

# Olympus Corporation

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## Company overview

OLYMPUS CORPORATION, a Japan-based manufacturer, mainly manufactures and sells medical products, life and industrial products, imaging products, information communication products and other products. The Company operates in five business segments.

- **Medical Systems:** Manufacture and sale of medical endoscopes, surgical endoscopes, endoscope disposal equipment and ultrasonic endoscopes
- **Life and Industrial:** Provides biological microscopes, industrial microscopes, endoscopes for industrial use and non-destructive testing equipment
- **Imaging:** Manufacture and sale of digital cameras and voice recorders
- **Information Communication:** Sale of mobile terminals, such as cellular phones
- **Others:** Development of biomaterials and systems, industrial endoscopes, nondestructive inspection equipment, printers, mobile solutions and mobile contents services, the development and sale of package software, the sale of semiconductor-related equipment and electronic machines, as well as the development of systems

In August 2009, the Company disposed its analytical equipment business to its wholly owned subsidiary, which has been engaged in the manufacturing and sale of clinical laboratory examination equipment. In addition, the Company has sold the subsidiary to Beckman Coulter, Inc. on August 1, 2009. As a result, the Company holds no stake in the subsidiary.

As of March 31, 2011, the Company has 188 subsidiaries and 11 associated companies.

## Key Facts

<b>Established</b>	1919
<b>Headquarters</b>	Tokyo, Japan
<b>Type</b>	Public Company
<b>Website</b>	<a href="http://www.olympus-global.com">www.olympus-global.com</a>
<b>Regional involvement</b>	Worldwide
<b>Business lines</b>	Manufacture and Sales of precision machinery and instruments
<b>Employees</b>	34,391 Medical System Business: 15,000 Approx.
<b>Group Companies</b>	Approx. 180 Subsidiaries
<b>Chairman &amp; CEO</b>	Tsuyoshi Kikukawa
<b>President &amp; COO</b>	Michael C. Woodford
<b>Consolidated Net Sales (2011)</b>	847.1 Billion YEN

## Key Financials

Olympus Corporation	
<b>Financial Year End</b>	March, 31st
<b>Revenue</b>	2011: ¥ 847.10 B / \$ 10.58 B
	2010: ¥ 883.08 B / \$ 11.03 B

Revenue Change	-4.07%
<b>Operating Income</b>	2011: ¥ 35.4 B / \$ 442 M
	2010: ¥ 60.1 B / \$ 751 M
Operating Income Change	-41.10%
<b>Net Profit</b>	2011: ¥ 7.38 B / \$ 92.25 M
	2010: ¥ 47.76 B / \$ 597 M
Net Profit Change	-84.45%
<b>R&amp;D Expenses</b>	2011: ¥ 67.28 B / \$ 841 M
	2010: ¥ 61.85 B / \$ 773 M

## Revenue Distribution

This is supposed to be a flash animation. You'll need the flash plugin and a browser that supports it to view it.

Source: SEC filings

## Patents Held by Business group

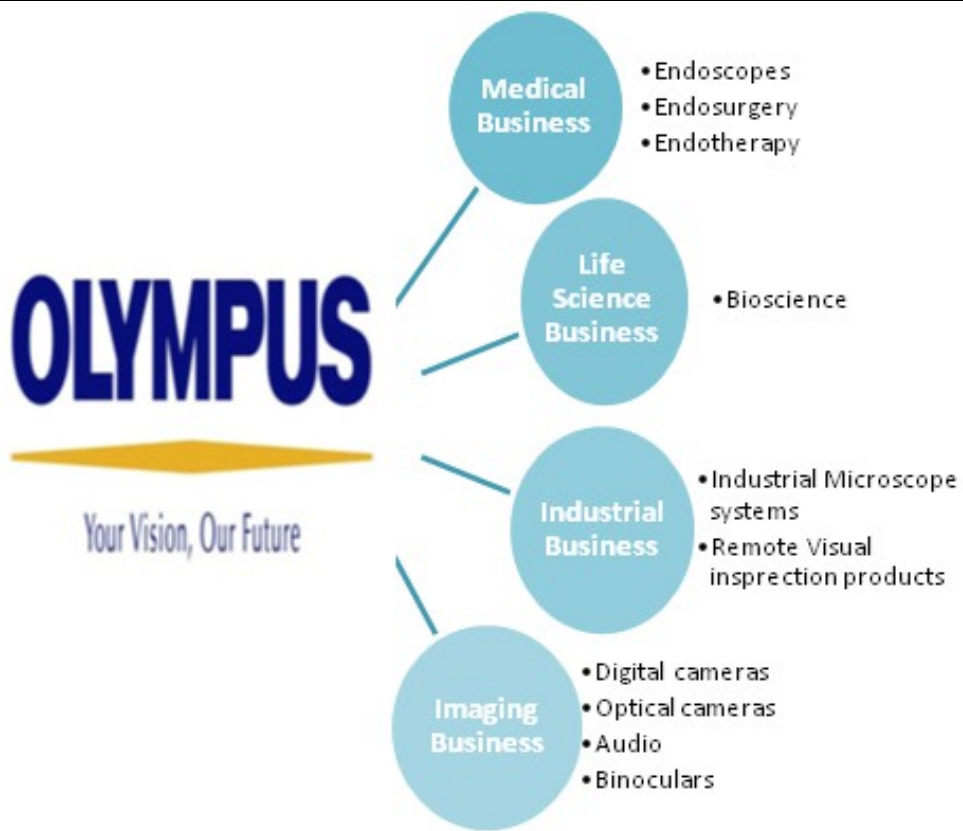
Business Segment	Medical Systems	Life science & Industrial Systems	Imaging Systems	R&D/Innovation	Total
Japan patents	2941	1067	2021	1131	7160
US patents	1059	680	1534	974	4247
China patents	405	86	444	90	1025
Other patents	948	249	102	165	1464
<b>Total</b>	<b>5353</b>	<b>2082</b>	<b>4101</b>	<b>2360</b>	<b>13896</b>

