

# Medium-term Management Initiative (FY 2016–2018) Progress and Outlook

May 29, 2018  
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Asahi Kasei Corporation

Asahi**KASEI**

# Today's Focus

- ✓ Steady progress toward achievement of “Cs for Tomorrow 2018” objectives
  - Record-high financial performance in FY 2017; on track to achieve FY 2018 targets
  - Steady advances to build the base for the next phase
    - Creating a portfolio of high-profitability, high value-added businesses
- ✓ Proactive and strategic growth measures for FY 2025 with management perspective on ESG aspects based on Group Mission, Vision, and Values

# Outline

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1. Performance Results and Investments
2. Ideal for Asahi Kasei
3. Actions Advanced under “Cs for Tomorrow 2018”
4. Completing “Cs for Tomorrow 2018”



# 1. Performance Results and Investments

# 1.1. Financial performance

New records in net sales, operating income, and net income

Cs for Tomorrow 2018  
(CT2018)

(¥ billion, except where noted)	FY 2015	FY 2016	FY 2017	FY 2018 forecast (As of May 2018)	FY 2018 target (As of April 2016)	FY 2025 outlook (As of April 2016)
Net sales	1,940.9	1,883.0	2,042.2	2,155.0	2,200.0	3,000.0
Operating income	165.2	159.2	198.5	190.0	180.0	280.0
Operating margin	8.5%	8.5%	9.7%	8.8%	8.2%	9.3%
Net income	91.8	115.0	170.2	140.0	110.0	
Net income per shareholders' equity (ROE)	8.6%	10.5%	14.0%		9.0%	10.0%
Net income per shareholders' equity and interest-bearing debt	7.1%	7.6%	9.7%		7.0%	8.0%
Dividends per share	20	24	34	34		
Payout ratio <sup>1</sup>	30.4%	29.1%	27.9%	33.9%	35.0%	
¥/US\$ Exchange rate	120	108	111	105	110	

<sup>1</sup> FY 2018 target figure for payout ratio is total return ratio including share buybacks.

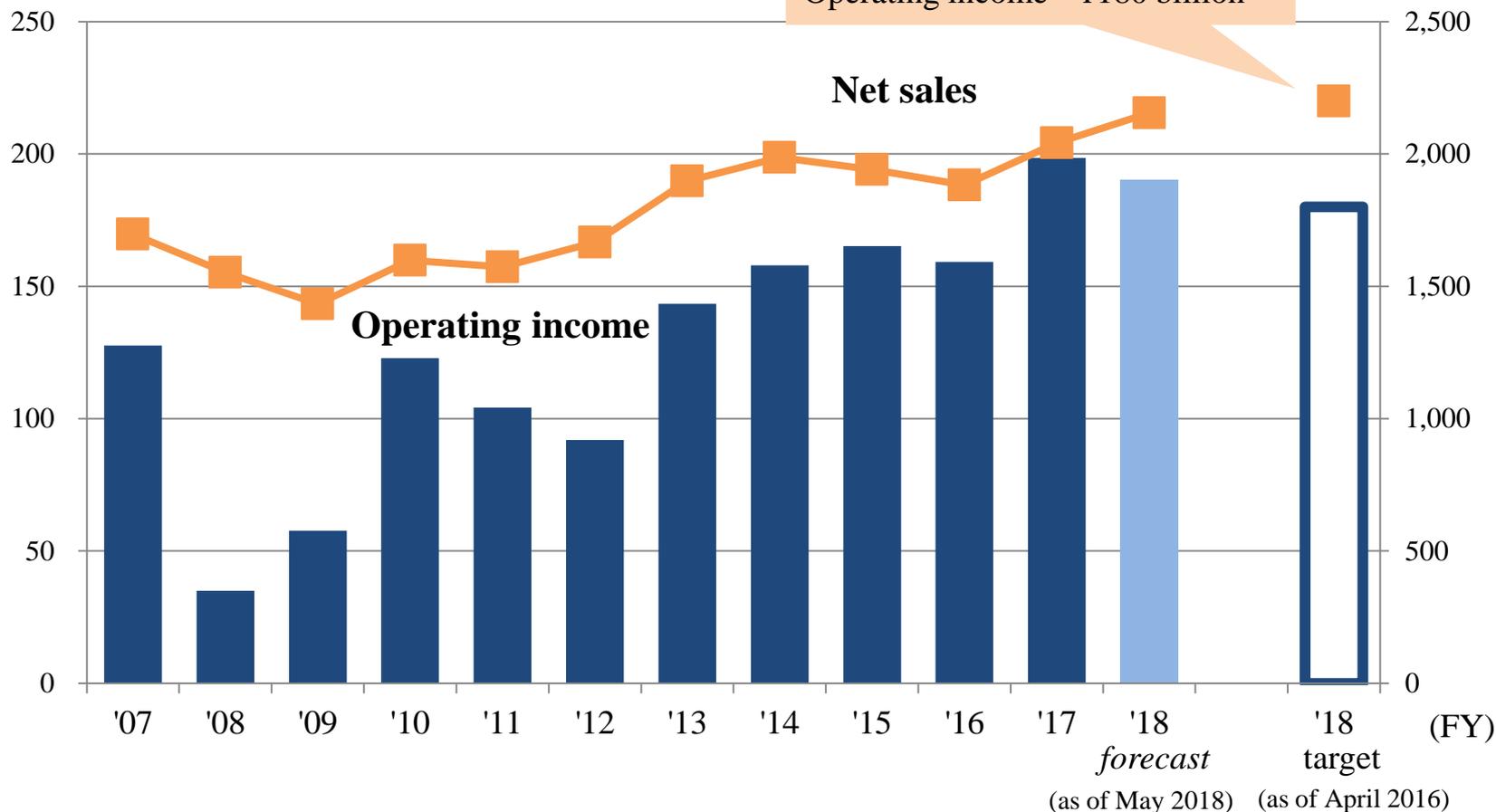
## 1.2. Financial results and plan by segment

(¥ billion, except where noted)		FY 2016 <sup>1</sup>	FY 2017	FY 2018 forecast (As of May 2018)	FY 2018 target (As of April 2016)	FY18–25 increase, growth rate	FY 2025 outlook (As of April 2016)	
Material	Net sales	977.9	1,087.7	1,175.0	1,250.0	/	1,650.0	
	Operating income	88.5	121.9	115.0	100.0		140.0	
	Operating margin	9.0%	11.2%	9.8%	8.0%		+ 0.5pt	8.5%
Homes	Net sales	619.0	641.0	657.0	700.0	/	1,000.0	
	Operating income	64.1	64.4	65.5	70.0		+ 30.0	100.0
	Operating margin	10.4%	10.0%	10.0%	10.0%			10.0%
Health Care	Net sales	270.1	296.3	303.0	370.0	+ 7.2%/year	600.0	
	Operating income	31.9	39.5	37.5	50.0	/	80.0	
	Operating margin	11.8%	13.3%	12.4%	13.5%		13.3%	
Others	Operating income	(25.3)	(27.3)	(28.0)	(40.0)			(40.0)
<b>Total</b>	<b>Operating income</b>	<b>159.2</b>	<b>198.5</b>	<b>190.0</b>	<b>180.0</b>		<b>280.0</b>	

<sup>1</sup> Beginning with FY 2017, the Energy Division, which was formerly included in Others, is reclassified into the Material segment. FY 2016 figures are recalculated in accordance with the new classification.

