

Business Area Briefing

IHI Group ESG Management

IHI

September 27, 2023

株式会社 **IHI**

Akihiro Seo

Director; Managing Executive Officer; General
Manager of Human Resources Division

Management Philosophy

“Contribute to the development of society through technology”

“Human resources are our single most valuable asset”

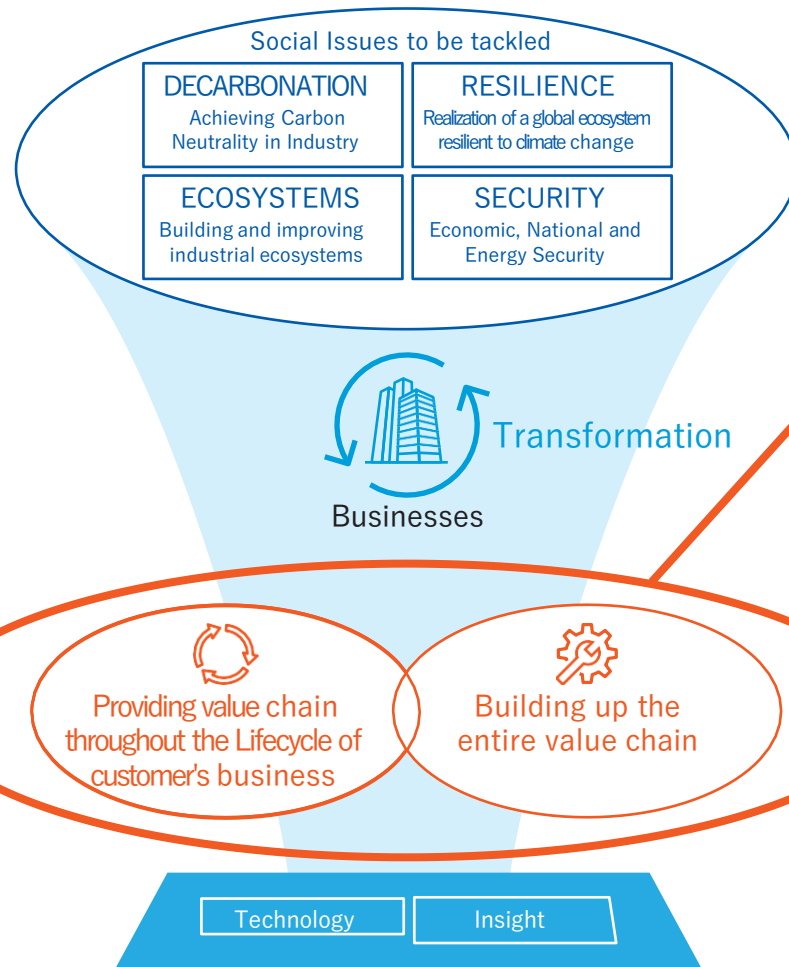
Sustainability Goal

“Create a world where nature and technology work in unity”

IHI Group ESG Management and Group Management Policies 2023 **IHI**

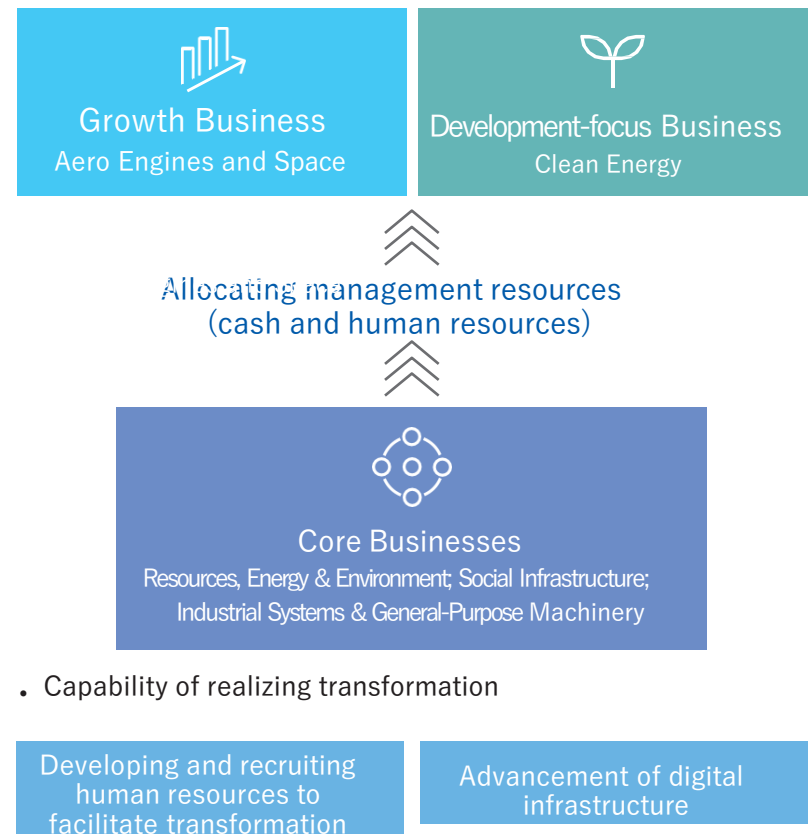
We will contribute to a world where nature and technology work in unity by helping to resolve social issues through business and create a sustainable economy. We will accordingly overhaul our operations and corporate structure

