

Presentation on Business Activities  
of the  
IT & Communication Business Unit



October 27, 2015  
Mitsui & Co., Ltd.

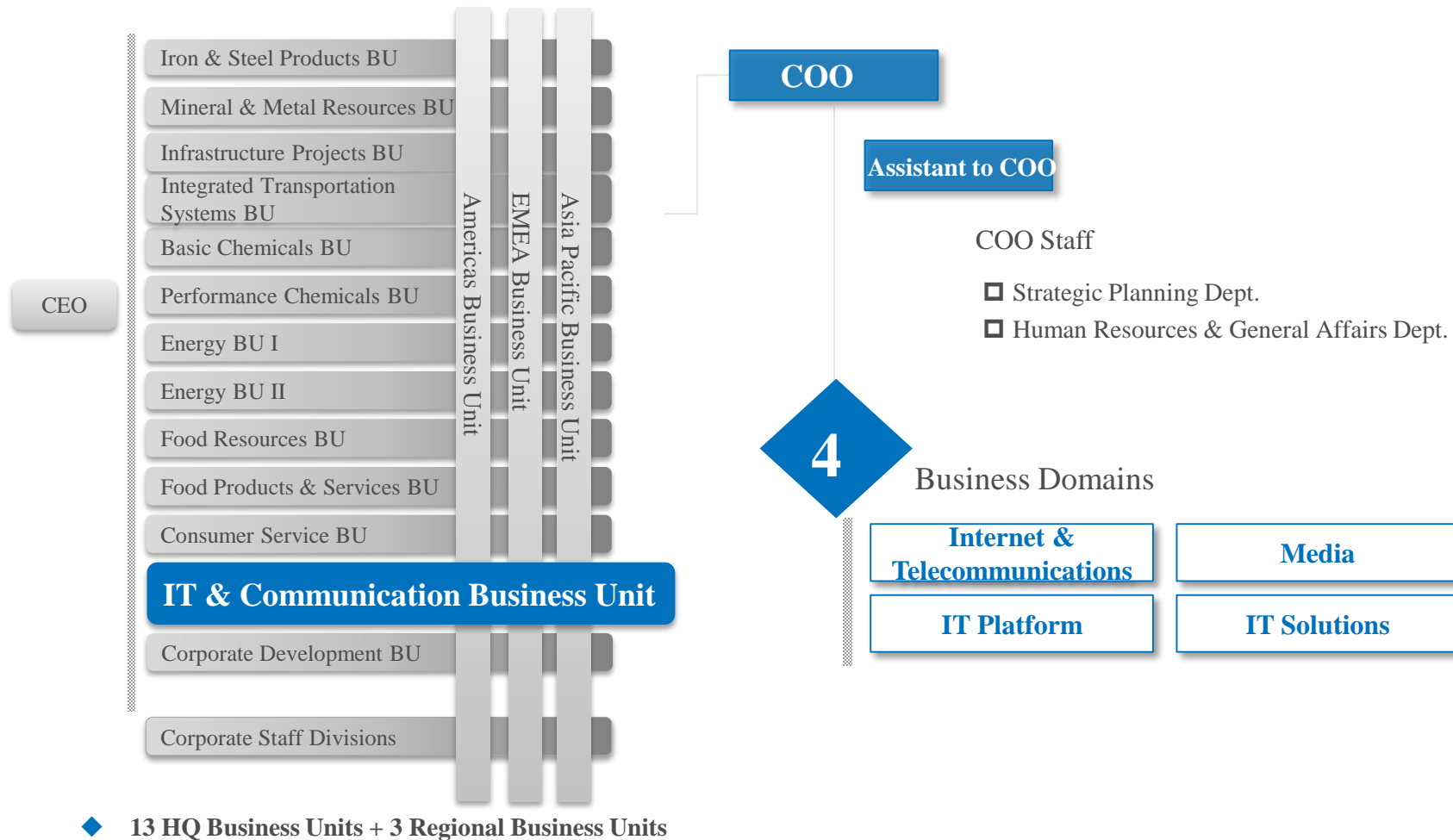
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4. Key Words for the Future
  - Three Key Words

# 1. Overview and Position of the Business Unit

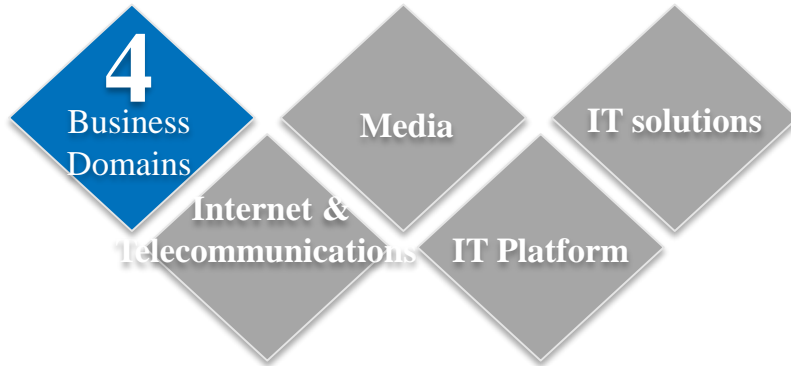
# 1. Overview and Position of the Business Unit (BU)

## Organization Chart



# 1. Overview and Position of the Business Unit

## Business Domains



### Internet & Telecommunications

- High-speed communications
- Electronic payment
- Internet-related
- Contact centers/BPO
- Net marketing



