

Europe Interventional Imaging Market By Offering (Interventional Imaging Systems, Interventional Imaging Software, and Consumables), By Application (Cardiology, Neurology, Musculoskeletal, Oncology, Urology, Gastroenterology, Obstetrics, Gynecology, and Others), By End User (Hospitals, Ambulatory Surgical Centers, and Clinics), By Country, Competition, Forecast and Opportunities, 2020-2030F

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Abstracts

Europe Interventional Imaging Market was valued at USD 2.77 Billion in 2024 and is expected to reach USD 4.07 Billion by 2030 with a CAGR of 6.58% during the forecast period. The Europe interventional imaging market is being driven by advancements in imaging technologies, increasing demand for minimally invasive procedures, and a growing aging population. The rise in chronic diseases, such as cardiovascular disorders, cancer, and neurological conditions, has led to a higher need for precise, real-time imaging during procedures like biopsies, catheter placements, and stent insertions. According to a study titled, "Chronic disease research in Europe and the need for integrated population cohorts", In the European Union, chronic diseases account for 85% of all deaths, including cancer, cardiovascular disease, chronic respiratory diseases, diabetes, and mental health disorders. Cancer is the leading cause of death before the age of 65, while cardiovascular disease becomes the primary cause of death after the age of 65.

Technological innovations, such as 3D imaging, fluoroscopy, and hybrid imaging systems, are enhancing the accuracy and efficiency of interventional procedures. Rising healthcare expenditure and improving healthcare infrastructure across Europe are

contributing to the market's growth. The preference for minimally invasive techniques, which offer quicker recovery times and reduced risks, further fuels the demand for interventional imaging systems in both hospitals and outpatient settings.

Key Market Drivers

Advancements in Imaging Technologies

One of the most significant drivers of the European interventional imaging market is the rapid advancement in imaging technologies. With innovations such as 3D imaging, magnetic resonance imaging (MRI)-guided procedures, and hybrid imaging systems, healthcare professionals can now achieve higher precision during interventional procedures. For example, the integration of computed tomography (CT) and MRI with fluoroscopy enhances the visualization of anatomical structures in real-time, enabling doctors to perform more accurate and effective procedures. These technological developments not only improve patient outcomes but also reduce procedure time, thereby enhancing operational efficiency. New imaging technologies, such as advanced ultrasound systems and robotic-assisted imaging, provide high-resolution images that assist clinicians in better diagnosing and treating complex conditions, further boosting the market. In July 2024, CSEM, a leader in micro-electro-mechanical systems (MEMS), joined forces with Nanox Imaging Ltd to create innovative MEMS chips designed for cutting-edge X-ray medical imaging systems. These chips, central to Nanox's new Digital Tomosynthesis system, are set to revolutionize the field of medical X-ray imaging.

Advancements in image processing techniques, such as artificial intelligence (AI) and machine learning (ML), are optimizing image quality, reducing the need for contrast agents, and providing real-time analysis. AI algorithms now assist in detecting irregularities, such as tumors or blockages, more efficiently than human capabilities. This results in quicker decision-making and more accurate interventional procedures, making it a powerful driver for the European market.

Increasing Prevalence of Chronic Diseases

The rising prevalence of chronic diseases such as cardiovascular diseases (CVD), cancer, diabetes, and neurological disorders is another key driver of the European interventional imaging market. Chronic conditions often require surgical interventions or diagnostic imaging to assess and monitor the severity of the disease. For instance, interventional imaging is critical in procedures like angioplasties, stent placements,

tumor ablation, and biopsies. The aging population in Europe, particularly in countries like Germany, Italy, and France, has contributed to a higher incidence of chronic diseases, driving the demand for advanced imaging technologies used during interventional procedures.

Cardiovascular diseases, in particular, are among the most common chronic conditions in Europe. According to WHO, Cardiovascular diseases (CVDs) are the leading cause of disability and early death in the European Region, responsible for more than 42.5% of all deaths each year—equating to around 10,000 deaths per day. According to the WHO/Europe report, men in the region are nearly 2.5 times more likely to die from CVDs than women.

