

Fiscal Year Ended September 2018

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# Mitsubishi Research Institute Group Report 2018

# Management Philosophy

The Mitsubishi Research Institute Group (MRI Group) uses its strengths and carries out business activities based on its unique expertise to contribute to the development of the 21st century civilization.

**1**

## Use wisdom and information to contribute to society

We constantly strive to be a knowledge-creation company, contributing to the prosperity of our customers as well as society.

**2**

## Maintain integrity and fairness in business activities

We maintain the utmost social trust and faith from our customers by pursuing integrity and fairness in business activities.

**3**

## Apply integrated strengths by combining the ability of diverse individuals

We demonstrate comprehensive competence as an organization by encouraging each employee to fulfill their individual goals using advanced, specialist skills and by combining the ability of diverse individuals.

### Business mission – Co-creating the future

We are leading the way by co-creating a brighter future alongside clients, aiming to achieve the sustainable development of local communities, corporations, and society at large.

#### 1. Explore and predict the future

Use our think tank function to map out concepts for customers

#### 2. Develop concrete policies for the future

Use our consulting function to show customers the way ahead

#### 3. Realize the future

Use our IT solution function to make the future a reality for customers

#### Editorial Policy/Caution Concerning Forward-Looking Statements

This report was produced to provide information about our financial results in the fiscal year ended September 2018 and our management strategies for the future. We also hope that it will contribute to improvement in our corporate value by enhancing our social reputation through the disclosure of information about the state of our business activities from the perspective of contributing to the solution of societal issues as a way of ensuring management transparency. In line with these aims, we have published this document, using the International Integrated Reporting Council (IIRC) framework for reference, as a tool for communication with our stakeholders, including society, clients, shareholders, and employees.

This report was not published for the purpose of soliciting investment in marketable securities, and Mitsubishi Research Institute, Inc. makes no guarantee or undertaking whatsoever. All opinions and forecasts stated in this report are judgments by Mitsubishi Research Institute, Inc. at the time when this report was compiled, and we provide no guarantee or undertaking as to the accuracy of this information. Our future financial results may differ from our forecasts.



When more detailed information is available on our website, this symbol is followed by the URL for the corresponding page.

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## Message from Management



The Mitsubishi Research Institute Group (MRI Group) is working to resolve societal issues by upholding its management philosophy, which states: "Use wisdom and information to contribute to society," and by using the extensive expertise and networks it has developed through its many years of experience. Our mission is to co-create a brighter future alongside clients, aiming to achieve the sustainable development of local communities, corporations, and society at large.

In recent years, societal issues have become increasingly complex and diverse, and there have been various disruptive changes as a result of progress in science and technology and changes in values. Fundamental solutions must be handled by fusing a wide range of concepts, ideas, wisdom, and technologies.

Amid these uncertain times, the MRI Group is prepared to exercise its leadership as an integrated think tank based on the principles of foresight, neutrality, and interdisciplinary investigation by offering comprehensive solutions.

With the MRI Group celebrating its 50th anniversary in 2020, we are creating a brighter future under the banner of "Think and Act."

We look forward with gratitude to your continued support.

**Takashi Morisaki**  
President and Representative Director  
Mitsubishi Research Institute, Inc.

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# MRI Group Profile

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# History of the MRI Group

## 1970s

**Introduction and establishment of think tank functions in Japan**

- ▶ MRI was founded in commemoration of the centenary of the Mitsubishi Group (1970).

- ▶ MRI begins offering policy recommendations based on global perspectives (joint research with Japanese, US, and European think tanks)
- ▶ Launch of permanent multi-client macroeconomic project
- ▶ Development of global supply-demand models for food and ships
- ▶ Introduction and use of large-scale linear structural analysis program (NASTRAN) developed by U.S. National Aeronautical and Space Administration (NASA)
- ▶ Diamond Computer Service (now Mitsubishi Research Institute DCS) was established

1970



Employees (MRI)  
164



Net sales (MRI)  
600 million yen

## 1980s

**Involvement in critical projects leading to domestic and foreign development**

- ▶ Planning study for design of operation management system for the Suez Canal
- ▶ Projects related to airport improvement, new Shinkansen lines, and domestic infrastructure improvement
- ▶ Research and development of artificial intelligence and expert systems
- ▶ Participation in advocacy for the establishment of Global Infrastructure Fund (GIF)
- ▶ Introduction of CRAY-1 (supercomputer)

1980



Employees (MRI)  
445



Net sales (MRI)  
6.5 billion yen

## 1990s

**Expansion of policy formulation support activities**

- ▶ Study of promotion of intelligent transportation systems (ITS)
- ▶ Study and research of global warming countermeasure policy
- ▶ Formulation of new energy and energy conservation vision
- ▶ Earthquake damage estimate study
- ▶ Development support for systems that use GPS data
- ▶ Established Research Laboratory for Advanced Science and Technology to carry out experimental research.
- ▶ Established Global Environmental Research Center and Safety Engineering Research Center

1990



Employees (MRI)  
733



Net sales (MRI)  
17.8 billion yen

1970

1980

1990

## 2000s

Fully entered IT solutions business for co-creation of future society

- ▶ Mitsubishi Research Institute DCS converted into Group company (2005)
- ▶ Listing on second section of Tokyo Stock Exchange (2009)

- ▶ Fully entered IT solution business
- ▶ Support for design of new social systems through investigations of regulatory relaxation and private business opportunities
- ▶ Research and development regarding next-generation internet protocol (IPv6)
- ▶ Human genome analysis research, etc., advanced scientific research and promoting industrial applications
- ▶ CO<sub>2</sub> emission rights trading verification experiment
- ▶ Establishment of a committee to make recommendations on the society of the future
- ▶ Establishment of the Business Solutions Division

## 2010s

Conceptualization and implementation as a “Think & Act” Tank

- ▶ Listing on first section of Tokyo Stock Exchange (2010)

- ▶ Support for earthquake restoration projects (decontamination, reactor decommissioning, area reconstruction, Fukushima Innovation Coast Framework)
- ▶ Investing in mega-solar power generation projects
- ▶ POC (Proof of Concept) of “AI staff,” general inquiry response services by AI engine, conducted in conjunction with local government
- ▶ Financial institution market international operation support solution project
- ▶ Study using Market Intelligence and Forecast system based on a 2000-question survey of 30,000 people
- ▶ Launch of Platinum Society Research Association with the aim of finding solutions to societal issues
- ▶ Launch of Innovation Network for Co-Creating the Future for resolving societal issues through business activities

### 2000



Employees (MRI)  
880



Net sales (MRI)  
28.4 billion yen

### 2010



Employees  
(MRI Group)  
3,159



Consolidated  
Net Sales  
73.3 billion yen

### 2018



Employees  
(MRI Group)  
3,918



Consolidated  
Net Sales  
90.2 billion yen

\* Scale expansion due to addition of MRI DCS to the Group

2000

2010

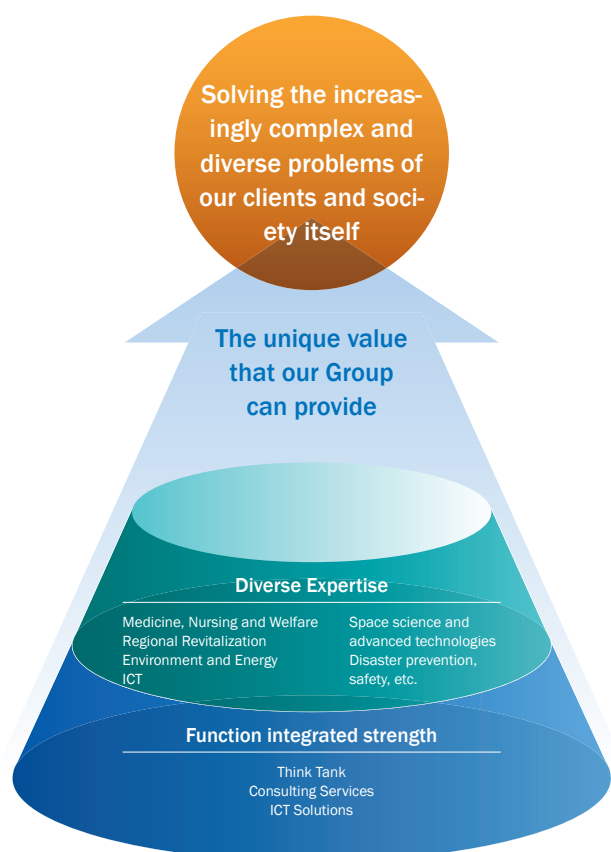
# Features of the MRI Group

Mitsubishi Research Institute, Inc. (MRI) was founded in 1970 in commemoration of the centenary of the Mitsubishi Group. Since then, the MRI Group has played a trail-blazing role in a wide range of fields, from economics and corporate management to policy and public affairs, science and technology. In addition to its think tank and consultation services, including surveys, research and policy

formation, as well as support for corporate strategy, the MRI Group partners with Mitsubishi Research Institute DCS to deliver ICT solutions. We have consequently established an outstanding reputation as a comprehensive think tank group with the ability to provide integrated solutions for the problems clients and all of society face.

## Problem-Solving through Integrated Strengths

The problems faced by clients and society itself are becoming increasingly complex and diverse, making it difficult to solve them by leveraging individual fields and functions alone. The MRI Group possesses high-level professional strengths in the think tank service, consulting services, and ICT solutions fields, and synergistically combines them to produce integrated strength which is our greatest feature.



### Diverse Professional Strengths

The MRI Group has numerous versatile and highly skilled professionals. The MRI Group provides clients with optimal solution measures by making use of its broad-ranging think tank research track record, as well as using diverse methods in consulting services and ICT solutions. We also actively leverage leading technologies, systematically developing human resources based on close observations of societal and technological trends.

### Leveraging Integrated Strengths

The MRI Group maintains a well-balanced set of specialized capabilities in the areas of think tank and consulting services, and ICT solutions. We provide these in a centralized and consistent form in order to solve challenges. One of our strengths is that we are able to combine diverse professional strengths and provide them as consistent solutions. This is the wellspring of our integrated strengths. The ability for any one organization to meet the world's increasingly diverse needs is limited, and attempting to take on all challenges alone results in decreased efficiency. This is why we also work with outside partners to bring even greater integrated strengths to bear. We also increase our ICT solution function diversity, handling capabilities, and product development strengths by working not only with Mitsubishi Research Institute DCS, but also with our capital and business partner, Japan Business Systems, Inc. and others.

Consolidated subsidiaries  
(As of October 1, 2018)

**11** companies

Affiliated companies

**5** companies

Number of employees (consolidated)  
(As of September 30, 2018)

**3,918**



## Highly Skilled Professionals

The MRI Group's most important management resource is our diverse line-up of highly skilled professionals. In addition to their exceptional skills and expertise in their fields of expertise, they have broad perspectives, encompassing social and technological trends, to develop solutions.

At MRI, professionals in fields that include medicine, nursing, welfare, regional revitalization, the environment

and energy, disaster prevention and safety, space science and advanced technology, and ICT and big data engage in multidisciplinary collaboration.

Professionals working for Mitsubishi Research Institute DCS have broad experience in information systems and project management and are able to reach solutions for ICT-related problems.

### Research Areas of Specialization

(Mitsubishi Research Institute, non-consolidated, as of September 30, 2018)

Total researchers: **761**

#### Natural science: **554**

Machinery, Aerospace	49
Electricity, Telecommunications	32
Information, System science	53
Construction, Civil engineering, Urban engineering	78
Energy, Nuclear power, Physics	85
Chemistry, Biology, Agriculture, Forestry, Geology	63
Mathematical engineering, Mathematics	25
Administration engineering, Management engineering	41
Resources, Materials, Metals	18
Environmental engineering, Environmental study	72
Others	38

#### Social science: **207**

Economics	45
Management, Commerce	33
Law, Political science, Policy	60
Society, Education	34
Others	35



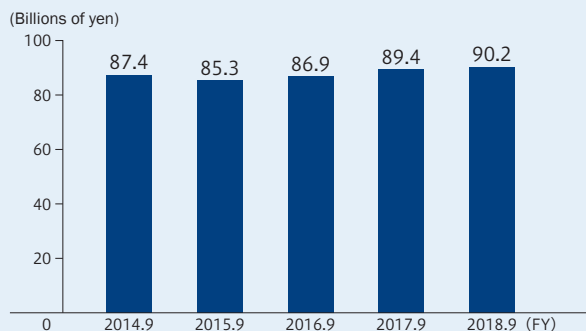
### Information-Technology Engineers Examination (ITEE) Qualifications

(Mitsubishi Research Institute DCS, non-consolidated, as of October 2018)

IT strategists	24
Systems architects	84
Project managers	64
Network specialists	70
Database specialists	68
Embedded systems specialists	2
IT service managers	19
Information security specialists	131
System auditors	21
Applied information technology engineers	612
Chief telecommunications engineers	10
IT Coordinators	16
Project management professionals	174

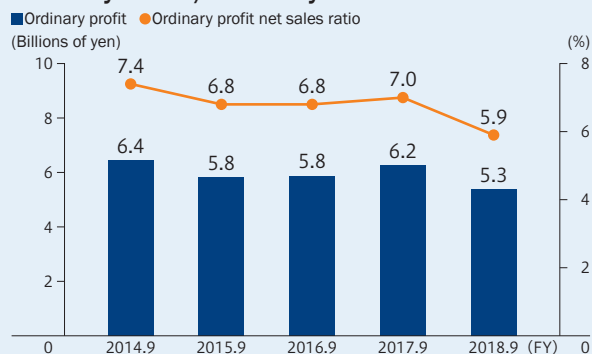
# Financial Highlights (consolidated)

## Net Sales



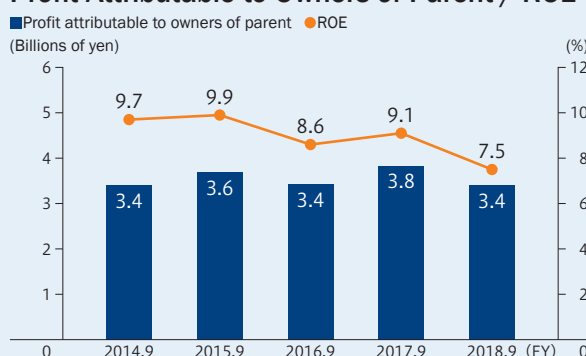
We have positioned the public sector and the financial and credit card sector as our core business areas that solidly support MRI's business. In addition, as growth businesses, we also provide consulting and ICT solutions that cut across the public and private sectors using systems and government policies in the public sector as a starting point. As a result, we have increased revenue for three consecutive years.

## Ordinary Profit / Ordinary Profit Net Sales Ratio



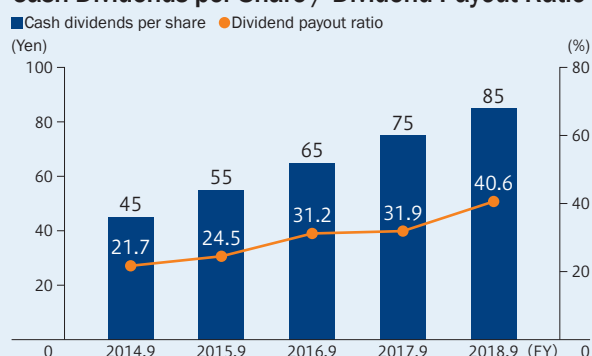
In the fiscal year ended September 2018, a large system development project we undertook required quality improvement measures. This resulted in the recording of provision for loss on order received, reducing our ordinary profit and ordinary profit net sales ratio.

## Profit Attributable to Owners of Parent / ROE



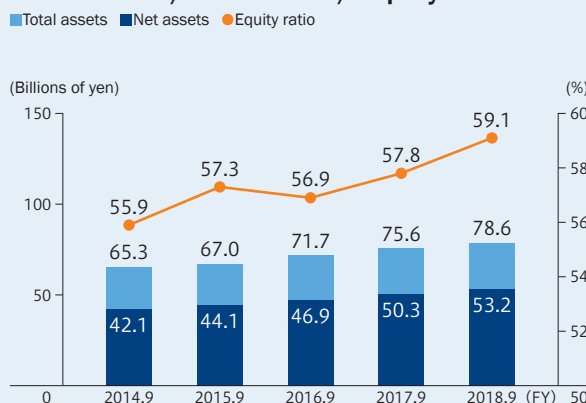
In the fiscal year ended September 2018, we were affected by provision for loss on orders received, but maintained a steady ROE of roughly 9%. In the fiscal year ended September 2020, the last year of our Medium-term Management Plan, we forecast an ROE of 10%.

## Cash Dividends per Share / Dividend Payout Ratio



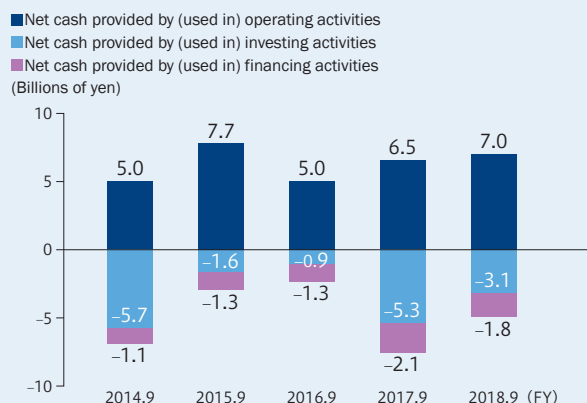
Our policy on shareholder returns is to maintain a stable dividend, while also working to raise the level of dividends after taking into account a comprehensive range of factors, such as earnings performance and the financial soundness.