In Medical systems business, the company owns 39% of the total number of patents held by the company, with Japanese patents being the highest contributor to that.

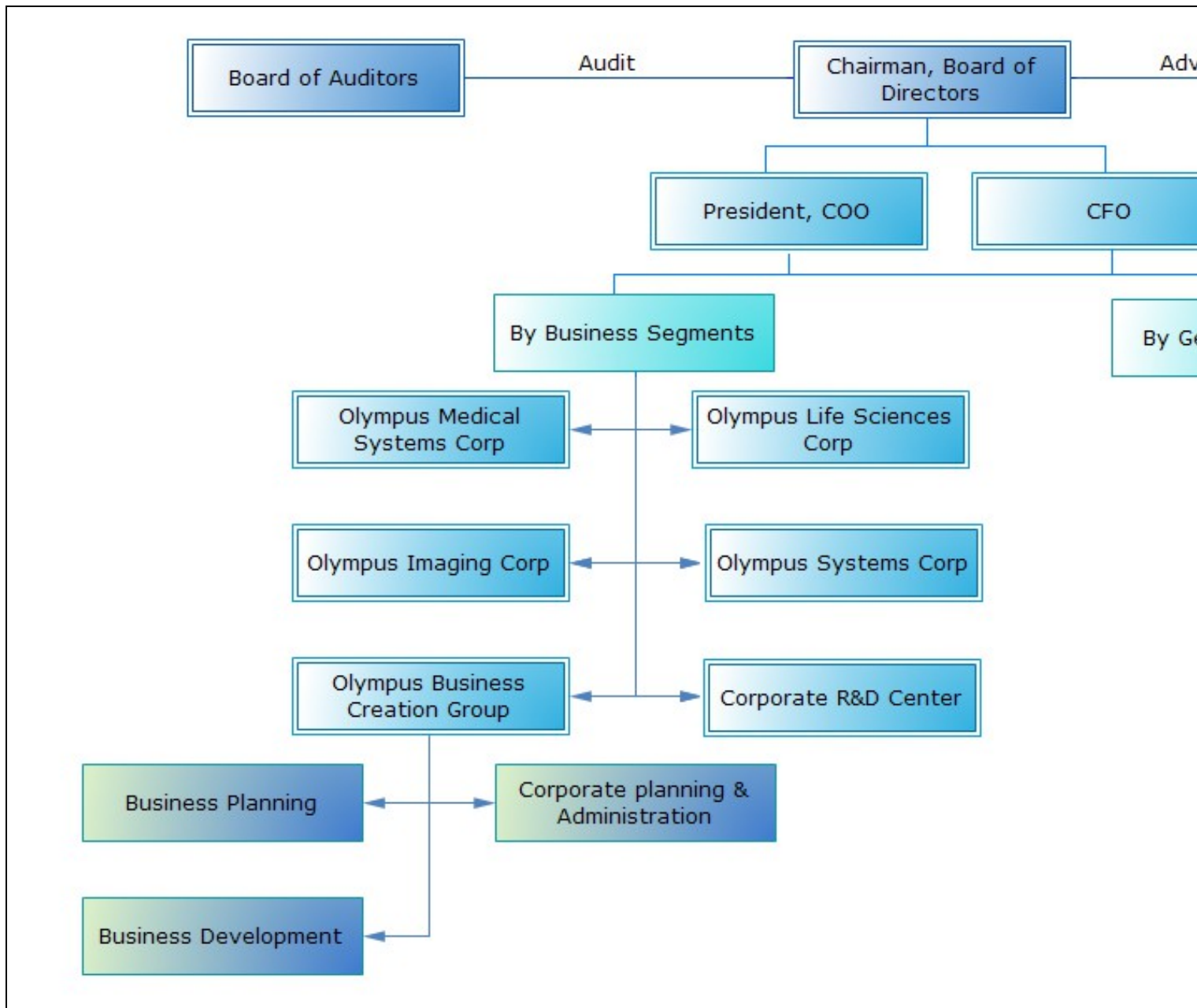
## Business Overview

### Business lines

The company operates under the following business lines:



## Organisation Structure



In April 2011, the company launched their regional headquarters for Asia and Oceania to coordinate regional strategy and facilitate business infrastructure development.

Source: Company website, LinkedIn

## Medical Systems Business

The Medical Systems Business covers gastrointestinal endoscopes, surgical endoscopes, endotherapy devices, endoscopic ultrasound systems and medical information systems.

