ESG Presentation

March 13, 2018

IR Department
Corporate Management Division
KDDI Corporation

Agenda & Time Schedule

Time	Agenda	Person in charge
9:30	Introduction	Keita Horii, IR Department
9:35	[Overview] Basic concept and policy of ESG	Akira Dobashi, Executive Officer, CSR Environment Sustainability General Manager, General Administration & Human Resources Division
9:40 Presentations (10-15 minutes each)	[Environment] Efforts for Regional Revitalization: Smart Fishery and Community Vitalization（P.2)	Hironori Abe, General Manager, Local Development Support Office, Business IoT Promotion Division
	[Social] Creating a Safe and Secure Information and Communications Society (P.24)	Kentaro Toriumi, General Manager, General Administration Department, CSR & Environment Management Department
	[Social] KDDI's Promotion of Female Employee Activities（P.36)	Hideyo Mase, General Manager, Human Resources Department, D&I Department
	[Governance] Corporate Governance of KDDI（P.48)	Minoru Tanaka, General Manager, General Administration Department
10:40 (45 min)	Q&A Session	All the presenters

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<Document 1>
Efforts for Regional Revitalization: Smart Fishery and Community Vitalization

March 13, 2018

KDDI Corporation

Local Development Support Office

Business IoT Promotion Division

General Manager: Hironori Abe

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Regional Revitalization: Business where the community and enterprises work together for value creation

Accurately understand the characteristics of the applicable area

- Community circumstances and user needs
- Characteristics of and issues in local industries

▶ **New possibilities for regional industries**

Enable participation of regional organizations, residents, and administration

- Revitalization of local industries
- Provision of business-making know-how and findings

▶ **Active use of ICT/IoT**

Establish as regional businesses

- Development of marketing network
- Establishment of a system that enables long-term business continuity

▶ **Economic activities cycles and develops**

Regional Revitalization Support Office: Members experience on-site activities at disaster-struck areas

Kesennuma City (Dec. 2012)

Higashi-Matsushima City Hall (Feb. 2013)

Reconstruction Agency (Apr. 2014)

<Launched>
Reconstruction
Support Office

<Launched>
Regional
Revitalization
Support Office

7/1/2012

4/1/2017

Kamaishi City (Oct. 2012)

Sendai City (Sep. 2013)

Fukushima City (May 2015)

Working on Solving Issues in Communities by Introducing ICT/IoT

Issues that surfaced in disaster-struck areas → **Issues that will surface nationwide in the near future**

Reconstruction support efforts
(2012 to 2017)

LOCAL DEVELOPMENT SUPPORT OFFICE
地方創生
支援室

Reconstruction Support = Support for Disaster Relief Efforts × IoT demonstration in society / IoT implementation in society

reconstruction

Horizontal expansion

Regional Revitalization = Regional Activity × IoT demonstration in society / IoT implementation in society

revitalization

Contents

Obama City used to have schools of mackerel flooding on its coast

Obama

Kyoto

Mackerel Road

Kyoto may be far, but is only about 70 kilometers away
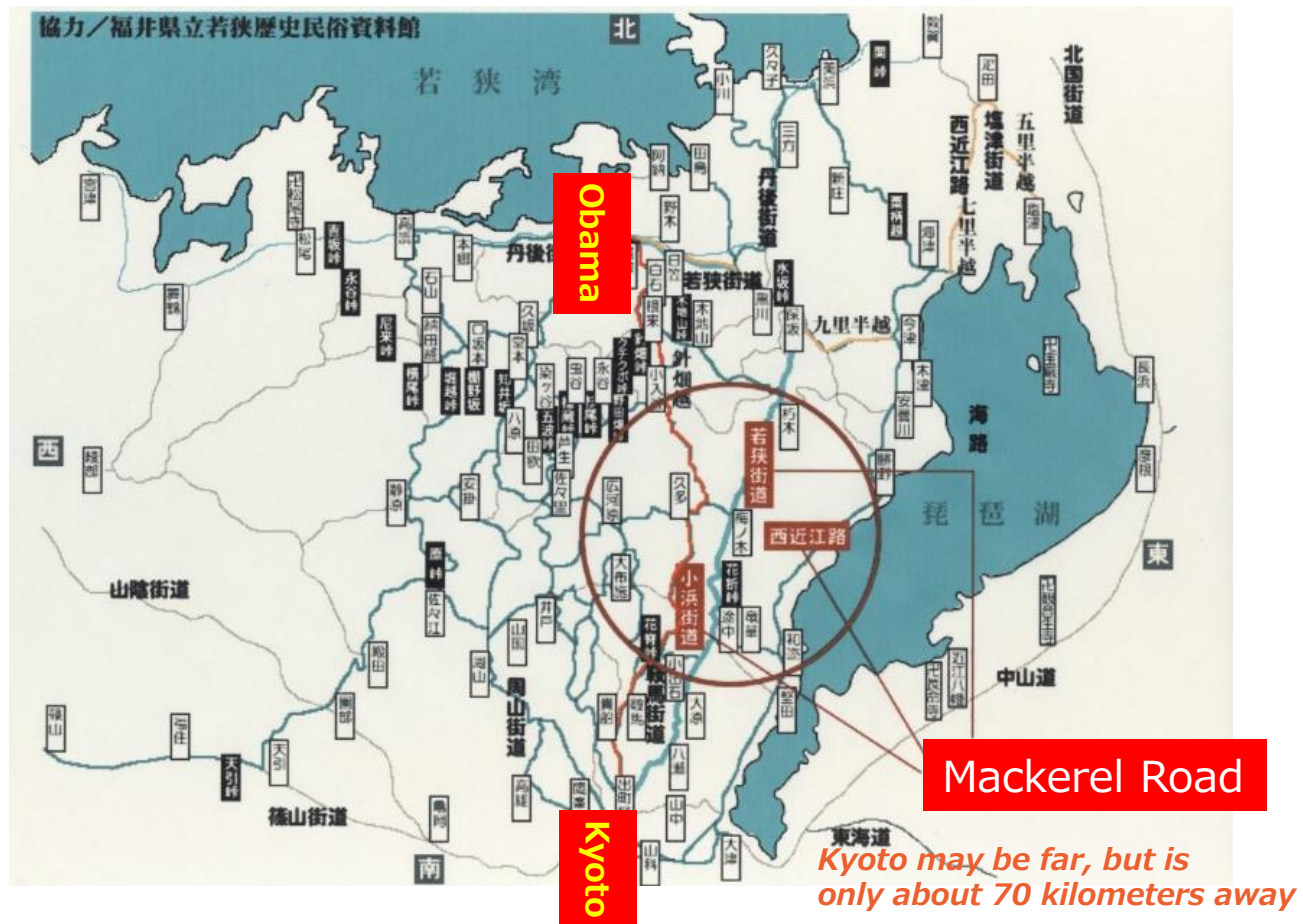
Mackerel catch rapidly decreased over a mere 30 years

12,607

Legend:
- Fukui Pref.
- Obama Ciity

1,168

31

1

SO...

Revitalize
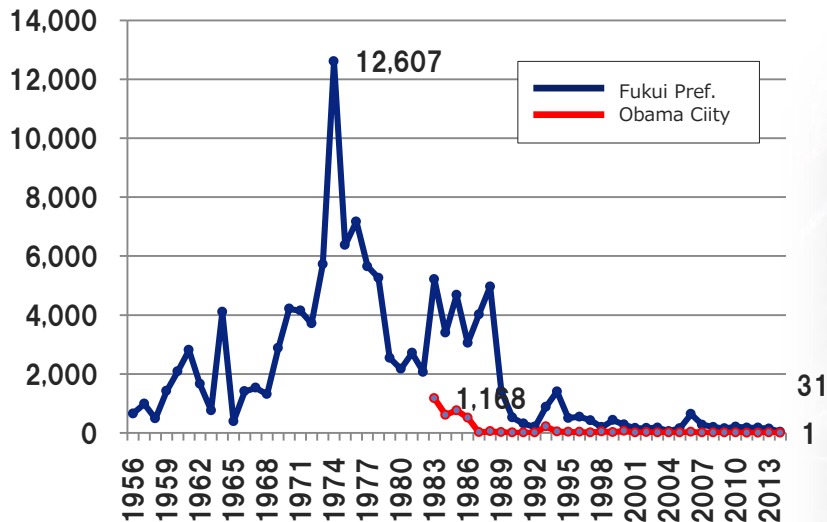
mackerel fishery

Regional revitalization that builds on Obama City's image of mackerel

"Revitalize Mackerel Fishery" Aquaculture Streamlining Project Leveraging ICT

Existing issues	Direction of solutions	Specific measures
Production is low and does not ensure profitability for business.	Must expand production scale in order to ensure profitability	Introduction of cloud system that supports scale expansion
Prevention of cultured mackerel mortality is dependent on fishermen's experience and intuition	Identify the relationship between environmental aspects and feed amount in order to improve survival rate	Introduction of the maritime version of AMeDAS for real-time measurements of water temperature, oxygen level, and salt level
Fish preserve management is a professional art of fishermen and has not been transformed into useful data	Instruction manual for fish culture is necessary so that other fishery operators can work on culture	Introduction of digital operation journal that digitally tracks feeding location, feed amount, and feeding time

