



Sustainability Report 2022



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Fiscal year ending March 31st 2022



Nippon Gases (hereinafter also referred to as, "Nippon Gases Europe", "NGE") part of Nippon Sanso Holdings Corporation (NSHD) is the brand name under which Nippon Gases Euro-Holding S.L.U. (also referred as "NGEH") and its subsidiaries operate in Europe with Spanish tax ID (CIF) B88128368.

#### **Reporting Period**

This non-financial report includes information of **Nippon Gases Europe** for the period April 1<sup>st</sup>, 2021 to March 31<sup>st</sup>, 2022. Within the report is also referred to as "FYE2022" (Fiscal Year Ending) and "2022".

#### Scope of the Report

The Sustainability Report is part of the consolidated Directors Report of **Nippon** Gases Euro-Holding S.L.U. This report includes information on the sustainability (also referred as non-financial information) activities of **Nippon Gases Euro-**Holding S.L.U. and its subsidiaries.

#### References and Guidelines

This report has been prepared in accordance with the content required by prevailing Spanish company law and in conformity with the criteria outlined in the **Global Reporting Initiative Sustainability Reporting Standards (GRI Standards)** selected as well as other criteria described in chapter 5.8 Table of contents required under Spanish Law 11/2018 regarding Sustainability reporting.

#### Publication

Current issue: Sustainability Report 2022. Fiscal year ending March 31st, 2022. Previous issue: Sustainability Report 2021. Fiscal year ending March 31st, 2021.

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#### Disclaimer

This report contains not only past and present facts about **Nippon Gases**, but also forecasts related to social conditions, business plans, policies and estimates of their outcomes. These forecasts and estimates are assumptions or judgments based on the information available at the time of their writing. As such, actual future social conditions and business activity outcomes may differ from the forecasts and estimates presented in this report.



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Proactive

# Innovative

# Collaborative

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# **About Us**

Nippon Gases, part of Nippon Sanso Holdings Corporation, is your strategic partner for industrial and medical gases in Europe. We offer our solutions to a wide range of markets and our technological offerings span from the most efficient supply options to tailored applications for every customer or partner.

Nippon Gases' commitment to our customers, employees and associates, and to the communities in which we operate, reflects our dedication to the environment and to sustainability. Together, we are "The Gas Professionals" and we all have the same goal: "Making life better through gas technology".

NIPPON GASES

## Eduardo Gil Elejoste



It all starts with safety; the safety of our employees, partners and contractors, customers and all those who interact with us. Safety based on operational discipline: "doing the right thing (according to established procedures) every day, every time, every employee." This standard of excellence in safety is, of course, often much easier said or written than done. Yet we are proud to say it is an objective consistently realised, and in 2021 Nippon Gases' performance in safety has been recognised throughout Europe with the most prestigious international awards.

This report will also illustrate our strict governance and compliance programmes, which start at the top with a highly experienced Board of nine Directors of six different nationalities, and continue with the European Business Team and Management Teams of the regional businesses. All our employees have to know and live by our Code of Conduct. In 2021, our employees once again demonstrated an excellent performance in compliance.

The sustainable development of our company and of our customers, suppliers and other stakeholders, which we describe as "meeting the needs of the present without compromising the future", is the prime objective of this report. Within it you will find our goals and milestones implemented to prevent global warming, improve air and

The vision of our company describes in just a few words what our company stands for: "We aim to create social value through innovative gas solutions that increase industrial productivity, enhance human wellbeing and contribute to a more sustainable future." This report describes how our company has been working during the last fiscal year on making that vision come true.

water quality, reduce waste and, in summary, minimise the environmental footprint of not only our company, but our customers and suppliers. Here are some key achievements this year:

- We are well on track to reduce our GHG (Greenhouse gas) emissions. Actually by FYE2022 we have reduced 37% vs our target by 35% by 2029, compared to 2019
- In the fiscal year ending 2022, we have reduced additionally distribution mileage by **1.3%** in liquid and by 4% in cylinder transport, water intensity by 15%
- We have reduced the carbon footprint of our products
- We have developed our sustainability mid-term plan FYE2022 - FYE2026
- We have received the Ecovadis Gold Medal
- We have incorporated the ESG criteria in our supplier evaluation
- We have enrolled in the UN Global Compact (UNGC)
- We have launched a new digital system to report environmental non-conformities
- We are fulfilling the current UN SDG 18 goals

Excellence in safety, governance and sustainability The fiscal year ending March 2022 has been a period in cannot be achieved unless our company focuses on which our company has proven its worth, bouncing back employee excellence. Only excellent employees, The strongly from the previous year, which we might call Gas Professionals, will make the company a leader in 'the Covid year'. First and foremost, we have continued with our strict discipline and measures to protect our safety, governance and sustainability, as well as a socially employees, their families, our customers, suppliers and responsible company committed to the communities where we operate. Our company continues to strengthen the communities in which we operate from a pandemic its levels of talent attraction, training, coaching, inwhich has lingered on for a second year. Secondly, as house talent development and performance reviews, mentioned above, we have proven a stellar performance to enhance a diverse, inclusive, motivated, engaged in safety, governance and sustainability, three key and results-driven employee population that innovates ingredients for the success of any industrial company. every day for a better and more sustainable future. The A third and essential component of excellence has been company is also taking steps towards a more flexible way our customer focus: we have worked on a one-on-one of working, a new reality that has been accelerated by basis with our clients to overcome some extremely the pandemic and will be important to attract new, young complex global supply situations and unprecedented talent. We are also firmly approaching our target of 30% prices for basic commodities. Finally, our company has female personnel in the organisation by 2026. also been intensively strengthening its defences against cybercriminals, to protect Nippon Gases and contribute to the protection of every organisation that does business with us.

