



TOP INNOVATOR
TOPi 2030

Sustainability Meeting

CHUGAI PHARMACEUTICAL CO., LTD.

13 November, 2024



INNOVATION BEYOND IMAGINATION

Important Reminders

This presentation may include forward-looking statements pertaining to the business and prospects of Chugai Pharmaceutical Co., Ltd. (the “Company”). These statements reflect the Company’s current analysis of existing information and trends. Actual results may differ from expectations based on risks and uncertainties that may affect the Company’s businesses.

Information regarding pharmaceuticals (including products under development) is included in this presentation, but is not intended as advertising or medical advice.

Agenda

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Chugai's Value Creation

Director, Executive Vice President & CFO

Iwaaki Taniguchi

02

Overview of Material Issues Review

Executive Vice President
Supervisory responsibility for Human Resource
Management and ESG

Yoshiyuki Yano

03

Co-Creation of a Healthcare Ecosystem

Vice President
In charge of External Affairs Dept.

Naoya Fujihara

04

Our Challenge for PHC Solutions

Executive Vice President
Supervisory responsibility for PHC Solution,
Partnering and Special Mission for CVF

Tetsuya Yamaguchi

01 Chugai's Value Creation



Director, Executive Vice President & CFO

Iwaaki Taniguchi

Positioning of the Sustainability Meeting

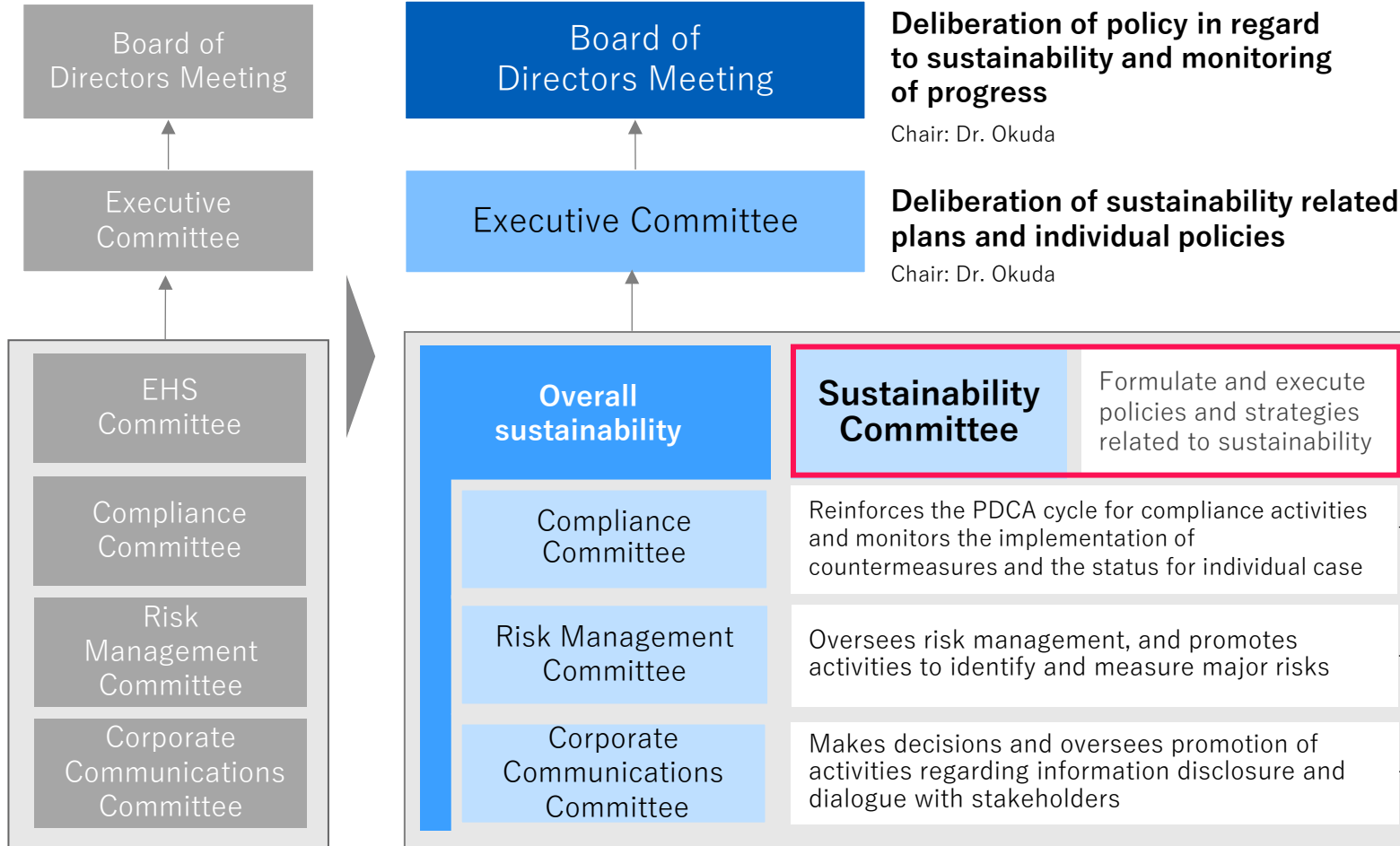
Each year we plan themes for evolving sustainability. Last year the meeting name changed from “ESG Meeting” to “Sustainability Meeting”

		Previous year ranking <small>Ranking in the pharmaceutical sector</small>	Sustainability issues	Setting of meeting themes
Start of IBI 21	2019 1st meeting	-	Clarifying companywide priorities → Aim to evaluate and identify issues	• Overview of ESG (starting with overall general content)
	2020 2nd meeting	DJSI 7th place	Aiming to be a progressive ESG company → Lift performance on issues to global standard	• Strategies and plans for ESG issues (establish themes based on investor interviews)
Start of TOP INNOVATOR TOPi 2030	2021 3rd meeting	DJSI 3rd place	Advancing ESG as a management strategy → Strengthen response to issues and medium- to long-term initiatives	• ESG as management strategy (set original themes)
	2022 4th meeting	DJSI 3rd place	Seeking to be a role model → Responding in anticipation of changes in society	• Evolution of ESG and promotion of dialogue (set themes that contribute to dialogue)
	2023 5th meeting	DJSI 1st place	Expand scope to sustainability → Restructure value creation model	• Growth strategy and sustainability issues (changed name to Sustainability Meeting)
Refinement of TOP INNOVATOR TOPi 2030	2024 6th meeting	DJSI 2nd place	Evolution of sustainability management → Materiality update	• Share issues from a sustainability perspective, based on materiality revision

Sustainability Promotion System - Review of Corporate Management Committees -

Established a new management committee to consolidate functions and enable cross-organizational management to further strengthen sustainability initiatives as a key management issue

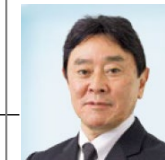
Since February 2024



Major Sustainability Responsible Persons



Responsible for Sustainability Overall:
Dr. Osamu Okuda
Representative Director, President & CEO



Chair of the Committee:
Yoshiyuki Yano
Executive Vice President
Supervisory responsibility for Human Resource Management and ESG



Chair of the Committee:
Dr. Kaori Ouchi
Executive Vice President
Supervisory responsibility for Risk Management, Compliance, Quality & Regulatory Compliance, Pharmaceutical Technology and Manufacturing Technology



Chair of the Committee:
Iwaaki Taniguchi
Director, Executive Vice President & CFO
Supervisory responsibility for Finance & Accounting, Corporate Communication and Procurement

Basic Policy – Top Innovator

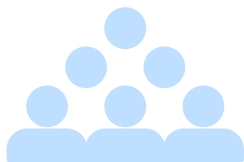
We have explicitly incorporated our approach to sustainability into our basic management policy and strategy

[Basic Management Policy]

Our basic management policy is to lead the way in resolving social issues [by placing sustainability at the center of our business activities](#), **creating shared value** through our activities with various stakeholders, and develop together with society.

Our mission is to "Dedicate ourselves to adding value by creating and delivering innovative products and services for the medical community and human health around the world." Based on that mission, we will create shared value by realizing **advanced and sustainable patient-centric healthcare** with [innovation that we can create](#).

[Vision for Top Innovator 2030]



**Expectation from patients
all over the world**

With world-class drug discovery capabilities, patients around the world expect that “Chugai will surely create new treatments.”



**Attracting talent and players
from around the world**

Attract passionate talent from all over the world, and inspire players globally to think they can create something new by partnering with Chugai.

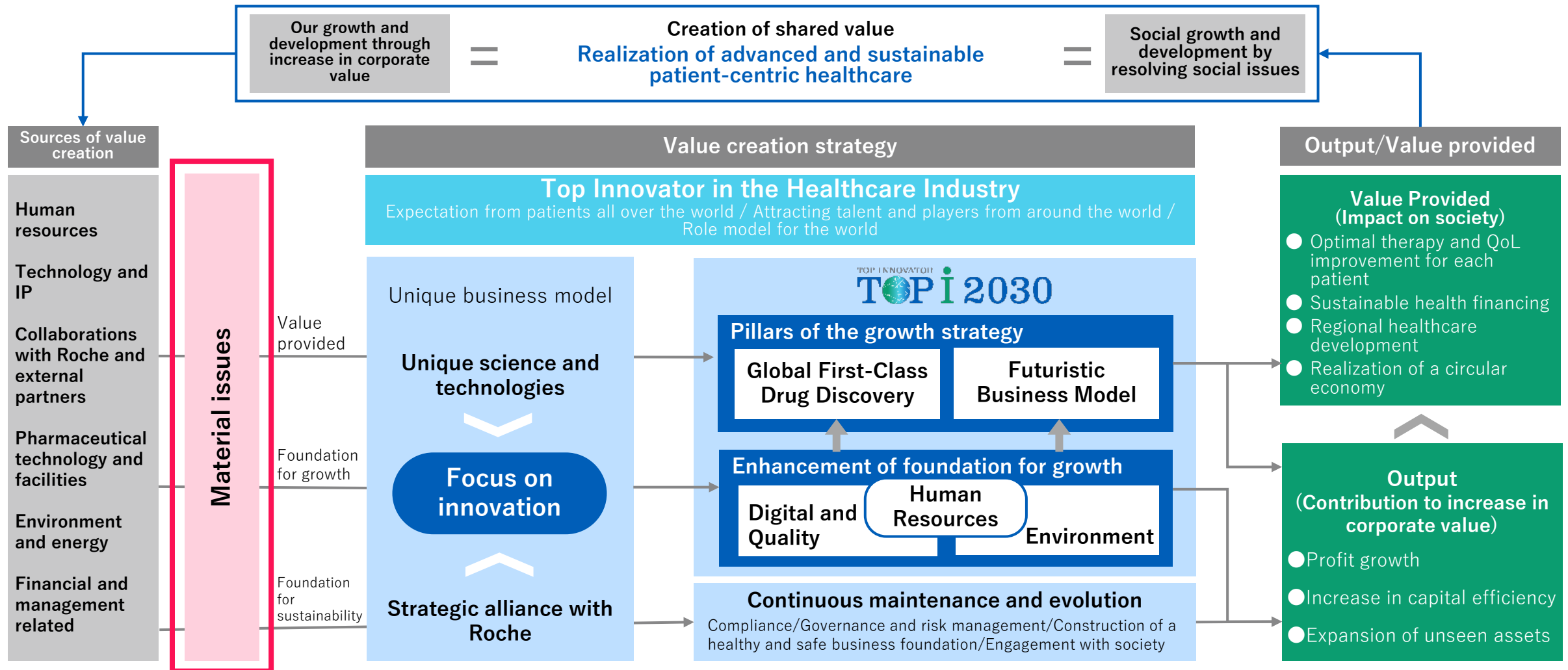


**Role model for
the world**

[With sustainability at the heart of its business activities](#), Chugai will become a global role model as a leader in resolving social issues.

