

# Digital Strategy

February 19, 2019

**This document contains forward-looking statements in regard to forecasts, targets and plans of Mitsubishi UFJ Financial Group, Inc. (“MUFG”) and its group companies (collectively, “the group”). These forward-looking statements are based on information currently available to the group and are stated here on the basis of the outlook at the time that this document was produced. In addition, in producing these statements certain assumptions (premises) have been utilized. These statements and assumptions (premises) are subjective and may prove to be incorrect and may not be realized in the future. Underlying such circumstances are a large number of risks and uncertainties. Please see other disclosure and public filings made or will be made by MUFG and the other companies comprising the group, including the latest kessantanshin, financial reports, Japanese securities reports, Integrated reports and annual reports, for additional information regarding such risks and uncertainties. The group has no obligation or intent to update any forward-looking statements contained in this document.**

**In addition, information on companies and other entities outside the group that is recorded in this document has been obtained from publicly available information and other sources. The accuracy and appropriateness of that information has not been verified by the group and cannot be guaranteed.**

**The financial information used in this document was prepared in accordance with Japanese GAAP (which includes Japanese managerial accounting standards), unless otherwise stated. Japanese GAAP and U.S. GAAP, differ in certain important respects. You should consult your own professional advisers for a more complete understanding of the differences between U.S. GAAP and Japanese GAAP and the generally accepted accounting principles of other jurisdictions and how those differences might affect the financial information contained in this document. This document is being released by MUFG outside of the United States and is not targeted at persons located in the United States.**

# Contents

<b>Part 1</b>	<b>Digital strategy</b>	<b>4</b>
	1. Key initiatives of MUFG Re-Imagining Strategy	5
	2. Initiatives for digital transformation	6
<b>Part 2</b>	<b>Major initiatives</b>	<b>10</b>
	1. Settlement, cashless	11
	2. Transforming customers' channels / BPR	19
	3. Open innovation	26
<b>Part 3</b>	<b>IT strategy supporting digital transformation</b>	<b>31</b>
	1. IT investment strategy	32
	2. IT architecture	33
	3. Utilizing the cloud	35
	4. Work style reforms	37

# Part 1: Digital strategy

# 1. Key initiatives of MUFG Re-Imagining Strategy

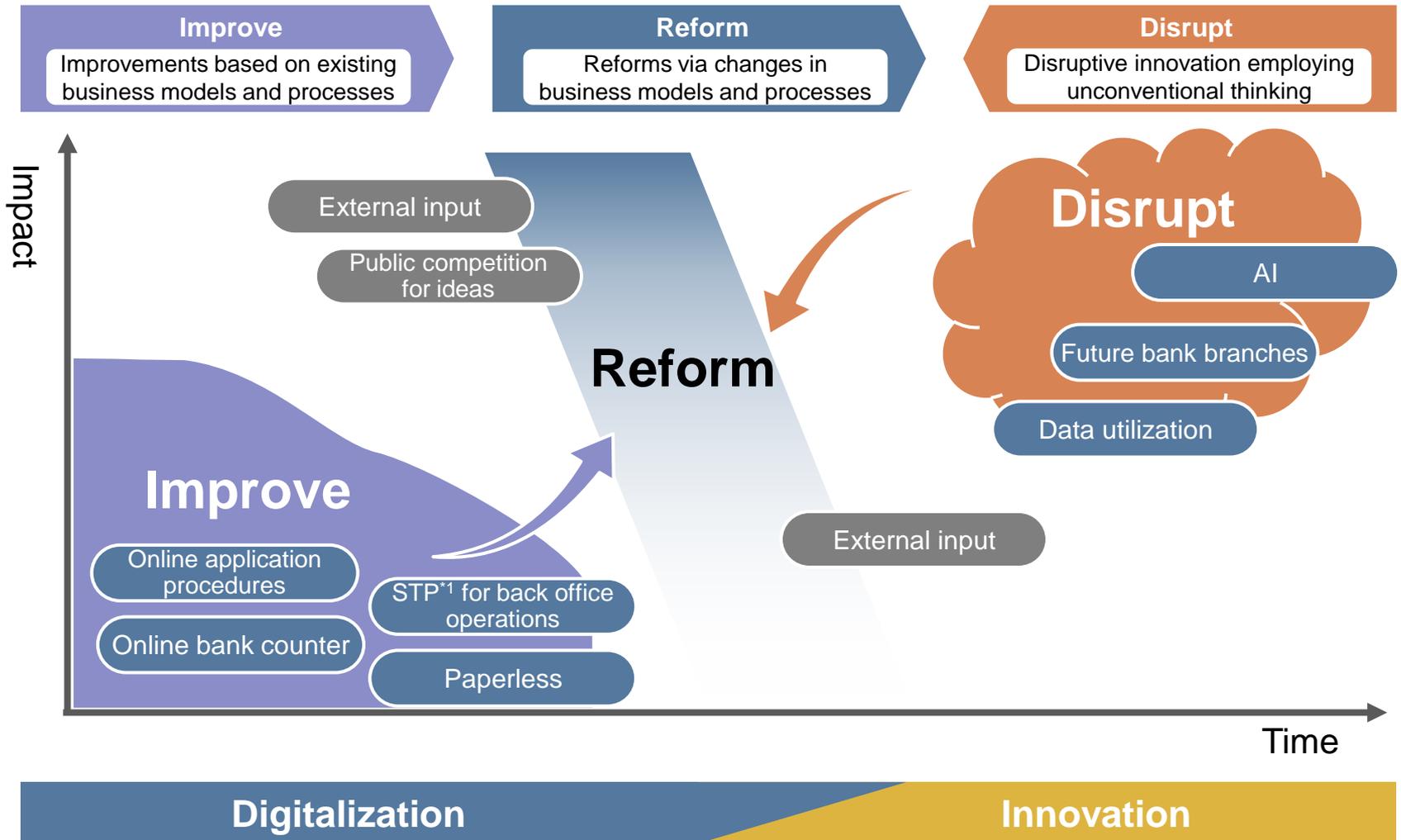
## Eleven transformation initiatives

- “Eleven Transformation Initiatives” have been outlined in the new medium-term business plan (MTBP) as specific initiatives to achieve the MUFG Re-Imagining Strategy
- “Digital Technology” is essential to support all other initiatives



## 2. Initiatives for digital transformation MUFG's approach

- Promote digital transformation from 3 different perspectives: "Improve", "Reform" and "Disrupt"

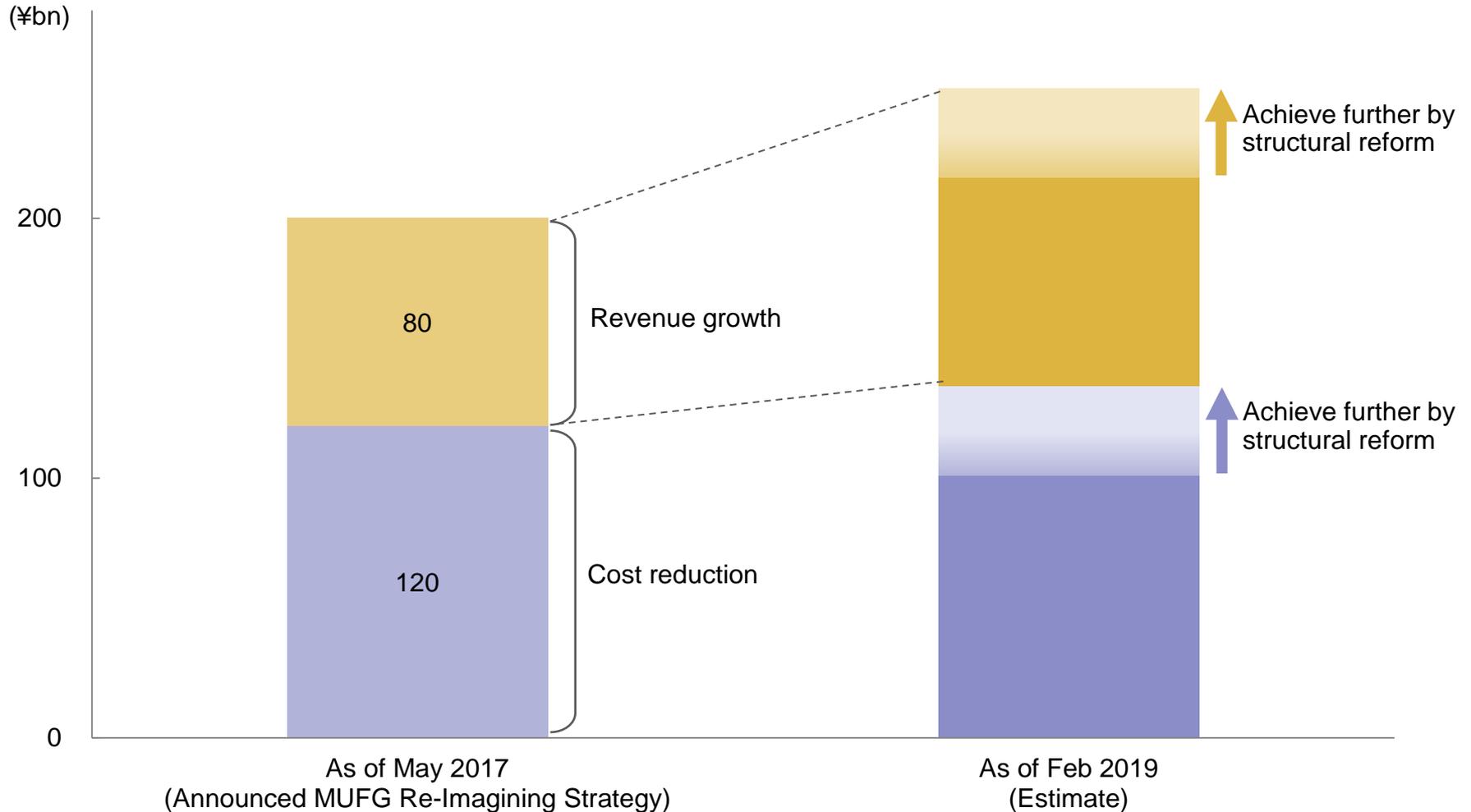


\*1 Straight-Through Processing

## 2. Initiatives for digital transformation

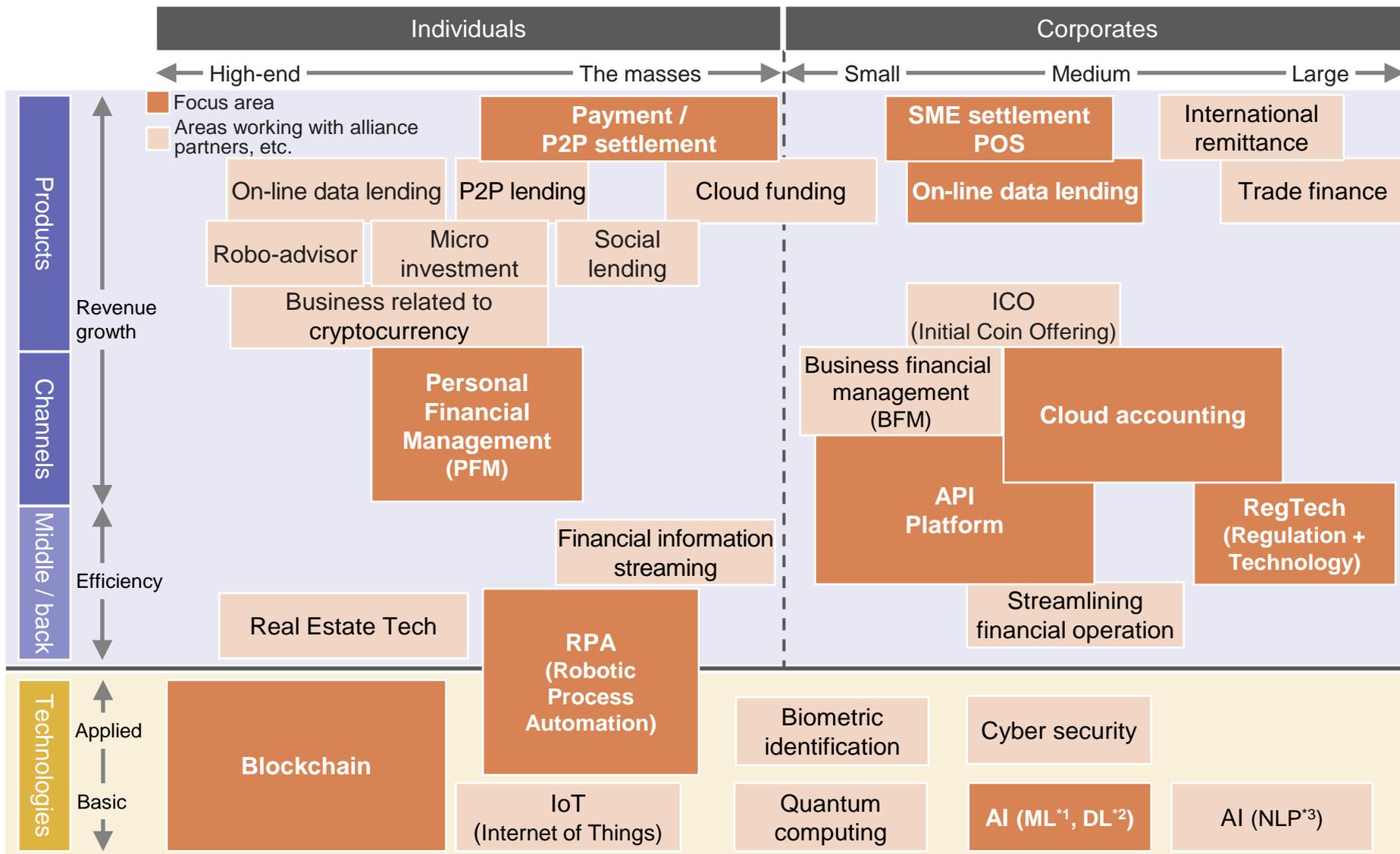
# Increase in net operating income through various initiatives

Aspiration for FY23 (final year of next MTBP)



