# CONTRAST MEDIA/CONTRAST AGENTS MARKET

**By Product** (Iodinated, Gadolinium & Barium)**, Technique** (X-ray, CT, MRI, Cath Lab & Ultrasound) **& Application** (Radiology, Interventional Radiology & Interventional Cardiology)

## - Global Trends & Forecast to 2017

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# 1 EXECUTIVE SUMMARY

Contrast media signify a vital requirement of medical imaging as these agents provide better images of body structures and organs when visualized during medical procedures like X-ray, computed tomography (CT), magnetic resonance imaging (MRI), ultrasound and catheterization laboratory (cath lab) procedures. These products have applications in the field of radiology, interventional radiology and interventional cardiology. Contrast media are mainly categorized as barium-based, iodinated and gadolinium-based contrast media and based on the organ to be visualized, they are administered either orally, intravenously, rectally or via the urethra. These facts form the basis of the global contrast media market segmentation, namely, products, routes of administration, medical procedure, indication and application. Increasing patient population requiring efficient modes of medical imaging coupled with investment opportunities in untapped but economically strong markets of APAC and RoW will prove to be the driving factors of this market.

Iodinated contrast media will drive the overall growth of the contrast media market due to its applicability in various modalities like X-ray, CT, MRI scans, ultrasound and cath lab procedures. A fall is expected in the growth rate of barium-based products since certain toxicity issues of chemical peritonitis have been reported, leading to their discontinuation by major players. Since contrast media have been in use for almost half a century now, many smaller players manufacturing novel contrast agents have a golden opportunity to enter this fairly mature market and put forth their technology in competition with traditionally used contrast media. Hence, the economic slowdown in most developed countries of the world, as well as the high risk of new entrants in this market will have a significant effect on the market dynamics over the next five years.

**TABLE 1**

## GLOBAL CONTRAST MEDIA MARKET, BY PRODUCT, 2010 – 2017 ($MILLION)

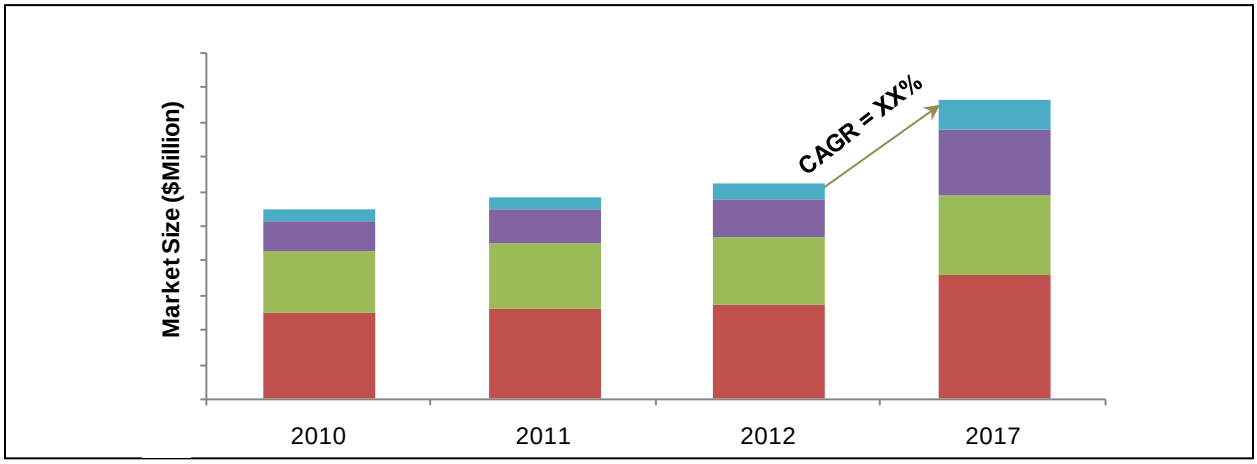
| Product | 2010 | 2011 | 2012 | 2017 | CAGR % (2012-2017) |
|---|---|---|---|---|---|
| Barium-Based | XX | XX | XX | XX | XX |
| Iodinated | XX | XX | XX | XX | XX |
| Gadolinium-Based | XX | XX | XX | XX | XX |
| Total | XX | XX | XX | XX | XX |