# 1.3. Sales and operating income

Operating income  
(¥ billion)



Operating margin  
(%)

7.7	2.3	4.1	7.9	6.6	5.5	7.6	7.9	8.5	8.5	9.7	8.8
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Dividends per  
share (¥)

13	10	10	11	14	14	17	19	20	24	34	34
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## 1.4. Financial and capital strategy

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### **Operating cash flow (3-year total): ¥600–700 billion**

- Enhancing competitiveness of established businesses
- Creating new added value in each sector

### **Total investment (3-year total): ≈¥700 billion**

- Proactively advance M&A and other new investment in addition to investment to maintain and expand established businesses

### **Target for total return ratio**

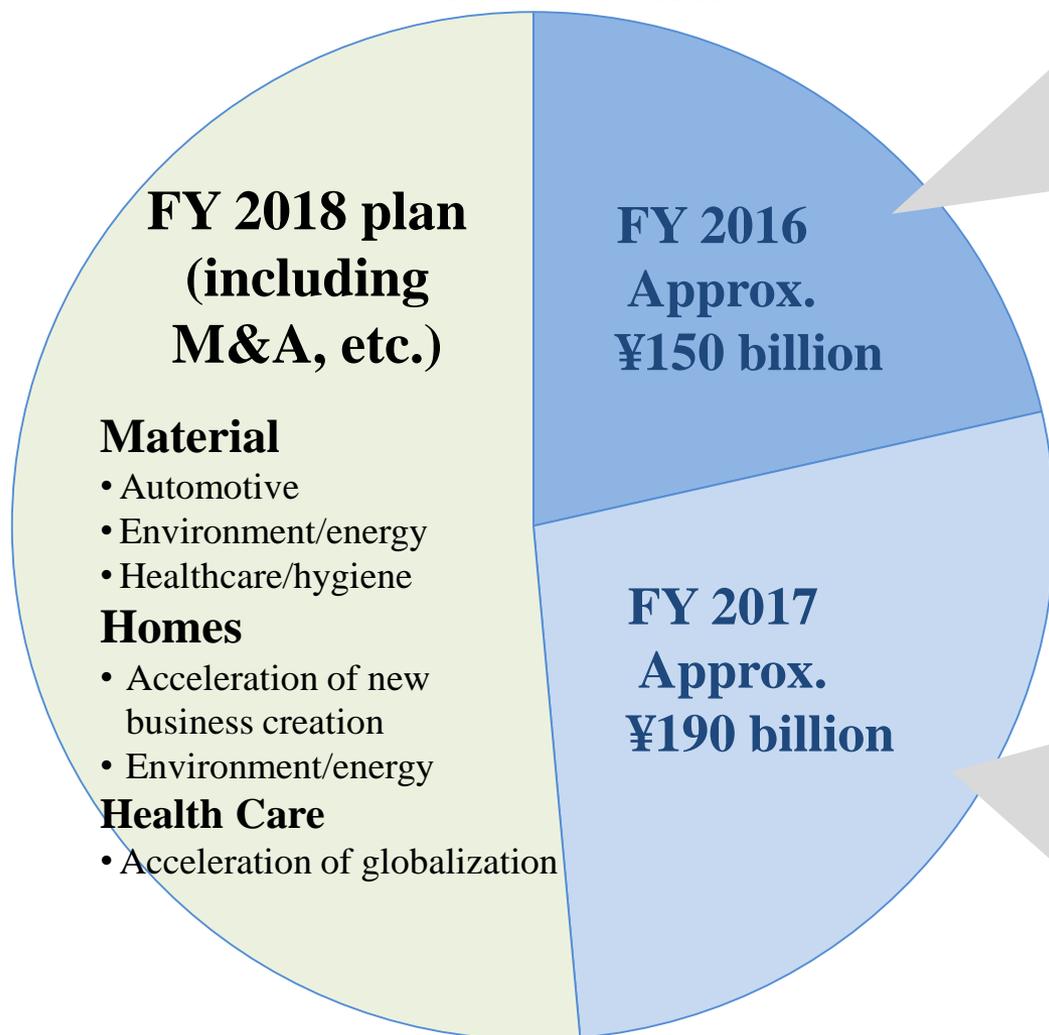
- Stable and continuous dividend increases
- 35% in FY 2018 (including share buybacks performed flexibly)

### **Funding policy**

- In principal by borrowings while maintaining D/E ratio around 0.5

## 1.5. Progress on long-term investment (on decision-adopted basis)

CT2018  
FY 2016–2018  
¥700 billion in total



**FY 2018 plan  
(including  
M&A, etc.)**

### Material

- Automotive
- Environment/energy
- Healthcare/hygiene

### Homes

- Acceleration of new business creation
- Environment/energy

### Health Care

- Acceleration of globalization

**FY 2016  
Approx.  
¥150 billion**

### Major investments

#### Material

- Capacity expansions for battery separator
- Construction of new R&D facility (Fibers)
- Establishment of Xyron mPPE joint venture

#### Homes

- Capital and business alliance with Mori-Gumi Co., Ltd.
- Capital and business alliance with Chuo Build Industry Co., Ltd.
- Establishment of Kanto-area site for steel-frame members

#### Health Care

- Augmenting product pipeline (pharmaceuticals)

**FY 2017  
Approx.  
¥190 billion**

### Major investments

#### Material

- Capacity expansions for battery separator
- Capacity expansions for S-SBR for fuel-efficient tires
- Capacity expansions for Lamous microfiber suede
- Capacity expansions for Leona nylon 66 filament
- Acquisition of shares of Senseair AB, a Swedish manufacturer of CO<sub>2</sub> sensor modules

#### Homes

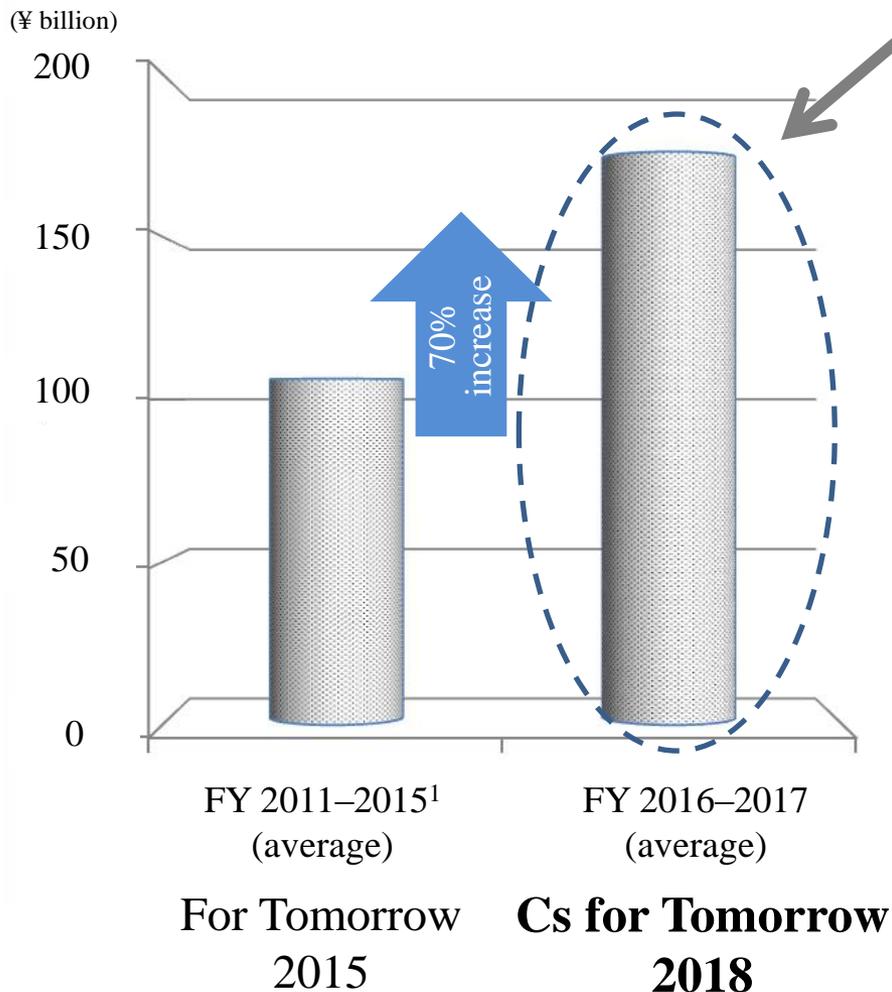
- Capital alliance with McDonald Jones Homes Pty Ltd in Australia

#### Health Care

- Capacity expansion of spinning for Planova virus removal filters

## 1.6. Long-term investments compared to previous mid-term management plan

Value of long-term investments on decision-adopted basis  
(compared to previous mid-term management plan)



Contribution to increased production and profit growth in FY 2019–2020

Major capacity expansion  
(start-up from FY 2018 onward)

◇ LIB separator

Approx. 500 million m<sup>2</sup>/y (+80%) capacity increase  
start-up: FY 2018–2020

◇ S-SBR for fuel-efficient tires

Approx. 30,000 t/y (+30%) capacity increase  
start-up: FY 2018

◇ Lamous microfiber suede

Approx. 3 million m<sup>2</sup>/y (+50%) capacity increase  
start-up: FY 2019

◇ Leona nylon 66 filament

Approx. 5,000 t/y (+15%) capacity increase  
start-up: FY 2019

◇ Planova virus removal filters

Approx. 40,000 m<sup>2</sup>/y (+40%) capacity increase  
start-up: FY 2019

<sup>1</sup>Acquisition of ZOLL and Polypore is excluded.



