adequate water. Farmers in the Indus River Basin are improving water efficiency by using a Trimble laser land leveling system to achieve perfectly level field surfaces, which help prevent run-off and allow an equal supply of water to plants in the field. Deploying the Trimble system has reduced water usage by up to 40 percent in many fields, while saving time and labor for irrigation tasks. Moreover, consistent water distribution has increased crop size, quality and yields.

Forest Fire Response in Portugal

Forest fires are a constant threat in Portugal’s Alto Natural Park. While physical resources are adequate, navigation through the 7,500 acres of mountainous terrain has caused major problems. As a result, the park has implemented the Emergencies Support System from Portugal Telecom Inovao SA. The system combines Trimble GPS technology, short messaging service (SMS), data communications and well-structured, up-to-date cartography. As a result, the system has improved the Park’s ability to respond quickly and accurately locate and control fires.

Providing Land Boundaries and Clean Water

According to the World Health Organization, more than one billion people on Earth lack safe drinking water. Engineers Without Borders (EWB) is a global non-profit humanitarian organization that helps developing communities improve their quality of life. The Fort Collins, Colorado, chapter offered assistance and expertise to the rural Peruvian village of Santa Rosa de Dinamarca. Using Trimble GNSS systems, EWB provided secure, well-defined land boundaries to help mitigate land disputes among the indigenous people; they also developed plans to drill a new well and install solar-powered pumps, filters and tanks to provide clean water for the village.

Building Shelters in a Battered Region

In May 2006, a severe earthquake destroyed thousands of homes in Yogyakarta, Indonesia, requiring the rapid and cost-effective creation of temporary shelters. Using Trimble SketchUp 3D modeling software for design and engineering professionals, a bamboo shelter was created that could be built quickly and transported easily. With the help of 300 individuals providing assistance, 1600 bamboo shelters were pre-built in Magelang, transported to Yogyakarta (60 km away), and erected in the earthquake area. Thanks to the efficient design and easy visualization in SketchUp, the bamboo shelters were completed within three months.

Transforming the Work of Government

National, Federal, State and Local governments around the world use Trimble solutions extensively to improve public safety and security, and increase efficiency and productivity. Trimble provides government organizations with the technology to efficiently manage their assets, workers, operations and streamline work processes.
### History

**A track record of innovation**

Technological innovation and leadership are central to everything Trimble does. The companies that have come together to form the Trimble of today bring a long tradition of innovation spanning over 60 years. We operate research and development centers in 15 countries spanning 12 time zones across North America, Europe and Asia Pacific. We re-invest approximately 12 percent of our annual revenues back into research and development, and we have more than 1,000 unique patents issued for our ground-breaking innovations which include a host of industry firsts.

<table>
<thead>
<tr>
<th>Year</th>
<th>Event</th>
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<tbody>
<tr>
<td>1947</td>
<td>World's first electronic distance measuring (EDM) system</td>
</tr>
<tr>
<td>1950</td>
<td>World's first automatic level</td>
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<tr>
<td>1968</td>
<td>World's first rotating laser level</td>
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<tr>
<td>1969</td>
<td>World's first laser control of construction and drainage machinery</td>
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<tr>
<td>1971</td>
<td>World's first total station</td>
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<tr>
<td>1972</td>
<td>World's first data collector</td>
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<tr>
<td>1975</td>
<td>World's first electronically leveled rotating laser</td>
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<tr>
<td>1981</td>
<td>World's first electronic level</td>
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<tr>
<td>1984</td>
<td>World's first commercial GPS product</td>
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<tr>
<td>1986</td>
<td>World's first integrated LORAN-GPS system for marine navigation</td>
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<tr>
<td>1987</td>
<td>First real-time differential GPS (DGPS) system</td>
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<tr>
<td>1988</td>
<td>First GPS-tracked parachute jump</td>
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<tr>
<td>1989</td>
<td>World's first handheld GPS receiver for the military market</td>
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<tr>
<td>1990</td>
<td>World's first commercial handheld GPS receiver designed for GIS applications</td>
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<tr>
<td>1991</td>
<td>World's first GPS dam monitoring system</td>
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<tr>
<td>1992</td>
<td>World's first in-vehicle navigation system with CD-ROM maps uses Trimble GPS technology</td>
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<tr>
<td>1993</td>
<td>World's first land-based 137-inch (3.5 m) receiver for centimeter accuracy</td>
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<tr>
<td>1994</td>
<td>First in-vehicle initialization real-time GPS receiver for centimeter accuracy</td>
</tr>
<tr>
<td>1995</td>
<td>First on-the-fly initialization real-time GPS receiver for centimeter accuracy</td>
</tr>
<tr>
<td>1996</td>
<td>First integrated camera with built-in differential GPS and Trimble technology</td>
</tr>
<tr>
<td>1997</td>
<td>World's first centimeter-accurate GPS system integrated on a single pole</td>
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<tr>
<td>1998</td>
<td>Sponsors the first official GPS measurement of Mt. Everest</td>
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<tr>
<td>1999</td>
<td>First surveying software for combined processing of GPS and optical station data</td>
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<tr>
<td>2000</td>
<td>First Virtual Reference Station (VRS) technology, enabling centimeter-level GPS positioning without user-supplied infrastructure</td>
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<tr>
<td>2001</td>
<td>First 3D laser layout solution for construction</td>
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<tr>
<td>2002</td>
<td>First pesto stamp-size GPS receiver with the lowest power consumption for mobile devices</td>
</tr>
<tr>
<td>2003</td>
<td>First GPS-based automated 3D levelling control system for agriculture</td>
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<tr>
<td>2005</td>
<td>World's first magnetic drive motor in a total station</td>
</tr>
<tr>
<td>2007</td>
<td>World's first &quot;spatial station,&quot; combining optical, imaging and scanning technologies</td>
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<tr>
<td>2008</td>
<td>First remote visual representation of real-time construction activities</td>
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<tr>
<td>2009</td>
<td>World's first 220-channel, multi-band, multi-system GNSS receiver</td>
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<tr>
<td>2010</td>
<td>First 440-channel GNSS reference receiver</td>
</tr>
<tr>
<td>2011</td>
<td>First RTX technology for high-accuracy GNSS positioning without the use of traditional reference stations</td>
</tr>
<tr>
<td>2012</td>
<td>First portable handheld crop sensor to measure the health of a plant</td>
</tr>
<tr>
<td>2013</td>
<td>First integrated camera tracking system for surveys</td>
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</table>