Source: Annual Reports, Press Releases, Expert Interviews, American College of Radiology (ACR), World Health Organization (WHO), European Medicines Agency (EMEA), International Society of Radiology (ISR), Radiology Society of North America (RSNA), Journal of Radiology, MnM Analysis

The global contrast media market is valued at $XX billion in 2012 and is expected to grow at a CAGR of XX% to reach a value of $XX billion by 2017. The iodinated contrast media market is expected to register the highest growth rate of XX% in the products segment, reaching an overall $XX billion in terms of revenue by 2017. Cardiovascular disorders are expected to increase significantly in the highly populated countries of APAC like China and India. This will prove to be the driving factor for contrast media sales in this region. Contrast media used in diagnosing cardiovascular disorders globally is expected to total up to $XX billion by 2017, with APAC growing at the highest CAGR of XX%.

**FIGURE 1**

## CONTRAST MEDIA MARKET, BY GEOGRAPHY, 2010 – 2017 ($MILLION)




Source: Annual Reports, Press Releases, Expert Interviews, American College of Radiology (ACR), World Health Organization (WHO), European Medicines Agency (EMEA), International Society of Radiology (ISR), Radiology Society of North America (RSNA), Journal of Radiology, MnM Analysis

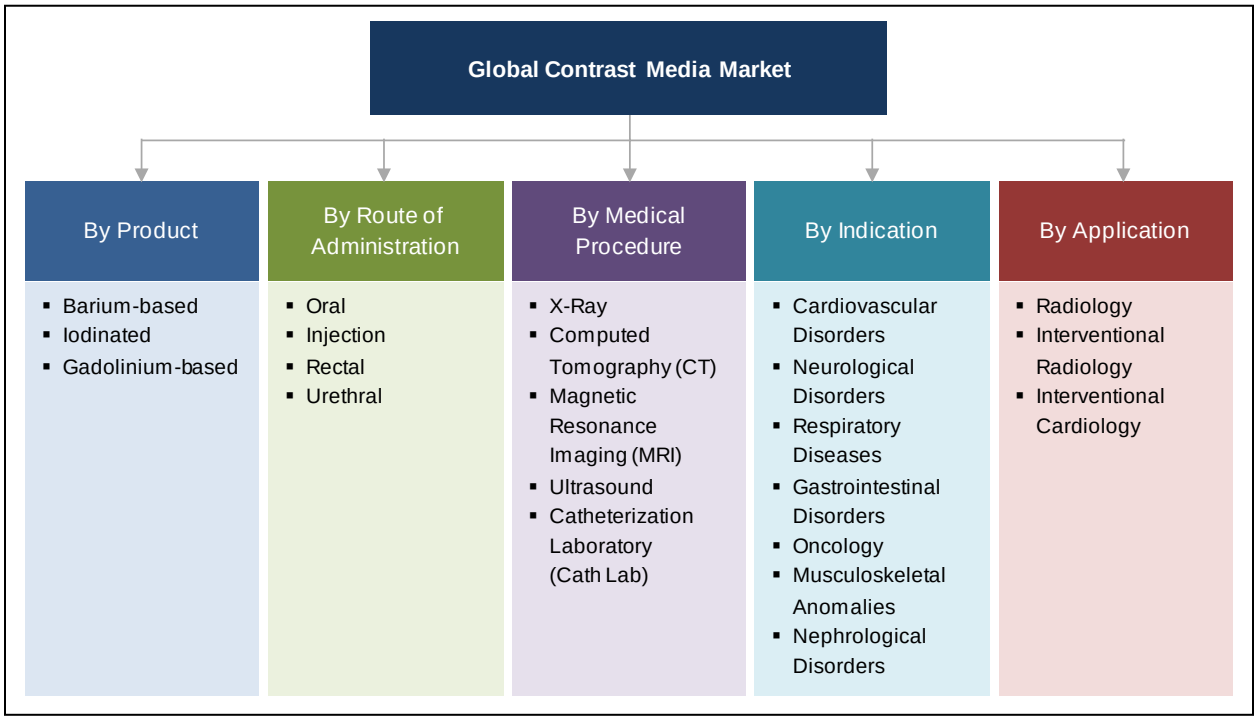
# 2 MARKET OVERVIEW

## 2.1 MARKET SEGMENTATION

This market has been segmented into three product categories – barium-based, iodinated and gadolinium-based contrast media. These product segments are further bifurcated based on their routes of administration (oral, injection, rectal, and urethral), indication (cardiovascular, neurology, oncology, respiratory, nephrology, gastrointestinal, and musculoskeletal), medical procedure (X-ray, CT, MRI, ultrasound, and cath lab) and application (radiology, interventional radiology, and interventional cardiology).

