

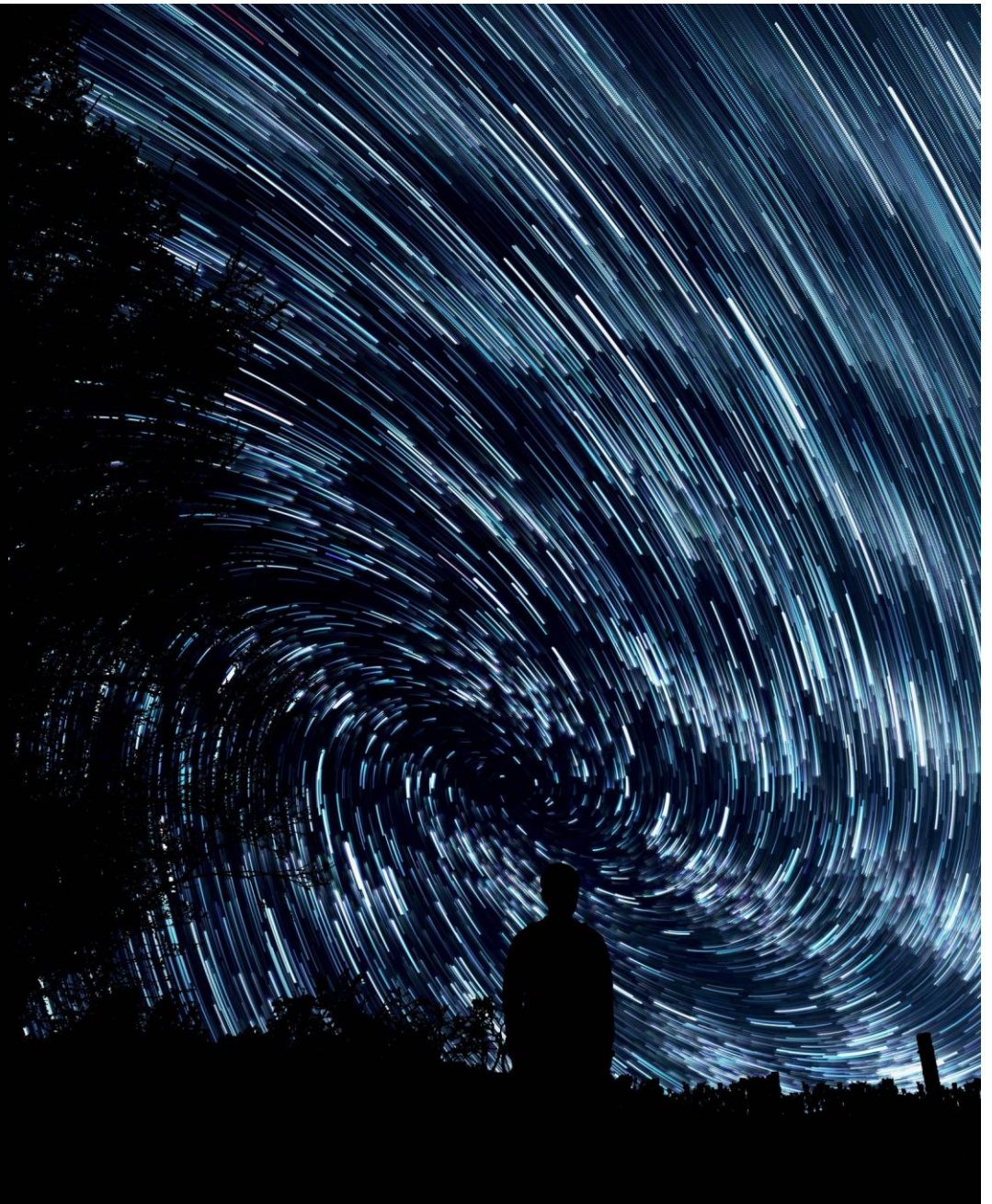
**ASTG** Advanced Stabilized  
Technologies Group

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# Investor Presentation

*Released November 25, 2019*

**We bring stability to a  
world in motion**



## Disclaimer

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Specifically, this presentation does not constitute the baseline for the share issue, disclosed by ASTG on 24 October 2019. For information regarding the share issue, please see the dedicated prospectus, planned to be released on November 28. For financial reports and data, please see the regulatory disclosures made by ASTG on its webpage.