With an approximately 70% share, the Olympus group has secured a leading position in the global Gastrointestinal endoscopy market. Working to expand diagnostic coverage beyond the digestive system, the group is developing new equipment and new techniques ranging from diagnosis through treatment.

It's current research focus is on both minimally invasive treatment technology that reduces the burden on patients and product usability, for example, enhanced performance and functions to benefit doctors and technicians. The group's flagship products are equipped with a high-resolution endoscopic system and Narrow Band Imaging technology so that they can also support cancer diagnosis and treatment.

Medical systems business has the following business lines:

- **Endoscopes**

Endoscopic video imaging systems, medical information systems, fiberscope systems, broncho endoscope systems, endoscopic ultrasound systems; ultrasound fiberscopes; ultrasound probes; ultrasound centers; ultrasound-guided needle puncture systems; cleaning, disinfecting and sterilization systems; medical treatment peripherals; ancillary products

- **MIP** includes surgical endoscopes and treatment equipments

- ◆ **Endosurgery**

Endoscopy products for gastroenterological surgery, thoracic surgery, urology, gynecology, orthopedic surgery, neurosurgery, cardiovascular surgery, anesthesiology and otolaryngology; treatment and surgical equipment; peripherals

- ◆ **Endotherapy**

Endotherapy products

## Revenue

Medical systems business is the biggest business segment of Olympus corporation:

- Net sales ratio : 40% approx.
- Contribution to total corporate operating income :109% approx.

(before corporate allocation of expenses)

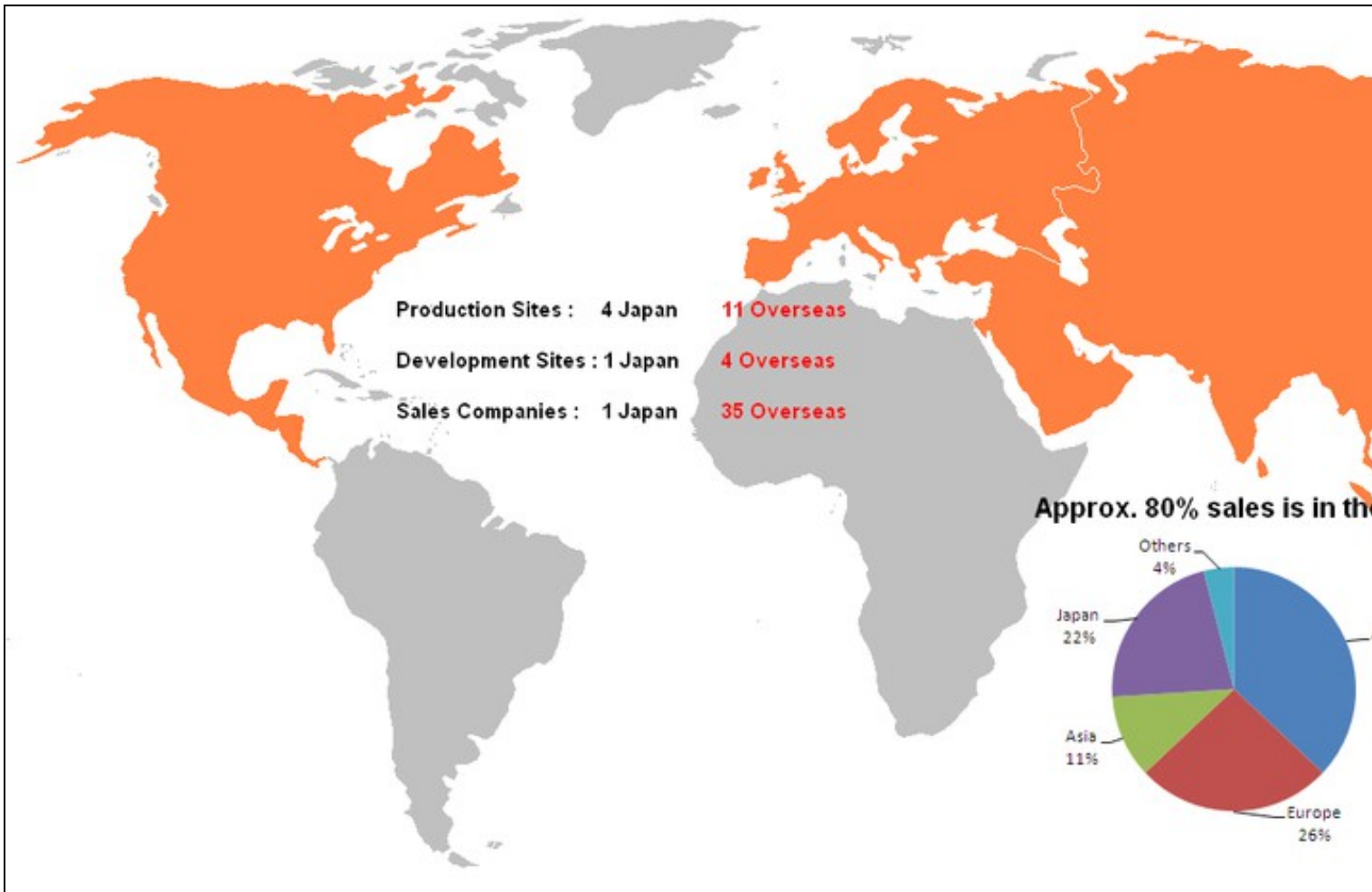
Metrics ( in Billion Yen)		2009	2010	2011
Medical Systems	Domestic	76.2	75.1	79.4
	Overseas	307.6	275.7	275.9
	<b>Total</b>	<b>383.89</b>	<b>350.75</b>	<b>355.46</b>
Endoscopes	Domestic	44.6	40.9	43.8
	Overseas	168.3	151	151.6
	<b>Total</b>	<b>212.9</b>	<b>191.9</b>	<b>195.5</b>
MIP	Domestic	31.6	34.2	35.6
	Overseas	139.3	124.6	124.3
	<b>Total</b>	<b>170.9</b>	<b>158.8</b>	<b>159.9</b>