**FIGURE 2**

**CONTRAST MEDIA MARKET SEGMENTATION**




Source: MnM Analysis

## 2.2 MARKET DYNAMICS

Contrast media have been in use in medical diagnostic procedures since mid 1950s and is currently a fairly mature market in 2012. Yet, it shows good potential to grow in the next five years due to technological advances in medical imaging like low-cost CT imaging and functional MRI. The ever-increasing cancer and cardiac mortality rates globally, growth of medical imaging in emerging markets, coupled with an increase in the demand for diagnostic image-guided procedures are foreseen to act as drivers for the growth of this market. However, some of the major economies in the world are undergoing healthcare reforms which bring certain restraints in terms of reimbursement of contrast media. Also, the economic slowdown of 2008 has proved to be another decelerating factor hindering the growth of this market.

### 2.2.1 DRIVERS

#### 2.2.1.1 Increasing demand for diagnostic & image guided procedures influences contrast media sales

Increasing demand for diagnostic imaging and minimally invasive procedures such as image guided surgeries (interventional radiology or biopsies) has paved way for diagnostic and minimally invasive surgical devices. Smaller incisions, faster recovery, lesser hospital stays, patient friendly technique have increased the adoption of minimally invasive procedures. Hence, the market for X-ray, CT, MRI, ultrasound and cath lab is increasing. Contrast media used in CT, MRI and cath lab procedures will subsequently increase in order to perform these procedures. The global market for diagnostic imaging devices is valued at around $XX billion in 2010 and is expected to reach about $XX billion in 2016 at a CAGR of XX%. The global CT scanners market was estimated to value $XX billion in 2010 and expected to grow to $XX billion by 2016 at a CAGR of XX%. A similar increasing trend is noted for MRI scanners, with a global estimated size of $XX billion in 2011 and growing at a CAGR of XX% to reach a value of $XX billion by 2016.Such an increase in the imaging modalities market will positively influence the market for contrast media.

#### 2.2.1.2 Technological advancements to spur the contrast media market

Growing markets allow the advent of improved versions of already existing technology. In medical imaging, concepts of X-ray, CT, MRI, and ultrasound have been applied to diagnose and treat numerous medical incidences. Contrast media have been predominantly used in all these modalities along with cardiac intervention procedures such as angiography and angioplasty. New technology such as functional MRI and ultrasound-modulated optical tomography pave way for the contrast media market to witness a surge in terms of revenue. Functional MRI (fMRI) is a technique that detects changes in blood oxygenation and flow that occur in response to neural activity. It is a non-invasive imaging technique that makes use of gadolinium-based contrast media and produces images having excellent spatial and temporal resolution. Ultrasound-modulated optical tomography (UOT) is another upcoming technology that is being used to visualize soft tissues in early cancer diagnosis. These sophisticated medical imaging techniques would give medical imaging a new dimension and thereby increase the use of contrast media.

#### 2.2.1.3 Increasing incidence & mortality of cancer & cardiac diseases to boost growth of contrast media

Cancer incidence and mortality is increasing at an alarming rate. Global incidence of cancer in 2008 was around XX million which increased to XX million in 2010 and is expected to increase to XX million by 2015 and about XX million by 2020. The mortality was XX million in 2008, XX million in 2010; it is expected to be XX million in 2015 and XX million in 2020 according to GLOBOCAN estimates. Early detection and treatment of cancer can prevent around one-third of the cancer related deaths.

On the other hand cardiovascular diseases (CVDs) are the major cause of death globally. In 2008, CVD accounted for about XX% or XX million deaths globally. This number is expected to rise to XX million by 2030 according to WHO estimates.

Contrast media are frequently used for the diagnosis of cancer and cardiac diseases. With the increasing incidence of cancer and cardiovascular disorders, the demand for contrast media used for diagnosing these ailments would also increase proportionately.