Overall System for the "Revitalize Mackerel Fishery" Aquaculture Streamlining Project

Maritime AMeDAS

Environmental measurement

Fish preserves

Water temperature

Oxygen level

Salt level

Measuring instruments

Internet

LTE

Cloud server

Data acquisition

Remote detection

Wi-Fi

Usuya Seawater Temperature [buoy_id : _08042027948]

Digital operation journal

Data transmission

Check the feed amount at each preserve

Fishery operators feed the fish

Fishery operators, Obama City, and academic organizations formulate plans
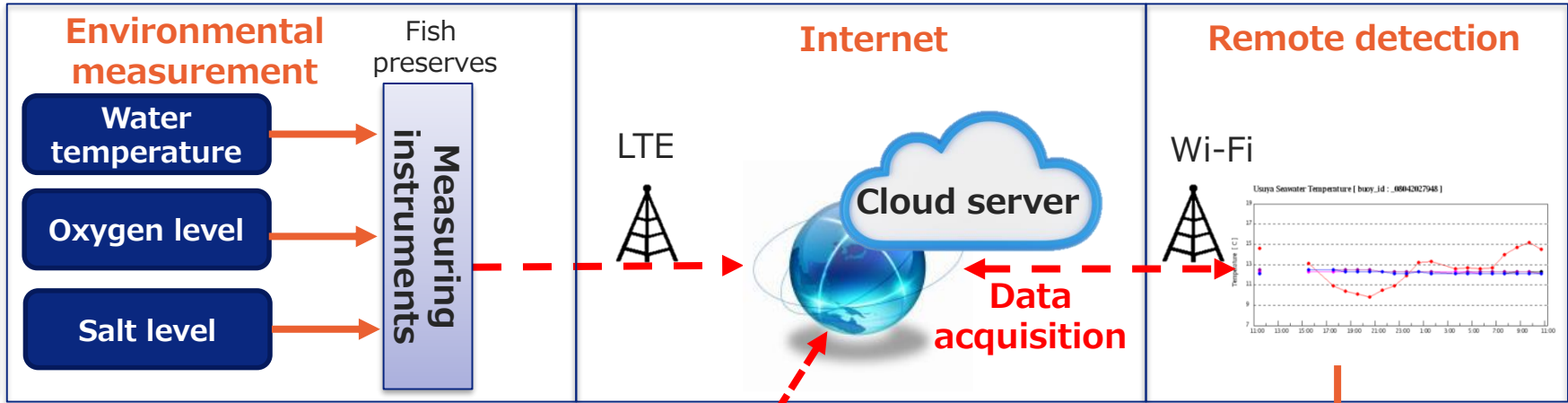
Function to be implemented (1): Maritime AMeDAS

0.5 m

0.5 m

• Communication devices
• Built-in secondary batteries

3 m

5 m

↑ Water temperature & Salt sensor

←Dissolved oxygen concentration sensor

<Exterior of measuring device>
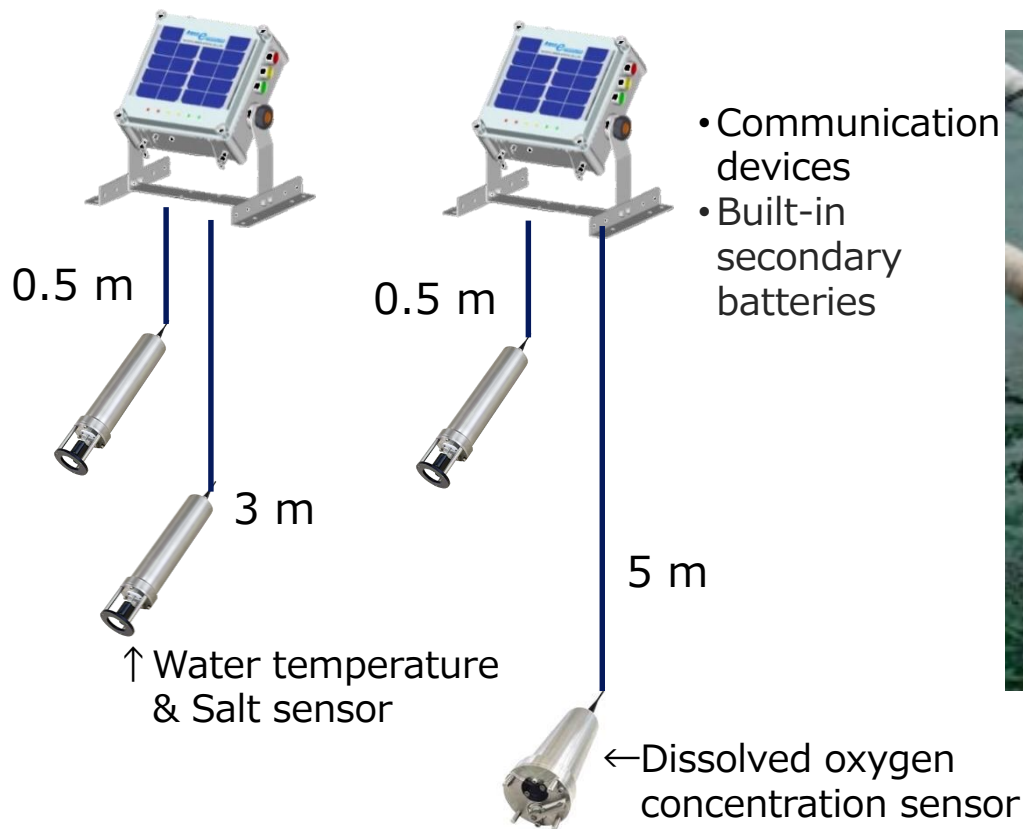
Function to be implemented (2): Digital operation journal

P: Feeding planning

Maritime AMeDAS Information utilization

D: Feeding

C: Record checking

Date		
Preserve	Feed amount	Notes
No.1	3 kg	Good
No.2	2 kg	Strong west wind
No.3		

Date		
Preserve	Feed amount	Notes
No.1	3 kg	Good
No.2	2 kg	Strong west wind
No.3		

Fish preserve **1**

Date	Feed amount	Notes
3/3	3 kg	Good
3/4	2 kg	Strong west wind

Fishery operators and academic organizations formulate and register plans.

Fishery operators feed the fish as per plan. Register the data after feeding.

Check the feed amount of each preserve. Reflect the information in next feeding plan.

A: Plan revision

Develop an operation manual after repeating plan revisions.