## 2. Ideal for Asahi Kasei

## 2.1. Ideal for Asahi Kasei (current & future)

**Mission**

**Contributing to life and living for people around the world**

**Vision**

**Providing new value to society by enabling “living in health and comfort” and “harmony with the natural environment”**

**Values**

**“Sincerity,” “Challenge,” “Creativity”**

**“Creating for Tomorrow”**

**Working on ESG issues (Environmental, Social, Governance) based on our Mission, Vision, and Values**

## 2.2. Perspective on achieving mission and vision (materiality)

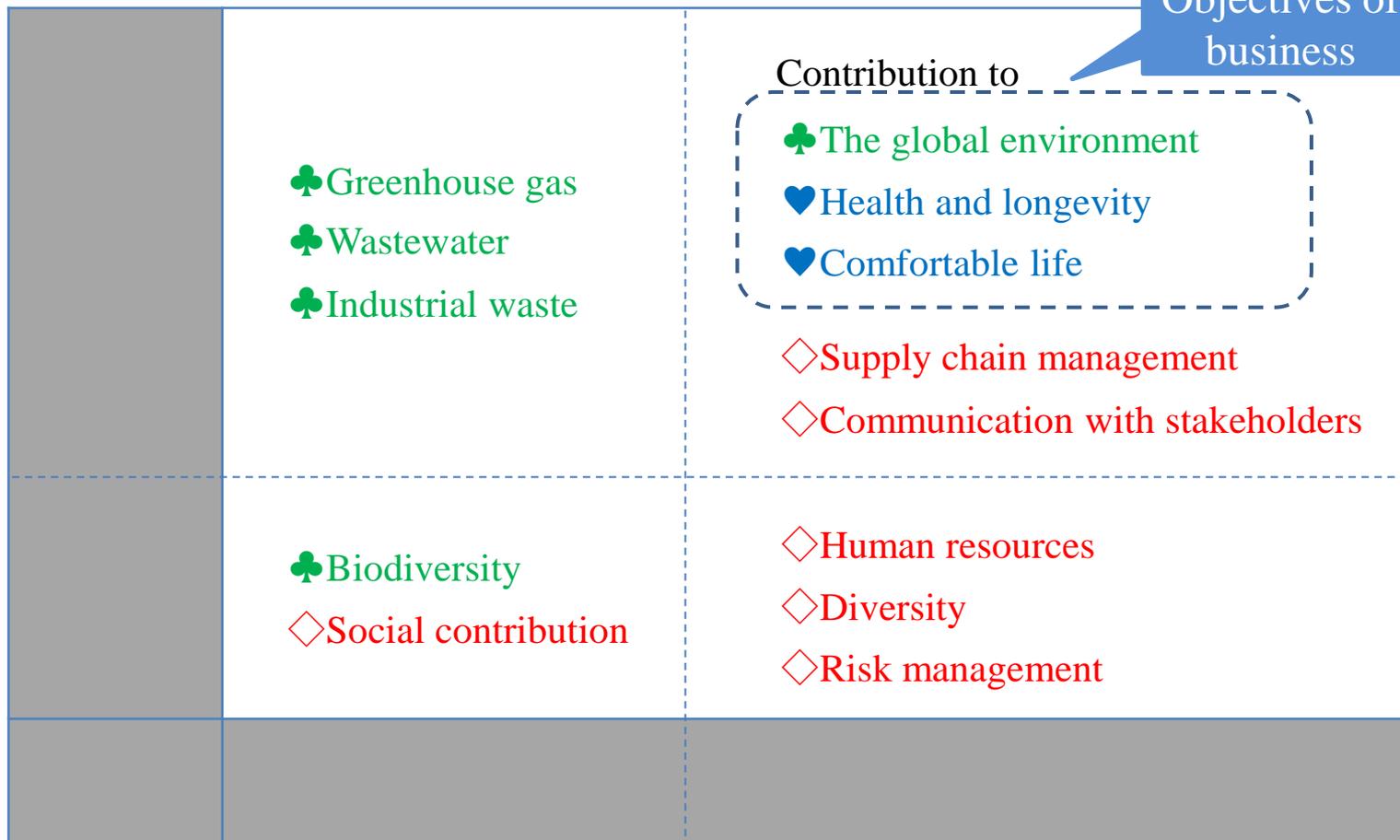
Highest priority for mapping below

- ◇ Governance
- ◇ Compliance/sincerity
- ◇ Human rights
- ◇ Safety/quality

- ♣ Harmony with the environment
- ♥ Living in health and comfort
- ◇ Basic activity

Extremely important

Importance for stakeholders



Important

Extremely important

Importance for the Asahi Kasei Group

## 2.3. Basic concept of “Cs for Tomorrow 2018”

Providing solutions to two important challenges faced by society with diversified businesses

Society of clean  
environmental energy

Society of healthy/comfortable  
longevity with peace of mind

Advancing toward 2025

Creating a portfolio of high-profitability, high value-added businesses



Focus of “Cs for Tomorrow 2018”

Advancing “compliance,” “communication,” and “challenge” to build the base for the next phase with connections among diverse businesses and diverse human resources

Compliance

Communication

Challenge

### Basic strategy

Pursuit of growth  
and profitability

Creation of  
new businesses

Acceleration of  
globalization



### 3. Actions Advanced under “Cs for Tomorrow 2018”

## 3.1.1. Material

Society of clean  
environmental energy



Society of healthy/comfortable longevity  
with peace of mind

### Fields of focus

#### Automotive

- S-SBR for fuel-efficient tires
- Leona nylon 66 filament for airbags
- Lamous microfiber suede for automotive interior
- Resin compounds  
Reinforced business configuration in Europe, the US, and Asia
- Electronic devices for automotive

#### Environment/energy

- LIB separator
- Xyron mPPE  
Establishment of joint ventures in China
- ☆ CO<sub>2</sub> sensor modules  
Acquisition of shares for Senseair AB
- ☆ DRC process for DPC<sup>1</sup>  
Validation
- ☆ Alkaline water electrolysis system  
Demonstration project in Europe

#### Healthcare/hygiene

- Spunbond nonwoven for diapers
- Bemliese continuous-filament cellulose nonwoven for facial masks
- Saran Wrap cling film  
New packaging
- ☆ UVC LED for disinfection

■ Capacity expansion, etc. ☆ Advance of new businesses ○ Business configuration

<sup>1</sup> New process to produce diphenyl carbonate (DPC) via dialkyl carbonate (DRC) from CO<sub>2</sub>, alcohol, and phenol.

## 3.1.2. Material (Automotive 1)

### Sector-wide measures

- ✓ **Strategic relationships with industry players**
  - Private exhibitions
    - OEMs and Tier-1 suppliers (domestic and overseas)
  - Exhibiting at trade shows as a Group (Tokyo, Yokoyama, Nagoya, Germany, China)
- ✓ **Development and utilization of AKXY concept car (presenting combined strength)**
- ✓ **New business projects (cellulose nanofiber, etc.)**
- ✓ **Measures in Europe as focal area**
  - Enhanced marketing and sales (Asahi Kasei Europe, launched April 2016)
  - Enhanced R&D and technology information (Europe R&D Center, launched October 2017)



Private exhibition

#### Examples

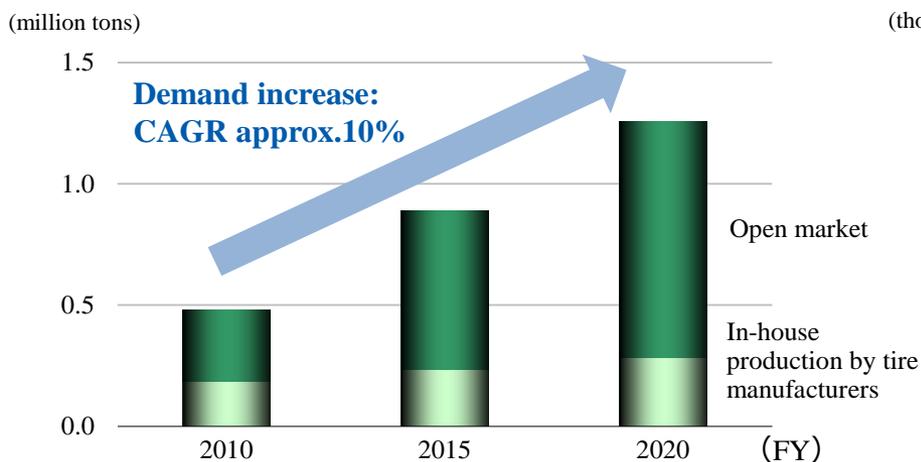
- Heightening brand presence in Europe
- Strengthening relationships with OEMs and Tier-1 suppliers
- Greater collaboration with academia (RWTH Aachen University in Germany, etc.)