#### 2.2.1.4 Growth of medical imaging technology in emerging markets

Many big and small players in the contrast media market are targeting technological advancements in emerging markets of APAC and RoW. Countries like China and India which have high investment potential are being tapped by manufacturers such as GE Healthcare, Guerbet Group and Bayer Schering Pharma AG to market and distribute their products. Growing awareness amongst the patient population about contrast media being used in radiological examinations like CT and MRI is also proving to be a major driving factor for the overall growth of this market. China's medical imaging market, which is currently poised at $XX billion, is slated to cross $XX billion by 2016. Such rapid growth suggests the need for better and more accurate diagnosis of indications which will, in turn, boost the contrast media market. In 2010, GE Healthcare, announced a $XX billion investment in China to meet the needs of high growth markets. The company marked its first initiative towards the "in country for country (ICFC)" strategy by relocating the headquarters for its X-ray business to Beijing from Wisconsin (U.S.) in 2011. It has recently launched the ICFC Ling Long Digital X-ray series (Brivo DR-F Digital X-ray) in China, India, Middle East, Africa, Russia/CIS, Turkey, LATAM, some countries in Eastern Europe and other countries of APAC. This system is XX% more affordable in comparison with other digital systems. Taejoon Pharm (South Korea) released a new product called Ivor Sense XX as a vascular contrast agent. These developments suggest a rise of sophisticated medical imaging modalities in emerging markets, thereby proving beneficial to the growth of the contrast media market.

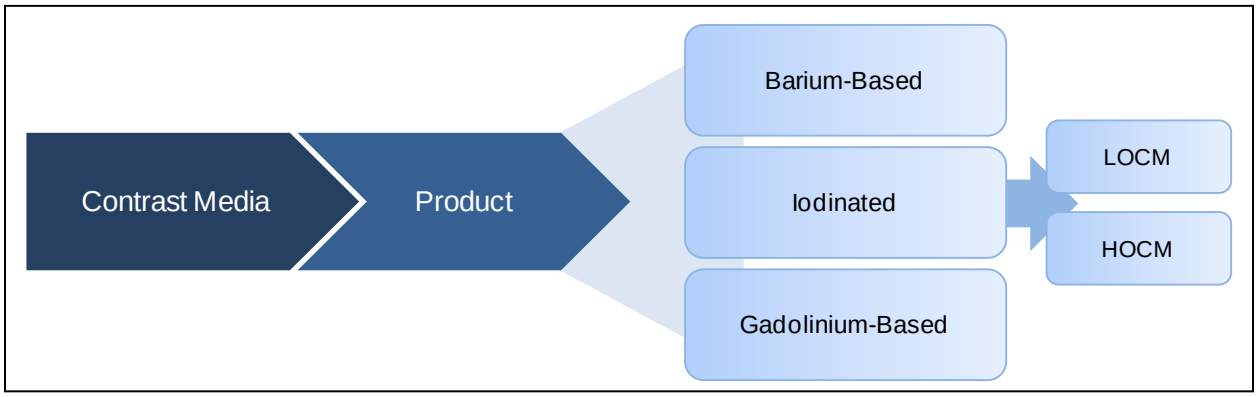
# 3 GLOBAL CONTRAST MEDIA MARKET, BY PRODUCT

## 3.1 INTRODUCTION

The contrast media product segment primarily includes barium-based contrast media, iodinated contrast media with low-osmolar contrast media (LOCM) and high-osmolar contrast media (HOCM) categories, and gadolinium-based contrast media. Iodinated contrast media have widespread applications in medical imaging and hence, iodinated contrast media contribute the highest to the global contrast media industry. The major contributor to the iodinated contrast media segment is low-osmolar contrast media (LOCM). North America comprises of the largest market that uses these media in radiological examinations, followed by Europe. The iodinated contrast media segment is expected to grow at the highest pace compared to other segments (barium-based and gadolinium-based), mainly due to its proven efficacy in diagnostic imaging and reduced toxicity issues.