Contents

Smart Fishery Model Business Utilizing Maritime Big Data in Higashi-matsushima

* Adopted as the Ministry of Internal Affairs and Communications' IoT Service Creation Support Project for FY2015 supplementary budgets

Business Overview

(1) Fishing model

Efficient fishing by predicting catch in set-net fishing

⇒ **Data-based sailing decision**

(2) Retailing model

Stable fish prices by diversifying retail

⇒ **Direct delivery of freshly fished seafood**

Place of implementation

Off the coast of Hamaichi, Higashi-Matsushima, Miyagi Prefecture

地図データ ©2016 Google、ZENRIN

Demonstrating the new efficient fishery model that uses maritime big data with set-net fishing

Data collection

smart sensor buoy

fishery place

Smart camera buoy

set-net

Set-net fishing [Higashi-Matsushima City]

Smart sensor buoy

Data analysis

Data Base (Sensor Data etc)

analyze on server

水温

漁獲量

地図データ ©2016 Google, ZENRIN 利用規約 maps.google.com

show the result

Viewable from smartphones, tablets, and PCs

Business operation

res-taurant

picture analysis Fish estimation /forecast

distribution direct delivery

order

data of weather/periodic /fish amount take picture

push Signal

IoT Cloud

to the sea

set-net

fisherman

Exploring direct sales

Make fishery more efficient

Diversify retail

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Developed Reference Model

[Achievement 1]
Developed 4 smart buoys (IoT devices), whose batteries can last 27 days

[Achievement 2]
Created useful data from daily fishing information

[Achievement 3]
Reached 70% accuracy in fish catch prediction

[Achievement 4]
Proposed guidelines for operating smart buoys

[Achievement 5]
Proposed a new seafood direct delivery model

Fish catch prediction system

Observation point of meteorological bureau (public data)

▼Open data utilization

Sensor buoy

Camera buoy

Marine data

Weather data

Marine data
Fishery data

Miyagi fishery NAVI

server

Data

Fish catch data

Periodic current data
Fish data
Data of marine camera
Fish estimation

Apps for fishermen

Apps for restaurants

Restaurants

Direct transaction

Operators
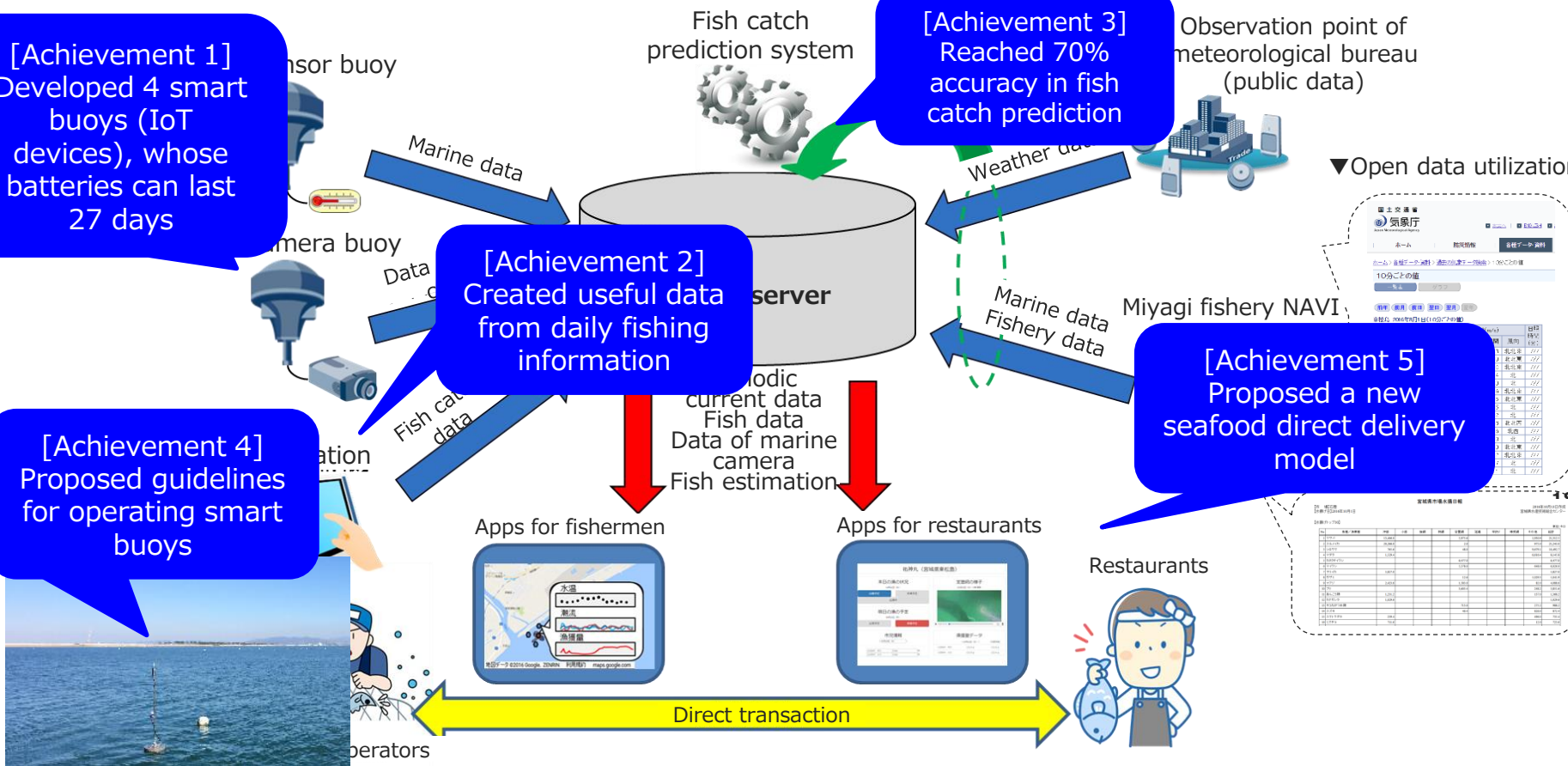
Retail model proposal: A new seafood direct delivery model with fisheries cooperative as hubs

A combined establishment of existing distribution for mass fish sales and direct delivery model for higher-price trading

Production area wholesale market

Consumer area wholesale market

Fishery operators → Wholesalers → Shipping Processing → Wholesalers (Carrier) → Intermediate wholesalers → Retailers/Food service industry → Consumers

Fisheries cooperative

Direct delivery sales

Order placed based on fish catch prediction for next day

Shipped from each fishery cooperative
Cost optimization by using a consolidated system

Identified Regional Issues Regarding the Sustainability of Fishing Activities

▼Device-related issues

▼Prediction/Estimation-related issues

▼Distribution-related issues

Device-related issues	Prediction/Estimation-related issues	Distribution-related issues
Longer lasting batteries for buoys	Fish catch prediction	Product dispatching operations
User-friendly UI	Unexpected good catch /Detection of poor catch	Stable fish supply
Buoy operation maintenance	Inexpensive use of sensors	Good catch, poor pricing

Technical issues that need to be resolved for further development and application of smart fishery

Smart sensor buoy

Fish catch prediction system

Camera buoy

Data server

Marine data
Fishery data

Periodic current data
Fish data
Data of marine camera

Fisherman information

Fish catch data

Apps for fish

Restaurants

Direct transaction

Fishery operators

Long-term data collection for improving the precision of predictions (Preferably over several years)

Improvement in the precision of fish catch Improvement in prediction-based fishing operations

Maintenance of buoys Establishment of support system

Application to fisheries other than salmon fishing Application to fisheries outside of Higashi-Matsushima

Advanced camera functionality

Establishment of direct delivery channels with the fishery cooperatives as hubs

Simpler apps to make them easier to use for fishermen

Designing The Future

KDDI

<Document 2>
Creating a Safe and Secure Information and Communications Society

March 13, 2018

KDDI Corporation

CSR & Environment Management Department

General Administration Department

General Manager: Kentaro Toriumi

KDDI's Material Issues for CSR

Material Issue 1	**Material Issue 2**
Creating a Safe and Secure Information and Communications Society	**Offering Reliable Information and Communications Services**

Material Issue 3	**Material Issue 4**
Initiatives to Conserve the Global Environment	**Vitalizing the Company by Developing a Diverse Workforce**

KDDI has identified material issues for CSR as priority tasks to be addressed. Among the numerous issues we face in relation to our businesses, we identified those of highest concern to society and initiatives that we need to focus on to achieve sustainable growth together with society.
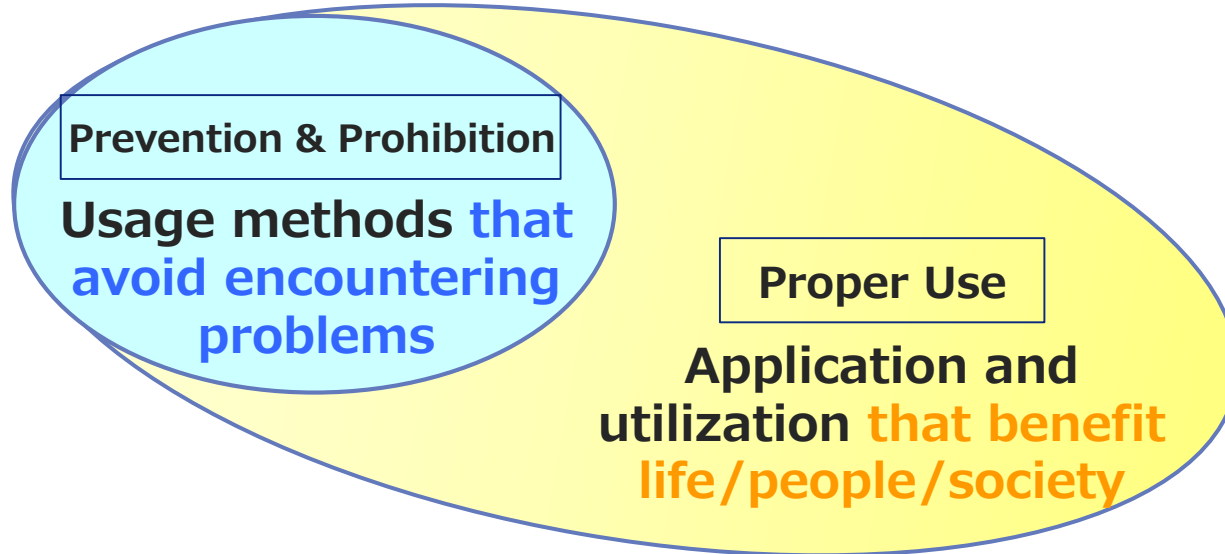
Initiatives Aims at the Younger Generation