Sustainability is a fundamental pillar of our strategy:

- We base our strategy on a philosophy of people excellence, safety and governance leadership
- We improve and grow our current business through operational excellence and innovation
- We embrace the energy transition and decarbonisation challenges and opportunities. Our carbon neutral strategy and its execution will position Nippon Gases and Nippon Sanso Holdings (NSHD) at the centre of a future industrial landscape that will enable a carbon neutral world

We make life better through gas technologies, wherever we operate.



## Message from the President

I would like to close this message by truly thanking our employees for their hard work and dedication to duty in a very complicated year, and congratulating them for the results achieved. Their resilience, their flexibility and their ability to adapt to an ever-changing environment cement the resilience of our company.

Thanking our employees should have been the end of this message, under normal circumstances. Unfortunately, however, the escalation of the tensions in Ukraine led to war on February 24th, which is causing thousands of casualties, massive destruction and immense suffering, and it is only right that we pause for thought here in these closing words. The economic difficulties that Europe has been going through in the last year, with natural gas and electricity at record prices, raw materials shortages, global supply chain disruptions, and inflation higher than in the last three decades, have been exacerbated by these tragic events. Our company will continue to manage the increasingly complicated circumstances with our customers, partners, suppliers and other stakeholders, while cooperating with governmental and non-governmental agencies in humanitarian initiatives to alleviate the suffering of millions of people in our continent. Our thoughts are for a more sustainable future for all, in every sense of the word.

## 1.2 Nippon Gases Group

Nippon Gases is the European subsidiary of Nippon Sanso Holdings Corporation (NSHD), which has over 100 years of experience and also boasts a major presence in Japan, Southeast Asia, Australia, the US and Canada. We are a strategic partner for our customers in the industrial, medical, food and specialty gases markets in Europe and the fourth-largest industrial gas company in Europe with an overall market share close to 9%.

Nippon Gases is a highly experienced team of motivated and engaged employees contributing to the sustainable growth of our customers, suppliers and partners in most industries in Europe.

Our presence in Europe positions us as a leading company, with over 3,000 employees, of which 27.8% are women, operating today in 13 European countries (Belgium, Denmark, France, Germany, Ireland, Italy, Netherlands, Norway, Poland, Portugal, Spain, Sweden and UK) and serving more than 150,000 customers through a combination of onsite/piping, merchant and package lines of business across key industrial zones.

Nippon Gases achieved revenues of €1,601 million in the FYF2022.

The main markets served by Nippon Gases are aerospace, chemicals, electronics, energy, environment, food and beverages, health and homecare, manufacturing, metal production and petrochemicals.

ៃ 14	Pipelines
<u> </u>	Specialty gases laboratories
₹ 30	Air separation units (ASUs)
ංථ <b>6</b>	Hydrogen plants
<u>nh</u> 44	Onsite
°a 12	CO2 plants
500	Trucks
∭ 2.8M	Cylinders
[ிு 40	PAG Plants
7	Operative terminals

The high quality of our products, services and application technologies is the basis of our success in the industries where we operate. Close cooperation with our customers is the key to offering them the products, services and technologies that will optimise their processes and help them in being more sustainable.

Nippon Gases' commitment to our customers, employees and partners, and to the communities in which we operate, reflects our dedication to the environment and to sustainability. For us, a harmonious relationship between people, society and the planet is the way we want to work.



## 1.2.2 Management team

The Nippon Gases Management Team is composed of the Euro-Holding functional Directors and the regional Managing Directors (MD).



The main products supplied by Nippon Gases in various physical forms and purities are oxygen, nitrogen, argon, carbon dioxide, hydrogen, helium, carbon monoxide, gas mixtures, electronic gases, specialty gases and the services and technologies associated with the use of these gases and mixtures. We pride ourselves in our ability to provide safe and reliable supply of industrial and medical gases through continuous technological development and increasing production, supply and sales capabilities.

## 1.2.3 Market position

**Nippon Gases** is the fourth-largest industrial gases company in Europe, with an overall market share close to 9%. Considering only the European countries in which we have operations, our market share is around 16%.

We are recognised as leaders in:

- Safety
- Uninterrupted supply
- Expertise in the industries we serve
- Responsiveness to customer requirements

We help our customers to:

- Achieve safety and environmental sustainability standards
- Increase productivity
- Reduce energy consumption
- Produce higher quality products



Nippon Gases has a very balanced situation with

regards to its modes of supply:

The company also enjoys a wide portfolio in terms of markets served, with more than 34% of its sales in resilient, non-cyclical markets such as food and beverages, health and homecare, electronics or environment:





- Electronics
- Other

## 1.3 Our vision, philosophy and guiding principles

Since 1910, the Nippon Sanso Holdings Corporation, to which **Nippon Gases** belongs, has been adapting its operations to the needs of its customers.

Our capacity to respond proactively to the needs of the market and to innovate collaboratively are central values that guide all our operations to make life better through gas technologies, building positive relationships between people and societies, as well as with our planet.