## Projections for FY 2012

Quarter 3

- In endoscopes, new shipments of some products (Lucera) have ground to a halt, but the company expects to see a rebound in 2nd Half. For the year as a whole it projects endoscope sales will be down 5% YoY.
- The company estimates 1st Half sales in the medical systems division at JPY165bn (-6% YoY), and OP at JPY27bn; it projects 2nd Half sales at JPY195bn (+8%) and OP at JPY43bn.
- In the medical systems division, new product launches are planned for both surgical endoscopes and energy devices (treatment tools).
- It projects sales of MIPs (surgical endoscopes, treatment equipment) at JPY180.5bn (+10% YoY). Sales in FY3/11 were flat YoY due mainly to the strength of the yen, but positive growth is expected this year.
- The company projects sales of gastrointestinal endoscopes at JPY164bn, -5% YoY, reflecting production setbacks in 1st Half.
- The earthquake's impact has caused bottlenecks in purchasing of parts and materials for gastrointestinal endoscopes, leading to delays in product launches. In the latest telephone conference, the company offered no new information about timing. We believe there has been no real change from the company's comments at the results briefing in May, and it remains to be seen whether the company will be able to launch its new products this fiscal year. The company's FY3/12 earnings forecasts do not reflect any contribution from new products. Sales in the medical systems division got off to a slow start, falling short of projections in April-May.

