

Europe Inertial Systems - Market Share Analysis, Industry Trends & Statistics, Growth Forecasts (2025 - 2030)

Market Report | 2025-04-28 | 120 pages | Mordor Intelligence

AVAILABLE LICENSES:

- Single User License \$4750.00
- Team License (1-7 Users) \$5250.00
- Site License \$6500.00
- Corporate License \$8750.00

Report description:

The Europe Inertial Systems Market is expected to register a CAGR of 5.54% during the forecast period.

Key Highlights

- According to the ACEA, around 12.9 million motor vehicles are manufactured in the European Union annually. The automobile is one of the largest industries in Europe. A lot of technological innovations in the automobile industry occur in this area. Inertial sensors are an essential part of automobiles currently. They are used in various systems ranging from ABS to air-bag deployment and even in anti-theft features. The automotive industry growth in this region will help the inertial systems market to grow.
- The advancement of the global lifestyle has resulted in the need for equipment with greater ease of use. This has enabled motion-sensing technology, which uses inertial sensors extensively. This is a key driving factor in this market and will play an important role in defining the market for the next few years.
- Moreover, the unprecedented rise in unmanned vehicles in the region across various applications in both civilian and defense applications has also increased the need for complex navigational systems that include inertial sensors. The rapid advancement in technology has made sensors both accessible and affordable, making their use abundant in day-to-day devices.
- However, inertial navigation systems (INS) tend to have high failure rates and repair costs, resulting in high maintenance costs for these systems. Such factors might restrict the growth of the market.
- The Covid-19 pandemic significantly impacted the aerospace and defense industries in the region, with many companies in commercial aviation experiencing disruption in production and slowing demand owing to the lockdowns imposed during the initial months of the outbreak. However, the inclination of growth toward defense and aerospace post-pandemic, combined with the technological advancements in navigation systems, is expected to create a positive outlook for the market in the coming years.

Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scott-international.com

www.scott-international.com

Europe Inertial Systems Market Trends

Defense segment expected to account for a significant market

- Inertial systems utilize the outputs from accelerometers, gyroscopes, or magnetometers, to measure the motion and orientation of objects they are attached to on one, two, or three axes. These outputs can be used for various tactical and defense applications, including position tracking and navigation.
- Moreover, the IMU-equipped INS forms the backbone for the navigation and control of many military vehicles, such as crewed aircraft, missiles, submarines, etc. For defense applications, IMUs can be used for stabilization and control applications like aircraft flight surfaces, antenna and weapons platforms, and camera and sensor gimbals.
- The rising expenditures in defense in the region also create significant demand for the market. For instance, per the annual Defence Data report published by the European Defence Agency (EDA), total European defense spending reached a record high in 2021, marking a further 6% increase on the previous year and the seventh year of consecutive growth.
- Also, in September 2022, Collins Aerospace was awarded a multi-million-pound program as part of the United Kingdom's Weapons Sector Research Framework (WSRF) to develop a navigation-grade Inertial Measurement Unit (IMU) for use in future complex weapons platforms.
- In collaboration with the Defence Science Technology Laboratory (DSTL), Collins aimed to develop a tactical grade or 'Class A' IMU using Micro-Electro-Mechanical Systems (MEMS) technology to advance the UK's Ministry of Defence (MOD) initiatives. Used for guidance and navigation on a broad range of multi-domain platforms, the new MEMS-based IMU was expected to ensure the desired performance while targeting a smaller form factor and lower cost than the RLG (Ring Laser Gyro) and FOG (Fibre Optic Gyro) solutions.

Emergence of MEMS Technology will drive the Market

- Large size and high costs significantly constrained the large-scale adoption of inertial systems. There has been a paradigm shift in inertial systems manufacturing techniques after the turn of the century.
- The emergence of Micro Electro Mechanical Systems (MEMS) technology resulted in the miniaturization of mechanical and electro-mechanical elements in sensors and semiconductors through micro-fabrication and micro-machining techniques. MEMS has now become a fundamental part of future navigation systems.
- The growth in this technology has been driven by the growing pressure on contract manufacturers to reduce the size of inertial systems to make them suitable for broader applications. MEMS greatly supported the rapid increase in portable devices, as it offered enhanced capabilities within a small unit. The inertial MEMS market forecast predicts a dramatic rise in the volume of inertial MEMS devices over the coming years.
- The advancements in MEMS technology are not just restricted to niche and research-grade applications; several commercial-grade inertial systems have also been made available in the market. These devices are integrated with GPS-aiding tools to provide comprehensive navigation solutions.
- The surge in demand for electric vehicles in the region also creates significant opportunities for the market, as MEMS-based sensors are becoming increasingly essential for EVs. Inertial sensors are one of the most frequently used sensors in the EV industry. MEMS-based accelerometers can measure either static or dynamic vibration acceleration in EVs. Similarly, MEMS-based gyroscopes use vibrating objects and identify the change of angles.

