VISUALIZE THE FUTURE

DMP
DIGITAL MEDIA PROFESSIONALS

Fiscal Year Ended March 31, 2016

Results Briefing

Digital Media Professionals Inc.

May 17, 2016

1 **Explanation of Results,
Fiscal Year Ended March 31, 2016**

2 **Progress Report on Medium-Term
Management Plan**

3 **Performance Forecast,
Fiscal Year Ending March 31, 2017**

4 **Reference materials:**

**Medium-Term Management Plan (Fiscal Year Ended
March 31, 2014 - Fiscal Year Ending March 31, 2019)**

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Industry and Business Environment

1. Overall Semiconductor Market

Global

- Fall in smartphone demand having an effect, but semiconductor demand for in-car devices and industrial instruments trending favorably

- Mergers and acquisitions continue among major semiconductor vendors

- Gentle growth continued at +1.4% in 2016 and +3.1% in 2017, with market size for 2017 anticipated to be US$351.6 billion*

Domestic

- Number of ASIC-based development projects reduced due to steep rise in semiconductor development costs

- Gentle growth of +2.3% annually anticipated from 2014 to 2017 in domestic demand, and market size for 2017 anticipated to be ¥3,936.2 billion*

*World Semiconductor Trade Statistics (WSTS), Japan Chapter, as of December 1, 2015

Industry restructuring trend to speed up

2. Visual Computing Field

- Rapid growth averaging +32.8% annually from 2014 to 2019 is anticipated for the domestic IoT market, with the market growing to ¥715.9 billion by 2019[*1]

- The global in-car electronics market is expected to grow to approx. ¥34 trillion by 2020[*2]. Use of IT in automobiles will increase, and in-car sensors and displays will continue to add functionality.

- GPU-based deep learning technology will reach the implementation stage, and AI will evolve to a considerable degree (e.g., AlphaGo)
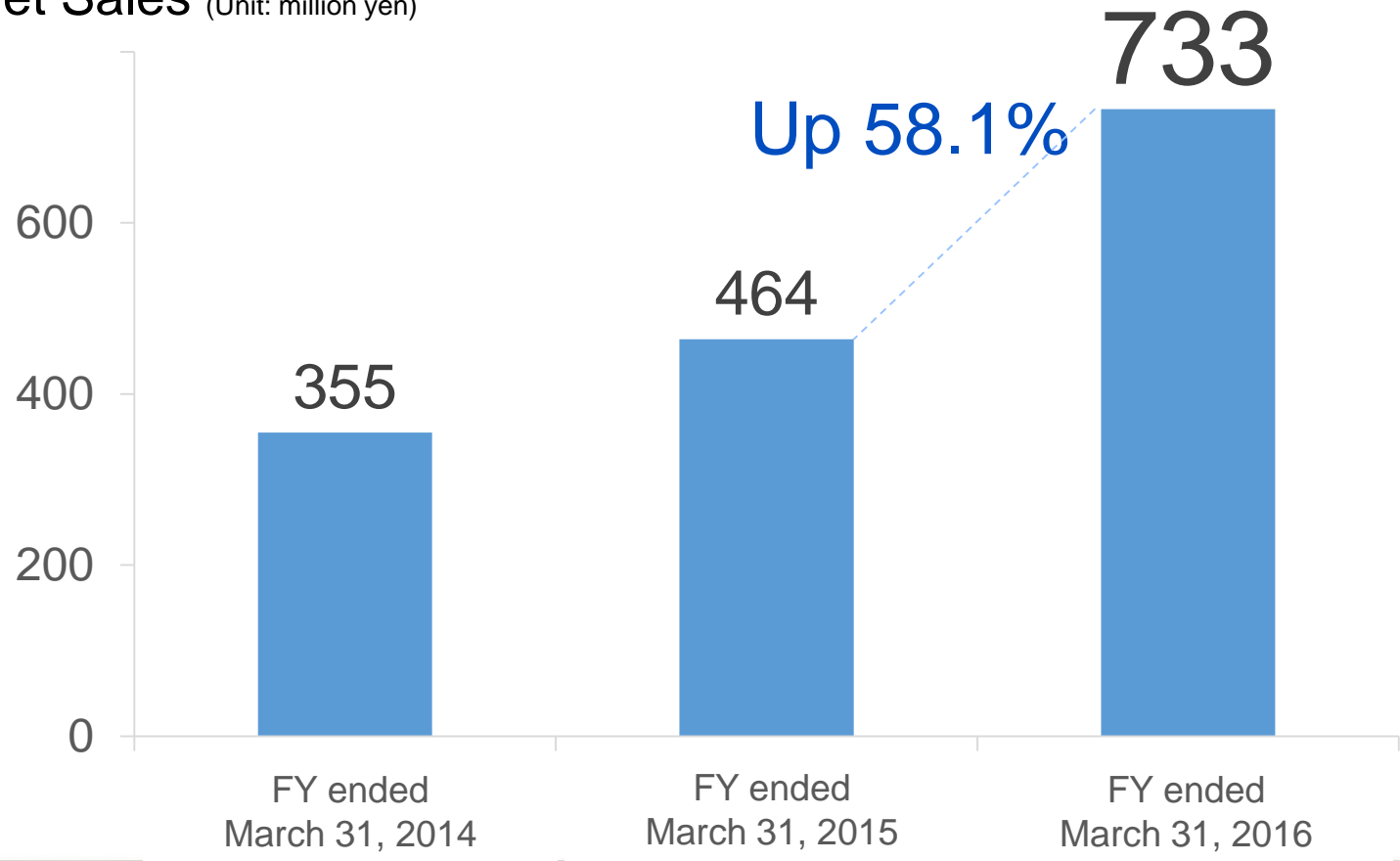
*1: MM Research Institute, as of January 20, 2016

*2: Japan Electronics and Information Technology Industries Association (JEITA)

Results Highlights

✓ Net sales **rose 58.1%** year-on-year due to beginning shipments of the VF2 next-generation LSI, core to the medium-term management plan

Net Sales (Unit: million yen)

Results Summary (P/L)

Profits improved tremendously due to rise in net sales

(Unit: million yen)	FY ended March 31, 2015	FY ended March 31, 2016	Compared to previous FY	
			(Amount)	(Increase-decrease rate)
Net sales	464	733	269	58.1%
Operating loss	−462	−176	285	−
Ordinary loss	−265	−193	72	−
Current net loss	−311	−64	247	−

R&D costs generated by LSI development had an effect

Amount of loss reduced due to inclusion of ¥129 million in extraordinary income due to sale of shares in CogniVue Corp. (Canada)

IP Core Licensing Field

Income was generated from new licenses for medical device applications and from licenses for next-generation products from existing customers, as well as from new running royalties resulting from customers bringing products to market. However, there was a softening in the market for customers' products, and overall conditions for the field were bearish.

