Ultrasound Systems Market to 2019
Technological Advancements, Wide Applications and Device Portability to Drive Future Growth
GBI Research Report Guidance

- This report opens with an executive summary capturing some of the key points determining the dynamics of the ultrasound systems market. Overviews are also provided of competition in the industry and key categories, segments and geographical regions.

- The ‘Market Characterization’ chapter provides information on the size of the market between 2005 and 2012 and the forecast period from 2012 to 2019. It also provides information relating to ultrasound systems market trends, market dynamics and the competitive landscape. In the market dynamics section, comprehensive information is provided on market drivers and restraints.

- The ‘Segment Analysis and Forecasts’ chapter discusses B/W ultrasound systems and color doppler ultrasound systems. Information on the size of the market between 2005 and 2012 and the forecast period from 2012 to 2019 are discussed for each segment.

- The ‘Country Analysis and Forecasts’ chapter provides information on the size of the market between 2005 and 2012 and the forecast period from 2012 to 2019 is provided for the US, Canada, the UK, France, Germany, Italy, Spain, Japan, China, India, Australia and Brazil. A cross-country analysis of these countries is also discussed.

- The ‘Competitive Assessment’ chapter provides profiles of leading companies in the ultrasound systems market, along with details of the company’s products, features and benefits.

- The ‘Pipeline Product Analysis’ chapter focuses on the pipeline products in various segments. Key pipeline products are listed and discussed in detail and product approval and expected launch dates are also provided for some products.

- The ‘Consolidation Landscape’ chapter discusses the consolidation landscape for the ultrasound systems industry. This chapter examines the total number of deals that took place between 2007 and 2011.
Executive Summary

Global Ultrasound Systems Market Forecast to Exceed $XX billion by 2019 at Compound Annual Growth Rate of XX%

The global ultrasound systems market was valued at $XX billion in 2012 and is forecast to amount to more than $XX billion by 2019, increasing at a Compound Annual Growth Rate (CAGR) of XX%.

The future growth of the market is expected to be driven by technological advancements, the development of new imaging technologies such as 3D and 4D ultrasound imaging, an increased number of applications for ultrasound systems, and the penetration of portable and color doppler ultrasound systems into the market. In terms of demand, the rapid aging of the global population and the low penetration of ultrasound systems in developing economies such as India and China is expected to continue to drive future growth. The unfavorable reimbursement scenario in developed economies such as the US and Europe is expected to have a negative impact upon demand during the forecast period.

The US Continues to be Largest Market for Ultrasound Systems

The US was the largest market for ultrasound systems in 2012, when it was valued at $XX billion, and according to forecasts it is expected to exceed $XX billion by 2019, increasing at a CAGR of XX%. The US market, which accounted for XX% of global revenue in 2011, is highly penetrated and is primarily a replacement market for ultrasound systems. Future growth is expected to be driven primarily by the continuous replacement of Black and White (B/W) ultrasound systems with color doppler ultrasound systems. An increasing number of applications, and the adoption of fusion technologies such as Magnetic Resonance Imaging (MRI) guided High Intensity Focused Ultrasound (HIFU), are also expected to be major drivers for future growth. A declining reimbursement trend is expected to have a negative impact upon demand during the forecast period.
# Table of Contents