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## Contents

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Satellite Business

Inertial Measuring Unit Business

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Strategy Overview

Key Reasons to Invest

Ownership & Share Price Information



# About ASTG

## We bring stability to a world in motion

*High-Tech solutions for movement & stabilization*



### Company at a Glance

Two business units today

Publicly listed in Sweden since 2014 on NGM (4000+ shareholders)

Head Quartered in Stockholm, Sweden

Operating in global growing markets with solutions for both commercial markets & governments

Industry examples: Satellite communication, stabilization, robotics & self-driving vehicles

25 MSEK Revenue (Trailing 12 Months including Q3 2019)



# ***C2SAT***

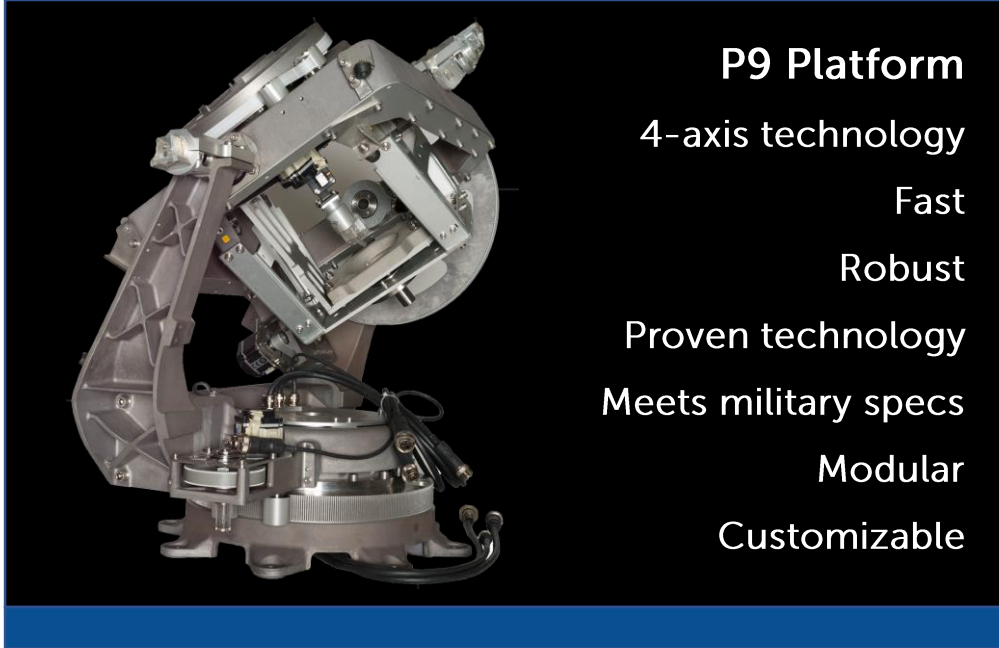
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ASTG provides stabilized antenna systems for satellite communication based on unique and proprietary technology



# Overview

## Reliable satellite communication in the hardest environments



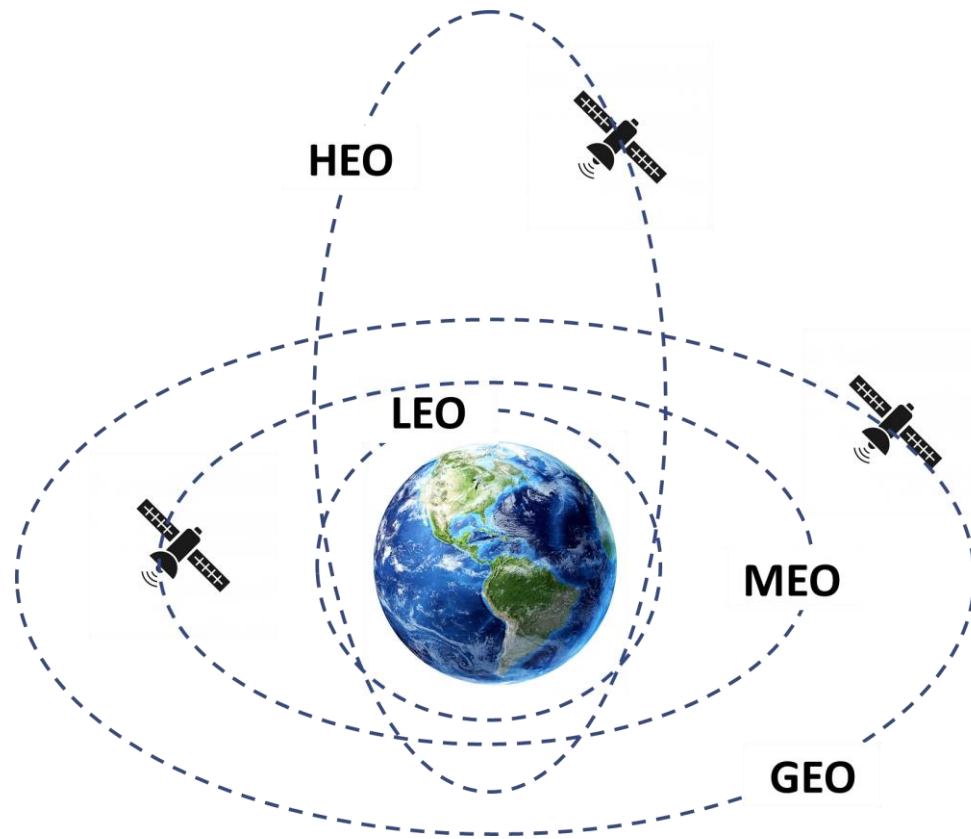
### P9 Platform

- 4-axis technology
- Fast
- Robust
- Proven technology
- Meets military specs
- Modular
- Customizable



# GEO, LEO & MEO

## Satellite basics



**GEO (GSO)** - 35,800 km directly over the equator

**LEO (NGSO)** – 700 km to 1,500 km from the Earth

**MEO (NGSO)** - 10,000km from the Earth

## The Details

There are two main categories of satellite in orbit; Geostationary (GEO) and non-Geostationary (LEO, MEO, HEO).