Previous Value Creation Model

A process for creating shared value through a value creation strategy based on materiality



Background for Materiality Review/Update

Set materiality as the axis for value creation and evolve business activities

Issues related to materiality

Formulation

Increase accuracy of analysis and evaluation

- Need to include feedback from external stakeholders even more than before
- Clarify opportunities/risks for society and the environment

Operation

Accelerate activity on the front line

- Align activities across the company based on materiality
- Enhance internal recognition of materiality and accelerate activities on the front-line level

Evaluation and review

Align with strategic KPIs

- Make the relationship between materiality, strategic KPIs, and non-financial indicators clearer
- Integrate with ERM and verify annually

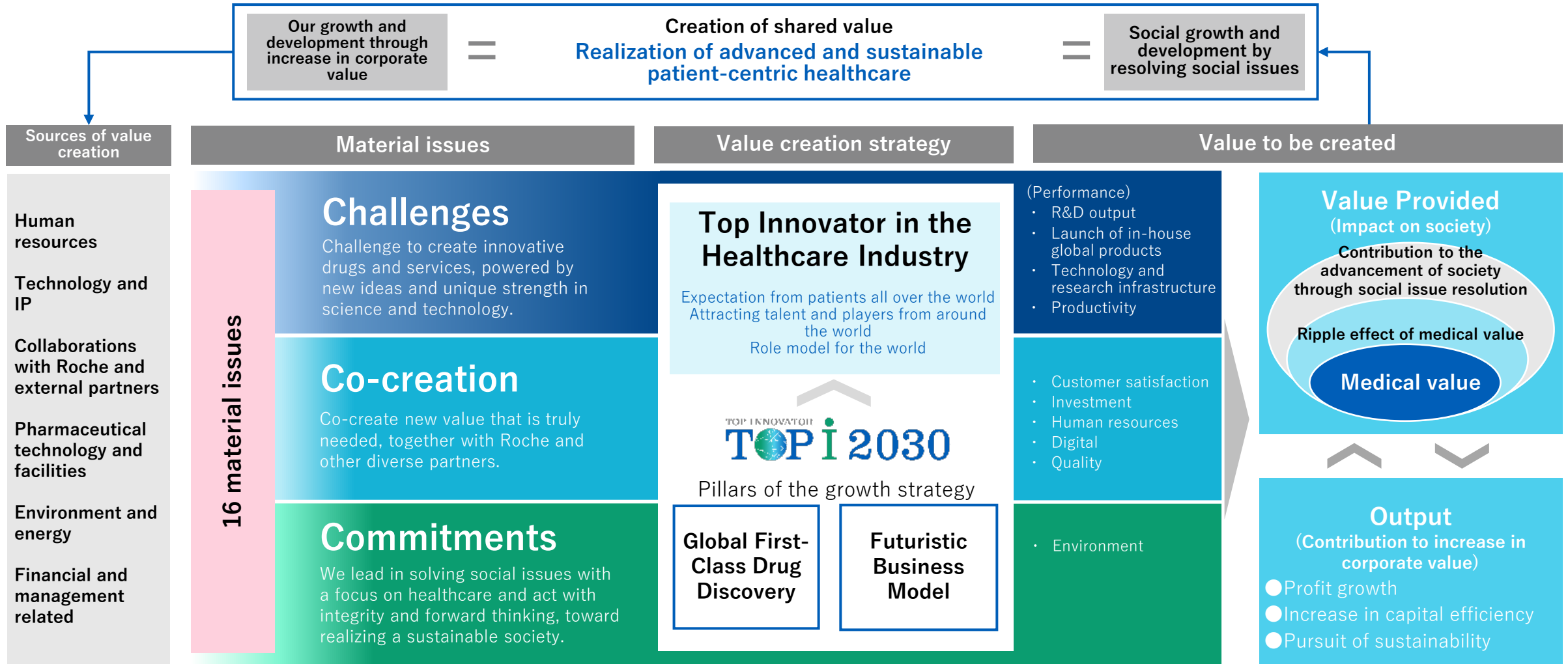
Changes in society and the capital market

- Information disclosure standards are advancing, such as CSRD (ESRS) and ISSB (SSBJ)
- Increased expectations for disclosure of materiality

Materiality positioned as an axes (important factor) for organizing priority management issues, including sustainability, and considering policy

New Value Creation Model

A process for creating shared value using materiality as an axes



New Material Issues

Consolidate material issues into 16 items toward creation of shared value

*Underlined sections indicate significant changes from the previous materiality

Previous material issues			
1	Creation of innovative drugs and services	14	Diversity and inclusion (D&I)
2	Provision of solutions for patients	15	Employee health and safety
3	Access to healthcare	16	Supply chain management
4	Fair pricing	17	Corporate governance
5	Quality assurance and stable supply of products	18	Risk management
6	Adverse event management	19	Compliance
7	Safety of clinical trial subjects	20	Fair marketing
8	Social contribution activities	21	Code of conduct
9	Disclosure and engagement	22	Fair transactions
10	Personal information protection and information security	23	Climate change countermeasures (energy, etc.)
11	Human rights	24	Use of renewable/recycled resources (water, waste, etc.)
12	Employee job satisfaction	25	Protection of biodiversity (environmental burden mitigation)
13	Development of employee potential	26	Environmental management system



New material issues	
1	Creation of innovative drugs and services, <u>powered by unique strength in science and technology</u>
2	Provision of <u>individualized and optimal</u> solutions to patients
3	Access to healthcare
4	Quality assurance and stable supply of products <u>and services</u>
5	Safety of <u>patients and</u> clinical trial participants
6	<u>Co-creation of a healthcare ecosystem with society and community</u>
7	<u>Human capital development</u>
8	Diversity, <u>equity</u> and inclusion
9	Employee <u>well-being</u>
10	Privacy protection and <u>responsible use of digital technology</u>
11	Respect for human rights
12	Corporate governance and <u>stakeholder engagement</u>
13	Ethics, compliance and risk management
14	Climate change and energy countermeasures
15	Contribution to circularity and water management
16	Protection of biodiversity

04

Initiatives introduced in 04

03

Initiatives introduced in 03

02

Overview introduced in 02

02 Overview of Material Issues Review



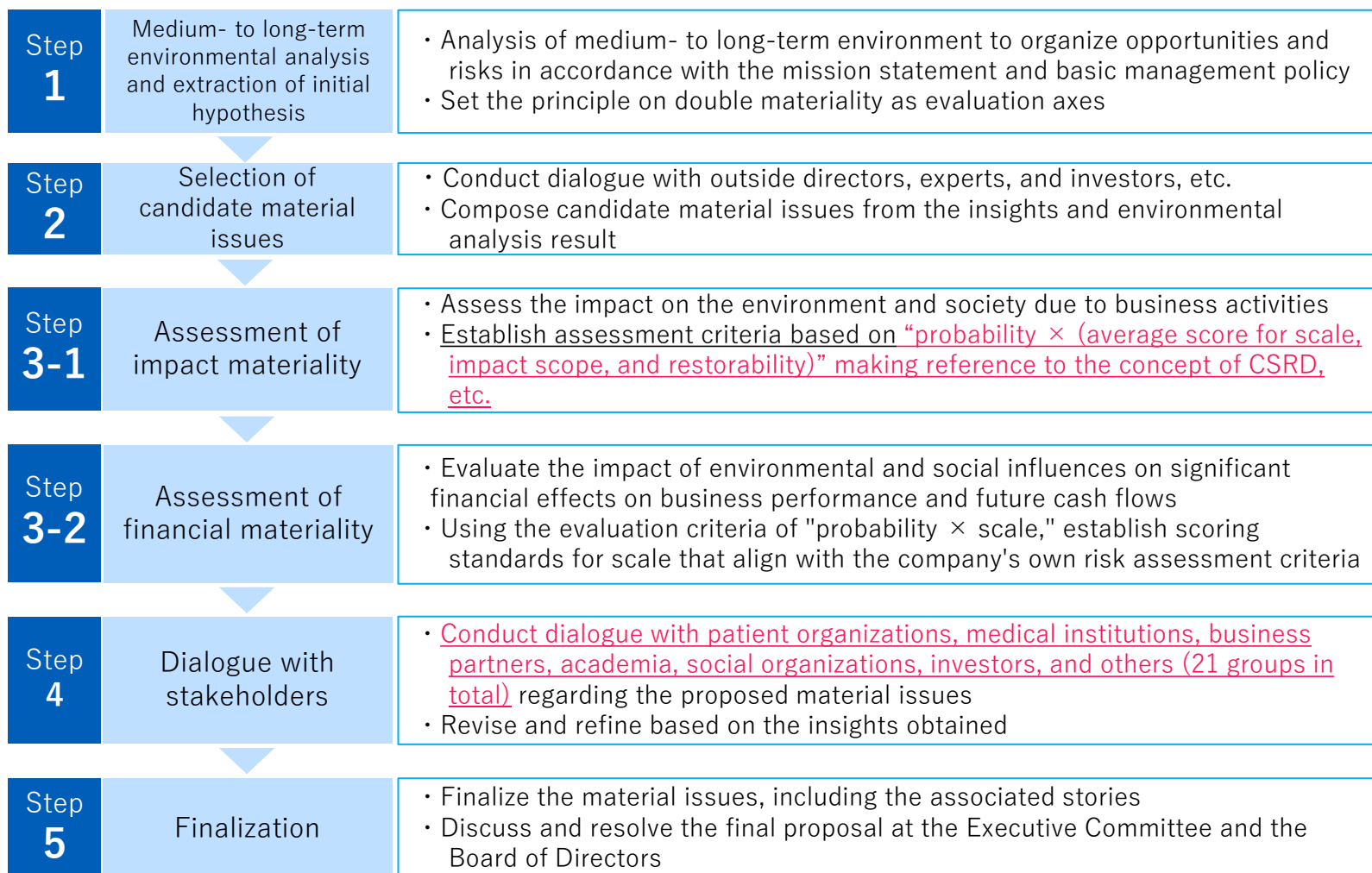
Executive Vice President
Supervisory responsibility for Human Resource
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Yoshiyuki Yano

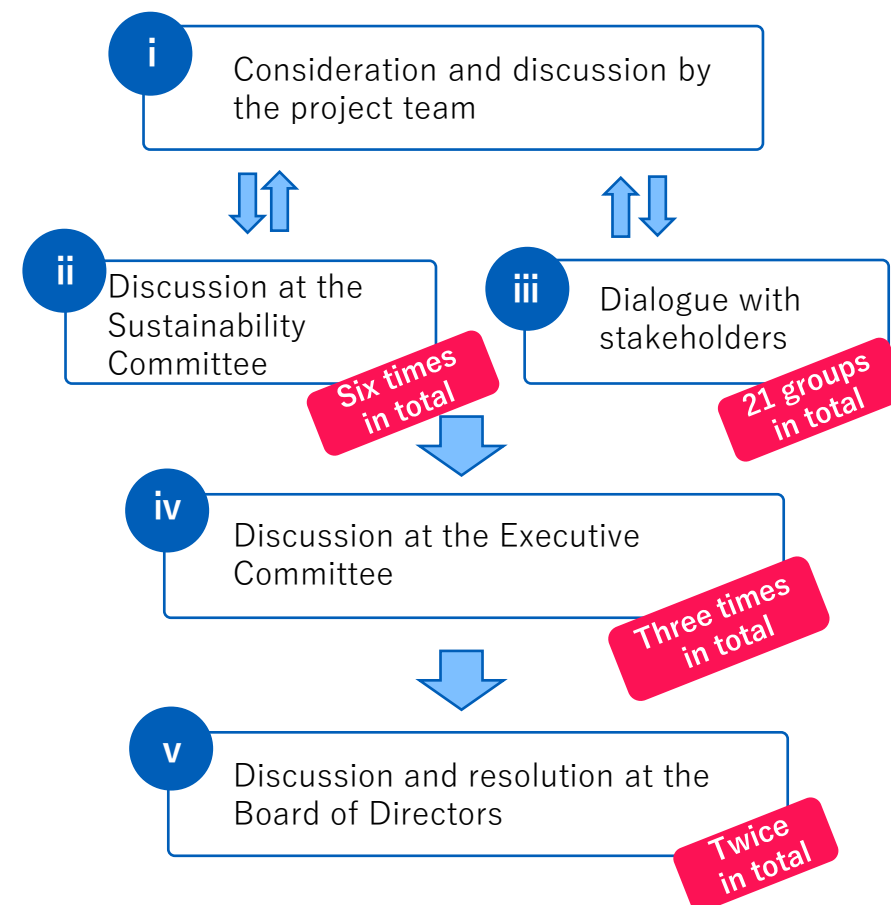
Material Issues Reassessment Process

Emphasizing detailed analysis and stakeholder perspectives, based on double materiality approach

