Sony IR Day 2018

May 22, 2018

Sony Corporation

- Game & Network Services (G&NS) 3
- Music (SME) 20
- Music (SMEJ) 31
- Pictures 48
- Imaging Products & Solutions (IP&S) 68
- Mobile Communication (MC)
- Operation & Sales Platform 98
- Home Entertainment & Sound (HE&S)
- Semiconductors 115
Sony IR Day 2018
Game & Network Services Segment
May 22, 2018

John (Tsuyoshi) Kodera
Business Executive, Sony Corporation
President & CEO, Sony Interactive Entertainment

Agenda

1. FY2017 Review

2. Strategy from FY2018
1. FY2017 Review

**FY2017 Key Achievements**

**Further expand PlayStation® user base**
- PlayStation®4
  - 79M units cumulative sales as of Mar 31 2018
- PlayStation™Network
  - 80M+ MAU as of Mar 31 2018
- PS4 Game Play
  - 800M hrs+/week as of final week of Dec 2017

**Enhance game line-up**
- **246M games sold**
  - FY2017 PS4 software unit sales

**Grow PlayStation®Plus paid subscribers**
- E/FY17
- E/FY16
- E/FY15
- PlayStation®Plus paid subscribers
  - 20.8M
  - 26.4M
  - 34.2M
Challenges and improvements

### PlayStation®VR
VR market growth below expectation

### PlayStation™Vue
Market & future business model remains uncertain

### ForwardWorks
Delays in title development
Still in investment phase

Improvements required in spite of steady growth
Utilizing these businesses to strengthen user engagement is key

---

### FY2017 Operating Profit Variation from FY2016

<table>
<thead>
<tr>
<th>(B¥ yen)</th>
<th>Sales revenue</th>
<th>+18%</th>
<th>1,943.8</th>
</tr>
</thead>
<tbody>
<tr>
<td>FY2016</td>
<td>1,649.8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FY2017 Act</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Operating income**

<table>
<thead>
<tr>
<th>①</th>
<th>②</th>
<th>③</th>
<th>④</th>
<th>⑤</th>
</tr>
</thead>
<tbody>
<tr>
<td>135.6</td>
<td>177.5</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

① Profit improvement from hardware cost down etc.
② Profit growth from software sales and add-on contents including network
③ Network services growth mainly with PS Plus paid subscribers
④ Increase in SGA to support network sales growth and R&D
⑤ Impact of exchange rates*1

*1: Impact of foreign exchange fluctuations is calculated using the sales and costs denominated in each currency in FY2017 and comparing them with the previous fiscal year.
2. Strategy from FY2018

- Enrich and utilize exclusive titles
- Leverage install base and active user
- Grow and improve recurring revenue
Strengthen user engagement

User engagement

- Balanced game portfolio
- Variety of game models
- IP Franchise

Improve user experience

Enhance data analytics

- eSports
- PS VR
- PS Vue

The virtuous cycle of PlayStation

Strengthen IP

- Exclusivity
- Utilize catalog

PS Plus

- Enrich membership
- Grow revenue

Platform of Choice

- Rich features
- Attractive services

Improve Ecosystem

- Expand user base
- Increase playtime

OUTCOME

MAU
Retention
Cash Conversion Cycle
Cash Flow
Mitigate the impact of platform lifecycle

- Aim to mitigate the impact of platform lifecycle compared to the past cycle and stabilize profit structure.
- Generate cash flow by effectively utilizing 1 trillion yen network business.

O.P. trend (FY1993~2018)

• Aim to mitigate the impact of platform lifecycle compared to the past cycle and stabilize profit structure.
• Generate cash flow by effectively utilizing 1 trillion yen network business.

Free Cash flow trend (FY2013~2017) 5 years cumulative 700 Bil-yen+

FY2018 Operating Profit Variation from FY2017

1. Hardware unit sales decline and cost increase
2. Profit growth from game software sales and add-on contents growth including network
3. Network services growth mainly with PS Plus paid subscribers
4. Increase in R&D and SGA etc.
5. Impact of exchange rates*1

*1: Impact of foreign exchange fluctuations is calculated using the sales and costs denominated in each currency in FY2018 and comparing them with the previous fiscal year.
### FY2020 Target

**Game & Network Services Segment**

- **Sales revenue** (For Reference) 1,800 Bil-yen
- **Operating Profit** 130〜170 Bil-yen

![Graph showing O.P trend (FY1993〜2018, FY2020 Target)]

---

**From now**

- We were aiming 1M units.
- We are aiming 100M MAU.
Sony IR Day 2018

Music Segment

May 22, 2018

Sony Music Business Overview
FYE21 Financial Target

- Operating Income: 110~130 billion yen

※ Sales Amount (For Reference): 800 billion yen
Sony Music FYE18 Achievements and Highlights

**Strong Financial Results**

Year over Year increases in:
- Revenue
- Operating Income
- Cash Flow
- Operating Margin

**A Global Leader**

- 25.1% Market Share
- #2 Global Music Company

**Stronger Growth Global Market (ex Japan)**

- Streaming +44%
- Digital Video +42%
- Total Market +10.5%

---

**Strong Repertoire Performance**

**2017 Top Global Albums**
- Beautiful Trauma
- P!nk
- Human
- Rag’n’Bone Man
- Harry Styles

**2017 Top Global Singles**
- Something Just Like This
- Chainsmokers
- Closer
- Chainsmokers
- I’m The One
- DJ Khaled

**New Artists**
- 21 Savage
- Camila Cabello
- Childish Gambino
- Kane Brown
- Maluma
- Khalid
Evolution of Streaming Landscape

Strategies:

1. Drive Paid Subscription Around the World
   - Healthy Competition and Consumer Choice
   - Transition Established and Open Developing Markets to Paid Subscription

