

Information Disclosure Based on Recommendations of the Task Force on Climate-related Financial Disclosures (TCFD)

March 18, 2022
PIOLAX, INC.

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Introduction



Piolax discloses information on climate change-related risks and opportunities based on the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD), as the information can be incorporated into the management strategies for sustainable growth and medium- to long-term development, and can also be effectively utilized in stakeholder engagement.

What is TCFD?

- The TCFD (Task Force on Climate-related Financial Disclosures) is a private-sector-led task force established in December 2015 by the Financial Stability Board (FSB) at the request of the G20.
- Publishing its final report in June 2017, the TCFD encourages individual companies to identify both negative (risk) and positive (opportunity) impacts of climate change and to disclose them as financial reporting on a comprehensive and voluntary basis.

Requirements of TCFD Recommendations: 4 elements and 11 items on climate-related risks and opportunities

Governance	Strategy	Risk Management	Metrics and Targets (KPI)
Board's oversight	Risks and opportunities identified over short/medium/long terms	Corporate processes for identification and assessment	Metrics used for assessment
Management's role in assessment and management	Impact on business, strategy and financial planning	Explanation of risk management	GHG Protocol Scope 1 to 3 emissions and related risks
	Resilience of organization's strategy under different climate change scenarios, including 1.5°C scenario	Integration of climate-related risk management into overall risk management	Performance against targets to be managed

- Source: Final Report, Recommendations of the Task Force on Climate-related Financial Disclosures (TCFD)
- GHG Protocol: Greenhouse gas accounting standards

Governance

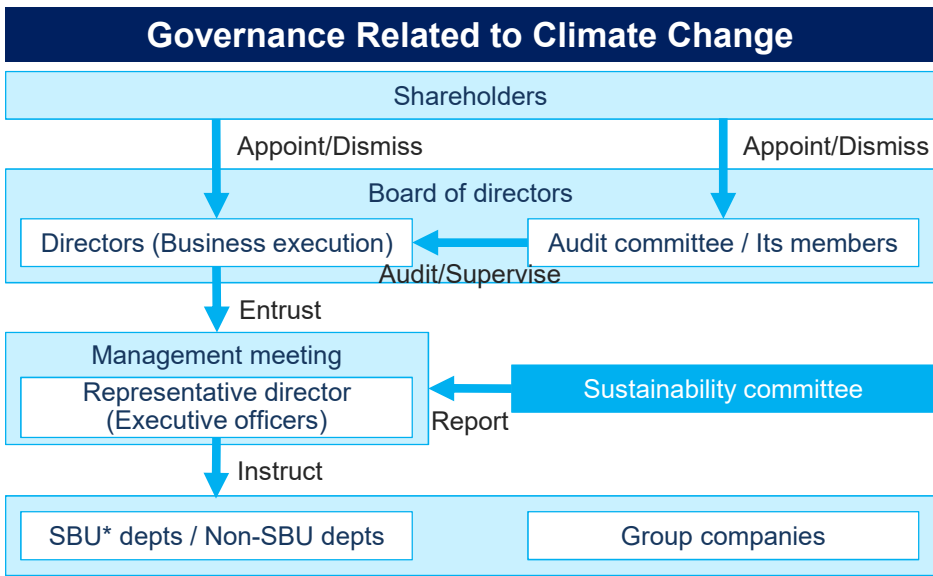
[Recommended disclosures]

- Board's oversight
- Management's role in assessment and management

Governance on Climate Change

In December 2021, we established a sustainability committee to deliberate sustainability issues, including climate change measures. The committee is chaired by the representative director with members consisting of mainly directors and is held four times a year.

To respond to risks and opportunities posed by climate change, company-wide policies and targets and specific measures are deliberated by the sustainability committee, then discussed at the management meeting about the relationship and consistency with management strategies, and finally determined by the board of directors. The representative director participates in discussions at the management meeting and executes measures determined by the board of directors across the group.