TOPICS

SMAPH-F 2D vector graphics IP core used by Renesas in LSIs for OA equipment (announced January 12, 2016)

SMAPH-F

- Adds support for the OpenVG 1.1 2D vector graphics standard from Khronos Group, which drafts specifications for graphics APIs.

- Boasting of small silicon size and moreover rendering performance that ranks among the top in the industry, employed for a variety of both consumer and industrial applications.

Field-by-Field Conditions

SoC/Module Business Field

Began mass production and shipping of VF2 high-performance graphics semiconductor with development having been completed, contributing greatly to sales

— TOPICS

Amusement equipment-geared VF2 high-performance graphics LSI begins mass production, shipping

VF2

- An LSI that achieves industry-leading power performance, with all of DMP's technologies wielded to consolidate on one chip 3D graphics capabilities and 2D image coding functions.

- The DMP spirit of depicting the future through graphics technology is imbued in the name of this product derived from our "**V**isualize the **F**uture" corporate motto.
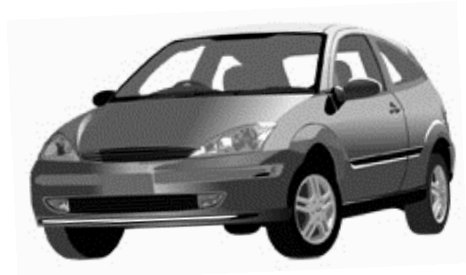
Field-by-Field Conditions

Professional Services Field

Tone set for expansion with having won numerous new proposals in the image recognition field and received commissions to design image-processing semiconductors

TOPICS

Decision made to install DMP-made image processing software on fleet cars of a major automobile manufacturer

Results Summary (B/S)〉

(Unit: million yen)

	End of March 2015	End of March 2016	Increase-decrease amount
Current assets	2,012	1,984	−28
Non-current assets	113	260	146
Total assets	**2,126**	**2,244**	**118**
Current liabilities	52	226	173
Non-current liabilities	19	18	−0
Total liabilities	72	245	173
Total net assets	**2,054**	**1,999**	**−54**
Total Liabilities and Net Assets	**2,126**	**2,244**	118

- Equity ratio high at 88.9%

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3 Performance Forecast,
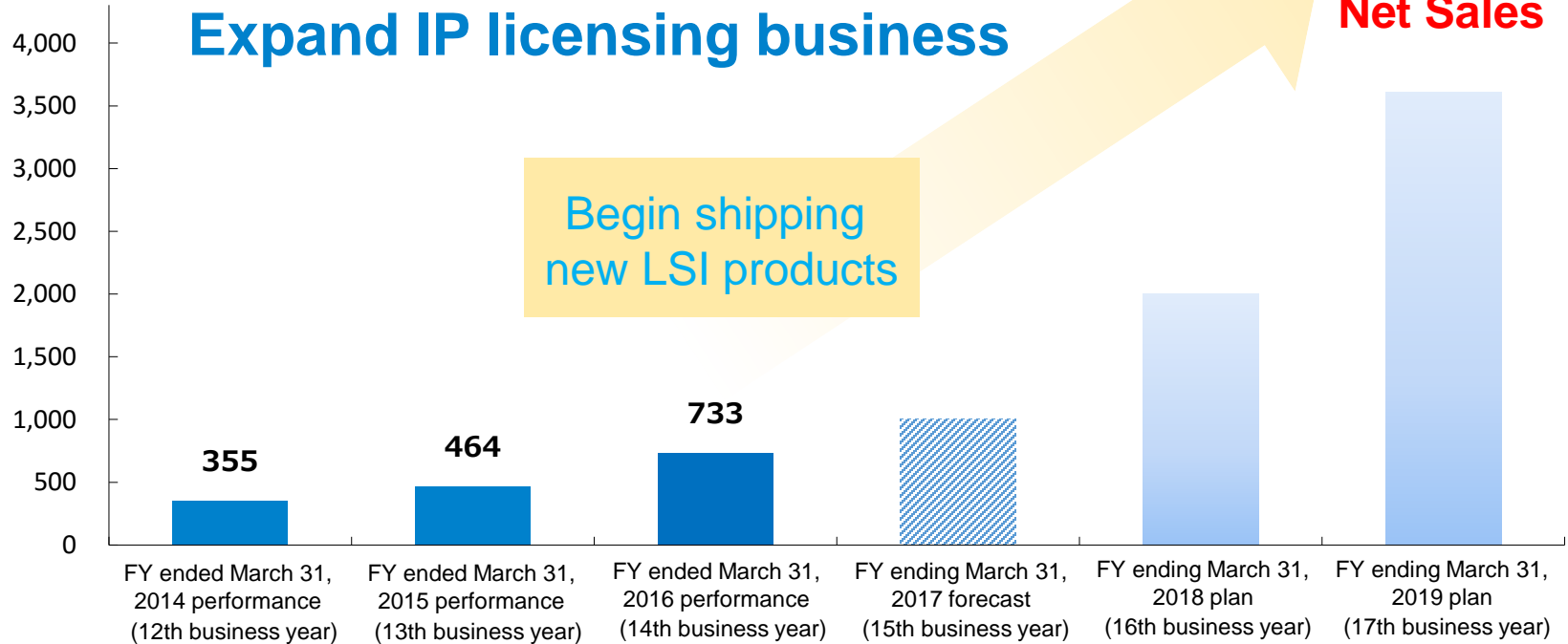Fiscal Year Ending March 31, 2017

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Progress Report on Medium-Term Management Plan

Build and expand business by developing and increasing sales of SoC

Launch professional services

Expand IP licensing business

10x Net Sales

(Unit: million yen)

Begin shipping new LSI products

355	FY ended March 31, 2014 performance (12th business year)
464	FY ended March 31, 2015 performance (13th business year)
733	FY ended March 31, 2016 performance (14th business year)
	FY ending March 31, 2017 forecast (15th business year)
	FY ending March 31, 2018 plan (16th business year)
	FY ending March 31, 2019 plan (17th business year)