### 3.1.3. Material (Automotive 2)

## Increased capacity for S-SBR for fuel-efficient tires

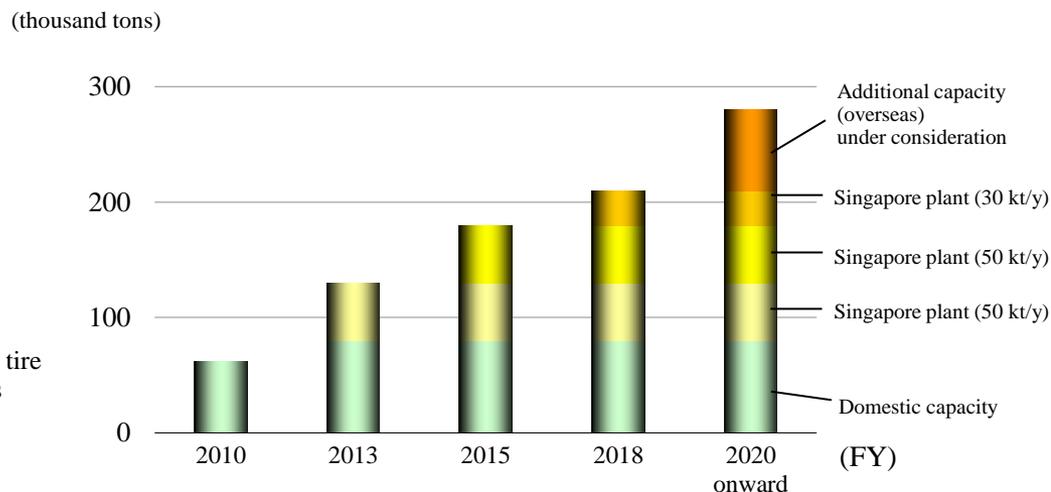
Building stable supply configuration to meet growing demand for S-SBR

- ✓ Top share in Asian market for S-SBR for fuel-efficient tires
- ✓ Enhancing overall tire performance, with good balance of fuel efficiency and wet grip
- ✓ Technology for both continuous and batch polymerization processes; taking the lead to proactively expand capacity for continuous process, with advantage of fewer competitors



Demand forecast for S-SBR for fuel-efficient tires  
(Asahi Kasei estimate)

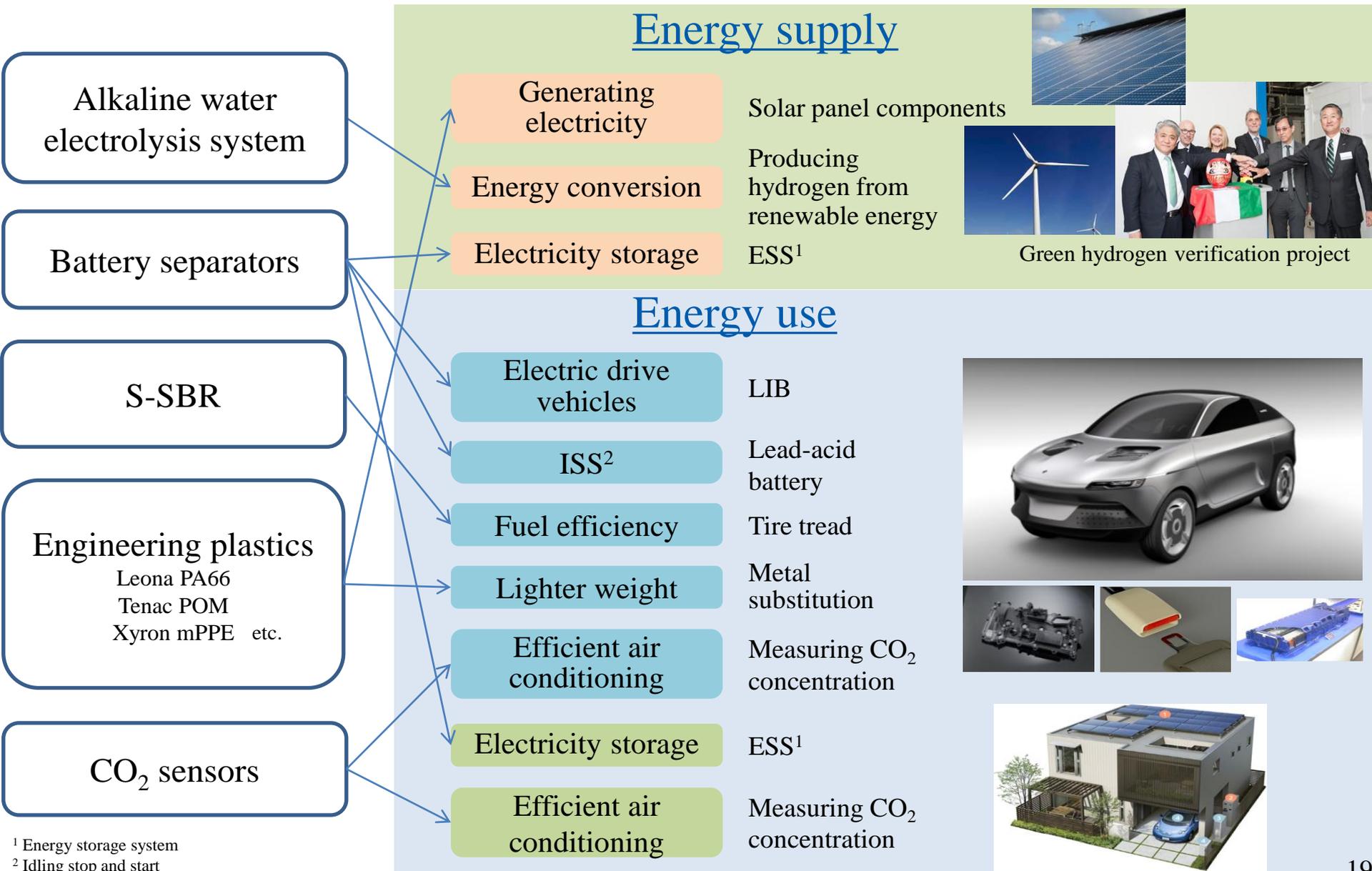
Considerable increase in demand for S-SBR with growing demand for high-performance tires due to labeling requirements, etc.



Asahi Kasei production capacity  
for S-SBR for fuel-efficient tires

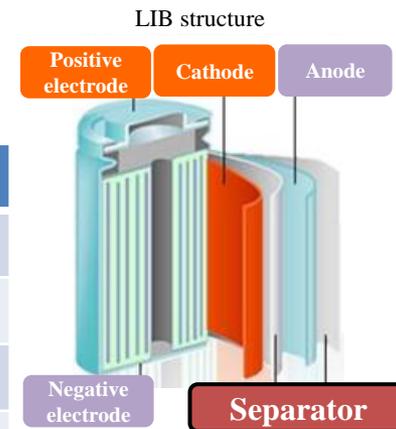
Singapore plant – 30 kt/y capacity increase  
Start-up: January 2019