## 1 Table of Contents

1.1 List of Tables

1.2 List of Figures

## 2 Introduction

## 3 Ultrasound Systems: Overview

3.1 Color Doppler Ultrasound Systems

3.2 Black and White Ultrasound Systems

## 4 Global Ultrasound Systems: Market Characterization

4.1 Global Ultrasound Systems Market, Revenue ($bn), 2005–2012

4.2 Global Ultrasound Systems Market, Revenue ($bn), 2012–2019

4.3 Global Ultrasound Systems Market, Key Company Shares (%), 2011

## 5 Global Ultrasound Systems Market: Segment Analysis and Forecasts

5.1 Color Doppler Ultrasound Systems Market, Global, Revenue ($bn), 2005–2012

5.2 Color Doppler Ultrasound Systems Market, Global, Revenue Forecast ($bn), 2012–2019

5.3 B/W Ultrasound Systems Market, Global, Revenue ($m), 2005–2012

5.4 B/W Ultrasound Systems Market, Global, Revenue Forecast ($m), 2012–2019

## 6 Global Ultrasound Systems Market: Country Analysis and Forecasts

6.1 Ultrasound Systems Market, Cross Country Analysis

6.2 Historic and Forecast Revenue, By Country

6.2.1 Ultrasound Systems Market, the US, Revenue ($m), 2005–2012

6.2.2 Ultrasound Systems Market, the US, Revenue ($m), 2012–2019

6.2.3 Ultrasound Systems Market, China, Revenue ($m), 2005–2012

6.2.4 Ultrasound Systems Market, China, Revenue ($m), 2012–2019

6.2.5 Ultrasound Systems Market, Japan, Revenue ($m), 2005–2012

6.2.6 Ultrasound Systems Market, Japan, Revenue ($m), 2012–2019

6.2.7 Ultrasound Systems Market, Germany, Revenue ($m), 2005–2012

6.2.8 Ultrasound Systems Market, Germany, Revenue ($m), 2012–2019

6.2.9 Ultrasound Systems Market, France, Revenue ($m), 2005–2012

6.2.10 Ultrasound Systems Market, France, Revenue ($m), 2012–2019

6.2.11 Ultrasound Systems Market, Brazil, Revenue ($m), 2005–2012

6.2.12 Ultrasound Systems Market, Brazil, Revenue ($m), 2012–2019

6.2.13 Ultrasound Systems Market, Italy, Revenue ($m), 2005–2012

6.2.14 Ultrasound Systems Market, Italy, Revenue ($m), 2012–2019

6.2.15 Ultrasound Systems Market, India, Revenue ($m), 2005–2012

6.2.16 Ultrasound Systems Market, India, Revenue ($m), 2012–2019

6.2.17 Ultrasound Systems Market, Spain, Revenue ($m), 2005–2012

6.2.18 Ultrasound Systems Market, Spain, Revenue ($m), 2012–2019

6.2.19 Ultrasound Systems Market, the UK, Revenue ($m), 2005–2012

6.2.20 Ultrasound Systems Market, the UK, Revenue ($m), 2012–2019

6.2.21 Ultrasound Systems Market, Australia, Revenue ($m), 2005–2012

6.2.22 Ultrasound Systems Market, Australia, Revenue ($m), 2012–2019
# Table of Contents

6.2.23 Ultrasound Systems Market, Canada, Revenue ($m), 2005–2012 ........................................... 57  
6.2.24 Ultrasound Systems Market, Canada, Revenue ($m), 2012–2019 ........................................... 58

7 Global Ultrasound Systems Market: Competitive Assessment ..................................................... 59  
7.1 GE Healthcare ................................................................. 59  
7.1.1 Business Overview ....................................................... 59  
7.1.2 Products Marketed ....................................................... 59  
7.2 Philips Healthcare ........................................................... 60  
7.2.1 Business Overview ....................................................... 60  
7.2.2 Products Marketed ....................................................... 60  
7.3 Siemens Healthcare ......................................................... 60  
7.3.1 Business Overview ....................................................... 60  
7.3.2 Products Marketed ....................................................... 60  
7.4 Toshiba Medical Systems Corporation ......................... 61  
7.4.1 Business Overview ....................................................... 61  
7.4.2 Products Marketed ....................................................... 61  
7.5 Hitachi Medical Corporation ............................................. 61  
7.5.1 Business Overview ....................................................... 61  
7.5.2 Products Marketed ....................................................... 61  
7.6 Esaote SpA ................................................................. 61  
7.6.1 Business Overview ....................................................... 61  
7.6.2 Products Marketed ....................................................... 61  
7.7 SonoSite, Incorporated ..................................................... 62  
7.7.1 Business Overview ....................................................... 62  
7.7.2 Products Marketed ....................................................... 62  
7.8 Mindray Medical International Limited ................. 63  
7.8.1 Business Overview ....................................................... 63  
7.8.2 Products Marketed ....................................................... 63  
7.9 Samsung Medison Company, Limited ............... 63  
7.9.1 Business Overview ....................................................... 63  
7.9.2 Products Marketed ....................................................... 63  
7.10 Fujifilm Holdings Corporation ............................. 63  
7.10.1 Business Overview ....................................................... 63  
7.10.2 Products Marketed ....................................................... 63  