   **Established**
   - Spotify
   - Tencent Music
   - YouTube
   - Deezer
   - TIDAL
   - Pandora
   - KKBox
   - Musica
   - saavn
   - Napster

   **Developing**
   - Amazon Music
   - Apple Music
   - Google Play
   - Tencent Music
   - YouTube
   - Deezer
   - TIDAL
   - Pandora
   - KKBox
   - Musica
   - saavn
   - Napster

2. Increase Revenue Per User
   - Modernize Product and Plan Offerings
   - Create greater differentiation between paid and free tiers
   - Construct new product configurations and content to up-sell subscribers
   - Expand the use of voice, a driver of music consumption in the home and soon in the car
   - Launch pre-pay subscription options for developing markets

Current Focus

Long-term Focus

Strategic Investment In The Orchard

MUSIC

VIDEO

TECH

DISTRIBUTION

Phonofile + finetunes
World Class Analytics Capabilities

**Talent Discovery**
- Analytics in the Creative Process
- Digging Deeper To Find Talent Earlier

**Breaking Hits**
- Targeted Marketing and Promotion
- Predictive Analytics = Measured Risk Taking

**Optimizing Revenue**
- Marketing ROI Increasingly Measurable
- Advanced Partner Analytics

**Strengthening Artist Relationships**
- Transparency in Payments
- Real Time Sales Reporting

Creative, Artist-Centric Approach

- Increase Creative Workforce
- Artist Relationships
- Creativity & Musical Instinct
- Streaming Genre Focus
- Creative & Business Services
**Recorded Music Market Profile** ($ in billions; excludes Japan)

- **Three years of solid market growth**
- Streaming growth more than offsetting declines in physical and download markets
- Streaming represents 45% of total market
- Paid subscription revenue up 50% year over year
- 176 million premium paid subscribers

- Expect market growth in 2018
- Continued rapid growth of streaming, reaching 54% of total market
- Greater download and physical declines

- **Healthy industry performance overall supports SME growth**

<table>
<thead>
<tr>
<th>Source: IFPI</th>
<th>Note: Digital Figures Include Digital Radio (SoundExchange)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CY14A</td>
<td>CY15A</td>
</tr>
<tr>
<td>$11.6</td>
<td>$12.1</td>
</tr>
<tr>
<td>-2.6%</td>
<td>+4.0%</td>
</tr>
<tr>
<td>$3.9</td>
<td>$4.0</td>
</tr>
<tr>
<td>35% of Market</td>
<td>35% of Market</td>
</tr>
<tr>
<td>$2.7</td>
<td>$3.6</td>
</tr>
<tr>
<td>23% of Market</td>
<td>27% of Market</td>
</tr>
<tr>
<td>$3.4</td>
<td>$3.4</td>
</tr>
<tr>
<td>$2.1</td>
<td>$2.1</td>
</tr>
<tr>
<td>$1.8</td>
<td>$2.0</td>
</tr>
<tr>
<td>16% of Market</td>
<td>23% of Market</td>
</tr>
</tbody>
</table>
Sony Music Operating Income: FYE17 Act → FYE18 Act

(US Dollars)

Sony Music Operating Income: FYE18 Act → FYE19 Forecast

(US Dollars)
Sony IR Day 2018

Music Segment (SMEJ)

May 22, 2018

Business Executive
Sony Corporation

Representative Director
Chief Executive Officer
Sony Music Entertainment (Japan) Inc.

Michinori Mizuno

Director of Board
CFO, Corporate EVP
Sony Music Entertainment (Japan) Inc.

Toshihiro Konno

Agenda

1. Business Outline

2. Mid-Term Vision

3. FY17 Results / FY18 Forecast
1. Business Outline

Company Profile

Name: Sony Music Entertainment (Japan) Inc.
Established: March, 1968
Location: 4-5 Rokubancho, Chiyoda-ku, Tokyo
Representative Director: Michinori Mizuno
Number of Subsidiaries: Approximately 20
**50 Year Journey ~ Business Diversity Starting from CBS/Sony ~**

**1968**
- Est. CBS/Sony Records Inc.
- Began publishing business
- '68 est. Sony Creative Products

**Strengthen Music Business by Vertical Integration**
- '75 began record warehouse
- '78 built recording studios
- '87 in-house jacket design

**Diversify Business by Horizontal Expansion**
- '97 began consignment sales for other companies
- Began music distribution business

**Package Solution Biz**
- Artist / Talent management

**Live Solutions Biz**
- Managed comedian talent

**Live**

**Character Biz**
- Talent Management Biz

**Anime Biz**
- Global Distribution

**Mobile App Game Biz**
- Mobile

**Business Model**

**Content**
- Artists, songs, recorded music, anime, video, mobile game, characters, etc.

**Digital**

**Real**

**Live**
2. Mid-Term Vision

Road to General Entertainment Company

◆ Creating and Maximizing Hits
  ✓ Strengthen music and anime IP
  ✓ Leverage IP
Creating and Maximizing Hits 〜 Strengthen Music and Anime IP〜

Expand Business Domain (Example: Fate Series)
- TV Broadcast
- Theatrical
- Mobile Game
- Visual Package Media
- Music
- Event

Leverage IP
Creating and Maximizing Hits 〜 Leverage IP 〜

Sustainable Growth in Mobile Game Business

✔ Fate/Grand Order Retention Initiatives ✔ New Hit IP-Based Products

Road to General Entertainment Company

♦ Overseas Expansion
♦ New Businesses
Overseas Expansion - countries/regions

- France
- Germany
- China (Shanghai) Representative Office
- US (LA) Based Company
- Australia
- Live Venues in Asia
  - New Taipei
  - Singapore
  - Kuala Lumpur

New Businesses

- Sports
  - B.LEAGUE
  - SUNWOLVES
- Event
  - AnimeJapan 2018
- AI
  - PROJECT Samantha
- VR
  - GetBack

©Sony Music Entertainment(Japan)Inc. ©Intelligent Machines Amazes You Inc. ©Aisii Inc.
3. FY17 Results / FY18 Forecast

FY17 Operating Profit Variance from FY16

<table>
<thead>
<tr>
<th></th>
<th>FY16</th>
<th>FY17* (Excludes One-Time Factor)</th>
<th>FY17</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating Income</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Music/Anime</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mobile Game</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gain on Sale of Real Estate</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Sony IR Day 2018

Pictures Segment

May 22, 2018

Business Executive
Sony Corporation

Chairman and CEO
Sony Pictures Entertainment Inc.