The demand for diagnostic imaging during heart-related interventions, such as coronary artery bypass grafting (CABG), angioplasty, and stent insertion, is continuously rising. Similarly, the increasing prevalence of cancer across Europe has driven the need for imaging modalities that can guide surgeons during tumor resection and other interventional oncology procedures. As the burden of chronic diseases increases, the demand for interventional imaging technologies that can guide minimally invasive procedures is expected to grow significantly.

Rising Healthcare Expenditure

Europe's growing healthcare expenditure is a critical driver for the interventional imaging market. As European governments allocate more funds toward healthcare, hospitals and healthcare providers are investing in advanced diagnostic and treatment technologies, including interventional imaging systems. This investment enables hospitals to offer cutting-edge treatment options to patients and enhances their capabilities to conduct a wide range of interventional procedures.

The increased spending on healthcare infrastructure and medical technology also means that hospitals are more likely to adopt innovative solutions that improve patient outcomes. Governments and private healthcare institutions across Europe are prioritizing the purchase of imaging systems for use in interventional radiology, cardiology, oncology, and neurology, thus promoting the growth of the market. Reimbursement policies in several European countries, which cover advanced imaging technologies, further support the acquisition of interventional imaging systems.

Increasing Demand for Hybrid Imaging Systems

Hybrid imaging systems, which combine multiple imaging modalities into one platform, have become increasingly popular in Europe and are driving the interventional imaging market. Systems such as PET/CT (Positron Emission Tomography and Computed Tomography) and SPECT/CT (Single Photon Emission Computed Tomography and Computed Tomography) offer real-time, multi-dimensional images that improve diagnostic accuracy and guide interventional procedures more effectively. The demand for these systems has risen as healthcare professionals seek to enhance their ability to detect diseases at an early stage, monitor disease progression, and guide surgical procedures with a high degree of precision.

Hybrid imaging systems are particularly valuable in oncology, where both anatomic and functional imaging are required to assess tumors accurately. The ability to provide comprehensive imaging data in one session, reducing patient exposure to multiple imaging tests, has made hybrid imaging a preferred choice among clinicians and patients alike. As healthcare providers continue to adopt these advanced imaging systems, the interventional imaging market is expected to grow significantly.

Improving Patient Outcomes and Faster Recovery

Improved patient outcomes and faster recovery times are central to the demand for interventional imaging technologies. With the growing focus on delivering high-quality care with minimal disruption to patients, the ability to use real-time imaging to guide procedures has become crucial. Interventional imaging systems allow for more precise procedures, reducing the likelihood of complications and enhancing the healing process.

For example, in cardiovascular procedures, real-time imaging guidance during catheter-based interventions helps clinicians position stents accurately, reducing the risk of restenosis or procedural failure. Similarly, in oncology, advanced imaging assists surgeons in removing tumors more accurately, minimizing the need for extensive tissue excision and promoting quicker recovery. The ability to achieve these positive outcomes with fewer complications and faster recovery times has driven healthcare providers to increasingly rely on interventional imaging technologies.

Key Market Challenges

High Cost of Advanced Imaging Technologies

One of the primary challenges impacting the Europe interventional imaging market is

the high cost of advanced imaging technologies. Interventional imaging systems, such as MRI, CT, and hybrid imaging platforms, require substantial investment not only in the initial purchase but also in maintenance, training, and operational expenses. These systems are often complex and require highly skilled professionals for installation and use, which can further add to the overall costs. As a result, healthcare institutions in some European countries may hesitate to adopt these advanced imaging solutions due to budget constraints or competing financial priorities.

While many healthcare providers recognize the benefits of advanced interventional imaging technologies, such as improved accuracy, faster procedure times, and better patient outcomes, the high upfront costs can be a significant barrier. This is particularly true in countries with stringent healthcare budgets or in public health systems where spending is often closely monitored and controlled. Smaller or medium-sized hospitals and healthcare centers, particularly in less economically developed regions, may struggle to afford these high-tech solutions, resulting in unequal access to cutting-edge care across different parts of Europe.

