



Updates to Shionogi Growth Strategy (SGS2020)

October 31, 2016



Summary of SGS2020



Vision **Grow as a drug discovery-based pharmaceutical company**

Top-line growth

Bottom-line growth

**Clear priorities and focused resourcing
Growth led by FIC and LIC compounds**

**Continued improvement of
business operations**

Sales areas

- Japan
- US

Therapeutic areas

- Infectious disease
- Pain/CNS

Growth with current amount of resources

Stable supply, quality and cost-competitiveness

Critical role of headquarters in strategic planning and execution

Develop leaders to accelerate our further growth

Share the growth

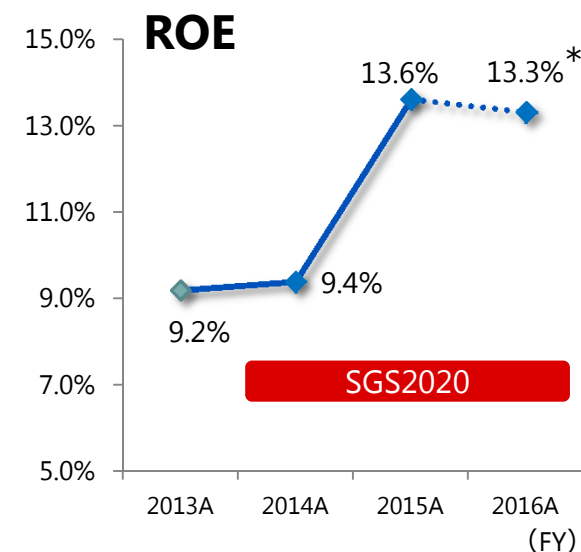
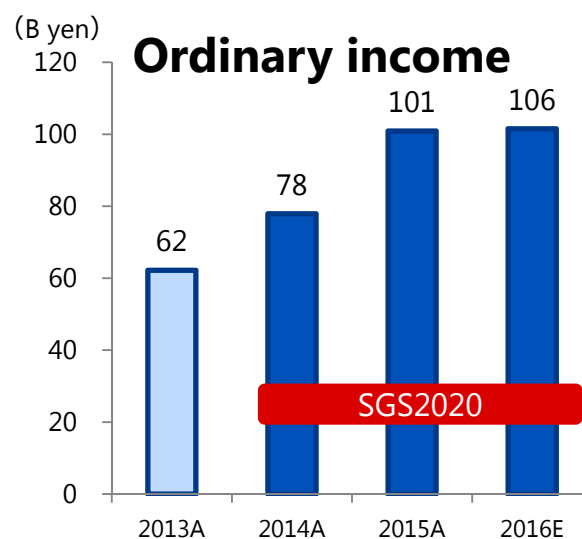
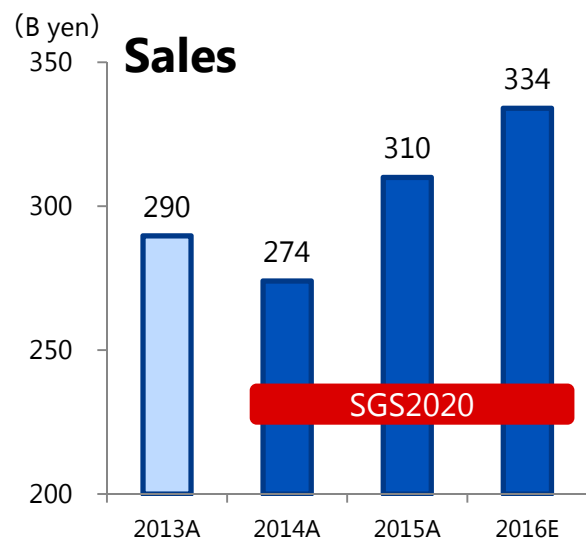
Progress toward Achieving SGS Targets



Achieving SGS2020 quantitative targets ahead of schedule

FY2015 Results

- Sales: **310.0 B yen**
- Ordinary income: **Over 100 B yen**, record-high levels for four consecutive years
- ROE: **Over 13%**, drastically improved



Achievements in SGS2020



Clear priorities and focused resourcing Growth led by FIC and LIC compounds

- **Sales of Crestor[®] exceeded 100B yen by Shionogi/AZN in Japan**
- **Accelerating development and NDA filings**
 - NDA: naldemedine (JP/US), guanfacine hydrochloride (JP)
 - Launched: Actair[®] (JP), Mulpleta[®] (JP), Senshio[®] (EU)
- **Innovative alliances**
 - Modification of the Cymbalta[®] contract (JP)
 - Alliance with Roche regarding S-033188 (global)

Continued improvement of business operations

- **Achieved positive operating income without royalty**
- **Continued expense reductions**
 - COGS: 26.9% → 24.1%
 - Inventory turnover: 7.4 months → 6.8 months
- **Structural reforms**
 - Divested Ezose Sciences, a US subsidiary providing glycan analytical services (Aug. 2014)
 - Established Shionogi Healthcare, consumer healthcare business (Jan. 2016)
 - Restructured diagnostic business (Apr. 2016)
 - Divested twenty-four long-listed drugs (May/Aug. 2016)