#### Our vision

We aim to create social value through innovative gas solutions that increase industrial productivity, enhance human wellbeing and contribute to a more sustainable future.

#### Our guiding principles

The main priorities of our company are safety, compliance, environmental sustainability, employee excellence, customer focus and financial results.

All **Nippon Gases** employees adhere strictly to our principles in safety, compliance and diversity and inclusion, as stated below, because they are part of our company DNA and are reinforced during the quarterly European Employee teleconferences by the President of **Nippon Gases**, setting the tone from the very top of our company.

#### Safety

- All accidents can be prevented
- Safety is the responsibility of line management
- Every employee is responsible for his/her own safety
- Every employee must stop a job if it cannot be done safely
- Efforts in safety yield results in safety
- Safety is a condition of employment

ABOUT US

#### Our philosophy

Proactive. Innovative. Collaborative.

Making life better through gas technology.

The Gas Professionals.

#### Compliance

- All compliance breaches can be prevented
- Compliance is the responsibility of line management
- Every employee is responsible for his/her own ethical behaviour
- Every employee must stop a job if it cannot be done ethically
- Efforts in compliance yield results in compliance
- Ethical behaviour is a condition of employment

#### Diversity

- Diversity and inclusion are essential to both our work and our workplace
- Inclusion is a line-management accountability
- Every employee is responsible for being a model for inclusive behaviour
- Every employee must stop non-inclusive actions or conduct
- Efforts in diversity and inclusion will increase engagement and improve business results
- Inclusiveness is a condition of employment

## 1.4 Corporate social responsibility

Corporate social responsibility (CSR) is about being community minded, being responsible, and taking positive actions. This includes being responsible towards employees, customers, communities, the environment and partners. By adopting socially and environmentally responsible behaviour, businesses can make a significant contribution to boosting employment and wealth creation, fostering social justice and protecting the environment.

## 1.4.1 Sustainability framework

The **Nippon Gases** President has ultimate responsibility and authority over our initiatives to work towards the European Union's (EU's) transition to a climate-neutral and green economy in line with the European Green Deal. Additionally, he leads the **Nippon Gases** commitments related to the UN Sustainable Development Goals, including on its human rights and environment objectives.

The President appoints the **Nippon Gases** Sustainability Director to execute and handle sustainability & environmental programmes. The management of sustainability matters is covered by the Sustainability Committee and the Sustainability Task Force.

The Sustainability Committee (SC), led by the **Nippon Gases** President, is comprised of 13 top representatives of the functional areas, and meets on a quarterly basis.





The Sustainability Committee is responsible for:

- Coordinating with the NSHD CSO Chief Sustainability Officer and Sustainability team when establishing the sustainability strategy and defining ESG goals and targets
- Monitoring the performance of Nippon Gases' Sustainability Mid-term Plan
- Evaluating initiatives related to compliance, safety, quality, supply chain, human rights, environmental, energy, people and community
- Promoting and coordinating publication of the annual Nippon Gases Sustainability Report

The Sustainability Task Force, led by the Sustainability Director, is comprised of a sub-team of five members from the Sustainability Committee and is responsible for supporting and follow-up of the Sustainability Midterm Plan, and additionally proposing short-term initiatives to the Sustainability Committee and their later follow-up.

The Sustainability Task Force meets in-between the quarterly SC meetings as required and defined by ongoing initiatives.

## Nippon Sanso Holdings Corporation materiality matrix

Based on the materiality matrix set out by NSHD's parent company, Mitsubishi Chemical Holdings Corporation (MCHC)\*, as a reference, NSHD has formulated the group's own version of this matrix, informing the importance of management issues which affect NSHD and its stakeholders.

			Importa
		Important	Ve
	Important	Conservation of biodiversity Protection and effective utilisation of Intellectual Property	
Importance of stakeholders	Very important	Conservation of water resources (KPI) Coexistence with the local community	Pursuit of c (KPI) Technology that suppor customers Promotion innovation Employee a
	Extremely important		Strengthen with stake Sustainable Contributio industrial d infrastruct Diversity &
	/	N	

Important issues related to the global enviroment

Importa So

"Mitsubishi Chemical Holdings Corporation" (MCHC) is scheduled to change its name to "Mitsubishi Chemical Group Corporation" effective July 2022.

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As presented in the Technical Risk Liaison Conference in October 2021, the new mid-term materiality matrix, based on the employees' survey and management input, has been clearly defined. This dual entry matrix takes into consideration both the matters of business importance and the stakeholders' interests.

The identified common areas of interest serve to prioritise the initiatives to be reinforced by the group.

ant issues related to	Important issues related to
ance to our business	
ery important	Extremely important
	affluent lifestyles
	engagement (KPI) Providing comfortable and
	Improvement of employee
and family health	
n of initiatives for digital N	Development and mainteance of human resources
ort the creation of s and social value	and promotion of production optimisation (KPI)
y and R&D capabilities	security measures Improvement of productivity
customer satisfaction	Strengthening information
	Effectiveuse of resources and prevention of pollution (KPI)
k Inclusion (KPI)	Climate change mitigation and adaptation (KPI)
development as social ture	environmental and social issues (KPI)
le supply chain on to regional and	Providing products and services that contribute to solving
ning communication holders	Product and service safety & quality (KPI)

## 1.4.2 Nippon Gases initiatives

During the FYE2022, Nippon Gases has focused on consolidating and following the progress of initiatives committed to in our sustainability strategy and disclosed in last year's Sustainability Report 2021 (SR2021).