## Geographic Presence



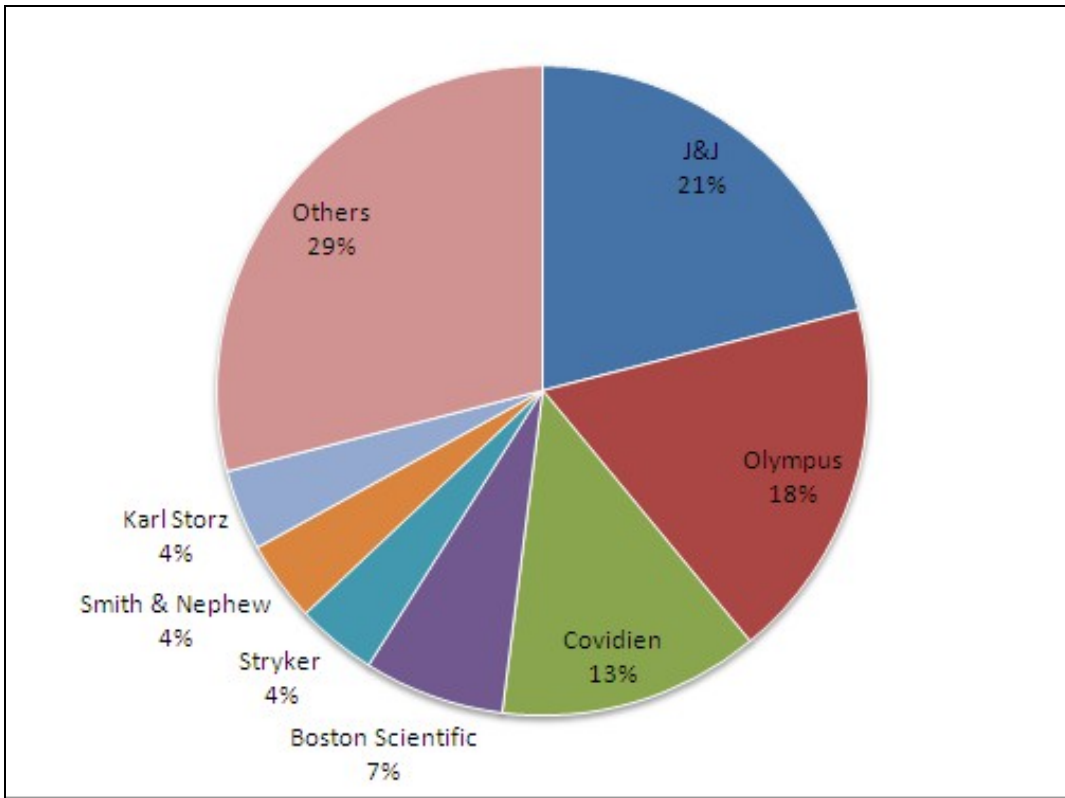
Source: Olympus

## Corporate Strategic Plan

- Expand the endoscopic business base ( Gastrointestinal )
  - ◆ Gain a dominant market share and ensure profitability in the imaging field
    - ◇ Early introduction and diffusion of next generation endoscope systems
    - ◇ Establishment of a significant presence in emerging markets
    - ◇ Diagnostic technology to promote early detection
    - ◇ Endoscope technology to achieve definite diagnoses
  - ◆ Imaging technology for achieving early detection :Narrow Band Imaging (NBI)
    - ◇ Acquisition of approval of insurance reimbursement for medical effects from early cancer detection using NBI ( in Japan)
    - ◇ Initiative for standardization of NBI observation as diagnosis
- Growth Drivers
  - ◆ Expansion of EndoTherapy field
    - ◇ Introduce Visera Elite, a new integrated endoscopy video system
    - ◇ Secure a 30% share of the global operating room imaging market in 2015
    - ◇ Expand the lineup of differentiated products focused on minimally invasive surgical techniques
    - ◇ Achieve the top share (30%) of the existing global endoscopy market in 2015. Also, secure top share of the Japanese market and further strengthen the sales structure
  - ◆ Expansion of Chinese and Asian market
    - ◇ Introduce popularly prices models
    - ◇ Expand the size of the market and share in such markets. Increase the number of endoscopists and improve their training.

## Endoscopes Business

### Market Share



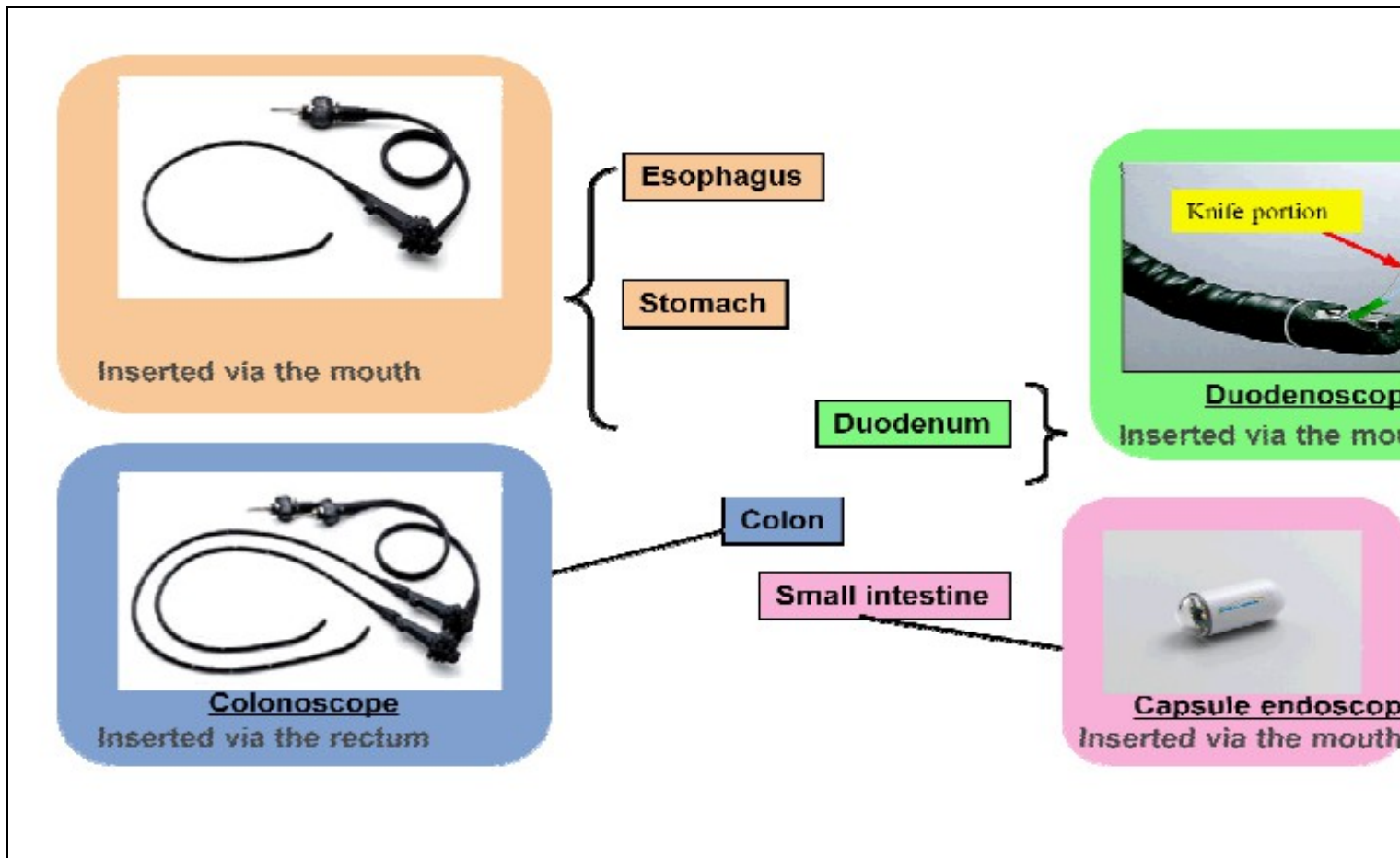
Source: Espicom

The worldwide endoscopy market (comprising laparoscopy, gastro-intestinal, visualisation, arthroscopy and urology products, rigid and flexible scopes, implants, surgical and other instruments) was worth approximately **US\$21.3 billion in 2009**. Olympus' share of this market was estimated to be 18% (\$3.834B), behind market leader Johnson & Johnson with an approximate 21% market share. In third place was Covidien (13%), followed by Boston Scientific (7%), Stryker (4%), Smith & Nephew (4%) and Karl Storz (4%).