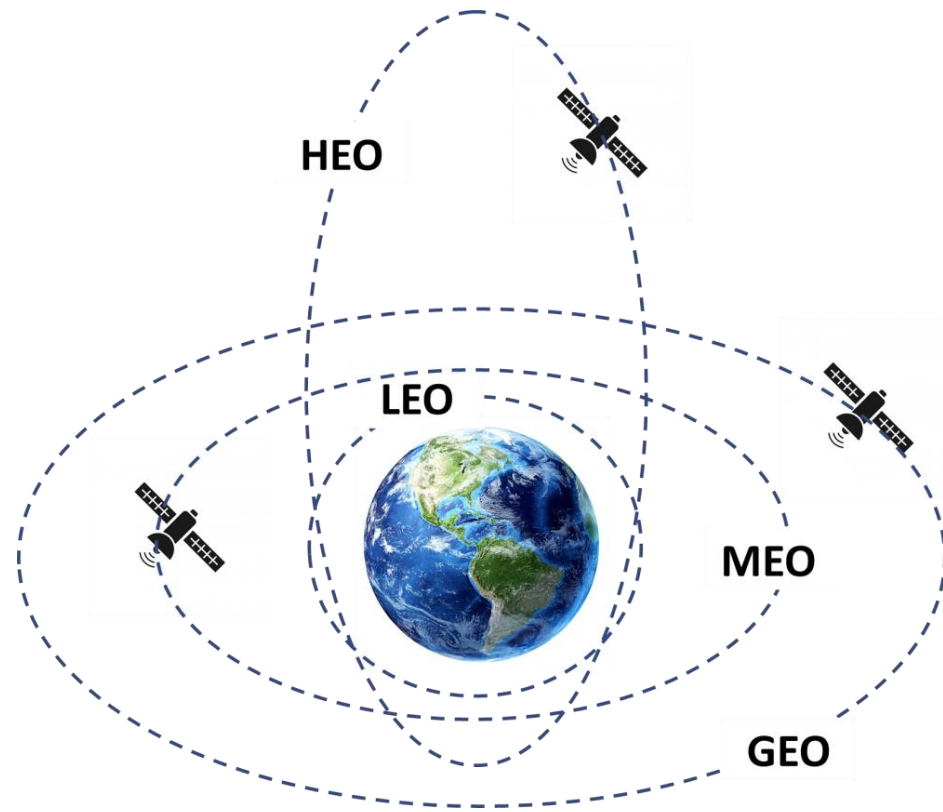
A geostationary satellite is an earth-orbiting satellite, placed at an altitude of approximately 35,800 kilometres (22,300 miles) directly over the equator, that revolves in the same direction the earth rotates (west to east). It is often referred to as GSO satellites (or GEO).

Non-geostationary (NGSO) satellites occupy a range of orbital positions (LEO satellites are located between 700km-1,500km from the Earth, MEO satellites are located at 10,000km from the Earth), and do not maintain a stationary position, but instead move in relation to the Earth's surface. There is an additional type of satellites called highly elliptical orbits (HEO) satellites which are being used to cover the Earth's North and South poles.



