

OLYMPUS Investor Day 2018

# Medical Business Strategy

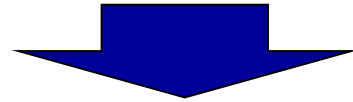
Akihiro Taguchi  
Business Management Officer,  
Medical Business  
Olympus Corporation  
September 5, 2018

# Disclaimers

---

- The financial forecasts and other material in this document are based on judgements and assumptions derived from currently available information. Actual results may differ significantly from targets, being subject to change due to factors such as the uncertainties implicit in these judgements and assumptions and due to future changes in business operations and circumstances inside and outside the company.
- Furthermore, this information is subject to change without notice. Accordingly, use of this information and this document should be at the discretion of the user and done with reference to information obtained by other means.
- This document contains information about products that have not yet been approved in some countries including Japan (including products under development). This information is not intended for promotional or medical advice use. Rather, it is provided to give examples of technology development by Olympus and no guarantees are made about the future sale of such products.
- Olympus accepts no responsibility for any losses that arise from use of the information in this document.

OUR PURPOSE  
**Making people's lives healthier,  
safer and more fulfilling**



**Value to Be Provided by Medical Business**



**Endoscopes**

**Early diagnosis**

**Minimally invasive treatments**

## Concentrate investments on 5 BUs and increase sales and income

### GIRBU



### GSBU



### UGBU



### ENTBU



### MSBU



(Note) GIRBU: Gastrointestinal and Respiratory Business Unit ; GSBU: General Surgery Business Unit; UGBU: Urology / Gynecology Business Unit; ENTBU: Ear, Nose, and Throat Business Unit; MSBU: Medical Service Business Unit

## 【Sales Function Investments】

- Respond to North American GPOs/IDNs and strengthen training
- Bolster sales systems and step up promotion activities in emerging countries



## 【R&D Investments】

- Advance R&D ventures for developing next-generation products and new businesses
- Strengthen single-use device technologies



## 【QA/RA Investments】

- Strengthen quality management systems
- Reinforce medical affairs functions



## 【Manufacturing Function Investments】

- Create globally optimized production systems (including repairs) with eye to 10 years from now



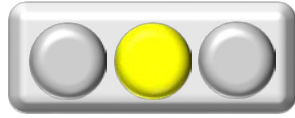
Growth  
potential

Balance

Efficiency

1

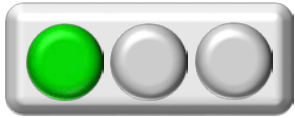
Expand dominant GI market share and improve profitability while realizing substantial growth in ET and Surgical business operations



2

Shift from installation-based medical business model to procedure-based medical business model

→ Expand single-use device operations



**-- To be the greatest "Business to Specialist" Company --**

**【Sales and Marketing Functions】**

- Expand procedure shares and strengthen account management
- Provide 3 types of value (medical value, economic value and patient value)

**【R&D Function】**

- Accelerate development and strengthen product life cycle management
- Develop products that improve efficiency of medical institutions (reduce downtime)

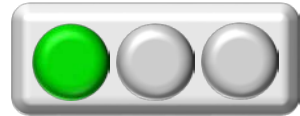
**【Manufacturing Function】**

- Boost cost competitiveness
- Improve responsiveness to production fluctuations
- Strengthen SCM

3

## Expand operations in emerging countries

- Countries with sufficient medical infrastructure: Position as growth driver and continue appropriate investment
- Countries without sufficient medical infrastructure: Contribute to medical infrastructure development



4

## Strengthen ability to respond to GPOs/IDNs

- Respond to market structure changes exemplified by growing presence of GPOs/IDNs in North America
- Propose value as One Olympus with unified R&D, manufacturing and service functions
- Establish processes for acquiring GPO/IDN contracts and strengthen project management



5

## Strengthen QA/RA functions

- Reinforce global quality management systems with eye toward external requirements expected 10 years from now
- Strengthen global QA and RA systems in consideration of future business development
- Reinforce medical affairs functions



6

## Improve productivity

- Improve productivity of all functions (R&D, manufacturing, sales & marketing and service)



# Changes in the Operating Environment (Disparities from Initial 16CSP Outlook)

## Macroeconomic Environment

- No major changes in the operating environment trends in comparison with initial 16CSP outlook and in the rising needs for early diagnosis and minimally invasive therapies.
- On the other hand, changes in the operating environment, such as rising regulatory requirements and more advanced reprocessing requirements, are progressing faster than anticipated.
  - ✓ Increasingly more rigorous medical equipment application and registration requirements in EU-MDR\* and other countries' regulation
  - ✓ Reprocessing Requirements (cleaning, disinfection, and sterilization) are increasingly more stringent



### GIR: Delayed introduction of major new products

Constraints arose on development resources, mainly because existing products were prioritized to meet emerging regulatory requirements, new reprocessing requirements (cleaning, disinfection, and sterilization), and to meet and exceed quality standards.

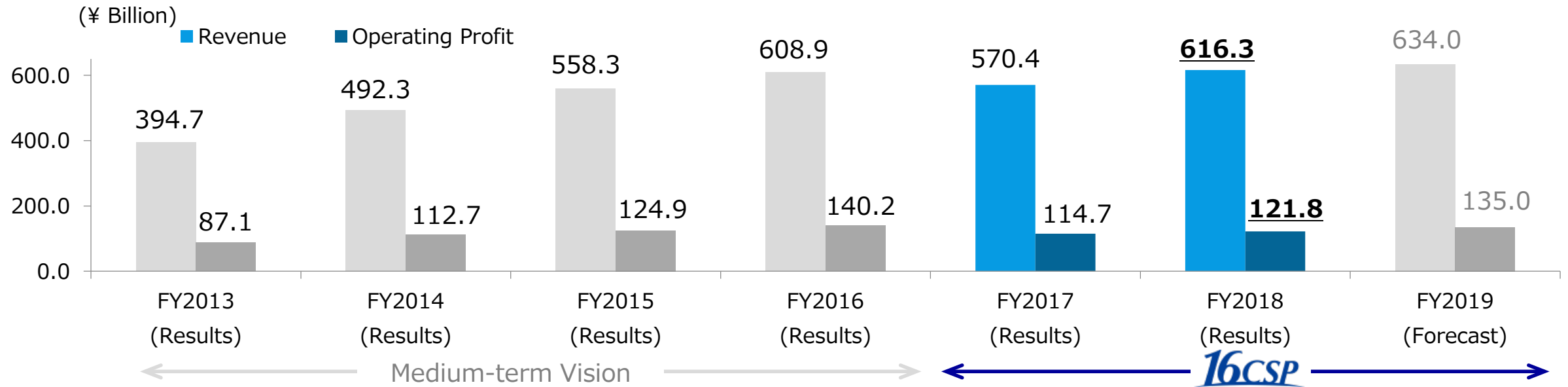
### GS: Delayed supplies and approval acquisition