Actions of New Edification along with Social Change

Increase of Smartphone Users

Lowering Age in Smartphone Use

ICT Conversion in Education

Prevention & Prohibition

Usage methods that avoid encountering problems

Proper Use

Application and utilization that benefit life/people/society

Educate in "Prevention & Prohibition"

+

Education in Proper use to benefit life/people/society

Classes for younger generations that help them gain the ability to avoid risks by teaching them rules and manners, and introducing real cases of trouble and accidents

Certified KDDI instructors visit schools nationwide, free of charge

From launch in FY2005, Total classes held: Over 20 thousands Total people attended: Over 3.7 million (as of March 2017)

KDDI Smartphone and Mobile Phone Safety Classes (for school students)

①Utilization of movies based on real cases of trouble

・Make children think about what if such trouble happened to themselves

・Revision of class themes in accordance with the newest situation

②Customization of teaching materials

・Elaborate preparations with the schools beforehand

・Various themes available depending on situation of areas and each school

| Dependence to games | Personal information | Posting to internet | Impersonation etc |

KDDI Smartphone and Mobile Phone Safety Classes (for school students)

Various teaching materials that match the level of attendee

①**Beginners Level**
(for lower-grade level elementary school students)

②**Intermediate Level**
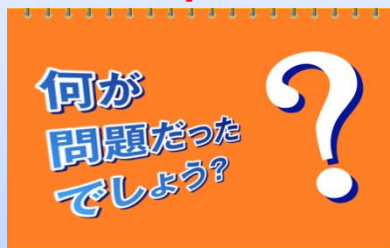(for mid- to upper-grade level school students)

③**Advanced Level**
(for middle school to high school students)

④**For Teachers and Parents**

Case studies of possible trouble through movies

Teaching material to make children think about the problems by themselves

DVD materials also available for rent

[Contents]
①Slides with class scenarios
②Video of model class by delivery lecture instructors

"Disaster Preparedness Literacy by Smartphone"

Released on September 7, 2017
New workshop style delivery lecture program, "Disaster Preparedness Literacy by Smartphone"

Telecommunications= Lifeline

Maximize telecommunications at times of disaster

Information Literacy

Rule & manners of contact/collection of information via SNS

Disaster Prevent Education

To help and prepare each other through information utilization

"Disaster Preparedness Literacy by Smartphone"

A workshop style delivery lecture using smartphones, in which participants use a dedicated application to gather information of a disaster and identify a safe route/place to escape based on the assumption that a huge disaster has occurred

① **Education of information literacy**
To become aware of the difference between face-to-face and text-based communication and become aware of what to notice when sending and receiving information.

② **Education of disaster preparedness**
To become aware of the importance of self-help and mutual help, information necessary during a disaster, and so on, through disaster simulations.

"Literacy on Disaster Prevention Using Smartphone"

Achievement (FY2017)

Conducted at 5 schools and to be delivered at 1 school

Sep 7
  Hyogo Nishinomiya Minami High School (1)
Jan 11
  Kyoritsu Women's Junior and High School
Jan 18
  Hyogo Nishinomiya Minami High School (2)
Jan 30
  Ishikawa Nada High School (1)(2)
Feb 10
  Edogawa Women's High School (1)(2)
Feb 20
  Yamanashi Chuo High School (1)(2)
Mar 15
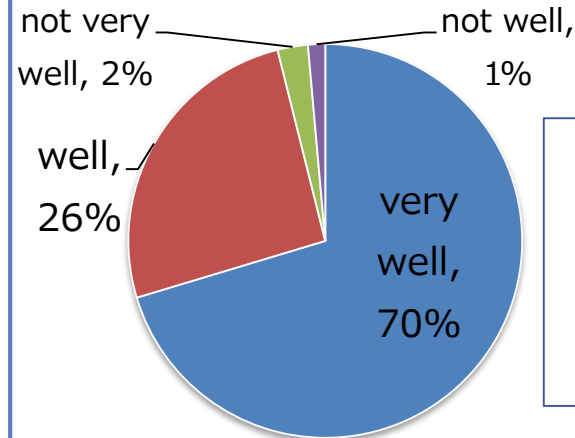 Ishikawa Kanazawa Koyo High School

Evaluation of the attendees

Questionnaire to the participants
①Importance of sending and receiving appropriate information at times of disaster
②Importance of self-help and mutual help
③Necessity of using care when sending and receiving information

not very well, 2%
not well, 1%
well, 26%
very well, 70%

Positive Response:
(very well、well)
96%

Classes targeting people up to 70 years old to teach safe and secure use of smartphones and tablets by using actual devices

KDDI certified instructors conduct class as education for consumers, in cooperation with local government nationwide

**From launch in FY2012:
Total number of classes: Over 800
Total number of attendees:
Over 16 thousand (as of March 2017)**

KDDI Smartphone & Mobile phone Safety Class (for Elderly)

Choices to match needs of attendees

①Smartphone course

②Tablet course

③Disaster preparedness study course

○**Project on-screen how the instructor uses the device**

- Instructor projects smartphone/tablet operations on a screen and attendees mimic the instructor's movements
- Attendees get a feel from basic operations to entering text, internet, and application usage
- Attendees learn safe & secure use as well as useful apps in case of emergencies or disasters

KDDI will contribute to the **Development of a Society with Rich Communications** going forward.

<Document 3>
KDDI's Promotion of Female Employee Activities

March 13, 2018

KDDI Corporation

Diversity & Inclusion Department

Human Resources Department

General Manager: Hideyo Mase

D&I Section's Mission

To promote the improvement of employees' capacities by means of supporting a diverse pool of human resources and work-life management