**FIGURE 3**

**CONTRAST MEDIA MARKET SEGMENTATION, BY PRODUCT**




Source: MnM Analysis

Barium-based contrast media are likely to register decelerated growth rates in North America and Europe, primarily due to the increasing number of chemical peritonitis cases as well as discontinuation of these products globally by a major player like Covidien PLC. There is

saturation for this market in these regions, much like gadolinium-based contrast media. Hence, these products have much better growth prospects in emerging economies like Latin American and Middle East countries, especially Mexico, Egypt, and Lebanon. Technological advancements and investment opportunities in the Asia-Pacific (APAC) region have proved to be the driving factors for overall growth of contrast media in the region. Countries like Japan, China, and India also show good growth prospects since many regional companies operate in these economies and contribute towards the growth of this market.

**TABLE 2**

**GLOBAL CONTRAST MEDIA MARKET REVENUE, BY PRODUCT, 2010 - 2017 ($MILLION)**

| Product | 2010 | 2011 | 2012 | 2017 | CAGR % (2012-2017) |
|---|---|---|---|---|---|
| Barium-Based | XX | XX | XX | XX | XX |
| Iodinated | XX | XX | XX | XX | XX |
| Gadolinium-Based | XX | XX | XX | XX | XX |
| Total | XX | XX | XX | XX | XX |

Source: Annual Reports, Press Releases, Expert Interviews, American College of Radiology (ACR), World Health Organization (WHO), European Medicines Agency (EMEA), International Society of Radiology (ISR), Radiology Society of North America (RSNA), Journal of Radiology, MnM Analysis

The contrast media products market will be primarily driven by iodinated contrast media, which has a wide range of applications in X-ray examinations, CT scans, ultrasound, and cath lab procedures. Moreover, recent developments in fields such as low osmolar contrast media with reduced toxicity levels and widespread applications of iodinated contrast media in various radiological examinations is likely to drive this market in the coming years. The iodinated contrast market is estimated to grow at a healthy CAGR of XX% to reach $XX billion by 2017.

Gadolinium-based contrast media, another important category in this market, is estimated to be at a total value of $XX billion by the end of 2012, and is poised to reach $XX billion by 2017

at a CAGR of XX%. Advancements in highly developed imaging instrumentation like functional MRI modality, primarily using gadolinium-based contrast media, is believed to be the major driving factor for the growth of this market.

Barium-based contrast media is expected to grow at a rather slow rate on a global level, as compared to iodinated and gadolinium-based contrast media. The barium-based contrast media segment is estimated to be $XX million by 2012, and is poised to reach $XX million by 2017 at a CAGR of XX%. Preference for iodinated and gadolinium-based contrast media across the entire range of radiological procedures and slow approvals by the FDA for newer products in the market are proving to be decelerating factors for barium-based products over the next five-year period.

**TABLE 3**

**GLOBAL CONTRAST MEDIA MARKET REVENUE, BY GEOGRAPHY, 2010 – 2017 ($MILLION)**

| Region | 2010 | 2011 | 2012 | 2017 | CAGR % (2012-2017) |
|---|---|---|---|---|---|
| North America | XX | XX | XX | XX | XX |
| Europe | XX | XX | XX | XX | XX |
| Asia-Pacific | XX | XX | XX | XX | XX |
| RoW | XX | XX | XX | XX | XX |
| Total | XX | XX | XX | XX | XX |

Source: Annual Reports, Press Releases, Expert Interviews, American College of Radiology (ACR), World Health Organization (WHO), European Medicines Agency (EMEA), International Society of Radiology (ISR), Radiology Society of North America (RSNA), Journal of Radiology, MnM Analysis

North America is the largest market for contrast media with XX% share of the global market in 2012. This is attributed to the higher U.S.ge of contrast media in radiology procedures, as well as sophisticated medical imaging equipment in the U.S. and Canada as compared to APAC and other developing countries. In addition, major companies in the contrast media market are

based in the U.S. and Europe; hence, distribution of contrast media products to the North American region is fairly streamlined. The North American contrast media market is estimated to grow at a CAGR of XX% to reach $XX billion in 2017 from $XX billion in 2012.

The European economy is suffering from the euro zone debt crisis and economic downturn. Credit rating and continued debt crises, particularly in the Southern European countries of Spain, Portugal, Italy, and Greece, are causing a substantial detrimental effect on the growth of this market in the region. However, major players of this market located in countries such as France, Germany, Denmark and Sweden still contribute to a slow, but positive overall growth rate in Europe. The European contrast media market is poised to reach $XX billion by 2017 from $XX billion in 2012 growing at a CAGR of XX%.

