Enable. Accelerate.
Deploy.

AutonomouStuff company overview
About AutonomouStuff

Vision
To enable, accelerate and deploy the future of transportation by significantly reducing development time of autonomy, driving our customers forward. We do this by bringing together the world’s best technologies: products, engineering services, software and Data Intelligence.

- Founded in 2010, headquartered in Morton, IL
- Consistent, continuous growth
- Thousands of customers worldwide
- Globally recognized brand & strong worldwide presence
- Acquired by Hexagon in September 2018
Hexagon | AutonomouStuff

About the acquisition:

• Hexagon acquired AutonomouStuff in September 2018.
• AS joined NovAtel, Antcom, VERIPOS and GPS Solutions in Hexagon’s Autonomy & Positioning division (formerly the Positioning Intelligence division).
• Integration of AS led to creation of Hexagon’s Smart Autonomous Mobility solutions portfolio.
• AS CEO Bobby Hambrick becomes Hexagon’s Autonomy & Positioning division’s Chief Autonomous Officer.
Hexagon
Hexagon
Empowering an autonomous future

Hexagon’s business activities are conducted through more than 300 operating companies in about 50 countries worldwide.

We are transformation focused, with 10–12% of net sales invested in R&D.
• 3,800+ employees in R&D
• 3,700+ active patents

More than 20,000 employees across 50 countries
• 3.8 bn EUR in sales
• 25% operating margin

Hexagon is a global leader in sensor, software and autonomous solutions committed to a simple, yet powerful purpose: Putting data to work to empower an autonomous future.
Portfolio overview
By putting data to work our smart solutions empower increasingly autonomous, connected ecosystems that drive sustainable value creation

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<th>Sustainable Value Creation</th>
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<td>Fewer inputs</td>
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<td>Zero waste</td>
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<td>Perfect quality</td>
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<td>Rapid startup at lower cost</td>
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<td>Safe, efficient operations</td>
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<td>Longer lifespan</td>
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<td>Minimum impact</td>
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<td>Safety prioritised</td>
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<td>Maximum efficiency</td>
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<td>Optimised inputs</td>
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<td>Higher yields and less waste</td>
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<td>Lower cost</td>
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<td>Greater safety</td>
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<td>Improved productivity</td>
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<td>Maximum efficiency</td>
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<tr>
<td>Optimised resources</td>
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<tr>
<td>Less rework</td>
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<tr>
<td>On plan, on time, on budget</td>
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<td>Always safe</td>
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<td>Highest quality of life</td>
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<td>Sustainable economic growth</td>
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<td>Design and Simulation</td>
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<td>Location Intelligence Mapping</td>
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<th>Xalt Framework</th>
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<td>Artificial intelligence</td>
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<td>Mobility</td>
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<td>Advanced visualization</td>
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<td>Enterprise integration</td>
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Smart Autonomous Mobility

Hexagon’s Autonomy & Positioning division
Hexagon’s Autonomy & Positioning division

A GLOBAL TECHNOLOGY LEADER
that is pioneering end-to-end assured autonomy and positioning solutions
for land, sea, air.

We are the trusted partner, facilitating customized technical development
and integration as well as providing expertise in specialized applications
including safety of life.
History

**NOVATEL**
NovAtel’s GPS legacy began in the early 1990s with a small dedicated group of geomatics engineers driven by the exciting possibilities of an emerging technology. NovAtel brought many achievements with them when it joined the Hexagon family in 2008, including Leica Geosystems as an OEM customer in early 2002.

**ANTCOM**
Antcom, a leader in designing and manufacturing a wide range of positioning, navigation, timing and communication antennas. Founded in 1996 and joined the Hexagon family through NovAtel in 2006.

**VERIPOS**
VERIPOS started in 1989 and is considered one of the early innovators in the field of precise positioning due to their Ultra Precise Point Positioning (PPP) services. VERIPOS joined the Hexagon family in 2014.

**AUTONOMOUSTUFF**
AutonomouStuff started in 2010 as a very small company and has grown exponentially to become a world leader in autonomy systems. AutonomouStuff joined Hexagon in 2018.