Moreover, and in line with the initiatives launched in FYE2021, during FYE2022 Nippon Gases launched the new strategy defined in our Sustainability Mid-term Plan FYE2022 - FYE2026 and also consolidated its participation in third-party agencies such as Ecovadis, Responsible Care and the UN Global Compact, as a European organisation. Such participation helped to value our sustainability initiatives in front of independent organisations.

#### Third-party engagement initiatives

Nippon Gases' adherence to external commitments is confirmed and exemplified by engaging third-party agencies relevant to stakeholders to evaluate our sustainable strategy, and provide visibility to our stakeholders.

GOLD

ecovadis

Sustainability

Responsible Care<sup>®</sup>

WE SUPPORT

OBAL COA

2021

#### 1. Ecovadis

In FYE2022 we participated in the Ecovadis survey and received a Gold Medal, recognising Nippon Gases in the top 5% of companies in our sector for our sustainability programme, covering the areas of Environment, Labour and Human Rights, Ethics and Sustainable Procurement

#### 2. Responsible Care

All Nippon Gases country operations participate in the Responsible Care programme lead by CEFIC, the International Organisation of the National Chemical Associations. Now, under the umbrella of Nippon Gases and the Global Charter signed by our President, we all benefit from coordination and commitment to fulfil the six Responsible Care pillars

#### 3. United Nation Global Compact (UNGC)

During FYE2022 we enrolled in UN Global Compact and through the commitment letter from our President, Nippon Gases fully supports the Ten Principles of the UN Global Compact on human rights, labour, environment and anti-corruption, which are fully in line with our sustainability strategy. Moreover, as a company we presented our Communication of Progress (CoP) to becoming an Active Participant

#### Nippon Gases and NSHD initiatives

- 1. As part of the NSHD group, we continue to align with TCFD (Task Force on Climate-Related Financial Disclosures) recommendations and disclosure of environmental impact through CDP (Carbon Disclosure Project) recommendations
- 2. These two Initiatives are coordinated at a corporate level, compiling information from NSHD global regions, including Nippon Gases data and strategy
- 3. Product Carbon Footprint. During FYE2022 we developed a procedure to calculate the carbon footprint of our most relevant products. The product carbon footprint is based on our GHG inventory and calculated following ISO 14.067. The process has been verified by an independent third-party agency

- 4. Other initiatives were internally promoted within the Nippon Gases organisation, including:
  - Defining a strategy for the usage of renewable energy
  - Measures to optimise water consumption
  - Initiatives to promote diversity and fight against discrimination
  - Improving community engagement activities management
  - Enhancing external communication of social initiatives carried out by the organisation

All the above initiatives have been included in Nippon Gases Sustainability Mid-term Plan FYE2022 - FYE2026.

## 1.4.3 Sustainable Development Goals FYE2022

The United Nations Sustainable Development Goals (SDGs) are the blueprint to achieve a better and more sustainable future for all. They address the global challenges we face, including those related to human resources, gender equality, climate change, environmental degradation, peace and justice.

Together with these 10 SDG goals, **Nippon Gases** has committed to 31 SDG medium-term targets which are set by the Sustainability Committee and cover the materiality matrix's main priorities. The Sustainability Committee reviews the progress concerning sustainability targets at its quarterly meetings.

# SUSTAINABLE GALS













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Combining the United Nations Sustainable Development Goals with the NSHD materiality matrix (see 1.4.1 Sustainability framework), Nippon Gases has selected 10 SDG goals as drivers for its sustainability strategy, across five main areas.

Starting from the publication of this Sustainability Report, Nippon Gases will replace the current 18 SDG initiatives with the 31 initiatives defined in **Nippon Gases** Sustainability Mid-term plan FYE2022 - FYE2026. All current initiatives are included in the new mid-term plan.



## 1.4.4 Our commitments and achievements

SDG Goals	Target FYE2022	Status and comments
1ain Area	Company Governance and Compliance	
	Maintain corporate governance guidelines and perform a strong culture of compliance and ethics	• <b>On track.</b> All guidelines were respected. The strong culture of compliance and ethics was supported by program regularly rolled out
16 PEACE JUSTICE AND STRONG INSTITUTIONS	100% commitment to the Code of Conduct by required employees	• <b>On track</b> Done. Recertification stored in our web reporting system
	Sustainable review of all potential integrity cases	• <b>On track</b> Done for all cases. File managed by Compliance champion and HR Director
ain Area	Global Environment	
	Reduce the GHG emissions in the period FYE2019-FYE2029 by 35% absolute value vs FYE2019 base year emissions	• On track In FYE2022 the GHG emission Scope 1+2 has been reduced 37% vs FYE2019
7 AFFORDABLE AND CLEAN ENERGY	5% bulk transportation GHG intensity reduction (cumulative FYE2021-FYE2024)	• <b>To follow</b> Current reduction 1.3% for the first year. This improvement has been challeged by the CO <sub>2</sub> sourcing crisis which has forced longer distances deliveries
	Promote Cost Reduction projects, generating Sustainable Development savings equivalent to 40.000 Tonnes CO2eq (cumulative FYE2021-FYE2024)	<ul> <li>On track In FYE2022, 142 projects providing sustainable savings with a total of 10.8 thousand tonnes C02eq.</li> <li>Cumulative since FYE2021, 30 Thousand Tonnes C02eq (74% of target)</li> </ul>
	Integrate all production sites into the Zero Waste program	• On track Current follow-up of waste generation in all sites
12 RESPONSIBLE CONSUMPTION AND PRODUCTION	100% Water management system for main consumer facilities during period FYE2021-FYE2024	On track Current follow-up of water consumption and optimisation programs in main sites. Facilities have been categorised based on the WRI (Wold Resource Institue) for its location Water Stress.
		In FYE2022, the facilities located in Very High Water Stress areas have reduced their water consumption in 4%
13 CLIMATE	Include environmental assessments in 75% of the European assessments	• <b>On track</b> In FYE2022, 88% of the asessment included the environmental protocol