* SBU: Strategic Business Unit

Overview of Sustainability Committee	
Committee members	Chairperson: Representative director Members: Elected from among directors and appointed by chairperson
Secretariat	Corporate Planning Group, Management and Planning Dept.
Frequency	Meeting: Four times/year (whenever necessary) Report at board of directors: Twice a year
Main agenda	Response to TCFD, extraction of all company-wide risks and opportunities we may face from committee and project activities, review of materiality and portfolio, and deliberation of sustainable management objectives
Other	Subcommittee on climate change to be established (in April 2022)

Strategy

[Recommended disclosures]

- Risks and opportunities identified over short, medium and long terms
- Impact on business, strategy and financial planning
- Resilience of organization's strategy under different climate change scenarios, including 1.5°C scenario

1. Progress in Strategy Implementation / Business Environment

Progress in Strategy Implementation

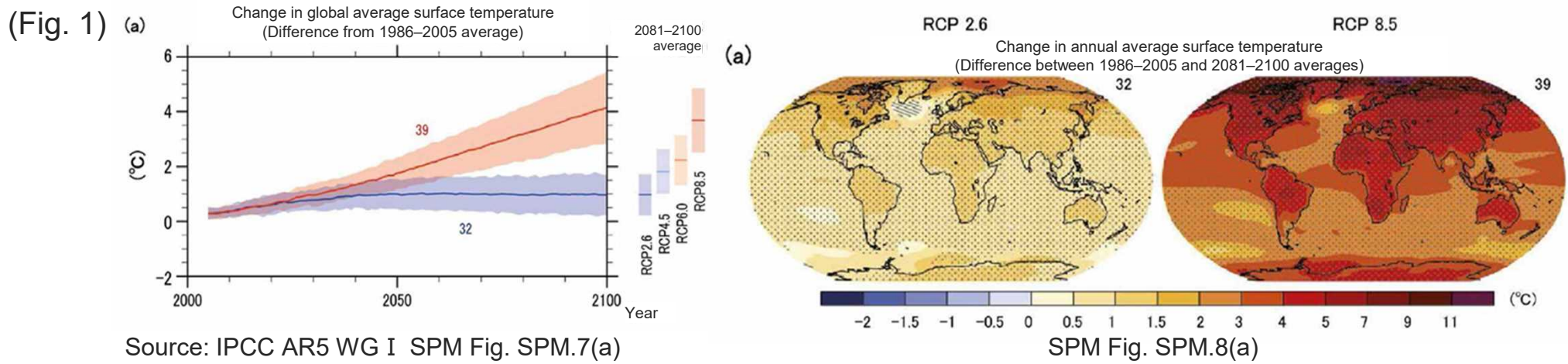
- To deal with CASE (Connected, Autonomous, Shared, Electric), once-in-a-hundred-years transformation of the automotive industry, and global warming by climate change, we have identified risks and opportunities for our mainstay automobile-related business with a time frame up to 2050 and a focus on the domestic business. At the same time, we announce our targets in the domestic business areas to achieve carbon neutrality by 2050. In future, we will analyze our overseas business and non-automobile-related businesses for further group-wide discussion.

Business Environment

1.5°C scenario	<ul style="list-style-type: none">■ Not only actions for carbon neutrality and resource circulation are requested by stakeholders including customers but also carbon tax and regulations of fuel efficiency and exhaust emissions are tightened. In the automobile-related business, the transition to CASE, notably electrification, is accelerated and response to it becomes urgent.
4°C scenario	<ul style="list-style-type: none">■ Since disasters (wind and flood damage) occur frequently due to extreme weather posed by temperature rise and coasts erode with the rising sea level, implementing a business continuity plan including the supply chain becomes urgently necessary while actions for carbon neutrality, resource circulation and automobile structural reform are taken in a limited manner.

Scenario Settings and Time Frames

- The climate change-related analysis (Fig. 1) is based on RCP2.6 and RCP8.5 scenarios*2 in the “Fifth Assessment Report” of IPCC*1, impacts of 1.5°C and 2°C shown in the “Special Report on Global Warming of 1.5°C” of IPCC with reference to the IEA WEO 2021 Report.
- Survey on the trend in electrification, the typical example of CASE (Fig. 2 on the next page)
- Time frames: Defined in three phases where risks and opportunities manifest themselves
 - Short term: 2024 [Three years from 2021]
 - Medium term: 2030 [Achievement of SDGs (Sustainable Development Goals)]
 - Long term: 2050 [Goal of limiting global average temperature rise to 1.5°C]