Revenue growth has been impacted by delayed supply of new product (VISERA ELITE II) due to production issues at launch as well as delayed introduction of new products in North America

Major impact on  
the medical  
business



# Review (3 business fields: Endoscopes, Surgical, EndoTherapy)



Medical	FY2017 Growth rate* (Results)	FY2018 Growth rate* (Results)	16CSP CAGR
		4%	4%
Gastrointestinal Endoscopes	4%	2%	6%
Surgical Device	4%	6%	11%
EndoTherapy Devices	7%	7%	9%

## Revenue

- Other than mainstay gastrointestinal endoscopes being in the later stages of their product life cycles, **changes in the operating environment have delayed the introduction of new products in the gastrointestinal endoscopes field and surgical device field, and quality issues have occurred**, reducing growth below expectations. (EndoTherapy devices are in line with initial target)

## Operating Profit

- In addition to reduction in gross profit due to a shortfall in sales, **the expenses of addressing quality issues and other unanticipated expenses arising** kept the value and margin of operating profit at broadly the same level as last year

# Review (5BUs) and CAGR forecast

<b>Medical Business CAGR</b> <small>※After foreign exchange adjustment</small>		3 years of the first half	2 years of the second half	5 years
		CAGR Results 2017.3-2019.3	CAGR Forecast 2020.3-2021.3	16CSP CAGR Initial target
<b>Medical</b>		4%	5%-8%	8%
	GIRBU	<u>3%</u>	5%-7%	7%
	GSBU	<u>5%</u>	10%-13%	11%
	UGBU	<u>5%</u>	5%-8%	8%
	ENTBU	12%	10%-13%	13%
	MSBU	7%	2%-5%	5%

■ Achieve high growth over the 2 years of the second half, to recover from delays so far (3 years of the first half)

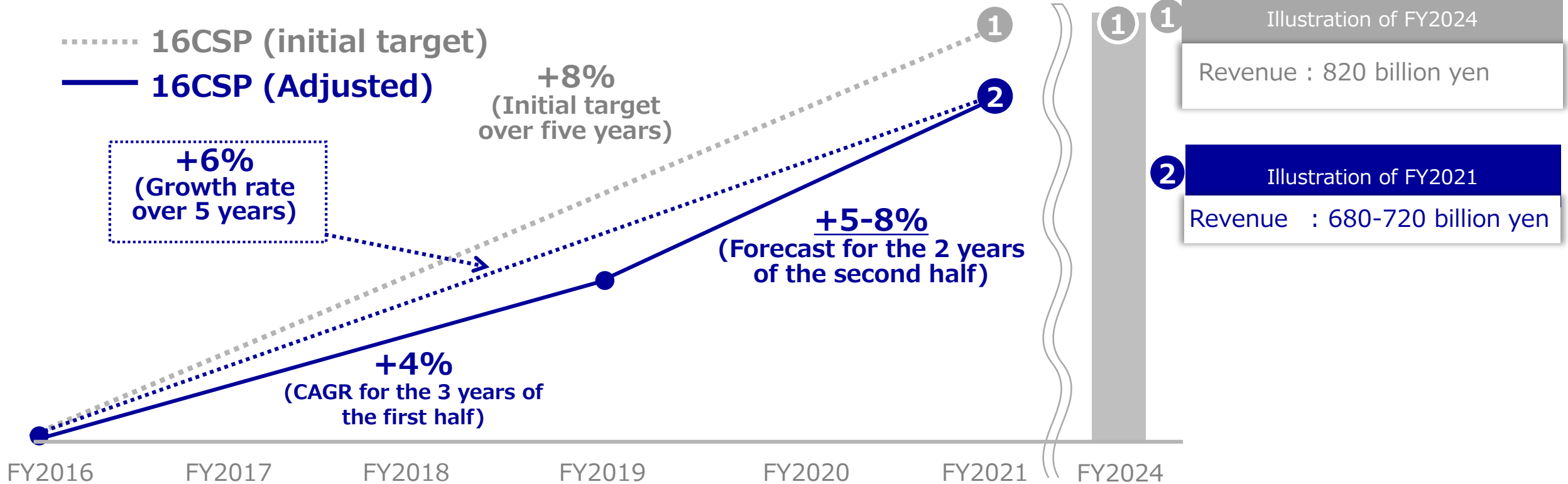
- ✓ GIRBU : Steadily introduce the next-generation endoscopy system and new endoscopes, delayed in the first half
- ✓ GSBU : Launch VISERA ELITE II in North America, Make the most of ISM
- ✓ UGBU : Voluntary suspension of shipments of flexible ureteroscopes and recall measures settled, currently returning to growth trend by introducing new products

# Outlook for the Term to FY2021

## Movements in CAGR (revenue)

※After foreign exchange adjustment

FY2021, 2024: Assumed rates  
JPY/USD: JPY105, JPY/EUR: JPY130



- Revenue growth will be accelerated by the steady development and introduction of new products and the construction of business model to promote single-use device business

# Issues and Measures

## Issues

- 1** Reliable attainment of product development plans (steadily develop the next-generation endoscope systems and launch in the market). Response to quality issues
- 2** Issues of endoscope reprocessing (cleaning, disinfection, and sterilization)
- 3** Accelerate expansion of single-use device business (capturing the largest US market)
- 4** Improve profitability

## Measures

- 1** Improve the development speed and ensure the quality due to business process reengineering. Further reinforcement of QA and RA functions
- 2** New establishment of Medical Reprocessing Strategy Office
  - ✓ stronger reprocessing initiatives to ensure the safety of medical devices
  - ✓ Provide comprehensive solution
- 3** Construct a business model to expand sales in single-use device
  - ✓ Building a new business model specialized to single-use device business which has a faster cycle than capital products
  - ✓ Rearrange the value chain to introduce product matched to customer and market needs
- 4** “Select and concentrate” on investment and development and strengthen monitoring S.G.A. expenses