## 2. Initiatives for digital transformation

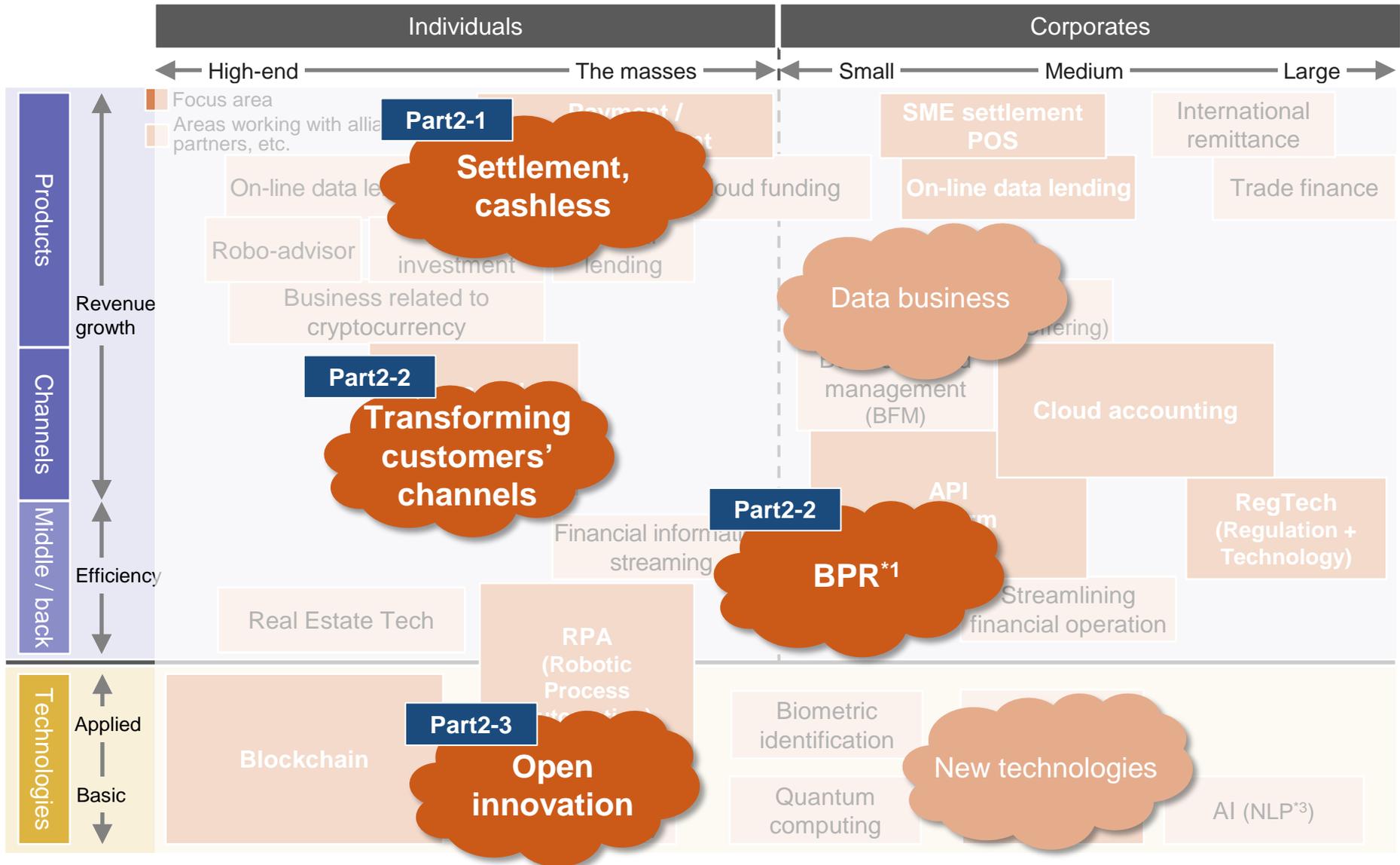
### Initiatives in each area



\*1 Machine learning \*2 Deep learning \*3 Natural language processing

## 2. Initiatives for digital transformation

### Initiatives in each area



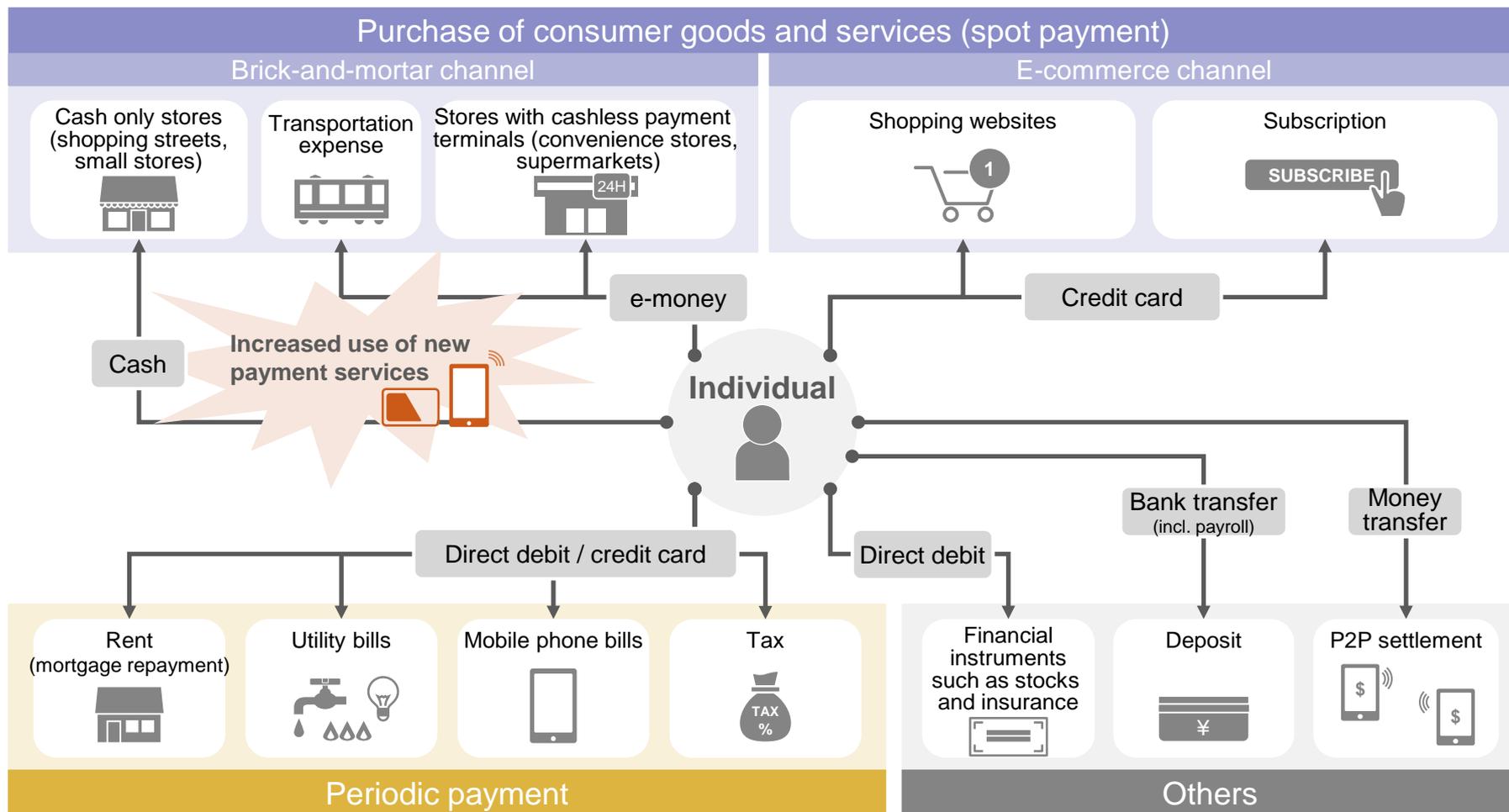
\*1 Business Process Reengineering

## Part 2: Major initiatives

# 1. Settlement, cashless

## Circumstances where people use payment services

- People can select the optimal payment methods suited to their individual circumstance
- E-money will become a mainstay settlement method, in addition to bank transfers, direct debit payment and credit card payment



# 1. Settlement, cashless

## Legal perspective of payment instruments

- In response to growing calls from around the globe for the prevention of money laundering, banks have spent considerable expenses to put in place monitoring and other countermeasures and establish a safe and secure settlement infrastructure

Legal perspective of payment instruments						
Services	Banks 	Money transfer service providers 	Prepaid payment instruments 	Credit cards 	Points 	Cryptocurrencies 
Market size (FY17)	Inter-bank transfer*1 JPY 2,860tn / year	Volume*2 JPY 1.1tn / year	Issuance volume*3 JPY 23.7tn / year	Transaction volume*4 JPY 58.3tn / year	Issuance volume*5 JPY 1.8tn / year	Spot trading volume*6 JPY 12.7tn / year
Ruling law	Banking Act	Payment Services Act		Installment Sales Act	N/A	Payment Services Act
Exchange-ability	Unlimited	Up to JPY 1mm / transaction	Reload: Yes, Exchange to: No	No (withdrawal only)	Exchange to: Yes, Exchange from: No	Unlimited
KYC*7	(1) Account opening, (2) Cash transaction over JPY100thd, (3) Withdrawal of cash over JPY 2mm	Sending/receiving over JPY100thd, closing recurring remittance contract	No	At signing up for credit card application	No	(1) At account opening, (2) Transfer over JPY 100thd, (3) Exchange over JPY 2 mm
Consumer asset protection	Deposit insurance	100% deposit	50% deposit	Frauds are covered by insurance	N/A	Manage separately from provider's account
Retaining funds	Possible	No retention				Possible

\*Notes 1-6 are explained on page 38

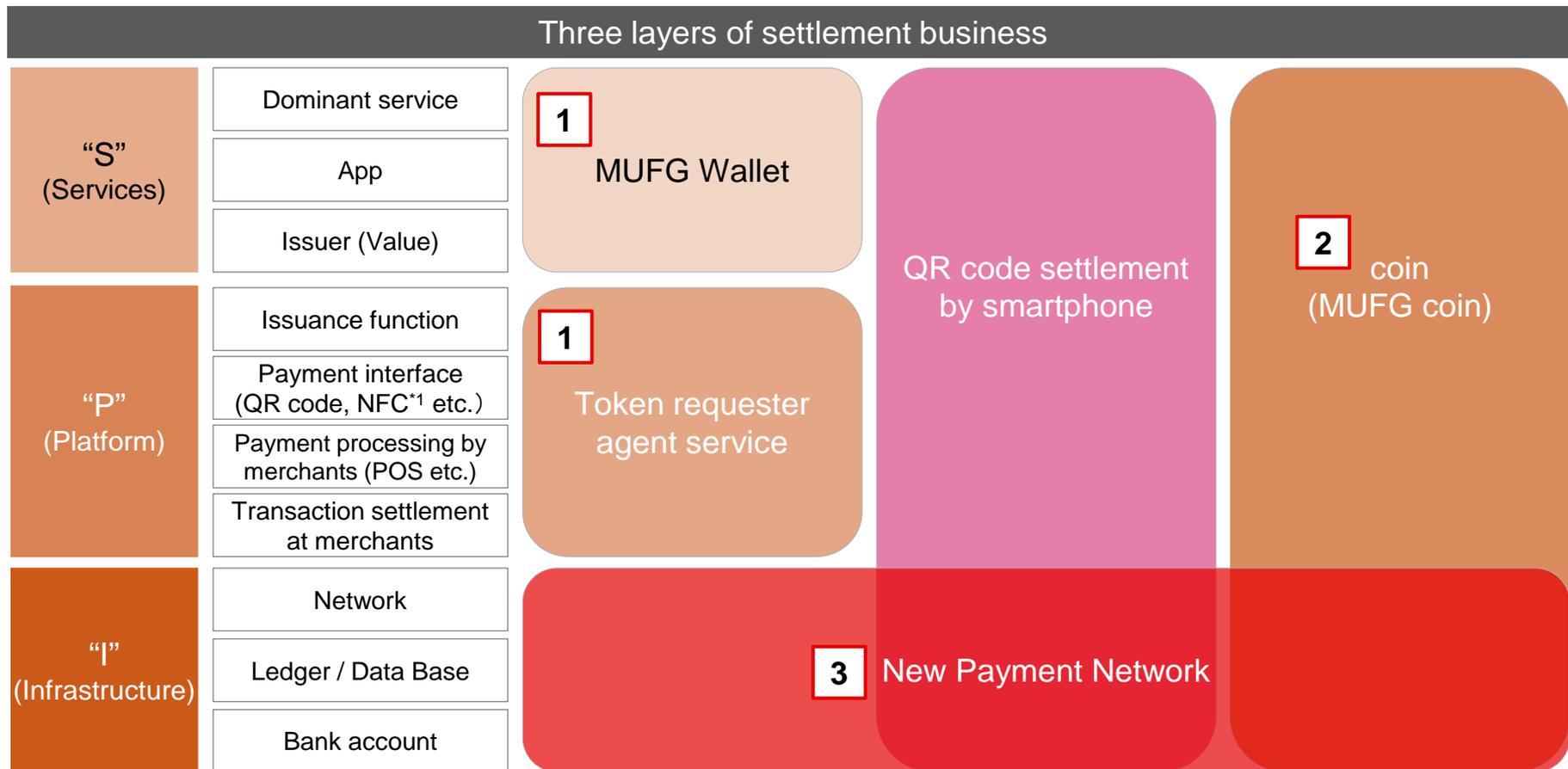
\*7 KYC based on Act on Protection of Transfer of Criminal Proceeds

*(Blank)*

# 1. Settlement, cashless

## Three layers of settlement business (S/P/I)

- Services (“S”) are provided via coordination between a platform (“P”) and infrastructure (“I”)
- While a number of new players are entering “S” fields, there is a growing call for more open and secure “P” and “I”



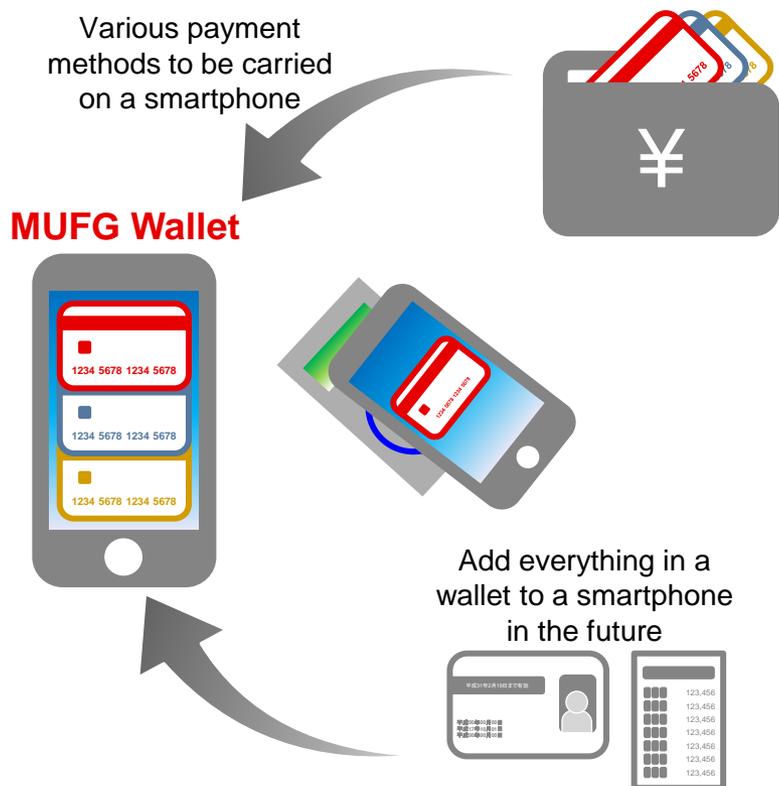
1 MUFG Wallet / Token requester agent service ⇒Page15    2 coin (MUFG coin) ⇒Page 16    3 New Payment Network ⇒Page 17-18