● Group Corporate Strategy



● Key points for the 'Group Management Policies 2023'

- Leaping forward to become a sustainable high-growth company through **a bold shift of management resources** to growth areas



- Capability of realizing transformation

● Main Initiatives for Material Issues

	Material Issues	Main Initiatives
Environment E	Climate change	Taking measures against climate change through products and services <ul style="list-style-type: none"> • Development and social implementation of technologies to achieve carbon neutrality • Helping provide economic infrastructure that is resistant to natural disasters Reducing GHG emissions <ul style="list-style-type: none"> • Using energy efficiently • Using less carbon energy
Society S	Human rights	Promoting human rights due diligence <ul style="list-style-type: none"> • Human rights risk assessment, countermeasures, and monitoring • CSR procurement monitoring for business partners
	Diversity, equity, and inclusion	Human resource management and development <ul style="list-style-type: none"> • Promoting institutional reform and fostering a corporate culture that evaluates the reform challenges • Conducting employee awareness surveys to increase engagement • Developing educational programs that enable diverse human resources to grow and play active roles Diversity, equity, and inclusion <ul style="list-style-type: none"> • Active participation by diverse human resources (women, employees with disabilities, etc.) • Secondary jobs outside of the Company, or additional jobs within it
Governance G	Securing and maintaining stakeholder trust	Improving corporate governance <ul style="list-style-type: none"> • Evaluate Board of Directors' effectiveness with displayed results Through compliance <ul style="list-style-type: none"> • Compliance Hotline operation Through risk management <ul style="list-style-type: none"> • Review of risk management activity by the Board of Directors Innovative management <ul style="list-style-type: none"> • Concentrating research funds and human resources toward focus areas Improving information security <ul style="list-style-type: none"> • Taking measures to prevent security risks from three angles: rules, tools, and training Providing timely and appropriate information <ul style="list-style-type: none"> • Dialogue with stakeholders through financial result briefings, individual meetings, etc.

Climate change

IHI Carbon-neutral 2050

**Our 2050 goal to achieve carbon neutrality
throughout the entire value chain**

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Achieving carbon neutrality in Air Transportation Systems

Lightweighting technologies



Composite fan blades



Ceramic matrix composite turbine blades



Fiber-reinforced thermoplastic airframe structure

Electrification and hydrogen propulsion technologies



Highly heat-resistant motors



Hydrogen tanks



Source: *1

Gas turbine engines



Source: *2

Fuel cell propulsion aircraft



Source: *3

Innovative engines



Source: *4

Hybrid electric propulsion aircraft



Source: *5



©Boeing
Source: *6



©Airbus

Source: *7

Revolutionary aircraft

Carbon neutral
(Effectively zero carbon dioxide emissions)