Process of identifying and finalizing material issues

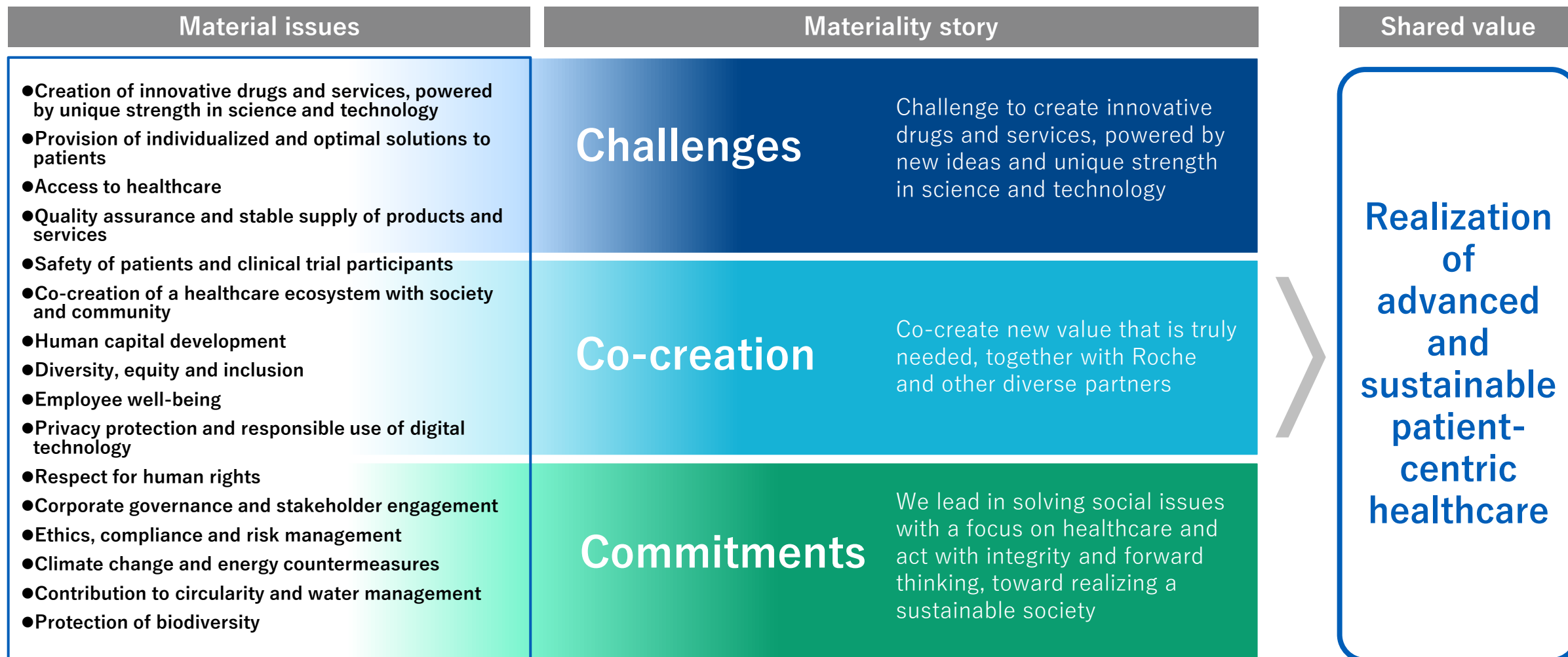


Process of discussion and decision-making



Materiality Story

Organize the value creation story along the three themes of Challenge, Co-creation, and Commitments



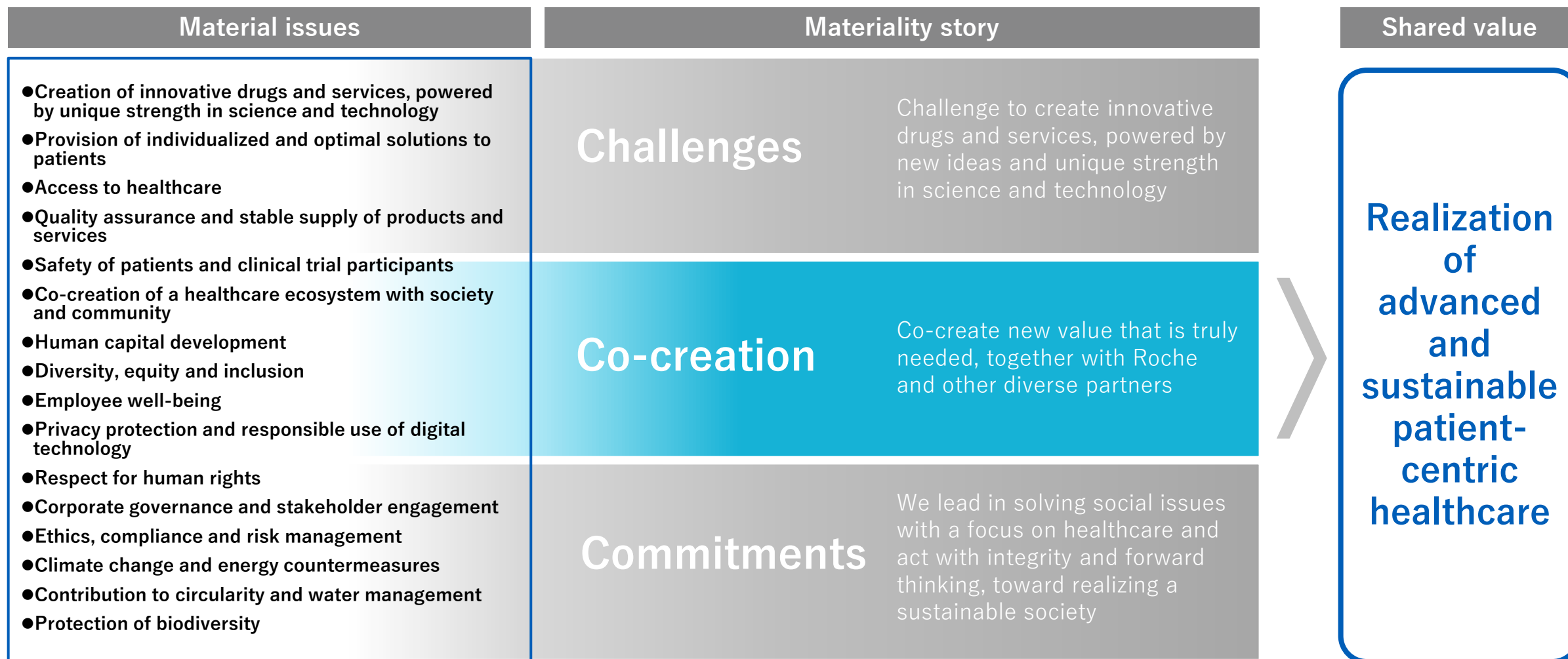
Materiality Story Based on Three Themes (1)

Challenge of creating innovative drugs and services



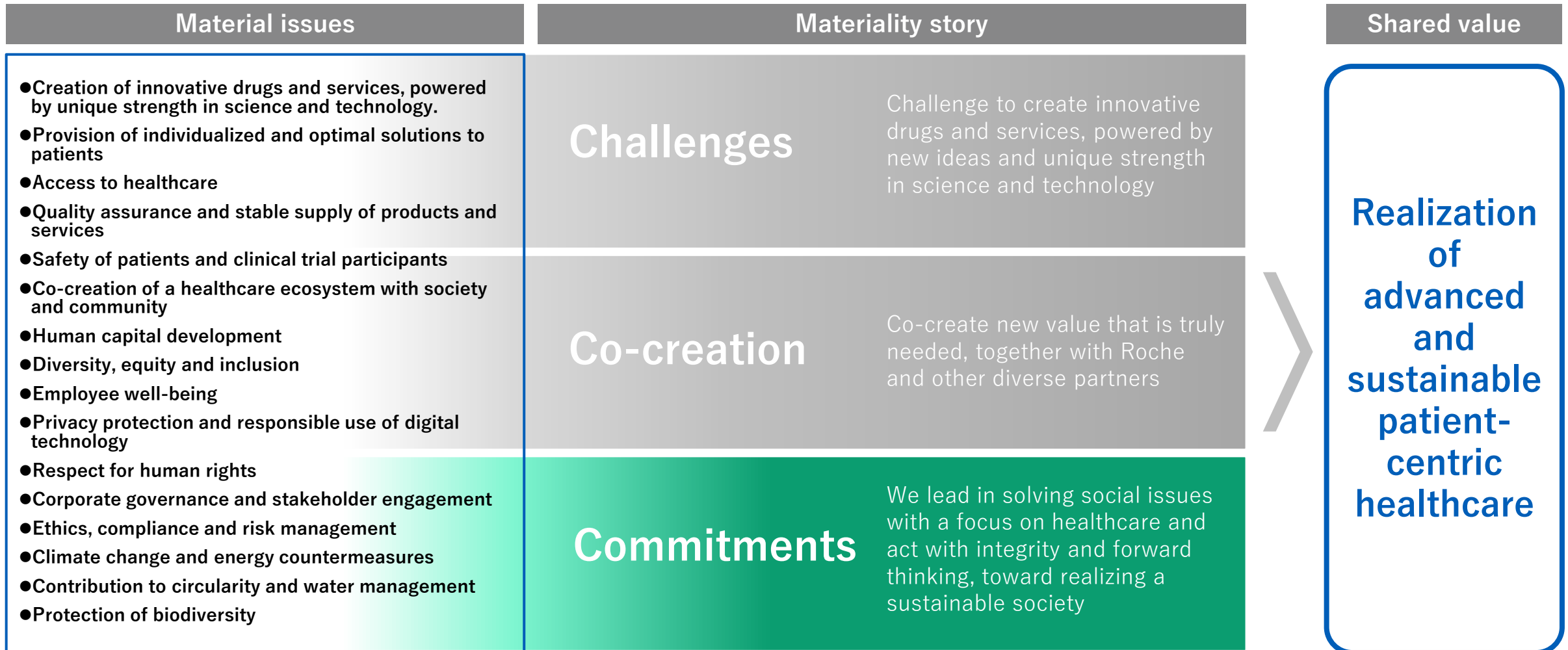
Materiality Story Based on Three Themes (2)

Co-creation of new value with diverse partners



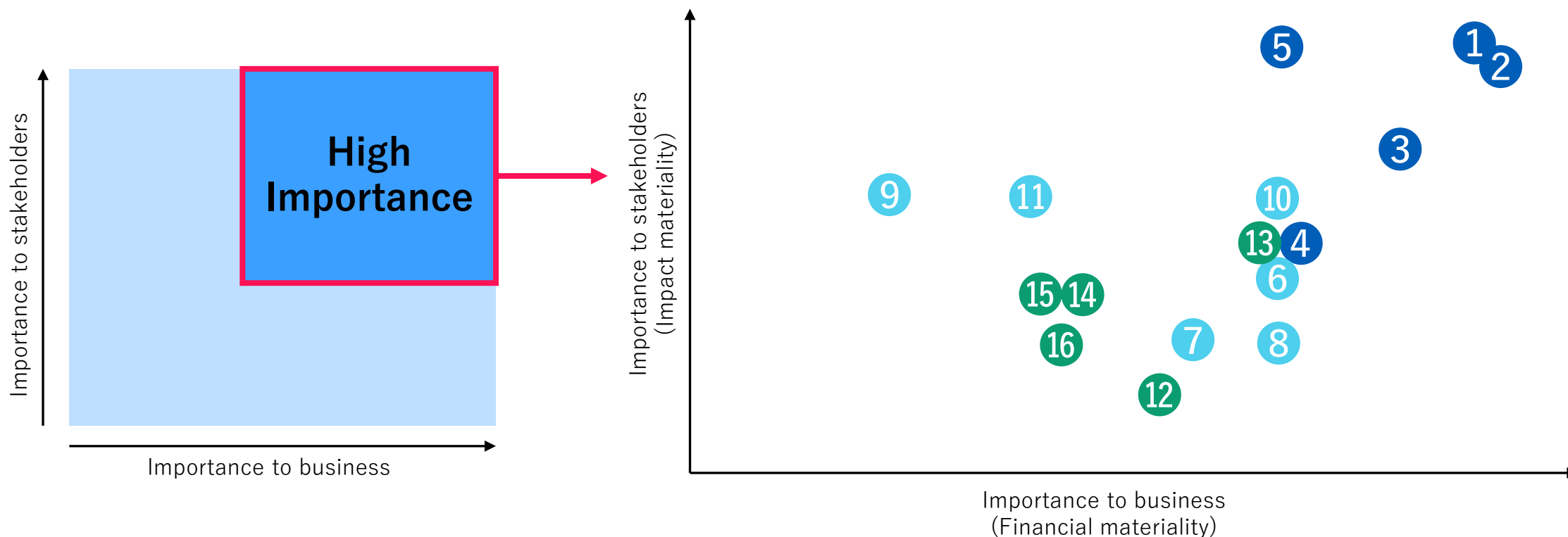
Materiality Story Based on Three Themes (3)