# 1. Settlement, cashless

## MUFG Wallet / Token requester agent service 1

### MUFG Wallet

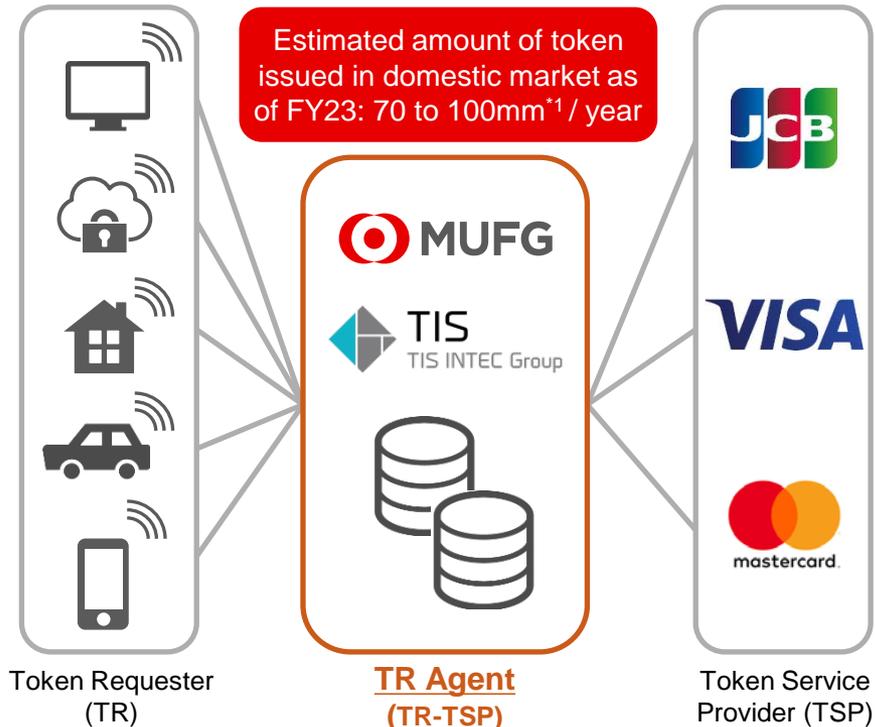
- Realize secure and centralized management of various payment methods, such as debit cards, credit cards and QR codes, via the tokenization of information being transferred in the course of settlement
- Future technological advancements are expected to allow smartphones to carry everything people need in their wallets, such as driving license and e-receipts



\*1 Estimated by TIS inc.

### Token requester agent service (TR agent)

- Initiate the development of robust infrastructure capable of providing highly secured settlement services in anticipation of an IoT-driven society
- Work with TIS Inc. to commercialize a “token requester agent service” that utilizes functions for token distribution management developed in MUFG Wallet

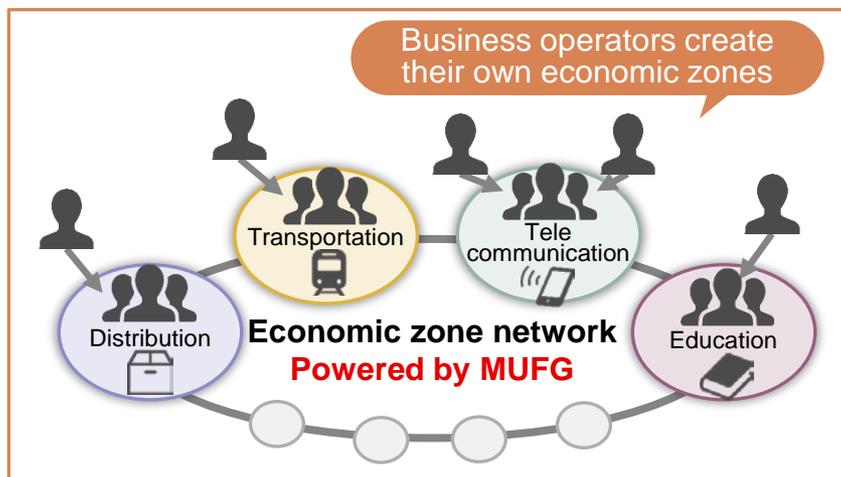


- Connect TR to TSP
- Request token issuance to TSP on behalf of TR

# 1. Settlement, cashless coin (MUFG coin) **2**

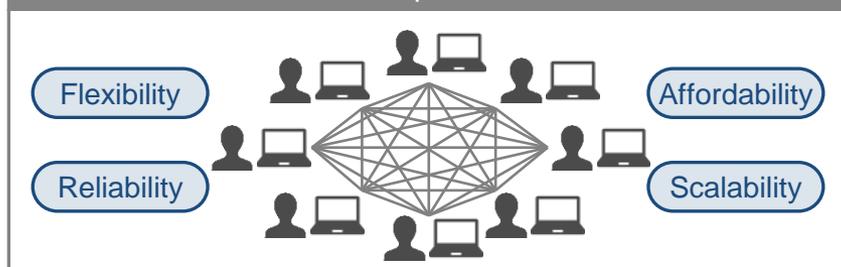
## Aiming for practical use

- Aim to build an eco-system that goes beyond a cashless tool
- The digital currency issued by MUFG will provide a safe and secure platform to support the economic zones of each business operator



API / Data

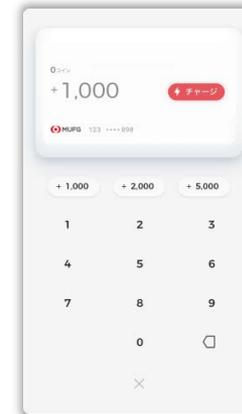
coin's platform



## Screen image



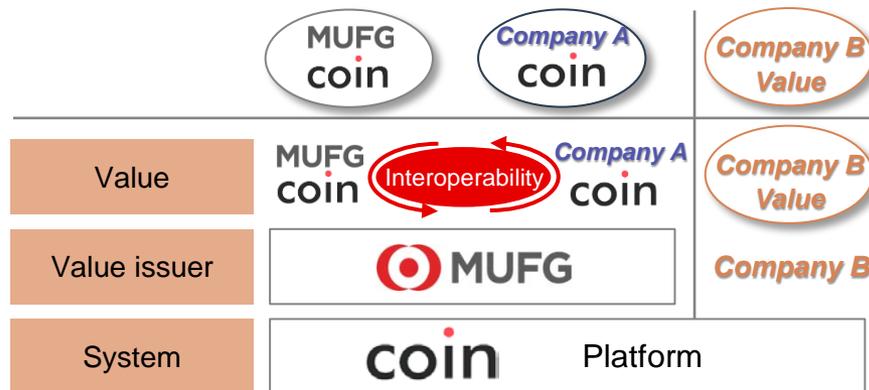
QR code payment



Refill

## Colored coin service

- Business operators can issue original coins through the use of MUFG coin's infrastructure

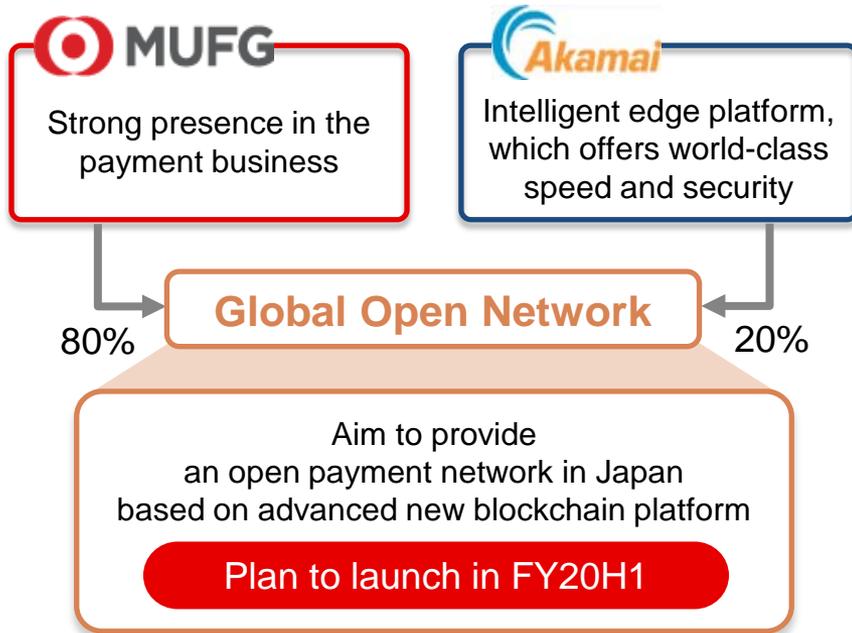


# 1. Settlement, cashless

## New Payment Network (1) 3

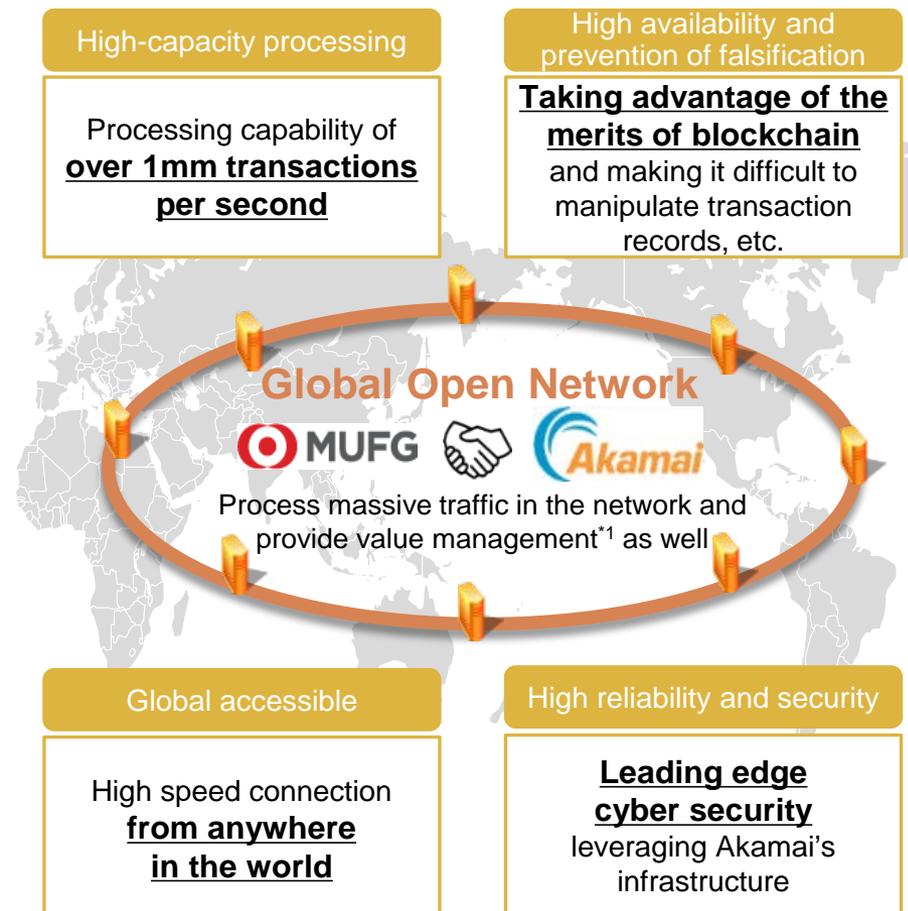
- Jointly established Global Open Network, Inc. to strengthen strategic alliance with Akamai Technologies, Inc. (“Akamai”)

### Establish Global Open Network



Name	Global Open Network, Inc.
Capital	JPY 250mm
Shareholders	MUFG 80%, Akamai 20%
CEO	Hironori Kamezawa

### Service



\*1 Management and credit/debit of credit limit and account balance for business operators

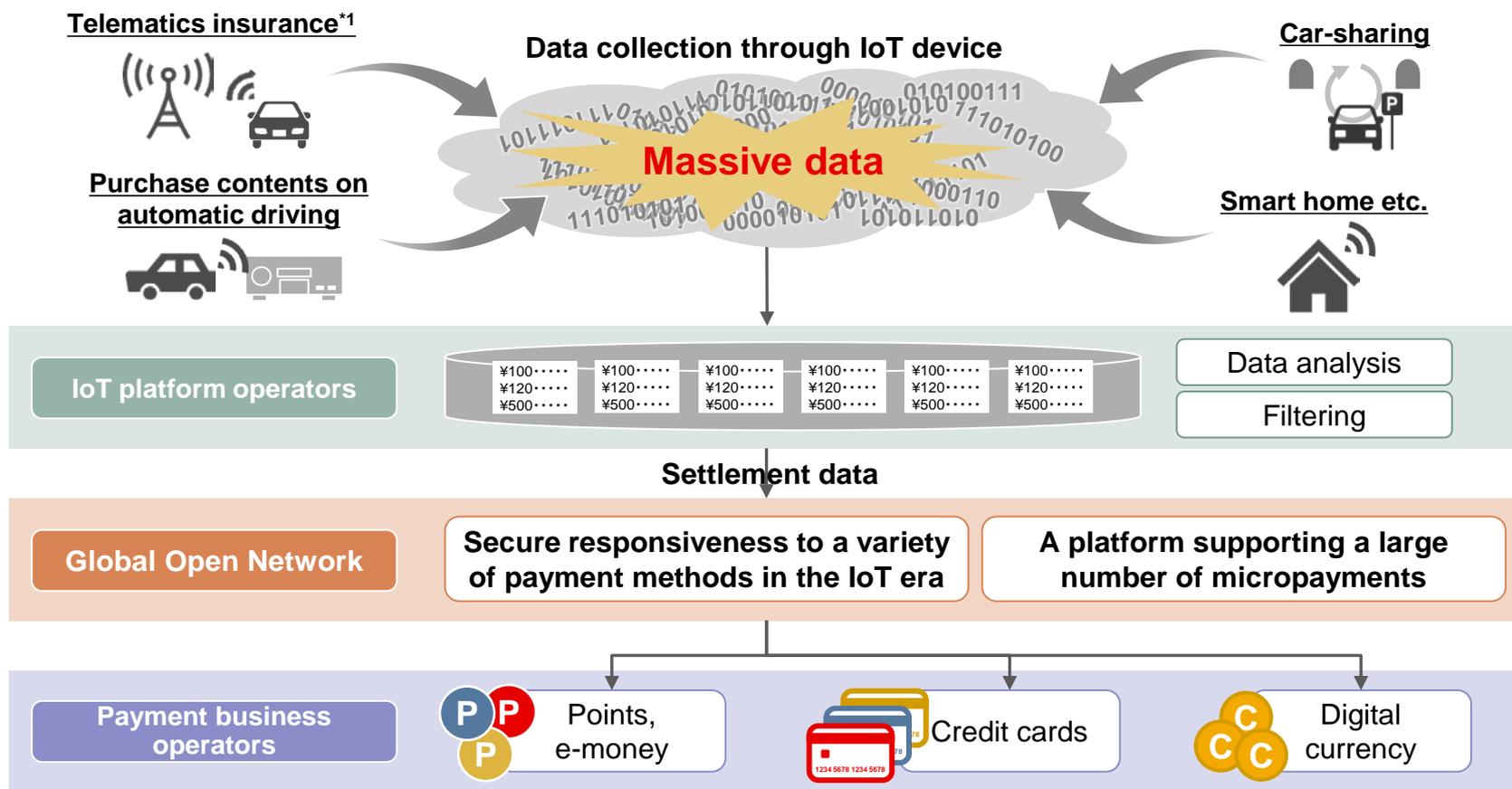
# 1. Settlement, cashless New Payment Network (2) **3**