2020

2030

2040

2050

Driving advances with conventional aircraft

Exploring revolutionary aircraft and technologies

Aircraft propulsion systems

Improve conventional aircraft and engines

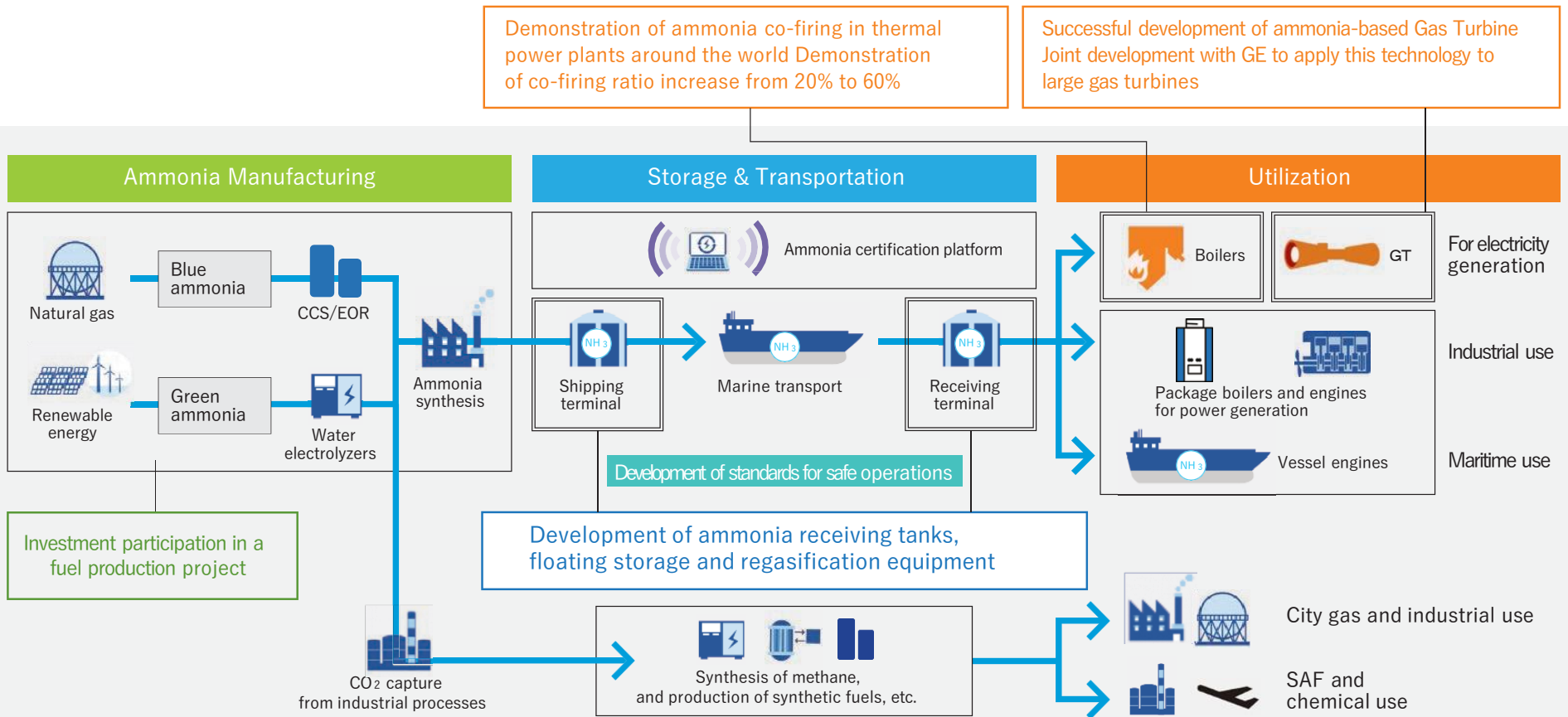
Revolutionary aircraft and engines

Fuel diversification

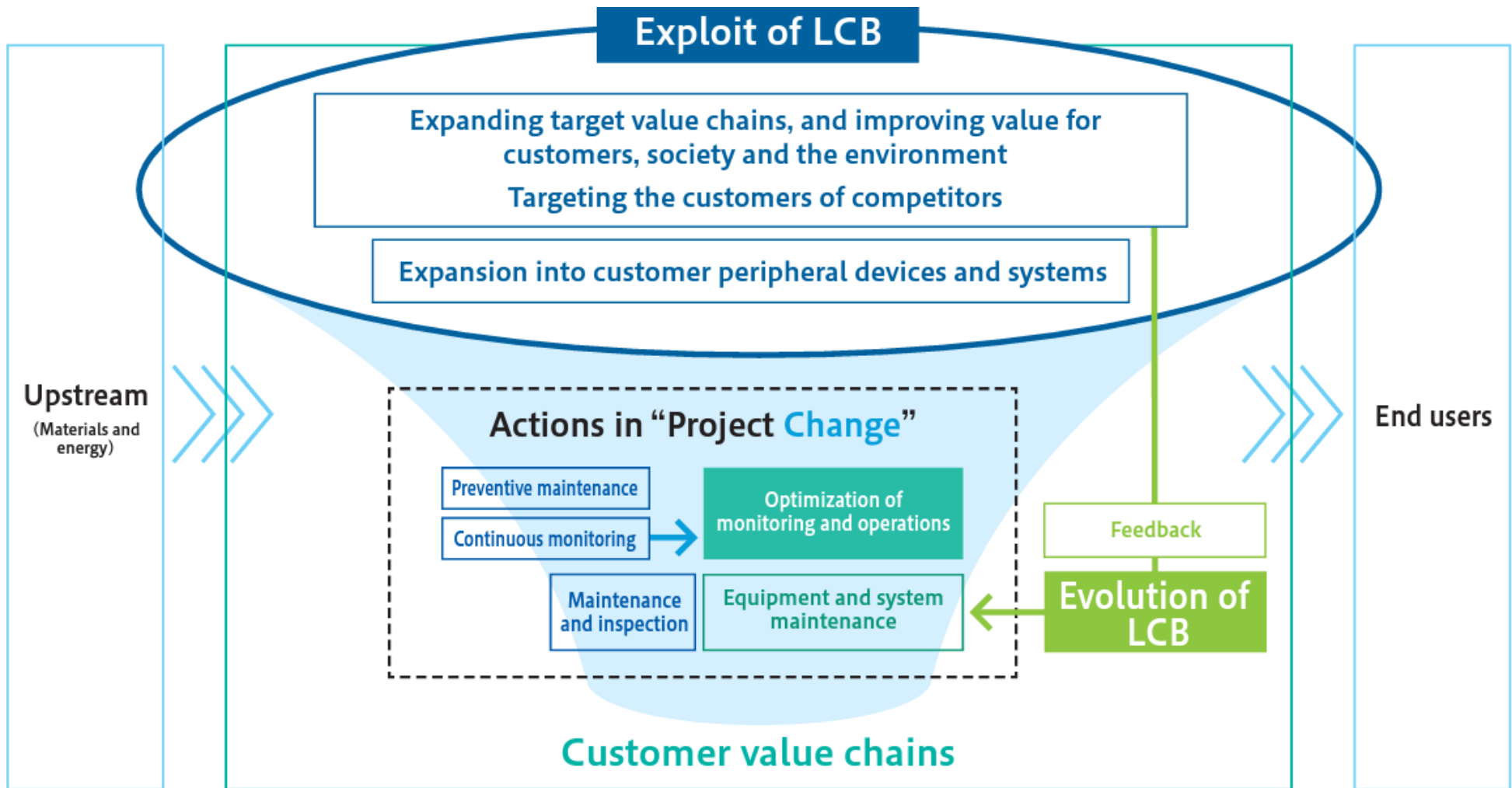
Sustainable aviation fuel (biofuel → synthetic fuels) Hydrogen and fuel cells, etc.

Initiatives to Become Carbon-Neutral through Business