8 Global Ultrasound Systems Market: Product Pipeline Analysis .................................................. 64  
8.1 Ultrasound Systems – Product Pipeline Summary ................................................................. 64  
8.1.1 List of Pipeline Products: Ultrasound Systems ................................................................. 65  
8.1.2 Profiles of Pipeline Products: Ultrasound Systems ................................................................. 66  

9 Global Ultrasound Systems Market: Consolidation Landscape .................................................. 72  
9.1 Key Deals in Q1 2012 .................................................. 72  
9.1.1 Fujifilm Acquires Ultrasound and Cardiograph Equipment Manufacturer SonoSite for $995m .. 72  
9.2 Key Deals: 2007–2011 ................................................ 72  
9.2.1 Hitachi Medical Acquires Remaining 87.65% Stake in Aloka Medical for $315.2m .......... 72  
9.2.2 Philips Acquires Shanghai Apex Electronics Technology .................................................. 73  
9.2.3 Roper Industries Acquires Verathon ................................................................. 73  
9.2.4 Castillo Acquires TechniScan ................................................................. 74  
9.2.5 Medical Imaging Holdings Acquires Sonora Medical Systems from Misonix ....................... 74  
9.2.6 Bederra Acquires Lunar Diagnostic Imaging ................................................................. 75  
9.2.7 Siemens KK Acquires Stake in Mochida Siemens Medical Systems from Mochida Pharma ... 76  
9.2.8 Philips Medical Systems Acquires VMI-Sistemas Medico .................................................. 76  
9.2.9 Esaote Acquires Kontron Medical from Fukuda Denhi ....................................................... 77