# 3.1.4. Material (Environment/Energy 1)

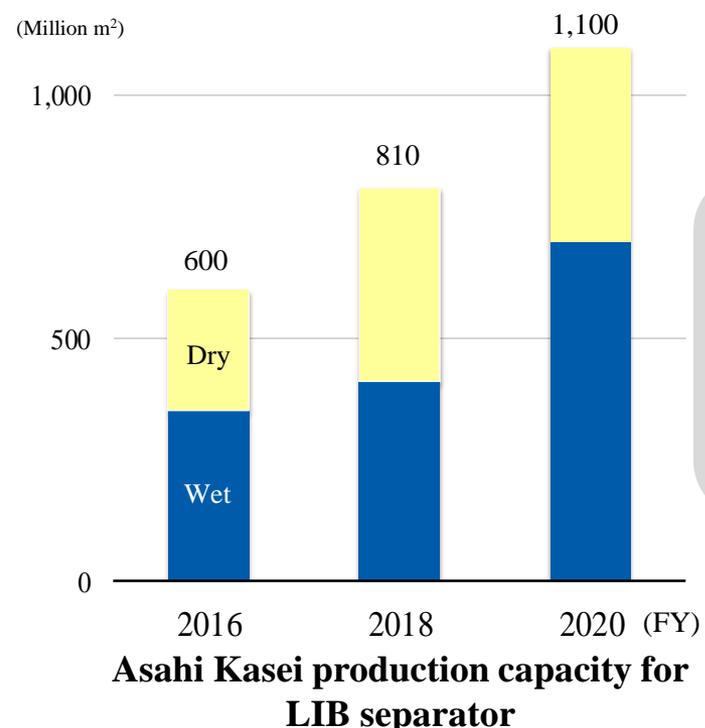
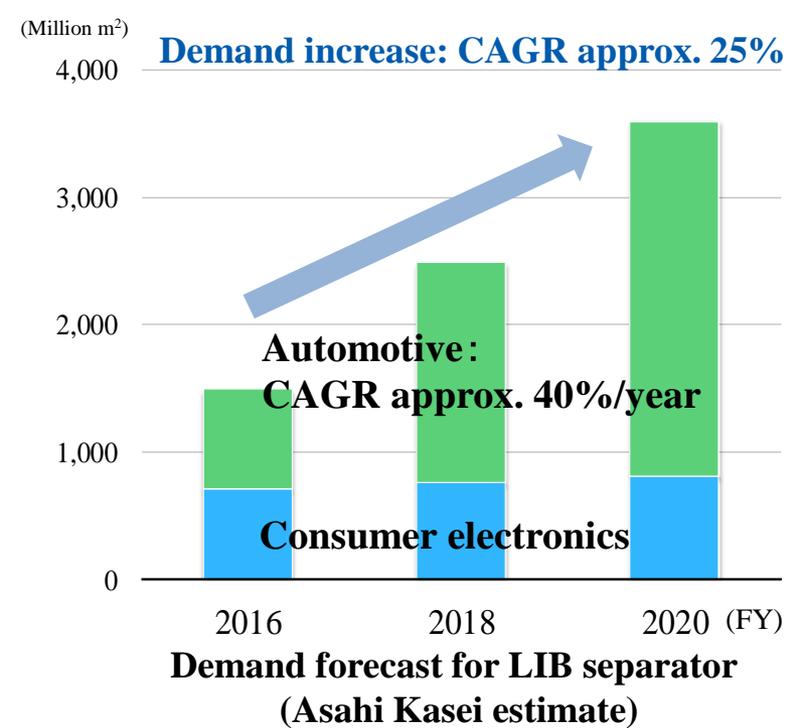


# 3.1.5. Material (Environment/Energy 2)

## Capacity expansions for LIB separator to prepare for upcoming EV market growth



Process	Location	Capacity	Start-up schedule
Wet	Moriyama, Shiga, Japan	Approx. 60 million m <sup>2</sup> /year	First half of FY 2018
Dry	North Carolina, the US	Approx. 150 million m <sup>2</sup> /year	Second half of FY 2018
Wet	Moriyama, Shiga, Japan	Approx. 200 million m <sup>2</sup> /year	First half of FY 2019
Wet	Moriyama, Shiga, Japan	Approx. 90 million m <sup>2</sup> /year	First half of FY 2020

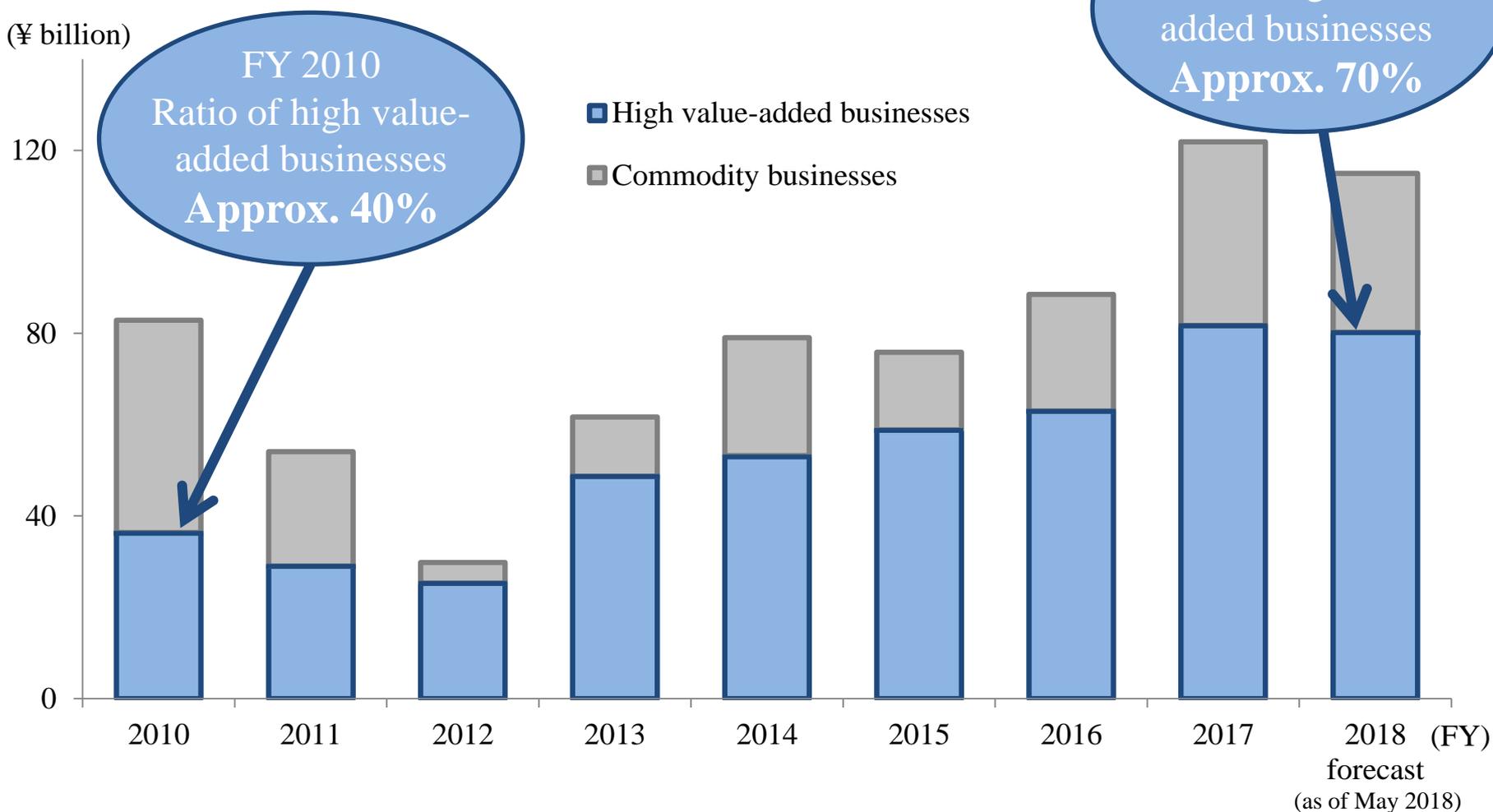


- ✓ Swiftly meeting various market needs with both wet-process and dry-process separators
- ✓ Further expand capacity to meet rising global demand

### 3.1.6. Material (growth in high value-added businesses<sup>1</sup>)

#### Operating income of Material segment

(¥ billion)



<sup>1</sup> High value-added businesses: fibers, synthetic rubber, engineering plastics, coating materials, ion-exchange membranes, electronic materials, consumables, separators, electronic devices, etc.