SDG Goals	Target FYE2022
Main Area	Society
8 DECENT WORK AND ECONOMIC GROWTH	Increase the # of internships to 3% of total population with main focus on Operations & Engineering and gender equality
ĨĬ	Increase in the coming 3 years community engagement initiatives 5% YOY (#projects, #participants , # spe
9 NOUSTRY, INNOVATION AND INFRASTRUCTURE	By implementation of our environmer gas application solutions, contribute to GHG emissions reduction in our customers
	Increase the participation and resour devoted to technology development clusters and promote working closely with suppliers focused on clean technologies and circular economy
Main Area	People
3 GOOD HEALTH AND WELL-BEING	Maintain our current RI-rate leadersh compared to the average of Cat1 men companies of EIGA
	<1 preventable product vehicle accide (PVA) per one million km
	Increase the female population overa 30% by FYE2026
5 GENDER EQUALITY	Increase the female specialist and managerial population to 28% by FYE2026
Ţ	Initiate an European female mentorin project, resulting in a 70% promotion to managerial positions by FYE2024

3% us on ender	• <b>On track</b> NGE is convinced that recruiting internships is a strong way to acquire talented people for the organisation. Young people training and offering a lot of development opportunities is binding them with our company. In FYE2022 we have increased from 1.5% to 2.1% (64) our number of interships
res 5% # spend)	• <b>To Follow:</b> We closed the year with 73 projects (in line with our KPI) and there are still a number of projects on going over the FYE. The focus remained for the biggest part on the donation of financial gifts and materials
nmental oute ur	• <b>On track</b> Continuous increase of Decarbonisation projects focused in fossil fuel reduction by implementation of our oxyfuel technology and specially designed burners.
	Active in the use of green and low carbon hydrogen as alternative to traditional fuels in Steel production. Valorization of wastes, combining our expertise in waste water treatment with Anaerobic digestion to obtain Biomethane. Active in carbon Capture Projects.
	This year FYE2022 our gases have saved 1.5 million Tonnes of CO2eq in our customers.
esources ent osely my	• On track Developping alliances with technology providers and other stakeholders to enlarge our decarbonization solutions portfolio. (e.g. gasifications, circular economy, valorization of waste). Our clear position towards a carbon neutrality transition is reflected in our active participation in joint proposals with different partners including H <sub>2</sub> production by electrolysis, CO <sub>2</sub> recovery, and flue gas purification
ership member	• <b>On-track</b> The Recordable Injury rate for <b>Nippon Gases</b> in FYE2022 is 0.90 improving 38% from last year value. This excellent result has resulted to received the EIGA (European Industrial Gas Association) Safety Award 2021 for Category 1 members
occidents	• <b>On-track</b> The preventable accident rate of product vehicle was 0.16 accidents / million km driven for FYE2022. It is a good performance but not improving last year
overall to	• <b>On track</b> n FYE2022 we increased our female population to 27.8%
nd ,	• <b>On track</b> In FYE2022 our female participation was 27.1% in the specialits and manageral population
toring otion rate 024	• <b>On track</b> Female project is on going in a very positive mode, lot of new initiatives are on going for the moment , all with the purpose to have a group of talented employees ready for promotion

## 1.4.5 Sustainability Mid-term Plan

In January 2022, the Nippon Gases Sustainability Committee approved the **Nippon Gases** Sustainability Mid-term Plan FYE2022 - FYE2026. The plan described the purpose, the governance and the process to identify the initiatives. The mid-term plan has been defined in alignment with the NSHD corporate medium-term plan.

At **Nippon Gases**, we are aware of the role we play in society and we have incorporated a series of ESG commitments which currently comprise our Sustainability Mid-term Plan FYE2022 - 2026.

The purpose of this is the conceptualisation of our Corporate Social Responsibility (CSR) policy based on the latest market trends and best practices, the management of our ESG objectives, and the accomplishment of the sustainability guidelines of NSHD.

While we may have originally conceived this as a resource to continuously improve our reputation and create value, we now see sustainability as a cornerstone of our business strategy.

In the evaluation of sustainability initiatives, the inputs received from internal and external sources alike were considered:

- Market analysis (benchmark)
- NSHD mid-term strategy
- Third-party sustainability rating agencies
- EU's Green Deal 2030/2050 Agenda
- Nippon Gases Corporate Social Responsibility policy
- Nippon Gases internal sustainability initiatives \_

The governance and follow-up of the mid-term plan is managed by the Sustainability Committee and its Task Force.

The communication of our Sustainability Mid-term Plan and its progress is performed through our internal channels (website, quarterly magazine, quarterly meetings), via our corporate website and through our Sustainability Report.