### IT Platform

- Data platforms/Big Data
- Industry × IT
- Other new business domains



### Media

- Video content
- Broadcasting-related
- TV shopping
- E-Commerce



### IT Solutions

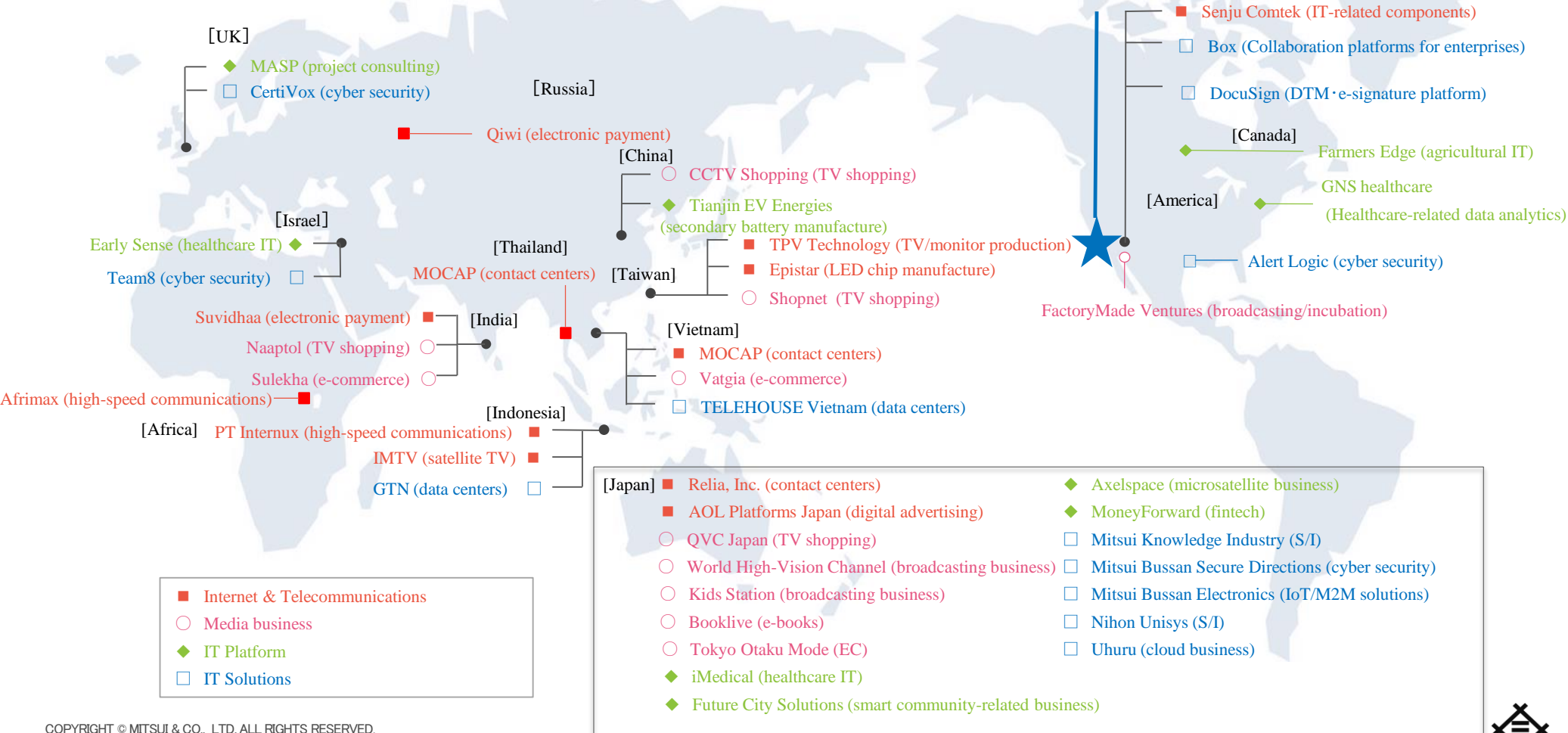
- S/I
- Cloud services
- Cyber security
- IoT, M2M-related



# 1. Overview and Position of the Business Unit

## ICT Related Investments In The World

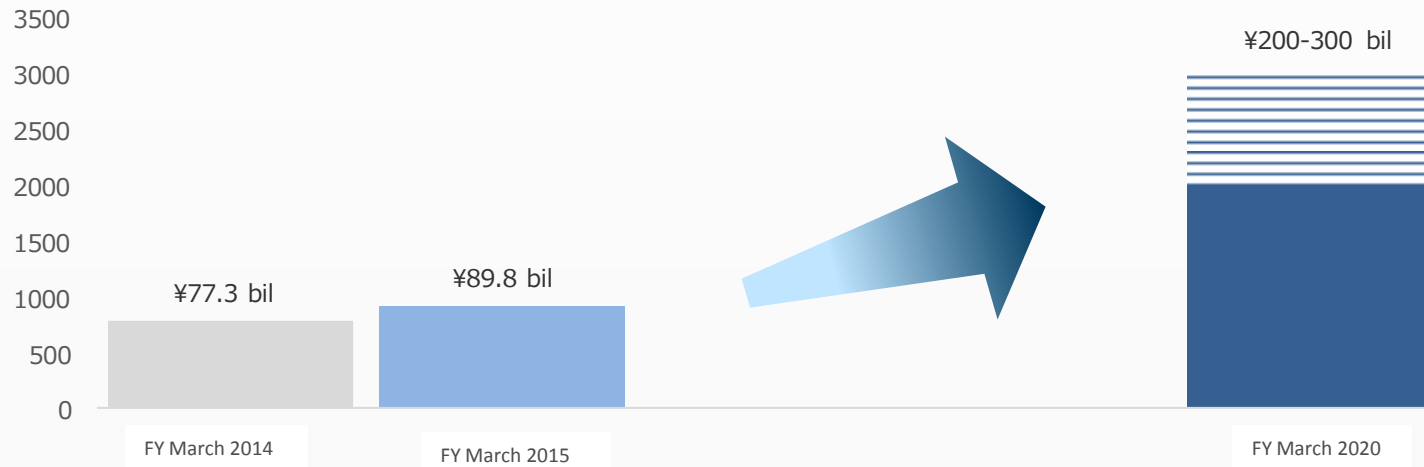
Six personnel from the IT & Communication BU have been posted to the Mitsui & Co. (USA) Silicon Valley Office and MGI (a venture investment subsidiary), to acquire new technology and business models. (Highest no. among Japanese trading companies)



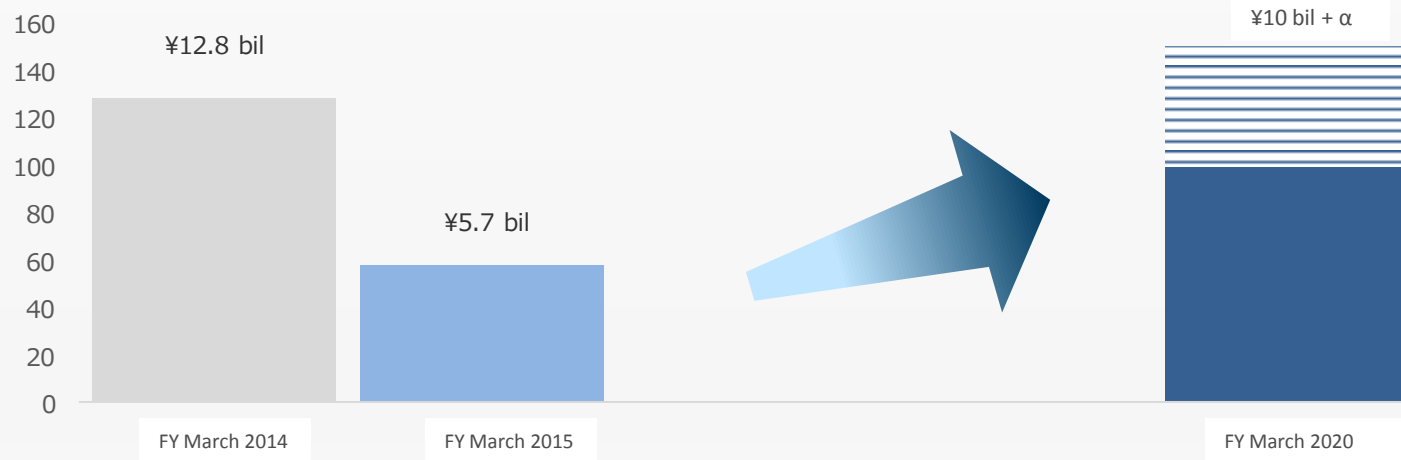
# 1. Overview and Position of the Business Unit