Although some regions have reimbursement policies that cover a significant portion of the costs of medical imaging technologies, these reimbursements may not always be sufficient to fully offset the high expenditure. This can discourage some healthcare facilities from investing in newer systems or upgrading existing imaging equipment. Consequently, healthcare providers may choose to rely on older, less efficient technologies, limiting the adoption and growth of advanced interventional imaging solutions.

The cost factor also extends to consumables and ongoing maintenance costs associated with imaging equipment, which can be financially burdensome for hospitals and outpatient clinics. As healthcare costs continue to rise across Europe, the price of acquiring and maintaining interventional imaging equipment remains a critical challenge for many healthcare providers, particularly in resource-constrained environments.

Regulatory and Compliance Challenges

Another major challenge in the European interventional imaging market is navigating the complex regulatory environment. Medical devices, including interventional imaging technologies, must adhere to strict safety and performance standards set by regulatory bodies such as the European Medicines Agency (EMA) and the European Commission (EC). Manufacturers must ensure that their products meet the necessary requirements to obtain CE (Conformit   Europ  enne) certification, which is mandatory for selling

medical devices in Europe.

The regulatory approval process can be lengthy and expensive, especially for new technologies or devices that incorporate innovative features like AI-driven image analysis or hybrid imaging systems. For instance, any new imaging modality or system incorporating artificial intelligence (AI) algorithms must undergo rigorous testing and validation before it is deemed safe and effective for clinical use. This regulatory hurdle can delay the market entry of advanced technologies and increase the costs of development, ultimately limiting the availability of cutting-edge interventional imaging solutions.

The regulatory environment in Europe is continuously evolving, with the Medical Device Regulation (MDR) and In Vitro Diagnostic Regulation (IVDR) coming into effect in recent years. These regulations impose stricter requirements for manufacturers, making the approval process more complicated and time-consuming. Companies must stay up-to-date with these regulatory changes and ensure compliance, which can strain resources, particularly for smaller firms that lack the regulatory expertise to navigate these complex frameworks.

Variations in regulatory policies between European countries can lead to inconsistencies in market access. Some countries may have stricter regulatory procedures than others, which can create delays in the approval process and hinder the timely availability of advanced interventional imaging technologies. These regulatory challenges make it difficult for manufacturers to quickly introduce new products into the market and for healthcare providers to access the latest imaging technologies.

Key Market Trends

Growing Preference for Minimally Invasive Procedures

The increasing preference for minimally invasive procedures is another major driver of the European interventional imaging market. These procedures offer significant advantages over traditional open surgeries, including smaller incisions, reduced trauma, lower infection rates, shorter recovery times, and reduced hospitalization costs. Interventional imaging plays a crucial role in these procedures by offering real-time imaging guidance, allowing healthcare professionals to perform complex surgeries with greater precision.

Techniques such as angioplasty, catheter-based therapies, and endovascular surgeries

require high-quality, real-time imaging to ensure optimal outcomes. As patients become more informed about the benefits of minimally invasive procedures, the demand for interventional imaging systems that assist in these treatments continues to rise. Hospitals, outpatient clinics, and surgical centers are increasingly investing in interventional imaging solutions to improve patient care and enhance the efficiency of procedures, fueling the market growth.

Technological Integration with Robotic Surgery

The integration of interventional imaging with robotic-assisted surgery is emerging as a transformative trend in the European market. Robotic surgery systems, when combined with advanced imaging technologies, enable precise navigation during procedures, allowing for greater accuracy and better outcomes. The use of robotic assistance during minimally invasive procedures is particularly effective in complex surgeries, such as those in the brain, spine, or cardiovascular systems. In July 2022, Unilabs, a leading provider of diagnostic services, has partnered with Subtle Medical, a healthcare technology company that leverages artificial intelligence to enhance MRI quality and speed. This collaboration aims to further elevate the quality and efficiency of Unilabs' MRI imaging. Initially launching in Sweden, the solution will enhance Unilabs' MRI program, driving industry-leading productivity and delivering an even better patient experience.

For example, robotic systems used in conjunction with real-time imaging, such as fluoroscopy or CT scans, enable surgeons to navigate instruments with submillimeter accuracy. This reduces the likelihood of complications and enhances surgical precision. With robotics becoming increasingly popular in Europe due to its promise of better precision and shorter recovery times, the demand for interventional imaging systems that integrate with robotic platforms is expected to continue rising.