Five areas of activities have been defined to coordinate the 31 initiatives identified for the mid-term plan:



Human rights ESG risk management Sustainability reporting certification Product Carbon Footprint certification Procurement. Supplier ESG engagement

Within these five areas of activity, the 31 initiatives defined in the Mid-term Plan FYE2022 - FYE2026 are as follows:

SDG Goal	NGE Midterm Initiatives	Target FYE2026
	Climate Change/Innovation and Technology	
7 AFFORDABLE AND CLAN EXCEPT	Reduction of GHG emissions: Reduction rate of total $\rm CO_2$ emission (%) in absolute value (t) from FYE2019	29% reduction FYE2026 35% reduction FYE2031
9 ROLETY MONITOR AND MEASURETHE	<b>Carbon Neutrality:</b> Expand products and services that enable customers to reduce $CO_2$ emissions. Increase the rate of $CO_2$ reduction contribution to customers	Contribution > Emission

G Goal	NGE Midterm Initiatives	Target FYE2026
	Climate Change/Innovation and Technology	
ESTRY, INCULTOR ONFRASTRUCTURE	<b>Carbon Neutrality:</b> Biomethane production by Anaerobic Digestion of Waste water treatment sludge	Reach 8 unit/year with average production 500 m3/hr, equivalent 281 GWH per year
ISTY MULTIN INTASTRUCTIVE	<b>Carbon Neutrality:</b> Promotion of this Biomethane as source for producing green or low carbon Hydrogen for small/ medium customers	Reach 6 unit/year with average production 240 m3/hr
	Renewal Energy: Continue promotion of renewable energy share	35% renewable energy
	<b>Productivity projects:</b> promote productivity generating Sustainable Development savings cumulative FYE2022- FYE2026	50.000 Tonnes CO2eq
	Environmental	
LEAN WAJER NO SAMITATION	Water: Continue on reducing water usage intensity(vs sales) in all our operating plants. Reduction rate of water consumption intensity. Base year FYE2020	Reduction 10% in water intensity
	<b>Waste:</b> Reduction rate of waste disposal intensity (vs sales). Base year FYE2020	Reduction 11% in waste intensity
	<b>Logistics:</b> Continue to take advantage of data driven technologies and improve the efficiencies in our logistics by right sizing our tank and cylinder bundle size. Base year FYE2022	Reduction 6% product transportation GHG intensity improvement
	Environmental Management System ISO 14001: Improve participation of operational sites	>80% operation sites
	People	
	<b>Diversity and Inclusion:</b> Increase of female population and its managerial and specialist participation	Female 30.5%, Managerial and specialists 28.5%
CENT HORK AND DNOME GROWTH	<b>Employee engagement:</b> Evaluation of employee engagement. Improve Sustainable Engagement Index	≥85%
CENT HORK AND CHOMIC GROWTH	<b>Community engagement:</b> Coordinate social and community initiatives in the areas were we have presence. Base Year FYE2022	Increase people participation, funding and # projects 30% increase
CENT HORK AND DROMEC GROWTH	Youth: Commitment of increasing the number of positions for young local diverse talent in the organisation	Increase the # of internships by 3%

SDG Goal	NGE Midterm Initiatives	Target FYE2026
	Safe Operation	
3 GOOD HEALTH AND MELL-BEING	Improve our RI rate. (Recordable Injuries per million working hours).	RIR 1.19
3 GOOD HEALTH AND WELL-BEING 	Improve Lost Time Injury rate. (LTI per million working hours).	LTIR 0.54
3 GOOD HEALTH AND WELL-BEING 	Preventable Product Vehicle Accident rate (Pre-PVA per million kilometers driven).	Pre-PVAR 0.20
3 GOOD HEALTH AND WELL-BEING 	Number of Property Damages (PDs)	<= 12/year
3 GOOD HEALTH AND WELL-BEING 	Continue promoting campaigns as result of analysis from Incidents and Assessments	One campaign per year
3 GOOD HEATH AND WELL BEING 	Complete the Process Safety Roadmap	Complete by FYE2024
4 GUALITY EQUCATION	Reinforce the European Safety & Environmental assessment program	12 European assessment per year
13 CELIMATE	Bring the training for employees and contractors into a digital platform	Complete Europe deployment by FYE2024
	Ethics and Compliance	
12 REPORTER CROSMPTIEN AND CONCEPTEN	<b>Customer:</b> Reinforcement of quality assurance and management systems	Number of Product Complaints with economic impact higher 1 Mi JPY. ≤5/year
12 RESPONSERE CONSUMPTION CONSUMPTION	Customer: Satisfaction survey	As needed
16 PEACE JUSTICE AND STRING INSTITUTIONS	Compliance: Thorough compliance training	100% employee receiving Compliance training
16 PEACE JUSTICE AND STRING INSTITUTIONS	<b>Standards:</b> Participate in the developing of HSEQ Corporate Standards	Complete review NGE Standards
16 PEASE JUSTICE AND STRONG INSTITUTIONS	<b>Compliance:</b> Sustainable review of all potential integrity cases	100% review

Target FYF2026

SDG NGE Midterm Initiatives Goal **Ethics and Compliance Procurement:** Incorporate environmental managem and the ESG (Environmental Social and Governance) 12 RESPONSIBLE CONSUMPTIO criteria procedures with all the participants in the va CO chain. To be included in supplier contracts Procurement: Improve CSR risk analysis prior to supplier assessments or audits CO **Procurement:** Improve supporting documentation on the coverage of sustainable procurement action CO throughout the company supplier base/operations Procurement: Improve information on reporting on sustainable procurement issues 00 GASES