Tony Vinciquerra
SPE FYE18 Review

($ in millions)

SALES

$8,292 $9,133

+10.1%

OPERATING INCOME

$280* $376

FYE17 Actual FYE18 Actual

REVENUE GREW 10% TO OVER $9 BILLION; OI GREW 34% TO $376 MILLION

1. Increase in Motion Pictures’ OI driven by stronger slate in FYE18 (e.g., Jumanji, Spider-Man: Homecoming, Baby Driver, Peter Rabbit) compared to prior year

2. In Television Productions, higher licensing revenues for U.S. TV series offset by lower television licensing revenues on catalog product in current year

3. Media Networks had loss from Ten Sports, a newly acquired business

4. One-off charges due to reductions in centralized costs and executive restructuring

Note: FYE = Fiscal Year Ended (e.g., FYE17 = Fiscal Year Ended March 2017)
Source: Pictures Segment Supplemental Data, March 31, 2018
* FYE17 operating income excludes the $962 million goodwill impairment write-down
“GENUINE CINEMATIC CRAFT AND TECHNIQUE”
New York Times

“MOST FUN YOU'LL HAVE AT THE MOVIES ALL SUMMER”
Rolling Stones

“PURE MOVIE MAGIC”
Associated Press
FINDING THE BEST HOME FOR OUR CONTENT

SONY PICTURES MOTION PICTURE GROUP
Four Strategic Objectives

1. **CONTROL IP**
   - Consumer Products
   - Film
   - Theme Parks + LBE
   - Games
   - TV Shows
   - New Tech (VR)

2. **STRENGTHEN LABELS**
   - Columbia Pictures
   - Tristar Pictures
   - Sony Pictures Animation
   - Screen Gems
   - Sony Pictures Classics
   - Affirm Films
   - Sony Pictures International Productions

3. **GLOBAL FOCUS**

4. **FINANCIAL DISCIPLINE**
“THEATRICALITY”  TRANSITION TO DIGITAL MARKETING  RESHAPING THE ORGANIZATION  TIGHTEN WINDOWS  “THE OPPORTUNITY OF URGENCY”
CREATION
CONNECTING
INNOVATE
COLLABORATION
EMPOWERING
### SPE FYE19 Forecast

<table>
<thead>
<tr>
<th>($ in millions)</th>
<th>FYE18 Actual</th>
<th>FYE19 Forecast</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SALES</strong></td>
<td>$9,133</td>
<td><strong>$9,210</strong>*</td>
</tr>
<tr>
<td><strong>OPERATING INCOME</strong></td>
<td><strong>$400</strong>**</td>
<td><strong>$376</strong></td>
</tr>
</tbody>
</table>

**ASSUMPTIONS FOR FYE19:**

1. Our current projections for the Motion Pictures’ FYE19 slate are lower than FYE18’s very high-performing slate, and we expect higher unreleased marketing costs.

2. Television Productions is forecasting a reduction in OI based on assumptions regarding several series ending, partially offset by new series launching; also planning for higher development spend.

3. Media Networks growth primarily from Ten Sports, GSN and the Latin America region with general growth across most of the rest of the portfolio.

4. Change to GAAP rules and other.

---

### SPE FYE 21 Financial Target

**Revenue:** ¥1,050 Billion ($10 Billion)

*(For Reference)*

**Operating Income:** ¥58 – ¥68 billion

($550 – $650 million)

**Implied Margin %:** 5.5% – 6.5%
Sony IR Day 2018

Imaging Products & Solutions Segment
Mobile Communications Segment

May 22, 2018

Shigeki Ishizuka

Corporate Executive Officer, Executive Vice President,
Officer in charge of Imaging Products & Solutions Business/Mobile Communications Business
Sony Corporation

Representative Director and President
Sony Imaging Products & Solutions Inc.
Introduction

Shigeki Ishizuka
Corporate Executive Officer, Executive Vice President,
Sony Corporation

Imaging Products & Solutions Segment

Sony Imaging Products & Solutions Inc.
Shigeki Ishizuka
Representative Director and President
Toru Katsumoto
Hiroshi Kawano
Representative Director and Deputy President

Mobile Communications Segment

Sony Mobile Communications Inc.
Mitsuya Kishida
Representative Director and President

Sony Network Communications Inc.
Hirokazu Takagaki
President and Representative Director

Agenda

1. Imaging Products & Solutions Segment
   Ishizuka

2. Mobile Communications Segment
   Ishizuka/Kishida

3. Reference Materials
1. Imaging Products & Solutions Segment

Organization: Sony Imaging Products & Solutions Inc.

Imaging Platform: Light to Display
**FY2017 Review**

**FY2017 Operating Income (vs FY2016)**

**Positive factors**
1. Forex impact
2. Recovery from the Kumamoto Earthquakes (insurance income, sales recovery)
3. Increased value-added (shift to higher value-added models)

**Negative factors**
1. Increase in OPEX (due to increase in sales)

Sales and operating income increased significantly due to the recovery from the Kumamoto Earthquakes and the impact of forex.