Remaining Key Actions for Achieving SGS2020



Global business

- In the most important market, the US, our business hasn't yet achieved profitability
- Osphena[®] is growing, but slowly

Japanese business

- The sales of new products, including Cymbalta[®], Mulpleta[®] and Actair[®] are lower than expectations

Productivity

- Without royalty, operating profit per employee is on a plateau



Prompt maximization of new products' value

External Environment of Pharmaceutical Industry



Patients' active participation in healthcare

- Increase in overall medical needs, but also increased segmentation
- Increased expectations for efficacy, safety and efficiency of new drugs
- Growing expectation for longer healthy life expectancy
- Increasing trends toward self-medication

Changes in R&D environment

- Applying innovative technologies such as iPS cells to enable regenerative medicine and new drug discovery
- Addressing unmet medical needs with drug discovery
- Committing on stemming the rising tide of drug-resistant bacteria and viruses

Trends in global pharmaceutical market

- Developed countries: Financial pressure on health insurance, controversy around high drug prices, pursuit of ROI improvement by public and private healthcare systems
- Emerging countries: rapidly increasing healthcare needs and greater voice commensurate with economic growth

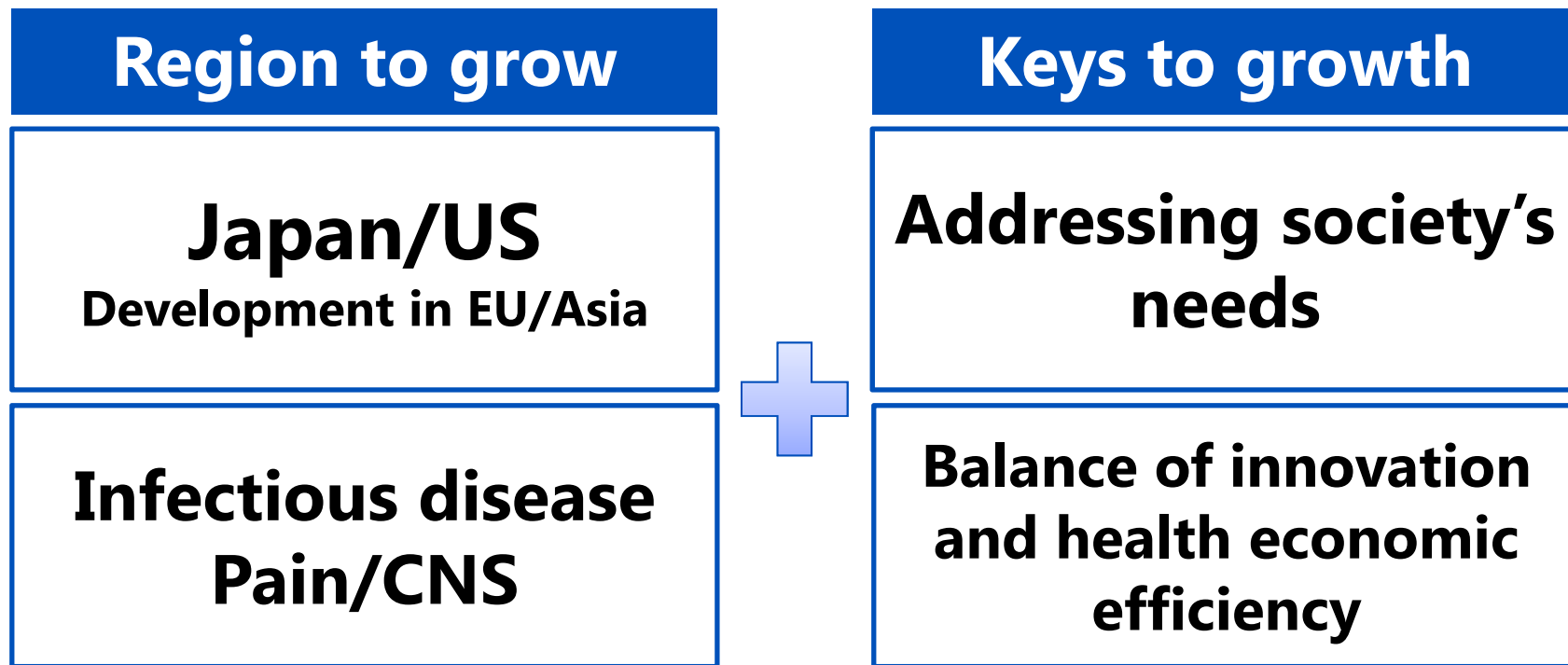
Transformation of healthcare business

- Increasing analyzable healthcare data with IoT, and implementing structure supporting broader utilization and sharing of data
- Borderless healthcare business, networked with new entrants from outside healthcare industry

Growth Strategy for 2020



Grow sustainably as a drug discovery-based pharmaceutical company contributing to a more vigorous society through improved healthcare



