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EUROPEAN MEDICAL IMAGING MARKETS

(SAMPLE COPY, NOT FOR RESALE)

Trends, Industry Participants, Product Overviews and Market Drivers

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1. Overview

1.1 Statement of Report

The European market for medical imaging equipment continues to thrive, despite the impact of a global economic recession. As such, the European medical imaging market represents a dynamic and robust sector which will progressively represent an increasingly-important sub-market within the medical device business. In order to provide a comprehensive and relevant analysis of the European medical imaging market, this TriMark Publications report covers the major medical imaging modalities of computed tomography (CT), magnetic resonance imaging (MRI), positron emission tomography (PET), single photon emission computed tomography (SPECT) and ultrasound. In order to reflect the ongoing shifts in the utilization of the modalities from single to multimodality systems, this study also includes analyses of the European markets for PET/CT and SPECT/CT.

While the European medical imaging market is dominated by a handful of multinational players, this report surveys almost all of the companies known to be marketing, manufacturing or developing medical imaging equipment and supplies in France, Germany, Italy, Spain, the United Kingdom, the Benelux countries, Scandinavia and the rest of Europe (ROE). Each company is discussed in extensive depth with a section on its history, product line, business and marketing analysis, and a subjective commentary of the company's market position. Detailed tables and charts with sales forecasts and market data are also included.

To complete the analysis of the European market, this report also reviews other factors which are instrumental in shaping the future direction of Europe's medical imaging sector. The study looks at pricing and reimbursement issues, provides an assessment of the purchasing processes for capital equipment in each target market, and reviews alternative funding methods for capital equipment purchases and the regulatory environment with its inherent issues and challenges.

1.2 Scope of this Report

The objectives of this report are to:

- Estimate the value of the current European markets for medical imaging modalities and to predict the growth rates and future values of the European markets for medical imaging modalities over the forecast period.
- Determine the market opportunities and assess the market potential for medical imaging products in the European markets.
- Discuss the technological trends towards portable devices in medical imaging and their impact on the development and growth of the market.
- Assess and analyze the specific needs for medical imaging for different disease indications.
- Assess and review the impact of healthcare reforms on medical imaging procedures and the reimbursement rates available in the Europe for the different imaging procedures.
- Identify and profile the key players in the medical imaging industry and their contribution to the continuing innovations in the development of new modalities.

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The key questions answered in this study include the following:

- A determination of the principal disease conditions offering the greatest potential for medical imaging.
- An analysis of the major market drivers that are responsible for the growth of medical imaging products, as well as assessing the key issues constraining the development of the market.
- An analysis of the healthcare sectors which represent the greatest growth potential for the medical imaging industry.
- An analysis of the regulatory and technical challenges which are being confronted by the medical imaging industry.
- A determination of the development of the medical imaging industry, as well as assessing advances and developments in specific technologies such as portable imaging equipment.

- A determination of the reimbursement rates and procedures as well as procurement policies for the different imaging technologies / procedures in Europe.
- A determination of the impacts the European healthcare reforms have made on the growth of the medical imaging industry.

This report contains:

- A brief introduction to the various medical imaging modalities, contrast media and healthcare IT products available in the European market.
- Estimated market size, value and growth rates for medical imaging products for the major individual countries and geographic regions in Europe, as well as at a European level.
- A determination of the current status of the isotope supply business to the Europe radiology market.
- Market shares for the leading and key suppliers of medical imaging devices for the major individual countries and geographic regions in Europe as well as at a European level.

1.3 Methodology

The author of this report is a Ph.D. in biochemistry from the University of Liverpool with many decades of experience in science writing and as a medical industry analyst. For this study, information on issues and challenges affecting and influencing the market for medical imaging modalities was gathered through an extensive variety of different sources. This included the websites of national governments, international organizations such as the World Trade Organization (WTO) and the World Intellectual Property Organization (WIPO). Additionally, important data sources include *European Hospital Journal*, *The Institute of Physics*, *Hospital Imaging and Radiology Europe* and *Radiology Today*. Moreover, a number of professional associations and societies were approached to gather specific product details and information. These included the Society of Nuclear Medicine (SNM), the British Medical Ultrasound Society, the British Nuclear Medicine Society, the European Association of Nuclear Medicine (EANM), the European Society of Radiology (ESR), the European Society for Magnetic Resonance in Medicine and Biology (ESMRMB) and the European Society of Thoracic Imaging (ESTI). Where possible and practicable, the most recent data available have been used.

Some of the statistical information was taken from Biotechnology Associates' databases and from TriMark's private data stores. The information in this study was obtained from sources that TriMark believes to be reliable, but it does not guarantee the accuracy, adequacy or completeness of any information or omission or for the results obtained by the use of such information. Key information from the business literature was used as a basis to conduct dialogue with and obtain expert opinion from market professionals regarding commercial potential and market sizes.

Primary Sources

TriMark collects information from hundreds of Database Tables and many comprehensive multi-client research projects and Sector Snapshots that it publishes annually. It extracts relevant data and analytics from TriMark's research in the past three years as part of this data collection. It also extracted qualified data feeds from e-questionnaire responses and primary research responses for this compilation.

Secondary Sources

TriMark uses research publications, journals, magazines, newspapers, newsletters, industry reports, investment research reports, trade and industry association reports, government-affiliated trade releases, and other published information as part of its secondary research materials. The information is then analyzed and translated by the Industry Research Group into a TriMark study. The Editorial Group reviews the complete package with product and market forecasts, critical industry trends, threats and opportunities, competitive strategies and market share determinations. The report conclusions are verified through intensive interviewing of the top-ranking companies in the industry.