Exploring fuel production project investments and leveraging our engineering capabilities to create a new business model



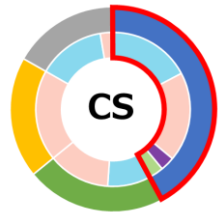
Draw on efforts to exploit and evolution of LCB in bolstering the value of the entire value chain and improving value to cultivate future growth businesses



Initiatives to Become Carbon-Neutral through Business

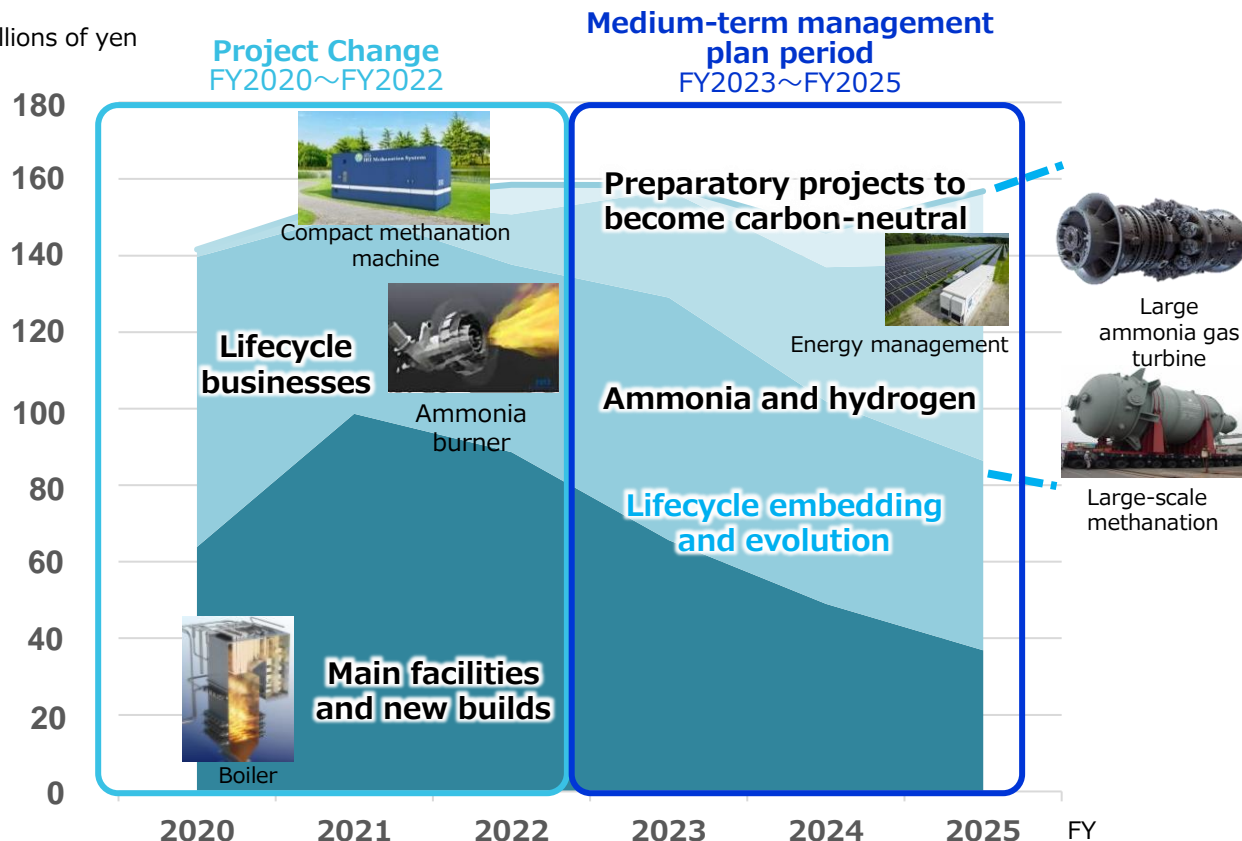
Start portfolio conversion to carbon neutral business