The APAC region with major countries like Japan, India, and China, will drive the contrast media market in the next five years, with a steady CAGR of XX% to reach $XX billion by 2017 from an estimated $XX billion in 2012. Most of the players see promising business prospects in this region due to its robust economic development and growing investment opportunities for radiology equipment manufacturers and distributors. Rapidly developing economies like India and China will also continue to grow in the near future. Australia and New Zealand have strong nationalized radiology networks like the Medical Imaging Association (MIA), I-MED and the Agency for Clinical Innovation (ACI), which strive to create more awareness about the safety of administering contrast media to patients. Moreover, the rising per capita U.S.ge of contrast media in Japan will prove to be a major contributor to the growth of this market in the APAC region.

With the developed market getting saturated, companies are bound to focus on investing in emerging nations such as Mexico, Lebanon, and Egypt. A pivotal factor in the growth of these markets will be the use of advanced imaging equipment and general awareness on radiology contrast media. This market will witness high competitive intensity, as there are several big as well as small firms offering medical imaging agents. The RoW region is poised to be a close competitor to APAC in the global contrast media market, growing at a CAGR of XX% from $XX million in 2012 to $XX million by 2017.

# 4 GEOGRAPHIC ANALYSIS

## 4.1 NORTH AMERICA

**TABLE 4**

**NORTH AMERICA: CONTRAST MEDIA MARKET, BY PRODUCT, 2010 – 2017 ($MILLION)**

| Product | 2010 | 2011 | 2012 | 2017 | CAGR % (2012-2017) |
|---|---|---|---|---|---|
| Barium-Based | XX | XX | XX | XX | XX |
| Iodinated | XX | XX | XX | XX | XX |
| Gadolinium-Based | XX | XX | XX | XX | XX |
| Total | XX | XX | XX | XX | XX |

Source: Annual Reports, Press Releases, Expert Interviews, American College of Radiology (ACR), World Health Organization (WHO), European Medicines Agency (EMEA), International Society of Radiology (ISR), Radiology Society of North America (RSNA), Journal of Radiology, MnM Analysis

Iodinated contrast media occupy the largest share in the North American market, having a total value of $XX billion in 2012 and is growing at a healthy CAGR of XX% to reach $XX billion by 2017. They comprise of XX% of contrast media used in radiological examinations worldwide and a similar trend is also observed in North America which is the largest market for contrast media globally. Barium-based contrast media is the only category showing negative growth in this region, mainly due to major players like Covidien discontinuing its barium contrast media product line. A major factor for this declining growth of barium-based contrast media is the increasing preference for injectable iodinated contrast media among patients, along with the risk of chemical peritonitis by the use of barium sulfate. This will negatively affect this product's growth in U.S. and Canada and it is expected to lose a significant share of its market to iodinated contrast media (LOCM) and gadolinium-based contrast media.

## 4.2 EUROPE

**TABLE 5**

**EUROPE: CONTRAST MEDIA MARKET, BY PRODUCT, 2010 – 2017 ($MILLION)**

| Product | 2010 | 2011 | 2012 | 2017 | CAGR % (2012-2017) |
|---|---|---|---|---|---|
| Barium-Based | XX | XX | XX | XX | XX |
| Iodinated | XX | XX | XX | XX | XX |
| Gadolinium-Based | XX | XX | XX | XX | XX |
| Total | XX | XX | XX | XX | XX |

Source: Annual Reports, Press Releases, Expert Interviews, American College of Radiology (ACR), World Health Organization (WHO), European Medicines Agency (EMEA), International Society of Radiology (ISR), Radiology Society of North America (RSNA), Journal of Radiology, MnM Analysis

Iodinated contrast media is expected to grow in the European markets with a total value of $XX billion in 2012 and estimated to reach $XX billion by 2017, growing at a CAGR of XX%. Barium-based contrast media, like the North American region, is not expected to show a positive growth in Europe, with more barium-based products going off the shelves in the next two years. Hence, this segment, from a current value of $XX million in Europe, will decrease to $XX million by 2017, as it is likely to be superseded by iodinated and gadolinium-based contrast media in the near future.