## Total Assets / Net Assets / Equity Ratio



The increase in retained earnings and valuation difference on available-for-sale securities caused net assets to reach 53.2 billion yen in the fiscal year ended September 2018. Our equity ratio stood at 59.1%, and we are maintaining our healthy financial standing.

## Cash Flows

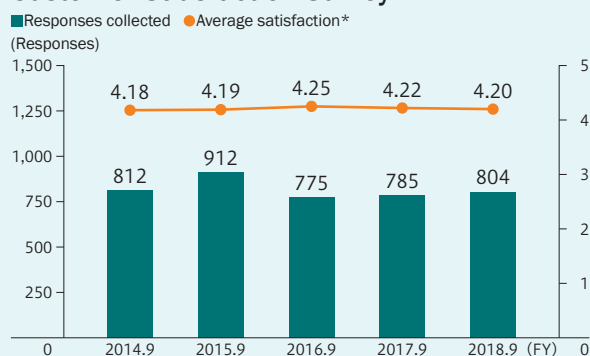


Cash provided by operating activities in the fiscal year ended September 2018 was 7.0 billion yen. In order to achieve sustained growth, we are considering our balance of cash flow and strategic investment while increasing our cash flow generation capabilities.

Note: Amounts of less than 100 million yen have been rounded down.

# Non-financial Highlights (Mitsubishi Research Institute, non-consolidated)

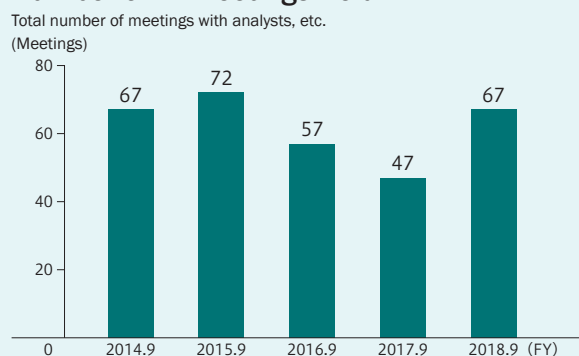
## Customer Satisfaction Survey



We support a wide range of customers, from government and public offices to private sector companies. Customers expect much from us, and although they demand extremely high levels of output, they are generally extremely satisfied with us.

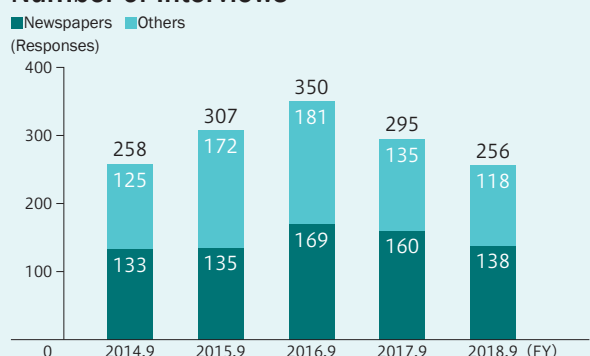
\* Scale of one to five

## Number of IR Meetings Held



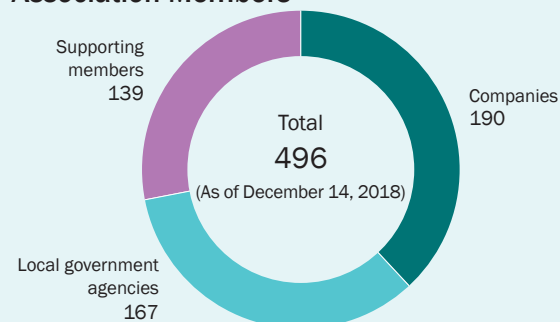
Throughout the year, we actively hold IR meetings. At these meetings, not only do we provide financial information, but also share the MRI Group's strengths, fostering a deeper understanding of MRI and its position in the capital market. We also share the comments from meeting participants within our company.

## Number of Interviews



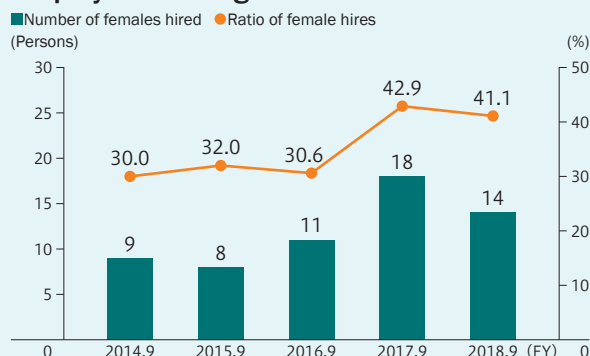
Another role we are called on to carry out is providing information to society. We actively accept media interview requests. We will continue to provide opinions and proposals regarding issues and conditions in Japan and overseas, based on the expertise we have developed since our company was founded.

## Number of Platinum Society Research Association Members



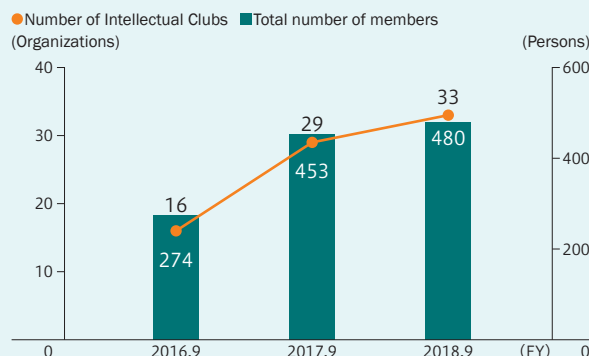
Since the Platinum Society Research Association was founded in April 2010, members of industry, academia, and the public sector have collaborated to develop and propose a Platinum Society model. The Association provides members from various sectors opportunities to engage in free and easy discussions and work together towards the creation of a Platinum Society. The Association now has 496 members (see Page 36 for details).

## Number and Percentage of Female Employees among New Graduate Hires



We strive to create diverse workplaces and are highly focused on actively hiring female. In order to maintain our competitiveness, we will continue to hire diverse, exceptional personnel and create good workplace environments.

## Number of Intellectual Clubs/Intellectual Club Members



We have created an "Intellectual Club" system to promote autonomous research by employees. This system supports the intellectual growth of employees through autonomous research conducted by groups of employees that gather across departmental and seniority lines. As of the end of the fiscal year ended September 2018, a total of 480 employees have participated in this system.

# Value Creation Strategy

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# Message from Management

## Looking Back on My Appointment

When I joined Mitsubishi Research Institute in September 2016, it was a time when the Rio 2016 Summer Olympic Games and Paralympic Games were successfully completed, and the world was paying attention to the future of the US presidential election. The balance of power was changing and the world was shifting with the declining influence of developed nations and the growth of emerging nations. I thought about how the world was changing, and what course Japan should plot amidst these changes. We were about to start the third year of Medium-term Management Plan 2017 launched in October 2014. What I learned after joining the company was that our think tank was an even greater storehouse of specialized knowledge than I had imagined, and we had specialists from every field. I decided that the fastest way to gain an understanding of the company was to talk directly with employees. I created opportunities to engage in casual discussion with groups of roughly 10 employees in the evening. Over the course of one year, I was able to speak to almost every one of our employees. These natural discussions allowed me to see the characters and ways of thinking of each employee. I also gradually gained an understanding of the roles I needed to fulfil as the company's president, the future that we needed to aim for, and the challenges we face in achieving our vision.



**Takashi Morisaki**

President and Representative Director  
Mitsubishi Research Institute, Inc.



At the same time, we worked on formulating our Medium-term Management Plan 2020, a three-year plan to be launched in October 2017 and ending on our 50th anniversary. The plan sought to maintain our fundamental principle of seeking sustainable growth of individuals and the organization while aiming to create greater and faster growth. The pillars of the plan were business portfolio reforms, business model reforms, and work style reforms. Numerous ideas offered by many employees were incorporated throughout our work style reforms. I am sure that Medium-term Management Plan 2020 reflects the sentiments of our employees.

### **The Environment Surrounding the MRI Group**

Due to factors such as income disparities and immigration issues, in many countries there is a rising tide of placing the greatest priority on national interests, resulting in greater uncertainty in both domestic affairs and diplomacy. The international order that has been supported by so many countries in the past is now starting to shake. This is a great cause of concern about the future.

However, at the same time, many countries, companies, and non-profit organizations are supporting worldwide global warming countermeasures and the UN's Sustainable Development Goals (SDGs). The movement to resolve global societal issues is a ray of light for the future of society.

In this era of future unpredictability, it is vital that we be able to discern the correct information from the flood of information that is available, structure that information, and create a vision for the future of society. We must then use all of our wisdom to think about how we can achieve that vision and create a roadmap.

The MRI Group has polished its abilities to forecast the future through the think tank organization at its core. We analyze political, economic, social, and technological macroenvironments and megatrends from a bird's eye perspective and systematically organize the societal issues that must be resolved. We then select the societal challenges to be tackled and propose solutions from the perspectives of both business and policies & systems.

In recent years, in addition to formulating future visions, we have also been sought to provide support for the implementation and achievement of these visions. It is precisely because we live in times in which the future is uncertain that concrete roadmaps for the future are desired. The number of clients that believe this is steadily growing.

In our business activities, we are also being pressed to provide integrated solutions that encompass everything from conceptualization to realization and implementation. This approach, starting from conceptualization and progressing through implementation, is a modern need, and we have resolved to meet this need through our philosophy of "Think & Act." Our integrated strengths, which are what enable us to do this is the MRI Group's advantage, and source of our contributions to society.

It is my duty to raise the level of each of the fields that make up our integrated strength, while at the same time demonstrating the reality of these integrated strengths, not simply by adding them together, but by enhancing synergy. We leverage our integrated strengths to our fullest as we "Think & Act." We will continue to use our unique presence to tackle societal issues through our business activities.

## MRI Group Strengths and Opportunities

The mission of the MRI Group is to co-create an ideal future society. We maintain the philosophy of "Better Information - Brighter Future" that we advanced when our company was founded in 1970, but have elevated it to "co-creating the future" as we strive tirelessly to resolve societal issues.

As a think tank, we employ roughly 800 experts and specialists in total, who have a high level of expertise in a broad range of fields, focusing in the natural sciences. Our greatest feature and strength is the large number of consultants and researchers with exceptional technical expertise and analysis abilities. Our neutral position has also enabled us to develop an extensive network with members of industry, academia, and government, serving as a hub that connects them. Today's times call for integrated knowledge, bringing together expertise from various fields. We strive to serve as a platform for societal change.

Mitsubishi Research Institute DCS provides the IT services that are vital for our "Think & Act" approach. We hire numerous certified information technology engineers, and our strengths include a wealth of finance and other ICT solutions. Financial institution systems must be robust, and Mitsubishi Research Institute DCS has the corresponding technical capabilities and experience to reliably provide that robustness. We serve as the launch board for our advanced information system technologies and solutions, which use technologies such as cloud computing and artificial intelligence. We play an important role, contributing to the MRI Group's integrated strengths.

Another crucial technique that is essential in our resolving societal issues through our "Think & Act" approach is open innovation. We don't limit ourselves to our own management resources, but make full use of networks with members of industry, academia, and government in Japan and abroad. This enables us to develop diverse and innovative solutions. Two years ago, we launched our Innovation Network for Co-Creating the Future. Through collaboration with outside partners, we engage in activities that are not limited to our own business, but a broad range of social innovations and solutions to societal issues through business activities.

The changes brought about by time will create and bring opportunities for the MRI Group's business. We are sure that it is precisely during these rapidly changing times that there will be a growing number of opportunities for us to show our strengths in trailblazing roles. We strive to increase corporate value by achieving continuous group business growth and contributing to the co-creation of the society of the future.



## Medium-term Management Plan 2020

The MRI Group is currently implementing the strategies of the Medium-term Management Plan 2020 (Plan 2020), the background of the creation of this plan, and an outline of its contents are as follows.

Based on our foundation of trust, an intangible asset that we have built up over a half-century, we have steadily expanded our business activities while refining our quality. However, in these rapidly changing modern times, we have heightened our awareness of our own problems in terms of whether our strengths and features, namely our conceptualization and policy recommendation capabilities have been fully exploited or whether contributions to society have been sufficient.

This is why we launched our government-industry co-creating solutions business as a business area that enables us to further utilize our integrated strengths. This business is aimed at areas that link or encompass public policies and private business.

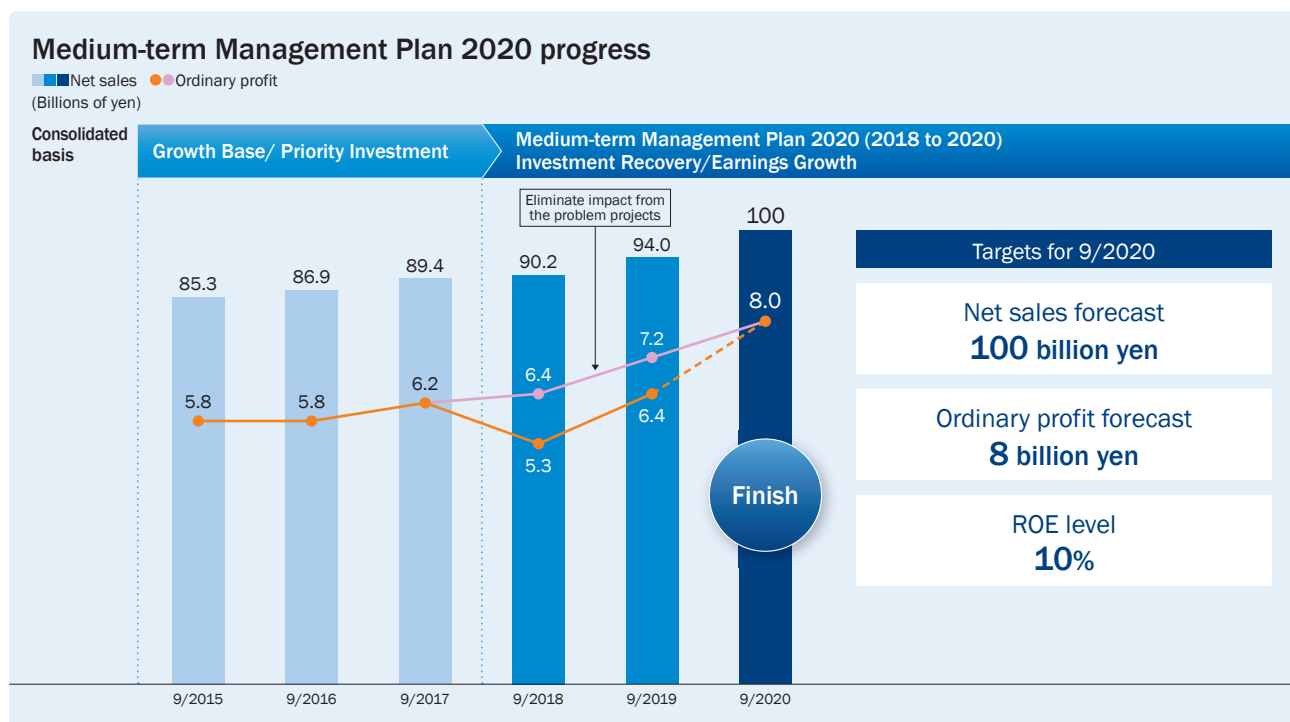
There are numerous areas in which the MRI Group can play a central role in shifting from the public to private sector, such as privatization, moving from the private

sector to the public sector in order to turn transformation into a major trend, or developing new technologies and businesses through collaboration between the public and private sectors.

The measures used to do this have been arranged into "three great reforms" within Plan 2020. These three great reforms are business portfolio reforms, business model reforms, and work style reforms.

Each of these reforms is, of course, important on its own, but by promoting all three of them together, we can confidently achieve our "Think & Act" approach on an elevated level.

Work on the three great reforms has gotten off to a smooth start, but we will not allow ourselves to become complacent; instead, we will further accelerate our reforms. In the fiscal year ended September 2020, the last year of Plan 2020, we seek to achieve 100 billion yen in net sales, 8 billion yen in ordinary profit, and ROE of 10%. All of the MRI Group's officers and employees will inspire each other to reach new heights as we work to establish "Think & Act" throughout the world and steadily transform society.







## Business Portfolio Reforms

The main goals of our business portfolio reforms are restructuring and enhancing business, under the classifications of growth business and core business, concentrating on our core competencies. We reviewed each business line, and clearly defined and allocated our resources.

The MRI Group has developed a solid reputation for our public sector services and financial institutions services. We plan to use these business areas as our foundation while cultivating new business areas, aiming at the three business areas of government-industry co-creating solutions business, private sector business, and global business. We have already been focusing on the private sector and global business, but had a vague growth strategy or insufficient allocation of resources. To redress this, in Plan 2020 we have clearly positioned them as growth businesses, and reflected this in specific plans, which we are steadily carrying out. One example for government-industry co-creation is energy business consulting, in which energy policy specialists and rail and transport industry specialists work together to enable rail operators to best leverage their facilities and expertise. As part of electricity liberalization,

from April 2020 power companies will be required to separate their power generation/retailing divisions and their power distribution divisions. Enquiries are increasing from a broad range of clients, not limited to major power companies. The MRI Group plans to achieve major growth in this sector through measures that only we are capable of.