Social Challenges that Shionogi Strives to Address



Creating a more vigorous society

- Help people who are isolated due to pain/suffering to re-enter society
- Provide relief from psychological uncertainty allowing fulfillment of one's innate ability
- Maintain the dignity of the individual through all the stages of life



- Develop new drugs against infectious diseases that lack effective medical treatments
- Reduce outbreaks of bacterial and viral resistance by promoting proper use of anti-infective drugs

Protecting people from the threat of infectious diseases

Creating a More Vigorous Society



Pain

- Helping those with chronic pain to live more active lives
 - ⇒ **Cymbalta®**
 - ⇒ **OxyContin®**
- Help patients and society to manage the negative aspects of opioids
 - ⇒ **OxyContin® tamper resistant formulation**
 - ⇒ **Naldemedine**



CNS

- Relieve patients, their families and friends from the impact of psychiatric/nervous system disorders and restore fuller participation in society
 - ⇒ **Guanfacine hydrochloride**
 - ⇒ **Lisdexamfetamine**
 - ⇒ **Cymbalta®**
 - ⇒ **Janssen/Shionogi project compound**

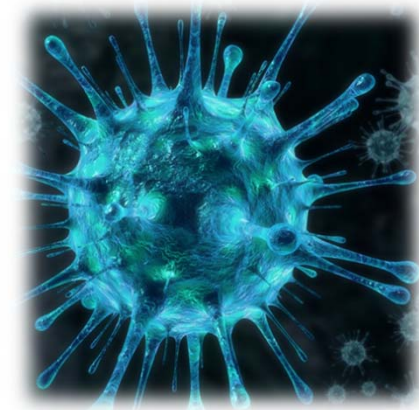


Protecting People from Threat of Infectious Diseases



Anti-viral drugs

- Continuing progressive R&D for anti-HIV drugs
⇒ **HIV franchise**
- Reduce flu symptoms with a single oral dose
⇒ **S-033188**



Drugs for severe infection

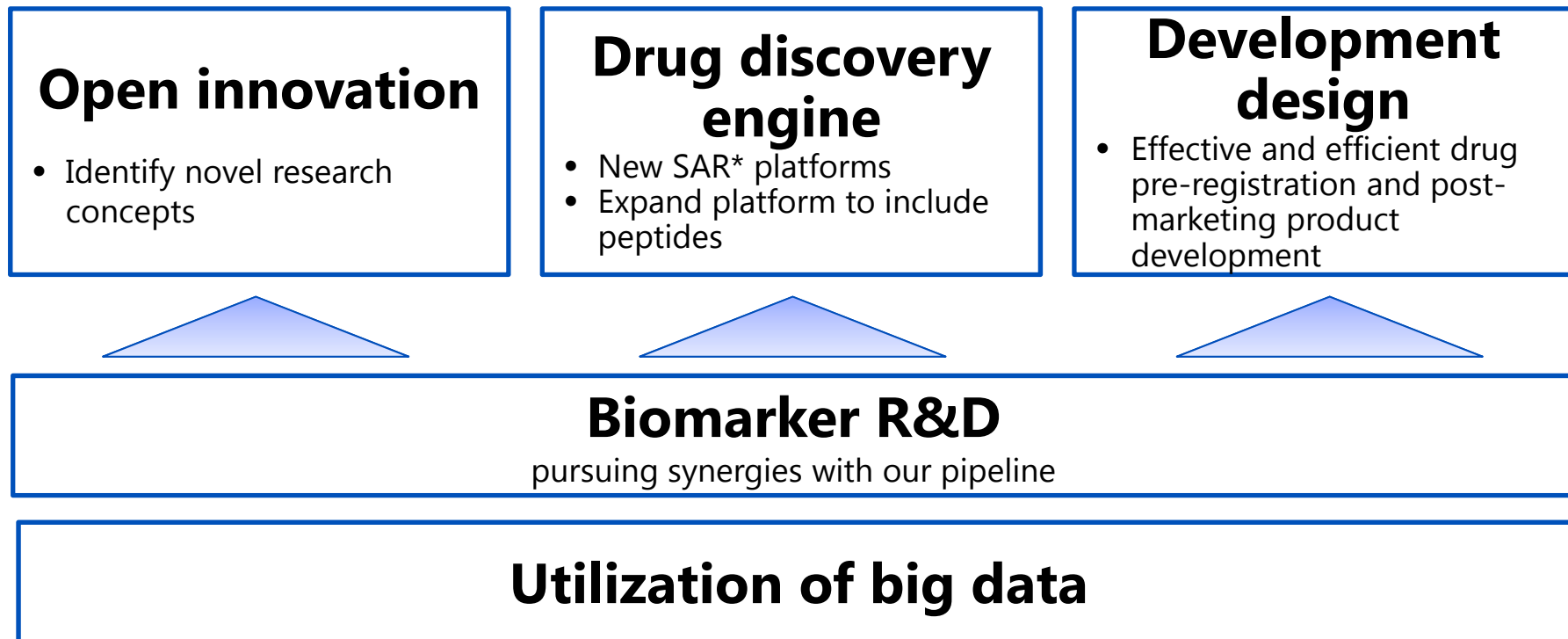
- Actively promote antimicrobial stewardship*
- Save lives at risk from multi-drug resistant bacterial infections
⇒ **cefiderocol (S-649266)**
- Create novel antibiotics against invasive fungal infections with high mortality rates