Commitments to working on solutions for social issues centered on healthcare



Materiality Matrix

Mapping of impact assessment based on double materiality approach



- ① Challenge to create innovative drugs and services, powered by new ideas and unique strength in science and technology
- ② Provision of individualized and optimal solutions to patients
- ③ Access to healthcare
- ④ Quality assurance and stable supply of products and services
- ⑤ Safety of patients and clinical trial participants
- ⑥ Co-creation of a healthcare ecosystem with society and community
- ⑦ Human capital development
- ⑧ Diversity, equity and inclusion

- ⑨ Employee well-being
- ⑩ Privacy protection and responsible use of digital technology
- ⑪ Respect for human rights
- ⑫ Corporate governance and stakeholder engagement
- ⑬ Ethics, compliance and risk management
- ⑭ Climate change and energy countermeasures
- ⑮ Contribution to circularity and water management
- ⑯ Protection of biodiversity

Definition of Material Issues

Establish Chugai's perspective and direction on material issues as a definition

Concisely express the issues Chugai should address as material issues

Specifically express the meaning of material issues, taking into account Chugai's intended direction

#	Material issue	Definition
(example) ※All definitions of material issues are included in the Appendix		
2	Provision of individualized and optimal solutions to patients	We will generate evidence that enhances value for patients, continuously working to provide solutions that meet the diverse needs of individual patients and medical practices to strengthen and advance them. Contribute to the provision of healthcare that is optimal for each patient and truly enhances value together with stakeholders involved in healthcare such as patients, their families, and healthcare professionals.
6	Co-creation of a healthcare ecosystem with society and community	In order to support the foundation for sustainable patient-centric and advanced healthcare, and to expand healthy society, we collaborate with various entities such as society/community, patient group, government, administration, to create collective impact against social issues related to healthcare that cannot be solved by our company alone. Through this, we will contribute to the maintenance, expansion and development of a robust foundation and ecosystem that supports medicine and healthcare as a leader in the industry.

Materiality, Strategy, and Performance Indicators

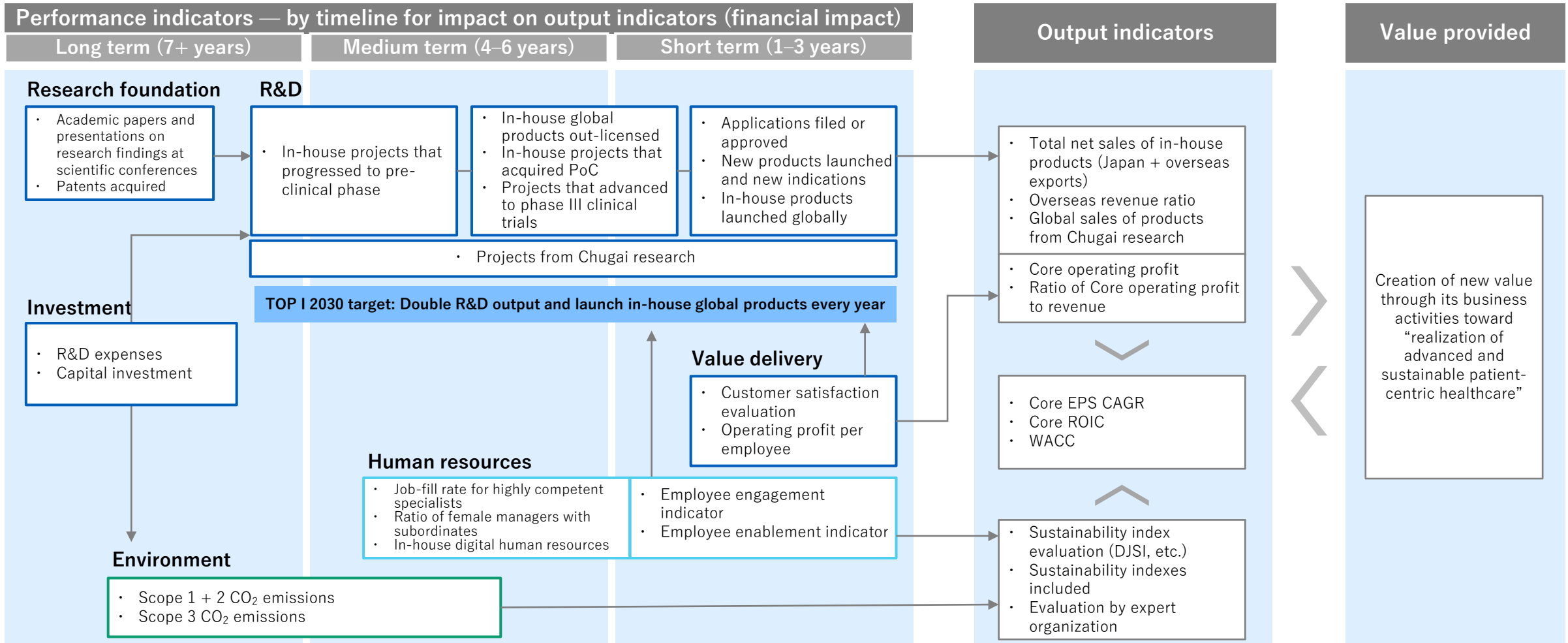
Each division is committed to the related material issues for that division and its strategies

	Material issues	Main positioning in management strategy*			Relevant performance indicators
		Growth strategy	Enhancement of foundation for growth	Continuous promotion	
Challenges	Creation of innovative drugs and services, powered by unique strength in science and technology.	○			<ul style="list-style-type: none"> • In-house projects that progressed to pre-clinical phase • In-house projects that acquired PoC • Projects that advanced to phase III clinical trials • Applications filed or approved • New products launched and new indications • In-house global products out-licensed • In-house products launched globally • Academic papers and presentations on research findings at scientific conferences • Patents acquired • Projects from Chugai Research • Operating profit per employee • Customer satisfaction evaluation • R&D expenses • Capital investment
	Provision of individualized and optimal solutions to patients	○			
	Access to healthcare	○			
	Quality assurance and stable supply of products and services	○			
	Safety of patients and clinical trial participants		○		
	Co-creation of a healthcare ecosystem with society and community		○		
Co-creation	Human capital development	○	○		<ul style="list-style-type: none"> • Employee engagement indicator • Employee enablement indicator • Job-fill rate for highly competent specialists • Ratio of female managers with subordinates • In-house digital human resources
	Diversity, equity and inclusion		○		
	Employee well-being		○	○	
	Privacy protection and responsible use of digital technology	○	○		
Commitments	Respect for human rights			○	<ul style="list-style-type: none"> • Scope 1 + 2 CO₂ emissions • Scope 3 CO₂ emissions
	Corporate governance and stakeholder engagement			○	
	Ethics, compliance and risk management		○	○	
	Climate change and energy countermeasures		○	○	
	Contribution to circularity and water management		○	○	
	Protection of biodiversity		○	○	

* Growth strategy: (1)-(4) of the five areas of reform in TOP I 2030; Enhancement of foundation for growth: (5) of the five areas of reform in TOP I 2030 and medium- to long-term sustainability focus points; Continuous promotion: areas where initiatives for continuous reinforcement and advancement are already in place companywide and in each division

Relationships of Value Creation Indicators

Organization of performance indicators based on the timeline for financial impact



Definition of Material Issues (1/3)

#	Material issue	Definition
1	Creation of innovative drugs and services, powered by unique strength in science and technology	<p>To realize advanced and sustainable healthcare, continuously create innovative, high-quality drugs and services that address unmet medical needs. To achieve this, we will create original technologies mainly for drug discovery, and cultivate understanding of science and biology for disease.</p> <p>Based on our value of patient-centricity, we aim to provide drugs and services that are centered on patients and reduce burdens on people around them such as caregivers and healthcare professionals and improve their QOL. To this end, we will actively adopt advanced technologies such as digital technology, and continuously work together with people around world on sophistication and acceleration of business processes for value creation, collaborate with academia, open innovation, advanced use of intellectual property, etc.</p>
2	Provision of individualized and optimal solutions to patients	<p>We will generate evidence that enhances value for patients, continuously working to provide solutions that meet the diverse needs of individual patients and medical practices to strengthen and advance them.</p> <p>Contribute to the provision of healthcare that is optimal for each patient and truly enhances value together with stakeholders involved in healthcare such as patients, their families, and healthcare professionals.</p>
3	Access to healthcare	<p>We will contribute to regional healthcare coordination and enhancement of healthcare so that highly specialized medical care, mainly comprising innovative drugs and services that address unmet medical needs, can be delivered to people around the world who need it. We will realize continuous and sustainable creation of drugs and services by obtaining appropriate recognition for the provision of innovative drugs and services that have true value while taking measures such as cost reduction by proactive use of new technologies and promotion of treatment design with less burden for patients.</p>
4	Quality assurance and stable supply of products and services	<p>To provide reliable products and services that customers can use with confidence, we will ensure consistent and stable products and services, as well as information quality, throughout the product life cycle from the clinical trial stage. We will also make efforts to prevent counterfeiting and poor quality of drugs, such as enhancing traceability in the supply chain. In addition, in accordance with the basic concept of quality, we will build a supply chain that is robust even in emergencies by working together with stakeholders in the value chain.</p>
5	Safety of patients and clinical trial participants	<p>To ensure thorough management of safety throughout the product lifecycle and minimize potential negative impact such as deteriorating health to patients and clinical trial subjects. In addition to carrying out appropriate pharmacovigilance activities in cooperation with regulatory authorities, we ensure the provision of information to healthcare professionals to promote the proper use of drugs and services. Particularly in ensuring the safety of products and conducting clinical studies on development products, risks and efficacy shall be appropriately evaluated from the viewpoints of high ethics and science.</p>

Definition of Material Issues (2/3)

#	Material issue	Definition
6	Co-creation of a healthcare ecosystem with society and community	<p>In order to support the foundation for sustainable patient-centric and advanced healthcare, and to expand healthy society, we collaborate with various entities such as society/community, patient group, government, administration, to create collective impact against social issues related to healthcare that cannot be solved by our company alone.</p> <p>Through this, we will contribute to the maintenance, expansion and development of a robust foundation and ecosystem that supports medicine and healthcare as a leader in the industry.</p>
7	Human capital development	<p>We organize a system for career development and talent management so that each employee can fully demonstrate the abilities, attract human resources from around the world and support self-directed learning and growth. In particular, we will focus on acquiring and developing highly specialized talent, such as digital and science talent, who will be key to strategy execution and be able to co-create with players around the world.</p> <p>In anticipation of contributing to enhancing the drug discovery and R&D capabilities of the industry as a whole in the future, we will create world-class human resources from Chugai Pharmaceutical that are at the top level of the healthcare industry.</p>
8	Diversity, equity, and inclusion	<p>Foster an inclusive organizational culture that respects diverse thinking and ideas and challenges together to pursue innovation. In doing so, we will improve and correct imbalances that may be obstacles while creating opportunities for diverse human resources to play active roles. We will promote diversity, equity, and inclusion in all aspects of our business activities. Through these activities, we will contribute to the realization of an inclusive society that respects diversity.</p>
9	Employee well-being	<p>We maintain a healthy, safe and secure work environment for employees. We believe that the health of employees is the foundation of all business activities, and we will actively promote activities that contribute to promoting the health of employees.</p> <p>In addition, we will improve the engagement of each and every employee, and promote the establishment of an environment where employees can work independently and autonomously, and have a sense of work satisfaction, motivation in life, and be active both physically and mentally.</p>
10	Privacy protection and responsible use of digital technology	<p>Comply with regulations, collect and use data in a fair manner, build robust management mechanisms, and work with stakeholders to cope with appropriate personal information protection and information security.</p> <p>We will actively utilize digital and other new technologies with a high level of ethics while keeping in mind the changing environment and give an example to stakeholders and society.</p>