**GPS SOLUTIONS**
GPS Solutions was established in 1991 and has been a part of the Hexagon family since 2016. GPS Solutions is a developer of GNSS data analysis software for the most accurate and challenging applications.
AutonomouStuff solutions

- **Products**
  - Components & latest technologies

- **Services**
  - Knowledgeable engineering services

- **Software**
  - Modular-based software applications

- **Platforms**
  - Automated platforms for R&D

- **Data Intelligence**
  - Build your own cloud infrastructure
Strong global presence
Hexagon’s Autonomy & Positioning division locations

Autonomy & Positioning HQ
Calgary, AB, Canada

A&P office
North America

AutonomouStuff office
San Jose, CA, USA

A&P office
South America

AutonomouStuff HQ
Morton, IL, USA

A&P office
United Kingdom

A&P office
Europe

AutonomouStuff office
Ottawa, ON, Canada

AutonomouStuff office
Detroit, MI, USA

AutonomouStuff office
Frankfurt, Germany

AutonomouStuff office
Beijing, China

Sales partner
Japan

A&P office
Asia

A&P office
Australia
Customers across all industries

AutonomouStuff serves customers across a variety of industries. We provide the best R&D platforms, products, software and engineering services to aide in the advancement of robotics and autonomy.
AutonomouStuff's customers provide a variety of solutions. **Knowledge and experience** are essential in mastering the challenge of automated driving. We are dedicated to transforming the transportation industry.
A fleet of R&D vehicles

- Lincoln MKZ
- Ford Fusion
- Lexus RX 450h
- Ford Mondeo
- Ford Ranger
- Chrysler Pacifica
- Toyota Minivan
- Polaris GEM e2
- Polaris GEM e4
- Polaris GEM e6
- Polaris GEM eL XD
- Polaris Ranger
- Tractor
- Kenworth T680
- Freightliner Cascadia
- International Pro-Star
- Custom vehicle
Components of an automated vehicle
Driving autonomous R&D

- HD camera
- Infrared camera
- Ultrasonic sensor system
- GNSS receiver
- IMU
- Production ECU
- ShorePower
- Teleoperation
- Data storage
- Radar
- Lidar
- Safe by-wire controls
Providing the industry’s best products

- 3D
- Actuation
- By-wire controls
- Computing
- Data acquisition
- Data storage
- Enclosures
- GPS-IMU FOG
- Interface tools
- Kits
- Lidar
- Platforms
- Power distribution
- Radar
- Software
- Ultrasonic
- Vision
- Wireless
We provide components, engineering services and software that enable research and development in the autonomous industry. Our engineering services and ability to integrate best in class components are second to none.
We are recognized by the automotive and robotics industries as leaders in developing platforms (middleware and software applications). We are leading the development of autonomous vehicles that work with a large network of partners to provide the world’s most advanced software solutions.
Software solutions

AS Software:

• Lane centering
• Stop & go
• Lane change
• Shuttle automation
• Speed & steering controls
• Camera based localization
• Lidar object processing
• Multi-sensor, localization-state estimation
• Adaptive cruise control

Partner Software:

• ROS integration
• HERE maps
• NVIDIA DriveWorks
• Kaarta Lidar localization
• Tier IV Autoware
• ibeo sensor referencing suite
• Baidu Apollo complete stack
• NovAtel GPS/GNSS post processing
• Designated Driver teleoperation
Apollo 5.5 with Open Autonomy Pilot
We help our customers by providing high performing economical storage solutions, sensor truth benchmarking, simulation expertise, data tagging/annotation expertise, data mining tools, mapping and many other areas.
Autonomous vehicle workflow

The research and development cycle

Data acquisition
- Sensor integration
- Sensor calibration
- Sensor logging
- Image capture
- Storage

Data classification & labeling
- Manage data lifecycle
- Tagging/annotation
- Sensor truth
- Deep learning OD training
- Map creation

Application development
- Sub-system development
- Deep learning OD inferencing
- Watchdog application
- Security
- Compliance

Simulate, drive and test
- SIL/HIL full simulation
- Vehicle integration
- Validation