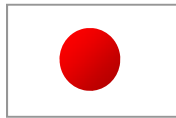
Pursuing More Efficient R&D with Small Molecule Drug Discovery



Contribute throughout the healthcare value chain by leveraging our capabilities in small molecule drug discovery, creating novel drugs whose innovation brings both health and economic benefits



Japan



Further growth based on Pain/CNS

- Maximize Cymbalta[®], both depression and pain
- Establish pain franchise with OxyContin[®] family and naldemedine
- Entry in ADHD with guanfacine hydrochloride and lisdexamfetamine
- Continue to enhance flu field with Rapiacta[®] and S-033188

US



New growth from Shionogi pipeline drugs

- Entry into pain field with naldemedine
- Entry in anti-infective field with cefiderocol (S-649266) and S-033188 (co-promotion with Roche)
- Maximize the value of Osphena[®] brand

Continued Improvement of Business Operations



Highest quality/Stable supply/Cost-competitiveness

Manufacturing

Flexible manufacturing framework from clinical supplies through to marketed products

Logistics

Enhance sales & operations planning globally

Inventory

Establish stocking and inventory management based on BCP

Reliable, well-trusted drugs

Quality

Proactive action based on forward-looking analysis to address risks before they arise

Pharmaceutical affairs

Close adherence to regulations, high-quality filings, and attention to compliance for marketed drugs

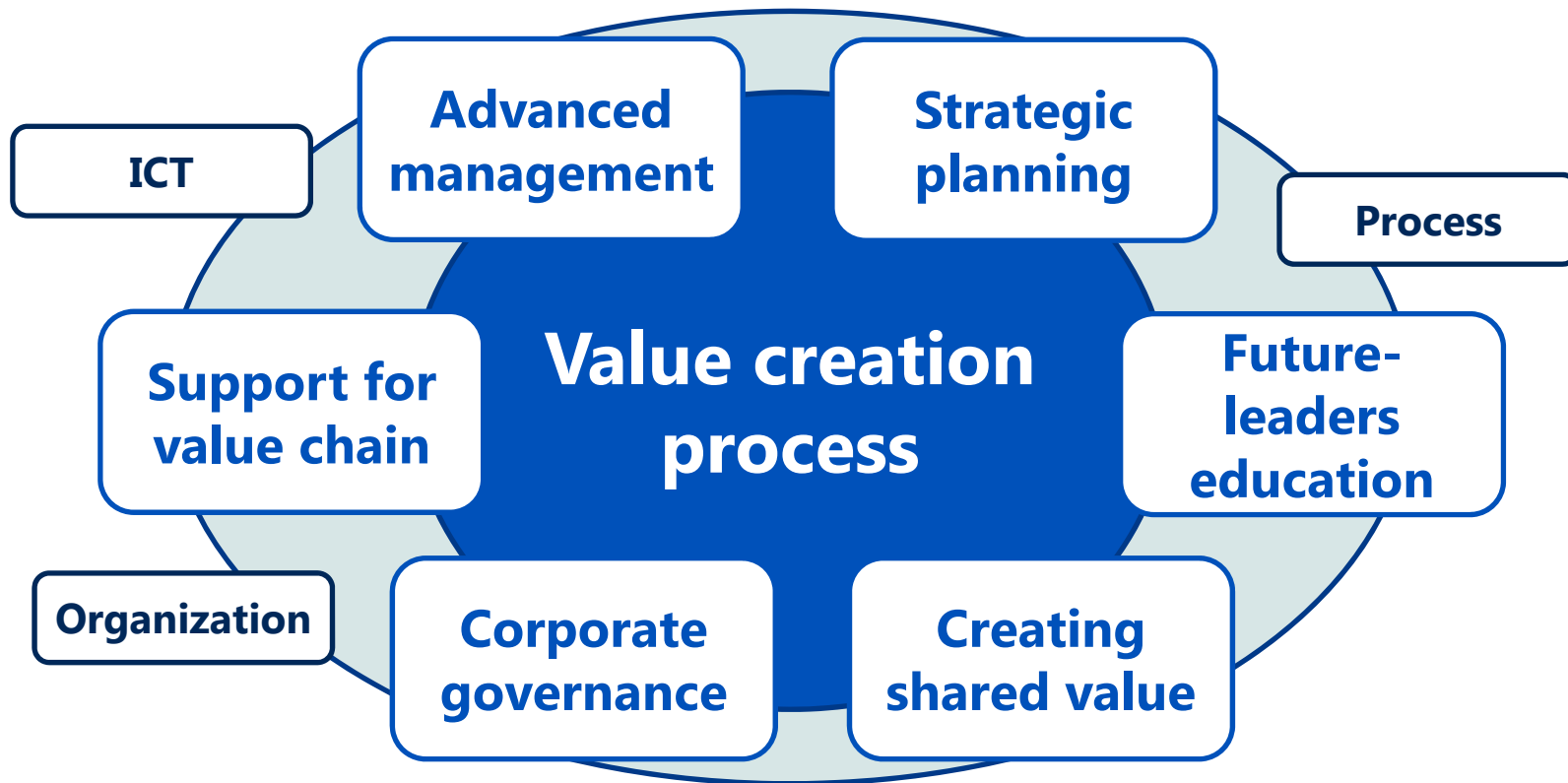
Safety

Provide readily comprehensible, accessible, and comprehensive safety information to meet medical needs