## Business Model Reforms

The second reform is business model reforms. We throw off the conventional closed approach, instead collaborating and coordinating with a wide range of outside partners to improve the scope, scale, and speed of our business. The goal of this collaboration with partners is not only to expand our existing business, but also to create new business and services through innovation.

To achieve innovation, the expertise of not only large companies, but the technical strengths of startups is necessary as well, so we plan to stay attentive and attuned and engage in a wide range of collaborations.

One of our collaborations using advanced technologies is PRaiO. It is an initial scoring service of application forms developed together with Mynavi Corporation. This service uses AI to support corporate hiring activities. It is already officially being used in 50 or more companies, and is in trial use by a total of over 230 companies. Also, the digital local currency project we have developed together with Kintetsu Group Holdings Co., Ltd. and Chaintope Inc., with blockchain technology expertise, has gone through rounds of verification experimentation, and we are preparing for full-time operation in fiscal year 2019.

## Work Style Reforms

The third reform is work style reforms. We are carrying this reform out from the perspective of human resource development and career promotion, and from the perspective of workstyles. In terms of human resource development and career promotion, the value created by the MRI Group comes as each and every employee thriving and fully leverages their abilities. We recognize this as one of our most important management issues. Also, diversity is vital. Not only is it important that we increase the number of women and foreigners working in the MRI Group, but we must also utilize the full potential of our specialized human resources.

We have steadily raised the level of our mid-level female employees, in whom we place great confidence. We also expect to achieve our goals of appointing women executives shortly.

With regard to work styles reforms, we are enriching our IT deployment and introducing teleworking to make work styles much more productive and efficient. The time freed up by our work style reforms creates greater work-life balance, enabling employees to use the time for human resource development, research and development, and time spent with their families. Work style reforms are important elements in changing our organization culture, and we will continue to actively implement reforms.

## Risk Management and Governance

I have discussed the medium-term management plan and our three great reforms, but for sustainable corporate growth, paying attention to offensive approaches (in the form of business), and defensive approaches (in the form of management) is essential.

Quality and deadlines are the wellsprings of the trust placed in the MRI Group, and can be considered our greatest group-wide management topic. For system development, in particular, problems can have tremendous management and business impacts, so it is vital that process quality be managed for every project. Of course, no matter how well-defined rules may be, they are implemented by people, so, needless to say, continuous employee education is also important.

Employee compliance education is also an important issue. Due to the nature of the work carried out by the MRI Group, we must pay great attention to intellectual property rights and information security, and thoroughly implement compliance measures tailored to our business characteristics. As the level of compliance expected of the MRI Group increases every day, going forward, we will continually work to enhance the level of compliance.

Governance is also a key management issue, and requires multifaceted improvement based on our Corporate Governance Code (CGC). MRI has established a Governance Advisory Committee that evaluates the effectiveness of the Board of Directors. The findings of the committee are described in a corporate governance report. MRI observes all items of the CGC (full compliance), however, at times, we will conduct reviews to respond to changes in the external environment, and will continue to work to make improvements in our corporate governance.

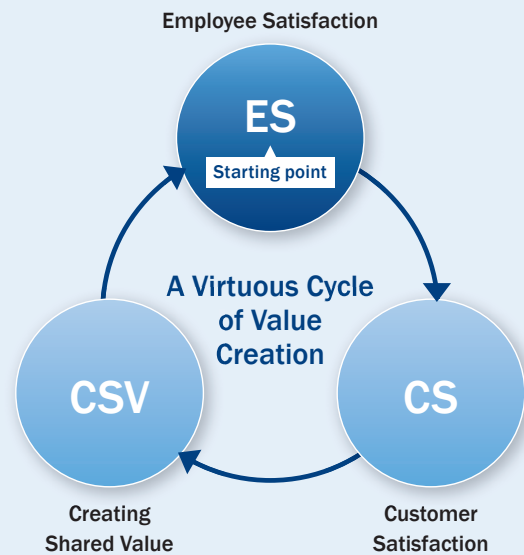
## Looking to the Future

We and the Mitsubishi Research Institute DCS will celebrate our 50th anniversary in 2020.

We have fulfilled our mission for the past 50 years, and we believe that "sustainable growth of individuals and the organization" will be essential for us to continue to fulfil this mission for the next 50 years.

People create organizations. Organizations nurture people. The greatest management resource of the MRI Group is our employees, and we will create a virtuous cycle in which employees and organization push each other to new heights. Our business activities are, in themselves, contributions to society, and we believe it is our mission to co-create a more affluent society through these activities. We will steadily advance both our think tank social mission of "co-creating future" and our business, boldly taking on new challenges in order to create continuous development and a brighter future for society, communities, and companies.

### A Virtuous Cycle of Value Creation





# Directors and Senior Management

Directors			
Name	Positions and Responsibilities at the Company	Attendance at Board of Directors meetings	Main Business Experience
<b>Kyota Omori</b> 	Chairman of the Board	100% (9 out of 9 meetings)	<b>[Career summary]</b> Joined The Mitsubishi Bank, Ltd. in April 1972. Deputy President of Mitsubishi UFJ Financial Group, Inc., President and Representative Director of the Company in December 2010. Chairman of the Board and Representative Director of the Company in December 2016. Chairman of the Board of the Company in December 2017 (incumbent).
<b>Takashi Morisaki</b> 	President and Representative Director Officer in Charge of Internal Audit Office	100% (9 out of 9 meetings)	<b>[Career summary]</b> Joined The Mitsubishi Bank, Ltd. in April 1978. Deputy President of The Bank of Tokyo-Mitsubishi UFJ, Ltd., Executive Vice President and Executive Officer of the Company in October 2016. President and Representative Director of the Company in December 2016 (incumbent).
<b>Shigeaki Yoshikawa</b> 	Executive Vice President and Representative Director, Officer in Charge of Business Management, Responsible for Research Center for Policy and Economy, Marketing and Sales Division, West Japan Marketing and Sales Division, and Global Business Division	100% (9 out of 9 meetings)	<b>[Career summary]</b> Joined Mitsubishi Corporation in April 1977. Executive Vice President and Regional CEO, Middle East & Central Asia of Mitsubishi Corporation. Executive Vice President and Representative Director, General Manager, Enterprise Management Unit of the Company in December 2016. Executive Vice President and Representative Director of the Company in October 2017 (incumbent).
<b>Takehiko Matsushita</b> 	Managing Director and Representative Director General Manager, Corporate Administration Unit	100% (9 out of 9 meetings)	<b>[Career summary]</b> Joined the Company in January 1989. Personnel Division Manager and Corporate Planning Division Manager. Director and Executive Officer in December 2011. Managing Director and Representative Director, General Manager, Corporate Administration Unit of the Company in December 2016 (incumbent).
<b>Nobuo Kuroyanagi*</b> 	Outside Director	89% (8 out of 9 meetings)	<b>[Career summary]</b> President & CEO of Mitsubishi Tokyo Financial Group, Inc. and President of The Bank of Tokyo-Mitsubishi, Ltd. in June 2004. Director of the Company in December 2009 (incumbent). <b>[Important concurrent positions]</b> Senior Corporate Adviser of MUFG Bank, Ltd., Outside Director (Audit and Supervisory Committee Member) of Mitsubishi Heavy Industries, Ltd., Outside Director of Tokio Marine & Nichido Fire Insurance Co., Ltd., Outside Corporate Auditor of Tokyo Kaikan Co., Ltd.
<b>Mikio Sasaki</b> 	Non-Executive Director	89% (8 out of 9 meetings)	<b>[Career summary]</b> Member of the Board, President & CEO of Mitsubishi Corporation in April 1998. Director of the Company in December 2010 (incumbent). <b>[Important concurrent positions]</b> Senior Corporate Adviser of Mitsubishi Corporation, Outside Director of Tokio Marine Holdings, Inc.
<b>Kazuo Tsukuda*</b> 	Outside Director	89% (8 out of 9 meetings)	<b>[Career summary]</b> President and CEO (Member of the Board) of Mitsubishi Heavy Industries, Ltd. in June 2003. Director of the Company in December 2010 (incumbent). <b>[Important concurrent positions]</b> Senior Corporate Adviser of Mitsubishi Heavy Industries, Ltd., Outside Director of Keihan Holdings Co., Ltd., Outside Director (Audit and Supervisory Committee Member) of Yamaguchi Financial Group, Inc., Outside Director of FANUC CORPORATION.
<b>Taga Sota*</b> 	Outside Director	100% (9 out of 9 meetings)	<b>[Career summary]</b> Registered as an attorney and joined Sakaki Tadatsune Law Firm in April 1967. Established Sota Law Office in April 1975 (incumbent). Chairperson of JAPAN WOMEN'S BAR ASSOCIATION in June 2008. Director of the Company in December 2012 (incumbent). <b>[Important concurrent positions]</b> Representative of Sota Law Office

\* Nobuo Kuroyanagi, Kazuo Tsukuda, and Taga Sota are Outside Directors as defined in Article 2 Item 15 of the Companies Act.



(As of December 20, 2018)

Audit & Supervisory Board Members			
Name	Positions and Responsibilities at the Company	Attendance at Board of Directors meetings	Main Business Experience
<b>Koichi Nishioka</b> 	Audit & Supervisory Board Member	100% (9 out of 9 meetings)	<b>[Career summary]</b> Joined the Company in April 1985. Concurrently Executive Officer and Vice-General Manager of the Corporate Administration Unit and the Manager of the Risk and Quality Management Division. Audit & Supervisory Board Member in December 2016 (incumbent).
<b>Michio Atsuda</b> 	Audit & Supervisory Board Member	—	<b>[Career summary]</b> Joined The Mitsubishi Bank, Ltd. in April 1982. General Manager, Credit Examination Office, Internal Audit Division of The Bank of Tokyo-Mitsubishi UFJ, Ltd., Executive Managing Officer of ACOM Co., Ltd., Audit & Supervisory Board Member of the Company in December 2018 (incumbent).
<b>Haruya Uehara*</b> 	Outside Audit & Supervisory Board Member	100% (9 out of 9 meetings)	<b>[Career summary]</b> President and Director of The Mitsubishi Trust and Banking Corporation in April 2004. Audit & Supervisory Board Member of the Company in December 2011 (incumbent). <b>[Important concurrent positions]</b> Senior Corporate Adviser of Mitsubishi UFJ Trust and Banking Corporation, External Director (Audit and Supervisory Committee Member) of NIKON CORPORATION, Outside Director of Koito Manufacturing Co., Ltd.
<b>Toshihiko Matsumiya*</b> 	Outside Audit & Supervisory Board Member	100% (9 out of 9 meetings)	<b>[Career summary]</b> Registered as Certified Public Accountant in March 1983. Established Toshihiko Matsumiya Certified Public Accountancy Office in October 2011 as representative (incumbent). Audit & Supervisory Board Member of the Company in December 2012 (incumbent). <b>[Important concurrent positions]</b> Representative of Toshihiko Matsumiya Certified Public Accountancy Office, Outside Audit & Supervisory Board Member of Daiichi Jitsugyo Co., Ltd., Independent Director (Audit/Supervisory Committee Member) of Terumo Corporation.
<b>Kenji Matsuo*</b> 	Outside Audit & Supervisory Board Member	89% (8 out of 9 meetings)	<b>[Career summary]</b> Director, President, Representative Executive Officer of Meiji Yasuda Life Insurance Company in December 2005. Audit & Supervisory Board Member of the Company in December 2015 (incumbent). <b>[Important concurrent positions]</b> Senior Corporate Adviser of Meiji Yasuda Life Insurance Company, Outside Director (Audit & Supervisory Committee member) of MUFG Bank, Ltd., External Auditor (Audit and Supervisory Board member) of Daido Steel Co., Ltd.

\* Haruya Uehara, Toshihiko Matsumiya, and Kenji Matsuo are outside corporate auditors as defined in Article 2 Item 16 of the Companies Act.

## Executive Officers

### Kotaro Nagasawa

Managing Executive Officer  
General Manager, Think Tank Unit

### Hiroshi Iwase

Managing Executive Officer  
General Manager, Consulting Unit

### Taro Kamagata

Managing Executive Officer  
Assistant to Executive Vice President (Officer in Charge of cooperation promotion)  
Senior Managing Director, Mitsubishi Research Institute DCS Co., Ltd.

### Hiroyuki Seyazaki

Executive Officer  
Deputy General Manager, Think Tank Unit

### Toshiyuki Ogawa

Executive Officer  
President of MRI Research Associates, Inc.

### Syuji Nakamura

Executive Officer  
General Manager, Marketing and Sales Division

### Yoshihiko Ito

Executive Officer  
General Manager, Social ICT Innovation Division

# Value Creation Process

The MRI Group seeks to solve client's issues through our business activities, and co-create a brighter future by resolving societal issues that exist as challenges to our clients.

We will leverage the strengths of the MRI Group to our fullest in creating value, while improving the foundation and structures that support our value creation for addressing societal issues.

We will use this value creation process to contribute to the resolution of societal issues in the future as well.

## Numerous Societal Issues Found in a Wide Range of Fields



## Solving Client Problems

## Developing Proposals for Clients

▶ P30

## Our Business Activities

(Growth and Core Businesses)

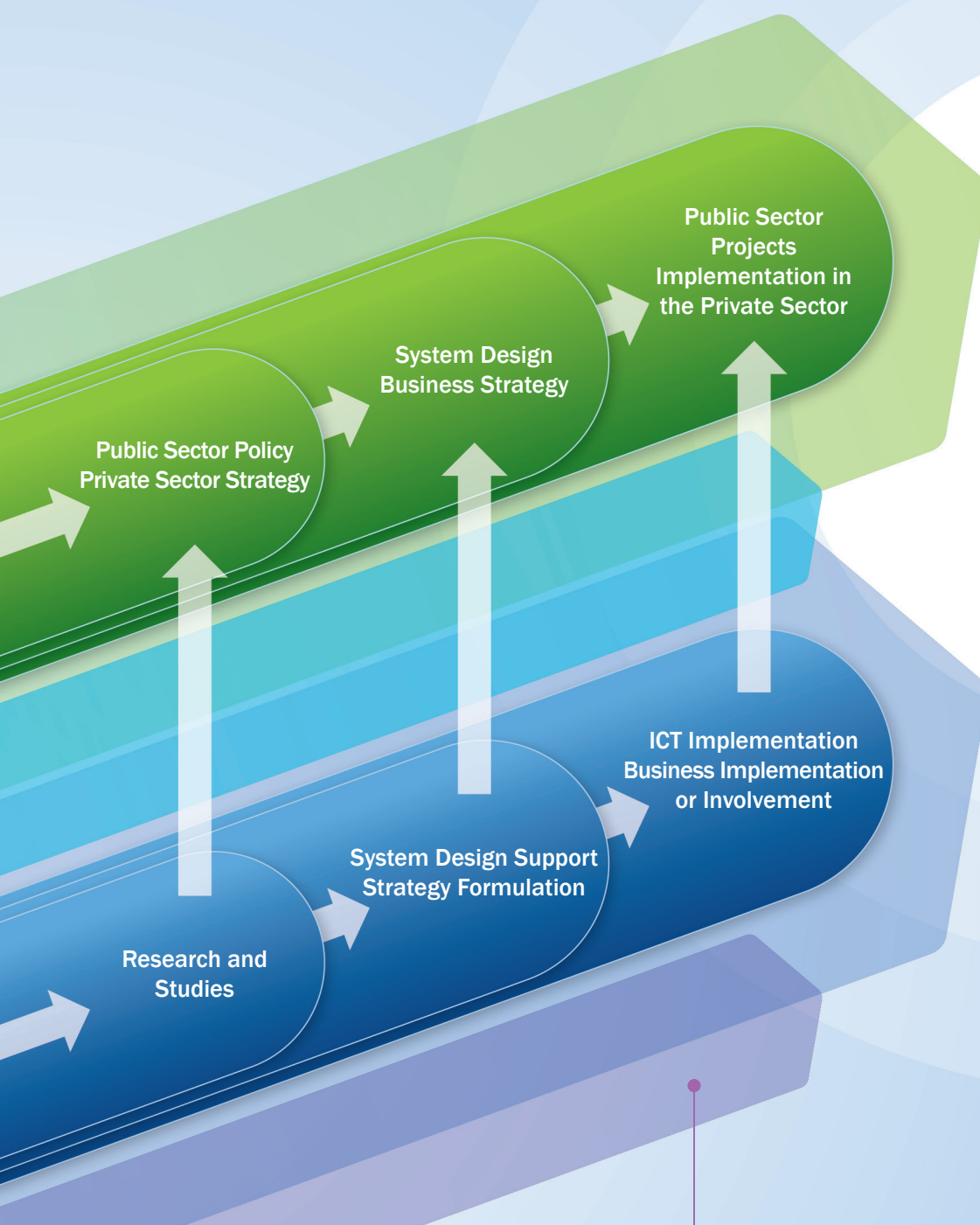
▶ P22

Identifying Issues

Policy Recommendations

▶ P31

# Resolving Societal Issues



## Foundations Supporting our Business Activities

Mitsubishi Research Institute DCS  
Initiatives / Collaboration  
with Partners

► P32

Research and Development

► P34

Open Innovation

► P36

## Systems Supporting Value Creation

Corporate Governance

► P39

Compliance/Risk Management

► P43

Human Resource Development

► P44

Corporate Management System

► P46

Communication for Shareholders  
and Investors

► P47

Social Contributions Aimed at  
Co-Creating the Future

► P48

## Our Business Activities



**Shigeaki Yoshikawa**

Executive Vice President and Representative Director  
Officer in Charge of Business Management  
Responsible for Research Center for Policy and Economy,  
Marketing and Sales Division, West Japan Marketing and  
Sales Division, and Global Business Division

**Kotaro Nagasawa**

Managing Executive Officer  
General Manager, Think Tank Unit

**Hiroshi Iwase**

Managing Executive Officer  
General Manager, Consulting Unit

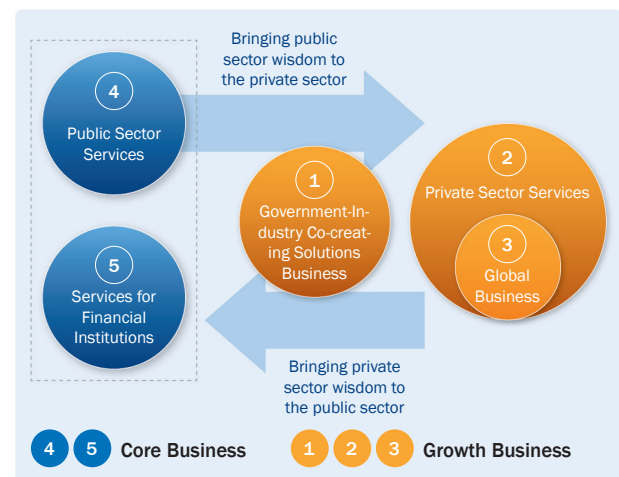
## Our Approach to Business

The MRI Group broadly categorizes its business into "growth" and "core" business, and we manage each type based on its own characteristics. These business categories are not independent of each other. Instead, the two mutually supplement one another by sharing know-how, creating greater value.