*1 IPCC: Intergovernmental Panel on Climate Change

*2 RCP2.6 scenario: Global average temperature rise at the end of 21st century is suppressed to less than 2°C compared to before Industrial Revolution

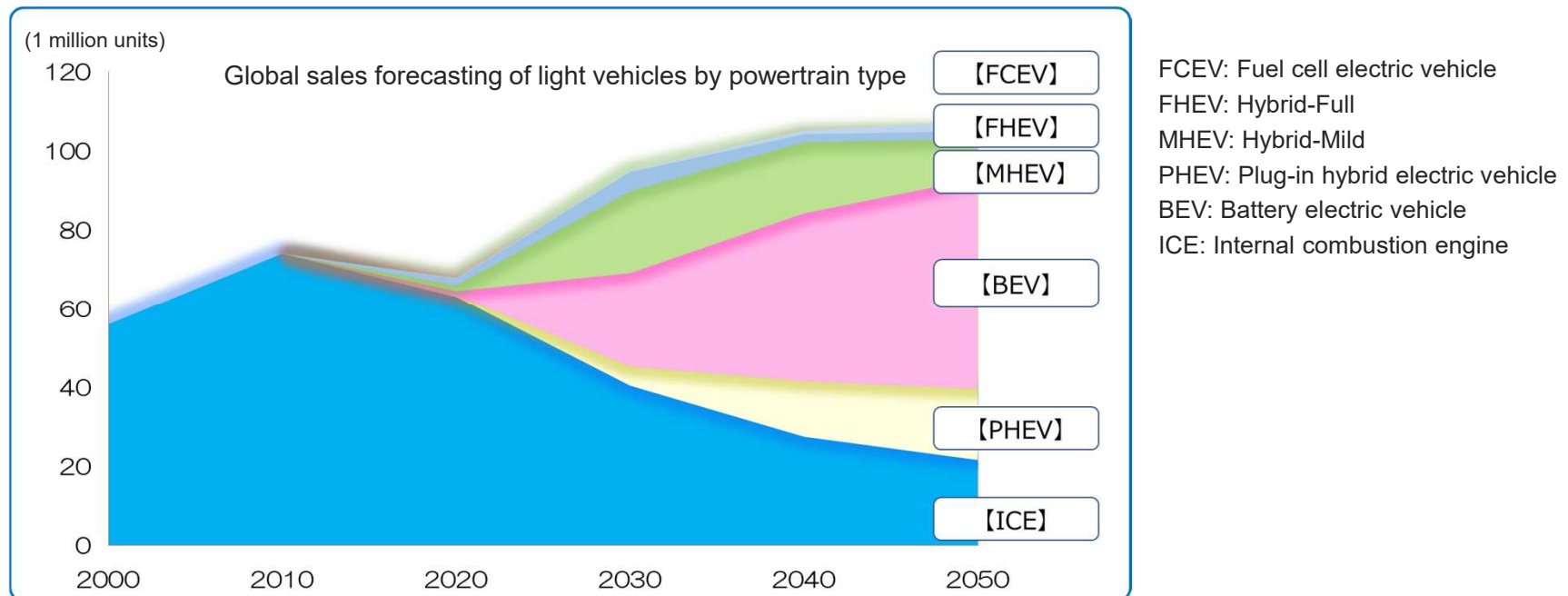
RCP8.5 scenario: Rise of around 4°C compared to before the Industrial Revolution

RCP: Representative Concentration Pathways

Prediction of Automobile Electrification

- The proportion of production volume by powertrain type was calculated on a medium- to long-term basis and used to identify risks and opportunities for the transition of our automobile-related business unit (fasteners, powertrain parts, fuel system parts, opening and closing mechanism parts).

Fig. 2



Footnote #1: This graph is based on the update of March 2022, IHS Markit Global Engine Forecast.

Footnote #2: PHEV data is created by Piolax, based on IHS Markit data.

Footnote #3: Numbers from 2033 onwards is created by Piolax, based on IHS Markit data.