## Business Scale & Performance

### Investment Balance



### PAT \*



## 2. Roles in the 7 Key Strategic Domains



# 2. Roles in the 7 Key Strategic Domains

<b>Hydrocarbon Chain</b>		<p><u>Energy upstream to downstream and expansion of related businesses</u></p> <ul style="list-style-type: none"> <li>● Upstream oil &amp; gas development, commercialization (LNG, Chemicals, Power Generation)</li> <li>● Transportation and associated businesses (ships, steel pipes, infrastructure development)</li> </ul>
<b>Mineral resources (urban &amp; underground) and materials</b>		<p><u>Mineral mining to material processing, building a recycle-oriented society</u></p> <ul style="list-style-type: none"> <li>● Development and production of mineral resources, processing, distribution and recycling of products</li> <li>● With focus on technical advancement, expand steel and chemical material business</li> </ul>
<b>Food and agriculture</b>		<p><u>Provide solutions for increasing production and stabilizing food supply</u></p> <ul style="list-style-type: none"> <li>● Fertilizer and food resources, Food product materials</li> <li>● Agricultural, food and nutritional sciences</li> </ul>
<b>Infrastructure</b>		<p><u>Contribute to new nation building and business expansion from infrastructure</u></p> <ul style="list-style-type: none"> <li>● Power generation, water supply and port terminals</li> <li>● Next generation development of local economies</li> </ul>
<b>Mobility</b>		<p><u>Services related to manufacturing, marketing &amp; financing of transportation machineries</u></p> <ul style="list-style-type: none"> <li>● Automobile, industrial machinery, ships, aircrafts, mass transit and rail transportation systems</li> <li>● Logistics business and expansion to other "Key Strategic Domains"</li> </ul>
<b>Medical / Healthcare</b>		<p><u>Business development in healthcare and pharmaceutical value chain</u></p> <ul style="list-style-type: none"> <li>● Hospital business and surrounding healthcare services</li> <li>● Pharmaceutical development, manufacturing and marketing</li> </ul>
<b>Lifestyle products and value-added services</b>		<p><u>Consumer linked business utilizing next generation functions (IT, Finance, Logistics)</u></p> <ul style="list-style-type: none"> <li>● Clothing and food (distribution, data, e-commerce)</li> <li>● Housing (real-estate, financial and related services)</li> </ul>



## 3. Priority Business Areas

- (1) Telecommunications infrastructure in emerging nations
- (2) TV shopping
- (3) Industrial IT-related business
- (4) Cyber security

## 3-1 Telecommunications Infrastructure in Emerging Nations

### Past Telecommunications Business Initiatives

1980s

Deregulation of  
Communications

1990s

Diffusion of Mobile  
Communications

2000s

Development of  
i-mode → Emergence  
of smart phones

2010s

Arrival of 4G/LTE

1984	Japan Telecom (JT)	1991	Digital Phone Group
1985	DDI Corp. Teleway Corp. Japan Communications Satellite (JSAT)	1992	TU-KA Group
1986	International Telecom Japan TTNet Tokyo Telemesssage	1994	ASTEL Group
1987	IDO		
1989	DDI Cellular Group		

**2013** PT Internux/Indonesia

**2015** Afrimax/Africa



【Mobile phone sales】 T-GAIA (formerly Telepark), Brightstar  
 【Call centers】 Relia Communications (formerly Moshi Moshi Hotline)  
 【Internet】 AOL Japan  
 【Mobile content】 Buongiorno/Italy

\* Mitsui has exited T-GAIA, Brightstar, AOL Japan and Buongiorno

## 3-1 Telecommunications Infrastructure in Emerging Nations

### Core Strategy

**Provide LTE to emerging nations (urban areas) lacking in internet infrastructure and capture the growth of the emerging markets**

- (1) Mobile internet communication standards to be unified to the LTE global standard (already adopted by 30 countries, including China, USA, Japan, and India )
- (2) Provide 4G services in urban areas where mobile internet use is concentrated
- (3) Meet the need for high-speed communication in markets lacking fixed networks

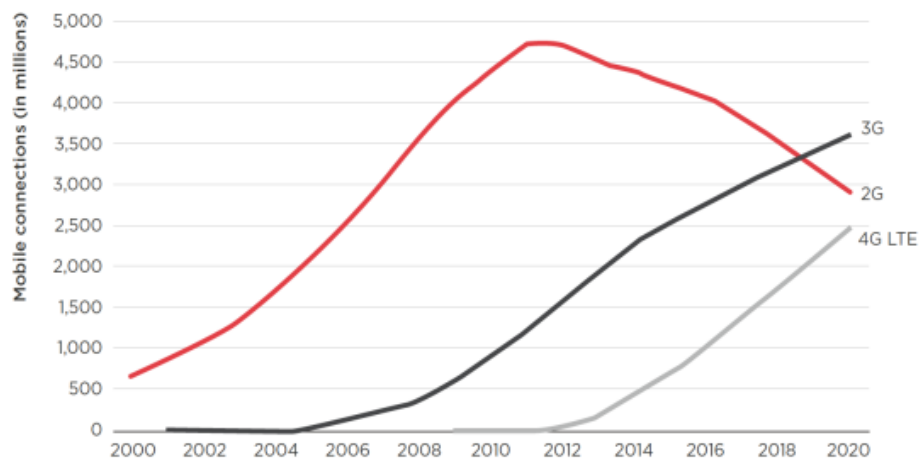


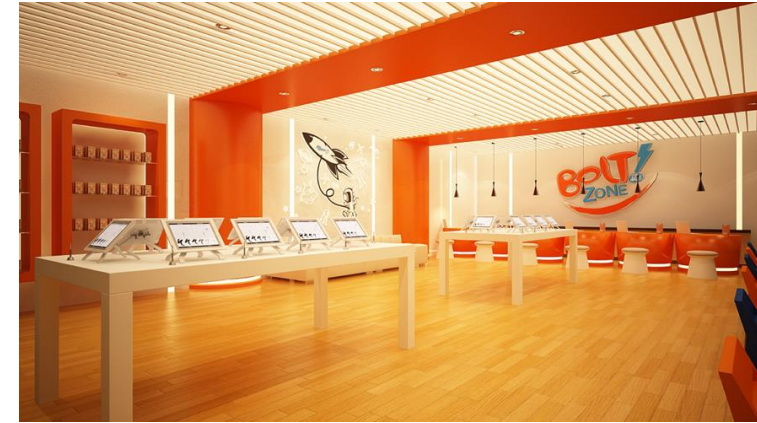
Figure 6: Total cellular connections, global, by technology generation

Source: GSMA Intelligence

# 3-1 Telecommunications Infrastructure in Emerging Nations

## LTE Business in Indonesia

(PT Internux (PTI): Mitsui & Co.'s equity participation of 20%)



PTI provides LTE services in Jakarta and Medan under the Bolt! brand name. Mobile data communication is expected to grow rapidly in Indonesia, and PTI is responding steadily to this growth and contributing to improving the communications environment in Indonesia.