Diverse human resources

Female employees

People with disabilities

Seniors

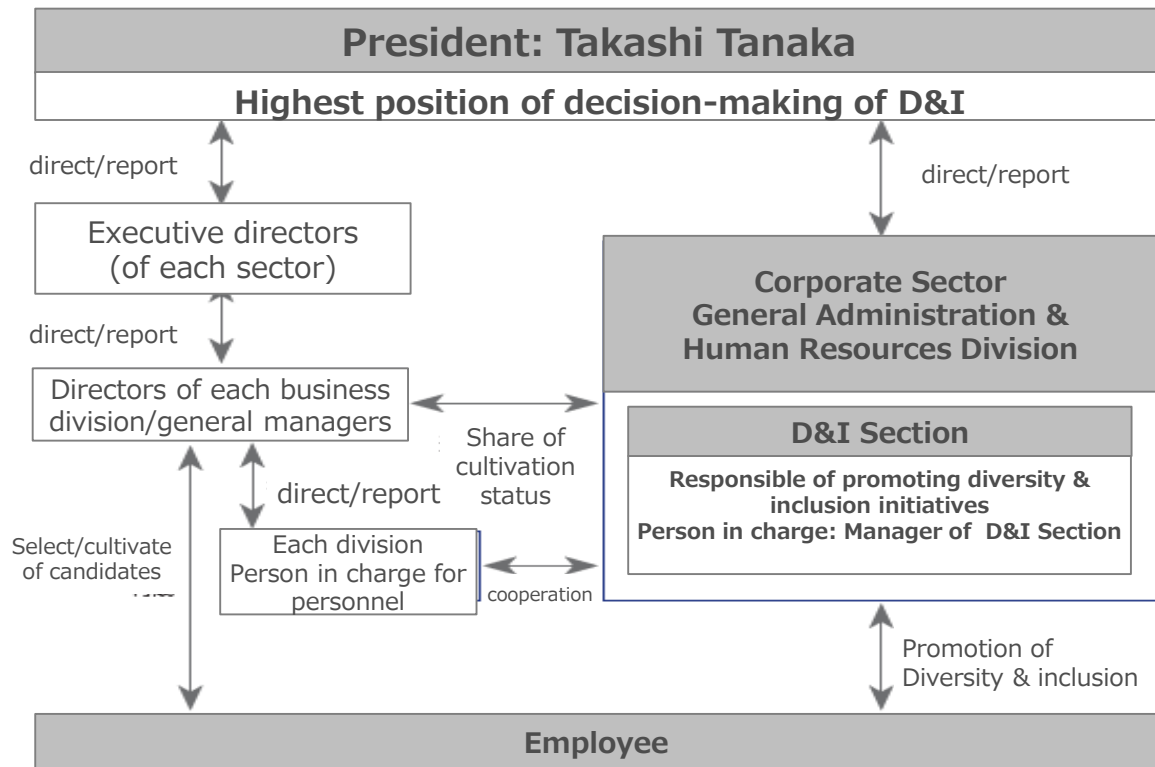**Foreigners**

LGBT

Work styles

Work style reform

Support for balancing work with childcare and elderly care

KDDI

D&I Section's Promotion Structure

A dedicated organization was established under the Human Resources Department in April 2008

Framework of promotion of diversity & inclusion in KDDI

President: Takashi Tanaka

Highest position of decision-making of D&I

direct/report

direct/report

Executive directors (of each sector)

direct/report

Corporate Sector
General Administration &
Human Resources Division

Directors of each business division/general managers

Share of cultivation status

D&I Section

Responsible of promoting diversity & inclusion initiatives
Person in charge: Manager of D&I Section

direct/report

Select/cultivate of candidates

Each division Person in charge for personnel

cooperation

Promotion of Diversity & inclusion

Employee

Diversity & Inclusion

Symbol mark of D&I chosen by internally advertised idea

External Recognition

 Selected as NADESHIKO BRAND for the fifth consecutive year

 Selected the New Diversity Management Selection 100 Project by METI

 Selected Top Hundred Telework Pioneers by MIC
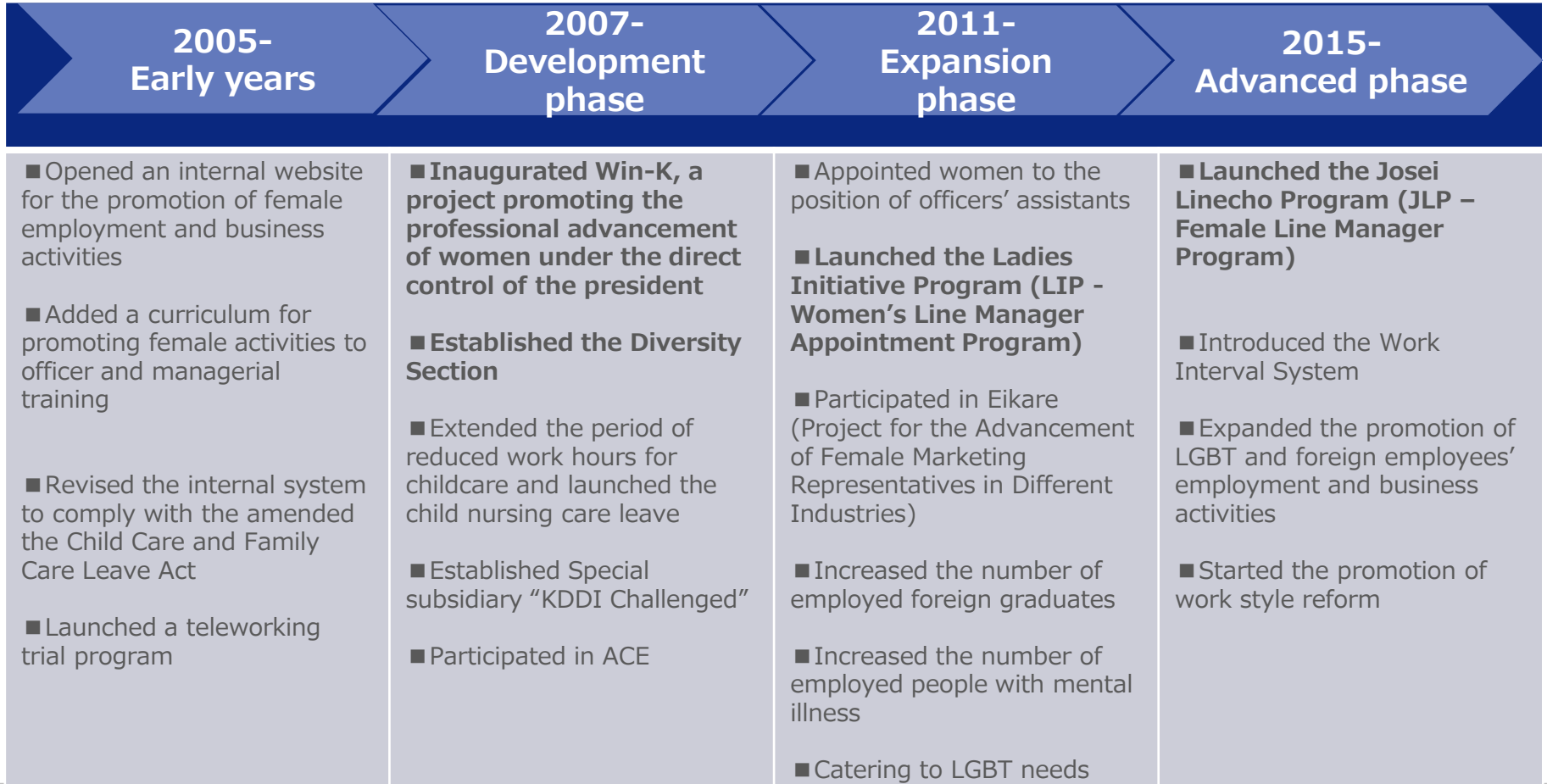
 **NPO J-Win
2015 J-Win Diversity Award Grand Prize**

 Accessibility Consortium of Enterprises (ACE) 2014 ACE Award Grand Prix

History of D&I Promotional Efforts

2005- Early years	2007- Development phase	2011- Expansion phase	2015- Advanced phase
■Opened an internal website for the promotion of female employment and business activities ■Added a curriculum for promoting female activities to officer and managerial training ■Revised the internal system to comply with the amended the Child Care and Family Care Leave Act ■Launched a teleworking trial program	■**Inaugurated Win-K, a project promoting the professional advancement of women under the direct control of the president** ■**Established the Diversity Section** ■Extended the period of reduced work hours for childcare and launched the child nursing care leave ■Established Special subsidiary "KDDI Challenged" ■Participated in ACE	■Appointed women to the position of officers' assistants ■**Launched the Ladies Initiative Program (LIP - Women's Line Manager Appointment Program)** ■Participated in Eikare (Project for the Advancement of Female Marketing Representatives in Different Industries) ■Increased the number of employed foreign graduates ■Increased the number of employed people with mental illness ■Catering to LGBT needs	■**Launched the Josei Linecho Program (JLP – Female Line Manager Program)** ■Introduced the Work Interval System ■Expanded the promotion of LGBT and foreign employees' employment and business activities ■Started the promotion of work style reform

