

Europe Image Sensors - 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 Image Sensors Market is expected to register a CAGR of 8.6% during the forecast period.

Key Highlights

- The primary element propelling the expansion of the image sensor market is the rise in the production of smartphones and tablets and the rising number of cameras incorporated into such devices. As the need for improved camera functions and good image quality in such devices grows quickly, OEMs are constantly developing image sensors that will increase their versatility while maintaining the device's thinness and usability, boosting the market.
- Other reasons propelling the growth of the image sensor market include the desire to integrate numerous cameras into a single device for purposes such as optical zoom, low light photography, portrait mode, 3D imaging features, and enhanced high dynamic range. For instance, According to Ericsson, By 2027, there will be 439 million smartphone subscriptions in Western Europe. There were about 404 million smartphone subscribers in Western Europe as of 2021.
- In an industrial application such as a PCB assembly, the CSG sensors improved image quality and frame rate allow an automated optical inspection (AOI) camera to rapidly and reliably spot defects such as a missing or an incorrectly inserted electronic component. Furthermore, the Industry 4.0 initiatives globally are also pushing the use of 3D imaging with image sensors. Also, image sensors are being used to automate manufacturing processes and monitor operational processes. The vendors in the market are also combining image sensors and 3D cameras for a better offering. For example, SICKs Ranger 3, a 3D camera, uses CMOS image sensor M30 to create a 3D profile with reduced on-chip data.
- A harsh and complex operating environment characterizes the aerospace industry. Therefore, choosing a suitable sensor to withstand such external environment extremities and performing at the desired accuracy, reliability, precision, and repeatability are of prime importance for the end-users. The spectrum of industrial sensors on a modern aircraft is quite broad. In February 2021, Teledyne Technologies supplied many of its advanced, high-performance image sensors to the Mars Rover Perseverance's

Scotts International. EU Vat number: PL 6772247784

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

www.scotts-international.com

complicated instruments. During the Mars 2020 mission, Teledyne sensors will power, sense, and evaluate the chemical composition of the surface and minerals, including Gy and the atmosphere.

- In February 2022, Maxar Technologies announced a new five-year deal with European Space Imaging and Space Imaging Middle East, critical partners serving customers in Europe, Northern Africa, and the Middle East. European Space Imaging and Space Imaging Middle East provide Maxar high-resolution satellite imagery to a broad spectrum of government and commercial organizations for border security, disaster response, and agriculture. Developments in space technology will drive the studied market.

- Since the sensor is a PN junction, incoming light causes it to start producing electron-hole pairs and start conducting current. This creates the pixels inside the image sensors, which in turn create the pictures. The sensors are commonly used to increase the efficiency and speed of industrial machinery while using less power. For instance, in March 2021, The "TCD2726DG," a lens reduction type CCD linear image sensor for A3 multifunction printers that perform high-speed scanning, was made available by Toshiba Electronic Devices & Storage Corporation. The timing generator circuit and fewer CCD driver pins in the new sensor reduce increased electromagnetic interference (EMI), a drawback of a faster clock rate. System development is facilitated by a decrease in the number of peripheral parts, customers' EMI and timing adjustment work, and both.

- However, the pandemic outbreak also negatively affected many image sectors. For instance, during the first quarter of 2020, output was on hold or decreased in the automobile and process industries. As a result, these businesses experienced a considerable decrease in the demand for all types of sensors. Due to safety concerns and strict government restrictions, the range of industrial and IoT devices for pressure sensors increased as more process businesses began to invest in automation monitoring systems. For instance, in China, Taiwan-based OSAT and ASE Technology also reported increased revenue in November 2020, compared to November 2019 and October 2020. KYEC's semiconductor testing subsidiary in China, King Long Technology (Suzhou), also reported investing at least 50% of its newly obtained syndicated loan of CNY 552 million in purchasing more testing equipment to provide additional capacity support for new chips.

Europe Image Sensors Market Trends

The Automotive Segment is Expected to Drive the Market's Growth

- Image sensors for automotive applications are an essential feature for car safety. Beyond the sensing and viewing applications of traditional rear-view cameras, the demand for all-around interior and exterior monitoring and viewing capabilities has become an unequivocal necessity. Through the development and implementation of Advanced Driver Assistance Systems (ADAS) and Driver Monitoring Systems (DMS), cars have become and will continue to progress in safety and reliability, not only to alert drivers to potential incidents but to intervene as well. This is driving the growth of the studied market.