10 Appendix ................................................................. 78
1.1 List of Tables

Table 1: Global Ultrasound Systems Market, Revenue ($bn), 2005–2012.................................12
Table 2: Global Ultrasound Systems Market, Revenue ($bn), 2012–2019....................................13
Table 3: Global Ultrasound Systems Market, Key Company Revenue ($m), 2011..........................14
Table 4: Ultrasound Systems Market, India, Key Hospital Groups Planning Expansion, 2012.......20
Table 5: Estimated and Projected Distribution of the Population Aged 60 Years or Over in Asia and
Europe, 2012–2050..................................................21
Table 6: Demand for Radiologists vs. Radiologists in Practice, the US, 2001–2030.......................23
Table 7: Color Doppler Ultrasound Systems Market, Global, Revenue ($bn), 2005–2012............25
Table 8: Color Doppler Ultrasound Systems Market, Global, Revenue Forecast ($bn), 2012–2019 26
Table 9: B/W Ultrasound Systems Market, Global, Revenue ($m), 2005–2012............................27
Table 10: B/W Ultrasound Systems Market, Global, Revenue Forecast ($m), 2012–2019...............28
Table 11: Global Ultrasound Systems Market: Cross Country Analysis, Global, Compound Annual Growth Rate (%), 2005–2019.................................................................31
Table 12: Ultrasound Systems Market, the US, Revenue ($m), 2005–2012.................................32
Table 13: Ultrasound Systems Market, the US, Revenue ($m), 2012–2019..................................34
Table 14: Ultrasound Systems Market, China, Revenue ($m), 2005–2012..................................35
Table 15: Ultrasound Systems Market, China, Revenue ($m), 2012–2019.................................36
Table 16: Ultrasound Systems Market, Japan, Revenue ($m), 2005–2012..................................37
Table 17: Ultrasound Systems Market, Japan, Revenue ($m), 2012–2019..................................38
Table 18: Ultrasound Systems Market, Germany, Revenue ($m), 2005–2012...............................39
Table 19: Ultrasound Systems Market, Germany, Revenue ($m), 2012–2019.............................40
Table 20: Ultrasound Systems Market, France, Revenue ($m), 2005–2012.................................41
Table 21: Ultrasound Systems Market, France, Revenue ($m), 2012–2019.................................42
Table 22: Ultrasound Systems Market, Brazil, Revenue ($m), 2005–2012..................................43
Table 23: Ultrasound Systems Market, Brazil, Revenue ($m), 2012–2019..................................44
Table 24: Ultrasound Systems Market, Italy, Revenue ($m), 2005–2012....................................45
Table 25: Ultrasound Systems Market, Italy, Revenue ($m), 2012–2019....................................46
Table 26: Ultrasound Systems Market, India, Revenue ($m), 2005–2012.................................47
Table 27: Ultrasound Systems Market, India, Revenue ($m), 2012–2019.................................48
Table 28: Ultrasound Systems Market, Spain, Revenue ($m), 2005–2012..................................50
Table 29: Ultrasound Systems Market, Spain, Revenue ($m), 2012–2019.................................51
Table 30: Ultrasound Systems Market, the UK, Revenue ($m), 2005–2012.................................52
Table 31: Ultrasound Systems Market, the UK, Revenue ($m), 2012–2019.................................54
Table 32: Ultrasound Systems Market, Australia, Revenue ($m), 2005–2012............................55
Table 33: Ultrasound Systems Market, Australia, Revenue ($m), 2012–2019............................56
Table 34: Ultrasound Systems Market, Canada, Revenue ($m), 2005–2012...............................57
Table 35: Ultrasound Systems Market, Canada, Revenue ($m), 2012–2019...............................58
Table 36: Ultrasound Systems, Global Pipeline Products, 2013.................................................65
Table 37: Breast HistoScanning System, Product Status, 2013....................................................66
Table 38: Flash Ultrasound, Product Status, 2013.................................................................66
Table 39: High Intensity Focused Ultrasound - Prostate Cancer, Product Status, 2013.................67
Table 40: MobiUS SP1 - Prostate Cancer, Product Status, 2013...............................................67
Table 41: Noblus Ultrasound Scanner, Product Status, 2013.....................................................68
Table 42: Ovarian HistoScanning, Product Status, 2013...........................................................68
Table 43: SFH5000 (Sonic Flashlight Handheld), Product Status, 2013........................................69
Table 44: Sonalleve MR-HIFU System, Product Status, 2013.....................................................69
Table 45: VF doppler System, Product Status, 2013...............................................................70
Table 46: Virtual Touch Tissue IQ, Product Status, 2013...........................................................70
Table 47: Virtual Touch Tissue IQ, Product Status, 2013...........................................................71
## 1.2 List of Figures