Digital Imaging: continued shift to higher value-added, especially in the interchangeable lens camera space

Professional Solutions: new solutions service business offset by decrease in existing business sales

**FY2018 Forecast**

**FY2018 Operating Income (vs FY2017)**

- **Red:** negative factor
- **Blue:** positive factor

1. Forex impact
2. Improvement in value-added (shift to higher value-added models)
Mid-Range Plan: Management Policy

**Business Foundation**

- **Sony brand (B2B&C)**
  Strengthen products & services under the SONY brand
- **Customer's Real-Time Benefit**
  Create customer value with "time"
- **Differentiation by L2D technology**
  Competitive advantage derived edge from in-house production technology

**Quantitative Target**

Operating Income Margin: 10% or More

* L2D: Light to Display

---

Mid-Range Plan: Business Strategy

**Strengthen and grow the Solutions Business by delivering Real-Time Benefit**

**Create strong products based on our differentiated L2D technology**

* L2D: Light to Display  * PF: Platform
### FY2020 Financial Targets

- **Operating Income:** 85~105 billion yen

※ Sales Amount (For Reference): 700 billion yen

---

## Maximize profit growth and enterprise value

Create strong and differentiated products based on L2D technology, deliver Real-Time Benefit, and strengthen and grow the solutions business.

---

### Digital Imaging Business: Mid-Range Initiatives

**Win in an increasingly competitive market and continue to generate high profit**

**Industry Trends**

- Revitalization of the mirrorless camera market
- Competitors becoming more aggressive in the market

**Initiatives**

Aim to be the top brand in the overall camera market

- Strengthen products, especially in the interchangeable lens camera space
- Engage the professional market
- Expand the lens business

---

*“Camera of the Year” Camera Grand Prix 2018*
Professional Solutions Business: Sales by Business

- Broadcasting System
- Professional Camcorder
- Network Camera
- Display
- Services & Solutions

Education, theater, visual simulation, etc

Solutions
- enhance solutions that deliver Real-Time Benefit
  - Real-time solutions that leverage IP & cloud
  - Expand in the sports and B2B arena
  - Develop 5G solutions

Products
- enhance differentiation and rebuild a stable profit structure
  - Develop products which use our L2D technology
  - Reduce fixed costs in existing businesses

Sony IR Day 2018
### Professional Solutions Business: Mid-Range Initiatives

#### Industry Changes and Understanding of Challenges
- Changes in the media industry
  - Rise of the OTT market, industry consolidation and greater reliance on IP and the cloud
  - Greater demand for cost reduction and efficiency
  - Full-scale demand for 4K and 8K (Start of satellite and IPTV 4K broadcasting)
- Coming 5G era
- Growing new market for B2B
- Improving profitability

#### Action Plan
- Develop 4K & IP products and solutions
- Develop technology for the 5G era
- Pursue the sports and education markets
- Revise our product and business portfolio so as to better adapt to changes in the industry
- Continuous cost reduction and operational transformation

---

### Examples of Solutions Businesses

#### Remote Integration “REMI”

#### Learnings Solution “Vision Exchange”

---

### Medical Business: Mid-Range Strategy

#### Profit Margin

- Peripheral Medical Device Business
- Transition from single-device business to high value-added business
- Life Science Business (For Research and Clinical)
- Transition from research device business to medical device business

#### Time

- Surgical Imaging Device Business
- Life Science Business (Research)
- SOMED & Solutions Business
- Cell Analyzer
- Cell Sorter
- 4K Surgical Endoscope System
- Surgical Microscope with 4K 3D Capabilities
Reference Materials

IP&S Sales by Business Category and Geographic Area

- FY2017 Sales by Business Category
  - Sales 650 bln yen
    - Digital Imaging
    - Medical
    - Professional
    - Other
    - Still and Video Cameras

- FY2017 Sales by Geographic Area
  - Sales 650 bln yen
    - Asia
    - China
    - Japan
    - U.S.
    - Europe
    - Other
2. Mobile Communications Segment
Operating loss recorded due to impairment charge
Negative impact of unit sales decrease and sharp increase in component costs were offset by cost reductions; full-year profit was recorded on an operational basis.

---

Year-on-year profitability improvement by shifting away from less profitable models and engaging in continuous operating expense reductions.
Recurring Revenue Business: Stable Profit Structure & Next Steps

Mid-Term Vision

Going beyond being just an internet service provider

Fixed Line Communication Business: Cumulative Subscribers

CAGR 7%

• Network quality improvements driving customer satisfaction
• Deploying NURO services to more regions

Evolution of Sony’s IoT Services

Utilize Sony Assets

Subscribers & Services

SmartHome
Healthcare
Transportation

Devices
Cloud
Deep Learning Technology

Call Centers
Data Centers
Network

*LPWA: Low Power Wide Area

Smartphone Business: Review (Accomplishments)

Operating Expenses (billion yen)

Forecast from FY15

Actual

Operating Expenses

Warranty-Related Costs

290
220
160
155

FY14 FY15 FY16 FY17

-58%

Accelerated reduction through continuous pursuit of further efficiencies

Significant reductions through quality improvements
Smartphone Business: Review (Outstanding Issues)

<table>
<thead>
<tr>
<th>Unit Sales (million units)</th>
<th>Forecast from FY15</th>
<th>Actual</th>
</tr>
</thead>
<tbody>
<tr>
<td>FY14</td>
<td>39.1</td>
<td></td>
</tr>
<tr>
<td>FY15</td>
<td>24.9</td>
<td></td>
</tr>
<tr>
<td>FY16</td>
<td>14.6</td>
<td></td>
</tr>
<tr>
<td>FY17</td>
<td>13.5</td>
<td></td>
</tr>
</tbody>
</table>

Issue: not improving product lineup fast enough
- Mid-term product planning and development
- Design and development lead time