## Strengthen collaborations with IoT platform operators

Emergence of cashless and IoT-driven settlement methods, widespread use of a business model targeting micropayment users



Want to pay the fee according to the volume of the usage



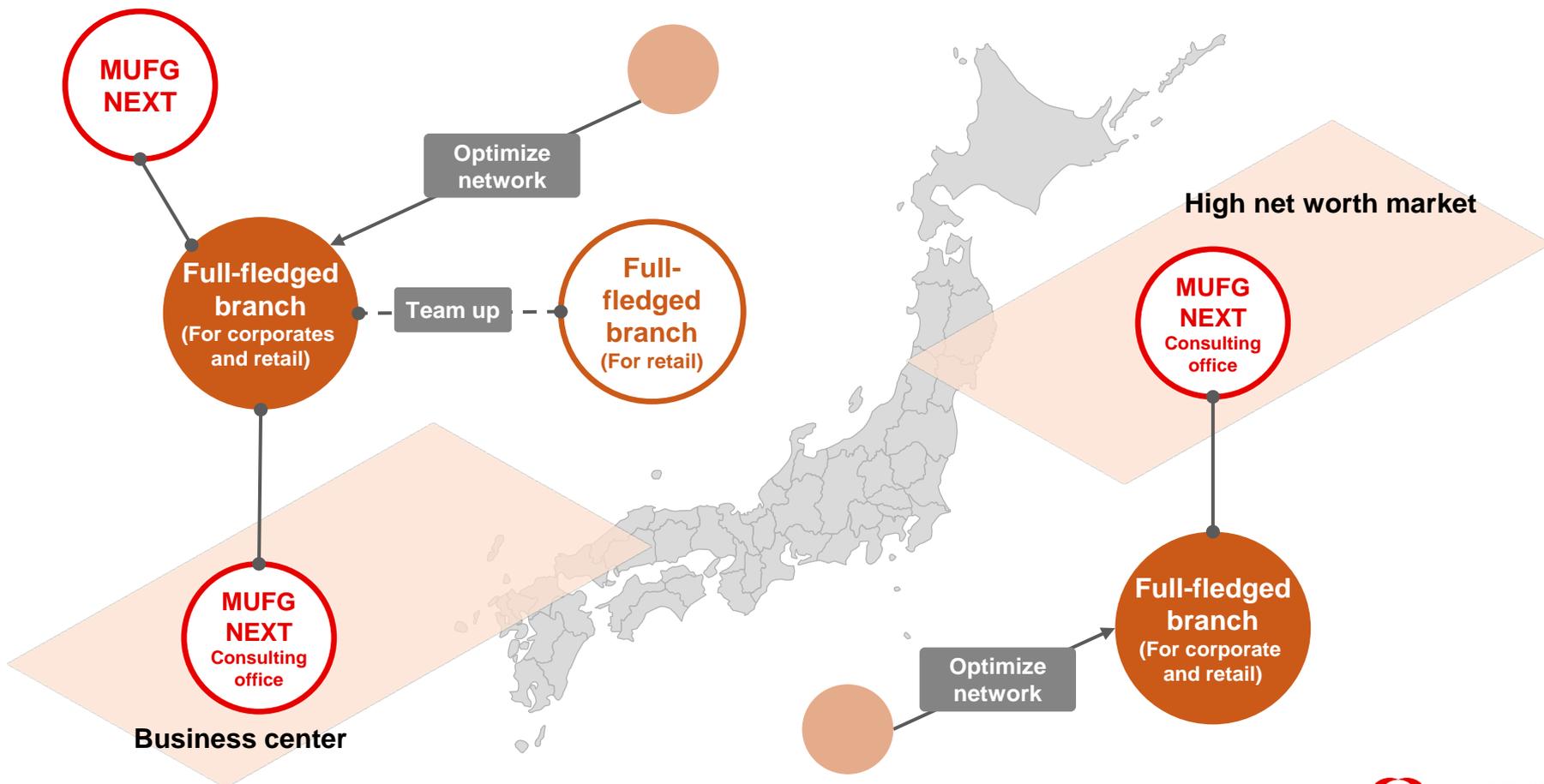
\*1 Telematics is a neologism combining "Telecommunication" and "Informatics." Applications of telematics include communication devices mounted on automobiles or other moving objects for transmitting driving data like distance travelled and hours on the road as well as data on the driver's operational habits. This information can be used by insurers to analyze driving patterns and thus calculate optimal insurance premiums for individual drivers

## 2.Transforming customers' channels / BPR

### Domestic branch network

- Retail and commercial banking units work in close collaboration to meet a variety of customer needs and enhance user convenience while striving toward a more robust and productive branch network (Put full-fledged branch\*1 at the center of each area, while arranging “MUFG NEXT” specialized to several features depending on market needs)

Branch network (image)



\*1 A branch that handles all service including consulting service at bank counter by clerk

## 2. Transforming customers' channels / BPR

# MUFG NEXT

### Three New EXperience

**MUFG** **NEXT** Create new banking experience with customers via the internet and other digital devices  
New Experience Together

#### New EXperience 1

New banking experience

- Install dedicated counters for internet banking
- Equip service counters with tablets
- Allow customers to directly engage in transactions by providing a hassle-free, convenient platform

#### New EXperience 2

Banking experience building with customers

- Concierges usher customers to optimal channels
- Help carry out various registration procedures and provide guidance on how to use other services
- Provide lessons of internet banking via smartphone

#### New EXperience 3

Pursuing customer satisfaction

- Open the Shinsaibashi Branch in Apr 19 to offer services under the new concept
- Roll out new services at other branches after verification testing

### Banking experience building with customers



Accurately assess customers' intentions and usher them to services that meet their needs



Help those who are not well-versed in digital technologies carry out various registration procedures



Provide lessons of internet banking for those who are not confident about how to use smartphone

### New banking experience

#### Dedicated counters for IB<sup>\*1</sup>

- Concierges help customers carry out registration procedures and provide them with guidance on how to use other services
- Various smartphone apps enable customers to carry out a variety of procedures



#### Front desks with tablets

- Replace conventional paperwork with faster and more user-friendly tablet-based procedures

#### STM<sup>\*2</sup>

- Install dedicated ATMs capable of handling such forms as tax payment slips
- Allow customers to directly engage in transactions by providing a hassle-free, convenient platform



#### LINKS<sup>\*3</sup>

- Offer transactional assistance and consulting services via teleconferencing systems

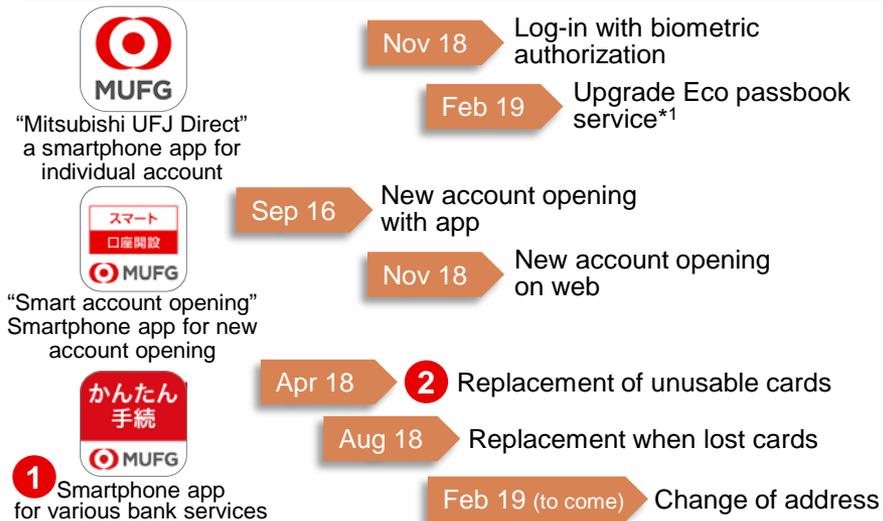


\*1 Internet Banking \*2 Store Teller Machine (ATM equipped with functions to handle tax payment, utility bills payment and domestic transfer with a private request form \*3 Low-counter Interaction on Knowledge Station (New terminal that connects to operational center via TV, which can handle consultation related to mortgage, inheritance, etc.)

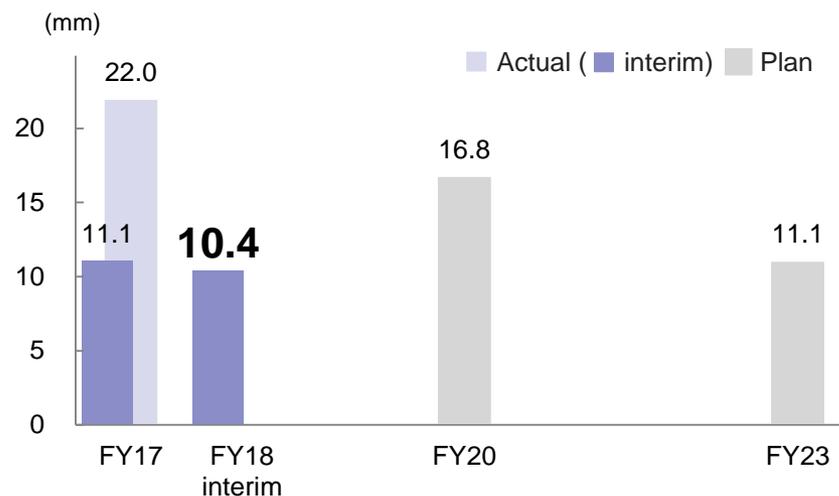
## 2. Transforming customers' channels / BPR

### Improve UI/UX

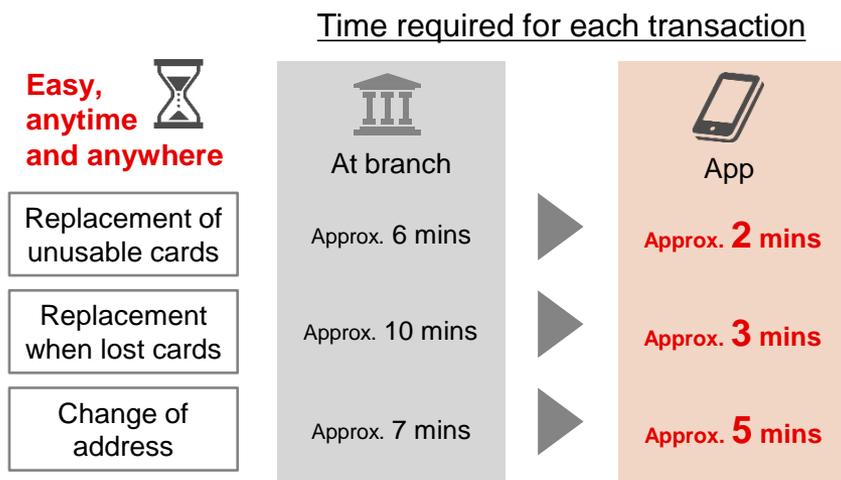
#### Upgrade functions for smartphone application



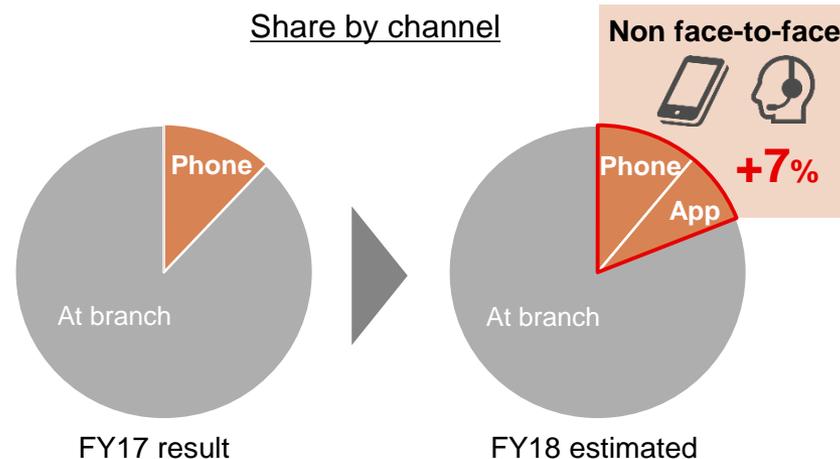
#### No. of transactions at bank-counter



#### ① Smartphone app for various bank services



#### ② Replacement of unusable cards

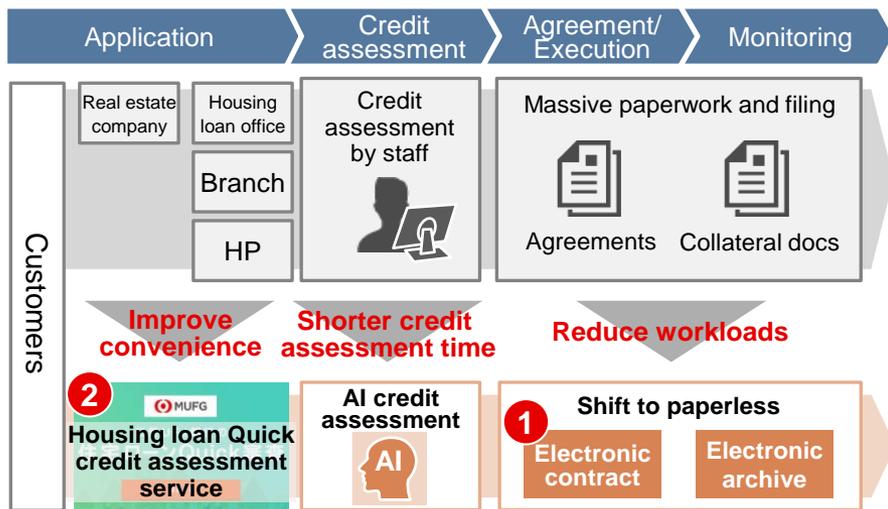


\*1 An online service that allows customer to check their account instead of paper passbook