<table>
<thead>
<tr>
<th>Figure</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Ultrasound Systems, Market Segmentation, 2011</td>
<td>11</td>
</tr>
<tr>
<td>2</td>
<td>Global Ultrasound Systems Market, Revenue ($bn), 2005–2012</td>
<td>12</td>
</tr>
<tr>
<td>3</td>
<td>Global Ultrasound Systems Market, Revenue ($bn), 2012–2019</td>
<td>13</td>
</tr>
<tr>
<td>4</td>
<td>Global Ultrasound Systems Market, Key Company Share (%), 2011</td>
<td>14</td>
</tr>
<tr>
<td>5</td>
<td>Color Doppler Portable Ultrasound Systems Market, Global, Revenue ($m), 2005–2019</td>
<td>18</td>
</tr>
<tr>
<td>6</td>
<td>Ultrasound Systems, The US, Average Price ($)</td>
<td>19</td>
</tr>
<tr>
<td>7</td>
<td>Estimated and Projected Distribution of the Population Aged 60 Years or Over in Asia and Europe, 2012–2050</td>
<td>21</td>
</tr>
<tr>
<td>8</td>
<td>Demand for Radiologists vs. Radiologists in Practice, the US, 2001–2030</td>
<td>23</td>
</tr>
<tr>
<td>9</td>
<td>Color Doppler Ultrasound Systems Market, Global, Revenue ($bn), 2005–2012</td>
<td>25</td>
</tr>
<tr>
<td>10</td>
<td>Color Doppler Ultrasound Systems Market, Global, Revenue Forecast ($bn), 2012–2019</td>
<td>26</td>
</tr>
<tr>
<td>11</td>
<td>B/W Ultrasound Systems Market, Global, Revenue ($m), 2005–2012</td>
<td>27</td>
</tr>
<tr>
<td>12</td>
<td>B/W Ultrasound Systems Market, Global, Revenue Forecast ($m), 2012–2019</td>
<td>28</td>
</tr>
<tr>
<td>14</td>
<td>Ultrasound Systems Market, the US, Revenue ($m), 2005–2012</td>
<td>32</td>
</tr>
<tr>
<td>15</td>
<td>Ultrasound Systems Market, the US, Revenue ($m), 2012–2019</td>
<td>33</td>
</tr>
<tr>
<td>16</td>
<td>Ultrasound Systems Market, China, Revenue ($m), 2005–2012</td>
<td>35</td>
</tr>
<tr>
<td>17</td>
<td>Ultrasound Systems Market, China, Revenue ($m), 2012–2019</td>
<td>36</td>
</tr>
<tr>
<td>18</td>
<td>Ultrasound Systems Market, Japan, Revenue ($m), 2005–2012</td>
<td>37</td>
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<td>Ultrasound Systems Market, Japan, Revenue ($m), 2012–2019</td>
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<td>Ultrasound Systems Market, Italy, Revenue ($m), 2005–2012</td>
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<td>Ultrasound Systems Market, Spain, Revenue ($m), 2005–2012</td>
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<td>Ultrasound Systems Market, Spain, Revenue ($m), 2012–2019</td>
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<td>Ultrasound Systems Market, the UK, Revenue ($m), 2005–2012</td>
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<td>Ultrasound Systems Market, the UK, Revenue ($m), 2012–2019</td>
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<td>57</td>
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<tr>
<td>37</td>
<td>Ultrasound Systems Market, Canada, Revenue ($m), 2012–2019</td>
<td>58</td>
</tr>
<tr>
<td>38</td>
<td>Global Ultrasound Systems, Competitive Assessment, 2011</td>
<td>59</td>
</tr>
<tr>
<td>39</td>
<td>Ultrasound Systems Market, Pipeline Assessment, by Development Stage, 2013</td>
<td>64</td>
</tr>
</tbody>
</table>
2 Introduction

Ultrasound systems or ultrasound imaging is a diagnostic imaging tool for scanning different parts of the body using sound waves. The two types of ultrasound systems are B/W ultrasound systems and color doppler ultrasound systems. Ultrasound imaging is used primarily in screening for tumors, for cardiology applications such as the visualization of blood flow in various parts of the body, and in Obstetrics and Gynecology (OB/GYN) in order to assess the development of the fetus. Recent advances that have been made in the ultrasound systems market include the development of 3D and 4D imaging systems, which contribute to improved diagnosis and interpretation.
4.3 Global Ultrasound Systems Market, Key Company Shares (%), 2011

The following figure illustrates the market shares held by key companies in the global ultrasound market in 2011.

Figure 4: Global Ultrasound Systems Market, Key Company Share (%), 2011

<table>
<thead>
<tr>
<th>Company name</th>
<th>Revenue ($m)</th>
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<tbody>
<tr>
<td>GE Healthcare</td>
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<td>Philips Healthcare</td>
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<td>Siemens Healthcare</td>
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<td>Toshiba Medical Systems</td>
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<td>Esaote S.p.A.</td>
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<td>SonoSite</td>
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<td>Others</td>
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Source: GBI Research, proprietary database [Accessed February 28, 2013]; Interviews with marketing managers and other industry experts

The following table provides details of the revenue generated by key companies in the global ultrasound market in 2011.