### Strengths of PTI (Bolt!)

Communication speed



◆ Approx. 10 times faster than existing mobile communication

Price



◆ Provides a service with data-based communication fees 70% lower than its competitors

Coverage



◆ Covers 98% of Jakarta's population (about 32 million people). Future plans for expansion of the service area focusing on large cities.

Subscribers



◆ Approx. 1.3 million subscribers acquired in first 18 months of operation. The number of subscriptions continues to grow.

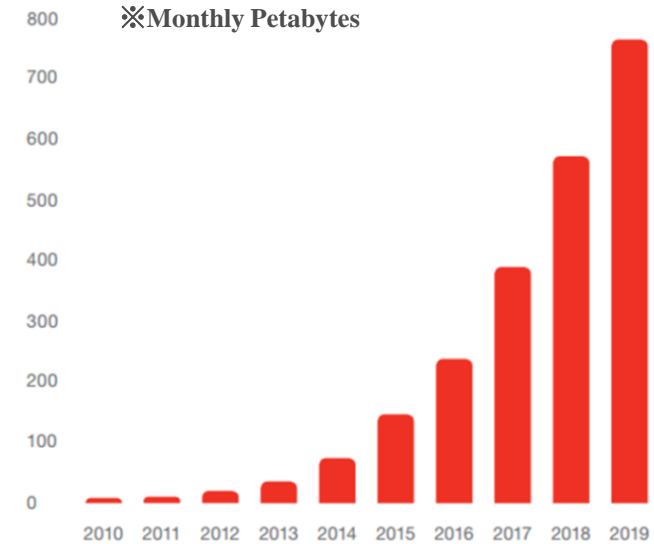


# 3-1 Telecommunications Infrastructure in Emerging Nations

## LTE Business in Sub-Saharan Africa (Afrimax)



### Mobile data traffic in Sub-Saharan Africa to grow 20-fold between 2013 and 2019



[Source: Sub-Saharan Africa Mobility Report Appendix – Ericsson]

In September 2015, Mitsui & Co. took equity participation (approx. ¥6 billion) in Afrimax, which is developing the LTE business in Sub-Saharan Africa. Afrimax began providing LTE services in Uganda in February 2015, and plans to expand its LTE operations to dozens of countries across Sub-Saharan Africa. Although there is a lack of mobile communications infrastructure in Sub-Saharan Africa, the region’s mobile data traffic is expected to increase rapidly. The mobile communications infrastructure business is the bedrock upon which growth is built, and using this business as a platform, Mitsui aims to create a range of services, including mobile payment and EC.

### Strengths of Afrimax

- Communication speed** ◆ Over 10 times faster than existing mobile communication
- Multinational development** ◆ Began providing services in Uganda in 2015, and plans to expand to over ten countries in Sub-Saharan Africa
- Alliance with Vodafone** ◆ Provides services under the **Vodafone** name, a powerful brand in Sub-Saharan Africa as well
- Highly experienced management team** ◆ The team has started up mobile communication businesses in the Middle East, Africa, Central & South America, and Russia since the 90s, and is highly conversant with the communications business in Africa



## 3-2 TV Shopping

### QVC Japan

(Mitsui & Co.'s equity participation: 40%)



A TV shopping company operated by QVC (USA) and Mitsui & Co. since 2001. Net sales were ¥9.62 billion in FY 2014 (Jan–Dec). Mitsui & Co. has been involved from start-up. A 24-hour live shopping channel that has established a reputation as a reliable brand.



### CCTV Home shopping (CCTVS)

(Mitsui & Co.'s equity participation: 25%)



In January 2011, Mitsui & Co. took equity participation in TV shopping company CCTVS, a subsidiary of the leading Chinese broadcaster CCTV. By utilizing the strong brand of CCTV as China's largest state-owned broadcaster, CCTVS has rapidly increases its viewership to over 100 million households.



### Naaptol

(Mitsui & Co.'s equity participation: 5%)



In March 2015, Mitsui took equity participation in one of India's leading TV shopping firm, Naaptol. Besides its 24x7 Shopping channel available in ca.70mil households across the country, with over 100hours of advertising every day ,Naaptol is also well known due to its infomercial business as well as its e-commerce website.