---

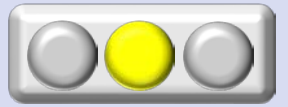
# Gastrointestinal and Respiratory Business Unit

---

## (GIRBU)

# Strategic Initiatives for Each Business Unit: GIRBU

- Secure strong market leader position in GI business and improve profitability through selection and concentration
- Expand business in the following fields; respiratory, endoscopic ultrasound (EUS), Reprocessing\* and IT
- Realize business growth in emerging markets
- Expansion of endotherapy device business (Single-use device)



# Progress in Addressing Strategic Challenges (Business Strategies) (1/2)

## Gastrointestinal endoscopes

- Introduction of high-value added attractive products, scheduled for the first half, has been delayed.
    - ✓ Had to comply with newly reinforced relevant regulations (FDA Guidance, EU-MDR, etc.)
    - ✓ Took time to develop internal systems
  - Restructured organization for the introduction of new products with compliance with various regulations and reassignment of personnel through business process reengineering.
- ↓
- Five new scope models have been introduced in domestic and overseas markets in the last fiscal year and the current fiscal year.
  - New products will be launched steadily in all regions in future



Hi-vision transnasal gastroscope



Super-zoom gastroscope/colonoscope



Therapeutic colonoscope



Duodenoscopes with removable distal end



Motor-driven enteroscope

# Future Actions

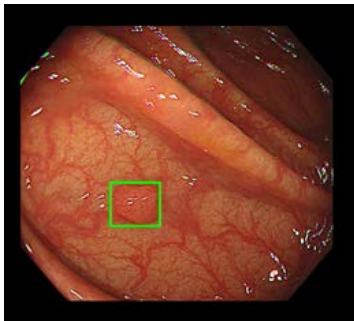
## Next-generation endoscopy systems\*

On-going development towards introduction in the second half of 16CSP

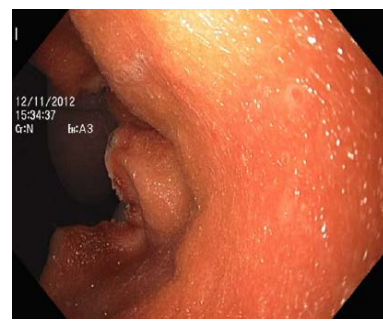


- Better Population Health:  
Contribute to early diagnosis and minimally invasive therapy through new observation technologies and therapeutic devices
- Better Patient Care:  
Raise quality of life and reduce patient burdens through early diagnosis and minimally invasive therapy
- Lower Per Capita Cost:  
Reduce procedure-related costs with endoscopy systems that improves procedure workflow efficiency

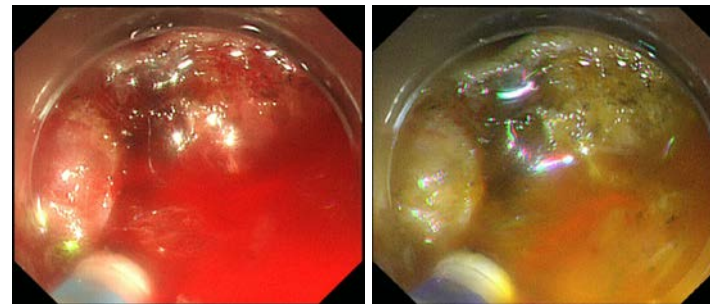
### New technologies to be offered



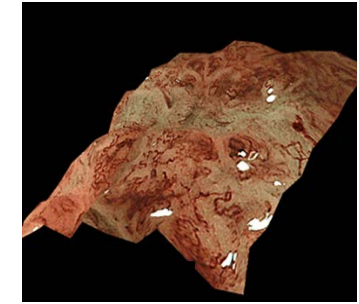
**CAD\***



**Wide image field of depth\***



**Blood vessel visualization technology**



**3D\***

Research is being conducted through cooperation with several domestic and overseas institutions. (Image provided by Dr. Ryoichi Yamakawa of Kaetsu Hospital)