Promotion of Female Employee Activities

Increase female voices in management decision making

Appoint women to the position of officers' assistants

Active involvement drawing on experience as officer's assistant

Female line manager program
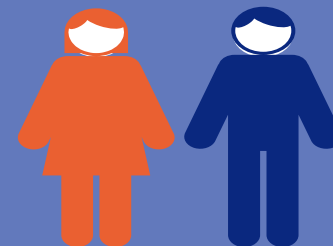

Increase in the number of female line managers

Officer's Assistant

Appoint a male and female employee as assistant to each of the 6 officers, including the president, for a term of one year
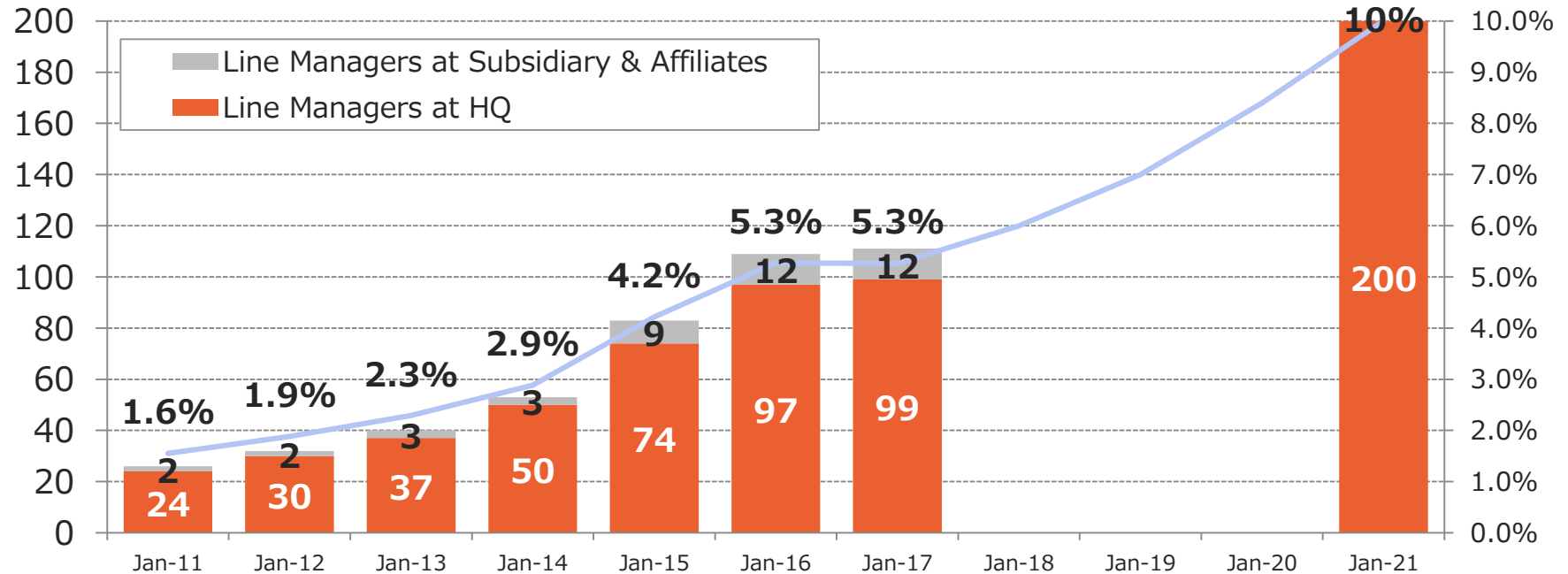
Learn how the discussions among and the decision formulation process of the management works and cultivate a company-wide, medium to long term view

- **Accompany the officers at internal meetings**
  Learn about the discussions of the management and the company's decision-making process
- **Check the progress of projects in advance and prepare documents**
- **Interview on site concerning management issues**

Increase in the Number of Female Leaders and the Next Goal

**Attained the goal: Appoint 90 female employees to line managers in FY2015**

Legend:
- Line Managers at Subsidiary & Affiliates
- Line Managers at HQ

	Jan-11	Jan-12	Jan-13	Jan-14	Jan-15	Jan-16	Jan-17	Jan-18	Jan-19	Jan-20	Jan-21
Subsidiary & Affiliates	2	2	3	3	9	12	12				
HQ	24	30	37	50	74	97	99				200
%	1.6%	1.9%	2.3%	2.9%	4.2%	5.3%	5.3%				10%

New goal: Appoint 200 female employees to line managers by FY2020

Launched the Josei Linecho Program (JLP – Female Line Manager Program) in FY2016

KDDI

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New Line Manager Program: JLP

Aimed at cultivating female leadership roles at different levels via pipelined development process
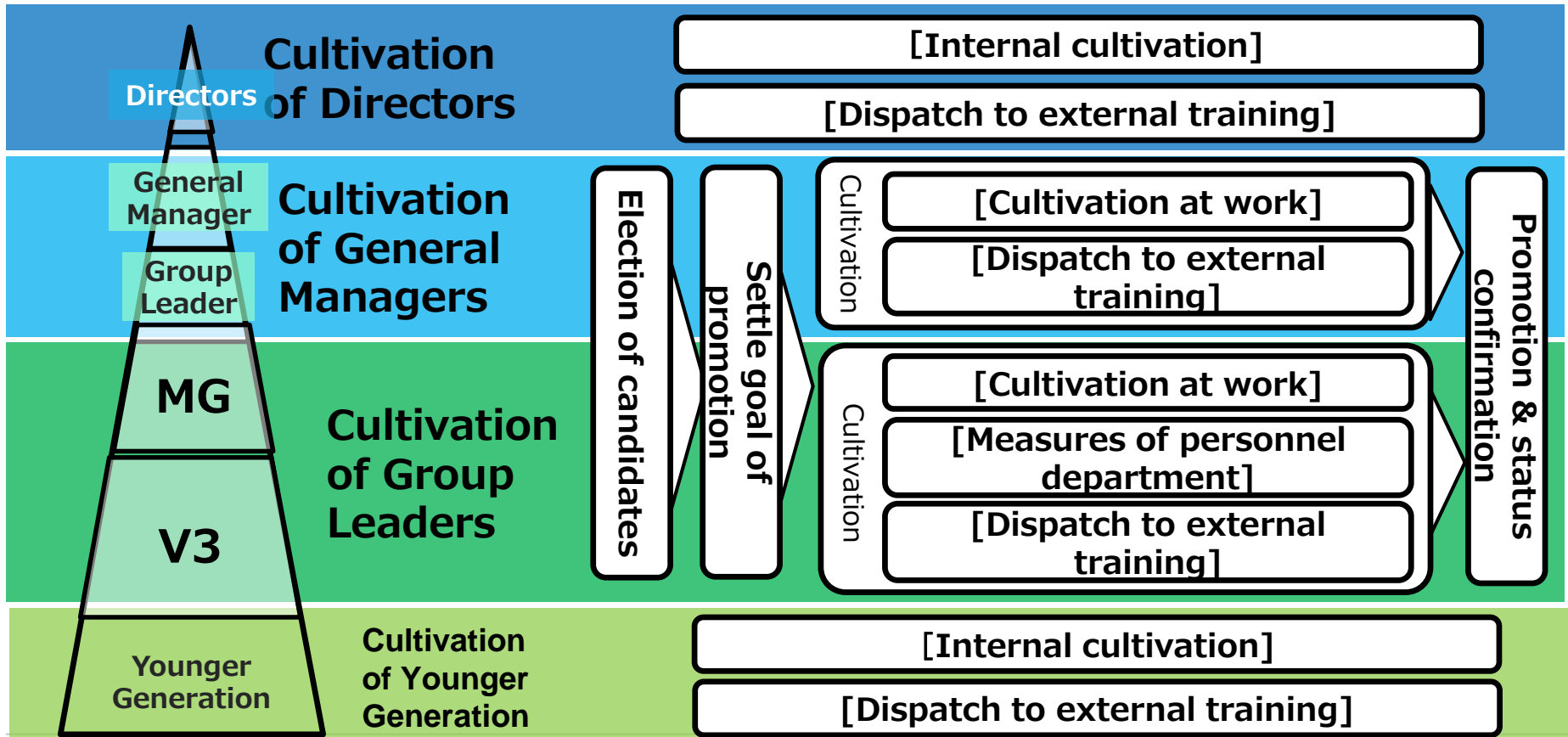
Josei Linecho Program (JLP)

- **Commenced in FY2012, Female employees recommended by General Managers are individually mentored and managed**

- **All General Managers and Human Resources Department discuss twice a year the status of cultivation and appointment**

Workplace

Commit to cultivation of candidates through mentorship

- Each General Manager selects and supports candidates as mentor and manager

- Conduct planned cultivation and progress management through formulating a cultivation plan

Human Resources Department

Build the candidates' mindsets' and help with networking

- Internal group training

- Dispatch candidates to external training

- Establish internal role models and help with candidates' networking

Changes in mindset after training

No desire to become line manager ⇒ Motivation developed: **84%**
No desire to take management position ⇒ Motivation developed: **92%**

Mindset after appointment

74% of line managers and **87%** in management positions gave positive feedback

Career development awareness

Line managers aiming for manager or higher position: **44%**
Managerial staff aiming for GL or higher position: **82%**
(Manager or higher position: **44%**)

Young Female Career Design Seminar

Provide an opportunity for women under the age of 30 to review their current situation, taking into account life events, in order to develop a career vision integrating work and private life