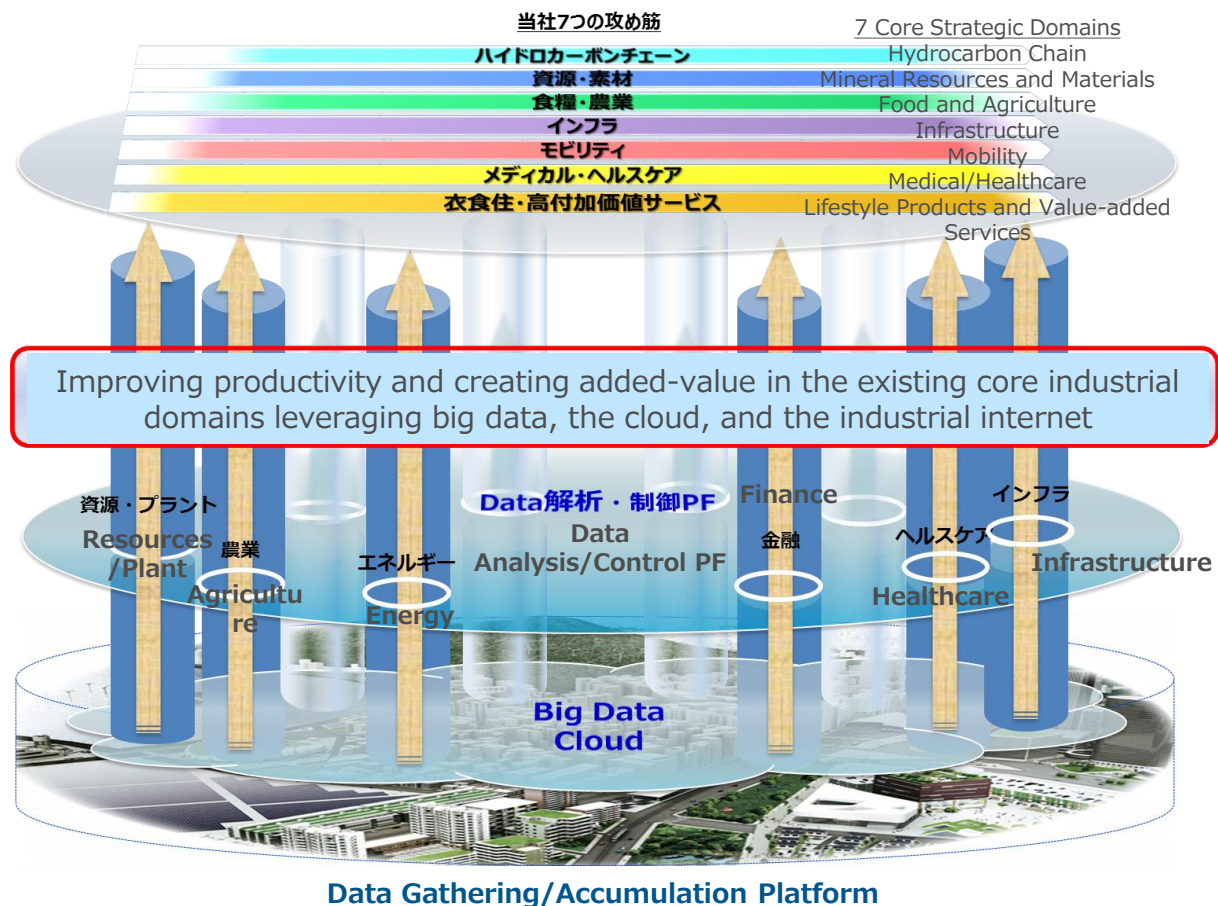


## 3-3 Industrial IT-related Business

### Core Strategy

Create large-scale business models by gathering, analyzing, controlling and utilizing data obtained by the IoT.

- Focussing on industrial domains where gathering, analysis, control and use of Big Data can be a game changer. We are already active in the healthcare, agricultural and financial (Fintech) domains.
- Seeking to build horizontal cross-industry Big Data platforms
- In addition to project investment, also actively pursuing exploratory investment for the purpose of acquiring business seeds.





## 3-3 Industrial IT-related Business

### Agricultural IT (Farmers Edge)



In March 2015, Mitsui & Co. took equity participation in the Canadian agricultural IT firm, Farmers Edge. The company is a leader in the precision agriculture sector, and we aim to enhance the company's value and create new business in collaboration with the Food Resources and Chemicals Business Units.



### Healthcare IT (EarlySense)

## EarlySense

In February 2015, Mitsui & Co. concluded a US\$5 million investment agreement with Israel's EarlySense. EarlySense produces sensors for detecting users' respiration, heart rate and movement, and possesses data technology for detecting sleep state and patient deterioration. We will target to create new business, leveraging EarlySense's technology.



### FinTech (Money Forward)



In October 2015, Mitsui & Co. invested approx. ¥300 million in Money Forward, a provider of automated household accounting and asset management services for individuals and cloud accounting services for SMEs. Mitsui & Co. aims to use its equity participation in Money Forward as a launch pad for creating business leveraging big data in the Fintech sector.

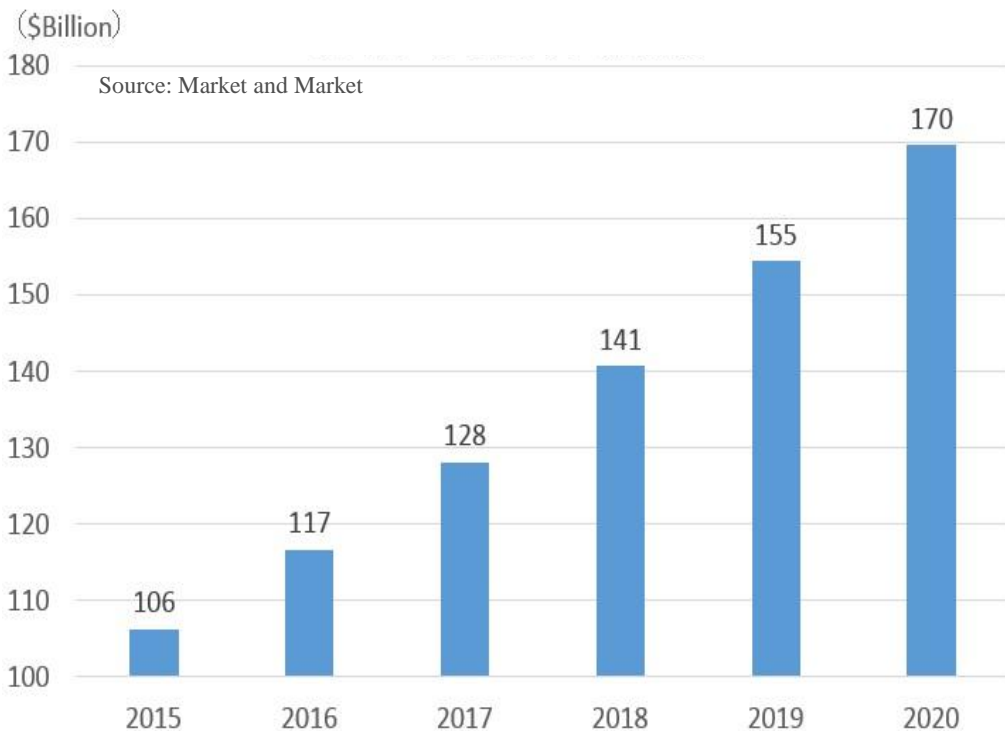


## Core Strategy

Use advanced Western security technology to counter the growth, diversification, and increasing sophistication of cyber attacks. Take advantage of the growth of the cyber security market.

- ✓ Cyber security market growing in parallel with increase in cyber attacks in recent years (10% annual growth rate expected to continue, to reach a market scale of \$120 billion in 2017)
- ✓ Attack methods becoming more diversified and sophisticated. Single solution security equipment unable to provide complete protection, especially against targeted attacks.