Start shifting portfolio from coal boilers to ammonia and carbon neutral businesses
 (Including methanation, ammonia utilization and storage tanks, and petrochemicals shift)
 Overhaul engineering organization, production sites, and other areas



Carbon solutions business unit revenue and plans

Billions of yen



Transform ammonia and carbon neutral businesses into core businesses

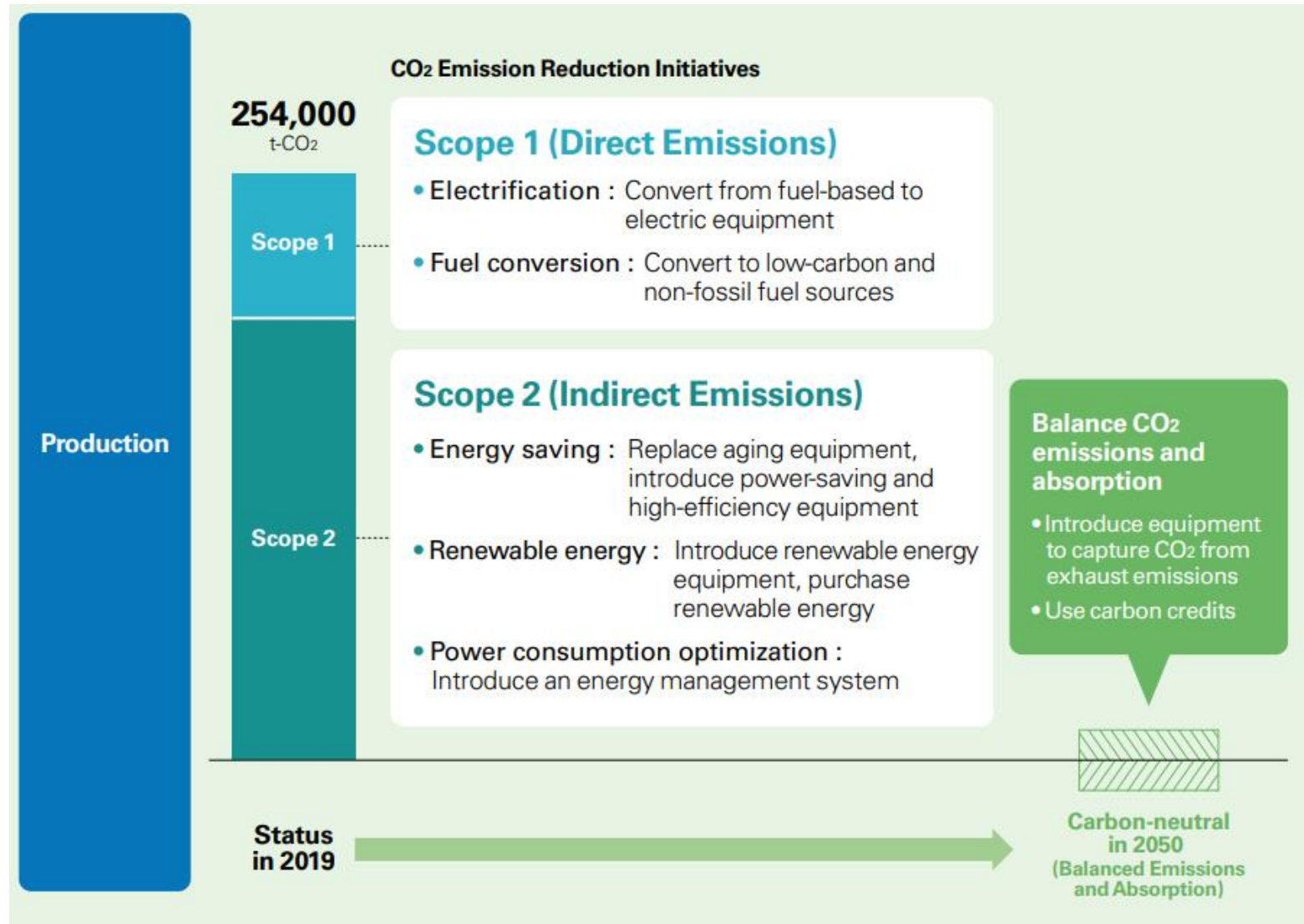
Transform engineering organization

- Strengthen and reskill process engineers to drive ammonia, carbon recycling, and gas turbine development