<Document 4>
Corporate Governance of KDDI

March 13, 2018

KDDI Corporation

General Administration Department

General Administration & Human Resources Division

General Manager: Minoru Tanaka

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2	**Efforts for Outside Directors to Effectively Function**

3	**Near-future Efforts**

Views on Corporate Governance

Two pillars in business management

Compliance with Japan's Corporate Governance Code

+

Practice of the KDDI Group Philosophy & KDDI Code of Business Conduct

Sustainable growth
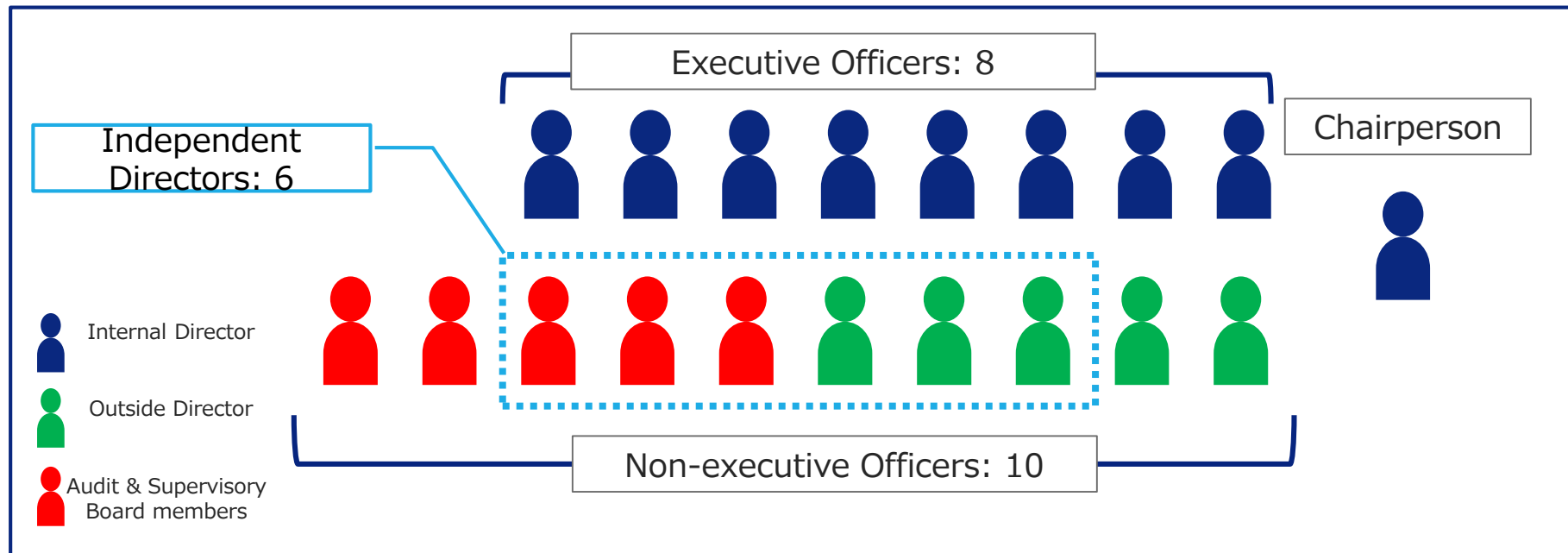**Increase of corporate value over the medium to long term.**

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1	Basic View

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3	Near-future Efforts

Composition of the Board of Directors

Executive Officers: 8

Independent Directors: 6

Chairperson

Non-executive Officers: 10

Internal Director

Outside Director

Audit & Supervisory Board members

Reference: Business Management Report

- A "business management report" independent of the quarterly financial reports is made every 3 months.
- The management situation and key topics in all corporate segments are covered in addition to those of business divisions.
  - → Not only board resolutions, **but group-wide management situations are shared with outside directors and outside Audit & Supervisory Board members as necessary**
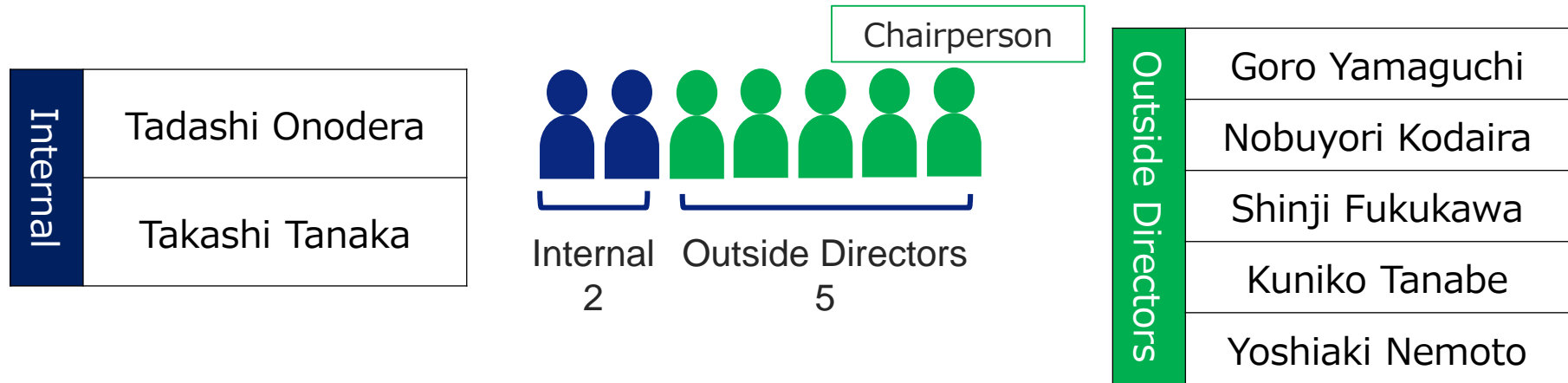
The Diversity of Outside Directors and Outside Audit & Supervisory Board members

■ Outside directors and outside Audit & Supervisory Board members with rich experience in different fields provide KDDI with diverse perspectives.

	Name	Position in KDDI	Field of expertise
Outside Director	Goro Yamaguchi	Outside Director	Corporate management
	Nobuyori Kodaira	Outside Director	Corporate management
	Shinji Fukukawa	Outside Director, Independent Director	Administrative and corporate management
	Kuniko Tanabe	Outside Director, Independent Director	Registered as attorney at law
	Yoshiaki Nemoto	Outside Director, Independent Director	Information engineering, ICT, disaster preparedness
Audit & Supervisory Board members	Kakuji Takano	Outside Audit & Supervisory Board Member, Independent Director	Finance & Accounting (certified public accountant)
	Nobuaki Kato	Outside Audit & Supervisory Board Member, Independent Director	Corporate management
	Akira Yamashita	Outside Audit & Supervisory Board Member (full-time), Independent Director	Administration & Regulations

Arbitrary Nomination Committee and Remuneration Advisory Committee

- KDDI establishes a Nomination Advisory Committee and a Remuneration Advisory Committee as advisory committees for the Board of Directors.

Internal	
	Tadashi Onodera
	Takashi Tanaka

Chairperson

Internal 2

Outside Directors 5

Outside Directors	
	Goro Yamaguchi
	Nobuyori Kodaira
	Shinji Fukukawa
	Kuniko Tanabe
	Yoshiaki Nemoto

- An outside director chairs these advisory committees and over half of the members of each committee are outside directors.

- Reviews by outside directors ensure transparency for investors and other stakeholders.

■ Promote active information sharing and opinion exchange through periodic meetings in addition to board meetings

➢ Liaison meeting with outside directors
- To facilitate coordination, hold monthly meetings with the primary members being outside directors
- Group participants into management, Audit & Supervisory Board members, and part-time Audit & Supervisory Board members to promote information sharing within the groups and among all outside directors

➢ Liaison meeting with part-time Audit & Supervisory Board members
- Set up periodic meetings with part-time Audit & Supervisory Board members and representative directors
- Exchange opinions over an extensive range of topics in order to deepen mutual recognition with representative directors

➢ Sharing R&D information
- Introduce the R&D Results Publication by the Technology Division and KDDI Research Inc.
- Introduce the industry's front-line technology development and research activities

Evaluation of the Effectiveness of the Board of Directors

- Review the effects of activities and work on discovering points that need improvement through self-evaluation by directors and Audit & Supervisory Board members

[Key evaluation items]

  - Operation of the Board of Directors (including composition, documentation and explanations, provision of information, etc.)
  - Management supervision (including conflicts of interest, risk management, and management of subsidiaries, etc.)
  - Medium to long term discussions (examination in medium-term management planning, monitoring of plan execution, etc.)