## 2. Transforming customers' channels / BPR

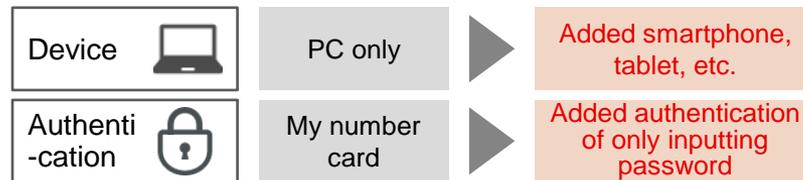
# Digitalization of business process related to housing loan

### Digitalization of business process related to housing loan

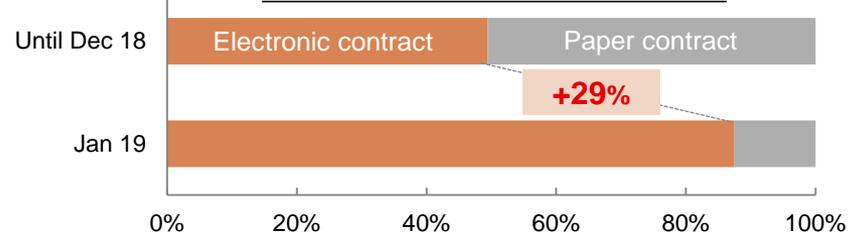


### ① Electronic contract

- Proportion of electronic contracts have grown as a result of improving user convenience in Dec 18



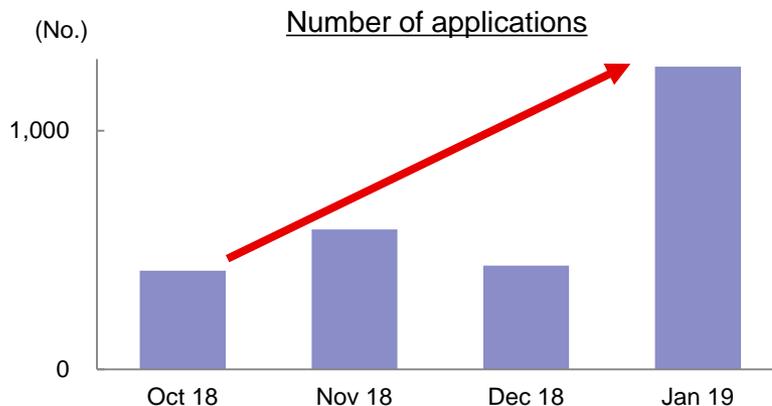
#### Breakdown of contract via internet\*1



### ② Launched housing loan Quick credit assessment service

- Reach out customers open to purchasing houses via collaboration with SUUMO\*2
- Realize easy and speedy credit assessment

	Before	After
Reception time	9:00 to 15:00 of weekdays	<b>24 hours a day, 365 days a year</b>
Duration of pre-application	More than a day	<b>At earliest 15 mins</b>
Input item	57 items	<b>Reduced by 50% (28 items)</b>

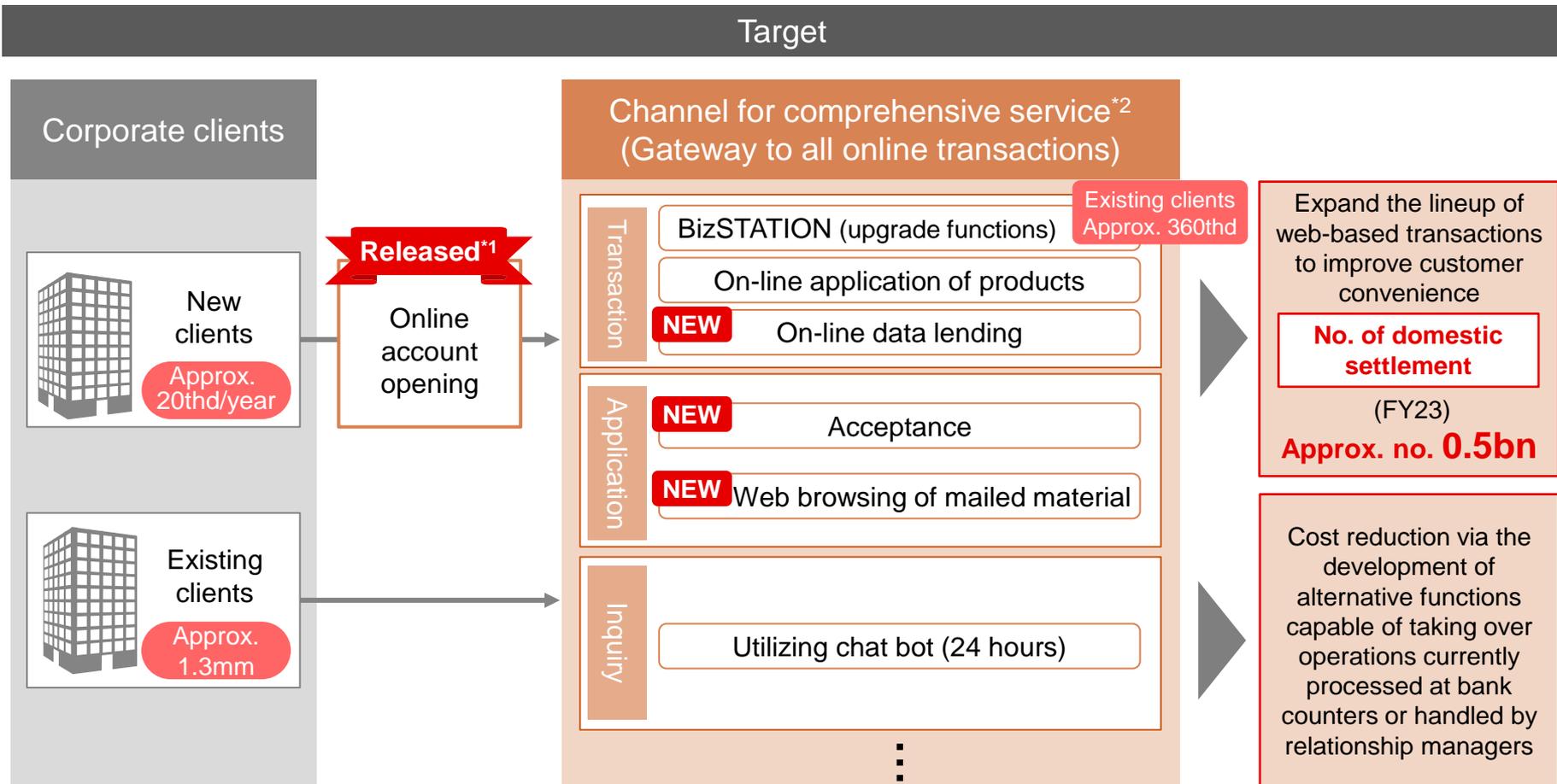


\*1 Contract of mortgage loan via internet application \*2 Real estate portal site powered by Recruit Co., Ltd.

## 2. Transforming customers' channels / BPR

### Expand web channels for corporate customers

- Build a new web channel that comprehensively handles all transactions with corporate clients
- Achieve greater transaction volumes by improving customer convenience and cost reduction through shifting a part of operations processed at bank counter and carried out by relationship managers to the web channel



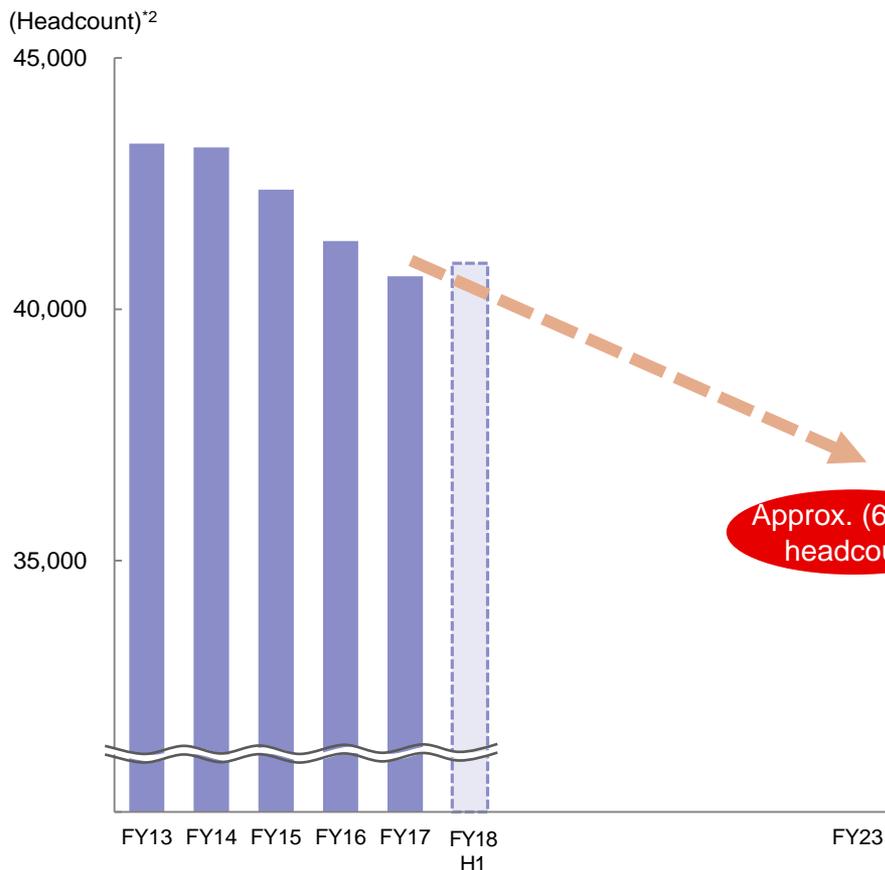
\*1 Trial limited to a few branches (as of Feb 19) \*2 More services to come in due course

## 2. Transforming customers' channels / BPR

### Headcount, branches

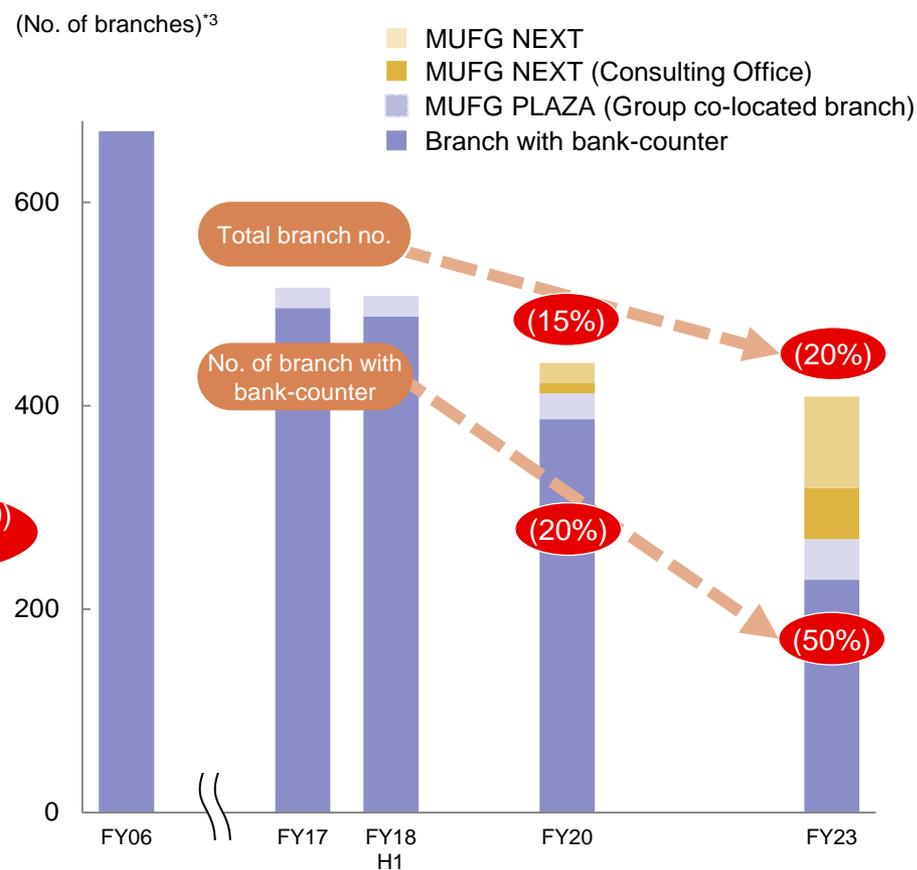
#### Forecast of employees headcount

- Reduce 30% of total workloads\*<sup>1</sup> (equivalent to the labor of 9,500 personnel) by FY23. Expect a decrease in employee headcount totaling approx. 6,000 compared to FY17 (attrition)
- Despite an increase for FY18H1, expect a decrease at the end of FY18



#### Forecast of number of branches

- By FY23, no. of branches with bank-counter will halve while total branch no. will decrease by approx. 20% via transforming to “MUFG NEXT” and “MUFG PLAZA”
- Executed consolidation of seven branches during FY18H1



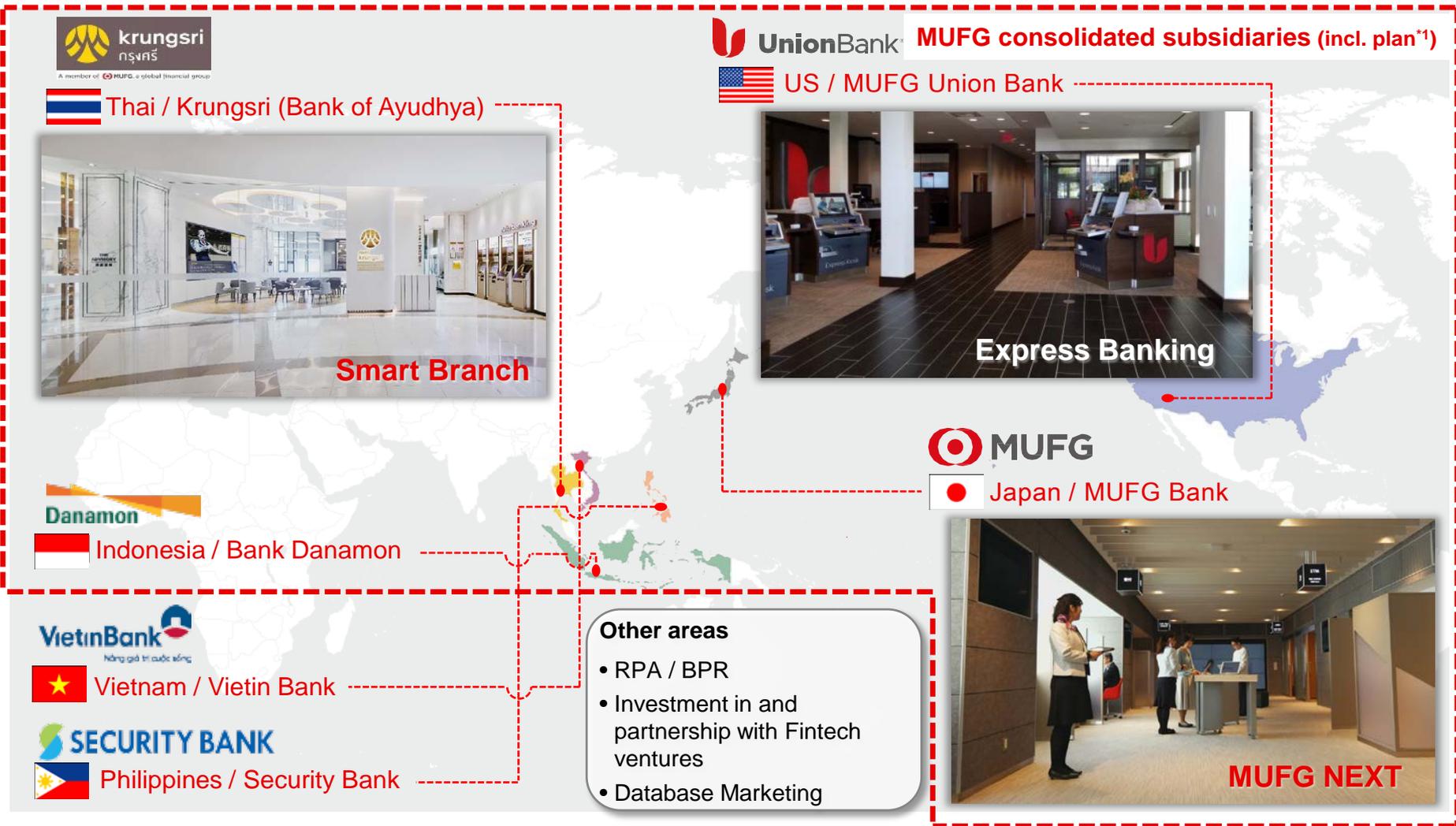
Note: Re-shown from page 50, Fiscal 2018 Interim Results Presentation