Europe Inertial Systems Industry Overview

Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com

The Europe Inertial Systems Market is moderately fragmented due to the presence of various inertial systems solution providers. However, the vendors consistently focus on product development to enhance their visibility and presence. The companies are also undergoing strategic partnerships and acquisitions to gain market traction and increase their market share.

- July 2022 - Honeywell and Civitanavi Systems announced a collaboration to develop inertial measurement units (IMU), attitude heading reference systems and inertial navigation systems for commercial and defense applications.
- May 2022 - Analog Devices, Inc. (ADI) launched a three-axis MEMS accelerometer designed for various healthcare and industrial applications, including vital signs monitoring, hearing aids, and motion-enabled metering devices.

Additional Benefits:

- The market estimate (ME) sheet in Excel format
- 3 months of analyst support

Table of Contents:

1 INTRODUCTION

- 1.1 Study Assumptions and Market Definition
- 1.2 Scope of the Study

2 RESEARCH METHODOLOGY

3 EXECUTIVE SUMMARY

4 MARKET INSIGHTS

- 4.1 Market Overview
- 4.2 Industry Value Chain Analysis
- 4.3 Industry Attractiveness - Porter's Five Forces Analysis
 - 4.3.1 Bargaining Power of Suppliers
 - 4.3.2 Bargaining Power of Consumers
 - 4.3.3 Threat of New Entrants
 - 4.3.4 Intensity of Competitive Rivalry
 - 4.3.5 Threat of Substitutes

5 MARKET DYNAMICS

- 5.1 Market Drivers
 - 5.1.1 Emergence of MEMS Technology
 - 5.1.2 Inclination of Growth toward Defense and Aerospace
 - 5.1.3 Technological Advancements in Navigation Systems
- 5.2 Market Restraints
 - 5.2.1 Operational Complexity, coupled with High Maintenance Costs

6 MARKET SEGMENTATION

- 6.1 By Application
 - 6.1.1 Civil Aviation
 - 6.1.2 Defense

Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com

- 6.1.3 Consumer Electronics
- 6.1.4 Automotive
- 6.1.5 Energy & Infrastructure
- 6.1.6 Medical
- 6.1.7 Other Applications
- 6.2 By Component
 - 6.2.1 Accelerometer
 - 6.2.2 Gyroscope
 - 6.2.3 IMU
 - 6.2.4 Magnetometer
 - 6.2.5 Attitude Heading and Navigation System
 - 6.2.6 Other Components

7 COMPETITIVE LANDSCAPE

- 7.1 Company Profiles
 - 7.1.1 Honeywell Aerospace Inc.
 - 7.1.2 Northrop Grumman Corporation
 - 7.1.3 Bosch Sensortec GmbH
 - 7.1.4 Analog Devices Inc.
 - 7.1.5 Thales Group
 - 7.1.6 Rockwell Collins Inc.
 - 7.1.7 Moog Inc.
 - 7.1.8 Fairchild Semiconductor (ON Semiconductors)
 - 7.1.9 VectorNav Technologies
 - 7.1.10 STMicroelectronics NV
 - 7.1.11 Safran Group (SAGEM)
 - 7.1.12 InvenSense Inc
 - 7.1.13 Meggitt PLC

8 Vendor Market Share Analysis

- 8.1 Vendor Positioning Analysis (Inertial Systems)
- 8.2 Vendor Market Share (High-End Inertial Systems)
- 8.3 Vendor Market Share (MEMS Industry)

9 INVESTMENT ANALYSIS

10 FUTURE OF THE MARKET

Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com

**Europe Inertial Systems - Market Share Analysis, Industry Trends & Statistics,
Growth Forecasts (2025 - 2030)**

Market Report | 2025-04-28 | 120 pages | Mordor Intelligence

To place an Order with Scotts International:

- Print this form
- Complete the relevant blank fields and sign
- Send as a scanned email to support@scotts-international.com

ORDER FORM:

Select license	License	Price
	Single User License	\$4750.00
	Team License (1-7 Users)	\$5250.00
	Site License	\$6500.00
	Corporate License	\$8750.00
		VAT
		Total

*Please circle the relevant license option. For any questions please contact support@scotts-international.com or 0048 603 394 346.

** VAT will be added at 23% for Polish based companies, individuals and EU based companies who are unable to provide a valid EU Vat Numbers.

Email*	<input type="text"/>	Phone*	<input type="text"/>
First Name*	<input type="text"/>	Last Name*	<input type="text"/>
Job title*	<input type="text"/>		
Company Name*	<input type="text"/>	EU Vat / Tax ID / NIP number*	<input type="text"/>
Address*	<input type="text"/>	City*	<input type="text"/>
Zip Code*	<input type="text"/>	Country*	<input type="text"/>
		Date	<input type="text" value="2026-03-04"/>
		Signature	

Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com