---

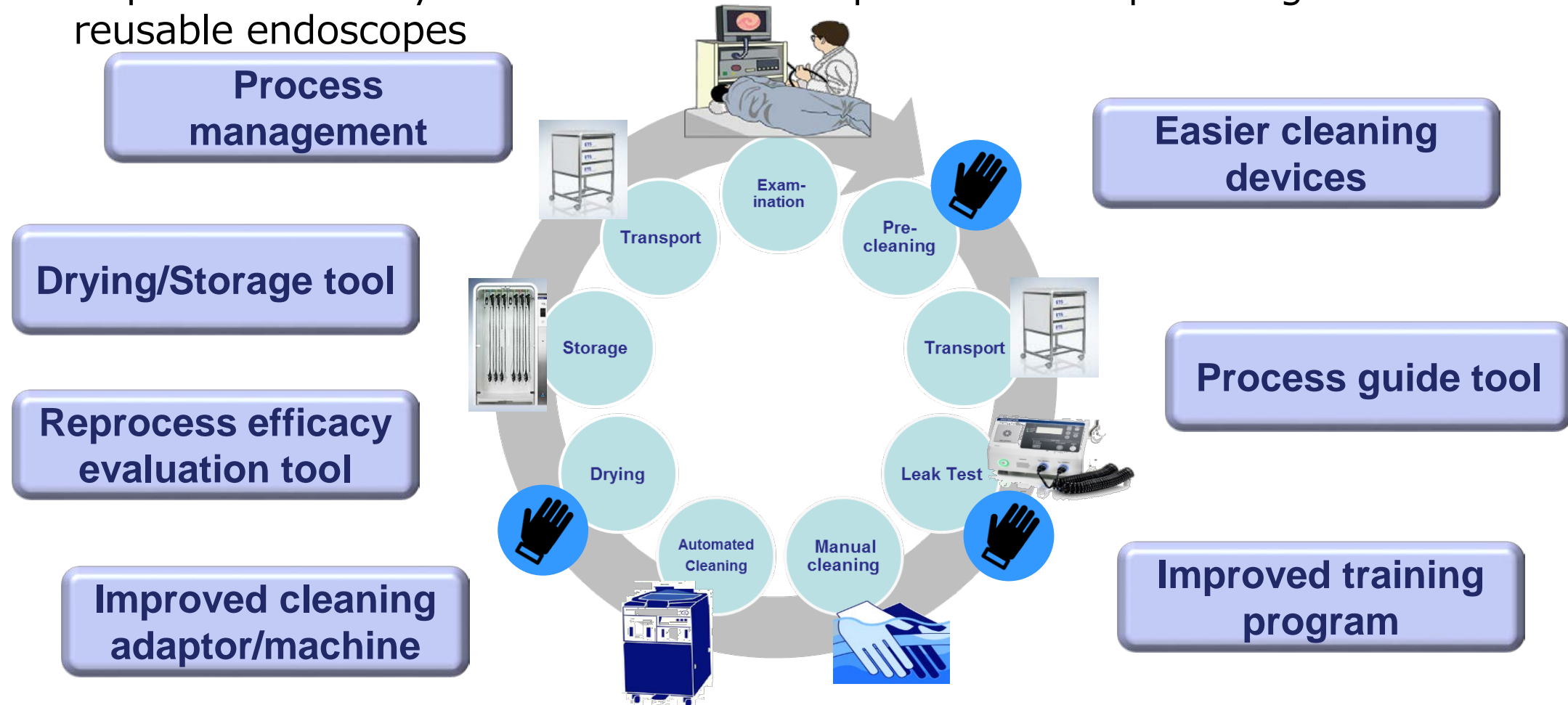
# Efforts to mitigate infection risks

---

# GI&R: Infection risk mitigation in reusable endoscopes

## Offering comprehensive risk mitigating measures for our reusable endoscopes

- Improve the safety of medical staffs and patients while providing the value unique to reusable endoscopes

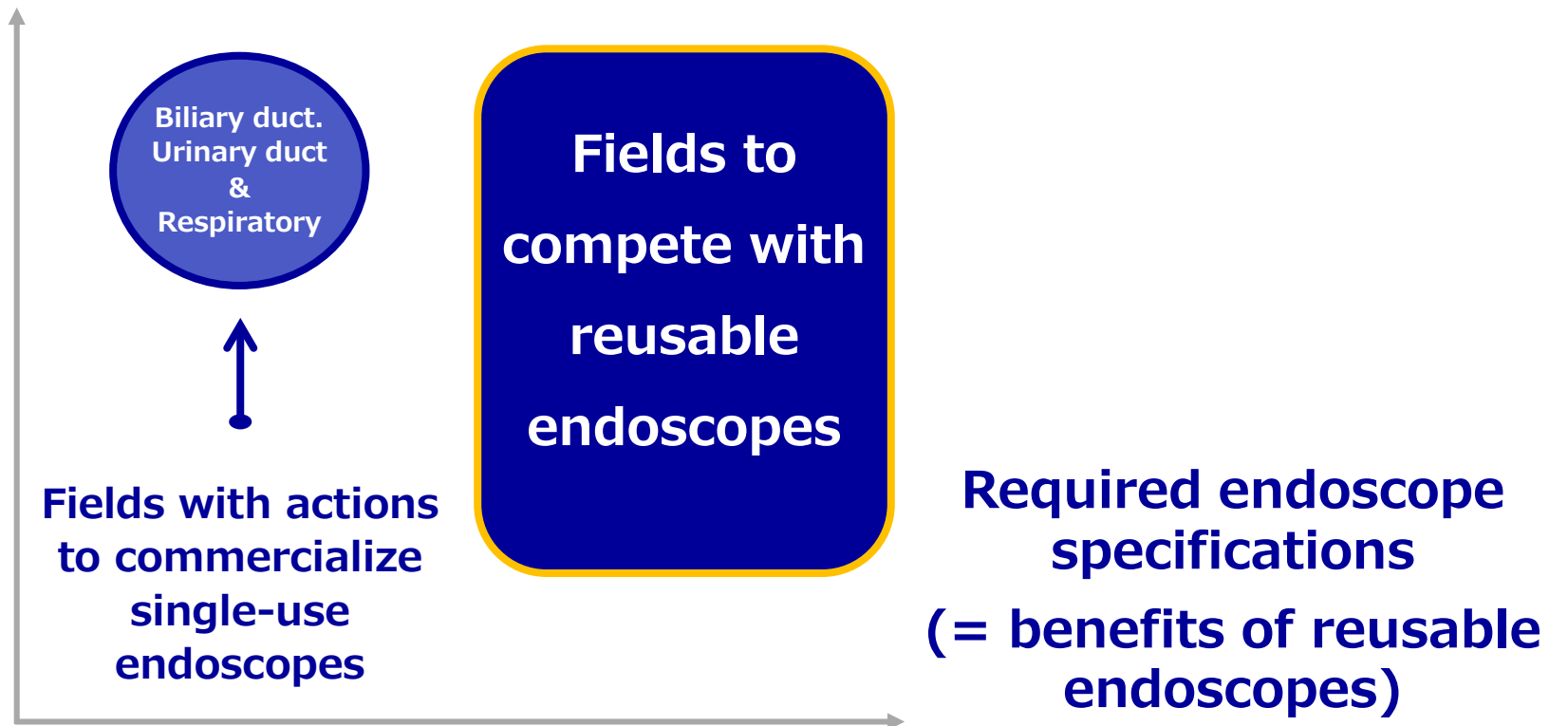


# GI&R: Single-use endoscope

## Introduce single-use endoscopes for fields which require high-level infection control

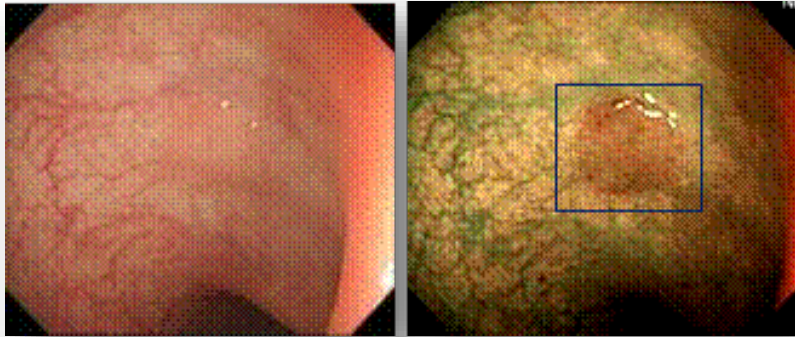
- Single-use endoscopes cannot offer diagnostic & therapeutic performance as well as insertability & maneuverability that reusable endoscopes can offer.
- However, we will develop & commercialize our own single-use endoscopes, only for fields with require high-level infection control, but not high-level specifications on endoscopes, in order to strengthen our portfolio.