# GEO, LEO & MEO

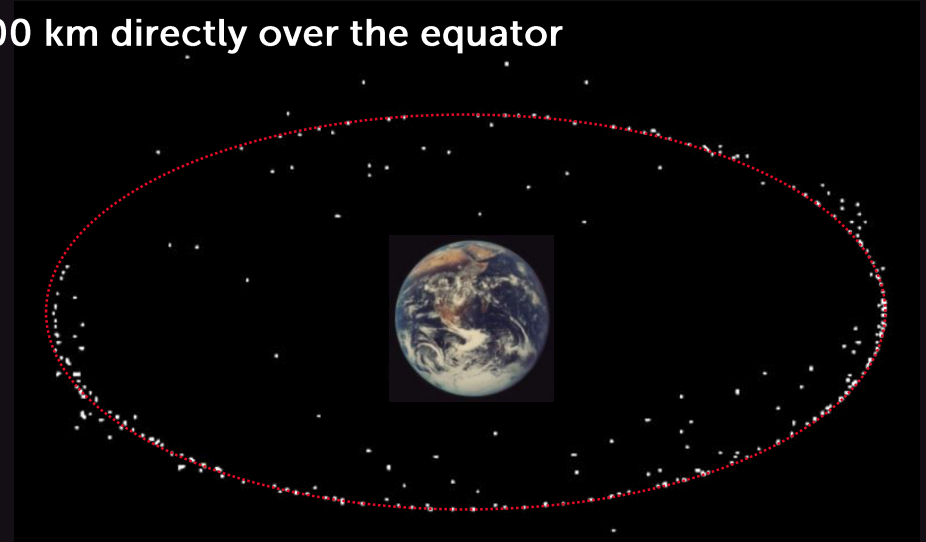
## Satellite Basics



**GEO (GSO)** - 35,800 km directly over the equator  
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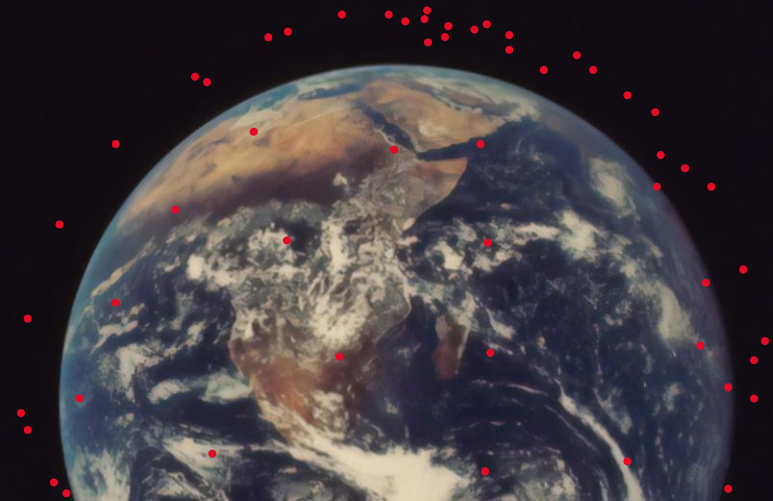
## Geo Stationary Satellites

35,800 km directly over the equator



## Low Orbit Satellites

700 km to 1,500 km from the Earth





# Applications & Market

## Trends

More applications will go "on the move", increasing need for technology to enable satellite communication while vehicles are moving, be it at sea, in the air or on land.

Growing market in Earth Observation via satellites, creating an ongoing demand for solutions enabling download and distribution of data.

Low Orbit Satellites constellations are in the process of being launched, enabling high-speed and low latency data connection with satellite. LEO could be the satellite industry's answer to 5G.

Market CAGR of  
**13%**

Addressable Market  
estimated to  
**\$5BN+**  
total over 10 years

Source: Northern Skies  
Research 2019

# C2SAT



## Marine on the Move

Stabilization of satellite antennas on ships. Main focus today on high-end needs and military use.

## Land on the Move

Stabilization of satellite antennas on land vehicles, airplanes and unmanned aerial vehicles (UAV's).

## Earth Observation

Stabilized satellite antennas with satellite tracking and download capability.

## Low Orbit Satellites (LEO)

Stabilized satellite antennas for low orbit satellite constellation, requiring tracking and high-speed capability.



Today → Evolution →



# AIMS

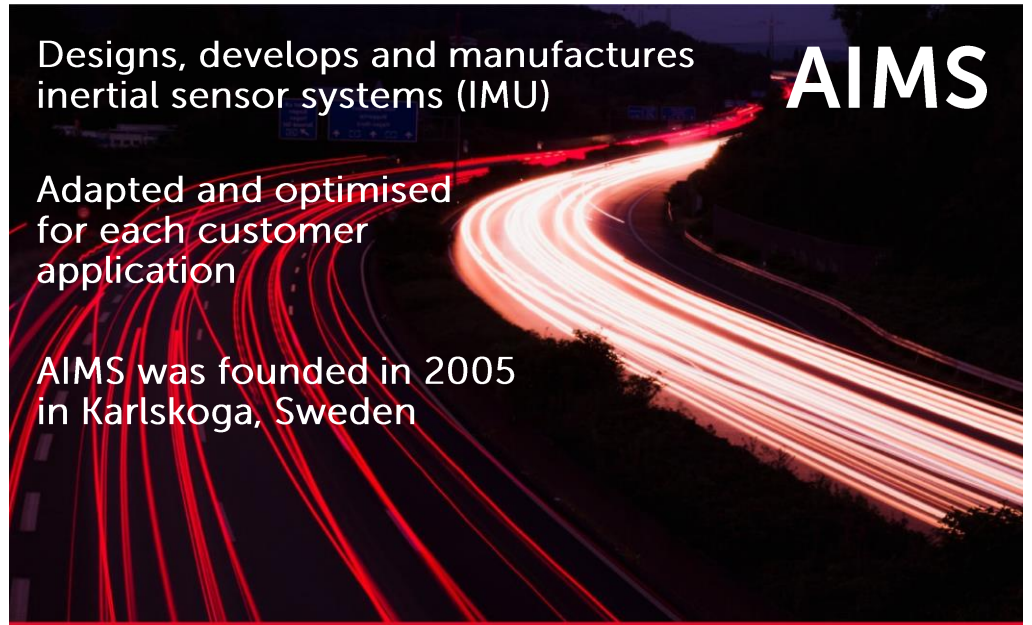
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State of the art  
technology for  
commercial  
applications



# Overview

## Adapting state of the art military technology to commercial applications



### Our Technology

AIMS develops and manufacture high end (high accuracy) IMU solutions and related INS, accelerometer, gyroscope and navigation products in a three dimensional world.