\*1 Including MUFG Bank's subsidiaries engaged in operations \*2 The figure includes MUFG Bank's domestic bank staff, part-time and contract staff as well as temporary staff but excludes overseas staff hired locally. The figure also includes employees of other companies seconded to MUFG Bank but excludes employees temporarily transferred to other companies \*3 MUFG Bank non-consolidated basis

## 2. Transforming customers' channels / BPR

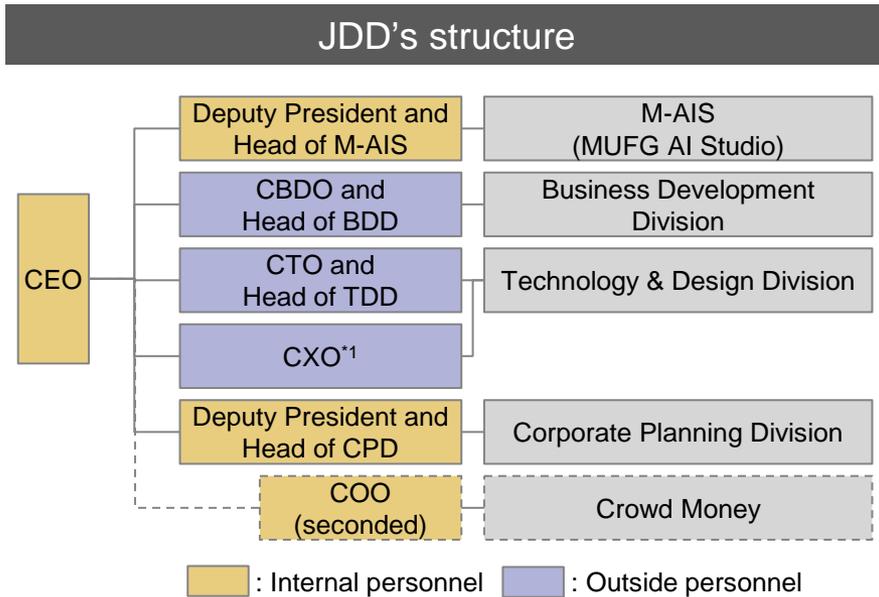
### Knowledge sharing with Partner Banks

- Promote digital transformation initiatives globally through periodic conferences and various workshops with Partner Banks, who are engaged in similar initiatives such as branch digitalization, internet banking, etc.



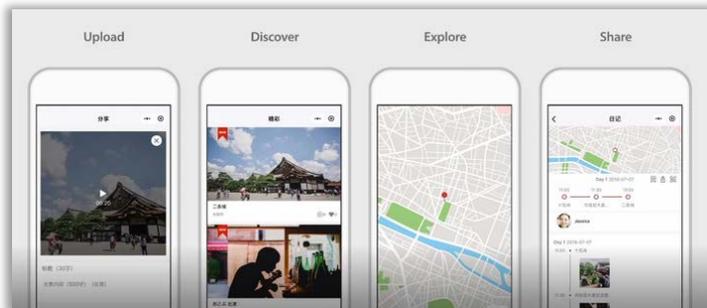
\*1 MUFG intends to seek the necessary approvals to increase its stake in Danamon beyond 40%. MUFG's final stake in Danamon is expected to be over 73.8%

# 3. Open innovation Japan Digital Design (JDD)



### Launched jStation

- Launched video sharing service for the Chinese visiting Japan, “jStation”, in WeChat’s application on July 20 2018, which is provided by Tencent, a Chinese SNS giant



\*1 Chief Experience Officer

### Develop an insurance robo-advisor with Minkabu

- The first robo-advisor service in the insurance industry
- Accessible from anywhere at any time, the robo-advisor ushers customers, even those who are not versed in insurance, through a simple set of questions, and suggests easy-to-understand and optimal insurance plans without the intervention of human operators



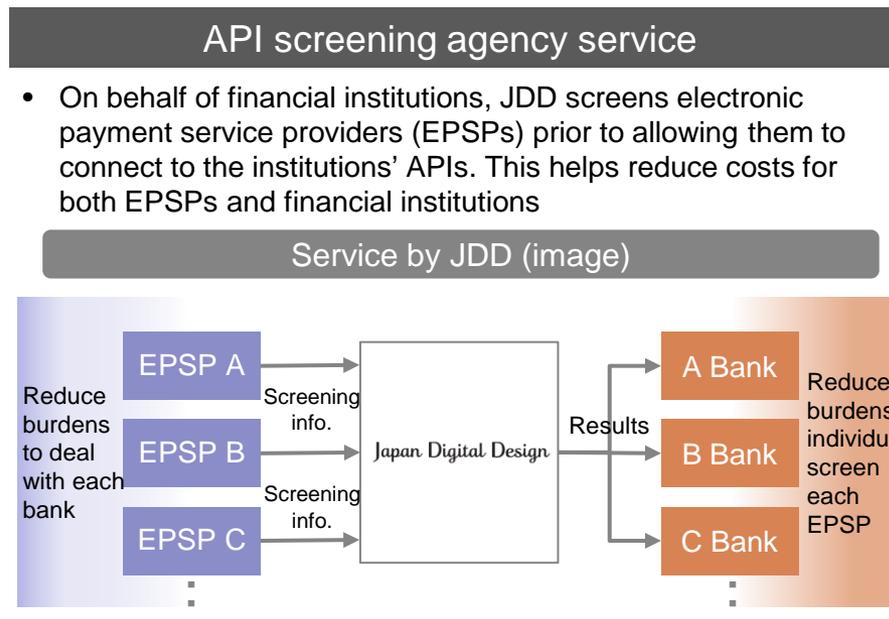
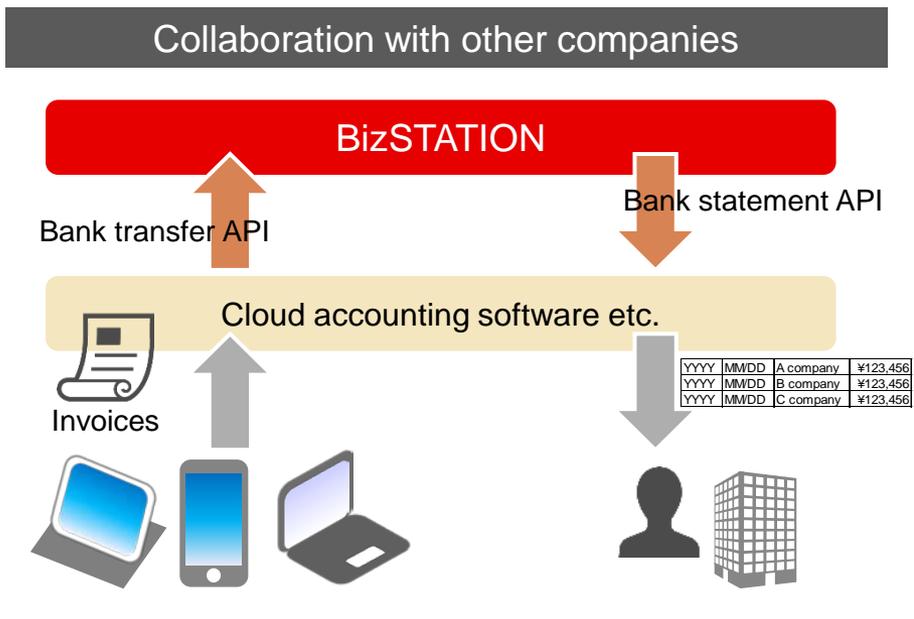
#### Via media

- Started from Apr 23, 2018
- Targeting for consumers

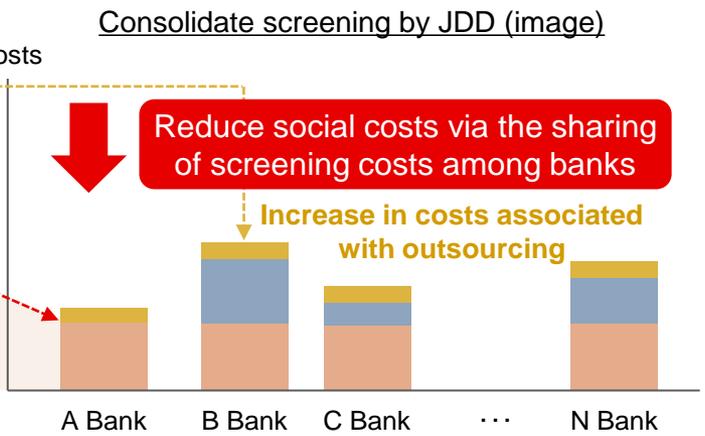
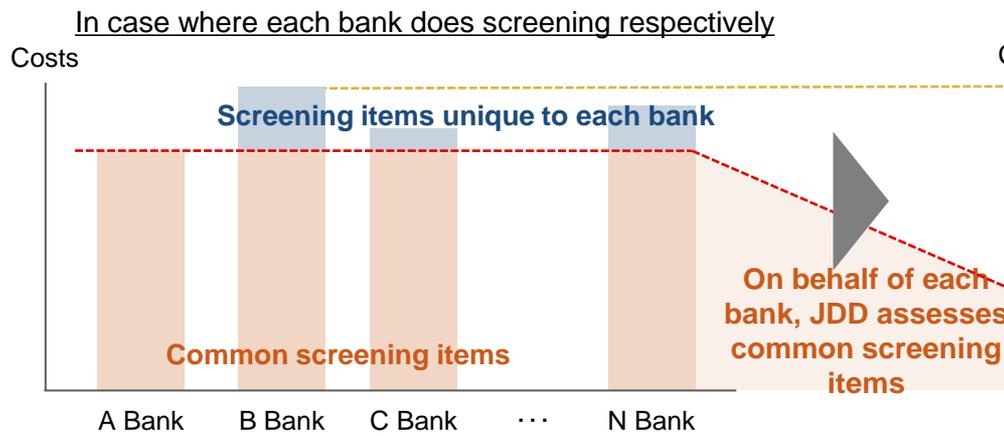
#### White label

- Started from Dec 3, 2018
- Already introduced by four regional banks

# 3. Open innovation Open API



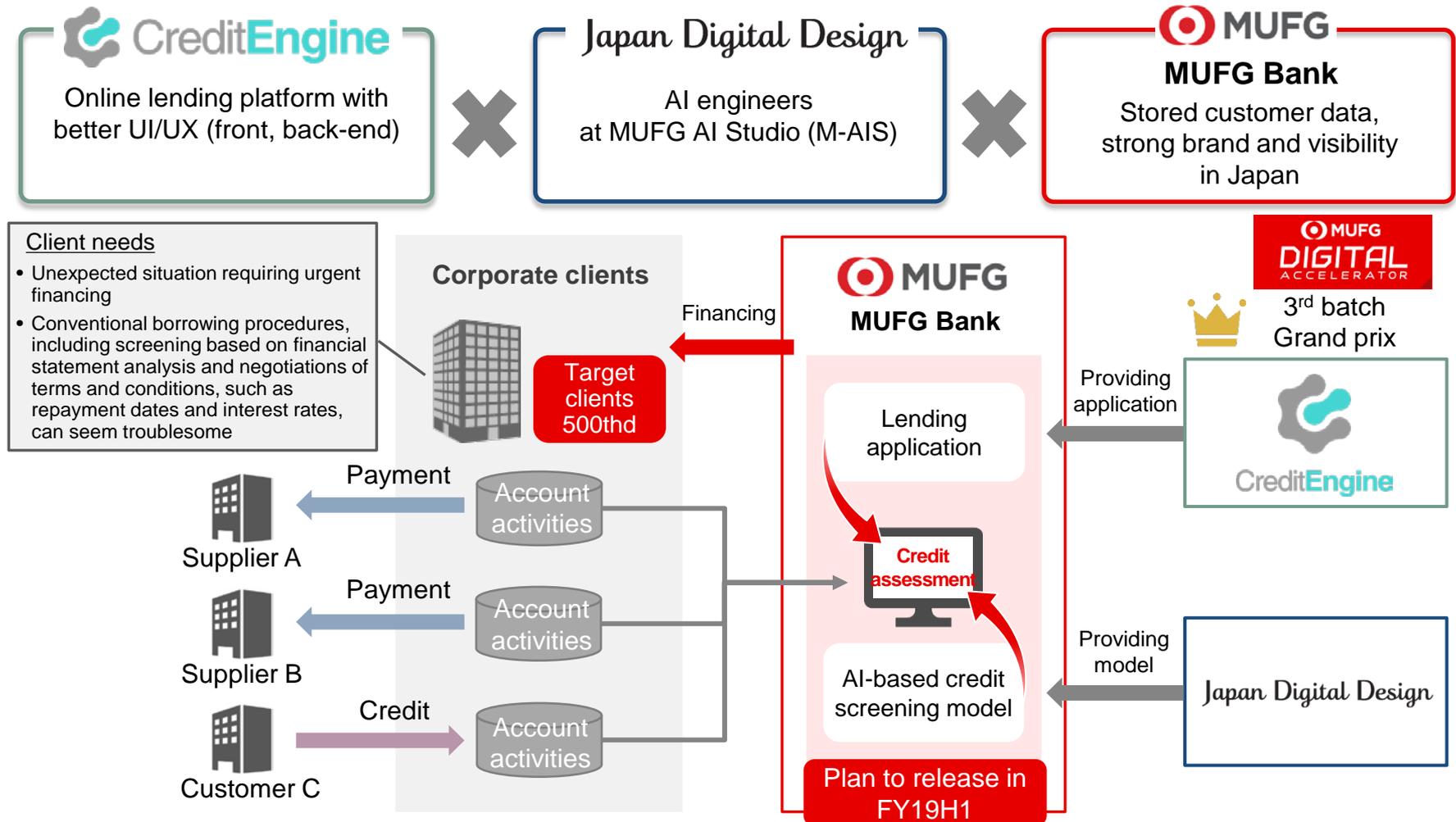
### Reduce each bank's cost through API screening agency service (image)