### Product Portfolio

The company offers endoscopes in various specialties. The following is a comprehensive list of endoscopes, according to specialty, that the company offers:

- EBUS Bronchoscopes
- Fiber Optic Bronchoscopes
- Video Bronchoscopes
- Capsule Endoscopes
- Choledochoscopes
- Colonoscopes
- Duodenoscopes
- Echoendoscopes
- Enteroscopes
- Esophagoscopes
- Gastrosopes
- Laryngoscopes
- Intubation Scopes
- Rhinolaryngoscopes
- Sigmoidoscopes



Olympus

## Recent Developments

S.No.	Date	News/Development
1.	July 2011	Olympus Corporation to Acquire Spirus Medical, Inc., an endoscope insertion device manufacturer
2.	May 2011	Narrow Band Imaging (NBI) endoscopic technology, useful in early cancer detection, selected for the Prime Minister Prize at the 2011 National Commendation for Invention
3.	May 2011	Olympus ScopeGuide Receives FDA Clearance
4.	April 2011	Olympus Names Luke Calcraft as President of Medical Systems Group in the Americas
5.	February 2011	Olympus Names Michael C. Woodford to Serve as President
6.	October 2010	Magnetically guided capsule endoscope system presented at UEGW in Barcelona
7.	May 2010	Olympus Develops World's Fastest, Most Compatible Endoscope Reprocessor
8.	April 2010	Olympus Medical Systems Corporation and Siemens Healthcare announce collaborative development of advanced magnetically guided capsule endoscope system for intragastric observation
9.	April 2010	Olympus Medical Systems India Private Limited established, would take care of Sales, marketing and service for medical equipment (endoscopes and related products, and surgical products, etc.)
10.	February 2010	Olympus Introduces HDTV Gastroscope with Auxiliary Water Channel
11.	November 2009	Olympus Introduces World's Smallest GI Scope to Offer 4-Way Angulation and Narrow Band Imaging
12.	October 2009	Improved Endo Capsule Software Enhances Diagnostic Experience
13.	February 2009	Olympus Introduces World's First Combined Endoscopic Ultrasound Processor for Imaging and Treatment of Digestive and Pulmonary Diseases
14.		

	December 2008	Olympus further enhances credentials by entering into exclusive sales and distribution partnership with market and technology leader Advanced Surgical Concepts
15.	November 2008	Olympus Medical Systems Europa and BrainLAB Sign Sales and Marketing Cooperation Agreement

## Gastrointestinal Endoscopes Business

With an approximately 70% global market share for gastrointestinal endoscopes and an established position at the medical vanguard, Olympus maintains its passion for advancing technologies in response to doctors' needs

### Diagnosis and Treatment using Gastrointestinal Endoscopy

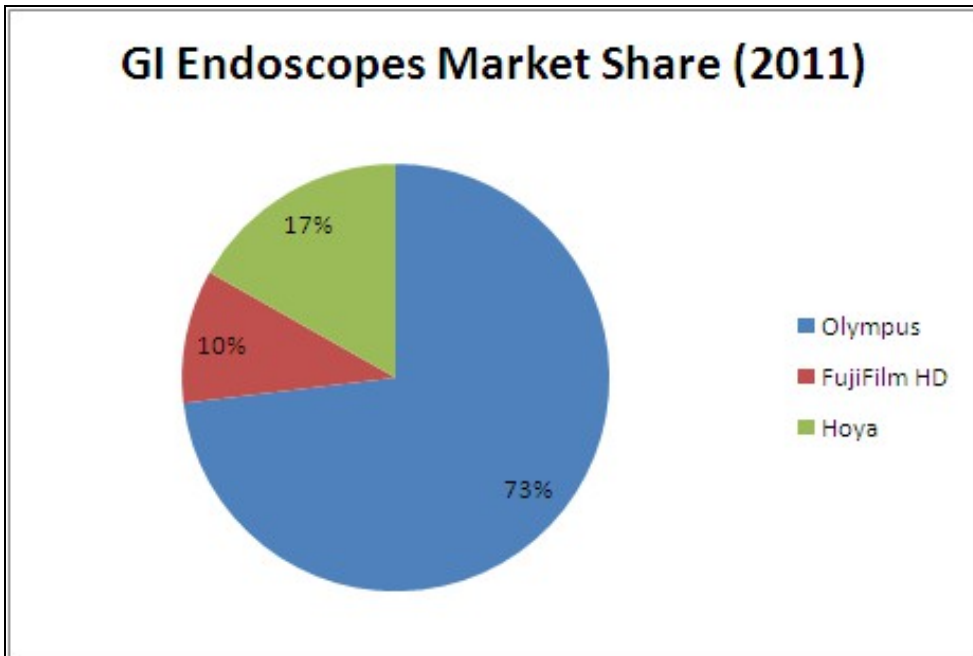
#### Diagnosis

- Biopsy
- Cytodiagnosis
- Staining

#### Treatment

- Cancer (esophageal, stomach, colon, etc.)
- Varices (esophageal)
- Foreign object retrieval ( esophagus, stomach)
- Hemostasis (stomach)
- Ployps (stomach, colon)
- Gallstones, bile duct stenosis (duodenum)