Competitive Headquarters



A headquarters focused on value creation, strategic guidance, and leadership development



New Targets



- Aggressive yet achievable targets
- Focused on independent growth
- Anticipating environmental changes where possible, but flexible enough to accommodate the unexpected

Three focus areas

Growth

Efficiency

**Shareholder
return**

KPIs for Growth



**The Company
Policy of
Shionogi**

“strive constantly to supply the best possible medicine to protect the health and wellbeing of the patients we serve”
.....(snip)
“For this purpose, Shionogi will need to pursue the search for even better medicines”

**Innovative
novel
products**

Bring substantial value to society by creating and fostering new products

**KPI
as a result**

Focused resourcing for the development of new products
Sales of new products: 200 B yen
Ordinary income: 150 B yen

- The most important targets for our growth
- Focused resourcing on what we can control even in the event of changes in the environment

Definition of New Products



Pain/ CNS

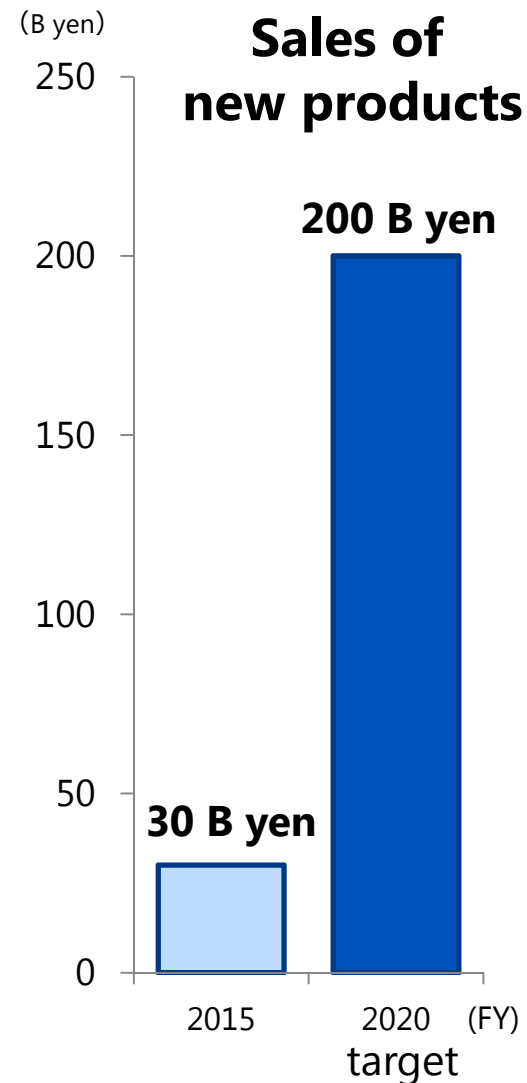
- Cymbalta®
- OxyContin® tamper resistant formulation, OxiNorm®, OxiFast®
- Naldemedine
- Guanfacine hydrochloride, lisdexamfetamine

Infectious diseases

- S-033188
- Cefiderocol (S-649266)
- Rapiacta®, flu diagnosis kit

Others

- Pirespa®
- Mulpleta® (S-888711)
- Actair®
- Glashvista®
- Osphena® (Senshio®)



KPIs for Efficacy



The Company Policy of Shionogi

“Supply the best possible medicine to protect the health and wellbeing of the patients we serve”
(snip)
 “For this purpose, Shionogi will need to research, produce and promote in an even more economical manner”