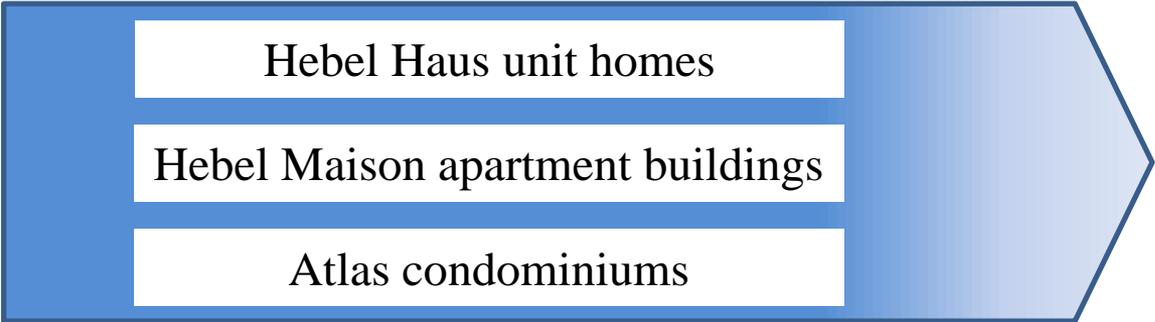
Healthy/comfortable  
longevity with peace of mind

### 3.2.1. Homes

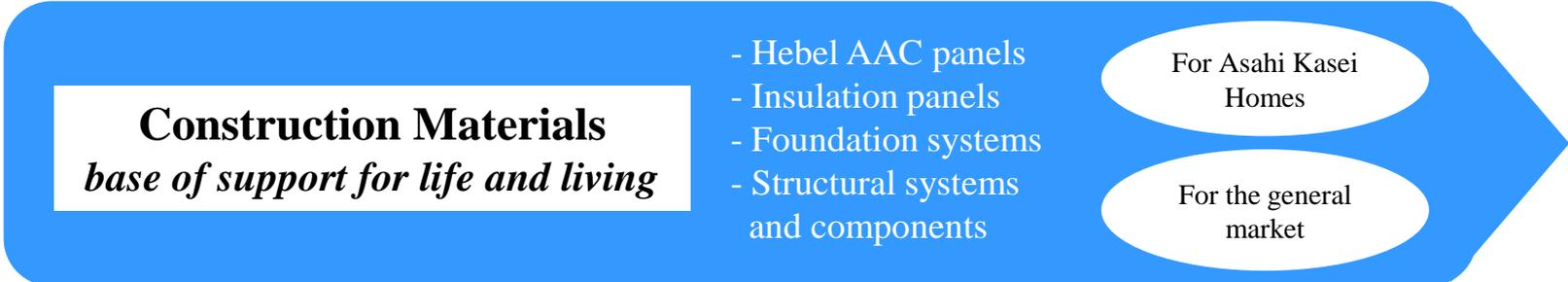
Enabling rich lifestyle with peace of mind

#### Order-built homes, condominium construction

#### Services



Extending and broadening the value chain



New markets  
New products

## 3.2.2. Homes

### Development of new core businesses

#### Homes business

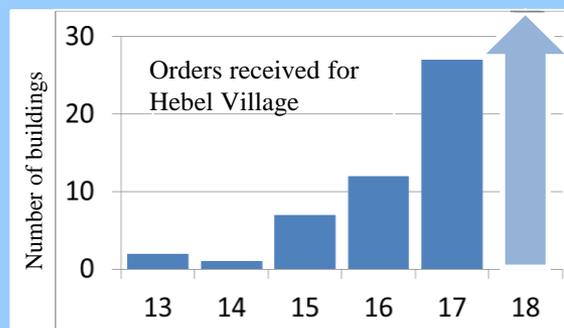
##### 1. Medium-rise homes (5–8 stories)

Full-fledged sales of Hebel Building System launched in FY 2017



##### 2. Homes for seniors

Expansion of Hebel Village apartments for seniors



##### 3. Overseas business

Leveraging know-how in standardization and systemization for homes construction in Australia (Capital alliance with Australian homes company in 2017)



#### New business

- Rebuilding of commercial building at Machida station, in Tokyo
- Start of management of owned real estate



#### Construction Materials business

January 2018 launch of Neoma Zeus with the highest level of insulation performance: Studying development for non-housing applications

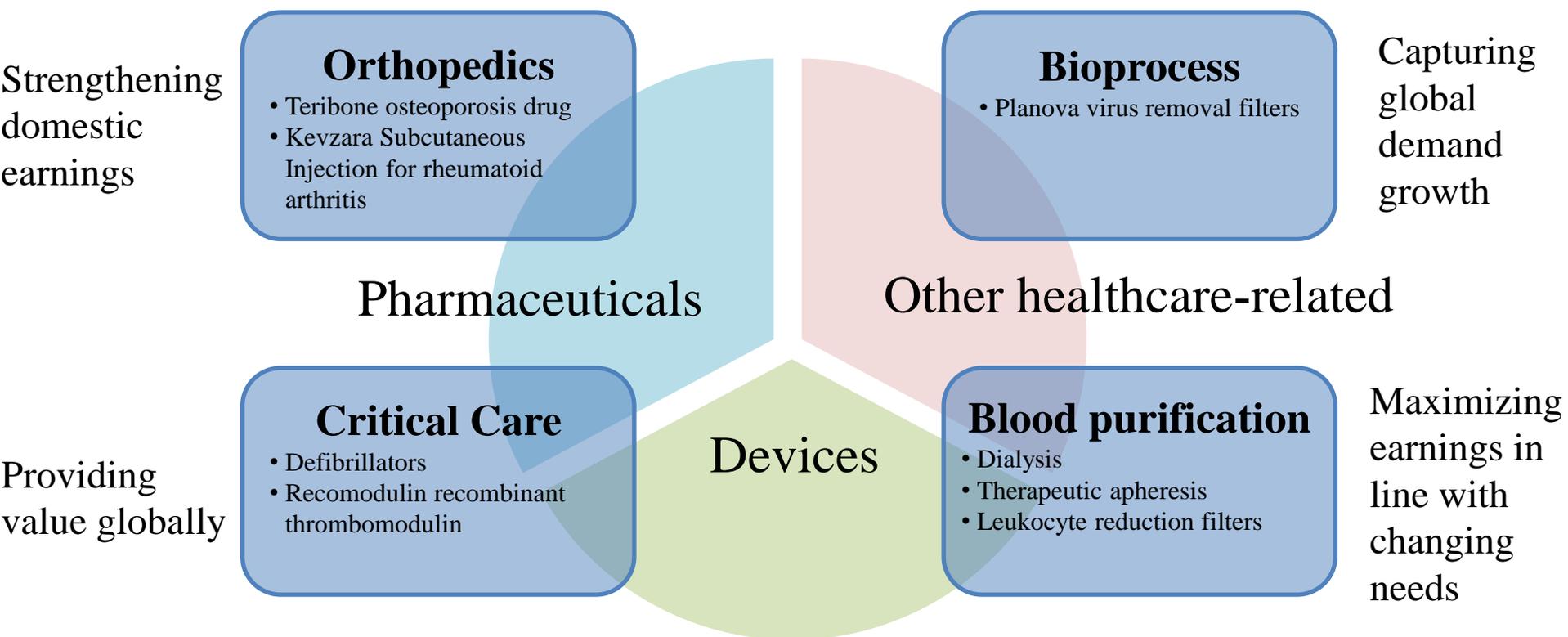


## 3.3.1. Health Care

Healthy/comfortable  
longevity with peace of mind

Progress in strengthening domestic profitability and reinforcing the global business platform  
→ Growing to be 3rd major pillar of the Asahi Kasei Group after Material and Homes

### Business fields and targets



## 3.3.2. Health Care

### Orthopedics

- ✓ Expanded product lineup in orthopedics
  - Launch of Reclast for osteoporosis
  - Launch of Kevzara Subcutaneous Injection for rheumatoid arthritis
  - License agreement for PREOB bone cell therapy product
- ✓ Approval for extension of maximum duration of treatment for Teribone osteoporosis drug

### Critical Care

- ✓ Advanced global clinical trial for Recomedulin recombinant thrombomodulin
- ✓ Expanded market share of defibrillators, increased market penetration of LifeVest wearable defibrillator
- ✓ Advanced clinical trial of intravascular temperature management (IVTM) system in the area of acute myocardial infarction

### Blood purification

- ✓ Continuous expansion of dialysis business in China
- ✓ Reinforced domestic business configuration

### Bioprocess

- ✓ Expanding production capacity for Planova virus removal filters

### 3.3.3. Health Care (Critical Care)

#### Continuous growth and proactive expansion

- ✓ Increasing market penetration of LifeVest wearable defibrillator
- ✓ Expanding and maintaining market share of resuscitation business, such as defibrillators for professional use and AEDs
- ✓ Expanding intravascular temperature management (IVTM) system into area of acute myocardial infarction

#### LifeVest

- The only wearable defibrillator which received regulatory approval
- Used by approximately 300,000 patients worldwide
- Achieving high growth in Germany, following the US



#### Sales trend of ZOLL



**FY 2008–2017  
CAGR  
15%**

## 3.4.1. Creation of new businesses

Clean environmental energy

Healthy/comfortable longevity  
with peace of mind

### High value-added businesses

Alkaline water  
electrolysis system

Cellulose nanofiber

UVC LED for  
disinfection

DRC process for DPC  
(using CO<sub>2</sub> as feedstock)

CO<sub>2</sub> sensor

Stent graft for  
abdominal aortic  
aneurysm

Core technologies  
*fostering and acquiring*

Start of  
R&D  
center in  
Europe

Open  
innovation  
CVC

Renewal of “Group Masters” program from the view of new business creation  
→ fostering and strengthening human resources, and reinforcement of  
technology to strengthen business