# 5 COMPANY PROFILES

## 5.1 GE HEALTHCARE

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### 5.1.1 OVERVIEW

Founded in 1923 and headquartered at Buckingham, U.K.; GE Healthcare is a fully owned subsidiary of General Electric Company. The company is engaged in providing medical technologies and professional consulting solutions that help in improving patient care. GE Healthcare is principally focused on medical imaging and information technologies, medical diagnostics, patient monitoring systems, disease research, drug discovery, and biopharmaceutical manufacturing technologies. GE Healthcare operates through five business units namely, surgery, healthcare systems, life sciences, medical diagnostics, and healthcare IT.

GE Healthcare's life sciences division offers tools for basic research of cells and proteins, drug discovery research and tools to support large-scale manufacturing of biopharmaceutical products. Its business is spread across 100 countries in North America, Europe, Asia, Australia, and South America. As of March 2012, the company had a headcount of 301,000 employees.

### 5.1.2 FINANCIALS

GE generated $XX billion of revenues in 2009, which decreased by XX% registering $XX billion in 2010. The company's total revenue further decreased by XX% to $XX billion in 2011 owing to certain factors including declining revenues of GE Capital and GE Home & Business Solutions segments during the global recession.

**TABLE 6**

**GENERAL ELECTRIC: TOTAL REVENUE AND R&D EXPENSES, 2009 – 2011 ($BILLION)**

| Particular | 2009 | 2010 | 2011 |
|---|---|---|---|
| Total Revenue | XX | XX | XX |
| R&D Expenditure | XX | XX | XX |

Source: Annual Reports

The company spent $XX billion on its R&D activities in 2009, which increased by XX% in 2010 to $XX billion. In 2011, the company spent $XX billion on R&D, comparatively XX% more than the previous year.

**TABLE 7**

## GENERAL ELECTRIC: TOTAL REVENUE, BY SEGMENTS, 2009 – 2011 ($BILLION)

| Segment | 2009 | 2010 | 2011 |
|---|---|---|---|
| Energy Infrastructure | XX | XX | XX |
| Aviation | XX | XX | XX |
| Healthcare | XX | XX | XX |
| Transportation | XX | XX | XX |
| Home & Business Solutions | XX | XX | XX |
| GE Capital | XX | XX | XX |
| Corporate Items and Eliminations | XX | XX | XX |
| Total | XX | XX | XX |

Source: Annual Reports and SEC Filings

Sales of the Healthcare segment increased by XX% to $XX billion in 2010. Further, in 2011, the segment reported revenue of $XX billion; an increase of XX% as compared to previous year 2010 due to increase in sales of equipment and services and the effects of the weaker U.S. dollar.

**TABLE 8**

## GENERAL ELECTRIC: TOTAL REVENUE, BY GEOGRAPHY, 2009 – 2011 ($BILLION)

| Region | 2009 | 2010 | 2011 |
|---|---|---|---|
| U.S. | XX | XX | XX |
| Europe | XX | XX | XX |
| Pacific Basin | XX | XX | XX |
| Americas | XX | XX | XX |
| Middle East and Africa | XX | XX | XX |
| Others | XX | XX | XX |
| Total | XX | XX | XX |

Source: Annual Reports and SEC Filings

Sales in Americas were $XX billion in 2009, which increased by XX% to $XX billion in 2010. Sales in the region further increased by XX% to $XX billion over the preceding year. The Asia-Pacific region has also followed an upward trend in revenues with $XX billion in 2009, reaching a total of $XX billion in 2011. Sales in Europe and the Middle East and Africa decreased considerably in 2010, showing a revenue decline of XX% and XX%, respectively.