### (1) Global Cyber Security Market Forecast



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### (2) Recent Security Incidents

Company	Cause	Damage
A	Targeted attack email	1.25 million items of personal information
B	Targeted attack email	Over 10,000 items of personal information
C	Targeted attack email	Policy-related information and material
D	Web application vulnerability	Personal information of 130,000 employees

### (3) Who is responsible?



## Mitsui Bussan Secure Directions, Inc. (MBSD)



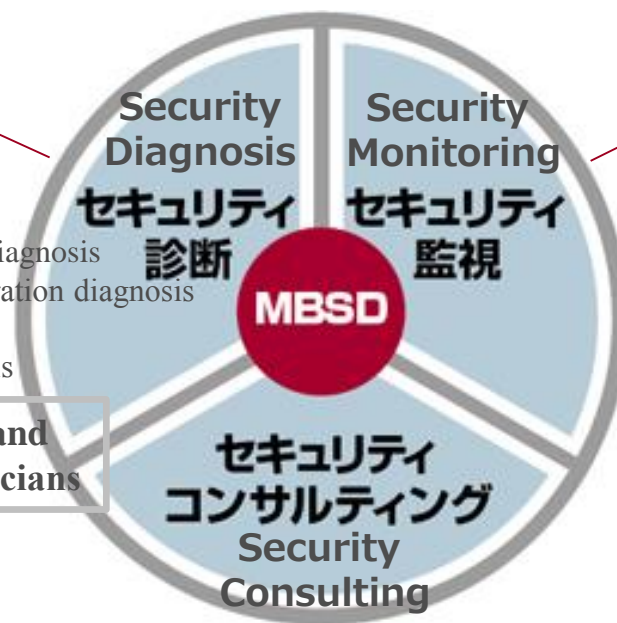
**A specialist security firm offering full-spectrum support for cyber security management**

### Professional Services

#### Security Diagnosis

- Web application diagnosis
- Smartphone application diagnosis
- Embedded device diagnosis/RIA diagnosis
- Network diagnosis/Server configuration diagnosis
- Smartphone game diagnosis
- Targeted attack resistance diagnosis

Diagnosing of vulnerabilities in websites and networks by Japan's top diagnostic technicians



### Management Services

#### Security Monitoring

- IDS monitoring service
- IPS monitoring service
- WAF monitoring service

#### Construction Support

- Private SOC establishment support service

Monitoring of unauthorized access to prevent cyber attacks (24 hours a day/365 days a year)

### Consulting Services

#### Security Consulting

- Information security promotion organization support/CSIRT set-up support
- SIEM introduction/operation support
- Network traffic attack analysis/Targeted attack email training

#### Analysis

- Malware analysis
- Forensics

#### Incident Response

- Blocking communication with an attacker
- Threat information database/Human Intelligence

High-level security analysis through threat information databases and endpoint solutions. Anomaly detection through analysis of big data, high-level security design and operation through construction of security monitoring platforms.

# 3-4. Cyber Security

※SOC: Security Operation Center

## Conventional SOC = Entry Protection

*Defence as a "Gate" against malicious attack*

- Monitors firewalls, IDS/IPS, WAF and other security devices
- Only analyzes valid attacks from out of numerous alerts and notifies client company
- Defends networks from attack 24 hours a day, 365 days a year

M | B | S | D.

※PSOC: Private Security Operation Center

## PSOC = Entry, Exit & Internal Protection

*Control, recovery, countermeasures and hunting after attack and intrusion*

- Analyzes attack start point, content, and purpose
- Checks for presence of latent malware at the endpoint
- Determines what kind of organization launched an attack (Hunting)

M | B | S | D.



Security Operation Center

Issue 1

Dependence on security engineers and skills

Issue 2

Response to new security threats based on advanced technology



- ✓ US security service company
- ✓ Brand new "Security-as-a-Service" business model providing companies with an automated package for security devices from function to operation.

Other companies possessing advanced technology (Under investigation)

Objective 1

By automating services, provide security services to SMEs and not just large corporations.

Objective 2

Strengthen response to new sophisticated threats.

### US Cyber Security Business (Alert Logic)



In September 2015, Mitsui & Co. took equity participation in US security service firm, Alert Logic.

Alert Logic provides a full-package, pay-per-use service from functioning to operation and monitoring of security devices installed at internet and corporate network boundaries, and is growing rapidly as a provider of “Security-as-a-Service”.

Provision of operation and monitoring services for security devices normally requires the initial creation of a Security Operation Center manned by several skilled security engineers, but by employing big data analysis and other technological tools, Alert Logic has developed Security Operation Centers that operate under highly automated and computerized systems. This has made it possible for Alert Logic to provide security services to companies with a diverse range of needs, including SMEs, with limited security engineer resources.

By partnering with Alert Logic as it continues to grow in the USA, the world’s largest cyber security market, and leveraging its advanced technology, we aim to both strengthen the capabilities of MBSD and also develop business together in the Japanese and Asian markets.