Definition of Material Issues (3/3)

#	Material issue	Definition
11	Respect for human rights	<p>We respect individual dignity and human rights as the right for every single person to live own life freely with peace of mind and pursue happiness. As a life sciences company, it is essential to not infringe on human rights. Based on this principle, we prevent, correct, and reduce violations of the human rights of employees involved in business activities and workers in the value chain, including their right to work.</p> <p>We will continuously and effectively carry out this initiative, including information disclosure, throughout the industry.</p>
12	Corporate governance and stakeholder engagement	<p>We appropriately manage important management items under a highly effective system that separates management decision-making from business execution and supervision. Ensure management autonomy and independence to achieve sustainable growth and increase corporate value.</p> <p>Focusing on corporate accountability, we will strive for highly transparent and appropriate disclosure of information. At the same time, we will engage in dialogue with stakeholders to understand society's demands on our company, including courteous and easy-to-understand communication on pharmaceutical products and services.</p>
13	Ethics, compliance and risk management	<p>Ensure high ethical standards in all activities.</p> <p>We will comply with laws and regulations, respond to the changing demands of society, and build open and cooperative relationships with stakeholders to ensure transparent and fair corporate activities. Establish basic principles of bioethics including biotechnology, promote understanding and compliance among employees, and strive to handle them properly while continuously showing our efforts as a role model to the industry.</p> <p>In addition, we will centrally identify, organize, and visualize all risks related to our business activities. We will promote integrated, effective, and efficient risk management, and also promote activities based on the Risk Appetite Statement.</p>
14	Climate change and energy countermeasures	<p>We will work together with our suppliers to reduce GHG emissions, use sustainable energy, disclose information, in order to contribute to climate change countermeasure. We will proactively and actively advance initiatives that contribute to the regeneration of the global environment, including technological innovations that enhance the environmental functions of manufacturing facilities, etc., investments in them, and reductions in the use of CFCs and HCFCs.</p>
15	Contribution to circularity and water management	<p>We actively strive to design and implement business activities that address the circular economy, including zero waste emissions, and contribute to the realization of a society in which resources are effectively used.</p> <p>In view of social issues related to plastics, such as marine pollution, etc., plastic waste will be reduced and recycling will be promoted. In addition, we will work to optimize appropriate wastewater treatment and consumption throughout our value chain to promote water resource management, conservation, and recycling.</p>
16	Protection of biodiversity	<p>Efforts for minimizing the impact on biodiversity shall be made including proper use and management of chemical substances, the prevention of air and soil pollution, and the reduction of the amount of hazardous chemical substances used and hazardous waste. Information disclosure for this efforts shall be openly conducted.</p> <p>We will work on natural regeneration in cooperation with various players to connect the irreplaceable Earth to the next generation.</p>

03 Co-Creation of a Healthcare Ecosystem

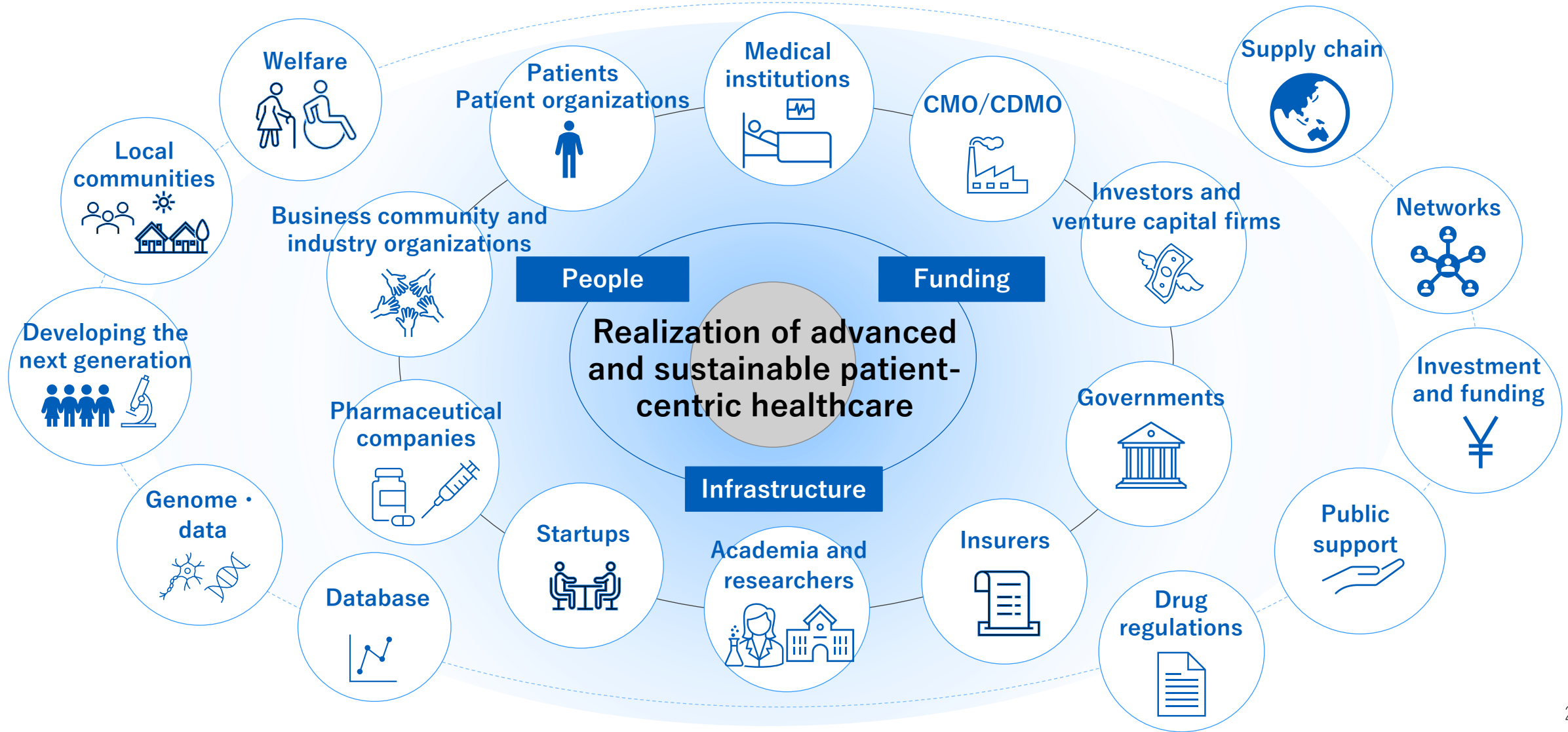


Vice President
In charge of External Affairs Dept.

Naoya Fujihara

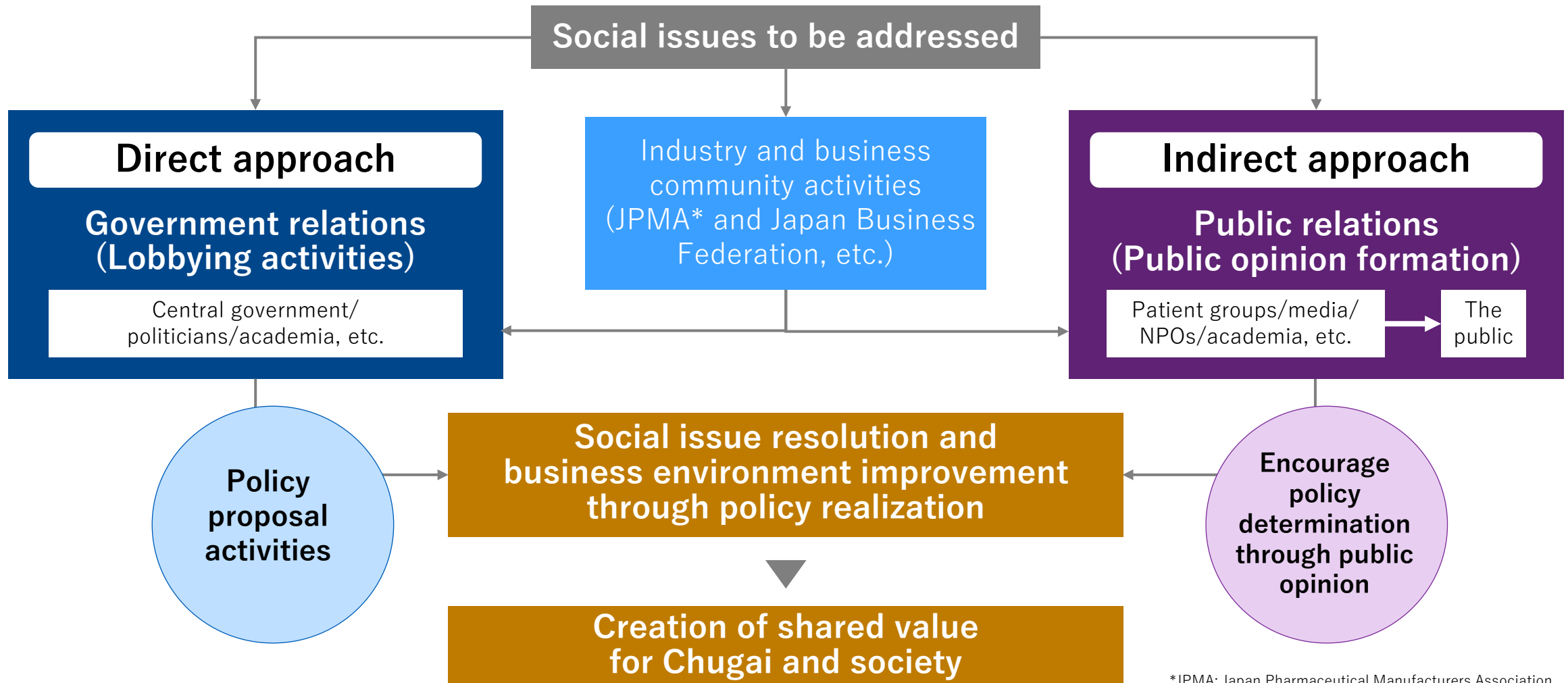
Co-creation of a Healthcare Ecosystem with Society and Community

We collaborate with various entities to resolve social issues in medicine and healthcare and realize advanced and sustainable patient-centric healthcare



Toward Value Creation through Collaboration with Stakeholders

We aim to create shared value for the Company and society using a unified direct and indirect approach



*JPMA: Japan Pharmaceutical Manufacturers Association

The Company's Industry and Business Community Activities for Creation of Shared Value

Exercising leadership across industries to achieve social issue resolution and business environment improvement through policy realization

Industry activities

Expressing opinions on resolution of issues and industry promotion in the pharmaceutical industry

The Federation of Pharmaceutical Manufacturers' Associations of JAPAN
Vice president
(Chugai personnel: 14)

Japan Pharmaceutical Manufacturers Association
Vice president
(Chugai personnel: approx. 120)

The Pharmaceutical Manufacturers' Association of Tokyo
President
(Chugai personnel: 15*)

Etc.

Business community activities

Disseminating opinions with a strong impact across industries, such as the biotechnology

Japan Business Federation (Keidanren)

Vice chair of the Board of Councillors

Chair of the Committee on Bioeconomy

Japan Bioindustry Association

President
(Chugai personnel on assignment: 2)

EU-Japan BRT**
Principal

Etc.

Drivers

- ✓ Exertion of influence through the organic activities of multiple organizations for the promotion of policy proposals and advocacy activities that would present a high level of difficulty for the Company alone
- ✓ Demonstration of strong leadership through the increase of the Company's presence in each organization's activities

Resolution of increasingly complex social issues through new value creation based on co-creation

*Including two persons on assignment

**BRT: Business Round Table. Chugai leads Working Party 2, which is responsible for Life Sciences & Biotechnology, Healthcare and Well-Being.