### Infection Control Level



# GI&R : Olympus' view on Benefits of Reusable endoscopes

## High image quality & Image enhanced endoscopy with NBI



\*Narrow Band Imaging

## High insertability

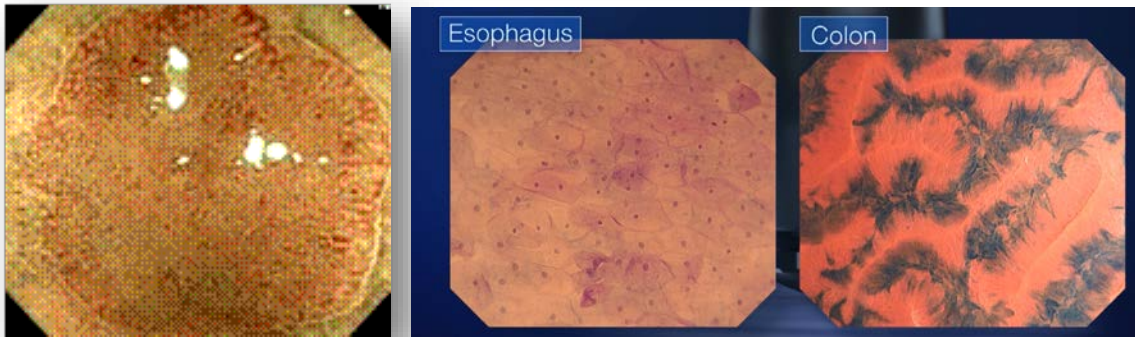


\* "Passive bending section" + "high force transmission insertion section"

## Cost benefit



## High value-added functions



\*zoom endoscopes

\*ultra-zoom endoscopes (Endocyto)

## A broad lineup to meet diverse needs

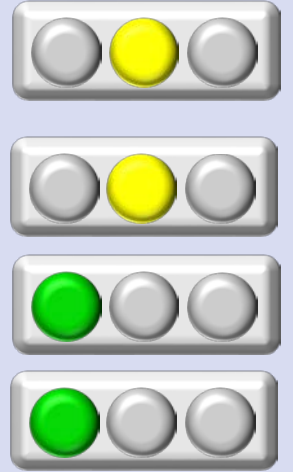


---

# General Surgery Business Unit (GSBU)

# Strategic Initiatives for Each Business Unit: GSBU

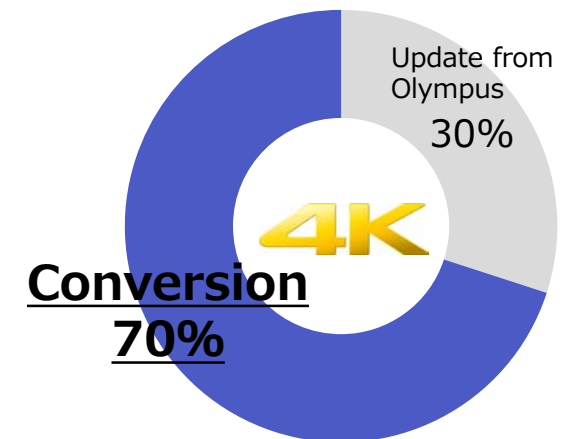
- Establish new de facto standard in surgical imaging market
- Secure No. 3 position in energy device market and encroach upon No. 2 and No. 1 positions
- Establish single-use device business model
- Fully leverage Olympus' strength in GI field



# Progress in Addressing Strategic Challenges (Business Strategies)

## Establish new de facto standard in surgical imaging market

- VISERA ELITE II, our main system for surgical endoscopy, has been newly introduced in the Europe and Japan market and is performing well
  - ✓ It is winning high praise as a competitive product that incorporates many physician's needs to support swift and accurate surgeries by the IR (infrared) and 3D observation
    - July 2018: The application of indocyanine green (ICG) to blood flow assessment in blood vessels and tissues is expanding in Japan
- Expand sales of 4K surgical endoscopy systems as strategic products for converting customers who mainly use products from competitor companies
  - ✓ Approximately 70% the sales of our 4K systems have been from customers converted to Olympus products



# Progress and Issues in Addressing Strategic Challenges (Business Strategies)

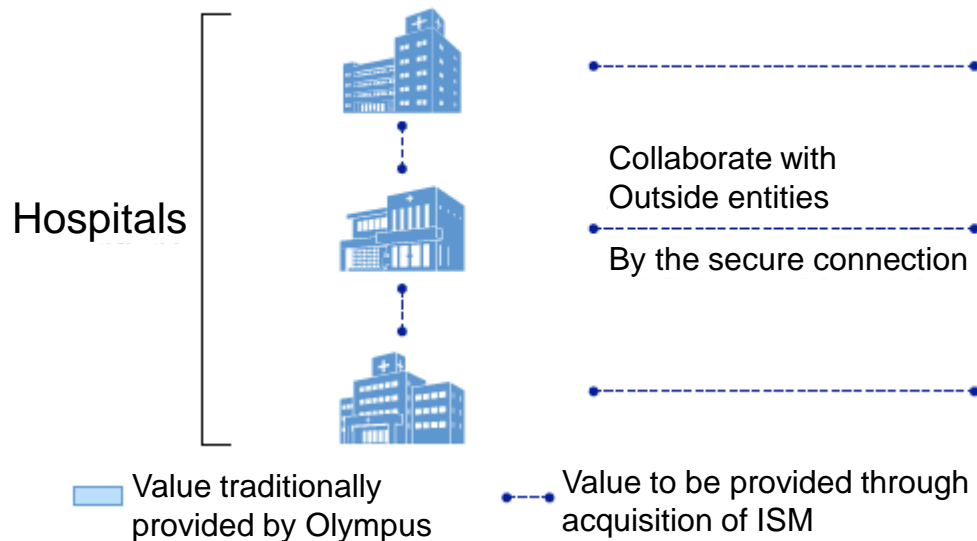
## Establish new de facto standard in surgical imaging market