2. Risks and Opportunities (Transition Risks and Opportunities)

	Procurement			Manufacturing and Logistics			Development and Sales		
Transition risk	<ul style="list-style-type: none"> Higher raw materials and transport prices with carbon tax and energy transition at suppliers 	Impact/ Time frame	1.5°C Large Medium/long term	<ul style="list-style-type: none"> Rise in capital investment and improvement cost related to manufacturing process decarbonization 	Impact/ Time frame	1.5°C Medium to large Short/medium term	<ul style="list-style-type: none"> Drop in orders for existing products with increased electrification 	Impact/ Time frame	1.5°C Large Medium/long term
	<ul style="list-style-type: none"> Loss of market due to non-eco raw materials Drop in demand for materials for existing products with increased electrification, rise in material cost and difficulty in procurement 			<ul style="list-style-type: none"> Rise in energy cost with review of heat sources for manufacturing process decarbonization and use of green electricity Rise in costs of waste water/waste treatment with stricter environment-related regulations 			<ul style="list-style-type: none"> Rise in new product development cost/capital investment to address CASE Drop in sales with reduced new car sales due to domestic population decrease and spread of MaaS. 		
Transition risk	<ul style="list-style-type: none"> Higher procurement cost from supply chain with increased natural disasters 	4°C Medium to large Medium/long term	Medium/long term	<ul style="list-style-type: none"> Delay in addressing plant operations affected by supply chain disruption with increased natural disasters 	4°C Medium Short/medium term	Medium	<ul style="list-style-type: none"> Reduced market size and orders due to domestic population decline and movement restrictions with new pandemic 	4°C Medium Medium/long term	Medium/long term
	<ul style="list-style-type: none"> Delay in reviewing procurement materials to respond to performance change requested by automakers with temperature rise 			<ul style="list-style-type: none"> Delayed response to increased transport process disruptions 			<ul style="list-style-type: none"> Drop in orders due to delay in responding to performance change requested by automakers with temperature rise 		
Opportunity	<ul style="list-style-type: none"> ★ Review raw materials (conversion to eco-friendly or recycled ones), suppliers, product designs, etc. to promote actions for decarbonization and resource recirculation, and differentiate us from competitors. 			<ul style="list-style-type: none"> ★ Accelerate efforts to improve productivity through factory automation and decarbonize domestic facilities. 			<ul style="list-style-type: none"> ★ Promote and accelerate co-creation activities with customers to increase sales of products for CASE 		
Measure	<ul style="list-style-type: none"> Resin material: Use of bioplastics Metal material: Replacement with low-CO2 materials Cost reduction through procurement of locally produced goods Reduction of energy used for transport Purchase of decarbonized energy sources 			<ul style="list-style-type: none"> Moka Plant renewal to improve productivity Thorough energy conservation <ul style="list-style-type: none"> Reduction of energy consumption by replacing utility system Improvement of thermal efficiency of injection molding machine Gas replacement in heat treatment furnace (LPG → LNG) 			<ul style="list-style-type: none"> Development and sales of new products for CASE <ul style="list-style-type: none"> BEV parts (EV battery, e-Axle, etc.) Parts responding to changes in vehicles with spread of automation, sharing, etc. Increase of existing market share mainly in fuel and drive system components (Short-term response to demand for ICE vehicles) 		
				[Reference] <ul style="list-style-type: none"> P13: Moka Plant renewal plan P17: Roadmap for carbon neutrality by 2050 			[Reference] <ul style="list-style-type: none"> P12: Actions for CASE 		

2. Risks and Opportunities (Physical Risks and Opportunities)



	Chronic Risk			Acute Risk		
Physical risk	<ul style="list-style-type: none"> Rise in air conditioning cost with temperature rise and health hazards to employees Degradation of raw material and product quality with temperature and humidity rise Suspension of operations due to decrease in available water resources caused by rapid drop (or depletion) of groundwater level Shutdown due to inundation of coastal bases resulting from sea level rise 	4°C	Medium	Long term	<ul style="list-style-type: none"> Increase of inventory cost in anticipation of abnormal weather 	Impact/ Time frame
Measure	<ul style="list-style-type: none"> Infrastructure development to strengthen plant and warehouse resilience Improvement of work environment and material storage environment through thermal management (room temperature and humidity) Introduction of water circulation system through water management Review of risk assessment with BCP database including supply chain 			<ul style="list-style-type: none"> Reduction of inventory cost through increased use of locally produced goods Stable procurement through supply chain diversification and raw material standardization Infrastructure development to strengthen plant and warehouse resilience 		
		[Reference] <ul style="list-style-type: none"> P13: Moka Plant renewal plan 				