- Ensure improvements in points of issue that surfaced as a result of previous-term evaluation: the need to discuss long-term business prospects as well as strategies, including policies to respond to changes in business environment, and expansion of information sharing with outside directors and outside Audit & Supervisory Board members

- Matters that received high ratings in evaluation of this term

  - Discussions were held from wide-ranging, diversified viewpoints, involving outside directors and outside Audit & Supervisory Board members with extensive experience in different fields.
  - Speech time is sufficiently ensured for outside directors and outside Audit & Supervisory Board members so as to give due weight to their opinions and questions.

Incentives for Increase of Corporate Value

■ Started the performance-linked stock remuneration plan in 2015 with the aim to improve correspondence with business performance

Performance-linked portion

17%

22%

61%

Composition of director's remuneration

■ Fixed remuneration
■ Bonus
■ Stock remuneration
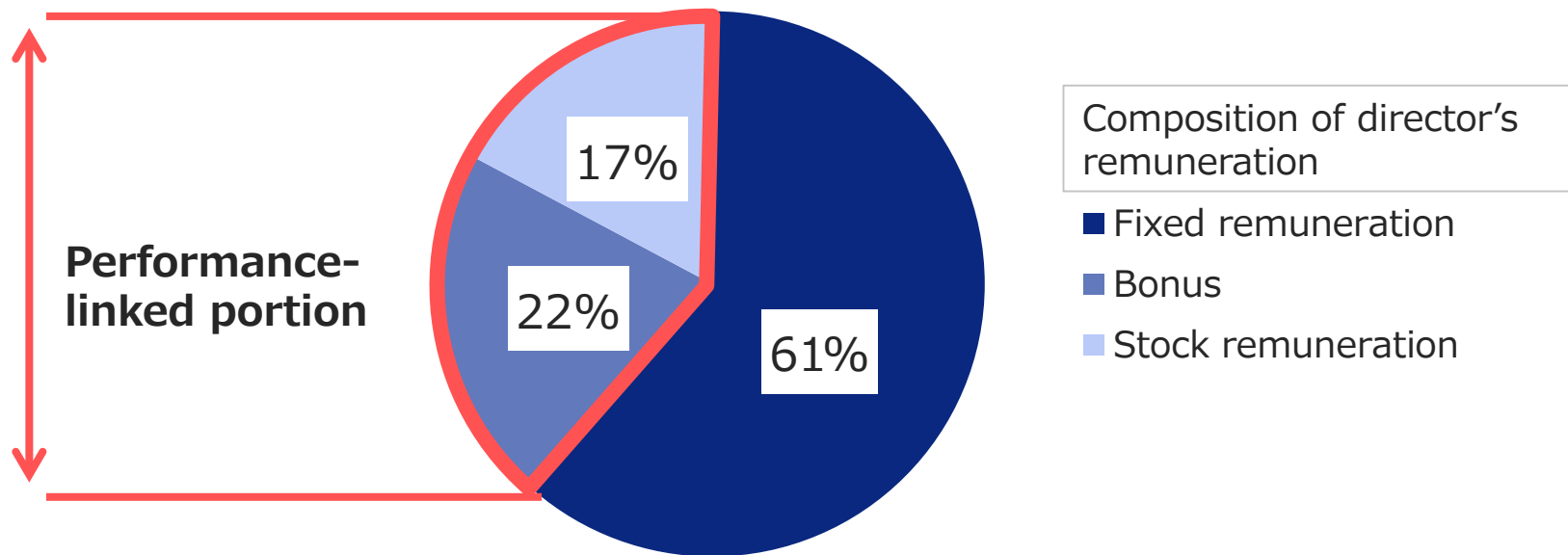
■ Same remuneration plan is applied to managerial employees to share common incentives among executives and employees for increased corporate value

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2	Efforts for Outside Directors to Effectively Function
3	**Near-future Efforts**

Near-future Efforts

- Promote coordination between outside directors, Audit & Supervisory Board members, and accounting auditors

- Enrich the discussions on medium to long term business strategies
  - Discuss next term's medium-term management plan with all board members, including outside directors and Audit & Supervisory Board members
  - Have multiple discussions prior to announcement, and formulate medium to long term growth strategies and management policy, drawing on the expertise of outside directors
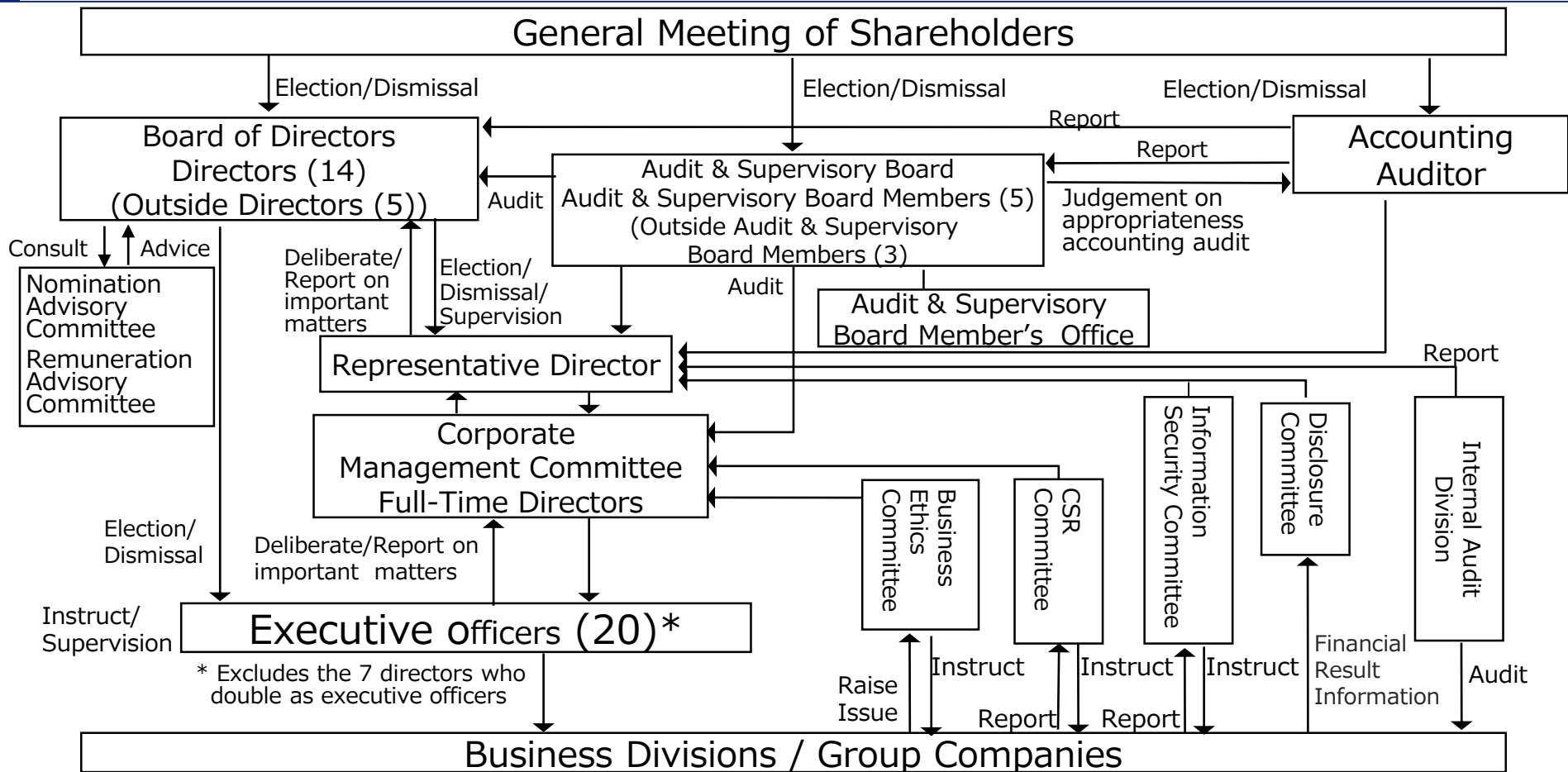
Implementation of
- **Sustainable growth**
- **Increase of corporate value over the medium to long term**

(Reference) Corporate Governance Framework