Chart values on y-axis: 0, 500, 1,000, 1,500, 2,000, 2,500, 3,000, 3,500, 4,000
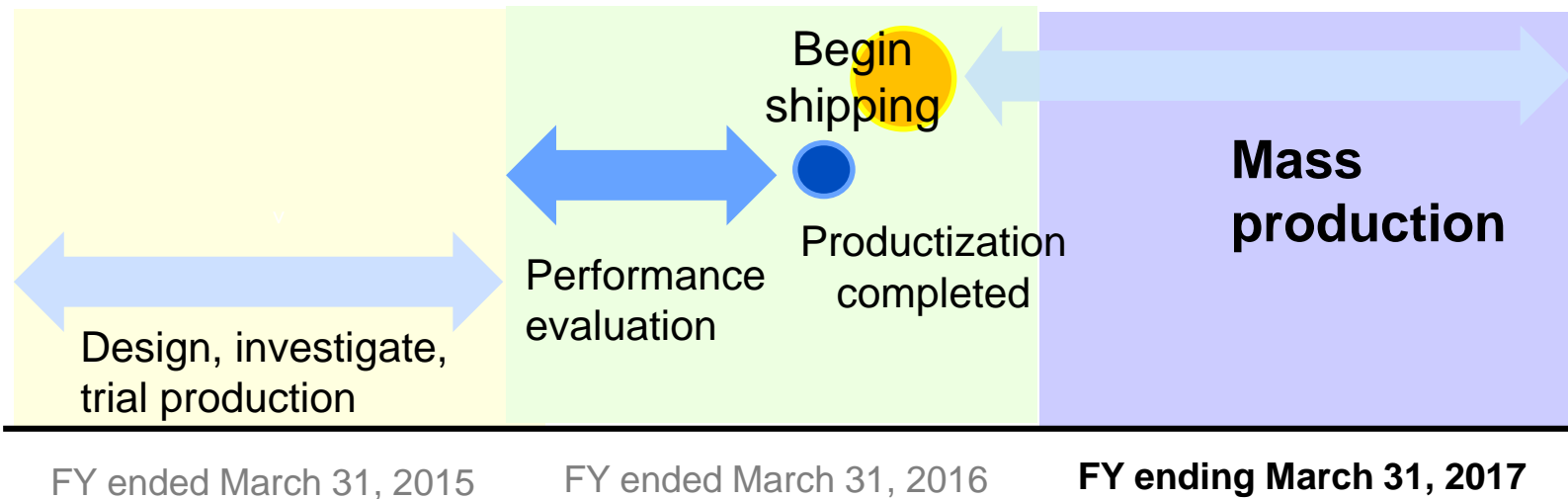
Phase 1 | **Phase 2**

SoC/Module Business Field

Build and expand business by developing and increasing sales of SoC

Next-generation LSI development progressing smoothly. Productization completed, shifting to mass production.


Begin shipping

Mass production

Productization completed

Performance evaluation

Design, investigate, trial production

FY ended March 31, 2015   FY ended March 31, 2016   **FY ending March 31, 2017**

Further Possibilities

Possibilities for entering the next value-added, growth markets

Added value →

Expand into growing IoT field

Products that implement sophisticated image processing in fields such as wearables, car applications, home, industry, and home electronics

+
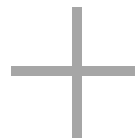
Expand into artificial intelligence/deep learning* fields

Make use of technologies developed in phases 1 and 2 to enter artificial intelligence and deep learning markets

Establish foundations for SoC business in the winnable amusements market

Bring VF2 to market, begin mass production

Begin development of new products next fiscal year
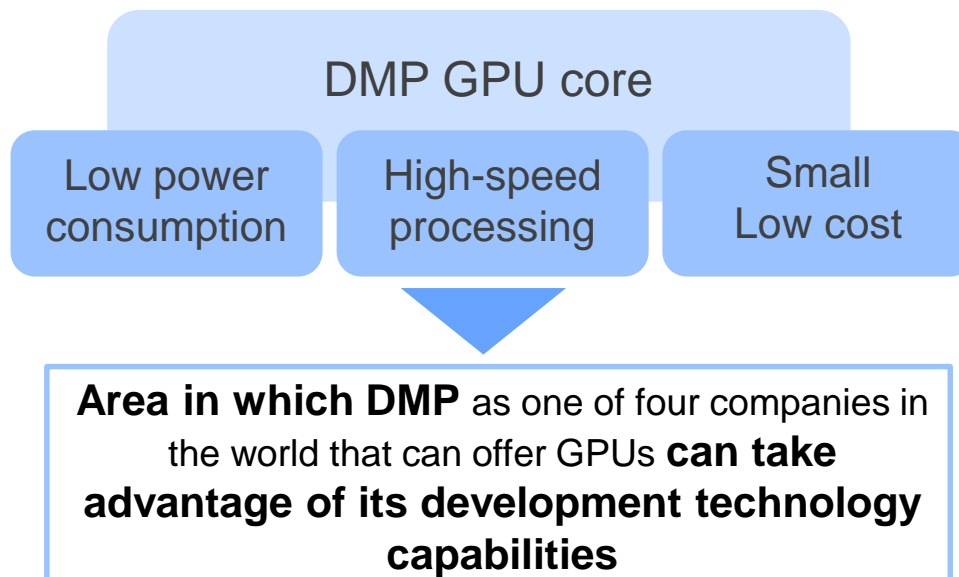
Market →

Phase 1 ▶ **Phase 2** ▶

*A type of machine learning that makes use of multiple layers of neural networks and is applied to various types of data and pattern recognition such as image and voice recognition.
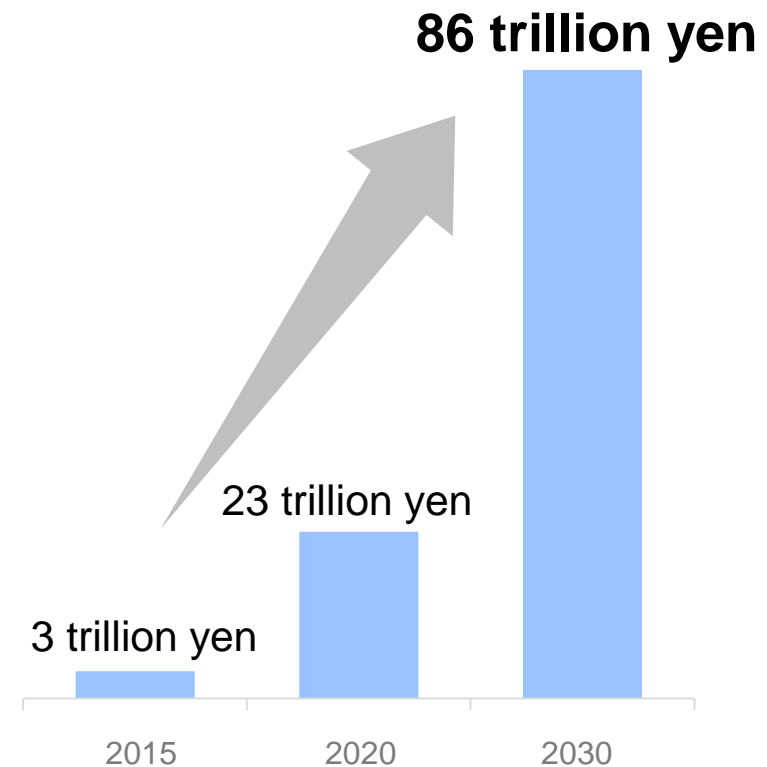
On the Artificial Intelligence Market