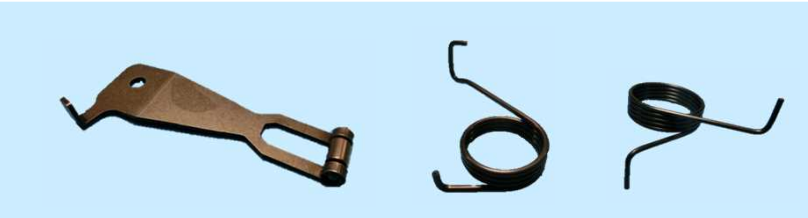

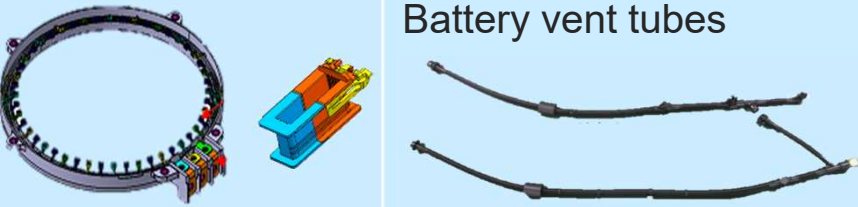

Degree of impact

Large: A failure to respond has a great impact on the survival and growth of the company and its businesses.

Medium: A failure to respond poses a limited impact and does not affect the survival and growth of the company and its businesses.

3. Measures to Address Risks and Opportunities

Actions for CASE: Promoting co-creation activities with customers

C A S E	Target	Examples of developed products
	e-Axle	
	EV	
	HEV	
	ADAS	

3. Measures to Address Risks and Opportunities

Moka Plant renewal plan

- Piolax Moka Plant (Moka City, Tochigi), the core plant in Japan, will be renewed over the next five years to improve productivity and strengthen resilience through the introduction of factory automation. (Response to physical risks)
- To achieve carbon neutrality by 2050 (see P17) and others, we will promote infrastructure development. (Response to transition risks)



Risk Management

[Recommended disclosures]

- Corporate processes for identification and assessment
- Explanation of risk management
- Integration of climate-related risk management into overall risk management

Identification, Assessment and Management of Risks

- The newly established sustainability committee will handle company-wide integrated management of various risks and opportunities, including climate change. We will identify risks and opportunities that could affect our group's business activities, develop an action plan based on the assessment of their importance, and monitor the progress.
- The risks and opportunities related to climate change are considered to have a particularly large impact on our group's business activities. Therefore, we will consider a medium- to long-term action plan, also continuously review it based on external evaluations, and strive to manage it appropriately. In fiscal year 2022, a new subcommittee dedicated to climate change will be established under the sustainability committee to strengthen the organizational action to climate change risks.

Metrics and Targets

[Recommended disclosures]