Government-industry co-creating solutions business, private sector services, and global business, which we expect to grow in the future, are positioned as growth business. Services for the public sector and financial institutions, in which the Group has competitive advantages, are positioned as core business, through which we seek to achieve stable growth.

Our government-industry co-creating solutions business serves to resolve societal issues by connecting the public and private sectors. We use our policy expertise and specialization, developed through our work experience with the public sector, to provide comprehensive services for the private sector, such as consulting and ICT solutions. Our private sector services are focused on the core areas that have high potential for client needs and market growth. We provide concrete solution services, together with consulting, to improve both our business scale and profitability. In global business, we apply in-depth expertise and predictions on technology and policy we have gained in a wide range of fields to support Japanese companies expand their business overseas using our domestic and international partnerships. We aim to achieve sustainable growth with our growth and core business.

We increase the value of both growth and core businesses, making use of know-how that we have developed, to promptly provide clients with solutions through our researchers freely partnering with each other to carry out the proposal activities. Furthermore, we provide policy recommendations that serve as the foundations for these proposal activities, laying out new global economic trends and medium- and long-term direction.





## Growth Business

## Government-Industry Co-creating Solutions Business

Resolving societal issues requires a two-pronged approach of policy reform and business-based solutions.

Our government-industry co-creating solutions business tackles issues by leveraging the expertise in relation to policy trends and in science and technology that we have developed as a think tank, together with the consulting and solution methods and expertise we have accrued through our private sector business. We are currently carrying out concerted efforts in key fields such as energy, healthcare and wellness, next-generation infrastructure, and food and agriculture.

## Case Study 1 Total Consulting Leading the Way for Electricity and Gas System Reforms

## ► Trigger

There is a growing global trend to reduce costs of distributed energy resources (DER) and raise environmental awareness. Power and gas system reforms are changing the competitive environment of the energy industry. This is producing dynamic movement such as market trading, entry into the comprehensive energy business segment, the appearance of new power companies, and the reorganization of existing power companies.

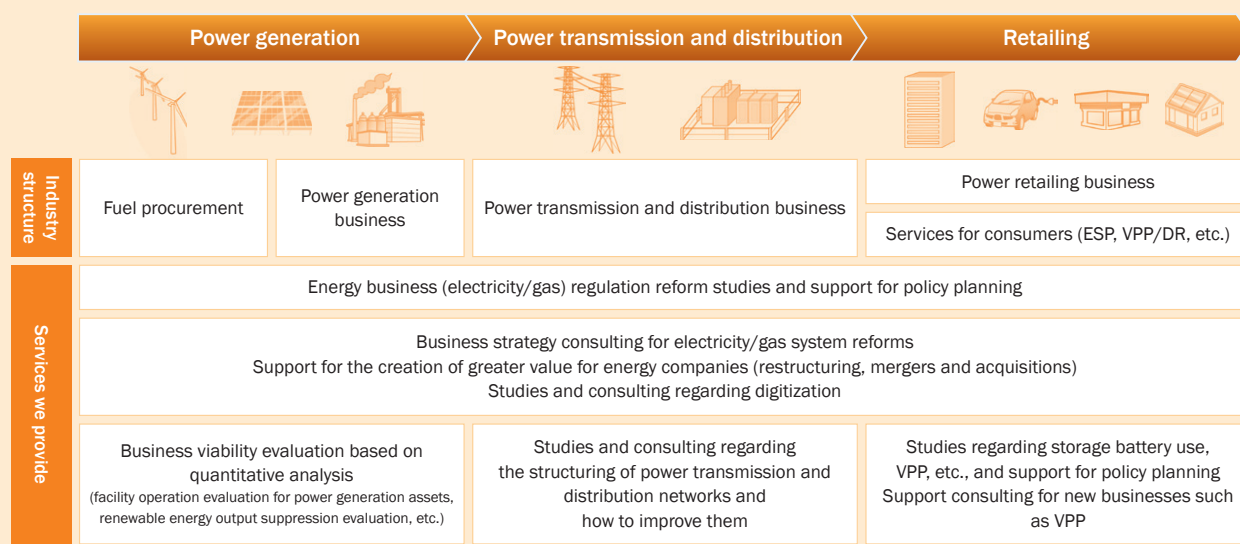
Furthermore, renewable energy cost reductions and advances in storage battery technologies are enabling major paradigm shifts, from energy being provided primarily through large-scale power generation to a distributed power approach, and even on to renewable energy becoming a primary source of power. At the same time, the trend of digitalization, which is occurring in every industry, is continuing, requiring companies to take approaches that are unconstrained by convention.

## ► Created value

MRI provides research and consulting services that help clients improve their competitiveness, leverage market transactions, and tackle issues such as DER penetration and digitization.

DER such as renewable energy sources and storage batteries are expected to see a dramatic rise in deployment, and MRI is assisting with adaptation to social changes and solving issues through a wide range of initiatives. These include consulting services such as support for the design of domestic regulation systems based on that of Western systems; support for energy company restructuring, mergers, and acquisitions; and support for business viability evaluation for individual power generation projects using unique simulation models developed by MRI. They also include the investigation of new businesses related to DER and power distribution networks.

## The Power Business Value Chain and our Services



### Case Study 2 ▶ Support for the Social Implementation of Autonomous Driving Technologies

#### ▶ Trigger

The automobile industry is in the middle of a once-in-a-century transformation. The key to this transformation is "CASE" (Communications and Connections, Autonomous driving, Sharing, and Electrification). In particular, autonomous driving and its ability is expected to resolve societal issues, for example, traffic congestion and traffic accidents.

#### ▶ Created value

MRI has been advancing automated driving business using a government-industry co-creation system in order to take

the lead in creating an autonomous driving society in Japan, eliminating traffic congestion and accidents. On the public sector end, MRI has helped formulate policies and measures and supported joint public-private research and development in order to further advance autonomous driving. On the private sector end, MRI has provided research and development support aimed at the rapid commercialization of autonomous driving technologies, creating a consistent support scheme that encompasses everything from vision to implementation.

#### Consistent Support Scheme from Vision to Implementation



### Case Study 3 ▶ Support for the Social Implementation of Drones as Part of the "Industrial Revolution of the Sky"

#### ▶ Trigger

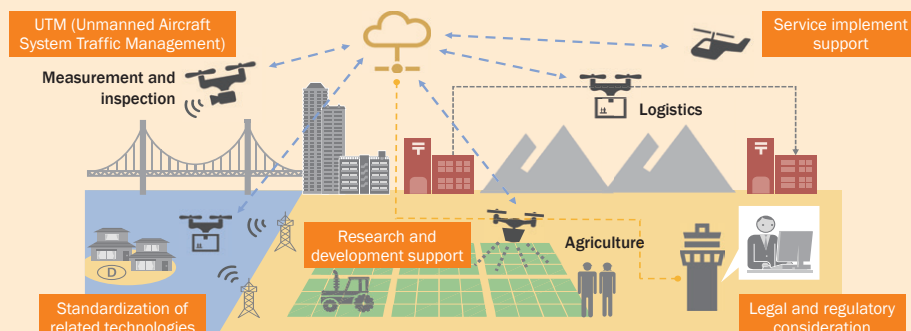
The expansion of use of drones in a broad range of industrial sectors is being called the "industrial revolution of the sky." In particular, sights are set on Beyond Visual Line of Sight (BVLOS)\* operation of drones in depopulated and populated areas, and members of industry, academia, and government are considering legal and regulatory systems, developing new technologies, and promoting business to rapidly prepare the infrastructure required for BVLOS operation.

\* Beyond Visual Line of Sight: The operation of drones outside of the direct line of sight of their operators

#### ▶ Created value

In order to promote these joint industry, academia, and government measures, MRI is conducting studies and research and providing support for consensus formation regarding the exploration of legal and regulatory systems and the implementation of services, managing research and development and verification projects, and engaging in international standardization activities. We are promoting the steady social Implementation of drones, helping provide people with greater convenience, and contributing to the creation of new markets.

#### Drone Utilization



## Growth Business Private Sector Services

The tide of digital transformation is making tremendous changes to businesses and companies. The MRI Group supports the formulation and implementation of strategies to assist in solving client issues based on these latest trends.

Specifically, to meet our client needs to address challenges such as work style reform, improved productivity, and innovation, MRI works with partners to create solutions based on state-of-the-art technologies, including artificial intelligence (AI), Internet of Things (IoT), robotics and block chains.

### Case Study 1 Food Industry Supply Chain Innovation Initiatives

#### ► Trigger

MRI has worked with manufacturers in all areas of the food industry, such as feed, breeding stock, feeding, meat, and processing to investigate the use of the IoT. These investigations have produced efficiency improvements in the manufacturing process and traceability improvements for companies. However, much of the food industry consists of medium or small companies, so they are faced with the structural issue of difficulty in making single investment decisions at the company-level investment aimed at improving supply chains.

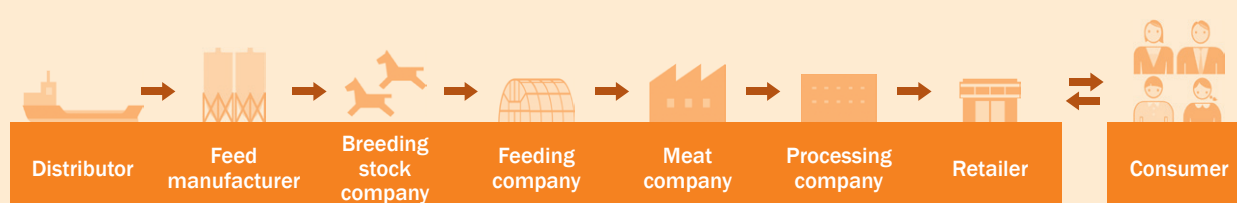
MRI has focused on the distribution industry, which aims to achieve “livestock integration,” encompassing feed, animal husbandry, meat, processing, and sales. We have formulated an investigation scheme for supply chain innovation with distribution at its core, and are using this scheme for considering the application of IoT across company lines.

#### ► Created value

MRI creates opportunities in the distribution industry for the implementation of distribution platform strategies, and has increased approaches in the manufacturing industry from focusing on improving productivity in individual companies (process innovation) to contributing to optimization for all companies (supply chain innovation). By doing so, we have made it possible to actively utilize IoT and create value (reducing inventory excess and shortages, achieving high-mix low-volume production, enhancing food safety and security, and more).

With conventional consulting and solutions, support is focused on each company's competitive fields, but MRI leverages coordination between industry, academia, and government, one of the company's strengths as a think tank, to also take on the challenge of giving support for improving collaborative fields (creating greater added value through the efforts of multiple companies).

#### Food Business Value Chain

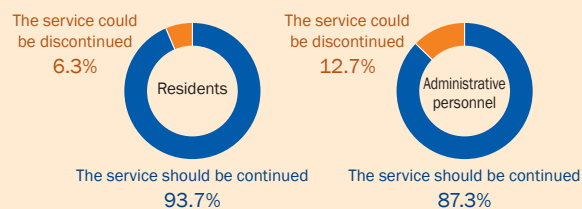


### Case Study 2 AI Staff General Guidance Service

#### ▶ Trigger

An operation study we performed for the health support office of one local government found that roughly half of each day's workload consisted of handling telephone and desk inquiries. The government office was tasked with maintaining services for community residents, including inquiry-handling services, with limited budgets and personnel.

#### Continued Usage Intent by Participants in the Verification Experiment



#### ▶ Created value

MRI considered digitizing this handling of inquiries from members of the community. We created an "administrative information standardization / AI utilization study group" in our Platinum Society Research Association to consider the use of AI by government agencies. With the cooperation of 35 local governmental agencies in the group, we carried out a verification experiment of an "AI staff general guidance service," and then launched a full-fledged AI guidance service in October 2018. The AI staff general guidance service uses chat with AI to provide information that members of the community need, such as information about childcare support, garbage disposal rules, and taxes.

We will continue to contribute to the improvement of the community residents' services offered by local governments and the productivity of government employees, and will work to offer these services in a wider range of languages and fields.

### Case Study 3 Application Assets Visualization Service

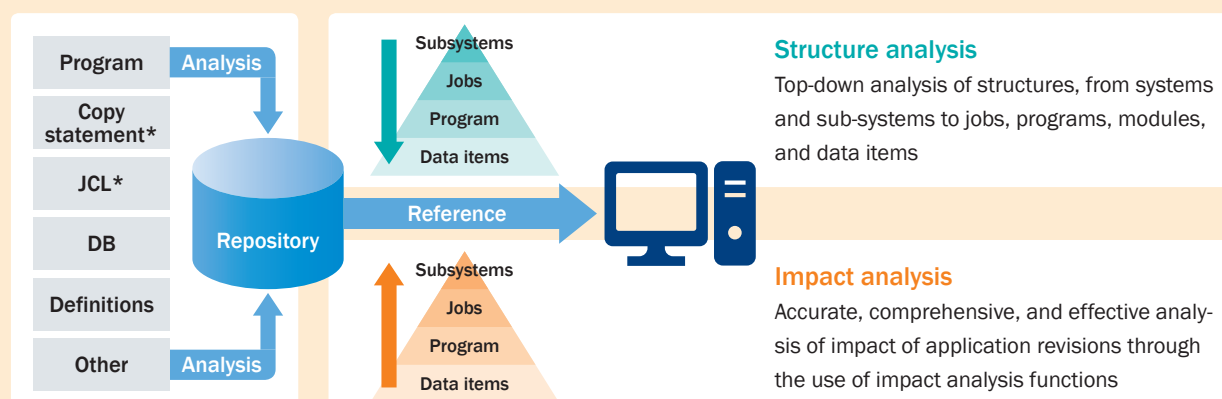
#### ▶ Trigger

The majority of system development work now being performed is development and maintenance. Impact studies require a great deal of time and person-hours. System structures are becoming increasingly complex as the result of successive rounds of additions and changes. This has created the challenges in accurately assessing application assets, improving the productivity and quality of development and maintenance work, eliminating dependence on specific individual personnel, and sharing knowledge regarding system structures and creation.

#### ▶ Created value

We provide application resource visualization services based on reverse engineering technologies, primarily for private sector companies and financial institutions. Visualizing application assets makes it possible to improve the productivity and quality of system operation and maintenance while eliminating dependence on specific individuals. It also contributes to reduced IT costs and the creation of higher quality system structures.

#### Overview of the Application Asset Visualization Service



\*1 Copy statements: Statements which define shared processing and data that can be used by multiple programs

\*2 JCL: Language used to start jobs executed by systems



## Growth Business ▶ Global Business

More than ever before, Japanese companies have been forced to identify overseas opportunities in the face of dramatically evolving social and economic conditions in and outside of Japan, and the growing complexity and diversity of societal issues emerging in countries around the world.

Through its domestic and international partnerships, MRI provides hands-on support for the overseas expansion of Japanese companies, from strategy formulation to local site operations and further business expansion.