Case Study 1: Biotechnological Transformation (BX)

As a leader in biopharmaceuticals, we will contribute to the building of a bio-community in Japan through cooperation beyond the medical industry

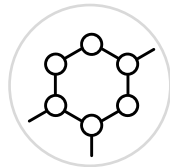
Possibilities of biotechnology

- ✓ Genome sequencing and editing technology innovation and IT/AI technology popularization are expanding **new manufacturing possibilities using bioresources**
- ✓ Expanding their scope of application will enable both **the resolution of social issues**, such as environmental and resource problems, **and sustainable growth industries**
- ✓ **Countries around the world**, including the U.S. and China, are incorporating **BX as a national strategy** and **international competition is intensifying**



Red bio

Biopharmaceuticals/
vaccines/cellular and
gene therapies, etc.



White bio

Functional materials/
bioplastics, etc.



Green bio

High performance,
high yield crops/
biomass fuels, etc.

Contribution of biotechnology to the resolution of wide-ranging social issues

Health and medical
problems

Global environmental
problems

Food and resource
problems

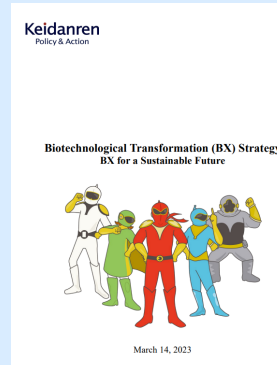
Example of supporting the promotion of the bioindustry through business community activities (Japan Business Federation Committee on Bioeconomy)



Observation of bioventures and the domestic and international bioeconomy



Collaboration with over 100 committee companies and discussion with government agencies, legislators, and experts in Japan and overseas



Contribution to government strategy through multiple policy proposals*



Policy proposal recommendations to the relevant minister (Photo: April 2024)

Photograph ©Keidanren

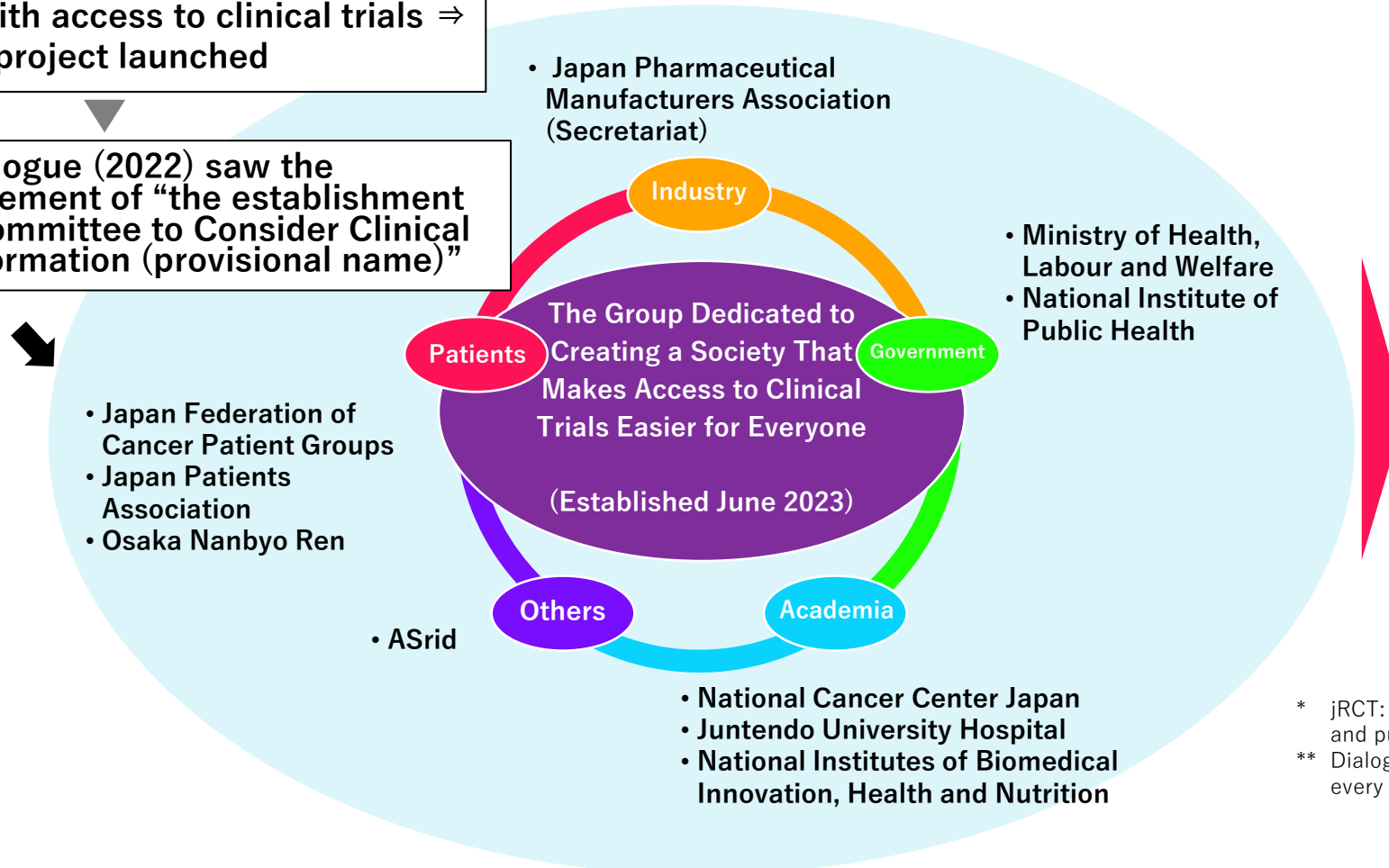
* "BX Strategy—BX for a Sustainable Future (March 2023)," and "Key Initiatives for Achieving Biotechnological Transformation (BX) (April 2024)" are two proposals that we announced in tandem with the Cabinet's issuance of the "Bioeconomy Strategy (June 2024)"

Case Study 2: The Group Dedicated to Creating a Society That Makes Access to Clinical Trials Easier for Everyone

Picking up on front line issues related to clinical trial access in a joint effort among industry, academia, government, and patients to realize the reform of jRCT*

CEO Dialogue** (2020) identified issues with access to clinical trials ⇒ Internal project launched

CEO Dialogue (2022) saw the announcement of “the establishment of the Committee to Consider Clinical Trial Information (provisional name)”



Results to Date

- Four submissions of written recommendations for reform of jRCT
- Reflection in supplementary budget and budget request
 - ✓ FY2024: ¥130 million (supplementary budget)
 - ✓ FY2025: ¥470 million (budget request)

* jRCT: Japan Registry of Clinical Trials. Clinical trial submission and publication system (niph.go.jp)

** Dialogues with patient organizations and the CEO have been held every year since 2020

Case Study 3: PHARMONY Activities for Incorporating Patient Feedback

Treating patients as partners in issue resolution and reflecting their feedback in every process from drug discovery research to post-market launch



Patients × Pharma × Harmony

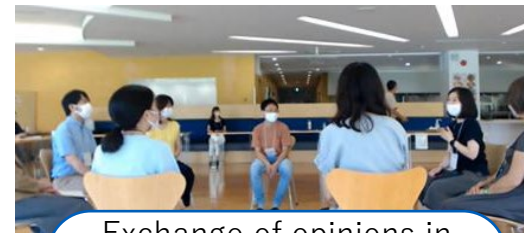
PHARMONY is a coverall term for Chugai's activities for listening to the voices of patients and their families with the aim of mutual understanding, while engaging in initiatives for shared value creation.



- Cooperated with patient organizations to resolve all patient issues in all areas of the value chain ahead of other companies
- In research, obtained knowledge from the patient perspective through collaboration with patient organizations on three projects



- (1) Examination of drugs for chronic abnormalities in certain test values
- (2) Confirmation of patient perspective on importance of efficacy vs safety for disease A
- (3) Confirmation the impact of dosage form and dosage frequency in disease B



Exchange of opinions in small groups



Holding workshops

Case Study 3: CHUGAI PHARMONY DAY 2024

Communicating PHARMONY activities broadly inside and outside the Company

- ✓ Date: October 16, 2024
- ✓ Participants: Members of patient organizations, members of the media, Chugai Pharmaceutical Group employees
- ✓ Content: (1) Patient lecture, (2) Introduction of case studies of collaboration with patient organizations (five topics), (3) Dialogue between patient organizations and CEO



(1) Patient lecture



(2) Introduction by employees of case studies of collaboration with patient organizations



(3) Dialogue between patient organizations and CEO

Case Study 3:

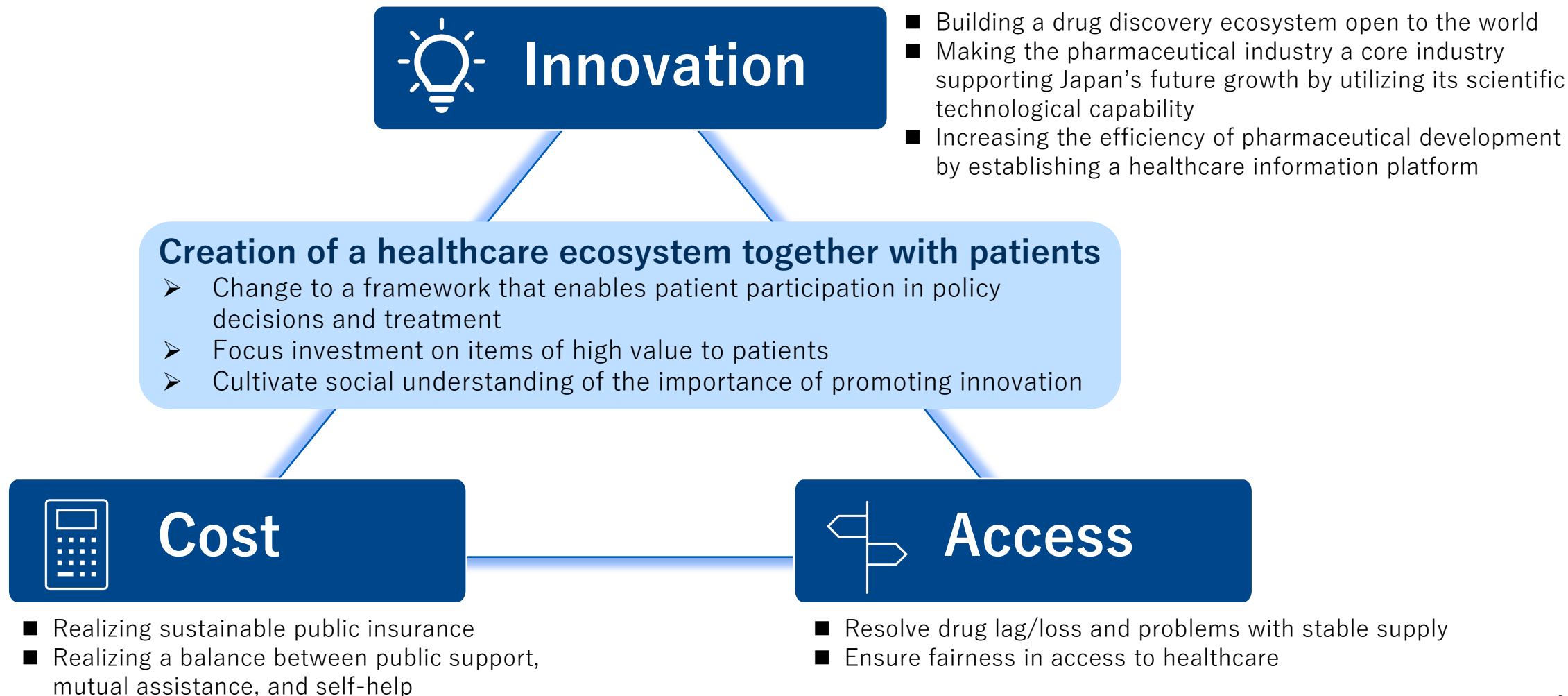
[Reference] Collaboration with Patient Organizations Five Topics

Case studies of collaboration with patient organizations in all areas of the value chain were submitted