Segmental Insights

Offering Insights

Based on the Offering, Interventional imaging systems are currently dominating the Europe interventional imaging market. These systems, which include advanced imaging technologies such as computed tomography (CT), magnetic resonance imaging (MRI), fluoroscopy, and ultrasound, play a pivotal role in guiding minimally invasive procedures across various medical fields like cardiology, oncology, neurology, and orthopedics. Their ability to provide real-time, high-resolution images during procedures is crucial for

improving the precision, safety, and success rates of interventions. The demand for advanced imaging systems is driven by the growing preference for minimally invasive procedures, which offer quicker recovery times, fewer complications, and reduced healthcare costs compared to traditional open surgeries.

The healthcare infrastructure in many European countries is well-equipped to adopt these high-end systems, with hospitals and surgical centers continually upgrading their imaging capabilities to provide better patient outcomes. With the increasing prevalence of chronic diseases such as cardiovascular disorders, cancer, and neurological conditions in Europe, the demand for advanced imaging technologies is intensifying. Interventional imaging systems allow healthcare providers to perform complex interventions, such as stent placements, tumor biopsies, and catheter-based therapies, with a higher degree of accuracy and reduced risk of complications. Technological advancements in interventional imaging, such as the integration of artificial intelligence (AI) for enhanced image interpretation and the development of hybrid imaging systems (e.g., PET/CT, SPECT/CT), are further driving the market growth. These innovations allow for improved diagnostic capabilities, faster decision-making, and more accurate procedures. As healthcare facilities in Europe are focusing on achieving better clinical outcomes and operational efficiencies, investing in state-of-the-art interventional imaging systems is becoming a priority.

Application Insights

Based on the application, Cardiology dominated the Europe interventional imaging market. The rising prevalence of cardiovascular diseases (CVDs), such as coronary artery disease, stroke, and heart failure, has significantly driven the demand for advanced interventional imaging systems in this field. Interventional imaging technologies, such as fluoroscopy, computed tomography (CT), and magnetic resonance imaging (MRI), play a critical role in guiding minimally invasive cardiovascular procedures, including angioplasty, stent placements, and catheter-based interventions.

Cardiovascular interventions require precise imaging to navigate the intricate network of blood vessels, identify blockages, and ensure the accurate placement of stents or other devices. Interventional imaging systems provide real-time, high-resolution visuals, which help clinicians make informed decisions during these procedures, thereby improving patient outcomes. For example, fluoroscopy is widely used in guiding catheter insertion and angioplasty, while CT angiography and MRI offer detailed, three-dimensional views of coronary arteries and heart structures, aiding in the diagnosis and treatment planning

for various heart conditions. With Europe's aging population and the increasing prevalence of lifestyle-related risk factors, such as obesity, smoking, and hypertension, the burden of cardiovascular diseases is expected to continue growing. This trend is leading to an increased demand for interventional imaging solutions, which are integral to diagnosing and treating cardiovascular issues with minimal invasiveness.

Country Insights

Germany was dominating the Europe interventional imaging market. The country's well-established healthcare infrastructure, coupled with high healthcare expenditure and a strong emphasis on adopting cutting-edge medical technologies, makes Germany a leader in this sector. Germany has one of the most advanced healthcare systems in Europe, with a significant number of hospitals, medical centers, and clinics equipped with state-of-the-art imaging technologies. The country's strong focus on research and development, coupled with its robust medical device industry, has led to the widespread adoption of advanced interventional imaging systems.

Germany's large population and the increasing prevalence of chronic diseases, such as cardiovascular diseases, cancer, and neurological disorders, have driven the demand for advanced imaging systems in the country. These conditions require accurate, real-time imaging to guide minimally invasive procedures, a demand that interventional imaging systems are perfectly positioned to meet. German hospitals and healthcare providers are continually upgrading their facilities with the latest imaging technologies to ensure optimal patient outcomes, contributing to the market's growth.