### Case Study 1 ▶ Support for the Creation of an Overseas Investment System for an Infrastructure Company

#### ▶ Trigger

When starting to do business in overseas markets, the system used to make decisions plays an important role. One of our clients, an infrastructure company, received a great number of project proposals from other companies. However, its evaluation criteria for making implementation decisions were vague and inconsistent, decision-making was time consuming, and the company overlooked important risks. Its overseas project system was, at its core, reactive, so it lacked a sufficiently active project approach.

#### ▶ Created value

Through our consulting service, we created a system of overseas investment decision-making authority and judgment criteria, enabling the client to accelerate and improve the precision of their decision-making processes. Not only did this speed up their decisions regarding investments and orders for the project proposals they received, but also allowed them to begin developing their own projects, also progressing with the shift to a more active overseas business development approach.

## Core Business ▶ Public Sector Services

As a general think tank for industry, academia, and government, MRI has supported comprehensive and systematic analysis by collecting and analyzing data to generate a body of evidence for governments to formulate policies, as well as materializing solutions. MRI is expanding into a number of fields, including regional revitalization; national land, transport and social capital; health, medical treatment, and nursing; the environment and energy; science, technology and innovation; and nuclear policy, decommissioning and reconstruction.

### Case Study 1 ▶ Research and Development Management Support for the Creation of Medical Innovation

Improving the efficiency of research and development to meet medical needs and accelerating the commercialization of drugs and medical devices are becoming even more urgent issues. There is a need to build a model unique to Japanese medical innovation.

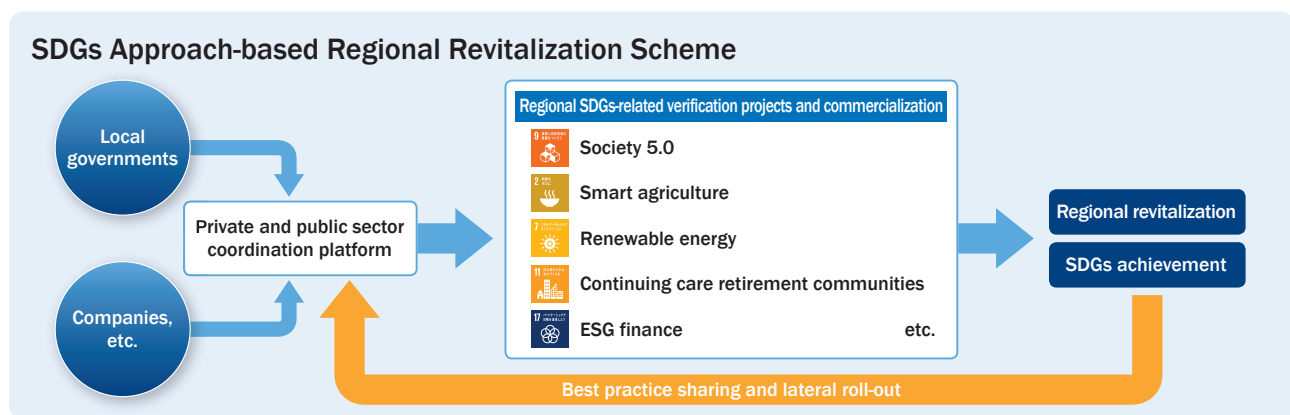
We support progress management and commercialization of national research organization projects by leveraging diverse expertise in medical field research and development, clinical evaluation, intellectual property, pharmaceutical affairs, and market development.

### Case Study 2 ▶ Support for Regional Revitalization Using the SDGs Approach

In recent years, a growing amount of attention has been turned to regional SDGs\*. We provide support for the operation of a private and public sector coordination platform that matches local governmental associations and companies working to revitalize their regions by achieving SDGs. Furthermore, we are working to accelerate measures that contribute to the achievement of regional SDGs

through verification projects related to individual SDGs and support for the commercialization of these projects. These projects cover topics such as Society 5.0, smart agriculture, renewable energy, continuing care retirement communities, and ESG finance.

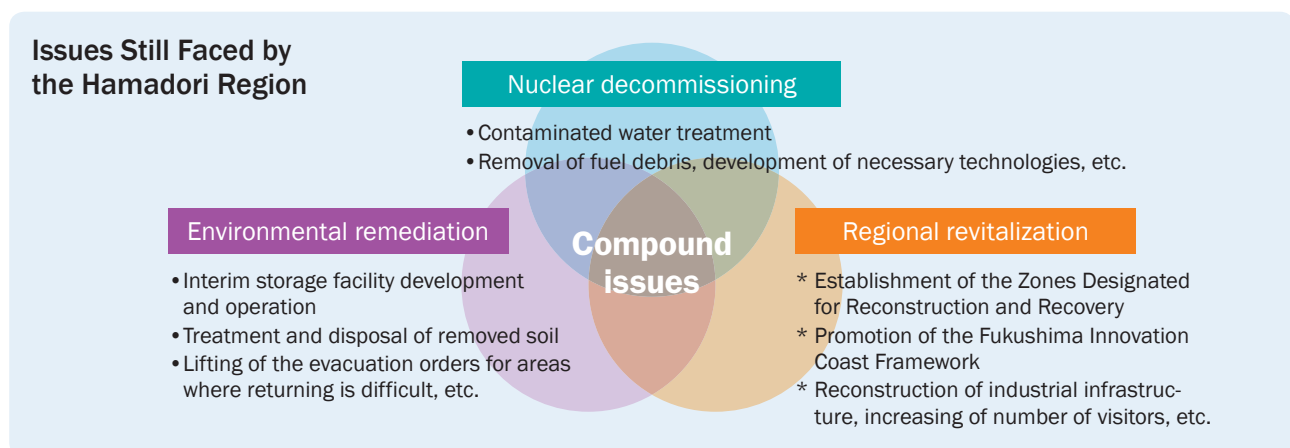
\* Sustainable Development Goals: International goals for 2030 for creating sustainable societies. SDGs are composed of 17 goals and 169 targets.



### Case Study 3 ▶ Promoting the Decommissioning of the Fukushima Daiichi Nuclear Power Station and Regional Revitalization

The Great East Japan Earthquake and ensuing nuclear power station accident caused tremendous damage in the Hamadori region of Fukushima Prefecture, along the Pacific coast. Although steady progress has been made in the revitalization, the region still faces many major challenges, such as decommissioning the Fukushima Daiichi Nuclear Power Station, decontamination and building demolition in areas where returning is difficult, rebuilding lost industry infrastructure, increasing the number of visitors, and carrying out new community development.

MRI is working to solve the issues faced by the Hamadori region by providing support for study and analysis, the formulation of policies and public works project strategies, and the management of measures for handling radioactive materials in the area. We also provide assistance with business strategy formulation and business development to companies considering business expansion into the Hamadori region.

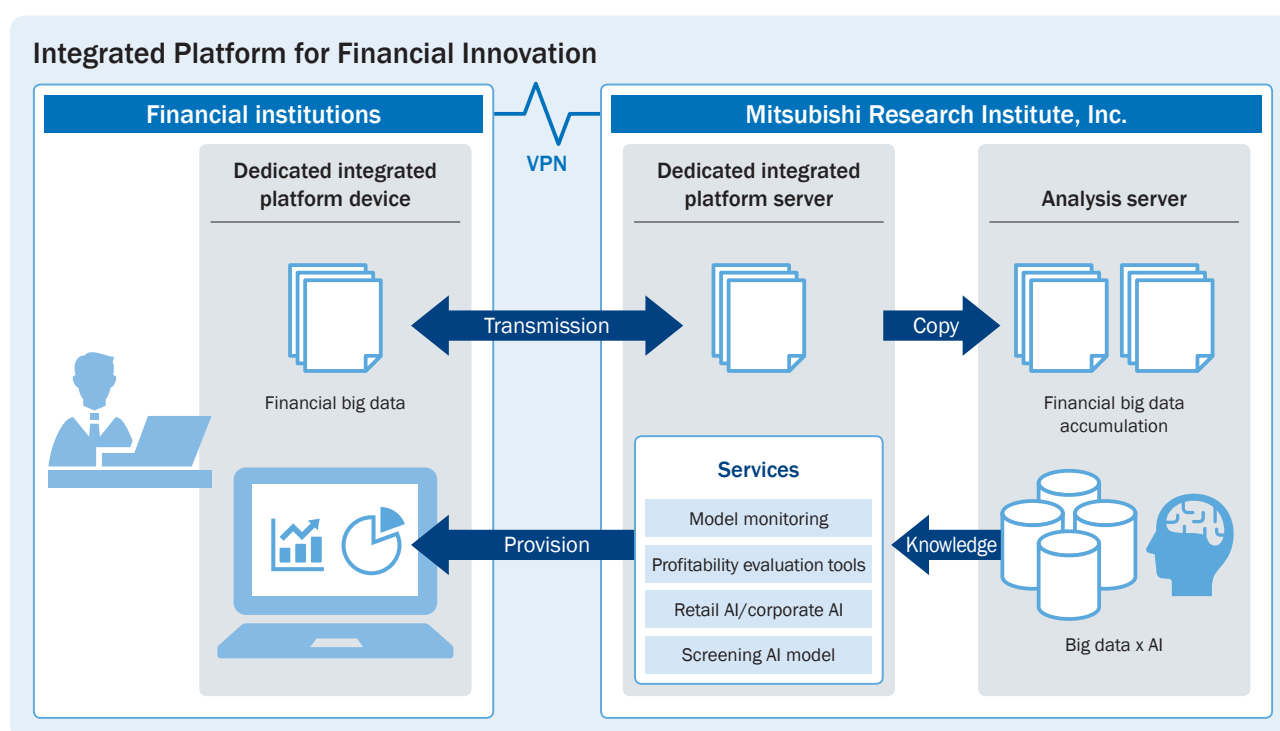


Support for innovation and sophisticated financial services is offered by our consultants, who possess expertise in foundational technologies associated with financial engineering, ICT and scientifically-based analysis, as well as in mid- and long-term business environment forecasting, financial operations, and risk management. The MRI Group is also working to develop the new services and financial systems known as FinTech.

### Case Study 1 Transforming Services through the Integrated Platform for Financial Innovation

In order for financial institutions to leverage big data, they must resolve issues related to information security, data capacity, data storage periods, data linkage times, service provision times, and the like. The Integrated Platform for Financial Innovation connects dedicated financial

institution devices with dedicated MRI servers via network lines. Financial big data is analyzed on our servers, and we then provide services that support big data usage by financial institutions via portal sites. This enables the services to be provided more safely, faster, and more reliably.



### Case Study 2 International Market Operation Support Solution

International market operations by financial institutions are faced not only by operation reforms, advances, and regulatory compliance needs, but also new issues such as the global management of international projects. To solve these issues, the MRI Group combines ICT solutions with expertise in international market operations, financial

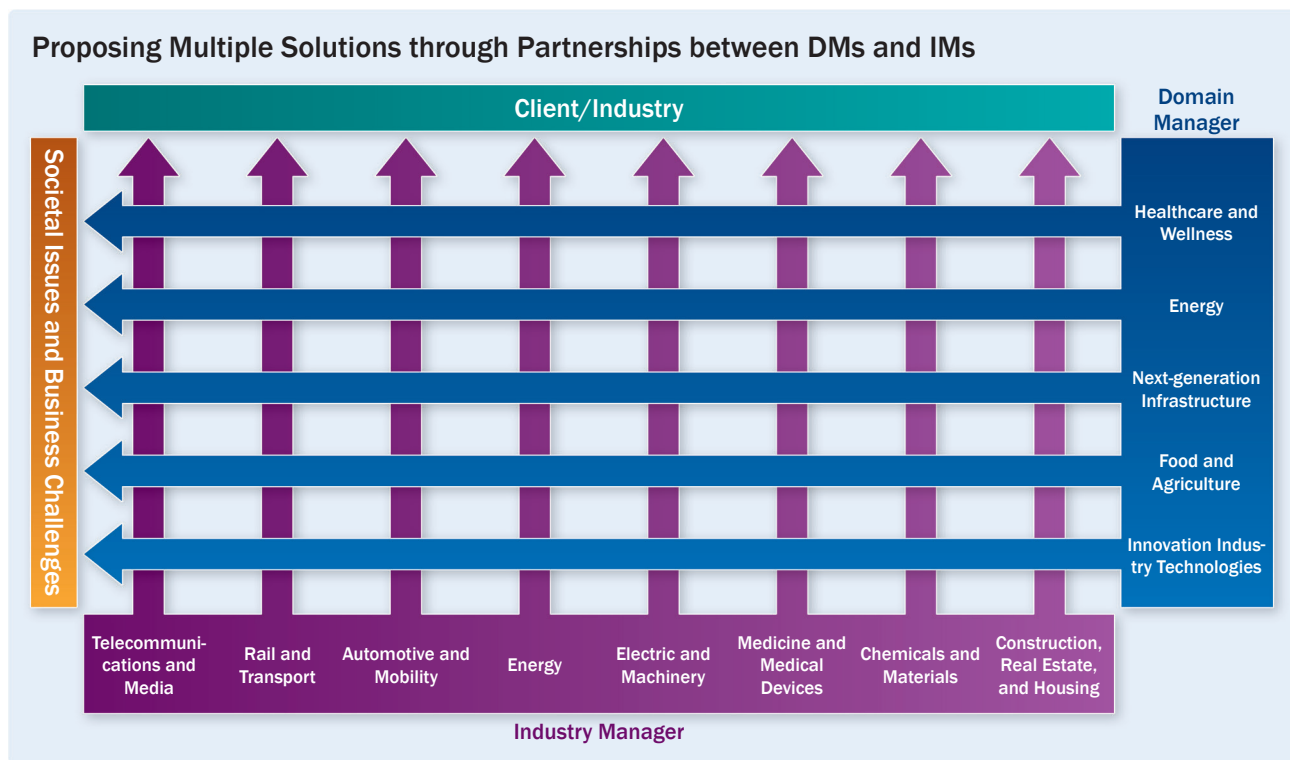
engineering, financial products and markets, and regulatory trends. This enables us to provide integrated solutions that encompass everything from business studies and analysis to system operation and maintenance, as well as providing support for project launches and management.

# Developing Proposals for Clients

## Proposals for Clients

Our proposal development connects our business activities with the creation of value for clients. We carry out these activities using a free structure based on the MRI Group's strengths (fields of expertise) and the industries (growth areas) in which we can leverage these strengths. We have chosen healthcare, energy, next-generation infrastructure, food and agriculture, and innovation industry

technologies as our fields of expertise, and assign domain managers (DM) to manage each. We have defined growth areas such as telecommunications and media, rail and transport, automotive and mobility, and energy, and have assigned industry managers (IM) to each. These DMs and IMs collaborate closely in developing advanced proposals that meet a wide range of client needs.



## Examples of Initiatives

The Energy IM proposes MRI-Group-wide consulting issues to domestic power and gas utilities, and renewable PPS. Furthermore, he has advised on a wide range of client's requests, from short-, medium-, and long-term perspectives, to adapt to policy and regulatory change, to promote big data-based business.

We organized the cross-industry seminar "Battery will change drastically the energy supply and demand and future society in Japan." More than 200 participants attended this seminar from not only the energy industry but also the mobility, electrical machinery, and chemicals industries, and so on. They intensively discussed this hot issue with each other.



# Policy Recommendations

## Medium- and Long-term Global Economic Outlook in 2030

Amid the increasing political and economic uncertainties throughout the world, one of MRI's missions is to clarify issues and gain an overview of their directions based on gathering and analyzing data about medium- to long-term economic, social, and technological trends. This outlook also serves as the background and foundation for the consulting services we provide to our clients. As part of this mission, we have published "Medium- and Long-term Global Economic Outlook (in FY2030)" annually since 2014. Our research efforts take full advantage of our diverse expertise and integrated strengths as well as a network of leading research institutes in Japan and overseas.

In the September 2018 period, we have categorized into four areas, the major trends that will impact the world economy up to around 2050. They are politics/geopolitics, economics, society, and technology. Furthermore, based on the long-term trend above, we have extracted five major trends that will shape the global economy in 2030. Our research results have been shared with the central government as policy recommendations, as well as delivered to the media and corporations. We have received positive reviews thus far.

### Trends That Will Influence the Appearance of the Global Economy over the Long-term



#### Politics

- ▶ Multi-polarization
- ▶ The State Capitalism
- ▶ Centralization and Decentralization
- ▶ Geopolitical Risks Expansion



#### Economics

- ▶ Shift of Economic Power to Asia
- ▶ Overtake of China-US/India-Japan
- ▶ Expansion of Young Islamic Economy
- ▶ Catch up of Developing Economies



#### Social

- ▶ Aging Society
- ▶ Economic Disparity and Social Divide
- ▶ Circular Economy through Sharing
- ▶ Integration of Real and Cyber Society



#### Technology

- ▶ AI, IoT and Robotics around Us
- ▶ Integrating Data in Whole World
- ▶ Tech Growth under Severe Medical Divide
- ▶ Tech Solutions to Resource Problems
- ▶ Growing Attention to the Climate Change

\* From "Medium- and Long-term Global Economic Outlook (FY2018 to FY2030)"

[www.mri.co.jp/english/news/medium\\_and\\_long-term\\_global\\_economic\\_outlook\\_fy2018-fy2030.html](http://www.mri.co.jp/english/news/medium_and_long-term_global_economic_outlook_fy2018-fy2030.html)

# Mitsubishi Research Institute DCS Initiatives

The Mitsubishi Research Institute DCS (DCS), as a major player in the MRI Group's ICT services, provides services and systems that utilize state-of-the-art technology. Each and every staff member is professional and aims to support the development of client business. As an execution unit of the Think & Act approach, we will work together with MRI to accelerate the transformation of the client businesses and the creation of their own corporate value.