ABOUT US

SDG Go:

NGF Midterm Initia

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NIPPON GASES

	Target FYE2026
ement e) value	Suppliers covering 80% of spend to be included in new SRM - Supply Relationship Management system. New ESG clauses incorporated in European contract templates
	Implement new system (iRisk) as part of the process for all safety critical, single source and sole source suppliers
ns s	Incorporate new supplier Code of Conduct to the documentation and SRM process for targeted (80% spend) supplier
n	Incorporate supplier driven initiatives related to productivity sustainable actions and link them to new SRM system



## Iñaki Uriarte

#### Sustainability & HSEQ Director Nippon Gases Euro-Holding S.L.U.



# How sustainability is becoming a strategic cornerstone

We're here for the Nippon Gases Sustainability Report 2022 and as Sustainability & HSEQ Director, it seems appropriate to make you our first interviewee! Tell us about some of the company's sustainability highlights over the last 12 months...

Absolutely, thanks – let me highlight our top **Nippon Gases** sustainability activities that we accomplished during this year (FYE2022).

One key area has been the increased coordination with our parent corporation, NSHD, in Tokyo while defining the mid-term strategy and targets. In Europe, sustainability is managed by the Sustainability Committee and led by our President, this coordination has proven to adapt to the very changing demands of our society.

We have also participated in the renewal of the corporation's materiality matrix, which with the dual entry combines our business priorities with our stakeholders' interests, and provides a clear view of priorities for the initiatives we should focus on.

#### You mentioned adapting to changing societal demands, but how do you identify these and measure against them?

We continue to assess and adapt to changing scenarios, and I can state that our engagement with third-party sustainability-related organisations is helping us to identify new opportunities to improve our sustainability journey together with our stakeholders. This year we engaged with Ecovadis as a European organisation and we were honoured with the Gold Medal award, which recognises **Nippon Gases** as being in the top 5% of performers in our industry in the areas of environmental, labour and human rights, ethics, and sustainable procurement. We also coordinated our efforts and have a common European position in the Responsible Care management system with all European countries participating to the safe management of chemicals throughout their lifecycle. And we enrolled in the United Nations Global Compact, presenting our Communication of Progress and passing the organisation's requirements. All of these thirdparty schemes help to reinforce our sustainability strategy and highlight opportunities for improvement.

#### On that note, how can Nippon Gases continue to expand its journey in sustainability?

Well, the company's Sustainability Committee has approved the **Nippon Gases** Sustainability Mid-term plan FYE2022 - FYE2026 with 31 initiatives identified, which are disclosed in this Sustainability Report. Not only does this expand our number of initiatives, but their definition has been coordinated with the NSHD strategy and provides a solid guidance for our sustainable activities.

One area of paramount importance is the new carbon neutrality programme to help customers to reduce their emissions. Also among the identified initiatives is the strategy to increase our renewable energy share and our commitment to GHG emissions reduction by 35% in FYE2029.

#### All of these third-party schemes help to reinforce our sustainability strategy and highlight opportunities for improvement.

And as a response to customer demands, **Nippon Gases** has developed a Product Carbon Footprint initiative too, providing a clear view of the impact of our products in their respective supply chains.

Looking at the future, I see steps ahead to follow the new European Corporate Sustainability Reporting Directive (CSRD), which reinforces business decisions in terms of human rights, climate and environmental impact. We might also envisage integrating the European Taxonomy Regulation into our sustainable investments analysis.



# 2. Proactive

Being much more than just a gas supplier means putting our customers at the centre of everything we do, proactively seeking the best technological offerings that range from the most efficient supply options to tailored applications technology solutions.

And that can only be achieved by constantly and proactively improving safety our company's number one priority - in our operations and at customer sites.

What's more, **Nippon Gases** as a company, and each of our employees, managers and directors, as individuals, proactively strive to be ethical in all our activities, achieving compliance excellence through continuous training and every employee living our Code of Conduct.

NIPPON GASES

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SUSTAINABILITY REPORT 2022

## 2.1 Business model

Our core competency - our ability to provide safe and reliable supplies of industrial and medical gases reflects technological development, production, supply and sales capabilities accumulated over the years since our creation. These capabilities are important assets that will continue to underpin sustainable growth in the years ahead.

But it is more than that; at **Nippon Gases**, our customers' needs drive our efforts, and our agility to respond to new challenges and difficult circumstances has been demonstrated throughout the pandemic. We adapted our production and logistics to the critical requirements of oxygen and other medical gases for both public and private healthcare centres. We continued to devote huge material and human resources to help in the figh against Covid-19, while we also implemented procedures to guarantee the health of our workers and avoid the contamination of our assets to prevent transmission of the virus.

Equally, our strong capabilities in ship transport of liquefied  $CO_2$ , together with our diversified production network, has been crucial to mitigate the negative impact for our customers as a consequence of the huge increase of natural gas prices and associated  $CO_2$  shortages.

We are proud to be proactive because we care for our employees, for our families, and for our communities, and it is only with the strong commitment to that philosophy that we will help society as a whole to have a better life, through gas technology.

The diagram below sets out the **Nippon Gases** business and value creation model, including types of assets used in our supply chain.