### 3. Open innovation On-line data lending

- Scoring based on account activities, not relying on financial data such as financial statement

#### Challenge to a new business model



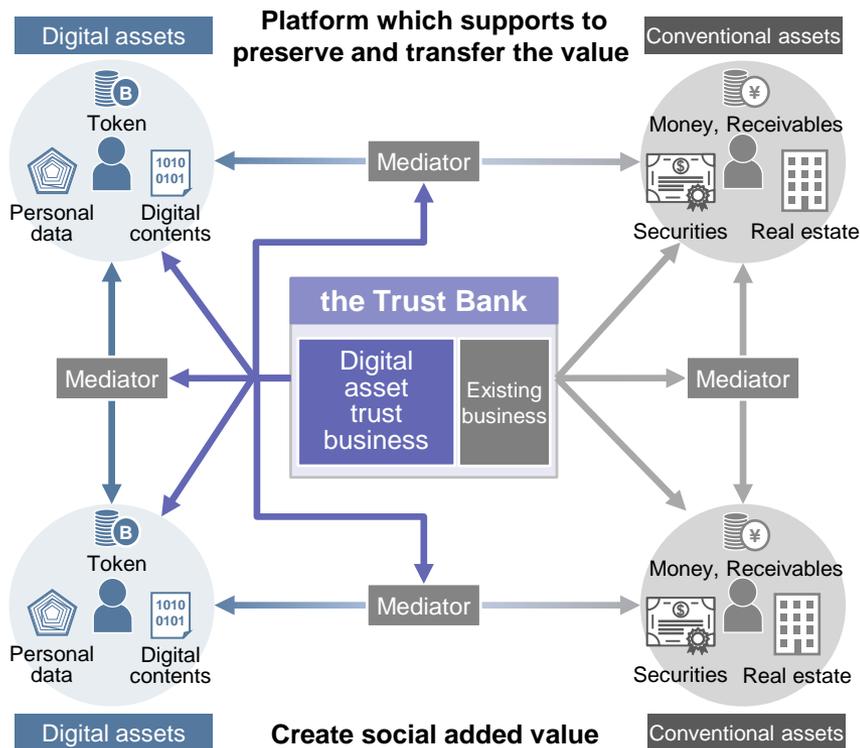
# 3. Open innovation

## Digital asset trust business

### Digital asset trust business

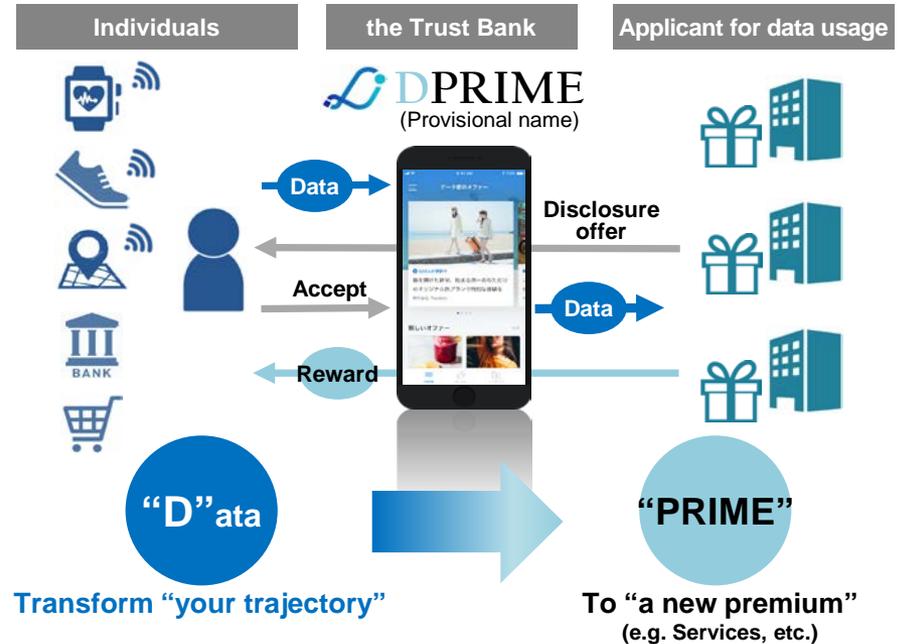
#### Overview

- To create social value added while supporting to preserve and transfer the value by the trust function, which enables the digital assets owners to make use of the property by themselves



#### Information trust platform "DPRIME" (provisional name)

- Aiming to provide services for the public, started PoC\*1 from Aug 18, and distribute beta application for 1,000 individuals from 10 supporting companies



Supporting companies\*2



Tokio Marine & Nichido Fire Insurance Co., Ltd.



Note: Re-shown from page 31, Fiscal 2018 Interim Results Presentation

\*1 Proof of Concept \*2 Excluding group companies

### 3. Open innovation

## Establish Corporate Venture Capital (CVC)

#### Background

A growing number of FinTech startups seeking lenders that offer large-scale financing

A growing trend toward strategic investments among domestic and overseas financial institutions and other players making entries from different sectors

**Need to enhance a framework of investment in FinTech startups**

#### Established CVC subsidiary under MUFG

Achieve open innovation beyond entities

Recruitment of external professionals

Over 5% investment by the dedicated subsidiary

#### Overview of MUIP

- As a specialized investment subsidiary defined under the Banking Act, MUIP is allowed to acquire over 5% equity stakes in startups that meet prescribed conditions
- MUFG group companies jointly invested to launch CVC Fund with a total amount of JPY 20bn, aiming to step up collaboration with their investees in addition to pursuing business synergies

Name	MUFG Innovation Partners, Co., Ltd.(MUIP)
Date of establishment	January 4, 2019
Capital	Capital JPY 250mm, Capital reserve JPY 250mm
Shareholder	MUFG 100%

#### Strategic investment in Moneytree

- Our initiatives through CVC Fund have begun with investment in Moneytree KK (Moneytree), a provider of personal financial management service

Name	Moneytree KK
Date of establishment	April 23, 2012
Business description	<ul style="list-style-type: none"> <li>Provide “Moneytree”, a personal financial management service</li> <li>Expense settlement service “Moneytree Work”, equipped with function of automated detection by AI</li> <li>Financial infrastructure platform “Moneytree LINK”</li> </ul>
Awards	“Moneytree” received award of an annual best App selected by Apple Inc. (Best of 2013, Best of 2014) and others

#### Track record of collaboration with Moneytree

- Mitsubishi UFJ NICOS provides a smartphone app that enables customers to easily confirm currently billed amounts and the balance of points acquired via the utilization on “Moneytree LINK”
- Moneytree has overseen UI/UX when Mitsubishi UFJ Trust & Banking Corporation developed a smartphone app for “Trust product with proxy withdrawal”

**MT LINK**  
by Moneytree

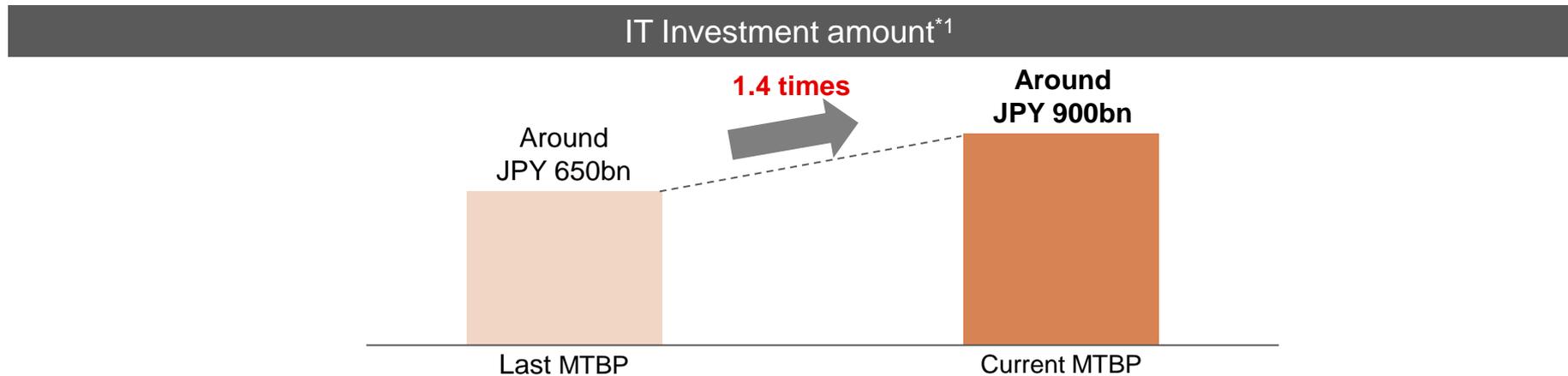


NICOS app's screen image

## Part 3: IT strategy supporting digital transformation

# 1. IT investment strategy

- IT investment budget amount for current MTBP is 1.4 times more than the amount for last MTBP
- Preferentially allocate resource to group-wide strategies and growth strategies including digitalization for achieving long-term business targets of each business group



## Major initiatives of current MTBP

### 1 Enhance “IT governance” that supports group IT strategy

**Construct Group IT platform**  
Support business strategy from IT side

**Build a structure with a vision of progress in group-wide sharing of system**  
Enhance structure of development and operation

### 2 “Platform enhancement” that supports MUFG growth strategy from IT side

**Enhance development capabilities**  
Improve in both quantity and quality, respond to digitalization

**Architecture Strategy**  
Drive 2 Way Architecture

### 3 “Productivity improvement” to reduce IT costs

**Group-wide sharing of systems**  
Construct platform, accelerate to utilize the cloud

**Enhance IT procurement**  
Centralize procurement, group program

### 4 “Enhancement of risk management” dynamically based on environmental change or risks

**Development and operation management**  
Enhancement of risk-based project management

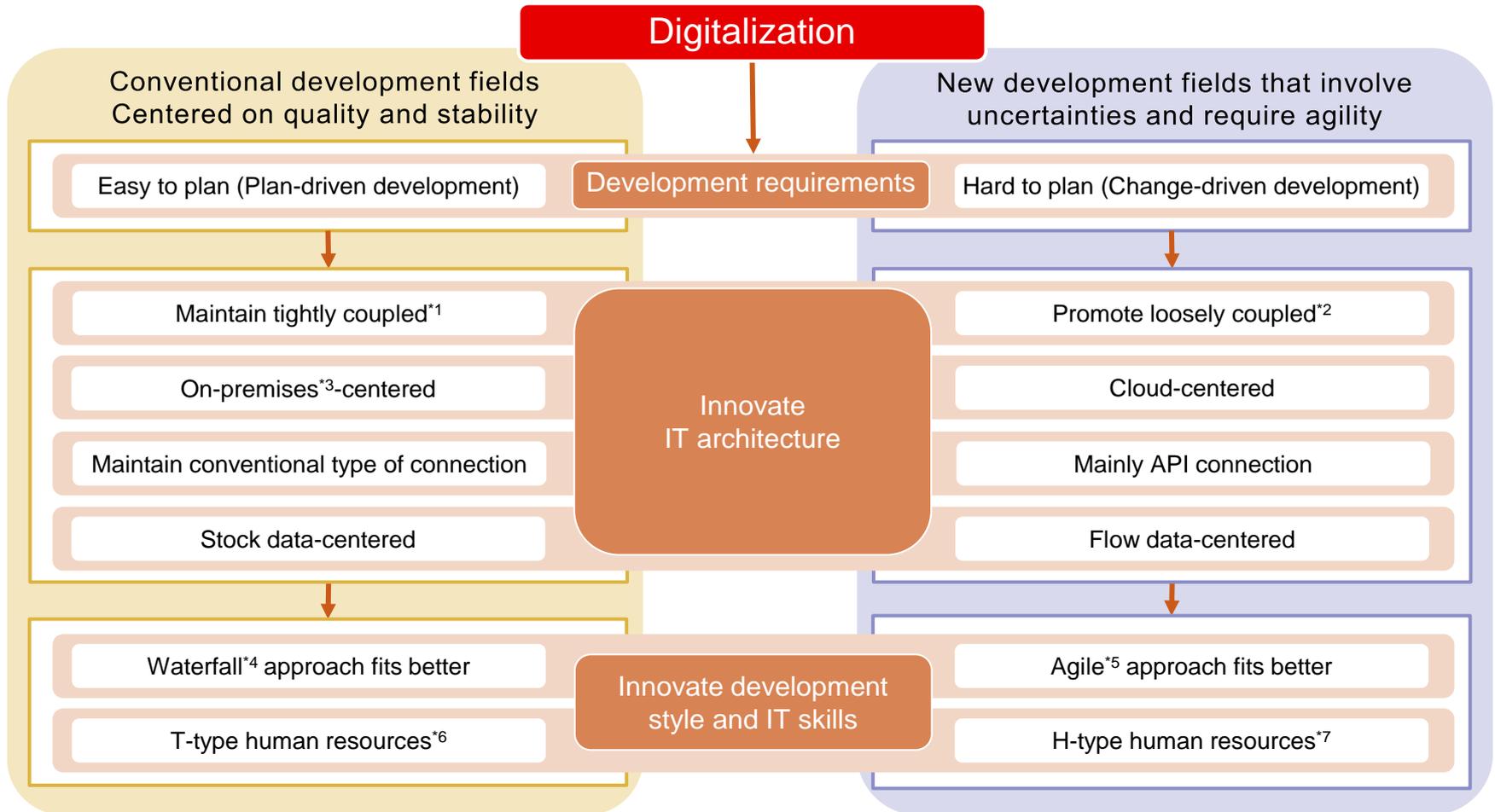
**Enhance threat countermeasures**  
Cyber security, IT security governance

\*1 Total of MUFG (holding company), MUFG Bank, Mitsubishi UFJ Trust & Banking Corporation, Mitsubishi UFJ Morgan Stanley Securities, Mitsubishi UFJ NICOS and Acom. Total amounts for 3 years of MTBP

## 2.IT architecture

# 2 Way Architecture

- Promote digitalization based on a concept of “2 Way Architecture” which adjusts to both developments: ”development centered on quality and stability” and ”development centered on agility”