Table 3: Global Ultrasound Systems Market, Key Company Revenue ($m), 2011

In 2011, GE Healthcare emerged as the market leader in the global ultrasound systems market with a market share of XX%.
5.4 B/W Ultrasound Systems Market, Global, Revenue Forecast ($m), 2012–2019

The following figure shows the revenue generated by standalone B/W ultrasound systems and portable B/W ultrasound systems in the global B/W ultrasound systems market between 2012 and 2019.

![Figure 12: B/W Ultrasound Systems Market, Global, Revenue Forecast ($m), 2012–2019](image)

The following table shows the revenue generated by standalone B/W ultrasound systems and portable B/W ultrasound systems in the global B/W ultrasound systems market along with CAGR values from 2012 to 2019.

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<tr>
<td>Standalone systems (B/W)</td>
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<td>Portable systems (B/W)</td>
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Source: GBI Research, proprietary database [Accessed February 28, 2013]; Interviews with marketing managers and other industry experts
### 6.2.5 Ultrasound Systems Market, Japan, Revenue ($m), 2005–2012

The following figure shows the revenue generated by the ultrasound systems market in Japan from 2005 to 2012.

![Figure 18: Ultrasound Systems Market, Japan, Revenue ($m), 2005–2012](chart)

*Source: GBI Research, proprietary database [Accessed February 28, 2013]; Interviews with marketing managers and other industry experts*

The following table shows the revenue generated by the ultrasound systems market in Japan between 2005 and 2012.

<table>
<thead>
<tr>
<th>Year</th>
<th>Color Doppler Ultrasound Systems</th>
<th>B/W Ultrasound Systems</th>
<th>Total</th>
<th>CAGR 2005–2012</th>
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</thead>
<tbody>
<tr>
<td>2005</td>
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*Source: GBI Research, proprietary database [Accessed February 28, 2013]; Interviews with marketing managers and other industry experts*

The Japanese ultrasound systems market was valued at $XXm in 2005, and grew at a CAGR of XX% to reach $XXm in 2012. The development of new and advanced ultrasound systems drove the growth of the ultrasound systems market between 2005 and 2012.
10 Appendix

10.1 Definitions

10.1.1 Ultrasound Systems

Ultrasound imaging systems are used to produce two dimensional images of structures, using high frequency sound waves. B/W ultrasound systems and color doppler ultrasound systems have been tracked under this category. Tracked here are the equipment types only, and not the accessories and/or additional costs associated with ultrasound system installation.

10.1.1.1 B/W Ultrasound Systems

Black and White (B/W) ultrasound systems are used in the visualization of internal organs and obtain images in shades of grey. The primary application for B/W ultrasound system lies in the areas of gynecology, liver disorders, and cardiology. Hereunder, portable and standalone B/W ultrasound systems have been tracked.

10.1.1.2 Color Doppler Ultrasound Systems

Color doppler uses standard ultrasound methods to produce a picture of a blood vessel. In addition, a computer converts the doppler sounds into colors, which are overlaid on the image of the blood vessel and represent the speed and direction of blood flow through the vessel. Color doppler ultrasound employs the ‘doppler effect’ principle in order to visualize moving objects and blood flow and has a primary application in cardiology and gynecology. Hereunder, portable and standalone color doppler ultrasound systems have been tracked.