Representative Director and President  
Mitsubishi Research Institute DCS Co., Ltd.  
**Minoru Enjitsu**



## Business Policy

By linking MRI with advanced policy and technical expertise and DCS, which has the strength of a wide range of ICT services, we have established a system that can consistently provide from consulting to system construction and operation support.

In addition to offering a broad range of IT services, DCS also focuses on solutions that utilize cutting-edge technology. The company has an extensive track record, including the analytics business of over 60 data scientists and the provision of advanced storage services to manage large amounts of data quickly and stably.

As for our core business, the banking system segment, DCS is entrusted with development projects in more advanced areas as a partner to support client business transformation.

In the CMMI\*, a global standard for continuous improvement in system development, DCS achieved the highest level of Level 5. We will continue to improve quality and productivity further and cooperate with MRI to contribute to the development of a wide range of client businesses.

\* Capability Maturity Model Integration: Guidelines established by Carnegie Mellon University for system developer organizations to improve system processes.

## Examples of Initiatives

Here are some examples of how MRI and DCS work together. In the verification experiment of the digital community currency “Kintetsu Harukas Coin” using blockchain technology, DCS took charge of development and provision of a private cloud platform under planning and management of systematization with MRI, and the project succeeded.

In the development of the information accumulation and analysis system of a special public corporation, which is fully funded by the government, DCS cooperated with MRI to take charge of everything from consulting to system implementation and operation, making the client's marketing activities more effective and efficient.

### Kintetsu Harukas Coin Verification Experiment Implementation



Paying by scanning a QR code posted in a store



Digital community currency charging device

# Collaboration with Partners

## Basic Approach

One of the MRI Group's strengths is its ability to comprehensively provide seamless services that apply think tank services and consultation to ICT solutions. Under Medium-term Management Plan 2020, we are also focusing on creating new businesses that leverage advanced technologies such as AI. To expand existing business and create new business, it is important to upgrade our businesses in scale, scope and speed through collaboration with partners. We will continue to actively work with partners to further improve the integrated strengths of our group.

### Our Fundamental Policy towards Partner Collaboration

- ▶ Enhancement of ICT functions: We expand the valuation of our ICT functions through agile development\*, package development, etc.
- ▶ New business creation and expansion: We enhance our service creation technologies and expertise and improve our service provision platforms (sales channels, post-sales service)
- ▶ Existing business advancement and expansion: We expand our business fields and sales channels, improve our productivity, and enhance our new technologies and resources

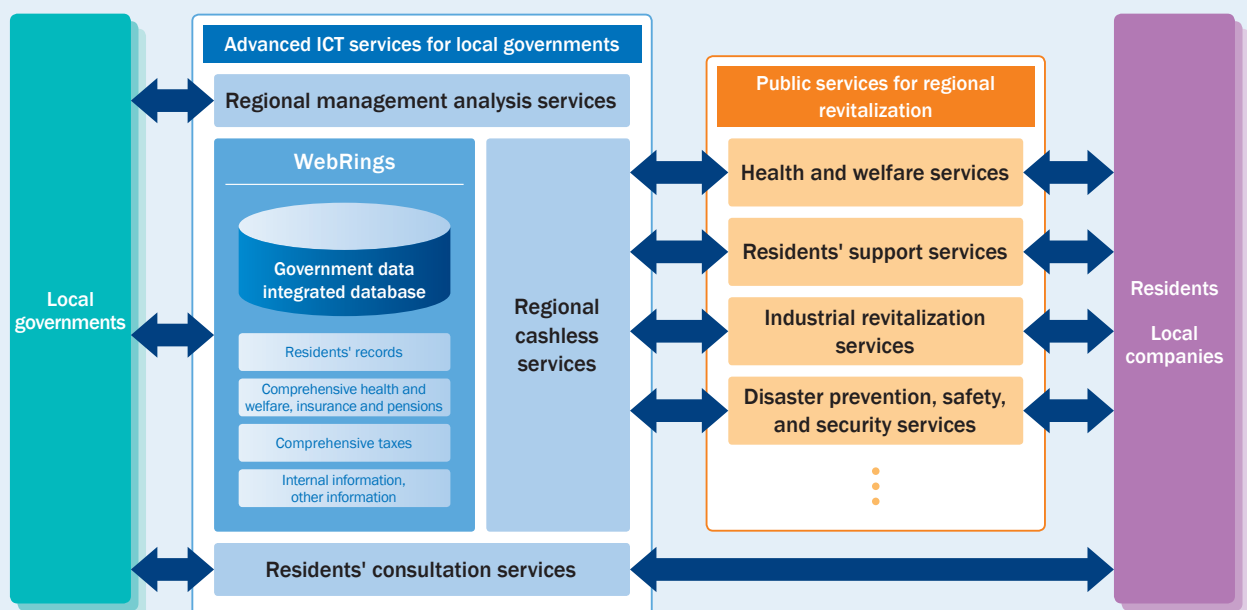
\* Agile Development: Development method that achieves implementation and improvement through rapid cycles of design and testing

## Examples of Initiatives

In May 2018, we entered a business and capital partnership with INES Corporation (hereinafter INES). We have created a comprehensive partnership structure focused on the public sector and finance institutions, the strengths of MRI and INES, encompassing product development, sales channels, technologies and expertise, and human resources. In the future, we plan to offer new services based on innovative technologies.

Through the MRI Group Partner Event, we facilitate mutual understanding and encourage new collaborations with partner companies. The event seeks not only to create relations between the MRI Group and partner companies, but also new mutual collaboration between partner companies.

### Conceptual Image of Public Sector Services based on "WebRings," INES's Web-based Comprehensive Governmental Information System



# Research and Development

## Promotion of Research and Development

Our research and development is aimed at creating processes for resolving societal issues while at the same time promoting value creation and human resource development from a medium- and long-term perspective. To accomplish that, we have defined the following three operation policies, which we use to promote comprehensive, integrated research and development.

### (1) Look to the future/make the first move

We develop and propose concepts for the future of society and engage in pioneering activities aimed at achieving them.

### (2) Create shared information platforms

We prepare shared platforms for information (technologies, knowledge, methods, etc.) and use them to support the business of the MRI Group.

### (3) Connect internal and external organizations

We leverage our integrated strengths through cross-disciplinary activities between organizations and lead collaborations with outside parties.

## Research and Development Promotion System - Research and Development Promotion Committee and Research Fellows

Our research and development activities are led by our Research and Development Unit and our Research and Development Promotion Committee, which spans our entire company. The Research and Development Promotion Committee comprehensively steers the research and development of the entire company, not just the Research and Development Unit. Its goal is to maximize the value created by the MRI Group. Research fellows with extensive knowledge and experience as well as a broad network of industry, academia, and government contacts, under the leadership of MRI

chairman Hiroshi Komiyama, the 28th president of the University of Tokyo, lead the way in improving the level of research conducted by MRI.

Resolving our increasingly complex and diverse societal issues requires the combining and integration of innovative technologies, policies, systems, and business, and the promotion of innovation. Our research fellows, Research and Development Unit, and Research and Development Promotion Committee work together as one to raise the level of our research and practically apply it.



Chairman of the Institute  
**Hiroshi Komiyama**



Chief Research Fellow  
**Hitoshi Honda**



Senior Research Fellow  
**Kiyooki Murakami**



Senior Research Fellow  
**Yoshihiro Mori**



Senior Research Fellow  
General Manager, Research  
and Development Unit  
**Yoshihiro Oishi**



## Future Design and Recommendation Research

We develop visions for the future from global perspectives by gaining birds eye views of long-term social trends (innovative technologies, industrial trends, changes in consumer attitudes, and the like), starting with our development of solutions for societal issues. To implement these visions, we develop solutions and societal implementation measures by integrating our diverse knowledge and using an approach that focuses on shared and root issues.

We also utilize our research results and issue proposals and share information in a variety of settings and media. In 2020, MRI will celebrate its 50th anniversary. We are taking this opportunity to begin developing solutions for global societal issues and concrete social implementation measures, looking forward to the latter half of the 21st century.

### Example

### Phronesis\*

In the September 2018 period, we published two issues of our regular publication *Phronesis*. The topics of these issues were "The Next Generation of Food – A Sustainable Developing Industry" and "Medical Care in the Age of 100-year Life – Patient-Driven Innovation."

Both issues provided recommendations regarding solutions and social implementation measures for societal issues that will eventually be faced by Japan and the world at large. *Phronesis* will continue to cover timely topics. (Page 48)

\* *Phronesis* is a periodical whose aim is to provide an overview of the future so that readers can clearly recognize the early signs of the emerging future.



Phronesis 18, March 2018 issue



Phronesis 19, September 2018 issue

## Business Design Research

In developing the MRI Group's medium- and long-term business targets and strategies, we formulate our visions for individual fields, focusing on the key fields involved in government-industry co-creation, and draw paths to achieving those visions. We target a wide range of business concepts, from developing new research and consulting services to collaborating with other companies and launching new businesses ourselves.

In the September 2018 period, we began work in the next-generation infrastructure, energy, healthcare and wellness, and food and agriculture fields.

In the future, we will concentrate on business creation and social implementation in these fields, as well as expand our efforts to include new key fields we are led to by our vision development and recommendation research activities. We place great importance on co-creation, not only within the MRI Group, but with outside stakeholders and ecosystems as well, in order to accelerate and expand business creation and social implementation.

# Open Innovation

## Co-creating a Brighter Future through Open Innovation

As a leading country in resolving societal problems, Japan has used its advanced technical and human resource strengths to resolve issues that Japan has faced before other countries. Radical solutions more often require a broad range of knowledge, ideas, and open collaboration and innovation.

The MRI Group intends to address societal issues through our own business efforts as well as open innovation through our position as a hub and catalyst for diverse stakeholders.

As a think tank, we have developed skills in discerning the essential nature of societal issues and in defining challenges. Our role is to use these skills to link our broad-ranging expertise and networks and implement our solutions in society.

The Group will co-create the future by utilizing open innovation to resolve societal issues.

## Innovation Network for Co-Creating the Future

In April 2017, we launched the Innovation Network for Co-Creating the Future (INCF). It is a platform that addresses societal issues with innovative technologies and open innovation. Activities are underway with the advice and cooperation of experts, including Hiroshi Komiya, Chairman of MRI, Professor Richard Dasher of Stanford University, and Professor Joichi Ito of the MIT Media Lab.

We provide opportunities to create innovation in addition to accelerate business ideas, co-creating business models between members, and carrying out verification in the six societal issue fields. The fields cover wellness, water and food, energy and the environment, mobility, disaster

prevention and infrastructure, and education and human resource development. Furthermore, we have created

and published the SDG-focused "Resolving Societal Issues Through Innovation—Listings of Societal Issues." We concentrate on communicating through seminars and other opportunities and strive to grow the ecosystem for solving societal issues.

[incf.mri.co.jp/en/index.html](http://incf.mri.co.jp/en/index.html)



## Platinum Society Research Association

"Platinum society" is a sustainable society, rich both materially and spiritually, which has fundamentally resolved issues faced by modern society, such as environmental problems and the aging society. The roughly 500 members of the Platinum Society Research Association, from the fields of industry, academia, and government, coordinate and collaborate to achieve this platinum society. Since it was launched in April 2010, the Platinum Society Research Association has developed and proposed diverse platinum society models based on individual issues and regional characteristics, helping to shape social currents. In recent years, it has focused on social implementation.

In the September 2018 period, it worked with many people to co-create platinum societies through activities such as the verification of the Inverse Sankin-kotai Plan (multiple locations working plan) for regional revitalization, increasing the efficiency of local government operations using AI, and developing, sharing, and detailing new food business concepts.

[platinum.mri.co.jp](http://platinum.mri.co.jp) (In Japanese)



## Case Study 1

## INCF "Business Acceleration Program 2018"

The 2018 program gathered 110 business ideas. Seven teams were selected as finalists through two stages of screening, and then a final review board selected the winners of the Grand Award and Mitsubishi Research Institute Award.

All of the finalist teams used excellent business ideas to resolve societal issues with major impacts. We will continue to promote co-creation also together with other member companies as part of the ecosystem for resolving societal issues.

[incf-contest.mri.co.jp/en/](http://incf-contest.mri.co.jp/en/)



Business Acceleration Program 2018 award ceremony

## Case Study 2

## Platinum Seminar – "The Future of Food - Food Business, A Sustainable Developing Industry "

We conducted a Platinum Seminar as part of our co-creation activities, based on our "The Next Generation of Food - A Sustainable Developing Industry" future design and recommendation research. It was attended by various related parties, such as members of the Ministry of Agriculture, Forestry and Fisheries and corporate participants. Participants engaged in lively discussion regarding the realization and implementation of food business through collaboration between members of industry, academia, and government.

[platinum.mri.co.jp/seminar/seminar/index](http://platinum.mri.co.jp/seminar/seminar/index) (In Japanese)

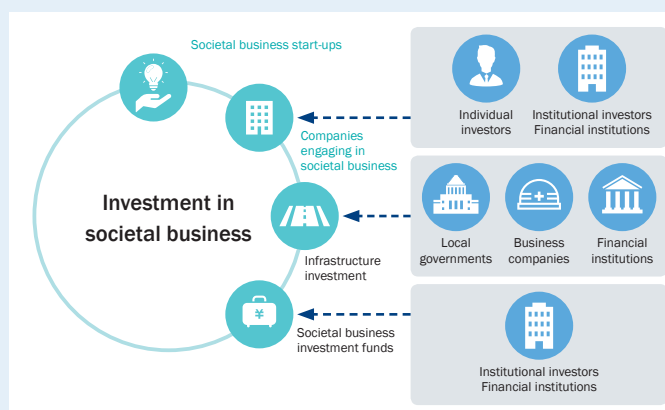


Insect sampling following the seminar

## Case Study 3

## INCF "Establishing evaluation methods for societal impact" Working Group

Attention is being increasingly turned to societal impact investment as part of the implementation and expansion of the societal issue solution business. Because of this, we have established an impact assessment working group, are structuring the problems that affect the flow of funding in resolving societal issues, and are developing methods for measuring and assessing societal value and impact. We plan to publicly release the results of the working group while exchanging concrete case study research results.







# Systems Supporting Value Creation

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# Corporate Governance

In order to achieve sustainable growth and increase our corporate value over the medium and long term, it is essential that we have governance systems that ensure transparency, fairness, and speedy, resolute decision-making. We have formulated the Mitsubishi Research Institute Corporate Governance Guidelines, reflecting our characteristics as a think tank, our management philosophy, and our business management systems. We use these guidelines to realize effective corporate governance.

Through our unflagging efforts to improve our corporate governance, we strive to realize a high level of corporate ethics and to maintain and improve the trust society has placed in the MRI Group.



**Takehiko Matsushita**

Managing Director and Representative Director  
General Manager, Corporate Administration Unit

## Basic Approach

Our basic corporate governance policy is to ensure the proper execution, based on our "Management Philosophy," of activities to sustainably improve corporate value, which is the aggregate of four values: social value, client value, shareholder value, and employee value.

Outside Directors make up more than one-third of the total number of Directors, and Outside Audit & Supervisory Board Members make up a majority of Audit & Supervisory Board members. This is so that we can absorb external viewpoints and make use of them in management.

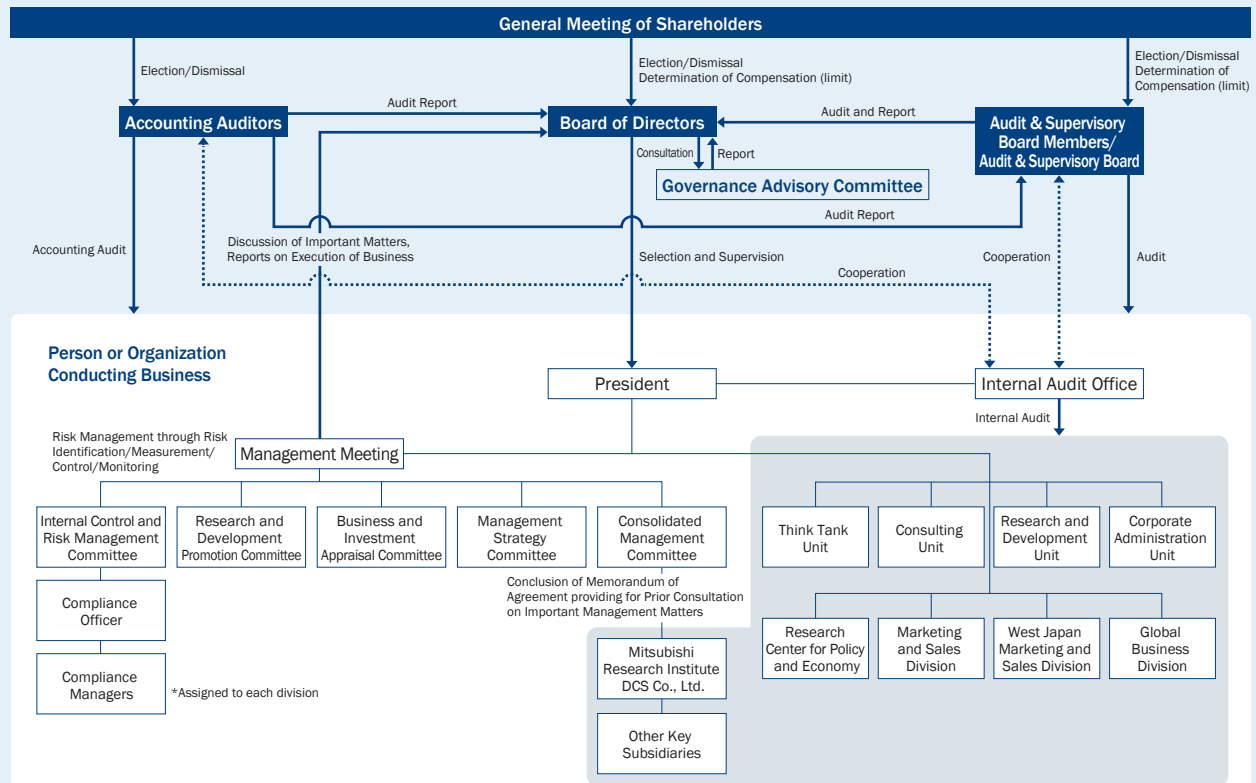
Matters concerning the execution of business are decided by the Management Meeting based on the basic management policy established by the Board of Directors, Executive Officers, and others implement the process.