Smartphone Business: Business Direction

Mid-Term Vision
Creating New Value to Customers for the 5G Era

FY2018 Business Direction
Lean Transformation for Future Growth

Product
Sales
Manufacturing, Procurement, Operations

Add to strength and efficiency by leveraging the assets, business know-how and infrastructure of the Sony Group

Reduce operating expenses & lower break-even point
Sony IR Day 2018

**Smartphone Business: Key Issues**

Enhance Product Offerings: Fully Utilize Sony’s Technological Assets

- Design
- Camera
- Lens
- Sensing
- Battery
- Audio
- Display
- Wireless Data Transmission
- Mechatronics

Product Development Process: Rebuild and Improve Efficiency

**Strategic Direction for the 5G Era**

Applications Delivering Real-time Benefit of Live Data Transmission

- Sports Broadcast
- Concert Broadcast
- Movie Streaming
- Games

Solutions

- Content Production
  - Packaged Solutions for Professionals
- Distribution
  - Real-time IP transmission through operator collaboration
  - View & Experience
- Distribution
  - View & Experience

Products

- Xperia
- α
- Pro cameras
- Bravia
- CLED

Technology

- Light Source
- Lens
- Image Sensor
- Image Processing
- IP Transmission
- Display

Product lineup made powerful through differentiating L2D (“light to display”) technology
Smartphone Business: Sales & Operation Enhancements

Sales

**Project Europe**

Strategic partnerships with operators while bolstering open channel sales

**Key Actions**

- Technological collaboration including 5G launch
- Realize efficiencies through the integration of Sony’s electronics sales operations
- Enrich product lineup through entertainment propositions

Manufacturing, Procurement, Operations

**Manufacturing**

Higher efficiency realized by automated line introduction
Service evolution through quality improvement

**Procurement**

Create long-term partnerships as “One Sony”

**Logistics**

Utilize Sony’s global network
Accelerate blockchain initiatives

---

Smartphone Business: Operating Expenses & Break-Even point

Transformation into a Lean Business

<table>
<thead>
<tr>
<th>OPEX</th>
</tr>
</thead>
<tbody>
<tr>
<td>FY14</td>
</tr>
<tr>
<td>FY15</td>
</tr>
<tr>
<td>FY16</td>
</tr>
<tr>
<td>FY17</td>
</tr>
<tr>
<td>FY20 -30%</td>
</tr>
</tbody>
</table>

- Rebuild product development process and significantly improve efficiency
- Leverage Sony Group business know-how and infrastructure to bolster design, manufacturing, sales and operations
MC Segment: Summary

**FY2020 Target:**
OP: 20~30 billion yen
Sales Level: 670 billion yen (reference only)

**Recurring Revenue Business:**
- Realizing solid growth by leveraging stable customer base

**Smartphone Business:**
- Create a lean, agile business without an excessive focus on revenue and units sold
- Build a sustainable business structure through ‘One Sony’ initiatives
- Steadily implement initiatives to bolster and prepare for the future

Creating New Value to Customers for the 5G Era

Sony IR Day 2018

Operation & Sales Platform
Home Entertainment & Sound Segment
May 22, 2018

Ichiro Takagi
Corporate Executive Officer, Executive Vice President
Officer in charge of Home Entertainment & Sound Business,
In charge of Consumer AV Sales & Marketing, Manufacturing, Logistics, Procurement
Sony Corporation
Representative Director & President
Sony Visual Products Inc.
Representative Director & President
Sony Video & Sound Products Inc.
Agenda

1. **End-to-End Operations**
   1. Manufacturing / Procurement / Logistics
   2. Sales

2. **HE&S Segment**
   1. FY2017 Review
   2. FY2018 Action Plan
      - TV Business
      - Video & Sound Business
      - Financial Forecast
   3. FY2020 Financial Targets

3. **Reference Materials**

1. **End-to-End Operations**
End-to-End Operations

Until March 2015

Business Unit
Product Planning / Design

Operation Platform
Manufacturing / Procurement / Logistics

Sales Platform

From April 2015 through March 2018

Collaboration between Business Units and Sales Platform → Saved 5 to 15 billion yen of Costs

Business Unit
Product Planning / Design

Operation Platform
Manufacturing / Procurement / Logistics

Sales Platform

From April 2018, Greater Efficiency of the Value Chain

Business Unit
Product Planning / Design

Operation Platform
Manufacturing / Procurement / Logistics

Sales Platform

Room for Improvement

Potential Upside

Manufacturing / Procurement / Logistics

◆ Manufacturing
  • Align manufacturing strategy with our business strategy while improving efficiency.
  • Enhance manufacturing technology, including automation, to support our product strategy.

◆ Procurement
  • Leverage key partners to rebuild our procurement strategy to better align with our business and product strategy.
  • Ensure seamless procurement and optimal component costs through One Sony sourcing.

◆ Logistics
  • Expand direct shipping and enhance logistical efficiencies based on our sales channel strategy.
  • Quickly change transportation methods to adapt to changes in the market environment.
Sales

Sales strategy focused on select regions and product categories

Sony’s Sales (by Geographic Region)

- **Asian Pacific (including China), Middle East, Latin America, Other**
  - Invest primarily in growth areas such as audio
  - Augment sales operations

- **Japan, U.S., Europe**
  - Maintain market position
  - Manage downside risk
    (Reduce costs and increase profit through better forecasting of market demand and improved supply chain communication)

2. HE&S Segment
Sony IR Day 2018 104
Home Entertainment & Sound Segment

FY16 FY17
Operating Income 58.5 85.8

Results
TV Business
- Introduction of OLED TVs secured our brand position in the premium segment of the market.
- Profitability improved due to high value-added product strategy focused on OLED, 4K and large-sized TVs.
- Incremental margins improved due to enhanced supply chain management and better control over inventory in response to changes in the market environment.

Video & Sound Business
- Grew sales primarily in the growth area of Audio.
- Improved profitability as a result of high value-added products.
- Improved branding.