### After ISM acquisition

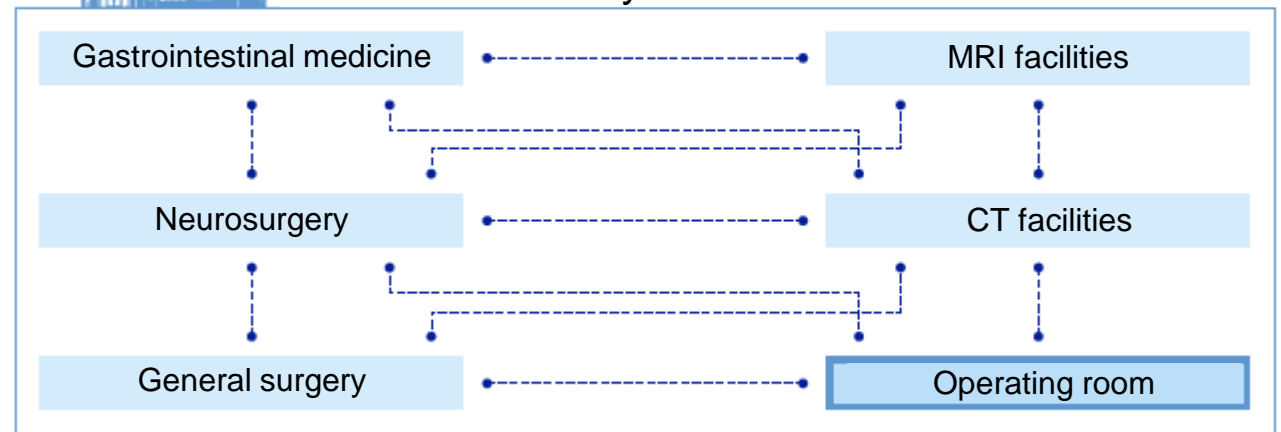
Gain IP-based image management solutions and systems integration operating foundation

- ✓ Systems can be built which convert various medical video signals to IP and network them to departments and labs inside and outside the hospital
- ✓ Obtain high technology to build robust security, to record and stream video inside and outside the hospital

Value to be Provided through Acquisition of ISM



Ability to develop systems for any department or examination facility



IP and 4K compatibility for various medical video signals



# Progress and Issues in Addressing Strategic Challenges (Business Strategies)

## Establish new de facto standard in surgical imaging market

[New Product] Launch of ORBEYE surgical microscope in the USA and Japan (October 2017)

- ✓ World-first 4K3D imaging provides high-resolution images and stereoscopic visual field to support precision surgery
- ✓ A 55-inch monitor is used for observation, facilitates team surgery and reducing surgeon fatigue
- ✓ Significant size reduction (95% smaller than the conventional model)



Winner of the Edison Award for technical innovation in a new product



Conventional surgery



Surgery using ORBEYE

ORBEYE surgical microscope

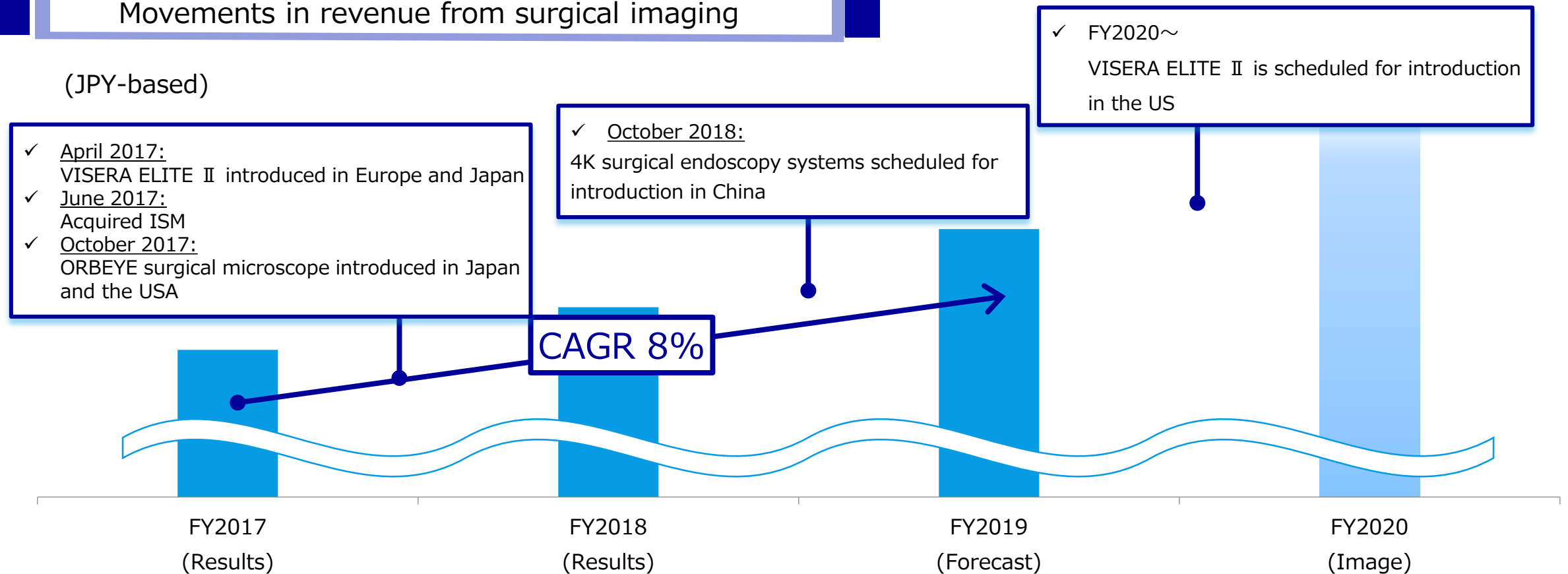
# Progress and issues in Addressing Strategic Challenges (Business Strategies)

## Establish new de facto standard in surgical imaging market

- Despite delays in new product introduction, and issues with quality and supply etc., **surgical imaging is achieving rapid growth (CAGR 8%)**
- Accelerate growth by introducing VISERA ELITE II in the US and stepping business with ISM and ORBEYE