Topic	Issue	Expectation/Result
Research Initiatives for Examining Needs from a Patient Perspective in the Initial Stages of Drug Discovery Research	<ul style="list-style-type: none"> Differences between the views of patients and non-patients on “chronic abnormalities in blood levels of a certain substance X” 	<ul style="list-style-type: none"> Demonstrated the presence of latent patient needs Plan to formulate objective indicators in QoL evaluation points
Formulation Listening to the Voices of Patients and Refocusing Our Thoughts on “Patient-Centric Drug Development” —Production Engineering Summer Camp Activities	<ul style="list-style-type: none"> Creation of opportunities for dialogue between department personnel and patients Identification of latent needs in formulation 	<ul style="list-style-type: none"> Increase motivation of all department personnel Creation of multiple ideas, such as easy-to-use formulation design
Development Progress on Clinical Development by Advancing Together with Patients	<ul style="list-style-type: none"> Promoting understanding among patients of the significance of clinical trials and cooperation 	<ul style="list-style-type: none"> Creation of a Drug Discovery Collaboration Guide for patients Improvement of the thank you letter
Development Reform of Compensation System Including Patients’ Perspectives	<ul style="list-style-type: none"> Established an appropriate explanation of the delicate details of compensation 	<ul style="list-style-type: none"> Creation of compensation-related documentation that is easy for patients to understand
Overseas Cooperation with Endometriosis Patient Support Organizations in the United States: Understanding the Unspoken Journey of Endometriosis	Exploration of the following patient perspectives: <ol style="list-style-type: none"> Increasing recognition of endometriosis by physicians Establishment of non-invasive diagnostic methods for early diagnosis Treatment methods other than symptomatic treatment (pain medication) and surgery 	<ul style="list-style-type: none"> Plan to draft a white paper based on patient support organization opinions

Towards the Realization of Advanced and Sustainable, Patient-Centric Healthcare

Simultaneous resolution of the three issues of innovation, cost, and access, to maintain and develop the healthcare ecosystem



04 Our Challenge for PHC Solutions



Executive Vice President
Supervisory responsibility for PHC Solution,
Partnering and Special Mission for CVF

Tetsuya Yamaguchi

Necessity of Personalized Healthcare (PHC) Solutions

Increasing sophistication of patient needs makes maximizing the value provided by innovative drugs more important

Focus and specialization on drugs Becoming a leading pharmaceutical company in Japan

- **Becoming a Japanese leading company** creating innovative drugs by **focusing on the pharmaceutical business under the strategic alliance with Roche**
- Promoting the spread of **PHC as a pioneer** in providing optimal treatment based on diagnosis of patients' **genetic information**, etc.

Challenge to find solutions that increase the value of pharmaceuticals

- Established **the FMU***, started **the CGP** business**, significant contribution to **cancer genomic medicine**
- Started **a drug-related solutions project** as part of efforts for **the insight business**

Establishing “PHC solutions”

- **Establishment of a specialized unit**
- Creation of PHC solutions that realize proof of value and maximization of value of drugs
- Achieving global development and approvals, building a supply structure, and securing business earnings

2024

Clearly set out in the refinement of
TOP INNOVATOR TOP I 2030

2030

2002

2019

Full-Scale Response to PHC Solutions Becoming a Necessity

*FMU : Foundation Medicine Unit, **CGP: Comprehensive Genomic Profiling

Definition of “PHC Solutions” and Value Created

Realize the material issue: “Provision of individualized and optimal solutions to patients”

Definition of “PHC solutions”

Products and services such as SaMD* and biomarkers that enable optimal therapy for individual patients by precisely diagnosing pathologies and measuring therapeutic effects

Chugai’s innovative drugs x PHC solutions = optimal therapy for individual patients

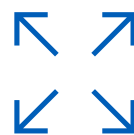
Value Created

1



Enhanced
demonstration of value
in the R&D stage of
drug discovery

2



Maximization of clinical
value of drugs

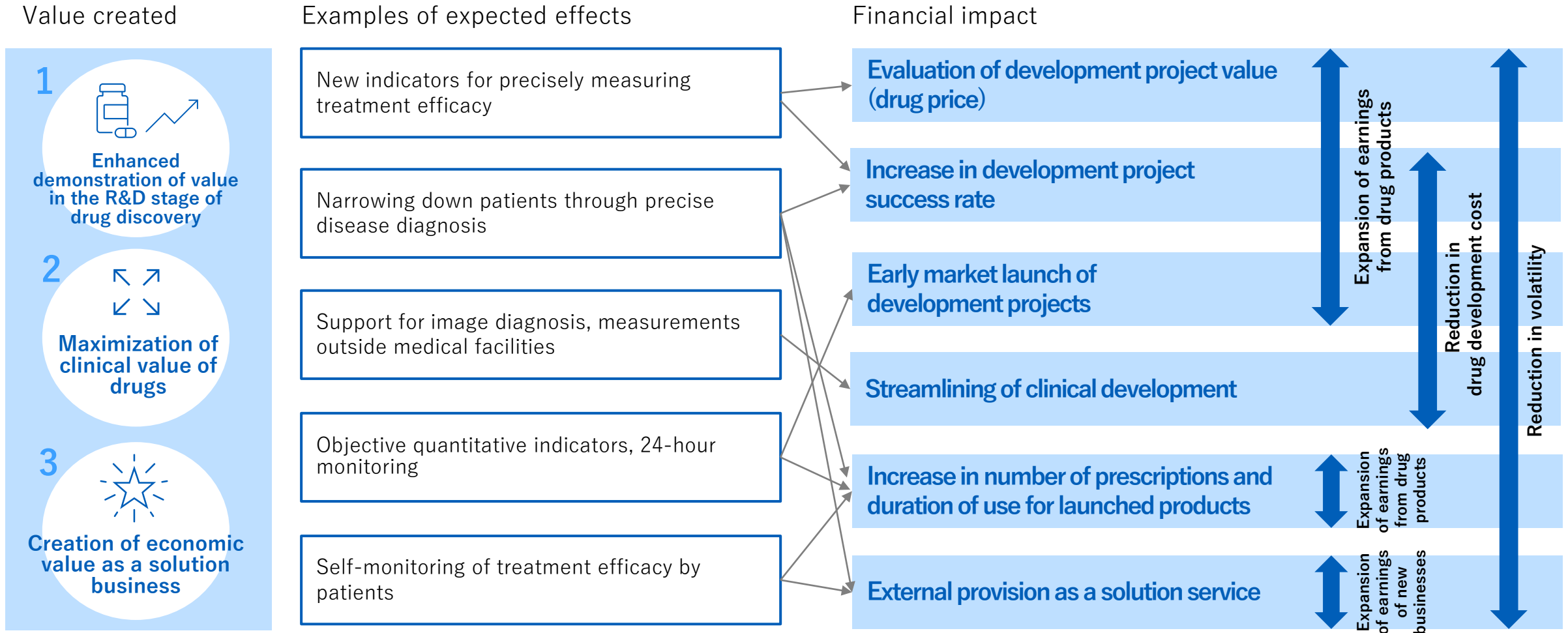
3



Creation of
economic value as
a solution business

Financial Impact of PHC Solutions

Accelerate R&D output and maximization of drug value

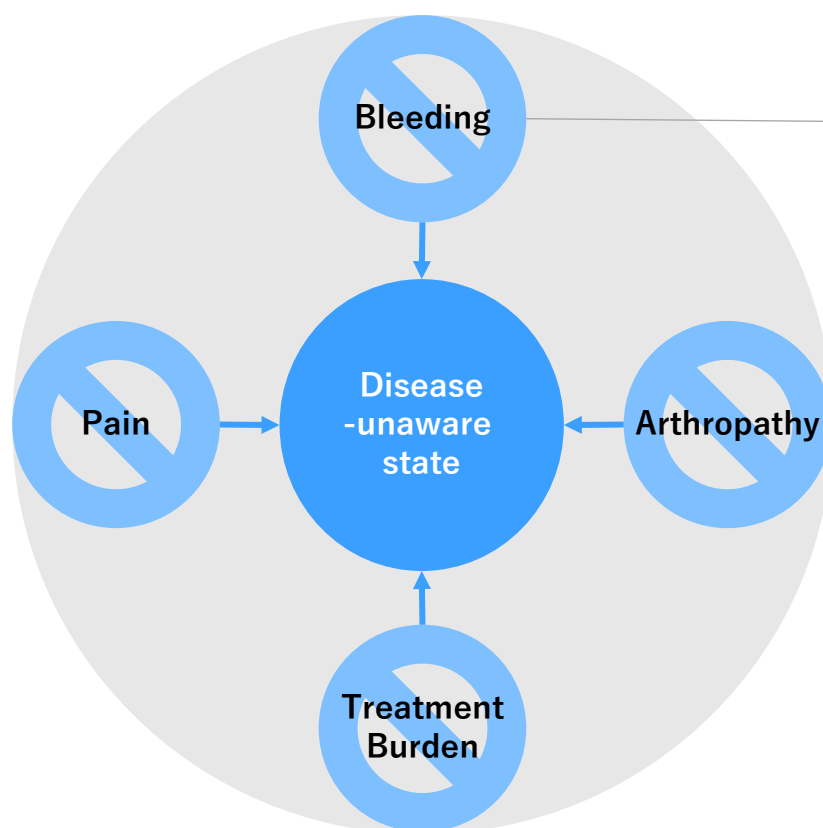


Case Study 1: Joint Diagnosis Support Solution for the Hemophilia Field (1)

A bottleneck for improving QOL for hemophilia patients

Vision and unmet needs in hemophilia treatment

Vision for hemophilia treatment*



(+) Hemlibra realized prevention of bleeding with low frequency subcutaneous delivery (previous therapy centered on supplementation of blood clotting factors)

- (-) **Joint bleeding (hemarthrosis) causes inflammation of joint linings (synovitis), progressing to the destruction of cartilage and bone, and restricting patient activity**
- (-) **Regular joint evaluation is important as arthropathy can present due to progression of bleeding, even when asymptomatic**
- (-) **MRI equipment cost and test time, and the high level of expertise required for ultrasound examination of joints have impeded their widespread use**

→ **Arthropathy is a key factor in reducing QOL**

Case Study 1: Joint Diagnosis Support Solution for the Hemophilia Field (2)

Developing a solution to assist in the interpretation of joint ultrasound images

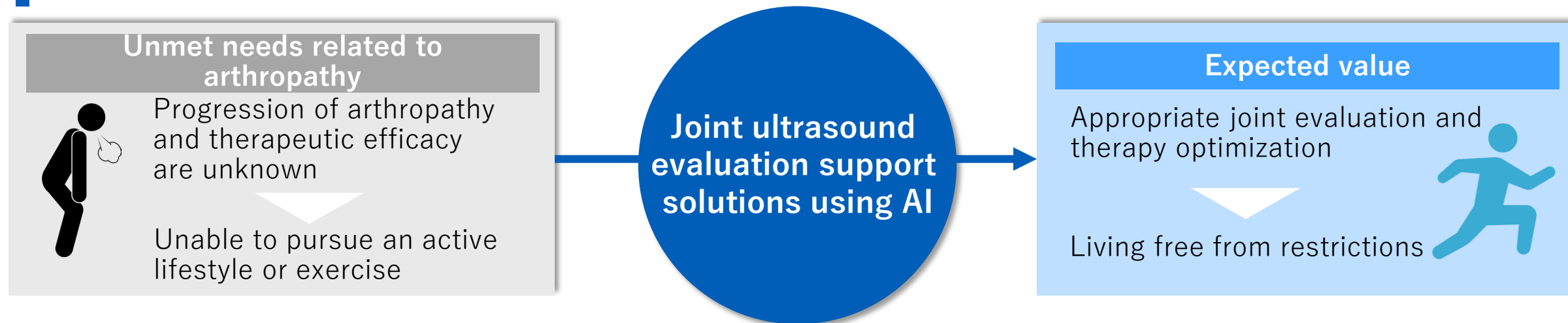
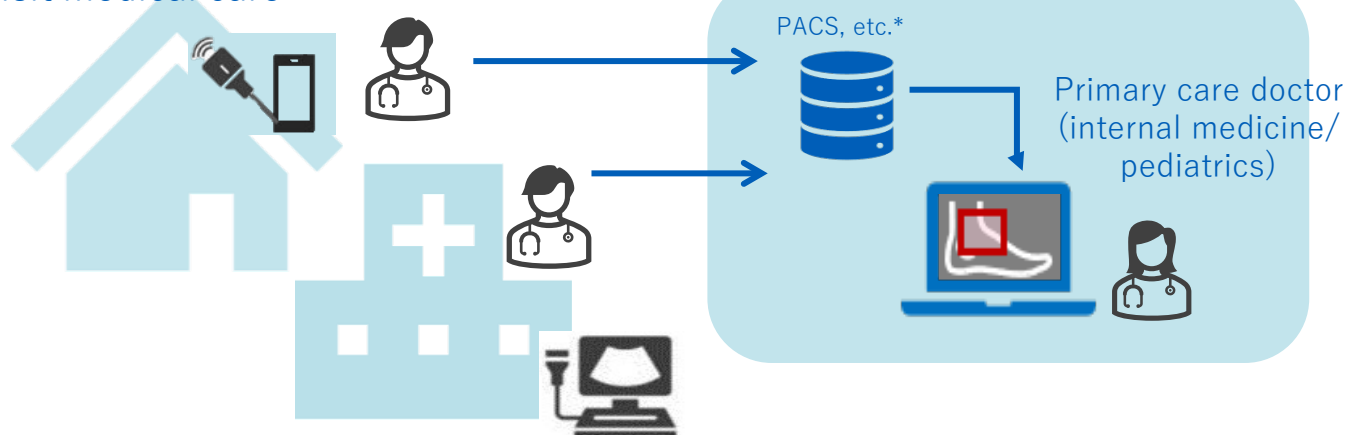