Issues
TV Business
- Can improve how we adapt to changes in panel prices.

Video & Sound Business
- Can improve operations further.
- Can improve collaboration with sales channels.

Sony’s TV Sales

Maintain a stable business by pursuing a high-value added strategy

◆ Product Competitiveness
- Deliver the best customer experience through our proprietary technology.
- Continue investing in technological innovation for the future.

◆ Cost Competitiveness
- Manage expenses and streamline component procurement.

◆ Operational Competitiveness
- Continue improving our end-to-end operations (from production to sales) so as to adapt to changes in the market.

Sony’s TV Sales

*Source: Sony

Sony IR Day 2018 105
Drive expansion of the premium 4K market

Best Picture/Sound Quality

Unique Design

Ease of Use

Sony IR Day 2018

Consistently grow sales and profits through greater product competitiveness in growth categories

- Enhance competitiveness of products in growth categories (e.g. headphones, wireless speakers)
- Invest in technological innovation for future growth (acoustics which make you feel like you are there)
- Strengthen operations
- Enhance collaboration with sales platform
Sony IR Day 2018 108

**Video & Sound Business**

- Enhance product competitiveness in audio growth categories.
- Strengthen operations.
- Address differences in geographic regions through greater collaboration with sales channels.

**TV Business**

- Further increase added value of products through proprietary technologies for high picture and sound quality, and excellent design and usability.
- Customize product and sales strategy to each geographic region.
- Further improve operations that adapt quickly to changes in the market environment.

**Operating Income Analysis** (bln yen)

<table>
<thead>
<tr>
<th></th>
<th>FY17</th>
<th>FY18</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales</td>
<td>1,222.7</td>
<td></td>
</tr>
<tr>
<td>Operating Income</td>
<td>85.8</td>
<td>86</td>
</tr>
<tr>
<td>Exchange Rates*1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Price Erosion</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Volume Decrease</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Model Mix Improvement</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cost Reduction</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*1: Forecasted impact of foreign exchange fluctuations is calculated using the sales and costs denominated in each currency in the FY2018 business plan and comparing them with the previous fiscal year.

**FY17 FY18 April Forecast**

- Operating Income: 1,150
- Sales 1,222.7
- Operating Income: 85.8
- Cost Reduction: 86

---

**FY2020 Financial Targets**

- Operating Income: 75 to 105 Billion Yen
- Sales Amount (For Reference): 1,200 billion yen

Continue to generate stable cash flow through enhanced product competitiveness centered on high value-added products and enhanced end-to-end operations.
3. Reference Materials

TV Business: FY2017 Sales by Product Type & Region / Unit and Revenue Share  Home Entertainment & Sound Segment

- Sales by Product Type
- Sales by Region
- LCD TV Unit Share by Manufacturer
- LCD TV Revenue Share by Manufacturer

(Source: Sony / For the most recent year)
Video & Sound Business: FY2017 Sales by Product Type & Region

- **Sales by Product Type**
  - **Audio Growth Category**
    - Headphones
    - Sound Bars
    - Wireless Speakers
  - Other

- **Sales by Region**
  - Japan
  - U.S.
  - Europe
  - China
  - Asia Pacific
  - Other

*1: “Audio Growth Category” includes Headphones, Sound Bars and Wireless Speakers as its main products.

---

Video & Sound Business: Key Products’ Market Share (Revenue Basis)

- **Headphones**
  - #3
  - #1 in Japan

- **Wireless Speakers**
  - #1
  - #3

- **Sound Bars**
  - #3
  - #1 in Japan

- **Digital Music Players (WALKMAN)**
  - #1

- **Blu-ray Players/Recorders**
  - #2

※ Source: Sony
For the most recent year

*1 EU9: UK, France, Germany, Italy, Spain, Netherlands, Sweden, Poland, Czech
*2 EU3: UK, France, Germany
Sony IR Day 2018
Semiconductors Segment
May 22, 2018

Terushi Shimizu
Business Executive
Sony Corporation
Representative Director and President
Sony Semiconductor Solutions Corporation

Agenda

1. FY2017 Review
2. FY2018 Action Plan
3. FY2018 – FY2020 Mid-Range Plan
1. FY2017 Review

Achieved record high profit for the Semiconductors business

<table>
<thead>
<tr>
<th>Operating Income Analysis (bln yen)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales 773.1</td>
<td></td>
</tr>
<tr>
<td>548.6 Image Sensors</td>
<td></td>
</tr>
<tr>
<td>850.0 Image Sensors</td>
<td>164.0 Others</td>
</tr>
<tr>
<td>164.0 Mobile Sensor</td>
<td></td>
</tr>
<tr>
<td>164.0 Mobile Module</td>
<td></td>
</tr>
<tr>
<td>164.0 Earthquake</td>
<td></td>
</tr>
<tr>
<td>164.0 Exchange Rates</td>
<td></td>
</tr>
<tr>
<td>1 USD = 108.4 yen</td>
<td></td>
</tr>
</tbody>
</table>

Achievements

- Increased image sensor sales and profit
- Steady customer expansion for automotive image sensors
- Improved operating results in the non-image sensor businesses

Issues

- Ability to respond to fluctuations in demand from Chinese smartphone manufacturers
- Optimization of inventory level
- High currency sensitivity
2. FY2018 Action Plan

Our View of the Image Sensor Market

Mobile application growth led by dual lens and sensing. Growth in new areas expected.

Trend in World Wide Image Sensor Shipment Amount

- **New Area**
  - Automotive: Rise of the ADAS market
  - Factory Automation: Market expansion due to smart manufacturing
  - Security: Market expansion due to automatic monitoring using AI technology

- **Mobile Area**
  - Market expansion from dual lens and mobile sensing

- **AV Area**
  - Expansion of high-end sensor market

*Source: Sony*
Activities for Mobile

Evolve in plane, time and space to deliver “KANDO” in addition to achieving DSLR camera-like image quality.