For the determination of important matters, we consult a variety of in-house committees before the Management Meeting.

In addition, as a corporate group with subsidiaries and affiliated companies such as the Mitsubishi Research Institute DCS, we share the "Code of Conduct (page 43)," the "Mitsubishi Research Institute Corporate Governance Guidelines" and the "System to Ensure Appropriate Conduct of Operations (Internal Control System)" and use them as the foundation of our shared values and ethics.

[ir.mri.co.jp/ja/management/governance.html](http://ir.mri.co.jp/ja/management/governance.html)  
(In Japanese)

## Corporate Governance Structure



## History of Our Corporate Governance Enhancement Measures



[ir.mri.co.jp/ja/management/governance.html](http://ir.mri.co.jp/ja/management/governance.html) (In Japanese)

## Board of Directors, Officer Structure, and Governance Advisory Committee

Our Board of Directors, consisting of eight Directors (including three Outside Directors), is responsible for providing advice regarding increasing corporate value, supervising overall management, and increasing transparency. Our Outside Directors have experience as managers of other companies, and one is a lawyer. They use high-level, broad perspectives based on their individual knowledge and experience to actively provide input and appropriate instruction.

We have established a Governance Advisory Committee as an advisory organization for the Board of Directors. It reports to the Board of Directors regarding officer election and dismissal, officers' compensation, analysis and evaluation of the effectiveness of the Board of Directors, and the like.

We also use an executive officer system to clarify decision-making and operation implementation responsibilities.

## Board of Directors Effectiveness Analysis and Evaluation

In order to improve the effectiveness of our Board of Directors, our Governance Advisory Committee performs annual reviews and the Board of Directors analyzes and evaluates their results and uses its findings to improve its operations. The 2018 analysis and evaluation confirmed that the Board of Directors was structured in a way that enabled it to provide information to Directors and Audit & Supervisory Board Members, engage in active discussion with them, and fulfill its supervisory functions, and that it had fulfilled those functions appropriately. Furthermore, it was confirmed that steady progress has been made in providing information to Directors and

Audit & Supervisory Board Members as the result of measures aimed at improving the Board of Directors' operations, materials, and the contents of explanations, based on last year's analysis and evaluation results.

In order to further improve the effectiveness of the Board of Directors, we recognize that it is important that the Board increases the amount of information regarding concrete activities, challenges, and risks related to businesses and core issues, and that it is involved in planning for successors. MRI will strive to make ongoing improvements to the effectiveness of its Board of Directors based on analysis and evaluation by the Governance Advisory Committee.

## Independence Evaluation Standards for Outside Directors and Audit & Supervisory Board Members

MRI considers Outside Directors and Outside Audit & Supervisory Board Members to be independent provided that none of the following apply.

### Independence Evaluation Standards for Outside Directors and Audit & Supervisory Board Members

- (1) Main business partners
  - (a) Persons whose main business partners are MRI or MRI subsidiaries, or persons who execute business on their behalf
  - (b) MRI's main business partners or persons who execute business on their behalf
- (2) Experts
 

Consultants, accounting experts, or legal experts who receive a large amount of remuneration or other assets other than officer compensation from MRI (in the event that said assets
- are received by corporations, associations, or other organizations, this condition applies to members of said organization)
- (3) First and second degree relatives of persons to one or more of the following applies (excluding persons not classified as important)
  - (a) Persons to whom (1) and (2) apply
  - (b) Persons executing business on the behalf of MRI subsidiaries
  - (c) Persons to whom (b) have recently applied, or who have recently executed business on behalf of MRI

## Message from the Chairman of the Board

MRI's Board of Directors consists of eight directors, both inside and outside. I deeply appreciate the superior insights of our outside directors and guidance based on their broad perspectives.

The management is required to consider and make well-balanced decisions. While the management is requested to fulfill its public mission as a research institute, it is also expected to achieve growth as a for-profit and publicly traded company. In addition to pursuing continued growth at both the employee and organization levels, it should also try to maximize the satisfaction of its wide variety of stakeholders through business performance.

Comments and suggestions by outside directors, from impartial viewpoints and based on their broad experience and knowledge, often provide fresh ideas and guidance, like a wake-up call for better and balanced management.

The management fully commits to providing outside directors with as much data and information as possible, so that they better understand the state of the business, and are able to offer appropriate guidance to the management.

**Kyota Omori**  
Chairman of the Board



## Message from an Outside Director

MRI has done business as a think tank since it was established as a pioneering academic research organization in commemoration of the centenary of the Mitsubishi Group. In recent years, it has set its sights on social implementation, as well, and is working to create workplace environments that promote women's careers.

As advanced scientific technologies such as the IoT and AI make rapid and broad-ranging progress, what society demands of think tanks is changing. MRI must swiftly respond to these changes in expectations.

The Board of Directors has a growing number of opportunities to discuss not only business plans and investment strategies, but new value creation as well. I hope that the Board of Directors will continue to engage in free and lively debate as it seeks to increase corporate value while resolving societal issues.

**Taga Sota**  
Outside Director





# Compliance/Risk Management

## Compliance

The MRI Group regards compliance as the foundation of its corporate activities and an important issue for management; consequently, we formulated a "Code of Conduct," which is shared throughout the Group.

To improve the effectiveness of our compliance practices, we provide ongoing education to employees using concrete case examples, have established whistleblowing and

consultation systems, and provide instruction so that all violations of compliance requirements are reported.

In addition, we ensure that our group is resolutely committed to opposing antisocial forces that pose a threat to the order and safety of civil society and to blocking any relationship with such forces.

### Code of Conduct

1. We leverage integrated strengths rooted in diverse, advanced expertise, and contribute to society through our high quality, creative results.
2. We engage in environmentally conscious activities to contribute to the sustainable development of society.
3. We always demonstrate social accountability and maintain integrity and fairness in our business activities. We are resolutely committed to opposing antisocial forces and to blocking any relationship with such forces.
4. We respect the intellectual property rights of third parties and actively create and use our own intellectual property.
5. We comply with laws and internal rules and respect social norms.
6. We respect human rights and never engage in any discrimination or prejudice.
7. We thoroughly maintain confidentiality and manage information. We appropriately manage information obtained from both inside and outside the company.
8. We maintain a clear separation between private and public matters, and strictly refrain from behavior that benefits only specific organizations or individuals.
9. We act with the propriety and judgment of members of the community.

We never overlook any infractions of the above Code of Conduct.

[www.mri.co.jp/company/info/guideline.html](http://www.mri.co.jp/company/info/guideline.html) (In Japanese)

## Risk Management

The MRI Group has established a comprehensive risk management system known as the Advanced Risk Management System (ARMS), which is based on prediction and detection, and all group companies actively assess and rapidly respond to risks. Specifically, we centrally monitor progress information for individual projects, visualize risk information, and rapidly identify and address issues.

For crisis response, we have set up a business continuity management (BCM) system to smoothly facilitate the initial response to business restoration in preparation for large-scale disasters, outbreaks of infectious diseases, system failures caused by cyberattacks, and other such contingencies.

# Human Resource Development

## Basic Approach

Since the MRI Group's competitiveness is based on its human resources, one of the keys to our achievement of our management strategies is securing and fostering competent personnel capable of playing a central role in our business. We therefore implement systematic programs for developing human resources from a mid- to long-term perspective.

In our human resources development, we are enhancing the quality of our programs and actively investing in our human resources, as well as facilitating work by providing sound work environments and at the same time raising job satisfaction linked to our business strategies.

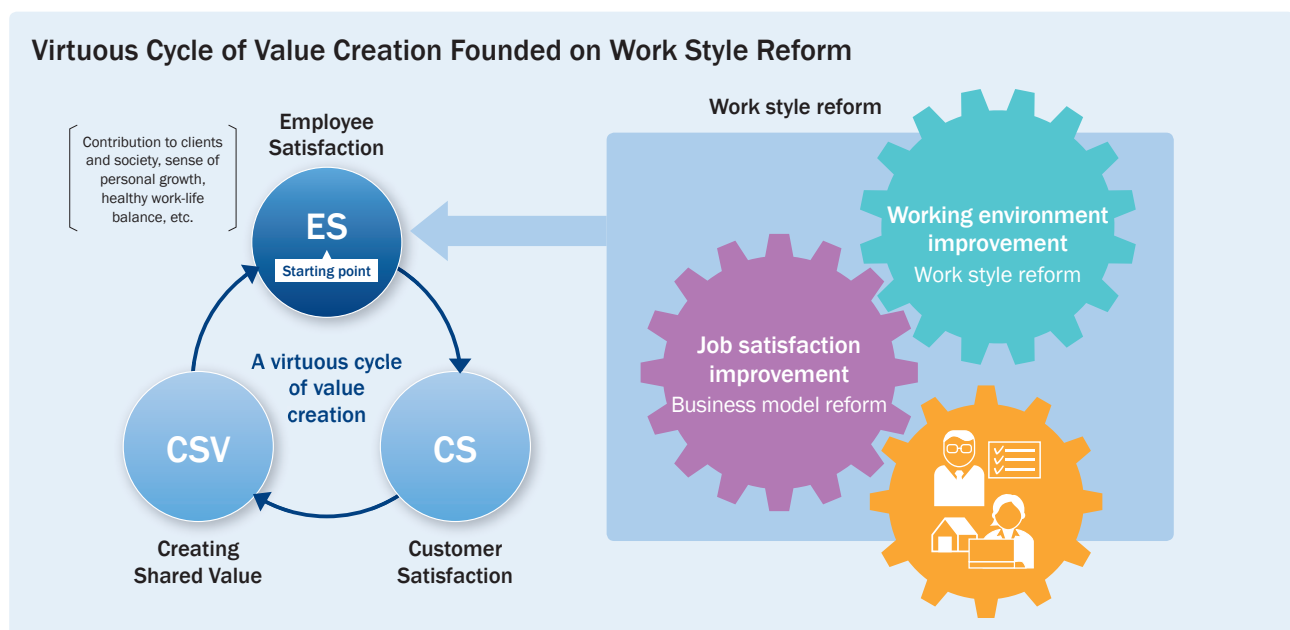
We actively promote diversity in our workforce in order to increase our corporate competitiveness.

## Pursuing Work Style Reform as the Foundation of Corporate Development

We consider work style reform, one of the three great reforms in the MRI Group's "Medium-term Management Plan 2020," to be the foundation of corporate development. Improving employee satisfaction (ES) through work style reform leads to improved client satisfaction (CS), thereby enabling us to generate value by contributing solutions to societal issues through our business (CSV). It is through this positive cycle that we develop as a company. The goals of our work style reform are not only creation of good working environments that leads to high levels of

efficiency and productivity, but also produce greater job satisfaction. Through our business portfolio reforms and business model reforms, we seek to cultivate projects with major impacts on society and projects which create a large amount of value for society and our clients.

We will invest the time freed up by our work style reform in the development of human resources and research for future co-creation, and to support sustainable growth of individuals and the organization.



## Systematic Development of Highly Skilled Professionals

The MRI Group systematically develops personnel with professional talent and who are capable of adapting to changing times and environments through self-transformation. In addition to on-the-job training (OJT), we implement level-specific training for cultivating fundamental skills, along with specialized training for acquiring

conceptual thinking, offering solutions and executing solutions. We also provide opportunities for obtaining knowledge and actual business experience not available within our group through our training assignment system at other companies and organizations, and our programs for study at overseas universities and specialists organizations.

### Personnel Development Assignment, Assignment at Other Organizations, and Overseas Study Locations in 2018

Universities and Research Institutions	<ul style="list-style-type: none"> <li>▶ INSEAD *1</li> <li>▶ National Cancer Center Japan</li> <li>▶ Stanford University</li> <li>▶ University of California San Diego</li> </ul>	<ul style="list-style-type: none"> <li>▶ University of Tokyo</li> <li>▶ IMD *2</li> <li>▶ Oak Ridge National Laboratory*3</li> </ul>	etc.
Private Sector Companies	<ul style="list-style-type: none"> <li>▶ Toyota Motor Corporation</li> <li>▶ Kyushu Railway Company</li> <li>▶ IBM Japan Ltd.</li> <li>▶ Mitsubishi Estate Co., Ltd.</li> </ul>	<ul style="list-style-type: none"> <li>▶ Mitsubishi Corporation (Head Office, North America and Vietnam)</li> <li>▶ Mitsubishi Electric Corporation</li> <li>▶ Kirin Holdings Co., Ltd.</li> <li>▶ Mitsubishi Chemical Holdings Corporation</li> </ul>	etc.
International Organizations	▶ United Nations Industrial Development Organization (UNIDO)		

\*1 INSEAD: Business school based in France and other countries

\*2 IMD: Business school based in Switzerland and other countries

\*3 Oak Ridge National Laboratory: Scientific technology and energy research institute under the jurisdiction of the U.S. Department of Energy

## Creating Good Working Environments and Harnessing Diversity

The MRI Group's Management Philosophy is to "Apply integrated strengths by combining the ability of diverse individuals." Therefore, we strive to create working environments where everyone can balance work and life and vigorously pursue their career. We seek to address diversity as a particularly key management issue.

With respect to promoting women's careers, we have submitted the "voluntary action plan on the appointment of executives and managers of women" to the Japan Business Federation (Keidanren). These efforts led to our being recognized in 2016 as an excellent company in promoting

women's careers by the Minister of Health, Labour and Welfare, which awarded us the highest-ranking "Eruboshi" certification.

We have continued to actively increase the effectiveness of our initiatives, such as in-house training for managerial staff, target female hiring ratios, and company-wide consideration of women's careers in succession plans. The MRI Group seeks to ensure universal working for all human resources.



"Eruboshi" certification mark

### Status of Women's Careers in the MRI Group

Percentage of upper management personnel and project managers that are female (percentage of corporate general managers that are female)	13.8% (16.6%)
Percentage of new graduate hires that are female (fiscal year ended September 2018)	41.1%

# Corporate Management System

## The Three Management Systems

We have introduced three management systems: a Personal Information Protection Management System (PMS), Quality Management System (QMS), and Environmental Management System (EMS). By comprehensively running these three systems, we are contributing to society and improving operations, quality, productivity, and compliance. Each of these management systems is regularly reviewed, and we implement the PDCA (Plan>Do>Check>Action) cycle to continuously improve the system. Our PMS has acquired the PrivacyMark System based on JIS Q 15001 for its appropriate management of personal information obtained from clients and other parties, and manages this information carefully.

In our QMS, each section and the section responsible for the QMS work together, promoting quality improvement across the board. As part of these efforts, we continuously perform client satisfaction surveys, reflect the results of the surveys in our quality improvement measures, and aim for even greater levels of client satisfaction. Our QMS is certified as ISO 9001 compliant.

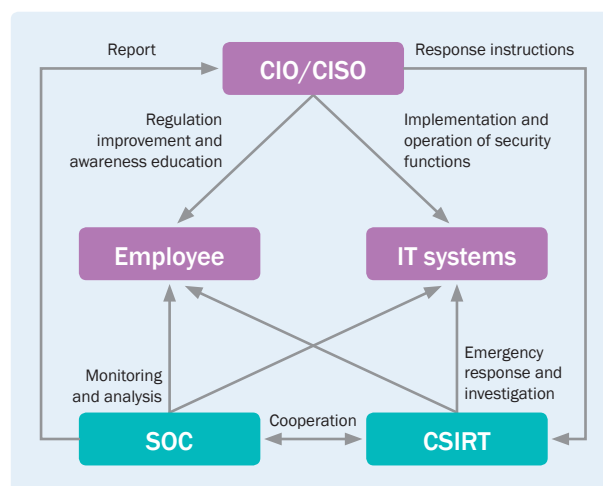
Our EMS strives to reduce the environmental impact associated with the Group's corporate activities. As part of this effort, we periodically monitor our use of electricity and paper, as well as the amount of waste and CO<sub>2</sub> emissions, and then share the results across the Group in order to further reduce our impact. Our EMS is certified as ISO 14001 compliant.