Enhancing our strength

Increase efficiency in operations

Increase efficiency in R&D

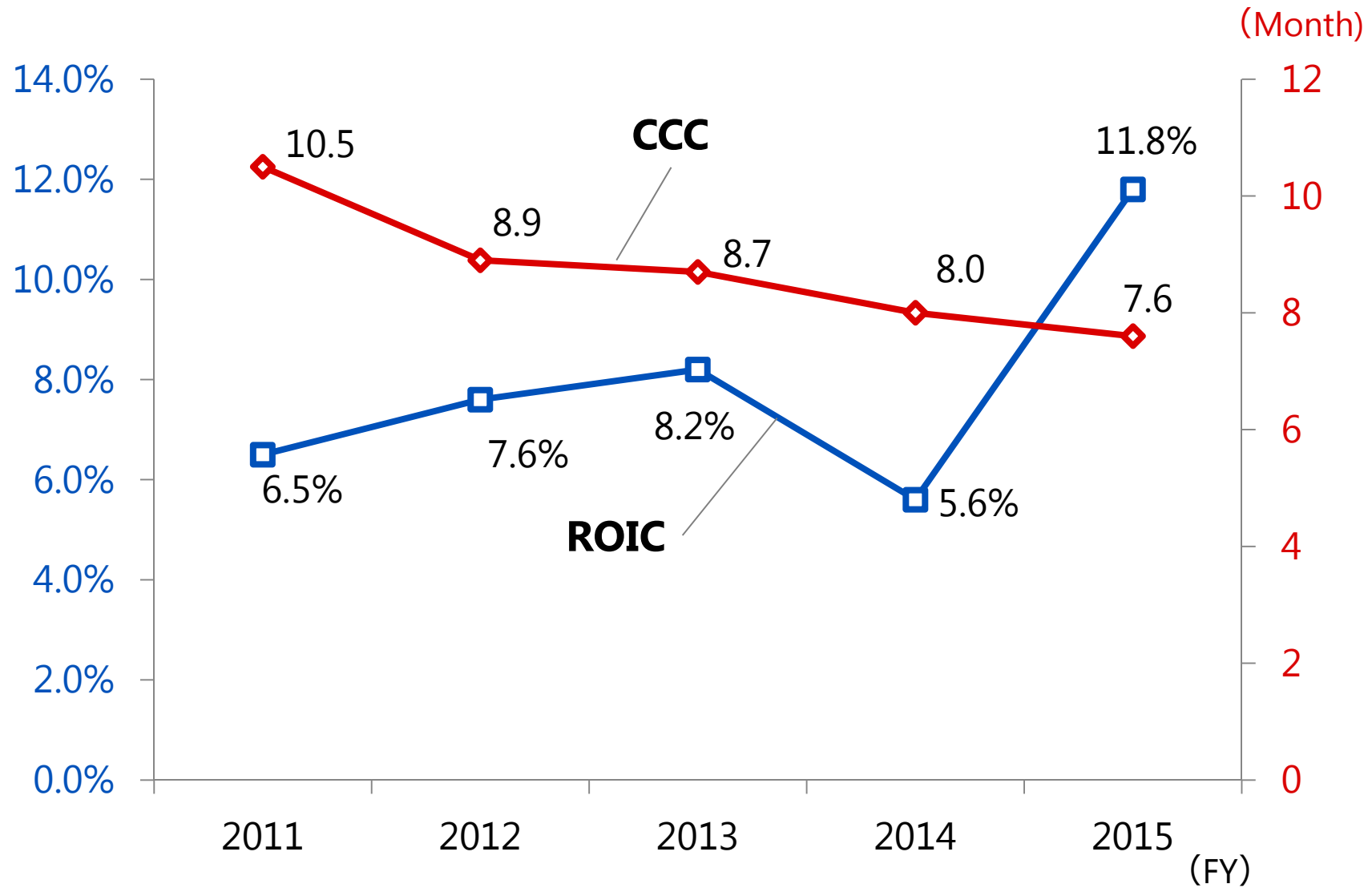
- Improved accounting systems to support value-focused decision-making
- Increased ability to generate cash flow