The size of the artificial intelligence market will grow to ¥86 trillion by 2030

Low power consumption inference processors required on the device side as GPU put to use for learning the large amounts of information and enormous amounts of imaging and other data on the cloud side

- Automatic driver assistance (ADAS)
- Security
- Manufacturing processes
- Medical
- Virtual reality

DMP GPU core

| Low power consumption | High-speed processing | Small Low cost |

Area in which DMP as one of four companies in the world that can offer GPUs **can take advantage of its development technology capabilities**

Size of market for artificial intelligence-related industries

86 trillion yen

23 trillion yen

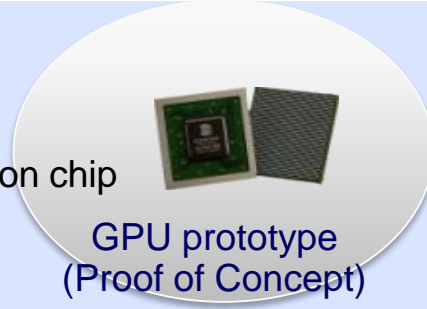3 trillion yen

2015   2020   2030

Source: 2015 Ernst & Young Institute Co., Ltd. "The 'Creation' and 'Destruction' that Artificial Intelligence Produces"

DMP's Capacity to Develop Technology: NEDO* Results

Commercializing research results

2003
"Task-Driven Industrial Technology Development Costs Grant"
Development of semiconductor application chip

GPU prototype (Proof of Concept)

Turn IP and LSI into products
More than 80 million units of customer products shipped (cumulative)

- PICA/SMAPH GPU IP
- NV7 GPU Chip

2012
"Strategic Energy-saving Technology Innovation Program"
Development of low-power consumption graphics processor

SoC development

Begin mass production and shipping
Adopted by major amusement industry company

- VF series SoC

2015
"Green Device Social Pilot Implementation Promotion Program"
R&D on next-generation image recognition and image processing technology platforms

Advance deep learning processor research

Next-generation AI processor development

Enter markets expected to grow considerably

*New Energy and Industrial Technology Development Organization

"Green Device Social Pilot Implementation Promotion Program"
Next-generation image recognition and processing technology
platform R&D project

Carry out advance R&D on **artificial intelligence** (next-generation image processor using deep-learning) platform with expected applications in industrial robots and self-driving cars

Results

✓ Development completed on **next-generation shader core** that will be image recognition core

✓ **Development of CNN core for deep learning application** completed with OpenCL implementation, benchmarking using FPGA

✓ Carry out prototyping of **graph-based algorithm implementation tool**

✓ Real-time performance of OS, etc., evaluated as **means for gauging system performance**, collection of fundamental data on future requirement definitions completed

Nurtured as the next effective revenue base among DMP's medium-term projects

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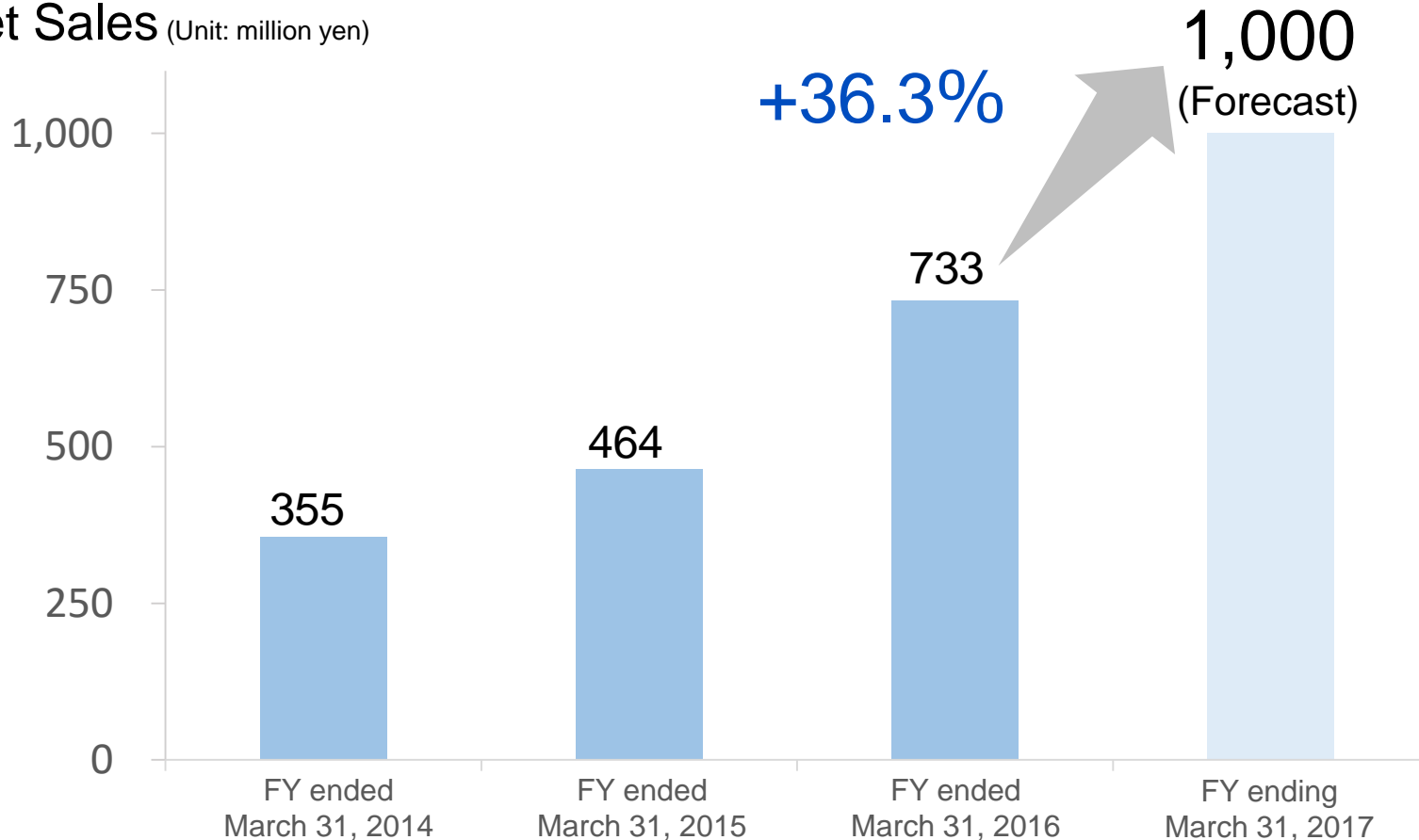**3** Performance Forecast,
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Projected Performance