## Information Security

The MRI Group is part of the information service industry, and information security is a key part of our security and the wellspring of the trust placed in our corporate activities. Information security requires measures for both protecting systems from outside attacks and measures for preventing the leakage of information from the inside. External attacks are growing in intensity, and the techniques used in them are becoming more and more sophisticated. Under the direction of the Chief Information Security Officer (CISO), we are pushing through improvements to information systems and institutions with a view to the advanced use of ICT to achieve high productivity, high functionality and high safety. We are working to improve our security through both physical and systemic measures such as establishing a Computer Security Incident Response Team (CSIRT<sup>\*1</sup>) and a Security Operation Center (SOC<sup>\*2</sup>), installing security software, creating a defense in depth system, and conducting drills for employees. We will continue to systematically implement security measures. With regard to information leakage, we have enhanced our defense measures from a variety of angles, such as management of confidential information, computer behavior detection, and employee training, and will continue to work to improve the level of these defenses.

<sup>\*1</sup> Organizations and departments that provide an emergency response and investigation in the event of an incident of computer security being breached, such as virus infection, unauthorized access, and information leakage

<sup>\*2</sup> Organizations or departments that monitor and analyze logs of information systems (servers, terminals, network devices, etc.) and security devices (firewalls, intrusion detection systems, etc.) and so on to detect computer security incidents





# Communication for Shareholders and Investors

## Basic Approach

To our shareholders and investors, we disclose information in a timely and appropriate manner and carry out IR activities with the aim of enhancing communication. In our communications with stakeholders, we are guided

by the principle that all stakeholders should have "timely, accurate, impartial and fair access to important information." We disclose information in accordance with Fair Disclosure Policy.

### Basic Rules for Information Disclosure

- (1) Timeliness: Information about significant events must be disclosed without delay after the events have occurred.
- (2) Accuracy: All information disclosed must accurately reflect the facts.
- (3) Impartiality: All important information, whether favorable or unfavorable to the MRI Group, must be disclosed in accordance with the timely disclosure rules of the stock exchange.
- (4) Fairness: All stakeholders, including stockholders and investors, must have equal access to information.

## Enhancing Communication

In our 49th annual General Meeting of Shareholders, held in December 2018, we used videos and other materials to aid in understanding our business report. The results of the general meeting were immediately posted on our website to ensure timely and fair access to the information. We publish biannual "shareholder reports" with clear explanations not only of our financial performance, but also specific business activities and advisory services. We also conduct shareholder surveys as part of our efforts to maintain good shareholder communications. Our 2018 questionnaire found that respondents gained a deeper understanding of our medium-term management plan and business contents, but also expectations for even more active proposal activities in the future.

We hold results briefings for institutional investors and analysts after the release of the final and second quarter financial results (interim financial results). At these meetings, the President gives a presentation on our activities, including financial results and plans. Furthermore, on the "Financial Results" page of our website, we provide a list of financial results and supplementary information.

[www.mri.co.jp/english/profile/finance/index.html](http://www.mri.co.jp/english/profile/finance/index.html)



Shareholder Report (accompanying material attached to a convocation notice of the annual meeting of shareholders)

# Social Contributions Aimed at Co-Creating the Future

The MRI Group seeks to help resolve societal issues by creating social and client value, and co-create a brighter future. Our business activities are themselves tied to our social contributions.

As a corporate group whose business is rooted in its human resource, we communicate the knowledge and information obtained through our business operations, and our vision for the future throughout society from the perspective of co-creating the future. We also develop human resource that will lead the future and participate in and support international organizations that tackle societal issues.

## Co-Creating the Future by Sharing Information

### ***Phronesis*, a Guidebook for the Future**

We publish *Phronesis*, a guidebook for the future, to share the results of our research and development work. The aim of *Phronesis* is to provide an overview of MRI's vision of the future so that readers can clearly recognize the early signs of the emerging future. It has covered the following topics.

- ▶ *Phronesis 19: Medical Care in the Age of 100-year Life – Patient-Driven Innovation* (September 2018)
- ▶ *Phronesis 18: The Next Generation of Food - Food Business, A Sustainable Developing Industry* (March 2018)
- ▶ *Phronesis 17: The Birth of Knowledge Materials*  
- *The Material Revolution at the Forefront of Rapid Social Change* (September 2017)
- ▶ *Phronesis 16: The Changing Game of Business Creation* (March 2017)
- ▶ *Phronesis 15: Changing the Futures of 10 Billion People – The Power of the Japanese People* (July 2016)
- ▶ *Phronesis 14: The Future of Work Styles* (December 2015)

[www.mri.co.jp/opinion/magazine/index.html](http://www.mri.co.jp/opinion/magazine/index.html) (In Japanese)

### **MRI Monthly Review**

Each month, we provide a compact, non-serialized report on diverse topics, views and discussions drawing on insights and information obtained through our research and studies.

[www.mri.co.jp/opinion/mreview/index.html](http://www.mri.co.jp/opinion/mreview/index.html) (In Japanese)

### **Exchange with Media Organizations**

MRI regularly exchanges views with members of the media on topical subjects handled by MRI.

At the annual media conference held in the fiscal year ended September 2018, we exchanged views with 133 members of the media on 10 topics, such as the medium- and long-term global economic outlook, major energy supply and demand reforms, and the growing utilization of AI in the industrial sector. We also held 23 discussion sessions with the media, attracting over 500 participants.

## Contributions to Local Communities and Stakeholders

### Contribution to Society and Local Communities

Our employees personally contribute to societies and communities from volunteer work in local communities and schools to initiatives involving NPOs. We have a support system for disaster-related volunteer work. In addition, group companies have actively taken part in social contribution activities such as workplace blood drives, bottle cap collection, book-recycling, and supplying used stamps and postcards for charity purposes.

### Promoting Stakeholder Understanding

We carry out initiatives to encourage greater understanding of the MRI Group among diverse stakeholders, including clients, business partners, shareholders, employees and their families. For example, we host MRI Forums on topical subjects for top management at corporate clients. We also promote interaction with employees and their family members through a MRI Family Day each year for employees and their families.

## Contributing to Society through Developing Human Resource

### Future Co-Creation Seminars

We organize "Future Co-creation Seminars" for junior and senior high school students to provide the next generation of leaders with an opportunity to envision a future full of promise.

In the fiscal year ended September 2018, 226 students from four schools engaged in lively debates through workshops and exchanged views with instructors.

#### Future Co-Creation Seminars (Fiscal Year Ended September 2018)

School (Grade)	Date	Topics
Himeji Higashi Senior High School, Hyogo Prefecture (10 second-year students)	October 3, 2017	Metropolitan area training and a message from past students Learning and Working
Kudan Secondary School, Chiyoda City (159 first-year students)	October 6, 2017	Problem-Solving Method Workshop
Yamagata East Senior High School, Yamagata Prefecture (20 second-year students)	October 25, 2017	Metropolitan area training and a message from past students Learning and Working
Kitsuki Senior High School, Oita Prefecture (15 second-year students)	December 5, 2017	Metropolitan area training and a message from past students Learning and Working
Yamagata East Senior High School, Yamagata Prefecture (22 second-year students)	July 31, 2018	Metropolitan area training and a message from past students Learning and Working

### Support for University Education

Broadly contributing to university education, we send employees to lectures at universities and graduate schools. We also offer internships for students from universities in and outside of Japan. In the fiscal year ended September

2018, we accepted 201 students from Japanese universities and a total of 10 students from the University of California San Diego, Stanford University, University of Oxford, and Peking University.

### Asia Research Fellow Scholarship

Since 2010, MRI has operated a fellowship program for students from 10 ASEAN countries and India who are studying at graduate schools in Japan. Our aim is to cultivate human assets who will contribute to Asian development in the 21st century and serve as leaders in promoting friendship with Japan.

As of 2018, we have awarded scholarships to a total of 21 students from Thailand, Indonesia, Vietnam, Malaysia, Myanmar, and India. We will further deepen our relationship with scholarship alumni and pursue activities that contribute to the growth of Japan as well as other Asian countries.

### Acceptance of Personnel from Local Governments and Related Organizations

MRI contributes to the education of local and central government personnel by accepting them as trainee researchers. In addition to conducting studies and research alongside our employees, the trainees inspect and experience various sites, both inside and outside MRI, and take part in independent research.

Since 1983 we have accepted more than 450 people from approximately 50 local and central government entities.

## Contributions through International Organizations



### United Nations Global Compact

On April 19, 2010, MRI became the first Japanese think tank to become a signatory to the United Nations Global Compact. In the fiscal year ended September 2018, 15 employees participated in eight subcommittees of the Global Compact Network Japan, and served as organizers of the CSV and Women's Empowerment Principles (WEPs) subcommittees.



### Japan Climate Initiative

Since the 2015 signing of the Paris Agreement, non-governmental organizations around the world have played major roles in measures aimed at combatting climate change. The Japan Climate Initiative was launched in July 2018. MRI has participated in this organization since its inception.



### The Consumer Goods Forum (CGF)

In fiscal year ended September 2018, MRI joined the Consumer Goods Forum (CGF). The CGF is a consumer goods distribution industry organization with roughly 400 member organizations from 70 countries. Through participation in the CGF, MRI is supporting the resolving of the societal issues targeted by the organization.





# Company Information

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# Company Profile

## Mitsubishi Research Institute, Inc.

Head Office	10-3, Nagatacho 2-Chome, Chiyoda-ku, Tokyo 100-8141 Japan
Date of Establishment	May 8, 1970
Representative Directors	Takashi Morisaki, President Shigeaki Yoshikawa, Executive Vice-President Takehiko Matsushita, Managing Director
Chairman of the Institute	Hiroshi Komiyama
Capital Stock	6,336 million yen
Number of Employees	(Consolidated) 3,918 (Non-consolidated) 891 (as of September 30, 2018)
Group Companies	Mitsubishi Research Institute DCS Co., Ltd. MRI Business, Inc. MRI Research Associates, Inc.

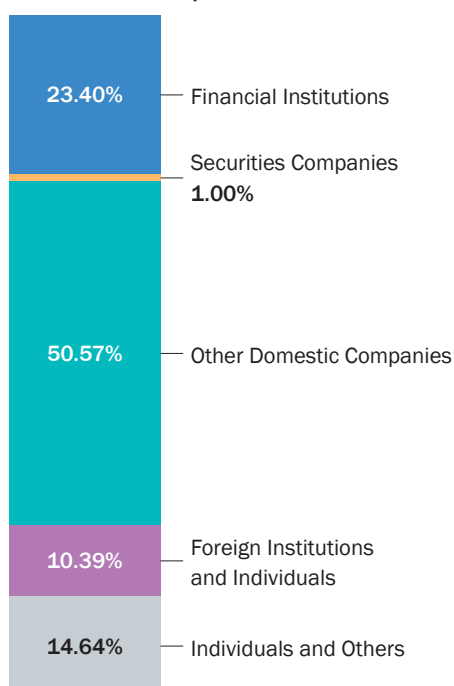
## Share-related Information (as of September 30, 2018)

Authorized Shares Capital: 60,000,000

Number of Shares Issued: 16,424,080

Number of Shareholders: 4,214

### Shareholder Composition



### Principal Shareholders (Top 10 shareholders)

Shareholder's Name	Number of Shares	Shareholding Ratio (%)
Mitsubishi Corporation	975,076	5.93
Mitsubishi Heavy Industries, Ltd.	975,000	5.93
Mitsubishi Electric Corporation	902,200	5.49
Mitsubishi Chemical Corporation	834,000	5.07
Mitsubishi Research Institute Group Employee Shareholding Association	713,980	4.34
Mitsubishi Materials Corporation	698,300	4.25
Mitsubishi UFJ Trust and Banking Corporation	598,574	3.64
Mitsubishi Estate Co., Ltd.	598,500	3.64
Kirin Holdings Company, Limited	598,500	3.64
AGC Inc.	598,500	3.64

(Note) The Shareholding Ratio is calculated after deducting treasury stocks (256 shares). The number of treasury stock does not include the Company stock (177,900 shares) owned by Board members' compensation BIP trust.

### Shareholder Composition

	Number of Shareholders	Composition Ratio (%)	Number of Shares Held (Thousands of Shares)	Shareholding Ratio (%)
Financial Institutions	28	0.66	3,842	23.40
Securities Companies	30	0.71	164	1.00
Other Domestic Companies	111	2.63	8,305	50.57
Foreign Institutions and Individuals	162	3.85	1,706	10.39
Individuals and Others	3,883	92.15	2,404	14.64
Total	4,214	100.00	16,424	100.00

Note: Number of shares held are rounded down to the hundred.

## Mitsubishi Research Institute DCS Co., Ltd.

Head Office	12-2, Higashishinagawa 4-Chome, Shinagawa-ku, Tokyo, 140-8506 Japan
Date of Establishment	July 10, 1970
Representative Directors	Minoru Enjitsu, President & CEO Tsuyoshi Tawada, Senior Managing Director Taro Kamagata, Senior Managing Director
Capital Stock	6,059 million yen
Number of Employees	(Consolidated) 2,786 (Non-consolidated) 2,091 (as of October 1, 2018)
Group Companies	MRI Value Consulting & Solutions Co., Ltd. MD Business Partner Co., Ltd. Touhoku Diamond Computer Service Co., Ltd. UBS Co., Ltd. IT-One Co., Ltd. DCS Information Technology (Shanghai) Co., Ltd. MRIDCS Americas, Inc. HR Solution DCS Co., Ltd.

## MRI Business, Inc.

Head Office	Sanno Park Tower 5F, 11-1, Nagatacho 2-Chome, Chiyoda-ku, Tokyo 100-6105 Japan
Date of Establishment	October 1, 1970
Representative Directors	Kazunori Kondo, President
Capital Stock	60 million yen
Number of Employees	40 (as of October 1, 2018)

## MRI Research Associates, Inc.

Head Office	Sanno Park Tower 5F, 11-1, Nagatacho 2-Chome, Chiyoda-ku, Tokyo 100-6105 Japan
Date of Establishment	May 31, 1984
Representative Directors	Toshiyuki Ogawa, President
Capital Stock	60 million yen
Number of Employees	143 (as of October 1, 2018)

## Selected Financial Data for Past 10 Years

	2009	2010	2011
<b>Statement of Income (Millions of yen)</b>			
Net sales	73,481	73,323	72,503
Operating profit	5,444	4,875	2,537
Ordinary profit	5,573	5,030	2,905
Profit attributable to owners of parent	2,979	2,516	1,255

<b>Statement of Financial Position (Millions of yen)</b>			
Total assets	49,396	51,531	53,185
Net assets	32,535	33,868	35,366

<b>Statement of Cash Flows (Millions of yen)</b>			
Net cash provided by (used in) operating activities	3,375	4,931	4,247
Net cash provided by (used in) investing activities	△ 4,390	△ 4,079	△ 1,889
Net cash provided by (used in) financing activities	1,502	△ 895	△ 1,124

<b>Financial and Management Indicators (%)</b>			
Equity ratio	56.1	56.8	56.3
Return on Equity (ROE)	11.7	8.8	4.2
Ordinary profit / net sales ratio	7.6	6.9	4.0
Dividend payout ratio	15.6	26.1	39.2

<b>Per Share Data (yen)</b>			
Basic earnings per share (EPS)	192.48	153.22	76.45
Net assets per share (BPS)	1,687.79	1,783.02	1,822.74
Annual cash dividends per share	30.00	40.00	30.00

<b>Index of Stock Price (Multiples)</b>			
Price Earnings Ratio (PER)	13.04	10.96	18.13

<b>Number of Employees at End of Current Period (Persons)</b>			
Total	3,089	3,159	3,408



	2012	2013	2014	2015	2016	2017	2018 (FY)
	75,365	81,127	87,400	85,354	86,904	89,466	90,250
	3,091	5,370	6,079	5,552	5,495	5,731	4,963
	3,262	5,566	6,442	5,813	5,877	6,258	5,364
	1,140	2,885	3,405	3,692	3,425	3,833	3,402
	56,088	61,047	65,354	67,094	71,777	75,654	78,600
	36,458	40,115	42,155	44,134	46,910	50,395	53,284
	4,157	5,518	5,056	7,778	5,052	6,582	7,013
	△ 3,165	△ 3,216	△ 5,733	△ 1,608	△ 996	△ 5,368	△ 3,129
	△ 830	△ 787	△ 1,127	△ 1,319	△ 1,335	△ 2,164	△ 1,826
	55.1	55.7	55.9	57.3	56.9	57.8	59.1
	3.7	8.9	9.7	9.9	8.6	9.1	7.5
	4.3	6.9	7.4	6.8	6.8	7.0	5.9
	43.2	19.9	21.7	24.5	31.2	31.9	40.6
	69.45	175.67	207.36	224.83	208.55	235.08	209.46
	1,882.39	2,072.18	2,222.92	2,340.10	2,488.48	2,692.31	2,859.70
	30.00	35.00	45.00	55.00	65.00	75.00	85.00
	23.89	12.16	13.21	13.07	15.20	14.10	20.91
	3,423	3,458	3,580	3,659	3,741	3,842	3,918



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