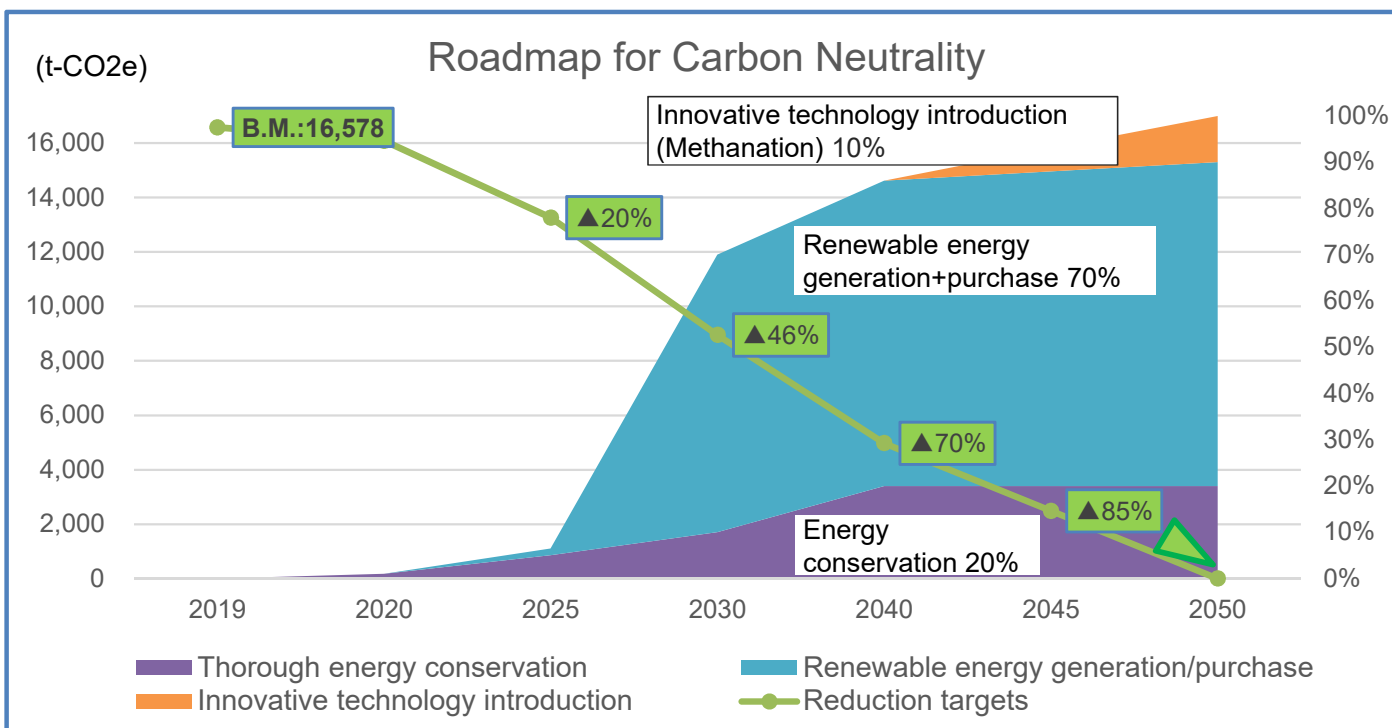
- Metrics used for assessment
- GHG Protocol Scope 1 to 3 emissions and related risks: citation from CSR Report data
- Performance against targets to be managed

Roadmap for Carbon Neutrality by 2050



Efforts to Achieve Carbon Neutrality

- To achieve carbon neutrality in our business areas of Scope 1 and Scope 2 based on the GHG Protocol, Piolax and the group companies in Japan set the amount in 2019 as the benchmark, and aim to achieve a 46% reduction by 2030 and a 100% reduction by 2050.
- Regarding Scope 3 of the domestic supply chain area, we will continue to consider the reduction efforts.



Carbon neutrality in Scope 1 and Scope 2 of our business areas will be achieved through combination of energy conservation, renewable energy and innovative technologies.

[Measures to achieve targets]
To calculate the effect of capital investment for necessary resources, internal carbon pricing is used to judge the effect with consideration to CO2 reduction effect.

* For carbon neutrality in overseas group companies, we will continue further group-wide discussions.

Statement of Support for TCFD

Our action to climate change

We declare information disclosure in accordance with the guidelines of the TCFD recommendations

Support for the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD)

PIOLAX, INC. supports the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD) established by the Financial Stability Board (FSB) at the request of the G20.

We believe that the analysis of risks and opportunities posed by climate change and the achievement of set goals will be effective in solving issues on the ongoing global warming, and thus express our support for the recommendations of the TCFD.

We will reduce greenhouse gas emissions in our own business areas as well as in the supply chain area to contribute to the realization of sustainable society. Based on the TCFD declaration, we will continue to analyze and address risks and opportunities that climate change poses to our business, and strive to improve information disclosure.

March 18, 2022
Yukihiko Shimazu
President, PIOLAX, INC.



The future outlook described in this document is based on the information currently available. Due to various factors, actual results may be different from the expectations.