- Acquire gas turbine engineering technology through aviation area collaboration

Transform production sites

- Invest in ammonia and carbon-neutral hardware manufacturing
- Acquire gas turbine manufacturing technology and skills through aviation area collaboration (prepare for ammonia gas turbine production)

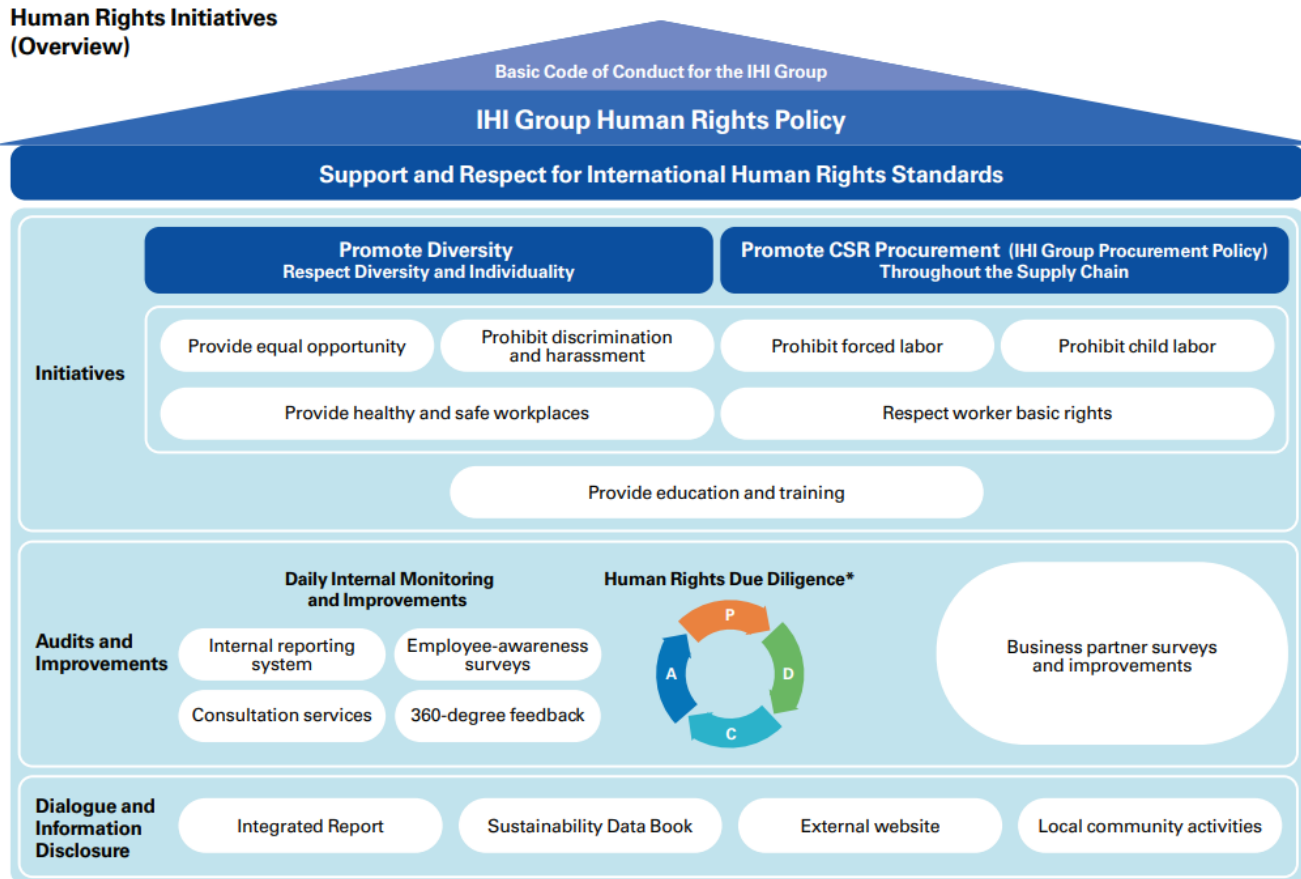
Cut carbon dioxide emissions from production by deploying new technologies and switching to fuels with fewer or no emissions