### 3.4.2. Creation of new businesses (CO<sub>2</sub> gas sensor business)

Clean environmental energy

Healthy/comfortable longevity  
with peace of mind

**Air quality**

Human health  
Productivity

Well-sealed buildings  
(increased CO<sub>2</sub> concentration)

**Energy saving**

Efficient ventilation

Global warming

CO<sub>2</sub>  
refrigerant

CO<sub>2</sub> gas sensor

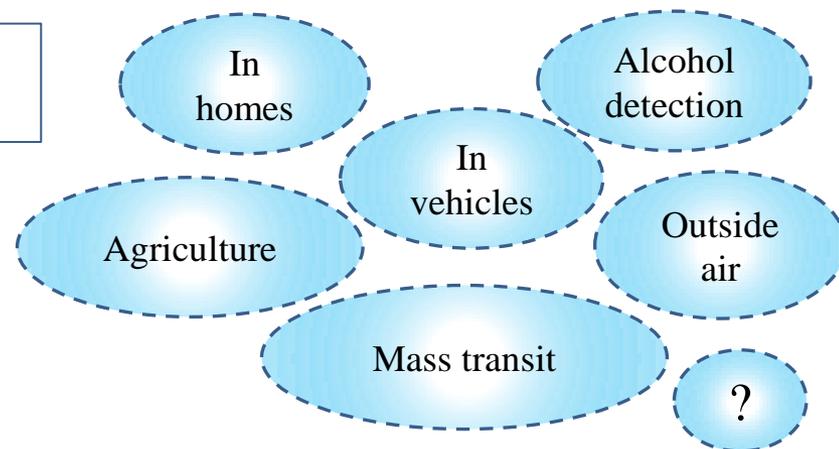
Application for invisible optics sensing  
technology



Potential use for different gases and  
various purposes

Compound semiconductors (Asahi Kasei)  
+  
CO<sub>2</sub> sensor modules (Senseair AB)

Small size  
High sensitivity  
Low power consumption  
Long life  
Fast response



## 3.5. Acceleration of globalization

	Capturing demand growth	Provision of new value	Actions to accelerate global development
Asia	<ul style="list-style-type: none"> <li>Capacity expansion for S-SBR</li> <li>Capacity expansion for spunbond nonwovens for diapers</li> <li>Establishment of Xyron mPPE joint venture</li> <li>Capacity expansion for Daramic lead-acid battery separator</li> </ul>		<ul style="list-style-type: none"> <li>Strengthening local management human resources</li> </ul>
North America	<ul style="list-style-type: none"> <li>Capacity expansion for Celgard LIB separator</li> <li>Start-up of new plant of resin compounds</li> </ul>	<ul style="list-style-type: none"> <li>Advancing clinical trial for ART-123 (recomodulin recombinant thrombomodulin)</li> <li>Receipt of 510(k) clearance from the US Food and Drug Administration for Lucica Glycated Albumin-L, an in vitro diagnostic assay kit for glycated albumin</li> </ul>	<ul style="list-style-type: none"> <li>Reinforcing CVC activity</li> </ul>
Europe		<ul style="list-style-type: none"> <li>Acquisition of shares of Senseair AB, starting CO<sub>2</sub> sensor modules business</li> </ul>	<ul style="list-style-type: none"> <li>Start-up of Asahi Kasei Europe GmbH</li> <li>Start-up of R&amp;D Center</li> </ul>
Others	<ul style="list-style-type: none"> <li>Selection of Microza hollow-fiber membrane for a seawater desalination plant in Kuwait, representing the company's largest-scale hollow-fiber filtration membrane order</li> </ul>	<ul style="list-style-type: none"> <li>Capital alliance with McDonald Jones Homes Pty Ltd of Australia, advancing standardization and systemization in homes construction</li> <li>Launch of Klaran UVC LED</li> </ul>	<p>Assigning executive officers for China, North America, and Europe to integrate each region</p>

## 3.6.1. Building the base for sustainable growth

Compliance

**The “three actuals”**

- Group Code of Conduct
- Inspection for risks
- Ensuring compliance
- Dedicated committee chaired by the President

Heightening  
business  
activities

**Digital transformation**

- Material informatics
- Applying IoT
- Analyzing technologies and businesses



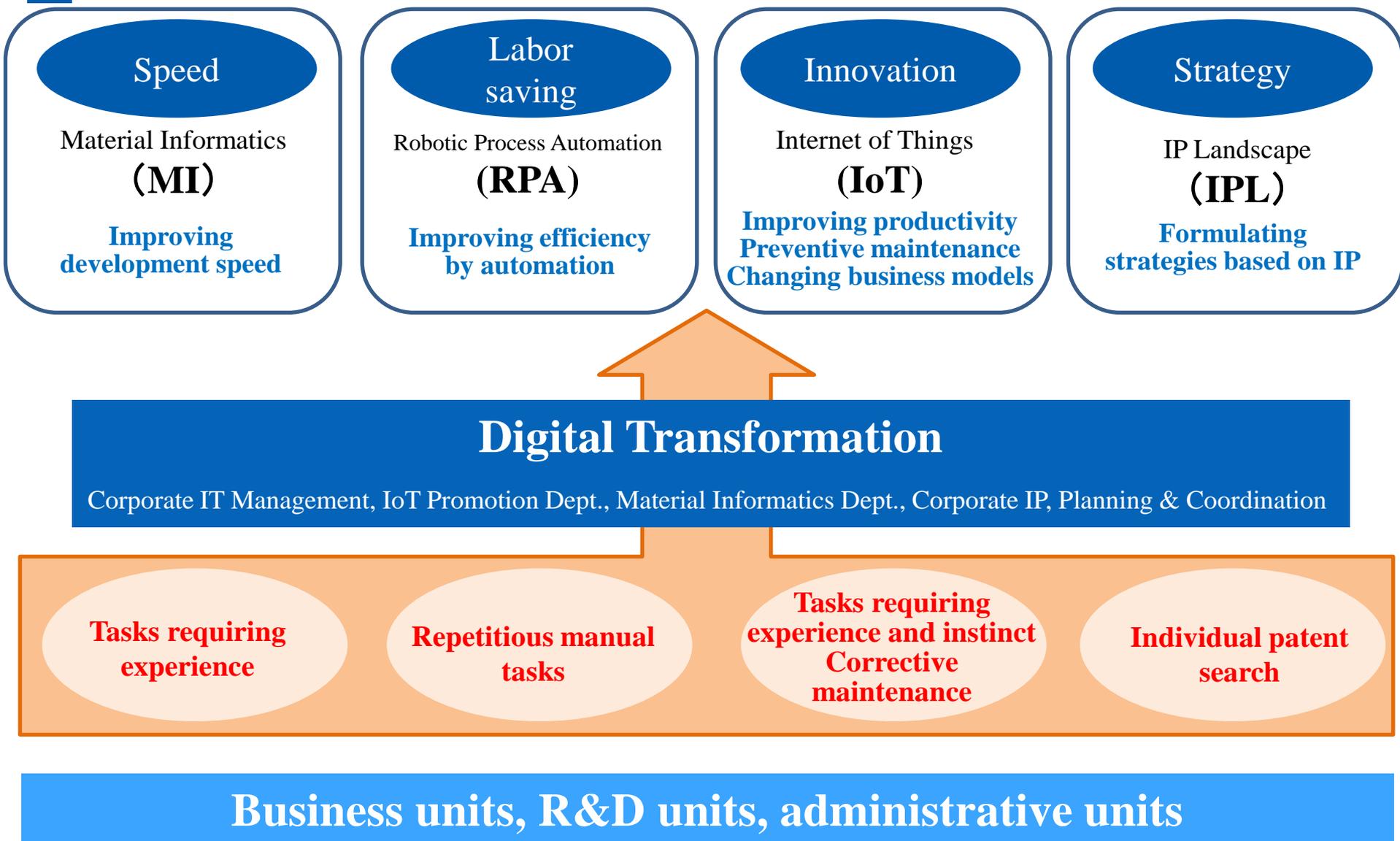
Production innovation  
New business creation