- Pursuing effective and efficient development of original drugs

KPI as a result

ROIC*: Over 13.5% CCC: 5.5 months**
Our pipeline* ratio: Over 50%**

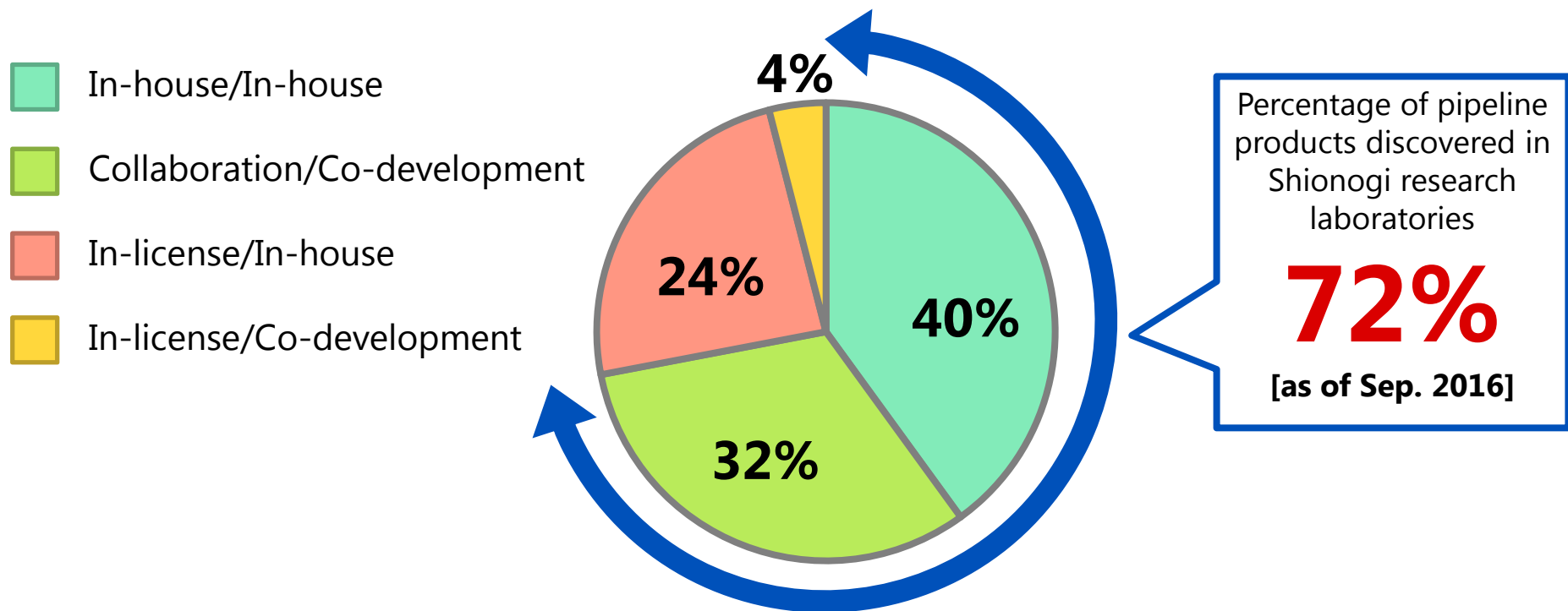
Five-year Trend in ROIC and CCC



Our Pipeline Ratio



More than half of our pipeline* was discovered within Shionogi

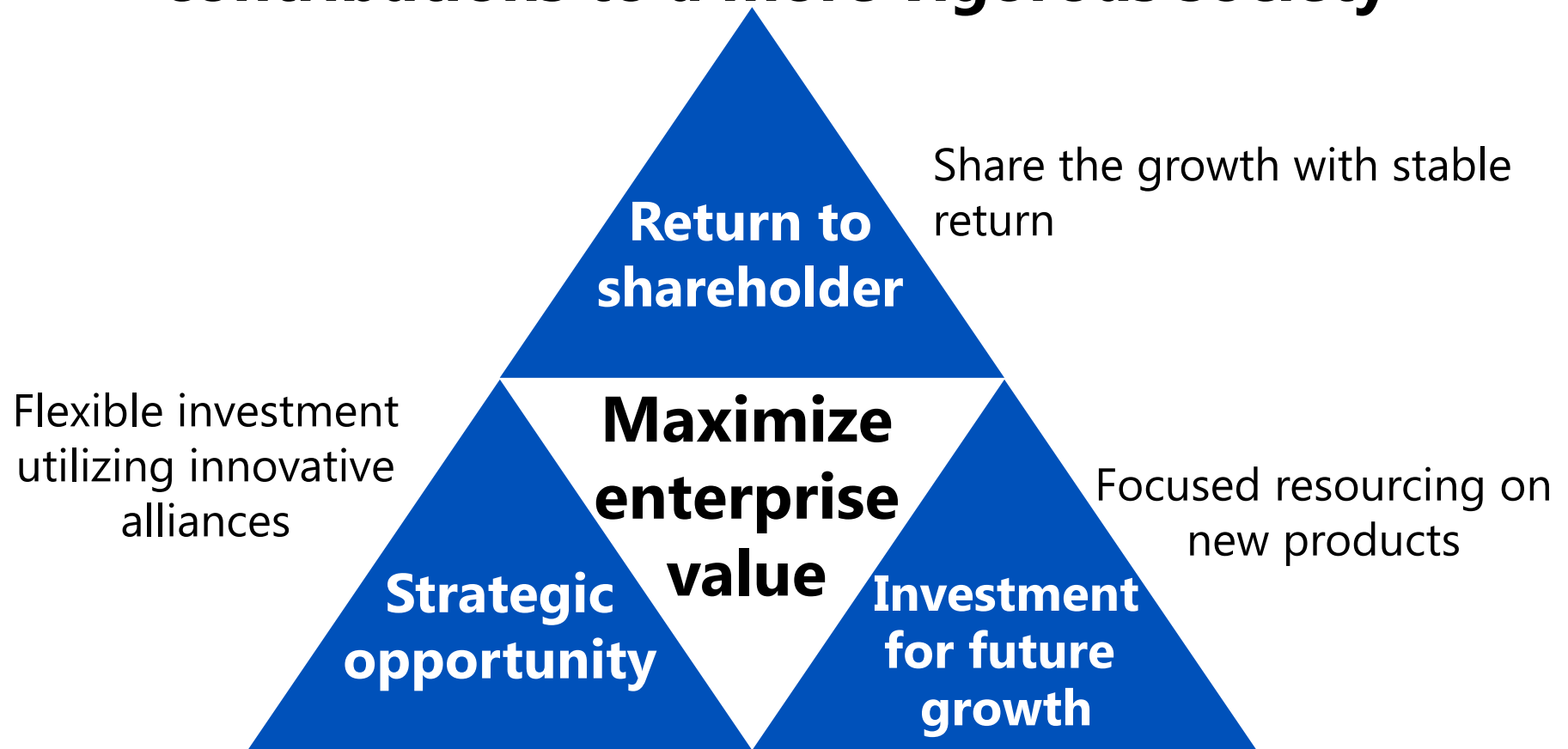


- Leveraging our capabilities in small molecule drug discovery
- Open innovation: Identify novel drug seeds and develop them