Human rights / Diversity, equity, and inclusion

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Across the value chain, prevent and reduce downsides of business activities on stakeholders and rights holders and contribute to prosperity for all



* An overall process of conducting risk assessments and evaluations to improve the effectiveness of the IHI Group's commitment to human rights

In keeping with the IHI Group Human Rights Policy, will foster a corporate culture that respects human rights for all and ensure that all aspects of our business respect those rights

We formulated Group Human Talent Strategy 2023 to transform our business and corporate structure so we could develop and secure transformational talent and ensure the success of diverse people

Key points for the “Group Management Policies 2023”

Transform business and corporate culture

- Business transformation to realize sustained high growth
- Maintain a corporate structure that helps achieve this transformation

Key Points for the “Group Human Talent Strategy 2023”

Develop and secure talent to drive change <Pave the way to growth by investing in people>

- Secure world-class management skills and embed them in the corporate culture
- Take steps to to improve engagement and wellbeing

Make company positive and robust and pursue personal growth and happiness



Human Talent Strategy: Material Issues and Priority Measures IHI

Address three material issues and 11 priority measures to encourage all employees to change practices and foster an organizational culture that is conducive to change

Material issues	Priority measures	Key points
I. Acquisition & retention of human capital for transformation, internalization of knowledge	<ol style="list-style-type: none"> 1) Coordinated acquisition of human capital for transformation 2) Development & allocation of human capital for transformation (IHI Academy) 	<ul style="list-style-type: none"> • In areas where the IHI Group's expertise is lacking, acquire systematically, instead of sporadically, human capital for transformation from external sources, ensure their retention and facilitate the internalization of their knowledge. • Change employment to system/practice matching labor market. • Manage human capital for transformation acquired from outside in a manner different from usual practice in terms of job description, reporting line, etc.
II. Bold & constant shift in resources	<ol style="list-style-type: none"> 3) Establish organizational resource shift process 4) Build organizational reskilling mechanism 5) Promote self-directive career development 	<ul style="list-style-type: none"> • Identify talent requirements for areas of high urgency & high importance such as "specific LCB departments of core businesses," "specific projects," and "head office-related departments," and address them intensively. • Establish a resource shift process as soon as possible and operate it as a permanent one • Promote self-directive career development and reskilling in an organized manner.
III. Reform of Evaluation/behavior standards, organizational culture	<ol style="list-style-type: none"> 6) Change desirable means of evaluation & treatment 7) Improve human capital management power of "employees in supervisory posts" 8) Improve employee engagement 9) Develop organizational culture based on ESG & well-being 10) Empower diverse human capital (DE&I) 11) Respect for human rights 	<ul style="list-style-type: none"> • Sort out uniform behavior standards/evaluation items such as "encouragement of challenges" and "prompt response to customers," and conduct a fresh institutional review of linkage between evaluation and development/treatment. • Incorporate evaluation standards focused on ESG/well-being into a variety of measures to develop them as organizational culture.