Accelerometer



Gyroscope



IMU



INS



# Applications

## Marine

Stabilization of boats.  
Adjustments of light beams.



## Motor

Shock absorber feedback  
and curve stability



## Other Industry Examples

**AIMS**  
Agriculture  
Oil-drilling heads  
Mining equipment & vehicles  
Self-driving vehicles  
Satcom antennas  
Helicopters & other aviation  
Spacecrafts & rockets  
Defence transport  
Optical system stabilization  
UAVs  
And many more industries....



## Transport

Measuring  
movement and  
direction as an extra  
safety for high  
speed trains

# Applications & Market

## Trends

A global trend towards more self-operating systems and self-driving vehicles are driving an increase in demand for sensors and solutions providing information about acceleration, movement and location.

The information needs to be accurate and real-time to provide satisfactory precision of operation and safety.

**Use case example:** there is a trend towards all tractors having an IMU installed from the factory, instead of only doing an after market installation upon demand. This is much like the evolution of GPS systems in cars.



## Marine

Stabilization of boats.  
Adjustments of light beams.



## Motor

Shock absorber feedback  
and curve stability



## Transport

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## Other Industry Examples

Agriculture  
Oil-drilling heads  
Mining equipment & vehicles  
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And many more industries....



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**2019 has been a turning point**

November 2019





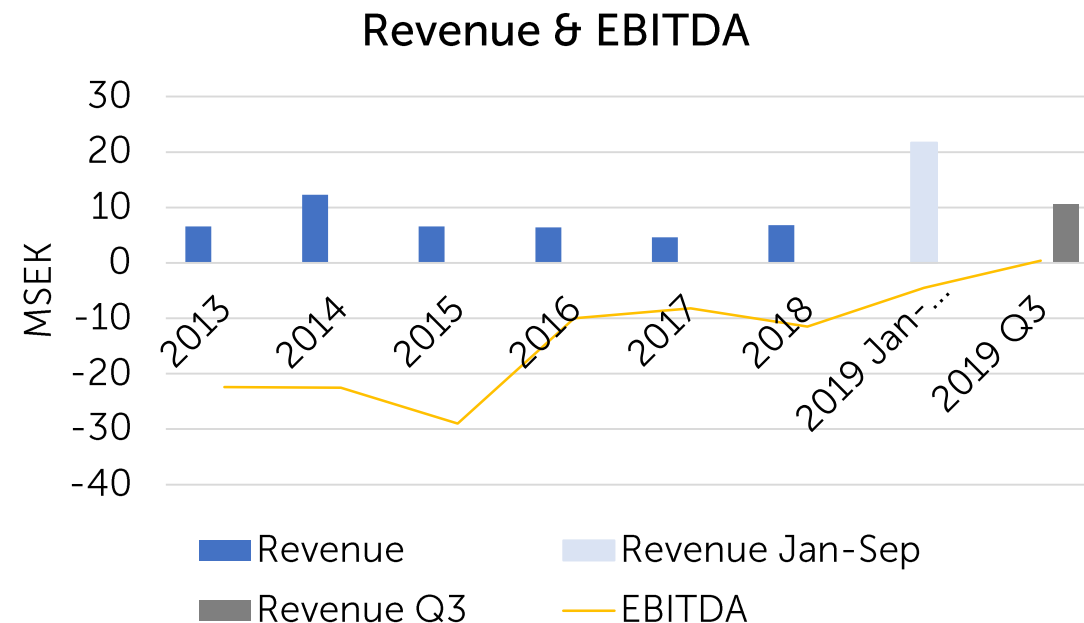
# 2019 has been a turning point for ASTG

Proof of product – demanding customer

Order for 60 MSEK received

Volume delivery

IMU technology in test with major customer



## Positive Trends in 2019

Received orders for approx. 60 MSEK from one customer for Maritime Antenna Systems

Proof of product and system quality and functionality through order from demanding customer in Israel

Production of Maritime Antenna Systems ramped up and in delivery

Testing IMU technology with major Swedish defence contractor

TTM (trailing 12 months) revenue of 25 MSEK

Jan to September 2019 revenue at 21.3 MSEK versus 3.4 MSEK in the same period in 2018

Q3 2019 is EBITDA positive for the first time in the companies history

Revenue growth 2018 to 2019 (three quarters - Jan to Sept)

**3.4 MSEK to 21.3 MSEK**

12 months trailing (TTM) Revenue

**25 MSEK**

First time

**EBITDA Positive in Q3**

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# Growth Strategy & Trend Overview

November 2019





# Market Trends Summary

## Movement Info

A global trend towards more self-operating systems and autonomous vehicles are driving an increase in demand for sensors and solutions providing information about acceleration, movement and location.