Evolution of Mobile Sensors

<table>
<thead>
<tr>
<th>Present</th>
<th>Future</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Image Quality</strong>&lt;br&gt;High Dynamic Range / High Sensitivity / Low Noise</td>
<td><strong>Plane</strong>&lt;br&gt;Wide Angle / Enlargement&lt;br&gt;Free from Structure</td>
</tr>
<tr>
<td>No blocked up shadows</td>
<td><strong>Time</strong>&lt;br&gt;Super Slow&lt;br&gt;Free from Shutter</td>
</tr>
<tr>
<td>Sharpness even in dark places</td>
<td><strong>Space</strong>&lt;br&gt;Depth / Focus&lt;br&gt;Three Dimensional / Immersive</td>
</tr>
</tbody>
</table>

Activities for Sensing

Succeeded in developing back-illuminated high-resolution ToF* sensor capable of distance measurement. Anticipate deployment to a wide range of use cases.

Development of ToF Sensor | Use Cases of ToF Sensor
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Front-Illuminated ToF Sensor</td>
<td>Present: Automotive&lt;br&gt;Future: Mobile, Drone</td>
</tr>
<tr>
<td>Back-Illuminated ToF Sensor</td>
<td>aibo, FA</td>
</tr>
</tbody>
</table>

*ToF: Time of Flight
Activities for Automotive

Completed commercialization of stacked image sensor for ADAS. Strengthen cooperation with key players.

Realization of “Safety Cocoon”

Cooperation with Key Players*

![Cooperation with Key Players logos](image)

*Logos are arranged in alphabetical order

Activities for Factory Automation

The market is expanding due to industrial automation. Transition from CCD to CMOS sensor proceeds.

Evolution of FA Sensors

<table>
<thead>
<tr>
<th>Present</th>
<th>Future ~</th>
</tr>
</thead>
<tbody>
<tr>
<td>CCD</td>
<td>Front-illuminated CMOS GS*</td>
</tr>
<tr>
<td>Low Error Rate</td>
<td>Increase Throughput</td>
</tr>
<tr>
<td><strong>Pregius</strong></td>
<td><strong>Back-illuminated CMOS GS</strong></td>
</tr>
<tr>
<td><strong>High Speed and High Resolution Inspection</strong></td>
<td><strong>Stacked CMOS GS</strong></td>
</tr>
<tr>
<td><strong>Automation of Production Line</strong></td>
<td><strong>Infrared Sensor</strong></td>
</tr>
<tr>
<td><strong>Salt</strong></td>
<td><strong>Sugar</strong></td>
</tr>
<tr>
<td><strong>Invisible Light Inspection</strong></td>
<td></td>
</tr>
</tbody>
</table>

*GS: Global Shutter
### Activities for Security

**Semiconductors Segment**

The security market is expanding due to the penetration of automatic monitoring using AI technology.

#### Evolution of Security Sensors

<table>
<thead>
<tr>
<th>Present</th>
<th>Future ~</th>
</tr>
</thead>
<tbody>
<tr>
<td>Back-illuminated CMOS</td>
<td>Stacked</td>
</tr>
<tr>
<td>Full Color Image Capturing at Night</td>
<td>Optimization for AI monitoring</td>
</tr>
<tr>
<td>High Sensitivity</td>
<td>Low Noise Miniaturization</td>
</tr>
<tr>
<td>Wider Area Image Capturing in Outdoors</td>
<td>High-definition Image Capturing in Wider Area</td>
</tr>
<tr>
<td>Full HD</td>
<td>5M</td>
</tr>
<tr>
<td>5M</td>
<td></td>
</tr>
</tbody>
</table>

#### Semiconductors Segment

**Low Noise**
- Miniaturization
- Wider Area Image Capturing in Outdoors
- Full Color Image Capturing at Night
- High-definition Image Capturing in Wider Area
- Optimization for AI monitoring

**High-definition Image**
- Capturing in Wider Area

**Region Control**
- Data Capacity Reduction

---

### Activities for Technology Development (1)

**Semiconductors Segment**

Proceed with technology development that creates added value responding to market needs.

#### Direction of Technology Development

<table>
<thead>
<tr>
<th>Present</th>
<th>Future ~</th>
</tr>
</thead>
<tbody>
<tr>
<td>Back-illuminated</td>
<td>Sensitivity Improvement</td>
</tr>
<tr>
<td>Stacked</td>
<td>Miniaturization and High Functionality</td>
</tr>
<tr>
<td><strong>Cu-Cu</strong> Connection</td>
<td>Productivity Improvement and Space Saving</td>
</tr>
<tr>
<td>Pixel-Parallel ADC</td>
<td>Image Distortion Cancellation</td>
</tr>
<tr>
<td>Event Driven</td>
<td>Power Consumption 1/100</td>
</tr>
<tr>
<td><strong>Region Control</strong></td>
<td>Data Capacity Reduction</td>
</tr>
<tr>
<td>ToF</td>
<td>Distance Information Detection</td>
</tr>
<tr>
<td><strong>Polarization</strong></td>
<td>Distortion and Scratch Detection</td>
</tr>
<tr>
<td>Infrared</td>
<td>Invisible Light Inspection</td>
</tr>
</tbody>
</table>

*Cu-Cu: Copper to Copper*
Developed event-driven stacked CMOS image sensor realizing 1/100 power consumption.