### Market Share









Source: Espicom

Company ( in Billion Yen)	2009	2010	2011
Olympus	212.89	191.94	195.45
FujiFilm HD	26.98	25.00	27.00
Hoya	48.87	47.00	45.00

### Products Offered

Speciality	Details	Picture	Products
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<p><b>Gastroscopy</b></p>	<p>Endoscopic examination, therapy or surgery of the interior of the stomach.</p>		<ul style="list-style-type: none"> <li>• GIF-H180J: Enables one to perform upper gastrointestinal endoscopy utilising the latest auxiliary water function and the sharpest possible image quality provided by High-resolution HDTV images featuring Narrow Band Imaging? (NBI) and Close Focus</li> <li>• GIF-H180: Delivers the best possible image quality for upper GI. High-resolution HDTV images in combination with Narrow Band Imaging (NBI) and Close Focus functionality</li> <li>• GIF-XP180N: Ultra-slim upper gastrointestinal endoscopy with four-way angulation, NBI compatibility and a 5.5mm diameter distal end and insertion tube</li> <li>• GIF-Q180: Features a short bending section as well as a reduced bending radius. Manoeuvrability and observation especially in the cardia region are enhanced.</li> <li>• GIF-N180: The entire insertion tube measures just 4.9mm in diameter, resulting in improved insertability and the option for transnasal insertion in nearly 100 % of cases.</li> <li>• GIF-Q165: Clear, sharp high-quality images in a large-size display and slim, 9.2 mm diameter distal end insertion tuber with wide 140° feild of view</li> <li>• GIF-2T160: Two-channel endoscope for a variety of therapeutic applications</li> <li>• GIF-XTQ160: Endoscope with powerful suction capabilities</li> <li>• GIF-1TQ160: Endoscope with extended instrumentation capabilities</li> <li>• GIF-Q160Z: Powerful 115 times magnification for detailed examination of the mucous surface</li> </ul>
<p><b>Duodenoscopy</b></p>	<p>Endoscopic examination, therapy or surgery of the luminal surface of the duodenum</p>		<ul style="list-style-type: none"> <li>• TJFQ180V: Provides critical visual feedback to enhance clinical decision making. In addition, a completely redesigned forceps elevator offers doctors the control needed when locking various sizes of guidewire. The unique dual locking function sets a new standard for ease-of-use and security during instrument exchange.</li> <li>• TJF-160VR: Innovative V Groove forcep elevator offers reliable duodenoscopic treatment capability in combination with dedicated V-System ERCP devices</li> <li>• TJF-145: Excellent treatment capability with extra-large 4.2mm channel - perfect for a wide range of endo-therapy accessories including stents.</li> <li>• JF-140R: Facilitates introduction and manipulation of EndoTherapy accessories (for example papillotomes and ERCP catheters). The removable distal cap makes it possible to have access to all sides of the forceps elevator which can consequently be easily and quickly cleaned.</li> </ul>
<p><b>Colonoscopy</b></p>	<p>Endoscopic examination, therapy or surgery of the luminal surface of the colon.</p>		<ul style="list-style-type: none"> <li>• CF-H180AI/L: High-resolution HDTV images combined with the widest field of view ever available in a colonoscope: 170° lets you look even behind the folds potentially decreasing the miss-rate and improving orientation inside the colon.</li> <li>• CF-Q180AI/L: The widest field of view ever available in a colonoscope: 170° lets you look even behind the folds potentially decreasing the miss-rate and improving orientation inside the colon.</li> <li>• CF-Q160DI/L: ScopeGuide is a new Olympus product, which displays the shape and position of a colonoscope in real time throughout the examination without the use of x-rays. It based on magnetic fields generated by small coils build inside this endoscope and picked up by the antenna of ScopeGuide's main unit. From this data, the computer reconstructs a schematic picture of endoscope on the display.</li> <li>• PCF-H180AI/L: Extra-slim colonoscope featuring outstanding high-resolution HDTV imaging and adjustable insertion characteristics</li> <li>• CF-Q165I/L: Versatile colonoscope combining high image quality, large-size display and powerful treatment capability.</li> <li>• CF-1T140I/L: For use in both therapeutic procedures and routine examinations, offers ?graduated flexibility? for ease of insertion, and greater operational control and torque transmission to the distal end.</li> <li>• CF-2T160I/L: Two-channel therapeutic capabilities</li> <li>• CF-Q160ZI/L: Precision design that enables lens movement fully controlled via a connected magnification controller, which also provides foot switch operation. Powerful 150 times zoom magnification delivers detailed close-ups</li> </ul>