✓ Net sales **increased 36.3%** over same period previous fiscal year due to factors including the expansion of sales channels for VF2 high-performance graphics semiconductor and cultivation of new customers

Net Sales (Unit: million yen)

+36.3%

1,000 (Forecast)

733

464

355

| FY ended March 31, 2014 | FY ended March 31, 2015 | FY ended March 31, 2016 | FY ending March 31, 2017 |

Fiscal Year Ending March 31, 2017
Projected Performance

(Unit: million yen)	FY ended March 31, 2016 (Actual)	FY ending March 31, 2017 (Forecast)	Compared to previous FY	
			(Amount)	(Increase-decrease rate)
Net sales	733	1,000	267	36.3%
Operating loss	−176	−161	15	—
Ordinary loss	−193	−161	32	—
Current net loss	−64	−161	−97	—

✓ Loss forecast owing to inclusion of costs related to development of VF2 successor

Future Efforts Field-by-Field

IP Core Licensing Field

Licensing of graphics IP core and development of IP aimed at deep learning.

SoC/Module Business Field

Work to increase earnings by cultivating new customers and expanding sales channels for VF2 high-performance graphics semiconductor that went on sale previous fiscal year. Devote energies to new product development.

Professional Services Field

Work to expand by devoting energies to getting image-processing semiconductor design commissions and to automobile-related, security, and medical-field service businesses.

Encourage strategic alliances

Regarding initiatives pursued with operational capital tie-up partner UKC Holdings Corporation, joint approaches toward customers are being pursued in the SoC/module business field. Discussions are also continuing on entry into the in-car device and IoT-related fields.

UKC

株式会社 UKCホールディングス

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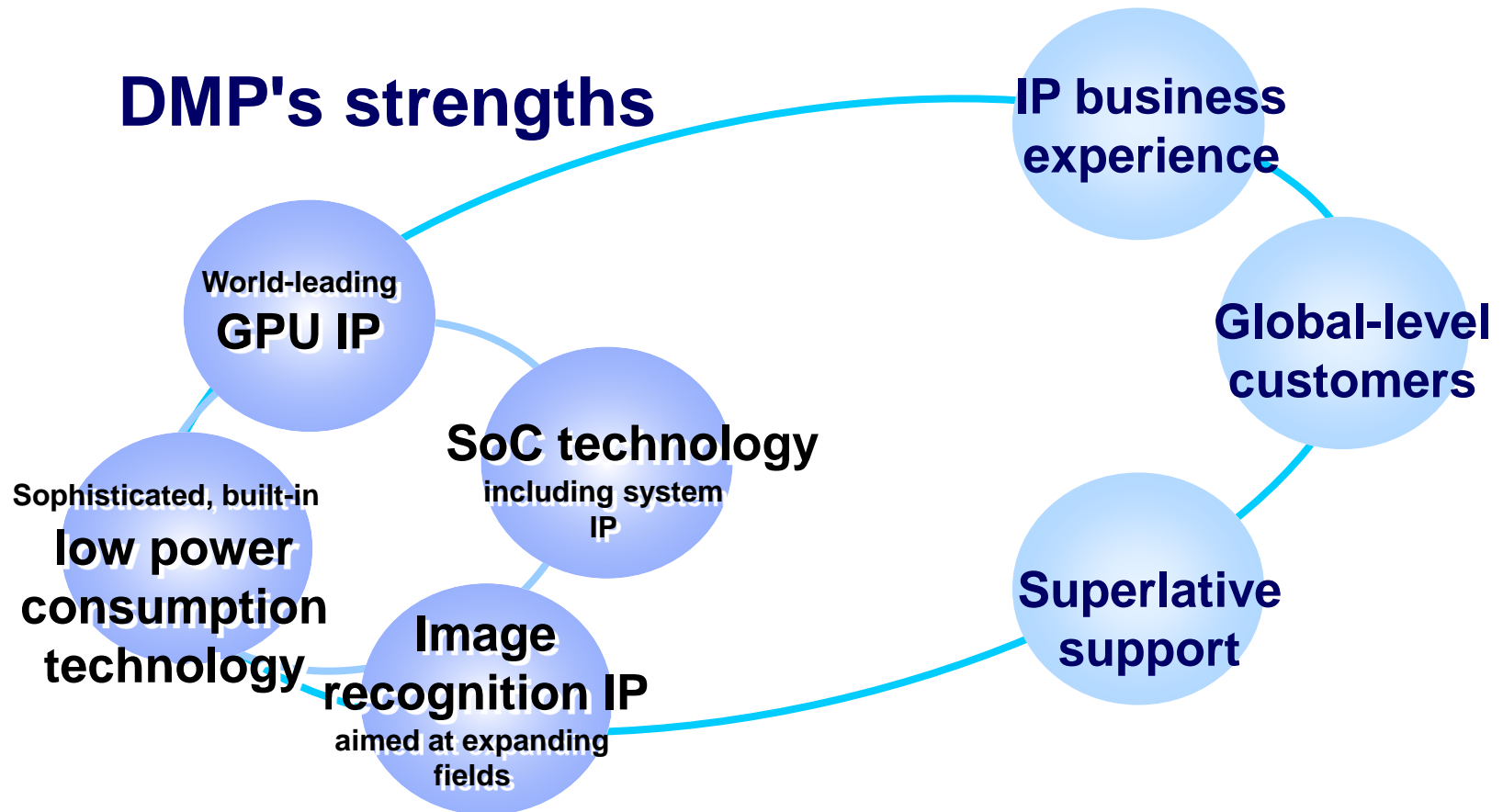
Policy

Become a one-stop solutions provider in the visual computing* field

*Visual computing:

General term for computer processing via graphics and images

Our Company's Strengths

Core technologies and business experience in semiconductors that produce high added value for DMP

DMP's strengths

IP business experience

World-leading **GPU IP**

Global-level customers

SoC technology including system IP

Sophisticated, built-in **low power consumption technology**

Image recognition IP aimed at expanding fields

Superlative support

Offering unique products, licenses, and services with a distinctive IP portfolio

Global alliances

- Fabless
- Semi-conductor IP vendor
- Sales channels

Three pillars

SoC modules

DMP's IP
- GPU
- System IP

Alliance IP
- Image recognition
- Others

IP

Solutions
(R&D, software products)