Human  
Resources

**Corresponding to  
businesses**

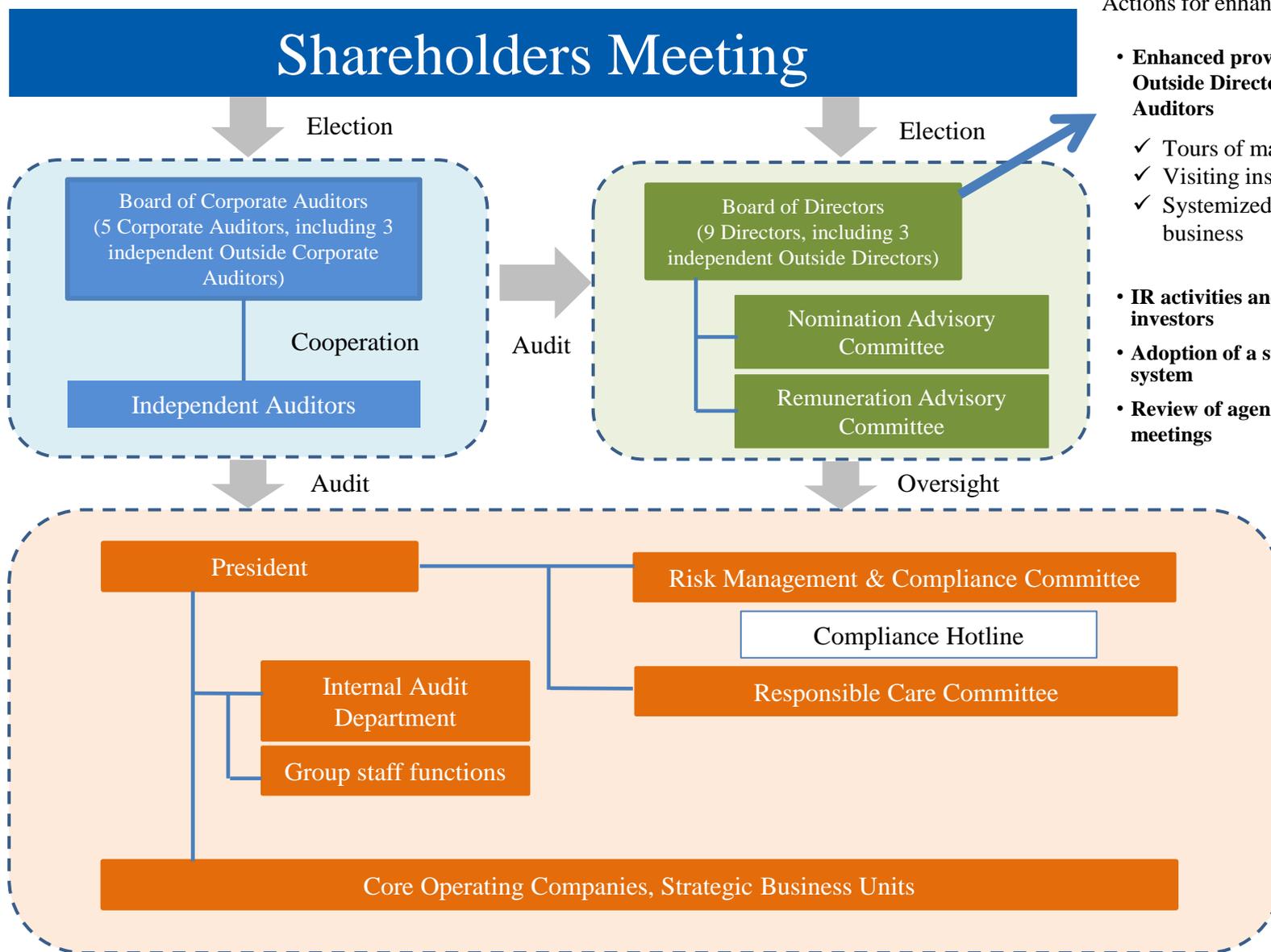
- Revising system of management by objectives
- New system for highly specialized human resources
- Fostering next generation of leaders
- Measures for work style reform

## 3.6.2. Heightening business activities



### 3.7. Corporate Governance to enhance corporate value

## Shareholders Meeting



Actions for enhanced supervisory functions

- **Enhanced provision of information to Outside Directors and Outside Corporate Auditors**
  - ✓ Tours of manufacturing and R&D sites
  - ✓ Visiting inside/outside events
  - ✓ Systemized explanation of each business
- **IR activities and sharing opinions of investors**
- **Adoption of a stock-based remuneration system**
- **Review of agendas for Board of Directors meetings**



## 4. Completing “Cs for Tomorrow 2018”

## 4. Completing “Cs for Tomorrow 2018”

### Performed

#### Achieved main financial targets

#### Measures for high-profitability and high value-added businesses

- Capacity expansions to capture global demand
- Resources focused on “clean environmental energy” and “healthy/comfortable longevity with peace of mind”
- Actions toward new value creation

#### Reinforced foundations for now and the future

- Compliance
- Human resources
- Utilization of IoT and AI

### For fiscal 2025

#### Maximizing Group capabilities

- Connections among diverse businesses, human resources, and technologies

#### Additional strategic measures

- Further strengthening businesses with competitive advantage
- Enhancing the manufacturing infrastructure
- Performing strategic M&A

#### Strengthening and developing business foundations

- Improving productivity (work style reform)
- Innovating and heightening businesses by IoT and AI (digital transformation)
- Maintaining risk management and thorough compliance

#### Accelerating creation and launch of new businesses

- Strengthening CVC activities
- Reinforced coordination with outside entities

Complete Cs for Tomorrow 2018 and begin the next 100 years

# Creating for Tomorrow

The commitment of the Asahi Kasei Group:

To do all that we can in every era to help the people of the world make the most of life and attain fulfillment in living.

Since our founding, we have always been deeply committed to contributing to the development of society, boldly anticipating the emergence of new needs.

This is what we mean by “Creating for Tomorrow.”

**AsahiKASEI**

## Disclaimer

The forecasts and estimates shown in this document are dependent on a variety of assumptions and economic conditions. Plans and figures depicting the future do not imply a guarantee of actual outcomes.

# Activities for SDGs

 SDGs		<b>AsahiKASEI</b> Main examples in the Asahi Kasei Group
1	NO POVERTY	Supply chain of Bemberg Cupro fiber in India
2	ZERO HUNGER	Film for keeping food fresh
3	GOOD HEALTH AND WELL-BEING	Health Care business for living in health and comfort
4	QUALITY EDUCATION	School visits and lectures for public outreach
5	GENDER EQUALITY	Asahi Kasei Group Code of Conduct
6	CLEAN WATER AND SANITAION	Water filtration membranes and UVC LEDs
7	AFFORDABLE AND CLEAN ENERGY	Battery separators for harmony with the environment
8	DECENT WORK AND ECONOMIC GROWTH	Asahi Kasei Group Code of Conduct, HR Principles
9	INDUSTRY, INNOVATION AND INFRASTRUCTURE	R&D and new business creation
10	REDUCED INEQUALITIES	Asahi Kasei Group Code of Conduct
11	SUSTAINABLE CITIES AND COMMUNITIES	Homes business for living in health and comfort
12	RESPONSIBLE CONSUMPTION AND PRODUCTION	Responsible Care Policy
13	CLIMATE ACTION	Reduced GHG emissions, life cycle assessment
14	LIFE BELOW WATER	Wastewater treatment, Responsible Care Policy
15	LIFE ON LAND	Piles w/reduced soil disposal, Responsible Care Policy
16	PEACE, JUSTICE AND STRONG INSTITUTIONS	Asahi Kasei Group Code of Conduct
17	PARTNERSHIPS FOR THE GOALS	Production and joint ventures in developing countries

# Community Fellowship

Asahi Kasei has various community fellowship activities at locations around the world

## Nurturing the Next Generation



Science demonstration  
at elementary school

## Coexistence with the Environment



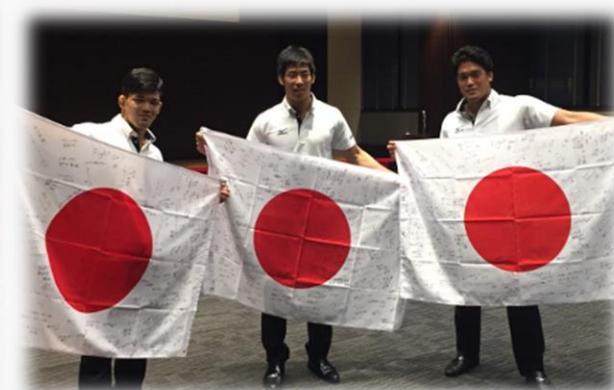
Forest planting

## Promotion of Sports



Photo: Asahi Shimbun

Distance running team  
(New Year Ekiden)



Judo team  
(Olympic Medals)



Sports instruction and workshops for children