TriMark Publications Report, Research and Data Acquisition Structure

The general sequence of research and analysis activity prior to the publication of every report in TriMark Publications includes the following items:

- Completing an extensive secondary research effort on an important market sector, including gathering all relevant information from corporate reporting, publicly-available data and proprietary databases.
- Formulating a study outline with the assigned writer, including important items, as follows:
    - Market and product segment grouping, and evaluating their relative significance.
    - Key competitors' evaluations, including their relative positions in the business and other relevant facts to prioritize diligence levels and assist in designing a primary research strategy.
    - End-user research to evaluate analytical significance in market estimation.
    - Supply-chain research and analysis to identify any factors affecting the market.
    - New technology platforms and cutting-edge applications.
- Identifying the key technology and market trends that drive or affect these markets.
- Assessing the regional significance for each product and market segment for proper emphasis of further regional/national primary and secondary research.
- Completing a confirmatory primary research assessment of the report's findings with the assistance of expert panel partners.

1.4 Executive Summary

1.4.1 Outlook for Medical Imaging

This study examines the major and dynamic segments of the European medical imaging market and includes computed tomography (CT), magnetic resonance imaging (MRI), positron emission tomography, including PET/CT, single photon emission computed tomography (SPECT) and ultrasound. The medical imaging device market in Europe is a robust and dynamic market which has evolved into one of the largest sub-segments of the global medical equipment market. Significant and major technological advances and developments have occurred over the last couple of decades which have helped stimulate and have acted as major drivers of markets in France, Germany, Italy, Spain, the United Kingdom, the Benelux countries, Scandinavia and the rest of Europe (ROE). The major suppliers have progressively introduced new products, which has increased the number and range of diagnostic applications and indications, while supporting European healthcare professionals by improving the quality of patient care.

TriMark has determined that the accumulative value of the four segments studied in the selected geographic regions in the European Union (E.U.) amounted to $[redacted] in [redacted]. It is predicted that this will increase to $[redacted] (CAGR [redacted]%) by the end of the forecast in [redacted]. The ultrasound imaging market is arguably the largest sub-segment and has been valued at $[redacted] in [redacted] and predicted to increase to $[redacted] (CAGR [redacted]%) by the end of the forecast period. The MRI device market is the second largest sub-segment and has been estimated to have been valued at $[redacted] in [redacted] and predicted to increase in value to $[redacted] (CAGR [redacted]%) by the end of the forecast period. The CT device market is the third largest sub-segment and has been estimated to have been valued at $[redacted] in [redacted] and predicted to increase in value to $[redacted] (CAGR [redacted]%) by the end of the forecast period. The smallest sub-segment is the nuclear medicine market; this market has been estimated to have been valued at $[redacted] in [redacted] and predicted to increase in value to $[redacted] (CAGR [redacted]%) by the end of the forecast period.

The largest single geographic market incorporating the four segments analyzed in this report within the European Union is Germany, with a total market value of $[redacted] in [redacted]. By the end of the forecast period, the value of the German market is predicted to increase to $[redacted] (CAGR [redacted]%). The second largest geographic market is Italy with an overall value of $[redacted] in [redacted]. By the end of the forecast period the value of the Italian market is predicted to increase to $[redacted] (CAGR [redacted]%).

A major influence on the direction of the medical imaging market has been the unprecedented level of industry consolidation that has taken place. This consolidation has seen the acquisition of major imaging companies such as ATL and Agilent Technologies, Inc. by multinational manufacturers such as Philips Medical Systems, and more recently the acquisition of smaller specialized companies such as ONI by GE Medical Systems. This level of industry consolidation has already changed the delivery of electromedical technologies as well as the market structure of the industry, with the market being dominated by Siemens Medical Systems, GE Healthcare and Philips Medical Systems, while the Japanese manufacturers, Toshiba Medical Systems and Hitachi Medical Systems, account for a significant share of the rest of the market.

In [redacted], the leading supplier of CT systems in Europe was Siemens Medical Systems, with estimated sales totaling $[redacted], equivalent to a market share of [redacted]%. The second largest supplier of CT systems in Europe is GE Healthcare with an estimated [redacted]% of the market and Philips Medical Systems in third position with a market share of [redacted]%. Toshiba Medical Systems had an estimated share of [redacted]%, Hitachi Medical Systems [redacted]% and Shimadzu just under [redacted]%.

As with CT systems, the European market leader of MRI systems in [redacted] was Siemens Healthcare Systems, with estimated sales totaling $[redacted], equivalent to a market share of [redacted]%. The second largest supplier of MRI systems in Europe is GE Healthcare with an estimated [redacted]% of the market, and Philips Medical Systems in third position with a market share of [redacted]%.

In [redacted], the overall market leader of ultrasound products in Europe was GE Healthcare, with estimated sales totaling $[redacted], equivalent to a market share of [redacted]%. The second largest supplier of ultrasound products in Europe is Philips Medical Systems with an estimated [redacted]% of the market, and Siemens Healthcare Systems in third position with a market share of [redacted]%.

For nuclear medicine systems, Siemens Healthcare Systems led the European market, generating revenues of $[redacted]. The second largest supplier of nuclear medicine systems in Europe was GE Healthcare with an estimated [redacted]% of the nuclear medicine market and Philips Medical Systems in third position with a market share of [redacted]%.

For more information on the U.S. and global markets for medical imaging equipment, please visit http://www.trimarkpublications.com to find this study's companion report called *Medical Imaging Markets*. Other TriMark reports covering the specific sectors within the medical imaging market include *Mammography World Markets*, *Nuclear Cardiology Markets*, *Picture Archiving and Communications Systems (PACS)*, *Positron Emission Tomography (PET) Markets* and *Ultrasound Markets*.