In addition, the German healthcare system offers a favorable environment for healthcare innovation, with high levels of government and private sector investment in medical technology. This investment enables healthcare providers to purchase and implement the latest interventional imaging solutions, making them accessible to a large number of patients. Germany's reimbursement policies also support the adoption of advanced medical technologies, including interventional imaging systems, further promoting market growth. Germany is home to a number of leading manufacturers and suppliers of interventional imaging equipment, which strengthens its position as a market leader. German companies are at the forefront of technological advancements in imaging systems, such as the integration of artificial intelligence (AI), hybrid imaging technologies, and real-time image processing software, all of which contribute to the effectiveness of interventional procedures.

Key Market Players

Koninklijke Philips NV

Medtronic GmbH

Siemens Healthineers AG

Canon Medical Systems Europe B.V.

Angiopro GmbH

B. Braun Melsungen AG

GE Healthcare Finland Oy

Carestream Health Netherlands, B.V.

FUJIFILM Europe GmbH

Shimadzu Europa GmbH

ESAOTE Europe B.V.

Report Scope:

In this report, the Europe Interventional Imaging Market has been segmented into the following categories, in addition to the industry trends which have also been detailed below:

Europe Interventional Imaging Market, By Offering:

Interventional Imaging Systems

Interventional Imaging Software

Consumables

Europe Interventional Imaging Market, By Application:

Cardiology

Neurology

Musculoskeletal

Oncology

Urology

Gastroenterology

Obstetrics

Gynecology

Others

Europe Interventional Imaging Market, By End User:

Hospitals

Ambulatory Surgical Centers

Clinics

Europe Interventional Imaging Market, By Country:

Germany

France

United Kingdom

Italy

Spain

Russia

Poland

Bulgaria

Finland

Portugal

Competitive Landscape

Company Profiles: Detailed analysis of the major companies present in the Europe Interventional Imaging Market.

Available Customizations:

Europe Interventional Imaging Market report with the given market data, TechSci Research offers customizations according to a company's specific needs. The following customization options are available for the report:

Company Information

Detailed analysis and profiling of additional market players (up to five).

Contents

1. PRODUCT OVERVIEW

- 1.1. Market Definition
- 1.2. Scope of the Market
 - 1.2.1. Markets Covered
 - 1.2.2. Years Considered for Study
 - 1.2.3. Key Market Segmentations

2. RESEARCH METHODOLOGY

- 2.1. Objective of the Study
- 2.2. Baseline Methodology
- 2.3. Key Industry Partners
- 2.4. Major Association and Secondary Sources
- 2.5. Forecasting Methodology
- 2.6. Data Triangulation & Validations
- 2.7. Assumptions and Limitations

3. EXECUTIVE SUMMARY

- 3.1. Overview of the Market
- 3.2. Overview of Key Market Segmentations
- 3.3. Overview of Key Market Players
- 3.4. Overview of Key Regions/Countries
- 3.5. Overview of Market Drivers, Challenges, Trends

4. VOICE OF CUSTOMER

5. EUROPE INTERVENTIONAL IMAGING MARKET OUTLOOK

- 5.1. Market Size & Forecast
 - 5.1.1. By Value
- 5.2. Market Share & Forecast
 - 5.2.1. By Offering (Interventional Imaging Systems, Interventional Imaging Software, and Consumables)
 - 5.2.2. By Application (Cardiology, Neurology, Musculoskeletal, Oncology, Urology, Gastroenterology, Obstetrics, Gynaecology, and Others)

- 5.2.3. By End User (Hospitals, Ambulatory Surgical Centres, and Clinics)
- 5.2.4. By Country
- 5.2.5. By Company (2024)
- 5.3. Market Map

6. COUNTRY ANALYSIS

6.1. Germany Interventional Imaging Market Outlook

- 6.1.1. Market Size & Forecast
 - 6.1.1.1. By Value
- 6.1.2. Market Share & Forecast
 - 6.1.2.1. By Offering
 - 6.1.2.2. By Application
 - 6.1.2.3. By End User

6.2. France Interventional Imaging Market Outlook

- 6.2.1. Market Size & Forecast
 - 6.2.1.1. By Value
- 6.2.2. Market Share & Forecast
 - 6.2.2.1. By Offering
 - 6.2.2.2. By Application
 - 6.2.2.3. By End User