## Accurate & Real-time

### "On the Move"

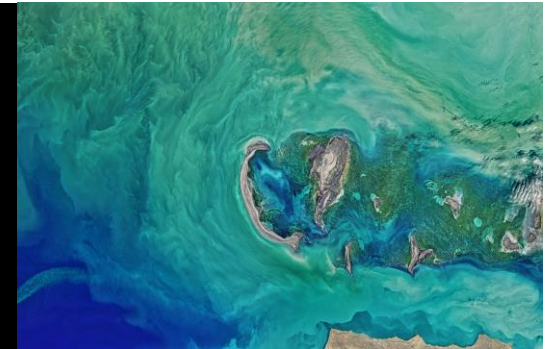
More applications will go "on the move", increasing need for technology to enable satellite communication while vehicles are moving, be it at sea, in the air or on land.



## SatCom On the Move

## Earth Observation

Growing market in Earth Observation via satellites, creating an ongoing demand for solutions enabling download and distribution of data.



## Satellite Imagery

### LEO

Low Orbit Satellites constellations are in the process of being launched, enabling high-speed and low latency data connection with satellite. LEO could be the satellite industry's answer to 5G.



## SatComs answer to 5G & IoT



# Five Strategic Objectives for *Growth*

## 1. Grow SatCom Business

Sales,  
Marketing &  
Partnering



## 2. Grow AIMS Business

Sales,  
Marketing &  
Partnering



## 3. Build critical mass and diversify technology and product portfolio

Create enough scale of operation, efficiency in execution and reduction of risk

# Scale & Diversification



## 4. Use acquisitions to create business, technology & product advantages

Accelerate technology, market & technology advantages

# Accelerate



## 5. Corporate Social Responsibility & Product Sustainability

Environmentally sustainable products, University programs, and use our technology to creating a more sustainable future for the Earth

# Sustainable



# 1. Grow SatCom Business

The company will keep C2Sat as an independent business and focus on growing from the current technology and product base.

There will be four themes for growing and solidifying our satellite communication business; *Sales & Market Focus*, Product Portfolio Evolution, *Capturing New Opportunities & Trends*, and *Customer Satisfaction*, Branding & Operation

Market CAGR of  
**13%**

Addressable Market  
estimated to  
**\$5BN+**  
total over 10 years

Source: Northern Skies Research 2019

## C2SAT



### Marine on the Move

Stabilization of satellite antennas on ships. Main focus today on high-end needs and military use.



Today

### Land on the Move

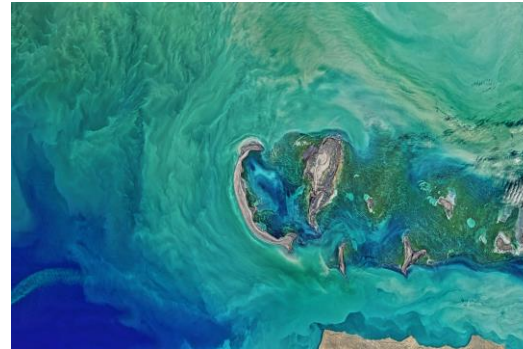
Stabilization of satellite antennas on land vehicles, airplanes and unmanned aerial vehicles (UAV's).



Evolution

### Earth Observation

Stabilized satellite antennas with satellite tracking and download capability.



### Low Orbit Satellites (LEO)

Stabilized satellite antennas for low orbit satellite constellation, requiring tracking and high-speed capability.





## 2. Grow AIMS Business

The company will keep AIMS as an independent business and focus on growing from the current technology and product base.

The investments will be focused on *expanding the sales channels* and market access, as well as further *broadening of the product portfolio* and offering, divided into three key themes; "Sales & Market Focus", "Product Portfolio Evolution", and "*Branding & Marketing*".



### Marine

Stabilization of boats.  
Adjustments of light beams.



### Motor

Shock absorber feedback  
and curve stability



### Transport

Measuring movement and  
direction as an extra safety  
for high speed trains



### Other Industry Examples

Agriculture  
Oil-drilling heads  
Mining equipment & vehicles  
Self-driving vehicles  
Satcom antennas  
Helicopters & other aviation  
Spacecrafts & rockets  
Defence transport  
Optical system stabilization  
UAVs  
And many more industries...

### 3. Build critical mass and diversify technology and product portfolio

**Challenge:** In order to create enough scale of operation, efficiency in execution and reduction of risk from organizational discontinuities, ASTG needs to scale its business to be able to create a critical mass of resources, skills and processes. This includes; technical competences, supply chain & production, and sales & marketing resources.