Product business

IP licensing business

Professional services business

Visual computing field

Customers

- ✓ OEM
- ✓ Semiconductor vendor
- ✓ System integrator
- ✓ Software house
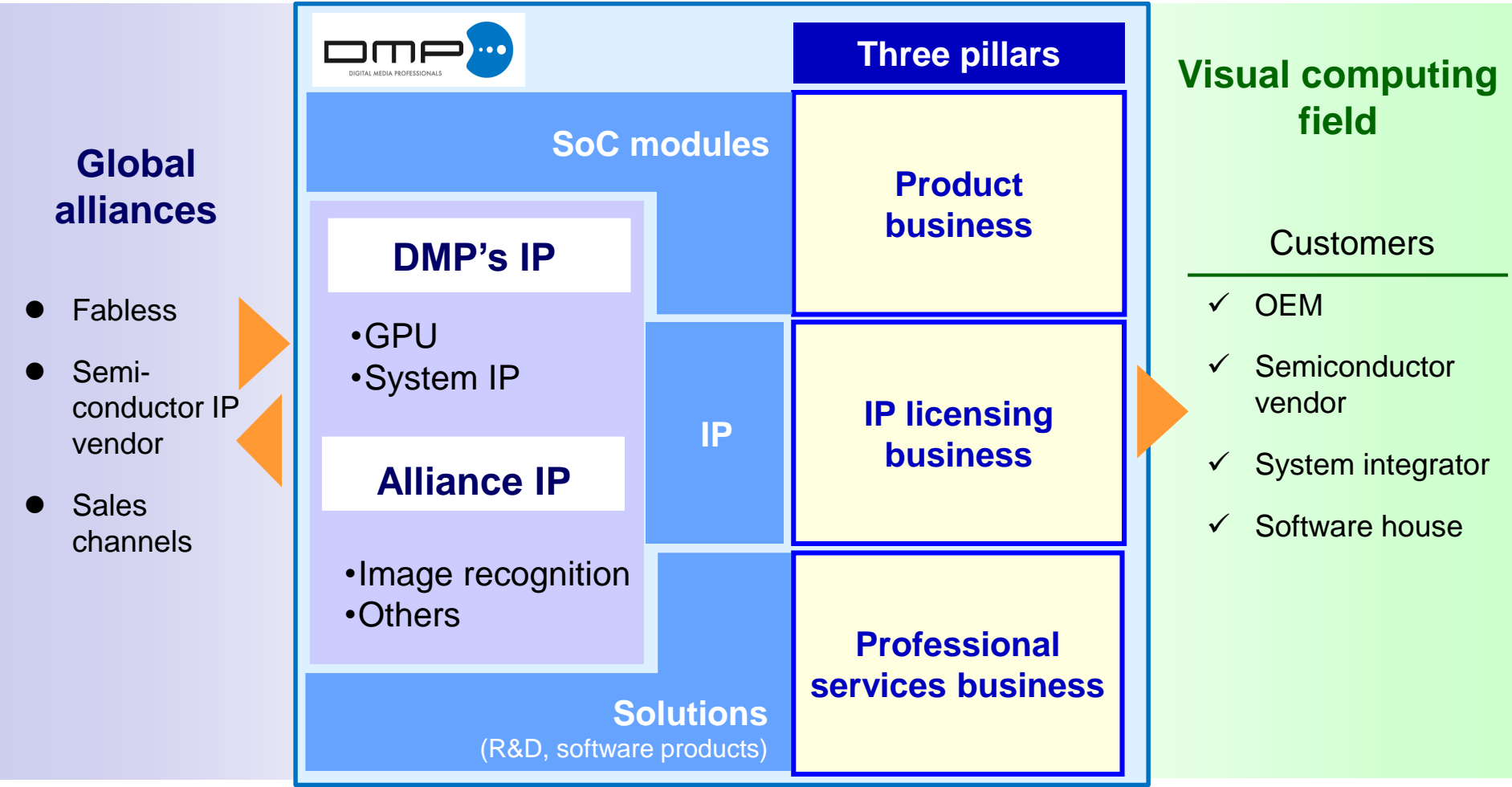
DMP's Strategy

Build foundation for growth with "three pillars" that can make the most of DMP's strengths

|	
Product business	**Provide competitive SoC and solutions that the make most of DMP IP** ● Make the most of strengths to start business in "fields we can win" ● Expand size of business by providing SoC/modules
IP licensing business	**Create new business in growth fields** ● Focus on visual computing field ● Expand portfolio, strengthen proposal-making ability
Professional services business	**Offer superior technological capabilities and make essential to developing new fields** ● Build up high value-added services using GPU/vision technologies (in-house/external) as base ● Strengthen R&D
Systems and corporate	**Strengthen management resources through alliances** (Partners for commercial distribution, semiconductor development and outside IP adoption)

Regarding the IP Business

Offer IP on industry's cutting edge with demonstrable low power consumption and high performance
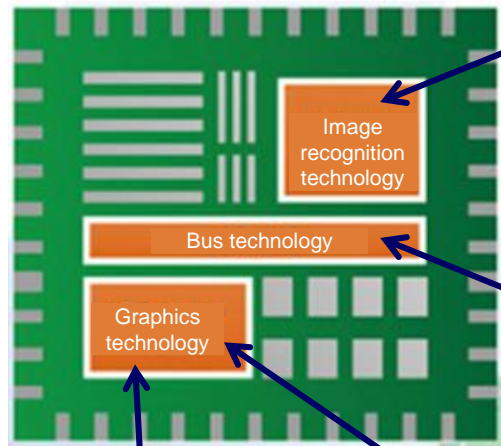
Next-generation image recognition processor IP under development

・ High-performance, low-power consumption processor for Computer Vision use

・Preparing algorithm library that includes ability to detect persons, face recognition, and gesture recognition

Image recognition technology

Bus technology

Graphics technology

Loputo System Series

SoC Interconnect IP

・ Supported bus protocols:
AMBA AXI, OCP, ACE I/F support

・ Support for low latency, QoS thanks to multilayered configuration

DDR Memory Controller IP

・ DDR 1/2/3/4, LPDDR 1/2/3 support

・ SoC interfaces: AXI, OCP/

・DDR PHY interface (DFI)

ant Series

UI Drawing Engine IP Core

・ World's smallest core at 0.5 x 0.5 mm

・ Low power consumption, high rendering performance, distortion correction

SMAPH Series

3D Graphics IP Core

・ Latest Khronos standard:
OpenGL ES 3.0 compatible

・ DMP's unique advanced feature MAESTRO

2D Graphics IP Core

・ Latest Khronos standard:
OpenVG1.1 compatible

・ High-speed rendering of such vector graphic content as fonts, maps, and incons with industry's smallest IP core size