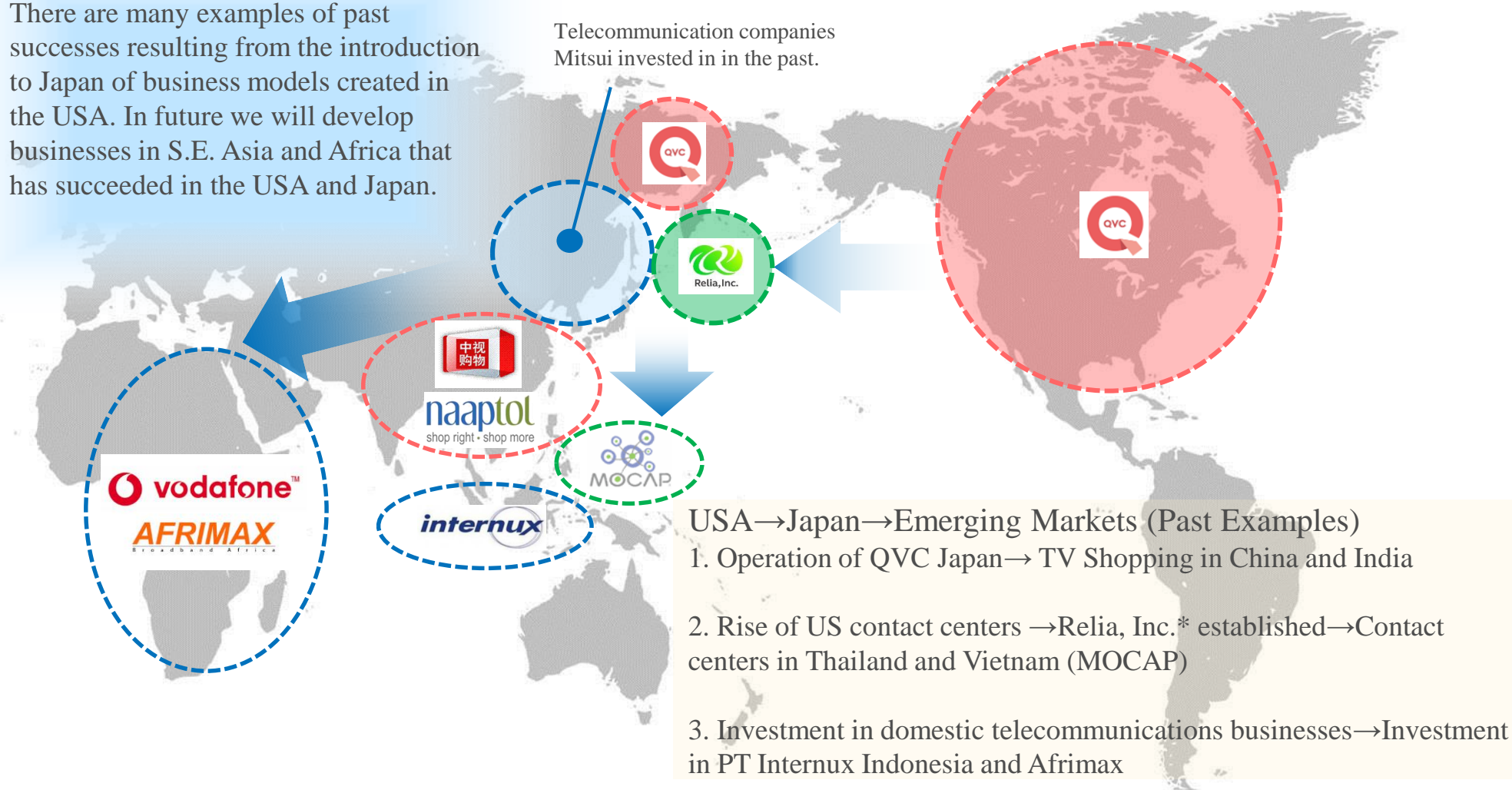
## 4. Keywords for the Future

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### Business Development in Emerging Markets Based on the Time Machine Model

There are many examples of past successes resulting from the introduction to Japan of business models created in the USA. In future we will develop businesses in S.E. Asia and Africa that has succeeded in the USA and Japan.

Telecommunication companies  
Mitsui invested in in the past.

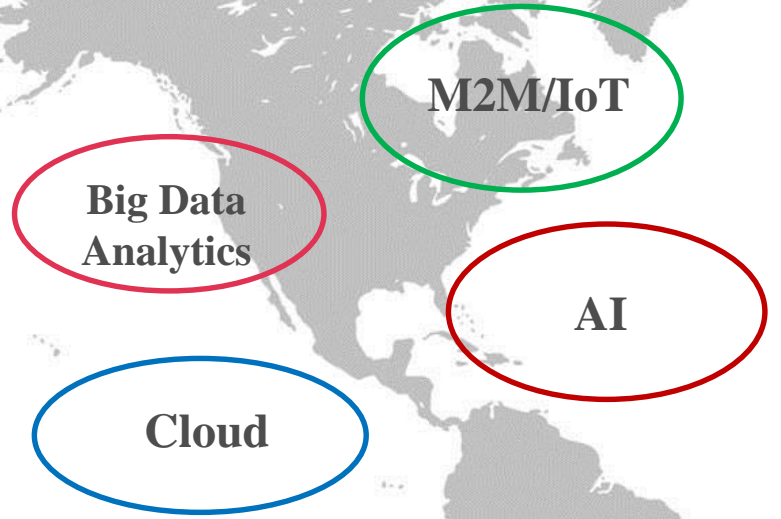


\*Formerly Moshi Moshi Hotline

# 4.Keywords for the Future

## Attaining new and innovative technologies and business models started from US and EMEA

Our teams in NY and Silicon Valley aim to uncover new technologies and business models through investments and business development.



### Next-Generation IT investments

- WellAware/Service for Oil & Gas industry
- Box/Collaboration platforms for enterprises
- GNS Healthcare/Healthcare-related data analytics
- LifeCode/Cancer Genome Analysis and Reporting