#### How

*To achieve this, the focus is on generating more sales as soon as possible to grow the business. Equally important is the broadening of the product offering and diversification of our business areas. With a broader offering to the same markets we reuse our technology and R&D skills, increase the return on our sales efforts, and we get better efficiency in our supply chain & production. The diversification of business areas will allow us manage fluctuations in the individual markets we are in and we will be able spread the overhead cost needed to run a top professional organization and listed company.*



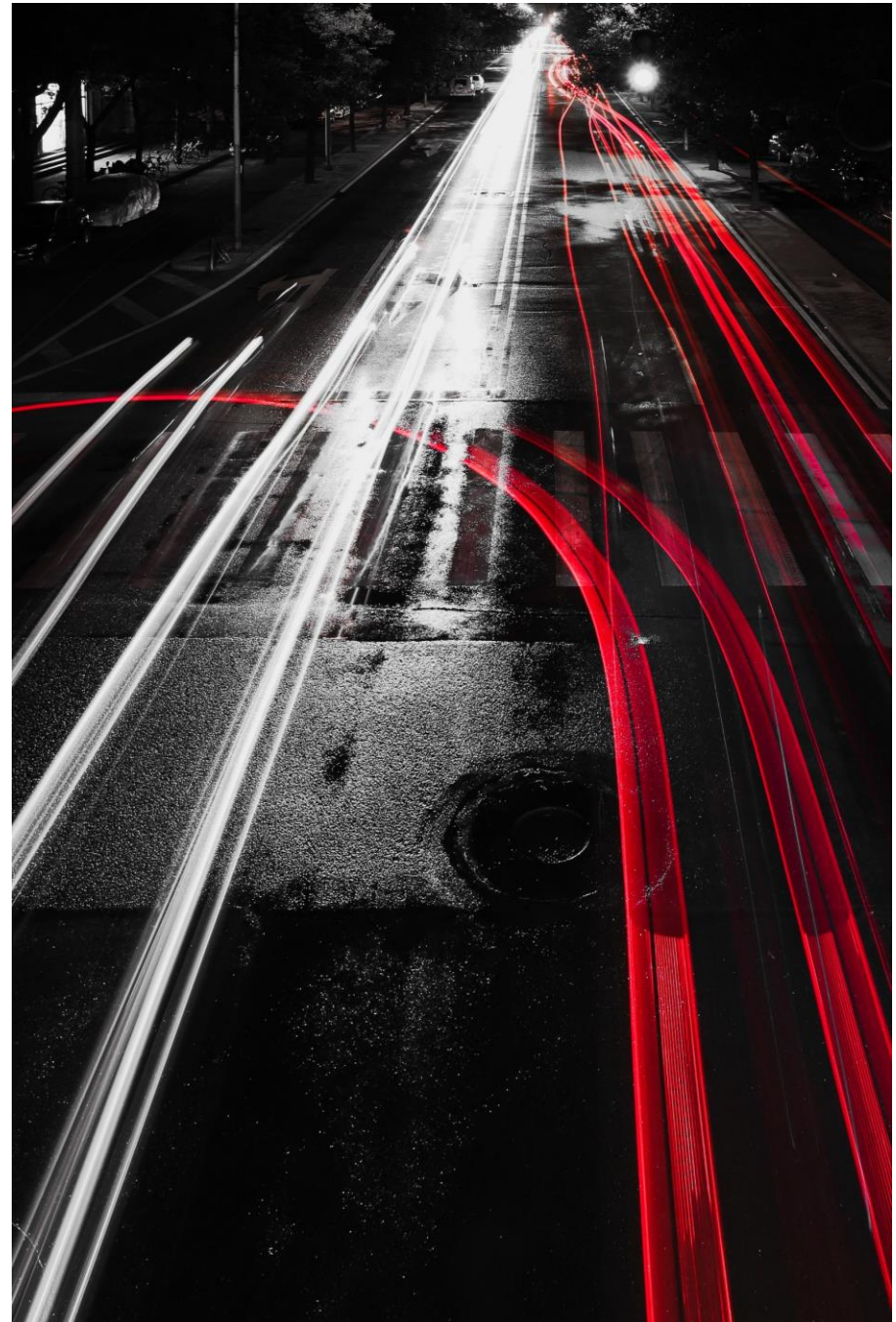


## 4. Use acquisitions to create business, technology and product advantages

**Acceleration:** In support of our strategic objectives 1-3 as outlined above, the company will invest in exploration of the market for potential acquisition targets.

The **objective** is to create technology or product advantages in selected markets and/or to generate improved cashflow and profitability.

*Vision: Sweden and the Nordic countries have a wide range of small and mid-size companies, specialized in satellite communication as well as components and subsystems for stabilization and satellite communication.*



# 5. Corporate Social Responsibility & Product Sustainability

**Values:** The company will focus on creating environmentally sustainable products, investing in University programs, and make efforts to use its competence and portfolio in applications that can help in creating a more sustainable future for the Earth.