Regarding the IP Business

Focus on visual computing market bound for growth

Connected home

Security

Image recognition

Mobile vision

Robots/FA

Games

User interfaces
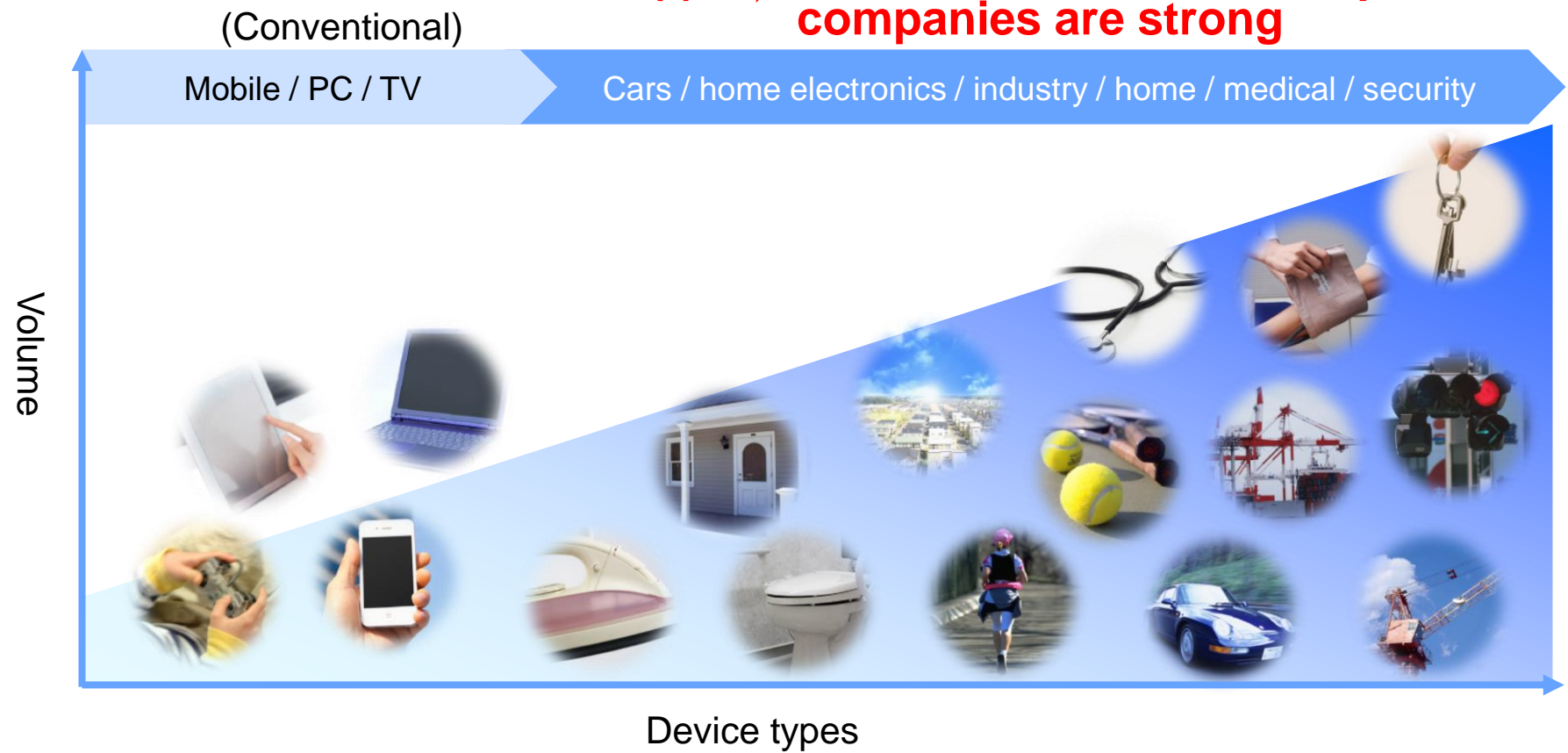
Automobile driving assistance