### Movements in revenue from surgical imaging

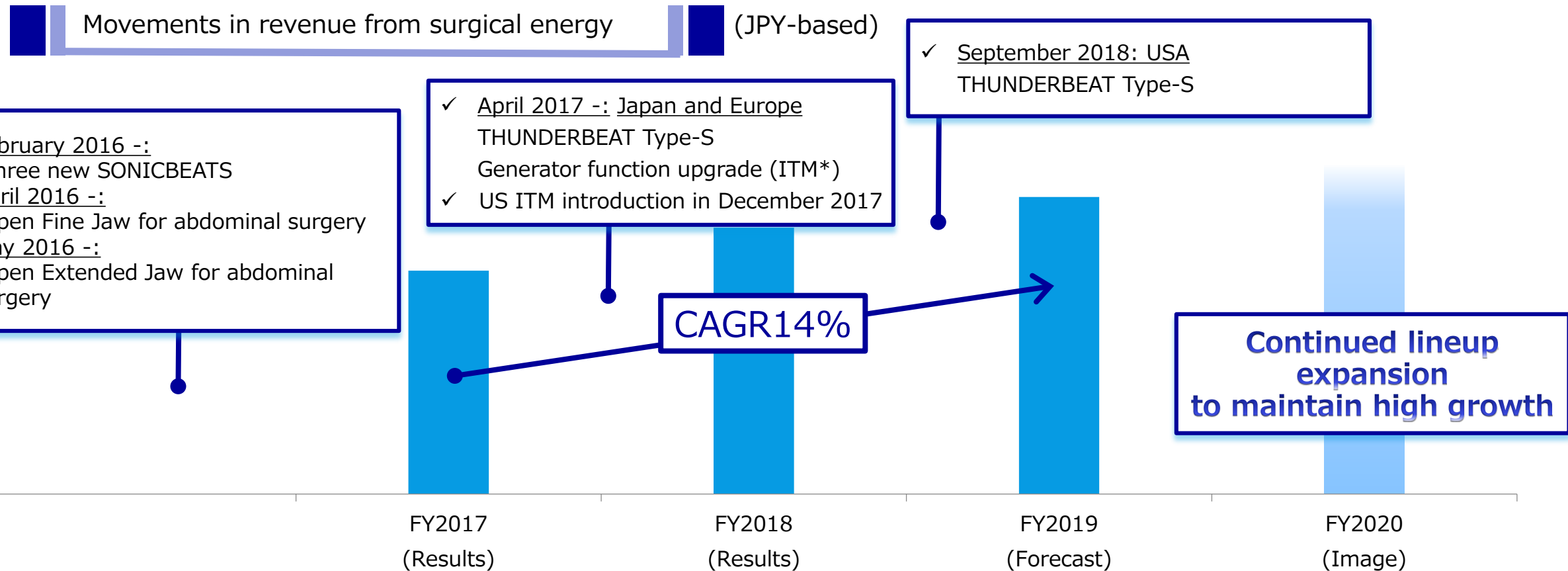
(JPY-based)



# Progress and issues in Addressing Strategic Challenges (Business Strategies)

## Secure No. 3 position in energy device market and encroach upon No. 2 and No. 1 positions

- Carry on expanding and enhancing the lineup of the THUNDERBEAT, to **achieve double-digit growth in surgical energy (CAGR 14%)**



# Future direction to archive 16CSP targets

## General Surgery Business Unit (GSBU)

- Slow progress in the first 2 years of 16CSP due to quality issues, delays in new product introduction, etc.
- The strategy is implemented successfully, continue to strengthen the activity to achieve the 16CSP target.

## Surgical Imaging

- Make maximum use of ISM assets, continue to propose large-scale orders combined 4K/3D systems and multiple operating room integrations
- Introduce VISERA ELITE II in the US and the new Flex-3D globally
- Strengthen the value proposition for solid sales activities
- Introduce 4K in the Chinese market

## Energy

- Boost the sales by continuing to expand the device portfolio and Strengthening the value proposition
- Strengthen the energy sales organizations in China, Asia, and emerging regions



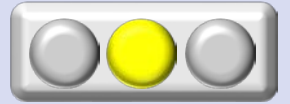
---

# Urology/ Gynecology Business Unit (UGBU)

---

# Strategic Initiatives for Each Business Unit: UGBU

- Secure dominant shares in markets for flexible endoscopes and TURis products that leverage technological prowess of Olympus
- Strengthen urinary tract stone management business operations to expand market share
- Increase market share by leveraging existing products and technologies



# Urology/ Gynecology Business Unit: The three fields constituting urology

## Flexible endoscopes



Flexible fiber cystoscope



Flexible video cystoscope



Flexible video uretero-renoscope



Flexible fiber uretero-renoscope

## TURis\* electrodes



Prostate enucleation electrodes



Prostate evaporation electrodes



## Stone treatment devices



Guide wires



Access sheath



Basket



Urinary tract stent



Laser fiber



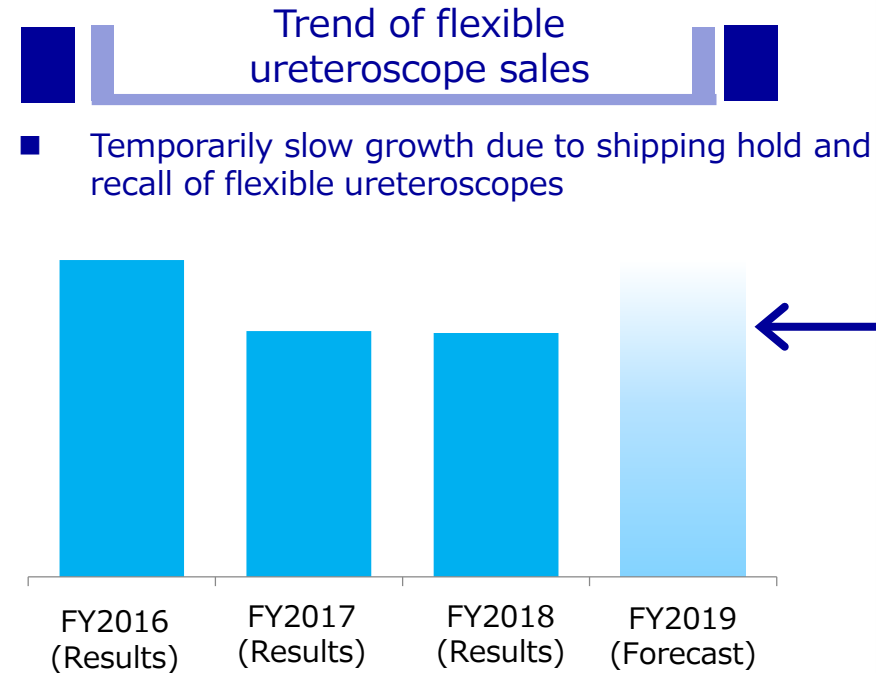
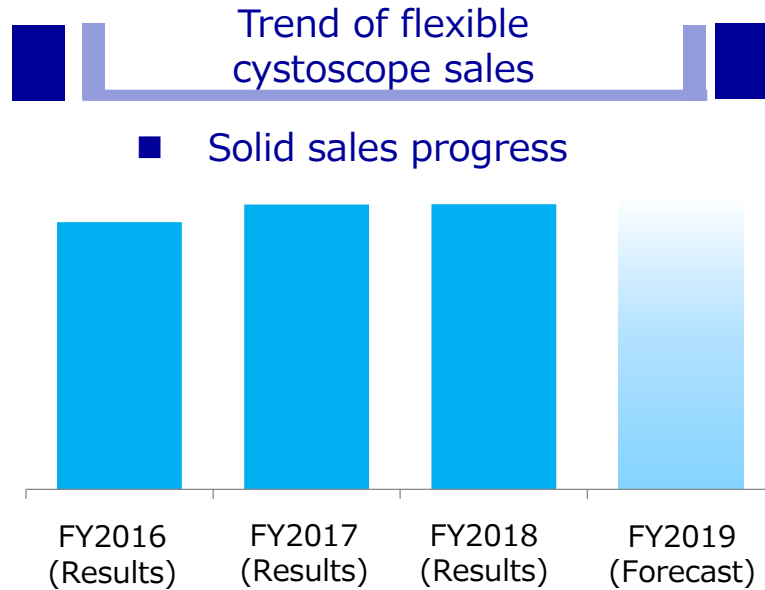
Lithotripsy System