10.2 Acronyms

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>FDA</td>
<td>Food and Drug Administration</td>
</tr>
<tr>
<td>CAGR</td>
<td>Compound Annual Growth Rate</td>
</tr>
<tr>
<td>CMS</td>
<td>Center for Medicare and Medicaid Services</td>
</tr>
<tr>
<td>CT</td>
<td>Computed Tomography</td>
</tr>
<tr>
<td>DICOM</td>
<td>Digital Imaging and Communications in Medicine</td>
</tr>
<tr>
<td>DRA</td>
<td>Deficit Reduction Act</td>
</tr>
<tr>
<td>EBUS</td>
<td>Endoscopic Bronchial Ultrasound</td>
</tr>
<tr>
<td>EUS</td>
<td>Endoscopic Ultrasound</td>
</tr>
<tr>
<td>HIFU</td>
<td>High Intensity Focused Ultrasound</td>
</tr>
<tr>
<td>MRI</td>
<td>Magnetic Resonance Imaging</td>
</tr>
<tr>
<td>PACS</td>
<td>Picture Archiving and Communication Systems</td>
</tr>
<tr>
<td>SWE</td>
<td>ShearWave Elastography</td>
</tr>
</tbody>
</table>

10.3 Sources


Appendix


10.4 Research Methodology

GBI Research’s dedicated research and analysis teams consist of experienced professionals in marketing and market research, with consulting backgrounds in the medical devices industry and advanced statistical expertise.

GBI Research adheres to the codes of practice set by the Market Research Society (www.mrs.org.uk) and the Strategic and Competitive Intelligence Professionals (www.scip.org).

All GBI Research databases are continuously updated and revised. The following research methodology is followed for all databases and reports.

10.4.1 Secondary Research

The research process begins with exhaustive secondary research on internal and external sources being carried out to source qualitative and quantitative information relating to each market.

The secondary research sources that are typically referred to include, but are not limited to:

- Company websites, annual reports, financial reports, broker reports, investor presentations and SEC filings
- Industry trade journals, scientific journals and other technical literature
- Internal and external proprietary databases.
- Relevant patent and regulatory databases
- National government documents, statistical databases and market reports
- Procedure registries
• News articles, press releases and web-casts specific to the companies operating in the market

10.4.2 Primary Research

GBI Research conducts hundreds of primary interviews a year with industry participants and commentators in order to validate its data and analysis. A typical research interview fulfills the following functions:

• It provides first-hand information on the market size, market trends, growth trends, competitive landscape and future outlook.
• It helps in validating and strengthening the secondary research findings.
• It further develops the analysis team’s expertise and market understanding.

Primary research involves email correspondence, telephone interviews and face-to-face interviews for each market, category, segment and sub-segment across geographies.

The participants who typically take part in such a process include, but are not limited to:

• Industry participants: CEOs, VPs, marketing/product managers, market intelligence managers and national sales managers.
• Hospital stores, laboratories, pharmacies, distributors and paramedics.
• Outside experts: investment bankers, valuation experts, research analysts specializing in specific medical equipment markets.
• Key opinion leaders: physicians and surgeons specializing in different therapeutic areas corresponding to different kinds of medical equipment.

10.4.3 Models

Where no hard data is available GBI Research uses modeling and estimates in order to produce comprehensive data sets. The following rigorous methodology is adopted:

Available hard data is cross referenced with the following data types to produce estimates:

• Demographic data: population, split by segment.
• Macro-economic indicators: Gross Domestic Product, Inflation rate.
• Healthcare indicators: health expenditure, physician base, healthcare infrastructure and facilities.
• Selected epidemiological and procedure statistics.

Data is then cross-checked by the expert panel.

All data and assumptions relating to modeling are stored and are available to clients on request.

10.4.4 Forecasts

GBI Research uses proprietary forecast models. The following four factors are utilized in the forecast models:

• Historic growth rates.
• Macro indicators such as population trends and healthcare spending.
• Forecast epidemiological data.
• Qualitative trend information and assumptions.

Data is then cross-checked by the expert panel.
10.4.5  Expert Panels

GBI Research uses a panel of experts to cross verify its databases and forecasts.

GBI Research’s expert panel comprises marketing managers, product specialists, international sales managers from medical device companies; academics from research universities, KOLs from hospitals, consultants from venture capital funds and distributors/suppliers of medical equipment and supplies.

Historic data and forecasts are relayed to GBI Research’s expert panel for feedback and adjusted in accordance with this feedback.

10.6  Disclaimer

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