Wearable computing

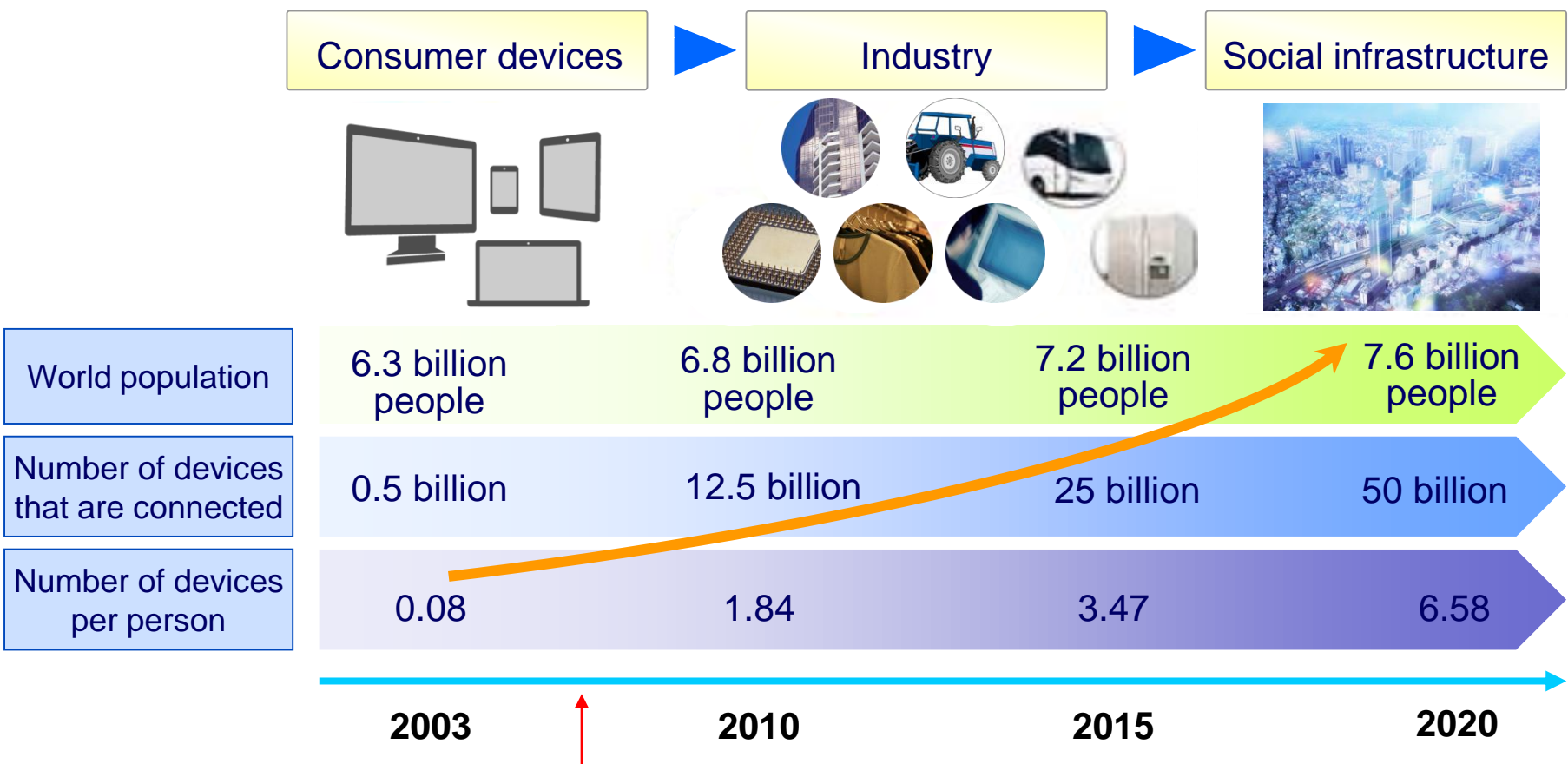Medical

Semiconductor Market Prospects

IoT(*) ➡ Growth in fields where Japanese companies are strong

(Conventional)

Mobile / PC / TV | Cars / home electronics / industry / home / medical / security

Volume

Device types

*IoT (Internet of Things):
The idea of being able to provide connectivity to a variety of devices and the like used in daily life—going beyond such information technology devices as PCs, smartphones, tablets, and game equipment—and then connect them to the internet as well as perform tasks such as automatic recognition, automatic control, remote monitoring, etc. by communicating with them interactively.

Semiconductor Market Prospects

Arrival of IoT (Source: Cisco IBSG.2011)

Consumer devices	▶	Industry	▶	Social infrastructure

	2003	2010	2015	2020
World population	6.3 billion people	6.8 billion people	7.2 billion people	7.6 billion people
Number of devices that are connected	0.5 billion	12.5 billion	25 billion	50 billion
Number of devices per person	0.08	1.84	3.47	6.58

The number of devices connected to the internet exceeds the world population

DMP's Strategic One-stop Solutions

Visual Computing Field

SoC system technology

Bus technology

Graphics technology

Image recognition technology

1. Very distinctive technological capabilities   2. Ability to respond to customers   3. Lean capacity for product development
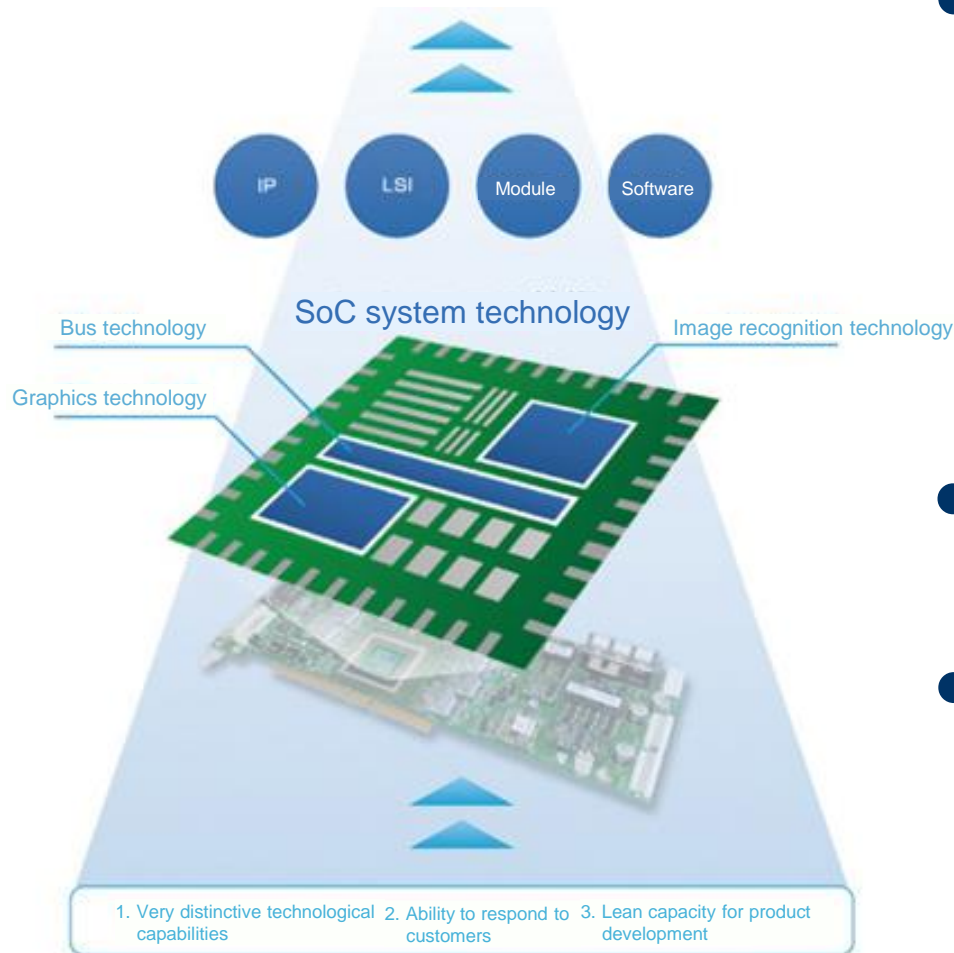
- **High value-added IP core**
  - ➢ Advanced processor IP (GPGPU/image recognition) that enables heterogeneous processing environment
  - ➢ System IP that achieves top-rank system performance in terms of low power consumption
  - ➢ Collection of software tools optimized for drawing out IP performance

- **SoC/modules differentiated by DMP IP**

- **Professional services**
  - ➢ Algorithms
  - ➢ Benchmarking, optimization
  - ➢ Application development
  - ➢ Inspection

Future prospects that make the most of our strengths and competitive advantages

Phase 1

- Development of SoC:
  Develop products in fields where we can "win"
- Expand IP portfolio:
  Enter image processing field
- Launch professional services

Phase 2

- Provide one-stop solutions
- Expand IP portfolio
- IoT-related service business

Scale of business

Phase 1

Phase 2

SoC/modules

Professional services

IP licensing

FY ended March 31, 2014   FY ending March 31, 2017   FY ending March 31, 2019