6.3. United Kingdom Interventional Imaging Market Outlook

- 6.3.1. Market Size & Forecast
 - 6.3.1.1. By Value
- 6.3.2. Market Share & Forecast
 - 6.3.2.1. By Offering
 - 6.3.2.2. By Application
 - 6.3.2.3. By End User

6.4. Italy Interventional Imaging Market Outlook

- 6.4.1. Market Size & Forecast
 - 6.4.1.1. By Value
- 6.4.2. Market Share & Forecast
 - 6.4.2.1. By Offering
 - 6.4.2.2. By Application
 - 6.4.2.3. By End User

6.5. Spain Interventional Imaging Market Outlook

- 6.5.1. Market Size & Forecast
 - 6.5.1.1. By Value
- 6.5.2. Market Share & Forecast

- 6.5.2.1. By Offering
- 6.5.2.2. By Application
- 6.5.2.3. By End User
- 6.6. Russia Interventional Imaging Market Outlook
 - 6.6.1. Market Size & Forecast
 - 6.6.1.1. By Value
 - 6.6.2. Market Share & Forecast
 - 6.6.2.1. By Offering
 - 6.6.2.2. By Application
 - 6.6.2.3. By End User
- 6.7. Poland Interventional Imaging Market Outlook
 - 6.7.1. Market Size & Forecast
 - 6.7.1.1. By Value
 - 6.7.2. Market Share & Forecast
 - 6.7.2.1. By Offering
 - 6.7.2.2. By Application
 - 6.7.2.3. By End User
- 6.8. Bulgaria Interventional Imaging Market Outlook
 - 6.8.1. Market Size & Forecast
 - 6.8.1.1. By Value
 - 6.8.2. Market Share & Forecast
 - 6.8.2.1. By Offering
 - 6.8.2.2. By Application
 - 6.8.2.3. By End User
- 6.9. Finland Interventional Imaging Market Outlook
 - 6.9.1. Market Size & Forecast
 - 6.9.1.1. By Value
 - 6.9.2. Market Share & Forecast
 - 6.9.2.1. By Offering
 - 6.9.2.2. By Application
 - 6.9.2.3. By End User
- 6.10. Portugal Interventional Imaging Market Outlook
 - 6.10.1. Market Size & Forecast
 - 6.10.1.1. By Value
 - 6.10.2. Market Share & Forecast
 - 6.10.2.1. By Offering
 - 6.10.2.2. By Application
 - 6.10.2.3. By End User

7. MARKET DYNAMICS

- 7.1. Drivers
- 7.2. Challenges

8. MARKET TRENDS & DEVELOPMENTS

- 8.1. Recent Development
- 8.2. Mergers & Acquisitions
- 8.3. Product Launches

9. EUROPE INTERVENTIONAL IMAGING MARKET: SWOT ANALYSIS

10. PORTER'S FIVE FORCES ANALYSIS

- 10.1. Competition in the Industry
- 10.2. Potential of New Entrants
- 10.3. Power of Suppliers
- 10.4. Power of Customers
- 10.5. Threat of Substitute Products

11. COMPETITIVE LANDSCAPE

- 11.1. Koninklijke Philips NV
 - 11.1.1. Business Overview
 - 11.1.2. Company Snapshot
 - 11.1.3. Products & Services
 - 11.1.4. Financials (As Reported)
 - 11.1.5. Recent Developments
 - 11.1.6. Key Personnel Details
 - 11.1.7. SWOT Analysis
- 11.2. Medtronic GmbH
- 11.3. Siemens Healthineers AG
- 11.4. Canon Medical Systems Europe B.V.
- 11.5. Angiopro GmbH
- 11.6. B. Braun Melsungen AG
- 11.7. GE Healthcare Finland Oy
- 11.8. Carestream Health Netherlands, B.V.
- 11.9. FUJIFILM Europe GmbH

11.10. Shimadzu Europa GmbH

11.11. ESAOTE Europe B.V.

12. STRATEGIC RECOMMENDATIONS

13. ABOUT US & DISCLAIMER

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