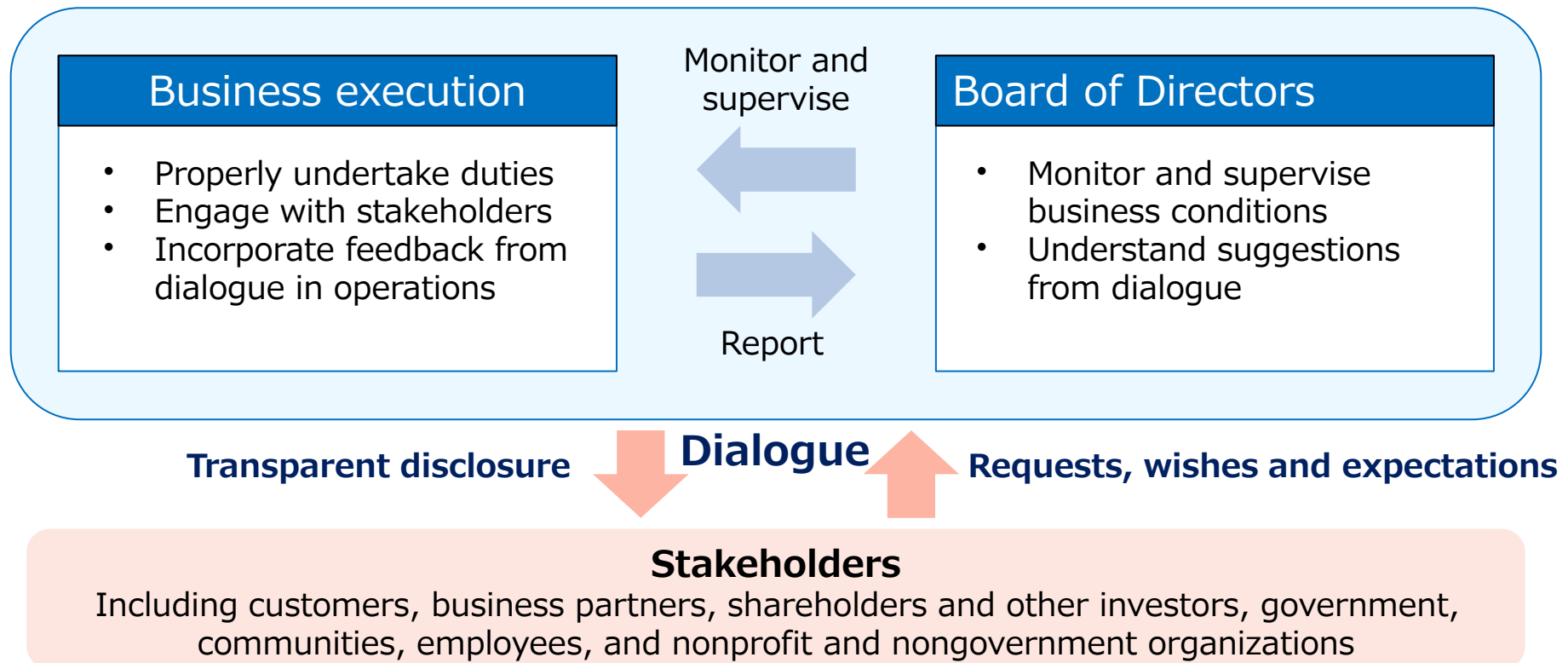
Securing and maintaining stakeholder trust

Securing and maintaining stakeholder trust

Engage in dialogue with stakeholders as part of management policy and business strategy and foster collaboration and cooperation across various networks

Dialogue with Stakeholders

- ① Disclose information to stakeholders
- ② Communicate with stakeholders
- ③ Incorporate feedback in management



Examples of Dialogue with Stakeholders

Key related issues	Dialogue themes	Stakeholders	Dialogue summary and outcome
climate change	Adapting to climate change and making a just transition	United Nations organizations	Reaffirmed that disaster prevention and mitigation projects are necessary in countries and regions prone to disasters 
human rights	Minerals supply chain and making a just transition	Nonprofit organizations	<ul style="list-style-type: none"> Acknowledged human rights issues at mines for nickel Participants gained insights into minerals supply chain management 
human rights	IHI Group Supplier Code of Conduct	Business partners	Cultivated supplier understanding by disclosing and disseminating IHI Group Supplier Code of Conduct.

P.6

*1 <https://www.prattwhitney.com/en/newsroom/news/2022/10/04/pw-gtf-advantage-tm-flight-testing-starts-on-airbus-a320neo-aircraft>

*2 <https://hydrogen.aero/press-releases/universal-hydrogen-successfully-completes-first-flight-of-hydrogen-regional-airliner/>

*3 https://www.cfmaeroengines.com/wp-content/uploads/2021/07/CFM_RISE_Whitepaper_Media.pdf

*4 <https://blog.geaerospace.com/product/the-future-of-flight-engine-maker-unveils-new-technology-development-program-to-cut-co2-emissions-by-20/>

*5 <https://www.mtu.de/newsroom/press/press-archive/press-archive-detail/clean-aviation-switch-project-to-advance-hybrid-electric-and-water-enhanced-turbofan-technologies/>

*6

<https://www.boeing.jp/%E3%83%9B%E3%83%BC%E3%82%A4%E3%83%B3%E3%82%AF%E7%A4%BE%E7%B4%B9%E4%BB%8B/%E3%82%B5%E3%82%B9%E3%83%86%E3%83%8A%E3%83%93%E3%83%AA%E3%83%86%E3%82%A3.page.page>

*7 <https://www.airbus.com/sites/g/files/jlcbta136/files/2021-06/Full%20-Report-Airbus-SE-Annual-Report-2020.pdf>

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Realize your dreams