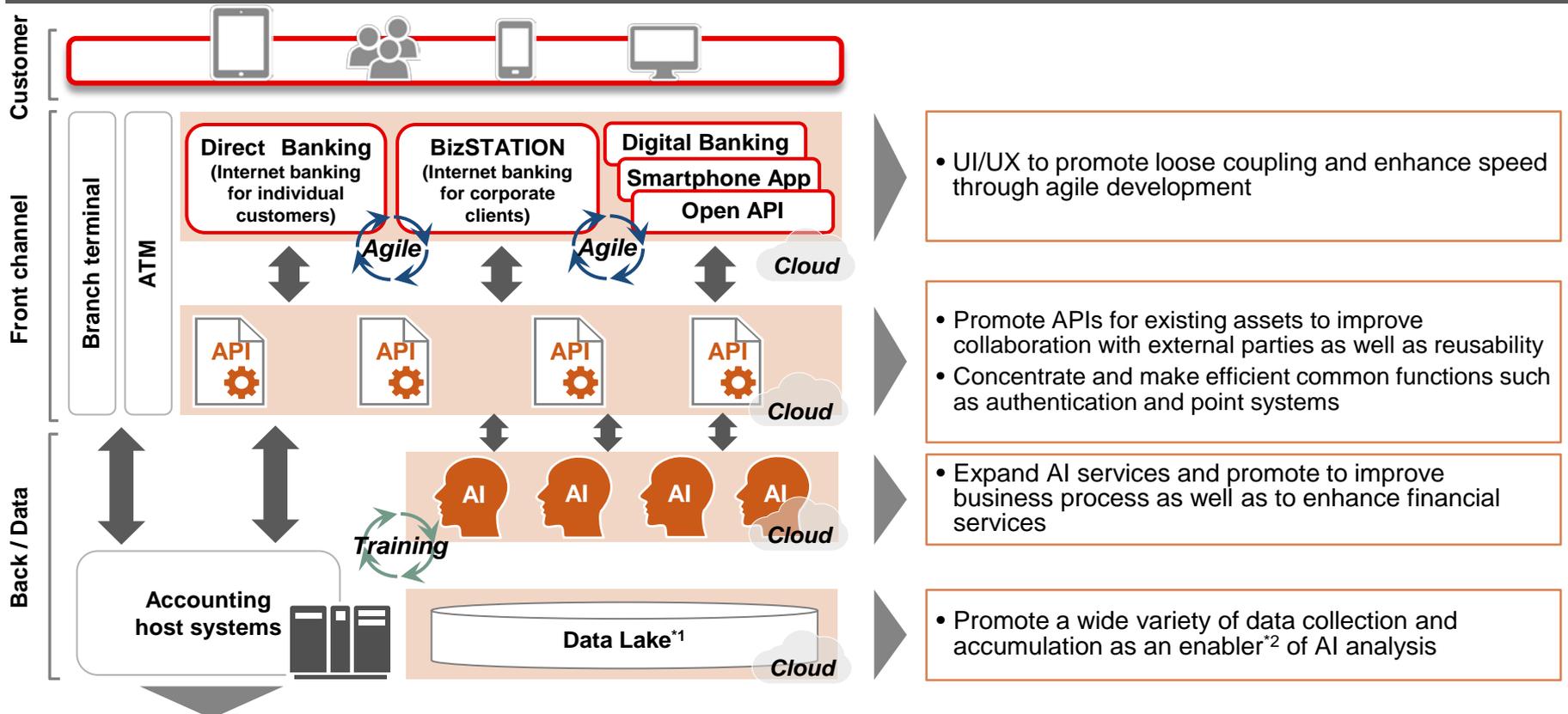
\*1 A state in which the linkage between the constituent elements of the system is strong and the independence is low \*2 A state in which the linkage between the constituent elements of the system is weak and the independence is high \*3 On-premises. Manage and operate information systems in a company only \*4 System development method that divides the entire process into several phases and complete each phase sequentially \*5 System development method that repeats and adjusts small unit development on the assumptions that changes specifications and designs \*6 Type of human resources who have strength in one specific field while having insights into peripheral fields \*7 Type of human resources who have strength in one specific field while maintaining connection with people in other fields

## 2.IT architecture

### Architecture strategy

- Utilize the cloud in the right place and evolve to an architecture and development style that can respond to the fast pace of business change
- Expand AI services with a wide variety of data collection and accumulation, and promote improvement of business processes as well as enhancement of financial services

To-Be architecture vision in next 3 to 5 years (image)



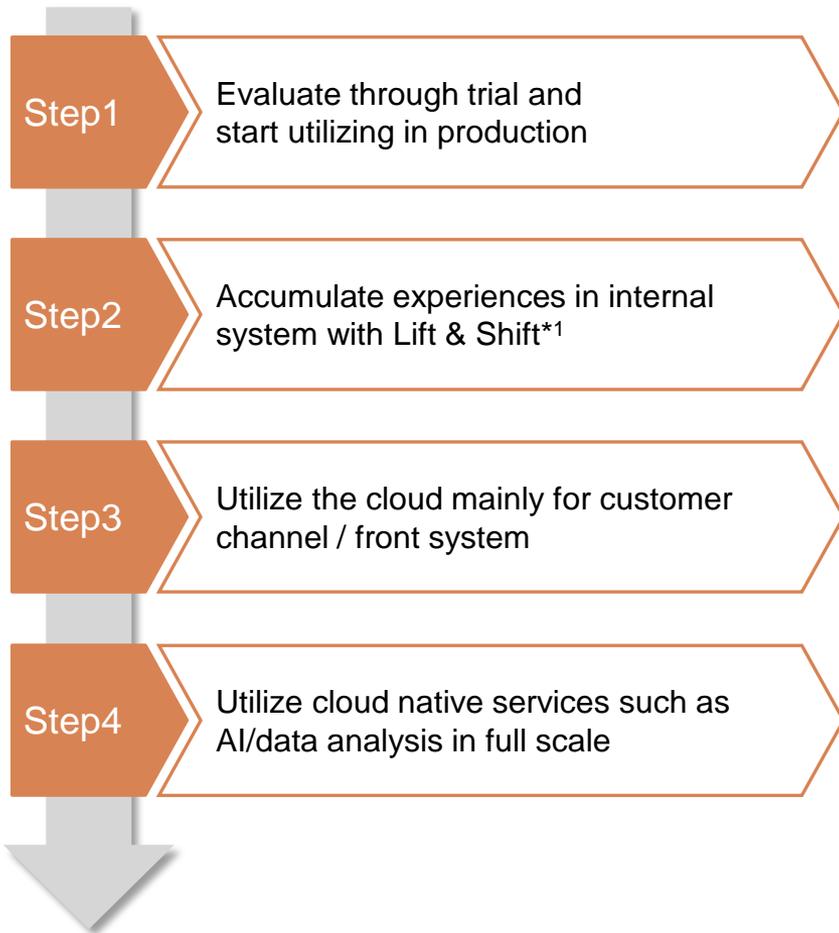
• Continue to develop putting emphasis on quality and stability

\*1 Area to store various data in their original formats \*2 Aspects, measures and tools to achieve goals

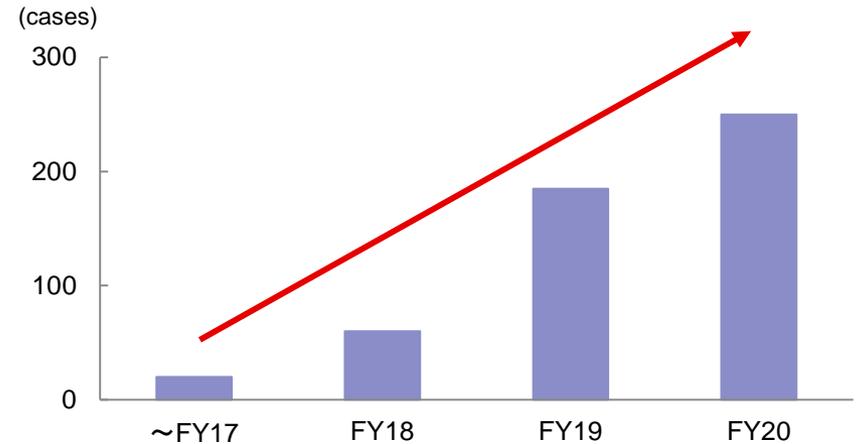
# 3. Utilizing the cloud

- Proactively utilize the cloud as a driver of accelerating development speed and reducing costs with appropriate security solutions

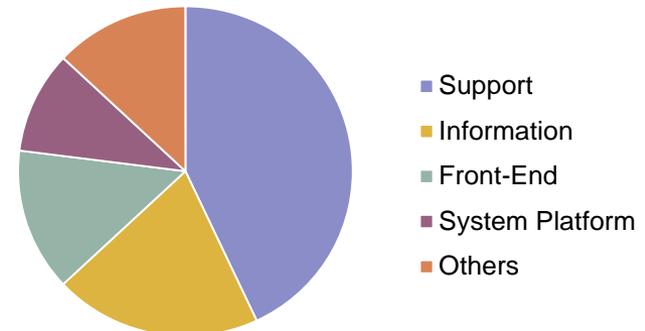
## Steps toward full utilization



## Number of cloud migration (Actual/Plan)



## Applicable areas

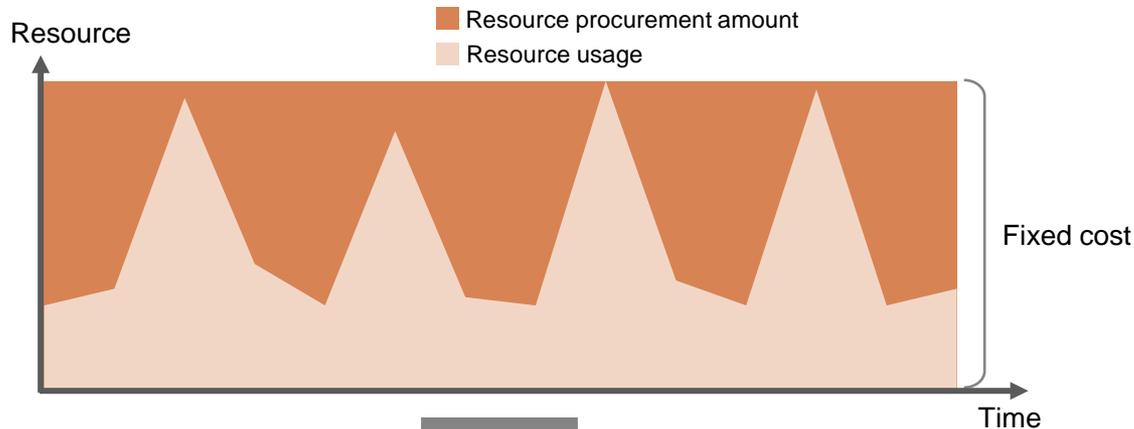


\*1 Migrate the existing system to the cloud as it is

### 3. (Reference) Examples of cloud utilization – Market Risk Management System

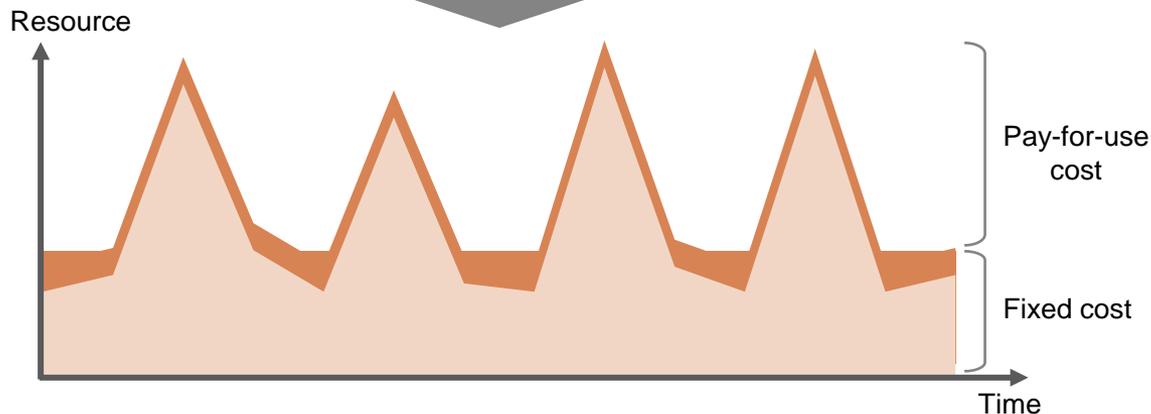
- “Market risk management system (under development)” – Cost reduction can be achieved by utilizing the cloud for risk measurement where high-loaded calculation process concentrates over a certain period

- Build a compute grid on cloud required for quarterly high-loaded calculation process in addition to the existing on-premises environment
- Build the environment based on the timing of quarterly processing using the mechanism of automation and delete it after processing
- Cost reduction of about 60-70% compared with on-premises can be achieved by spot purchase of thousands of compute server resources



#### Full on-premises development

Wasteful period occur as system environment is built based on the maximum amount of resource usage



#### Hybrid development (Cloud + on-premises)

Cost reduction can be achieved through temporarily use of the cloud when the resource usage increased

➔ **Cost reduction of 60-70% compared with on-premises**

## 4. Work style reforms

- Aim to create efficient workstyle not bound by location and time in order to focus on serving the customers with genuine value



Promote paperless

- **Paperless meeting and operations**  
Reduce paper materials and preparation time

Facilitate flexible workstyle

- **Further promote telework and staggered working**  
Usage: About 2.5thd employees / month

Utilize ICT

- **Cloud collaboration services**  
Enhance efficiency through unlimited storage capacity
- **Utilize mobile devices, upgrade functions**  
Location free meeting, reduce travel time

Set up satellite offices

- **Exploit off-site space (training center, etc.)**  
Temporal usage on business trip, etc.

## Reference of page 12

- \*Note1 Excerpt from a report issued by Japanese Bankers Association
- \*Note2 Excerpt from a report issued by Japan Payment Service Association dated on Sep 13, 2018
- \*Note3 Excerpt from a report issued by Japan Payment Service Association dated on Sep 13, 2018
- \*Note4 Excerpt from Japan Consumer Credit Association (JCA), "Credit Statistics of Japan (2017)"
- \*Note5 Excerpt from YANO Research, "Loyalty Program (Point Reward Service) Market in Japan: Key Research Findings 2018" dated on Jul 12, 2018  
Note: The market size of loyalty programs or point reward services in this research is calculated based on the total amount of reward points issued, which include unique points and mileages issued by some of specific companies.  
Loyalty programs, or another words, point reward services in this research include those services that the customers can use reward points within the specified member companies and groups, as well as those services that the points can be used throughout the aligned member companies across the industries (common point reward services.)
- \*Note6 Excerpt from a report issued by Japan Virtual Currency Exchange Association dated on Apr 10, 2018