### 5.1.3 PRODUCTS & SERVICES

The company offers following products:

| Product | Generic Name | Type | Description |
|---|---|---|---|
| Omnipaque | Iohexol | Injection for X-ray / CT | It is an iodinated contrast agent (LOCM) with a wide range of indications. Approved for use in adults and children. |
| Visipaque | Iodixanol | Injection for X-ray / CT | This is commonly used as a contrast agent during coronary angiography. The only iso-osmolar contrast agent with the same osmolality as that of blood. |
| Optison | Perflutren | Injectable Microspheres Suspension for Ultrasound | Perflutren Protein-Type A Microspheres Injectable Suspension is a non-pyrogenic suspension of microspheres of human serum albumin (HSA) with Perflutren for contrast enhancement during ultrasound imaging procedures. |
| Omniscan | Gadodiamide | Injection for MRI | Contrast medium for cranial and spinal magnetic resonance imaging (MRI) and for general MRI of the body after intravenous administration. Available in all-in-one needle-free delivery system that helps clinicians adhere to OSHA requirements. |

### 5.1.4 STRATEGY

**Research & Development**

GE Healthcare is looking at innovative technologies in the contrast media arena for ease of use to patients and radiologists. In this regard, the company is developing an investigational imaging agent [18F] Flutemetamol to accurately detect beta amyloid plaques in vivo. Earlier, imaging agents and probes were used in vitro during pre-clinical and medical investigations. However, with new trends in contrast media technology, GE Healthcare is accelerating towards novel methodologies used in medical imaging.

**Mergers & Acquisitions**

The acquisition of Xcellerex, Inc. by GE Healthcare was accomplished earlier this year in May 2012. The company plans to utilize this strategic accomplishment to enhance their life science product portfolio comprising of recombinant proteins, antibodies and vaccines. Molecular imaging technologies could potentially be combined with these services to provide a holistic solution to academic medical centers and biotechnology companies.

**Marketing & Brand Management**

GE Healthcare was the provider for imaging solutions to the anti-doping team at the 2012 London Olympics. Prior to that, the company presented Phase III results of Flutemetamol at the American Academy of Neurology annual meet. This marketing approach is adopted for the sole purpose of creating awareness of the company's fervent efforts to develop a strong foothold in the contrast media market globally.

**Product Interoperability**

GE's Applied Precision has state-of-the-art imaging equipments including CT and MRI. Their contrast media product line is constantly being improved upon with the augment of next-generation minimally invasive technologies. Hence, there is a uniform imaging platform for the end-users, comprising of high quality contrast agents and equipments.

**Corporate Alliance**

In April 2010, GE Healthcare and Nycomed had a strategic alliance to sell, market and distribute medical diagnostic contrast agents in Russia and the Commonwealth of Independent States (CIS). Prior to that, Wipro Technologies in India was roped in to provide accelerated growth in the Indian healthcare industry as well as the entire South Asian region. Such strategy is adopted to cater to the interdisciplinary nature of businesses today, especially in the pharmaceuticals and healthcare domain.

### 5.1.5 DEVELOPMENTS

| Date | Approach | Description |
|---|---|---|
| September 2012 | Academic Partnerships | University of Wisconsin and GE Healthcare announced anticipated $XX million investment toward next frontier in diagnostic imaging and radiology. |
| September 2012 | R&D Improvement | GE Healthcare announced Phase III results for investigational imaging agent [18F] Flutemetamol demonstrated ability to accurately detect beta amyloid plaques in patients (in vivo). |
| May 2012 | Acquisition | GE Healthcare Life Sciences completed acquisition of Xcellerex, Inc. to enhance technologies and services for the manufacture of biopharmaceuticals such as recombinant proteins, antibodies and vaccines. |
| July 2012 | Marketing & Brand Management | GE Healthcare provided state-of-the-art imaging technology to the anti-doping team at London Olympics 2012. |
| June 2012 | Corporate Alliance | GE Healthcare collaborated with North Shore LIJ Healthcare Systems to reduce patient CT radiation dose by up to XX%. |
| April 2012 | Scientific Outreach | GE Healthcare announced Phase III results for GE Healthcare imaging agent Flutemetamol presented at the American Academy of Neurology annual meet. |
| September 2011 | Product Improvement | GE Healthcare updated Omniscan prescribing information, following the FDA review of the risk of nephrogenic systemic fibrosis (NSF) caused by gadolinium-based contrast agents. |

| Date | Approach | Description |
|---|---|---|
| July 2010 | Product Re-launch | GE Healthcare re-launched Optison contrast agent after a spell of manufacturing difficulties in the U.S. market. |
| April 2010 | Strategic Alliance | GE Healthcare and Nycomed formed a joint venture to sell, market and distribute medical diagnostic contrast agents in Russia and the Commonwealth of Independent States (CIS) |

Source: Press Releases

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