- According to OICA (International Organization of Motor Vehicle Manufacturers), Germany made the most passenger automobiles in Europe in 2021. In that year, it produced about 3.1 million passenger cars. With over 1.7 million passenger automobiles produced, Spain came in second. Furthermore, more than 16.3 million vehicles were produced in the European automotive sector in 2021, with passenger cars making up about 85% of the total. Such huge production of cars will create an opportunity for the local vendors to expand their product portfolio according to the requirements of the clients and capture a wide market share.

- Seamless connectivity with new services, innovative car cockpits, and improved passive safety: 3D depth sensors play a vital role in monitoring systems in the vehicle cabin. They are essential to meet regulations and NCAP ratings. They are also vital to realize the vision of the driver becoming a passenger.

- To that end, in June 2022, Infineon Technologies AG, in partnership with 3D time-of-flight system specialist pmd technologies ag, developed the second generation of the REAL3 automotive image sensor - an ISO26262-compliant high-resolution 3D image sensor. The sensor is encased in a 9 x 9 mm plastic BGA package and offers a VGA system resolution of 640 x 480 pixels with a tiny image circle of 4 mm. It allows lens sizes like those known from smartphones to automotive applications. The high resolution of the REAL3 sensor makes it appropriate for camera applications with a wide field of view, like complete front-row occupant

Scotts International. EU Vat number: PL 6772247784

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

www.scotts-international.com

monitoring systems. The resulting 3D body models enable accurate estimates of occupant size and weight and highly precise passenger and seat position data, which is key information for intelligent airbag deployment and restraint systems. Besides safety-critical applications, the 3D data facilitates comfort features like gesture control or intuitive interior lighting that follows passengers' movements.

- The region is also witnessing an upsurge in the innovation of new and comprehensive products and solutions. In May 2022, STMicroelectronics developed a global-shutter image sensor for driver monitoring systems (DMSs). They constantly watch the driver's head movements to recognize signs of drowsiness and distraction, enabling systems in the vehicle to generate warnings that can preserve the safety of occupants. The global-shutter sensor, the VB56G4A, leverages ST's in-house investment in manufacturing advanced 3D-stacked back-side illuminated (BSI-3D) image sensors. These are more sensitive, smaller, and reliable than conventional front-side illuminated (FSI) sensors typically used in first-generation DMSs.
- In July 2021, Samsung launched its new ISOCELL Auto 4AC, its first image sensor, tailor-made for cars. It is intended to be utilized as a reverse camera or (on more advanced systems) to power surround view monitors. The technology integrates two photodiodes per pixel - one 3.0 μm for low-light operation and one 1.0 μm placed in the corner that will be used for bright environments. This setup enables the sensor to quickly adjust to changes in the surrounding light, ex: when exiting a tunnel. It also offers a high dynamic range with little motion blur and reduces the flicker of LED lights.

The Healthcare Sector is Expected to Hold a Significant Market Share

- Imaging sensors have applications in various medical sectors like dental imaging, Digital Mammography, Ophthalmology, X-Ray image reconstruction, Endoscopy, and digital pathology, Orthopedic and surgical procedures. High resolution, fast frame rate, high NIR sensitivity, excellent image quality, and medically qualified imager sensors are the key improvements that help to advance the technique. Several regional companies are developing innovative products, including reliable, accurate, and high-performance vision and camera sensors, to improve image efficiency and accuracy and meet the medical and life sciences sector's ever-demanding requirements.
- For instance, in June 2021, OmniVision Technologies, Inc., a provider of advanced digital imaging solutions, announced its next-generation OH08A and OH08B CMOS image sensors, the first 8 megapixels (MP) resolution sensors for single-use and reusable endoscopes. Additionally, the new OH08B is the first medical-grade image sensor to use OmniVision's Nyxelnear-infrared (NIR) technology, bringing revolutionary imaging capabilities beyond the visible spectrum to the medical industry. Additionally, the OH08B is the first medical-grade image sensor to use OmniVision's Nyxelnear-infrared (NIR) technology, bringing advanced imaging capabilities beyond the visible spectrum to the medical industry.
- Further, in November 2021, OMNIVISION Technologies, Inc., and Diaspective Vision GmbH, developer of high-quality hyperspectral and multispectral camera systems for medical applications, announced their partnership in developing a new type of endoscopic camera, the MALYNA system, based on proprietary multispectral imaging technology. According to Diaspective Vision, the fifth dimension of medical imaging, the MALYNA is set to become a standard diagnostics tool like ultrasound, MRI, and CT scans as it provides live imaging in addition to hyperspectral and multispectral imaging, which shows the different perfusion parameters and risk structures of the tissue, and ICG imaging for cancer detection. This combination of different imaging procedures maximizes productivity during endoscopy. The image sensor is suitable to be utilized in gastroscopes, duodenoscopes, amnioscopes, laparoscopes and colonoscopes.
- Further, in place of amorphous silicon flat panels, CMOS image sensors are now often employed for medical X-Ray imaging. Since there is no lens required for CMOS-based X-ray applications, the image sensor's size must coincide with the size of the target region.
- In March 2021, the development of the new "Built-in AEC1 assistance" technology for digital radiography (DR)² was announced by Canon Inc. With this technique, the X-ray image sensor of the device makes use of similar parts that can do both picture production and real-time detection of the pixel value³ corresponding to emitted X-rays, alerting the X-ray generator when the pixel value reaches a predetermined value. Canon has developed its new "Built-in AEC Assistance" technology by utilizing the