## Environmental Information

*Earth Observation is playing a more and more important role for the world to understand how we are impacting the Earth's sustainability and our global climate. The company will make efforts to either directly or indirectly improve access to data about how our Earth is evolving.*



## University Programs

*We will cooperate in University programs, to create new and better applications of our technology and products, as well as investing in programs focused on creating more sustainable products.*



## Environmentally Sustainable Products

*The company will endeavour to make its products as reusable and recyclable as possible.*





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# Key Reasons to Invest

November 2019



# Key Reasons to Invest

## Operating in Growing Markets

SatCom Market CAGR of **13%**

Addressable Market estimated to **\$5BN+** over 10 years

Source: Northern skies Research 2019

AIMS Market CAGR of **6%**

Addressable Market estimated to **\$700M** annually

Source: Yole Developpement 2017

## Have Technology for New Market Trends

Growing market for **"On the Move"** satellite applications

**Low Orbit Satellite** Systems with high-speed data

**Earth Observation** for a better world

Motion Sensors in combination with optical sensors and GPS in almost **every application with movement**

## ASTG is in Business Today

### Demanding Customer

Product in delivery to high standard customer

Revenue **25 MSEK** TTM

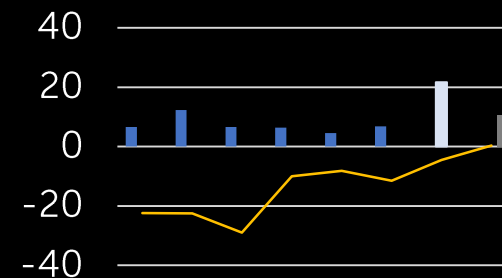
### IPR

Proven core technology IPR & "High" Entry Barriers

### Synergies

Technology Synergies between businesses

Positive Financial Trend



## Access to Companies & Talent Base

### Possibilities to Grow

Sweden and the Nordic countries have a wide range of small and mid-size companies, specialized in satellite communication as well as components and subsystems for stabilization and satellite communication.





# ASTG Advanced Stabilized Technologies Group

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## Summary

Our strategy is, to invest in and develop reliable technologies, products and solutions for safety, precision and stabilization, enabling applications in a wide range of industries.

Our Vision is, that by 2025, we have created a new important Nordic company within satellite communication and technologies for stabilization and movement, and....

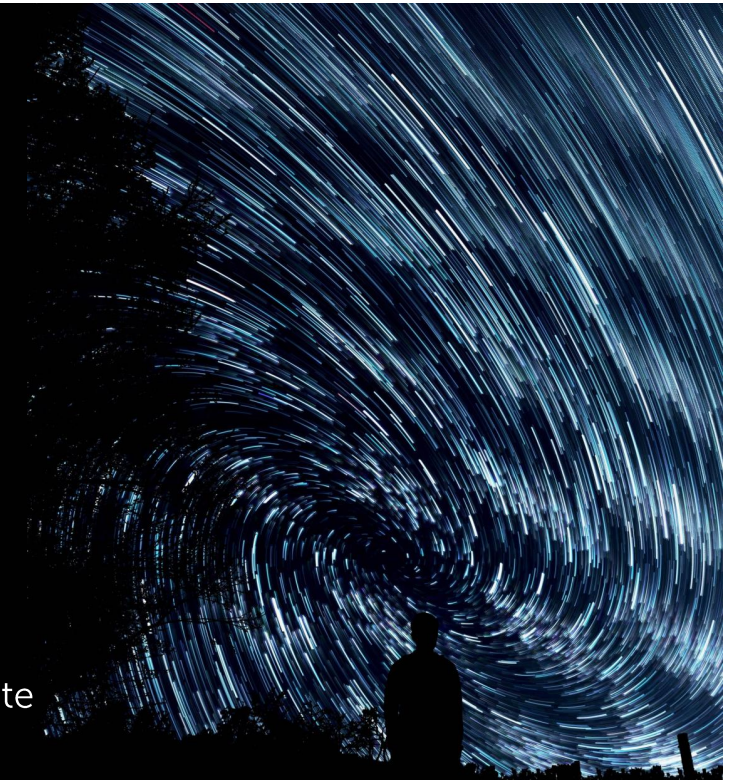
.....we have contributed to **"Bringing Stability to a World in Motion"**.

# Thank you!

# www.astg.se

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[Carsten.Drachmann@astg.se](mailto:Carsten.Drachmann@astg.se)  
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# Ownership & Share Price Information

November 2019





# Ownership & Market Info

## Listed on Nordic Growth Market (NGM)

Name: "Advanced Stabilized Technologies Group B"

Symbol: "ASTG B"

Market cap in 2019 varies from approx. 60 to 120 MSEK from January through September.

*Share Emission of 37 MSEK announced October 24.  
Subscription period Nov 29 to Dec 13, 2019*

## Ownership (indicative values)

Approx. 12.8 million shares held by more than 4000 shareholders at the end of October 2019.

Amount of shares will double through announced share emission.

No individual shareholder owns more than 3% of the shares.

*Data from Euroclear September 30, 2019*