Image of Sensor

Realized by stacked structure with Cu-Cu connection

Image of Motion Detection

Low resolution Fast Detection system & Ultra Low Power

Motion Detection & Automatic Switching

Activities for Technology Development (3)

Quick Response & Anti-shake Motion Detection

Movie
FY2018 Forecast

Increase Capital Investment and R&D to Accelerate “Preparation”

Operating Income Analysis (bln yen)

<table>
<thead>
<tr>
<th>Sales</th>
<th>850.0</th>
</tr>
</thead>
<tbody>
<tr>
<td>Image Sensors</td>
<td>646.4</td>
</tr>
</tbody>
</table>

Increase capital investment and R&D to accelerate “Preparation”

Basic Policy
- Increase capital investment and R&D to accelerate “Preparation”
- Maximize profitability of mobile and AV fields which are the leading profit drivers
- Foster new areas such as sensing and automotive
- Continue activities to reduce manufacturing cost of sensors

Environment
- Advancement of dual lens for smartphones
- Rise of sensing and automotive market
- Appreciation of the yen and sluggish smartphone market growth are risks

3. FY2018 – FY2020 Mid-Range Plan
Financial Target for FY2020

- **Financial Target for FY2020**
  - Operating Income 160 - 200 billion yen
    
    *1 USD = 105 yen
  
  Sales Amount (For Reference): 1,100 billion yen

- **Mid-Range Plan for FY2020**
  - Maximize mobile sensor profit by enhancing response to environmental changes
  - Aim for profit contribution by new areas including sensing and automotive business
  - Promote technology development including function and performance expansion

---

**Operating Income Targets for FY2020**

<table>
<thead>
<tr>
<th>Segment</th>
<th>Target (billion yen)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Game &amp; Network Services (“G&amp;NS”) Segment</td>
<td>130 ~ 170</td>
</tr>
<tr>
<td>Music Segment</td>
<td>110 ~ 130</td>
</tr>
<tr>
<td>Pictures Segment</td>
<td>58 ~ 68</td>
</tr>
<tr>
<td>Home Entertainment &amp; Sound (“HE&amp;S”) Segment</td>
<td>75 ~ 105</td>
</tr>
<tr>
<td>Imaging Products &amp; Solutions (“IP&amp;S”) Segment</td>
<td>85 ~ 105</td>
</tr>
<tr>
<td>Mobile Communications (“MC”) Segment</td>
<td>20 ~ 30</td>
</tr>
<tr>
<td>Semiconductors Segment</td>
<td>160 ~ 200</td>
</tr>
</tbody>
</table>

Assumed foreign currency exchange rates

- 1 US dollar : Approx. 105 yen
- 1 Euro : Approx. 115 yen

(For your reference) Branded Hardware*

*The sum of HE&S, IP&S and MC segments

180 ~ 240
Statements made in this presentation with respect to Sony's current plans, estimates, strategies and beliefs and other statements that are not historical facts are forward-looking statements about the future performance of Sony. Forward-looking statements include, but are not limited to, those statements using words such as "believe," "expect," "plan," "strategy," "prospects," "forecast," "estimate," "project," "anticipate," "aim," "intend," "seek," "may," "might," "could" or "should," and words of similar meaning in connection with a discussion of future operations, financial performance, events or conditions. From time to time, oral or written forward-looking statements may also be included in other materials released to the public. These statements are based on management's assumptions, judgments and beliefs in light of the information currently available to it. Sony cautions investors that a number of important risks and uncertainties could cause actual results to differ materially from those discussed in the forward-looking statements, and therefore investors should not place undue reliance on them. Investors also should not rely on any obligation of Sony to update or revise any forward-looking statements, whether as a result of new information, future events or otherwise. Sony disclaims any such obligation. Risks and uncertainties that might affect Sony include, but are not limited to:

(i) the global economic and political environment in which Sony operates and the economic and political conditions in Sony's markets, particularly levels of consumer spending;
(ii) foreign exchange rates, particularly between the yen and the U.S. dollar, the euro and other currencies in which Sony makes significant sales and incurs production costs, or in which Sony's assets and liabilities are denominated;
(iii) Sony's ability to continue to design and develop and win acceptance of, as well as achieve sufficient cost reductions for, its products and services, including image sensors, game and network platforms, smartphones and televisions, which are offered in highly competitive markets characterized by severe price competition and continual new product and service introductions, rapid development in technology and subjective and changing customer preferences;
(iv) Sony's ability and timing to recoup large-scale investments required for technology development and production capacity;
(v) Sony's ability to implement successful business restructuring and transformation efforts under changing market and regulatory conditions;
(vi) changes in laws, regulations and government policies in the markets in which Sony operates, including those related to taxation and corporate social responsibility;
(vii) Sony's ability to implement successful hardware, software, and content integration strategies, and to develop and implement successful sales and distribution strategies in light of new technologies and distribution platforms;
(viii) Sony's continued ability to devote sufficient resources to research and development and, with respect to capital expenditures, to prioritize investments correctly (particularly in the electronics businesses);
(ix) the effectiveness of Sony's strategies and their execution, including but not limited to the success of Sony's acquisitions, joint ventures and other strategic investments;
(x) significant volatility and disruption in the global financial markets or a ratings downgrade;
(xi) Sony's reliance on external business partners, including for the procurement of parts, components, software and network services for its products or services, the manufacturing, supply and distribution of its products, and its other business operations;
(xii) the outcome of pending and/or future legal and/or regulatory proceedings;
(xiii) shifts in customer demand for financial services such as life insurance and Sony's ability to conduct successful asset liability management in the Financial Services segment;
(xiv) the impact of changes in interest rates and unfavorable conditions or developments (including market fluctuations or volatility) in the Japanese equity markets on the revenue and operating income of the Financial Services segment;
(xv) the ability of Sony, its third-party service providers or business partners to anticipate and manage cybersecurity risk, including the risk of unauthorized access to Sony's business information, potential business disruptions or financial losses; and
(xvi) risks related to catastrophic disasters or similar events.

Risks and uncertainties also include the impact of any future events with material adverse impact.