Scotts International. EU Vat number: PL 6772247784

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

www.scotts-international.com

image and X-ray sensor technologies the business has developed over its long history in order to enhance such standard operations. With the enable of modern technologies, imaging equipment now has built-in capabilities that formerly required separate devices.

Europe Image Sensors Industry Overview

The Europe Image Sensors Market is moderately consolidated due to many large and small players churning the competition in the market. Through product and technology launches, strategic partnerships, acquisition, expansion, and collaboration, these players try to gain a competitive edge in the market. Key players in the market are ST Microelectronics, BAE System, On Semiconductor, etc.

- December 2021 - Sony Semiconductor Solutions Corporation announced that it had developed the new stacked CMOS image sensor technology with 2-Layer Transistor Pixel. Whereas conventional CMOS image sensors' photodiodes and pixel transistors occupy the same substrate, Sony's latest technology separates photodiodes and pixel transistors on different substrate layers. This new architecture approximately doubles saturation signal level relative to conventional image sensors, widens dynamic range, and reduces noise, thereby substantially improving imaging properties.
- October 2021 - Onsemi, a prominent person in intelligent power and sensing technologies, announced the availability of a new 1/1.7-inch 8.3 MP CMOS digital image sensor with a rolling shutter and embedded High Dynamic Range (eHDR) technology. The AR0821CS meets various needs of commercial, consumer, and industrial applications by providing superior image quality in challenging lighting conditions. These applications comprise scanners/readers, machine vision cameras, high-end drones, dashboard cameras, and smart building surveillance/security systems.

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 Attractiveness - Porter's Five Forces Analysis

4.2.1 Bargaining Power Of Suppliers

4.2.2 Bargaining Power Of Buyers

4.2.3 Threat Of New Entrants

4.2.4 Threat Of Substitutes

4.2.5 Intensity Of Competitive Rivalry

Scotts International. EU Vat number: PL 6772247784

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

www.scotts-international.com

- 4.3 Technology Snapshot
- 4.4 Value Chain Analysis
- 4.5 Assessment of the Impact of COVID-19 on the Market

5 MARKET DYNAMICS

- 5.1 Market Drivers
 - 5.1.1 Increasing Incorporation of high-resolution cameras with image sensors in mobile devices
 - 5.1.2 Improving medical imaging solutions
 - 5.1.3 Increasing expenditure on security and surveillance in public places
- 5.2 Market Restraints
 - 5.2.1 High Manufacturing costs
- 5.3 Market Opportunities
 - 5.3.1 Increasing automotive applications

6 MARKET SEGMENTATION

- 6.1 By Type
 - 6.1.1 CMOS
 - 6.1.2 CCD
- 6.2 By End-User Industry
 - 6.2.1 Consumer Electronics
 - 6.2.2 Healthcare
 - 6.2.3 Industrial
 - 6.2.4 Security and Surveillance
 - 6.2.5 Automotive and Transportation
 - 6.2.6 Aerospace and Defense
 - 6.2.7 Other End-user Industries
- 6.3 By Country
 - 6.3.1 United Kingdom
 - 6.3.2 Germany
 - 6.3.3 France
 - 6.3.4 Italy
 - 6.3.5 Rest of Europe

7 COMPETITIVE LANDSCAPE

- 7.1 Company Profiles
 - 7.1.1 STMicroelectronics
 - 7.1.2 BAE Systems
 - 7.1.3 On Semiconductor
 - 7.1.4 Toshiba
 - 7.1.5 Sony Corporation
 - 7.1.6 Samsung Electronics Co., Ltd
 - 7.1.7 Nikon
 - 7.1.8 Panasonic Corporation
 - 7.1.9 SK Hynix
 - 7.1.10 Omnivision

8 INVESTMENT ANALYSIS

Scotts International. EU Vat number: PL 6772247784

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

www.scotts-international.com

Europe Image Sensors - 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="2026-03-01"/>
		Signature	

Scotts International. EU Vat number: PL 6772247784

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

www.scotts-international.com



Scotts International. EU Vat number: PL 6772247784

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

www.scotts-international.com