- Netskope/Cloud access control services



- DocuSign/DTM e-signature platform

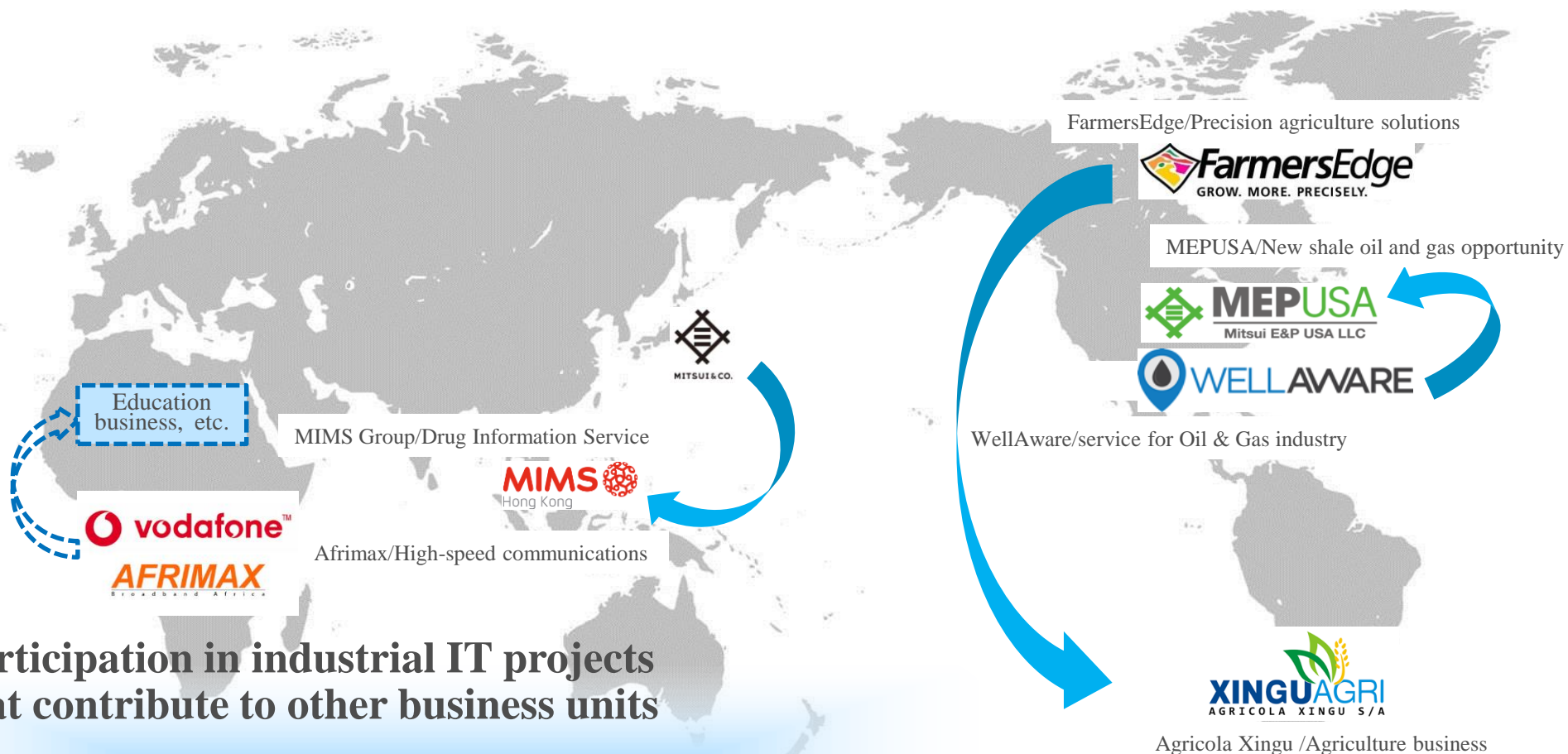


- Advocate/Information curation and discovery





## 4. Keywords for the Future



### Participation in industrial IT projects that contribute to other business units

By driving business of Industrial IT, our Business Unit contributes to strengthen Mitsui's assets across verticals including Oil & Gas/Energy, Healthcare, Agriculture.

# Appendix

## Principal Business of the Four Business Domains

## Business Overview

Development of communications service platforms for high-speed communications, e-commerce, electronic payment, etc., in combination with marketing, contact centers, and other related service business

## Sectors of Activity & Principal Investments

### High-speed communications/Mobile communications



#### Internux/Indonesia

Developing high-speed mobile communications business centered on Jakarta



#### Afrimax/Africa

High-speed mobile communications business launched in Uganda, now planning to expand to over ten Sub-Saharan countries



### Electronic payment



#### QIWI/Russia



#### Suvidhaa/India

Providing kiosk terminal services, payment collection services through small & medium-sized retailers and electronic payment services in Russia and India

### Contact centers/Marketing



#### Relia, Inc./Japan

Developing contact centers, digital marketing, BPO business



#### MOCAP/Thailand & Vietnam

Contact centers, BPO business



#### AOL Platforms Japan

Digital advertising

## Business Overview

Placing broadcasting and TV shopping as our core businesses, working to identify and pursue opportunities in new media, in the midst of advancement of fusion between the internet and said core businesses

## Sectors of Activity & Principal Investments

### TV shopping



#### QVC Japan

Developing multimedia retail business centered on TV



#### CCTV Shopping /China

Developing TV shopping business across China



#### Naaptol/India

Developing TV shopping business across India

### E-Commerce



#### Vatgia/Vietnam

Developing e-commerce business in Vietnam



#### BookLive/Japan

Developing e-book stores in Japan



#### Tokyo Otaku Mode/USA

Developing of cross-border EC business worldwide

### Broadcasting, video services, etc.



#### World High-Vision Channel/Japan

Operation of 24-hour, fully free, general programming BS channel BS12 TwellV



#### Kids Station/Japan

Operation of Kids Station, a children's educational and animation pay channel with one of the highest household penetrations in the industry



#### FactoryMade Ventures/USA

US media planning and development company with its head office in L.A.

## Business Overview

Creation of data platform business in various industries, including healthcare, agriculture, resources and energy, through gathering, analysis, control, and utilization of data.

## Sectors of Activity & Principal Investments

### Healthcare

Creation of data platform business providing high value-added services through gathering, analysis, and utilization of healthcare data

**iMedical**

**iMedical/Japan**

JV with the Resorttrust Group in the healthcare and medical sector

**EarlySense**

Proactive Patient Care

**EarlySense/Israel**

Development and sale of vital sensors and analysis business.

### Agriculture & resources

Promotion of high value-added solution business through data integration management and data analysis leveraging the IoT

**FarmersEdge**  
GROW. MORE. PRECISELY.

**FarmersEdge/Canada**

Precision agriculture solutions

**WELL AWARE**

**WellAware/USA**

IoT services for the shale oil industry

**AXELSPACE**  
Space within Your Reach

**Axelspace/Japan**

Sale of images and other services from microsatellites

### Energy

Integration management, analysis and control of energy distribution data, electric power regulation and storage using batteries, etc., energy-saving services for buildings

**JEVE**  
捷威动力

**Tianjin EV Energies/Tianjin, China**

Development, manufacture and sales of lithium ion batteries for electric vehicles and smartphones

### Fintech

Promotion of data platform business providing high value-added services through gathering, analysis and utilization of personal lifelog data and data from corporate activity

**Money Forward**

**Money Forward**

**Money Forward/Japan**

Personal finance management service and cloud accounting system.

### Smart Community

Creation of new solution services to build smart lifestyles and a smart society

**futurecity**  
SOLUTIONS

**Futurecity Solutions/Japan**

JV with Fujitsu. Energy solutions through the use of ICT.

**FUJITSU**

**masp**  
MEMBER OF SUSTAINABLE PROJECTS LTD.

**MBK Arup Sustainable Projects/UK**

JV with Arup, a leading global engineering company

**ARUP**

## Business Overview

Creation of new projects in fields including the cloud services, cyber security, and IoT/M2M sectors with our core IT subsidiaries positioned at the center. Constant refinement of our IT capabilities, and provision of IT know-how and functions across the Mitsui & Co. group as a whole.

## Sectors of Activity & Principal Investments

### Cloud services & big data



**Mitsui Knowledge Industry/Japan**

Development of wide-ranging IT solutions applicable to various industries. Provision of one-stop solutions providing optimal ICT environments through services encompassing IT consulting to system development, maintenance and operation, and data center and cloud services.

#### Logistics

- ERP (main) solutions
- EC solutions
- Big data-based demand forecasting solutions



#### Finance

- Financial analysis systems
- Credit risk management systems
- Comprehensive AML solutions



#### Communications

- Contact center solutions
- Unified communication solutions



#### Networks

- Wireless LAN solutions
- Mobile solutions
- Network infrastructure solutions



#### Real Estate

- Property management systems
- Corporate real estate management integration solutions



#### IT Infrastructure

- Data center services
- Cloud services



#### Medical /Healthcare

- Lipid/Metabolism analysis services
- Next-generation sequence analysis systems
- Medical device UDI service



#### Environment/ Energy

- Cloud-based energy management services
- Solar power generation monitoring services



### Cyber security



**Mitsui Bussan Secure Directions/Japan**

Cyber security specialists providing services including vulnerability assessment, consulting, managed service, integrated log analysis, APT countermeasures, provision of threat intelligence and protection for next-generation endpoints



### IoT



**Mitsui Bussan Electronics/Japan**  
Provision of IoT and M2M-related solution services. Sale and installation of electrical equipment and material.

### Data centers

**GTN/Indonesia**

Developing a data centre with the highest quality and performance in Jakarta city, which is launching service in Q2 2016.



360° business innovation.



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