<p><b>Proctoscopy</b></p>	<p>Endoscopic examination, therapy or surgery of the luminal surface of the rectum.</p>		<ul style="list-style-type: none"> <li>• Rectal Diagnostic System: a complete line-up of instruments for rectoscopy, which have been especially designed for the diagnosis of possible disorders in the rectal region. Highest functionality combined with long-term durability distinguishes these instruments at reasonable investment costs.</li> <li>• Transanal Endoscopic Microsurgery System: a versatile line up of transparent tubes enable clear inspection of the affected area. Access to a lesion is made easier by a "side window sheath". Fully compatible with standard VISERA equipment.</li> </ul>
<p><b>Enteroscopy</b></p>	<p>Endoscopy of the small intestines accomplished while advancing the endoscope into the intestines from the stomach</p>		<ul style="list-style-type: none"> <li>• QuickClip2 Hemostatic Clip: Rotatable function provides better targeting capability . It's 9 mm clip opening is ideal for targeting lesions in the tight confines of the small bowel</li> <li>• Injector Force Max Injection Needle: Kink-resistant sheath improves procedure efficiency and limits the occurrence of kinking in the depths of the small bowel.</li> <li>• BiCOAG: Bipolar spiral tip allows effective coagulation at virtually any angle and centrally located flushing port allows for easy irrigation</li> <li>• PolyLoop Ligating Loop: Proprietary ligating loop for prophylactic hemostasis</li> <li>• Biopsy Forceps: Specially designed to minimize damage to the enteroscope with it's stainless steel construction.</li> </ul>
<p><b>Sigmoidoscopy</b></p>	<p>Endoscopic examination, therapy or surgery of the sigmoid flexure</p>		<ul style="list-style-type: none"> <li>• PCF-S: Easy-reach L/R adapter (MAJ-1072) improves control and comfort for smaller hands and has a soft insertion tube for easier insertion and improved patient comfort. It is compatible with CV-180, CV-160 and CV-140 video processors.</li> <li>• OSF-V60: 730mm working length gives access to the entire sigmoid colon. It has a Slim, 11.3mm insertion tube provides excellent handling while reducing patient discomfort.</li> <li>• CF-Q160S: Superior image quality with large display size provides enhanced details throughout the image plane. When used in combination with the company's dedicated flushing pump and CV-160 video system center, a continuously clear view is ensured by a forward water jet that removes obstacles inside the colon at the touch of a switch on the scope.</li> <li>• OSF-4: 700mm working length facilitates complete insertion. Generous 3.2mm instrument channel accommodates a wide variety of accessories.</li> </ul>

Source: Company website

## New Products

- **Scope Guide:**



is an exclusive Olympus technology designed to provide a real-time 3D image of the shape and configuration of the colonoscope inside the body. ScopeGuide assists with finding the optimal location to apply abdominal pressure, easier, more confident scope insertion, and early loop identification. The use of ScopeGuide during colonoscopies may lead to less patient discomfort.

By seeing the shape of the entire scope as it moves through the body, ScopeGuide provides additional visual information that is particularly helpful during difficult colonoscopies. The endoscopist can evaluate the extent of looping and get a better sense of which rotational maneuvers will be required to straighten out various loop formations that can occur during colonoscopy.

- **Evis Lucera Colono-Videoscope:** It helps in reducing the burden on patients and improving performance for both the inspection and treatment of colorectal cancer through the incorporation of two new functions, namely, high flexibility and highly responsive control at the insertion site, while adopting a thinner scope.
- **Evis Lucera Gastrointestinal Videoscope:** This slim gastrointestinal videoscope can be inserted through the nasal tract or the mouth to realise high quality images and is suited for the examination of lesions in the upper digestive tract, for example, in the stomach.
- **Capsule Endoscopes:**



They are non-invasive, endoscopic imaging by use of VIDEO CAPSULE ENDOSCOPES to perform examination of the gastrointestinal tract, especially the small bowel. After being introduced in 2007, they have become a revolution. High-resolution imaging, real-time viewing, ease of use and proprietary hard and software make EndoCapsule a comprehensive and powerful system - redefining capsule endoscopy. One has to simply swallow the Endo capsule, a pill sized (11mm in external diameter and 26mm in length) capsule equipped with a tiny camera and lights, allows pictures to be taken of the entire small bowel. Endo capsule delivers high resolution images equivalent to those provided by endoscopes. EndoCapsule displays a clear and bright field of view for the fine observation of a variety of small bowel abnormalities.

The Real Time Viewer enables the physician to test the proper functionality before the procedure and to confirm the location of the capsule in the GI tract during the process. In addition it is now possible to check whether and when the capsule has left the stomach.

Product Details:



- ◆ Supersensitive CCD
- ◆ Ultra compact lens
- ◆ Automatic Brightness Control adjusts illumination to maintain optimal imaging
- ◆ A wide depth of field provides superior observation
- ◆ 6 white LED lights always ensure a clear field of view
- ◆ Compact battery with energy efficient technology

The company is developing technologies to expand the application of capsule endoscopes to the stomach and large bowel.

Source: Company website, SEC filings