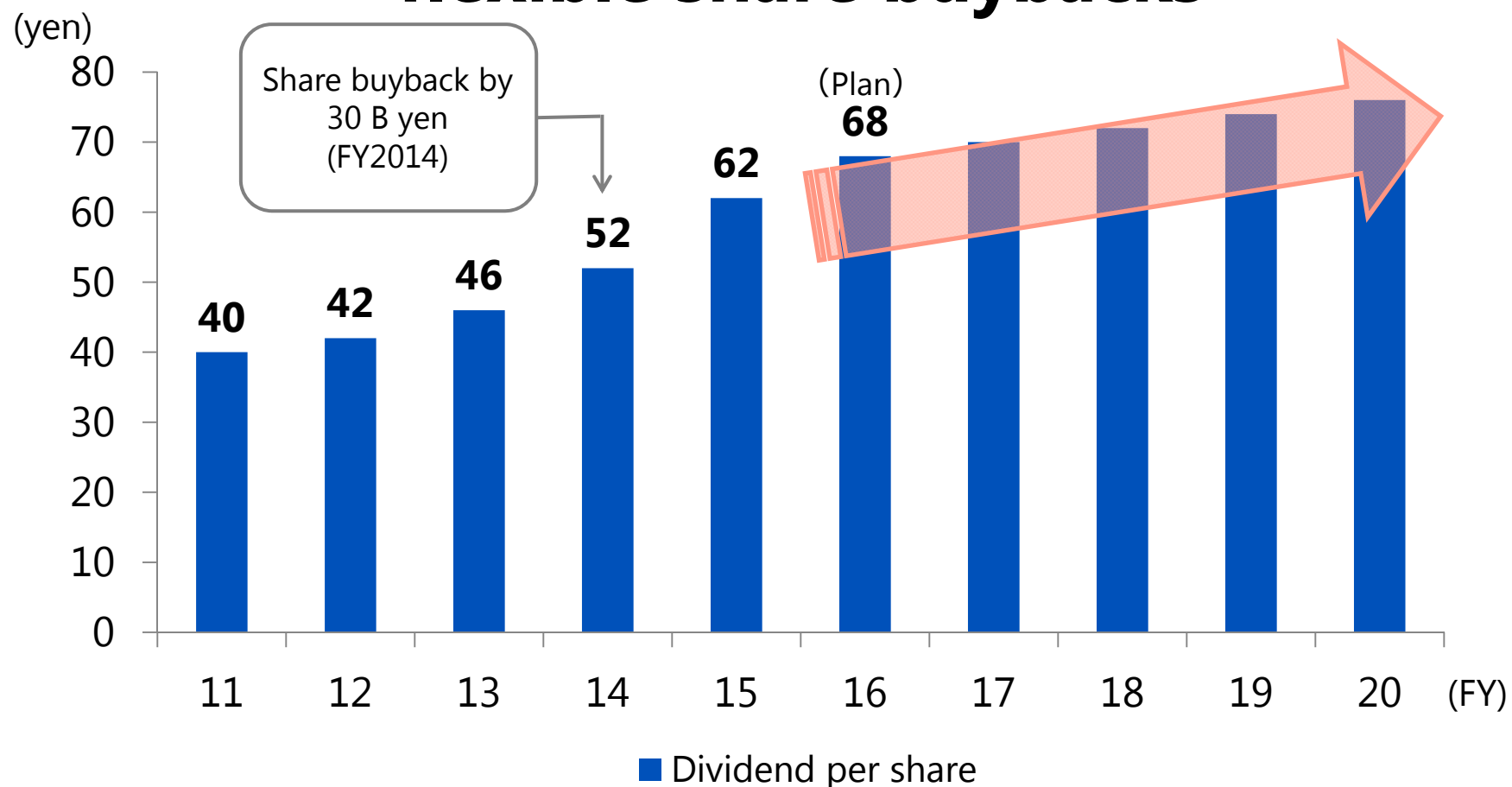
Balancing Shareholder Return and Investment for Our Future



Maximize enterprise value by balancing three key factors, reflecting growth commensurate with our contributions to a more vigorous society



Continuous dividend increases and flexible share buybacks



KPIs for SGS2020



Growth

- Sales of new products: 200 B yen
- Ordinary income: 150 B yen

Efficiency

- ROIC: Over 13.5%
- CCC: 5.5 months
- Original pipeline ratio: Over 50%

Shareholder return

- ROE: Over 15%
- DOE: Over 4.0%

Vision for SGS2020



Grow sustainably as a drug discovery-based pharmaceutical company contributing to a more vigorous society through improved healthcare