\*TURis: Transurethral Resection in saline

# Progress on Business Issues (Business Strategy)

## Flexible endoscopes

## Progress of 16CSP



- Increased market share by utilizing the efficacy of NBI technology in bladder cancer diagnosis and treatment
- ✓ NBI is newly listed to EAU\* Guidelines

- Get back on growth track by introducing new flexible uretero-renoscopes



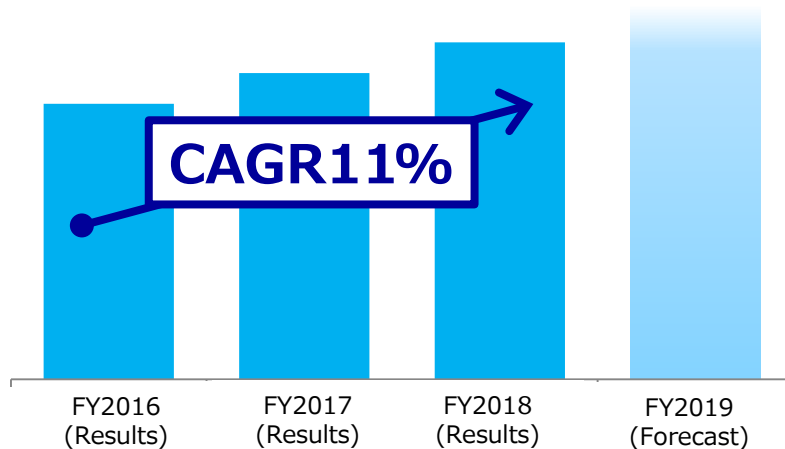
# Urology/ Gynecology Business Unit

TURis electrodes

Progress of 16CSP

Trend of sales

- Sustained growth in all regions



TUEB\* electrodes  
(for transurethral prostate enucleation)



\*TUEB : TransUrethral Enucleation with Bipolar

TURis electrodes



TURis: TransUrethral Resection in saline

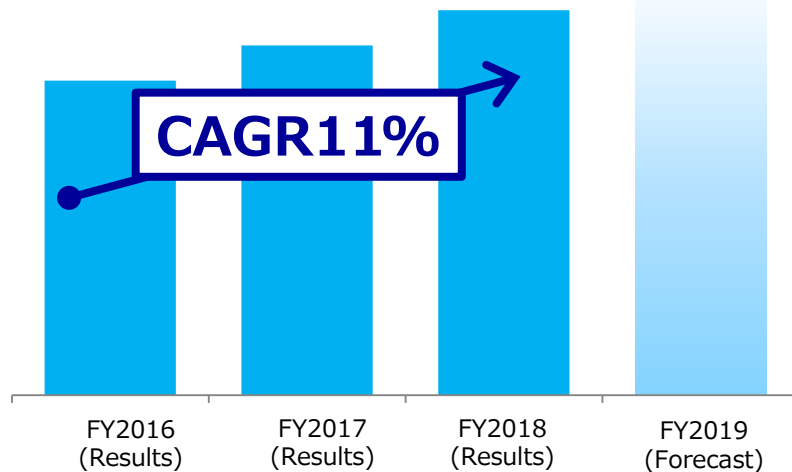
**Increased market share by strengthening TURis competitiveness and its appealing performance in the market**

# Urology/ Gynecology Business Unit

## Stone treatment devices

### Trends of sales

- Continued double-digit growth
- Steady progress towards target share



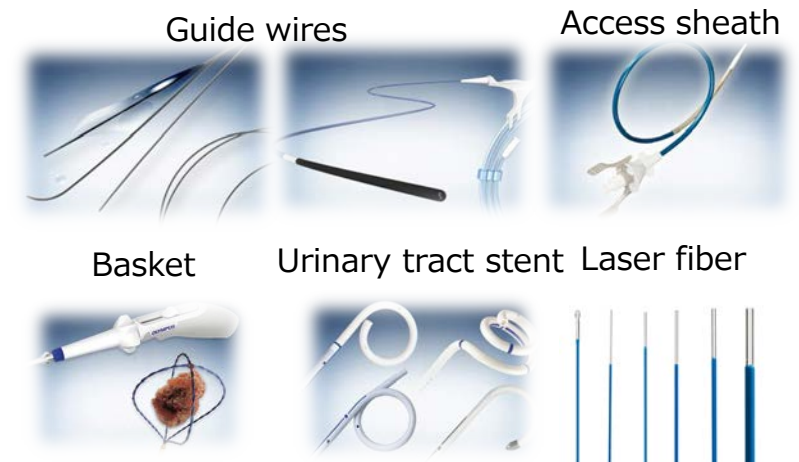
## Progress of 16CSP

Expanding the product portfolio and enhancement of stone management product lineup

- Release of a laser lithotripsy system (March 2018)

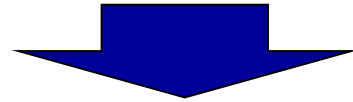


- Development and manufacturing of lithotripsy systems in-house\*



Increase market share and accelerate business growth by expanding product portfolio to enhance product lineup

OUR PURPOSE  
**Making people's lives healthier,  
safer and more fulfilling**



**Value to Be Provided by Medical Business**



**Endoscopes**

**Early diagnosis**

**Minimally invasive treatments**

**OLYMPUS**

---