Image of solution in application

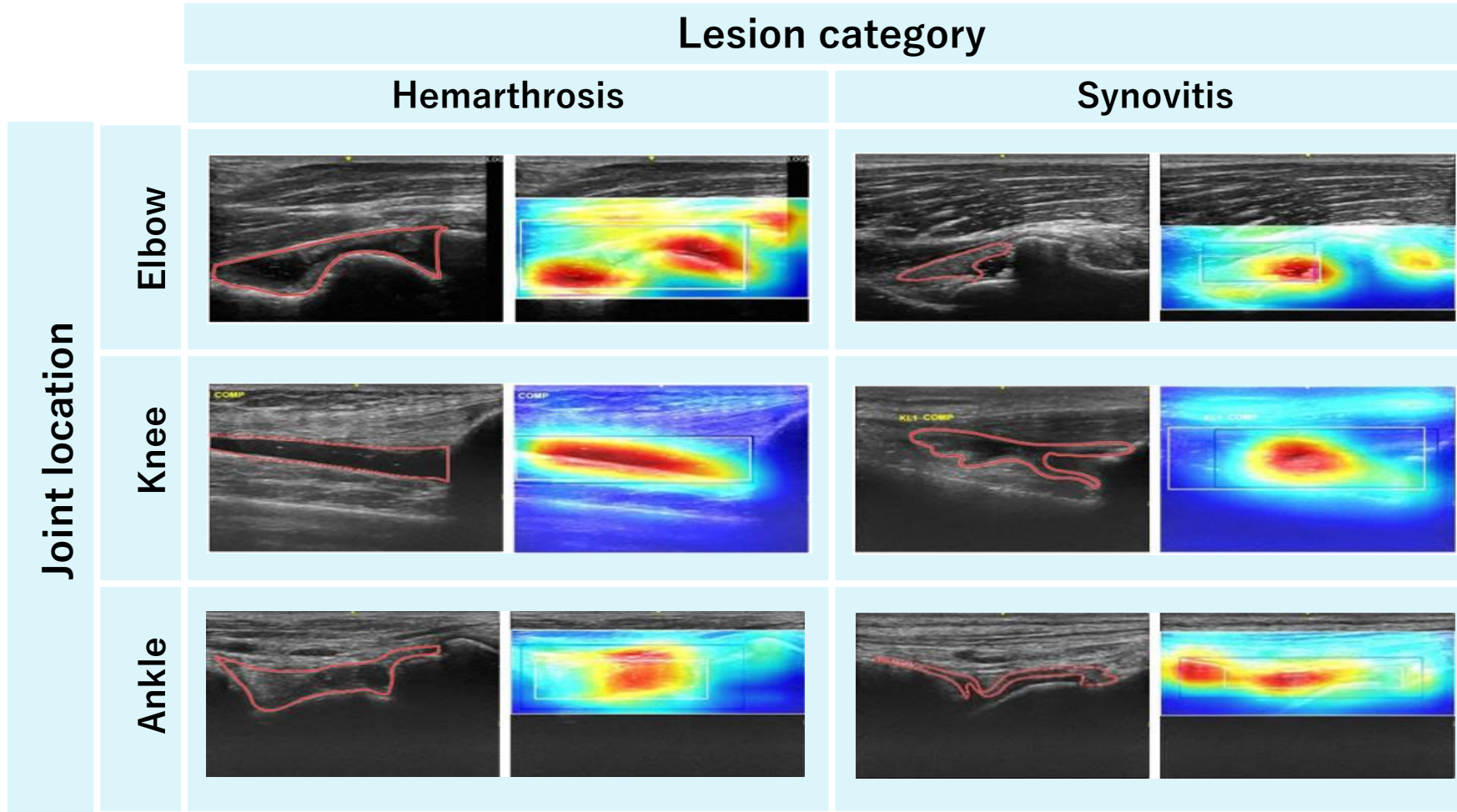
Take ultrasound images of the joint during outpatient examination or home visit medical care



Utilizing AI to visualize lesion areas such as bleeding and synovitis, and to support the interpretation of joint ultrasound images requiring expertise. Aiming to reduce the barriers to joint assessment.

Case Study 1: Joint Diagnosis Support Solution for the Hemophilia Field (3)

Example of a solution currently in development (visualization of joint lesions)



Left: Lesion area with physician's annotation (red frame)

Right: Lesion area predicted by AI (heat map)

The color map display provides evidence for lesion areas (bleeding and synovitis), helping physicians to more accurately interpret AI diagnostic results and prevent misunderstandings.

Degree of contribution to the prediction of intra-articular bleeding and synovitis



Success in displaying lesion areas on joint ultrasound images by data acquisition and model building through clinical research

- Artificial intelligence-assisted ultrasound imaging in hemophilia: research, development, and evaluation of hemarthrosis and synovitis detection. Research and practice in thrombosis haemostasis. URL: [https://www.rpthjournal.org/article/S2475-0379\(24\)00128-6/fulltext](https://www.rpthjournal.org/article/S2475-0379(24)00128-6/fulltext)
- 46th Meeting of the Japanese Society on Thrombosis and Hemostasis (June 13, 2024)
- 65th ASH Annual Meeting and Exposition (December 10, 2023)

Case Study 2: Solutions in Endometriosis

Examples of pain visualization and MRI image diagnostic support

In addition to therapeutic drugs, we are developing solutions to support appropriate evaluation, early diagnosis, and early treatment

Current main treatments for endometriosis

- Administration of hormonal agent to stop menstruation and ovulation
- Surgical removal

Currently developing endometriosis treatment (anti-IL-8 recycling antibody) with an approach different from hormone therapy, which is expected to improve the condition through its anti-inflammatory action.

Towards resolving unmet needs in diagnosis and determination of treatment policy

Current diagnosis:

Subjective pain evaluation

- Individual differences in subjective evaluation
- Efficacy determination through clinical trials also shows variation

Laparoscopic lesion diagnosis

- Definitive diagnostic method. High diagnostic accuracy
- High patient invasiveness as diagnostic technique

Imaging device lesion diagnosis

- Minimally invasive evaluation method. Ultrasound and MRI as typical examples
- Diagnostic accuracy dependent on operator experience

Pain visualization solution

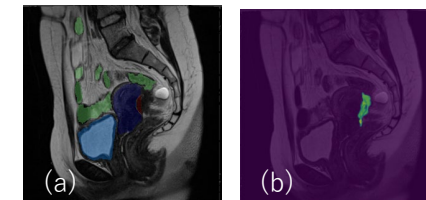
- Wearable device dBM*
- Enables objective evaluation and 24-hour monitoring
- Precise pain evaluation enables more accurate understanding (monitoring)



MRI image diagnostic support solution

- Accelerate diagnosis by preventing oversight
- A diagnosis support algorithm that detects the following lesions in endometriosis
 - (1) nodal lesions
 - (2) adhesive lesions
 - (3) endometriotic ovarian cyst
- Early therapeutic intervention
 - Improved QOL by control of endometriosis symptoms
 - Securing fertility by early start of infertility treatment

Example:
detection model for nodal lesions

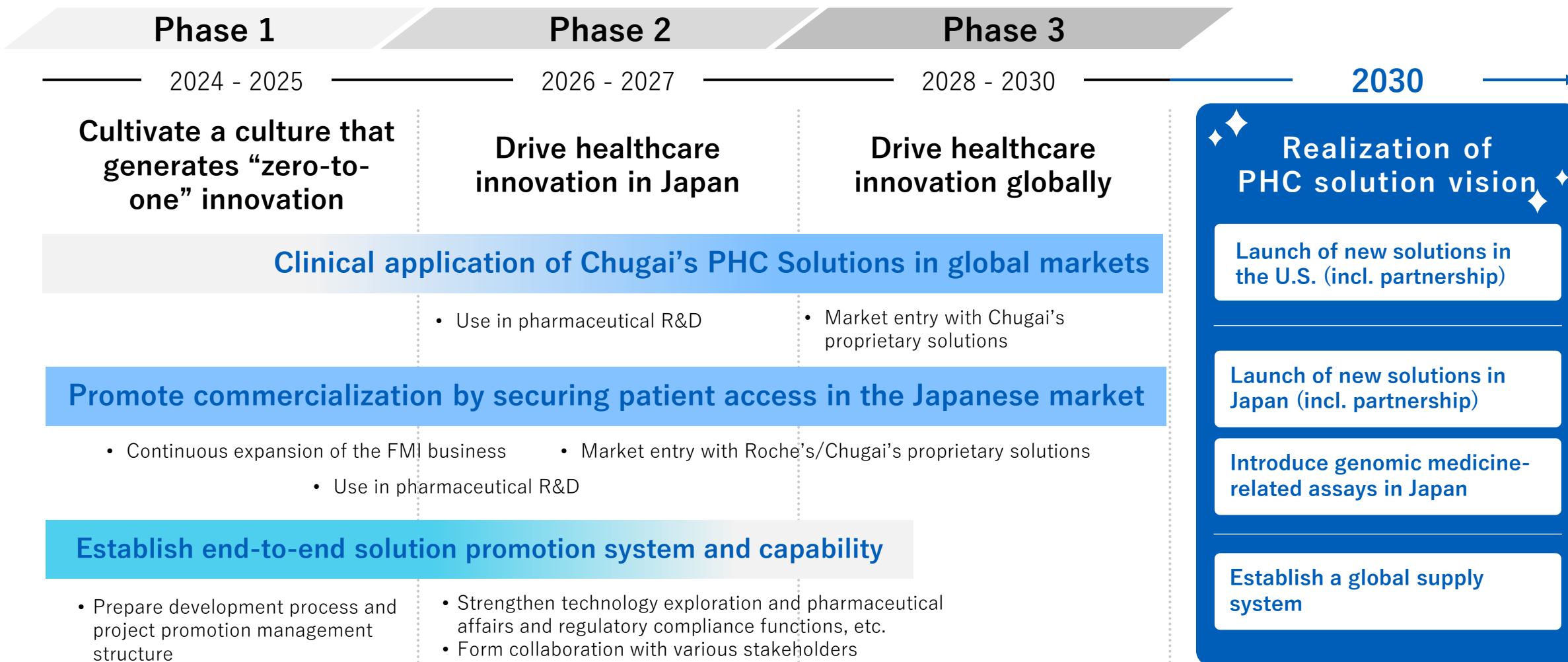


(a) Segmentation results of lesions and peripheral organs
(b) Display result showing uncertainty of predicted lesion
Provided by Preferred Networks

*dBM: Digital Biomarker

Roadmap to 2030

Establish a global supply system by 2030, and aim to launch multiple solutions in Japan and the United States



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INNOVATION BEYOND IMAGINATION