	Onsite/At customer/By pipeline	Bulk/Liquid	Package/ Cylinders
Type of gases	$O_2,H_2,N_2$ and $CO$	O2, N2, Ar, CO2, He & H2	All industrial gases Non-cryogenic
End- markets	Chemicals Metal production Energy Glass Petrochemicals Refineries	Manufacturing Metal production Chemicals & petrochemicals Energy Electronics Food & Beverages Healthcare	Manufacturing Metal production Chemicals & petrochemicals Energy Food & Beverages Healthcare Electronics
Volumes	Large (>50 tpd)	Medium (1-50 tpd)	Low (<1 tpd)
Delivery distance	Up to 250 kms for pipeline networks Low delivery distance for stand- alone/individual customer supply	Medium, c. 300 km	Low <100 km

## 2.1.1 Inputs

Industrial gases primarily include atmospheric gases (air gases), produced via air separation, and other gases which are produced or obtained from various industries and technologies. Our integrated business model incorporates various supply modes, including onsite (at customer premises and via pipelines), bulk (liquid deliveries) and packaged gases (via cylinders, cylinder bundles and small liquid containers).

Our medical gases are produced under strict regulatory standards, fulfilling the highest quality specifications and guaranteeing complete traceability. Our highly specialised respiratory homecare team has been providing its services throughout the pandemic, helping elderly, vulnerable patients to remain safe within their homes. Protocols have been adapted according to these new and unexpected scenarios, to guarantee access to such therapies without risk.

In the second year of pandemic, we continued our efforts to support our Industrial customers, in a very challenging situation, because due to the big gas volumes demanded as consequence of the economic recovery, we stretched our production and distribution organisations to fulfil the demand of our customers, facing at the same time a complicated situation due to the global increase in infection rates that affected all.

As part of this support and our expertise in cold chain management, we have been selected in several European geographies to supply Dry Ice and other cooling methods during the transport of Covid vaccines that required a strong control of temperature. We are proud to have contributed to the success of the vaccination campaign.

At the same time in order to protect our employees and their families we continued to promote home working for all employees that could perform their work from home.

We are committed to the wellbeing of our employees, having implemented several initiatives to improve the work environment and the levels of both wellness and commitment for everyone who is a part of the **Nippon Gases** team.



**Chemicals:** We work to develop new ways of improving processes, meeting environmental objectives and reducing production costs.

**Combustion:** Our range of products, services and equipment are focused on optimising fuel consumption and reducing  $CO_{2'}$  CO or NOx emissions in steel mills and foundries.

Welding and cutting: We collaborate to reduce manufacturing costs, increase productivity and improve quality, maximising economic performance and minimising environmental impact.

**Healthcare:** Our medical gases and respiratory therapy services contribute to the health of our society.

**Specialty gases:** From research and development to reaching full production in the pharmaceutical, laboratory and biotechnology sector.

**Water:** We improve the quality of water through our solutions: enabling drinking water, reducing the pollution in wastewater, or improving the water quality once it returns to its natural environment.

**Hospitality:** From supplies for dispensing carbonated beverages to molecular cooking.

**Electronics:** We supply semiconductor specialty gases used in the manufacturing process of liquid crystal and semiconductors, contributing to the development and dissemination of high-tech industry.

**Universities:** We help hundreds of universities to take their lines of research further, thanks to our pure gases and mixtures.

**Food and beverages:** Food safety and quality are the pillars of solutions capable of keeping food fresh without the need for chemical additives.

**Carbon neutrality:** Based on our deep knowledge of our customers' production processes, we propose customised gas-based solutions that help industries to adapt their activities according to the objectives of GHG reduction.

## 2.1.2 Activities

The philosophy that permeates **Nippon Gases** is to provide solutions that actively contribute to the common objective of making our planet cleaner and more sustainable.

**Nippon Gases'** sustainable approach helps our customers reduce waste, reuse materials, and increase productivity.

Thanks to our services and equipment, they obtain process improvements that allow the transition to a carbon-neutral economy, without penalising production costs.

During FYE2022, **Nippon Gases** adapted its activities to the exceptional business conditions that were prevalent, and our efforts have been focused on guaranteeing that our customers receive a reliable and safe supply of quality products.

With the pandemic still active, several circumstances have tested our ability to combine the safe operation of our production plants with the important demand from the industry, to secure reliable gas supply to support the economic recovery across all sectors.

## 1. Healthcare is essential for a sustainable society

At **Nippon Gases** we believe that the access to a universal and high quality health system is essential in a sustainable society.

**Nippon Gases** Healthcare, our medical division, contributes to the health of the population by producing medical-grade gases and mixtures following European pharmacopeia.

Medical oxygen, nitrous oxide ( $N_2O$ ), breathing mixtures and helium are just a few examples of the most intensively used products in this sector.

Our Plug&Breathe® medical oxygen cylinder is a user-friendly solution for patients and healthcare professionals alike, and a further example of our innovative technologies to complement the aforementioned gas products.

With life expectancy increasing, homecare services are essential to guarantee the quality of life for our elderly population.

In FYE2022 **Nippon Gases** has worked on several initiatives related to healthcare, including:

 The increase of our dry ice production capacity, to meet the important demand for vaccines due to the Omicron (Covid) variant's overall impact in European countries. Our dry ice supply chain contributes to the success of vaccination programmes by enabling and maintaining the required temperature conditions during vaccine transport and storage.

- The use of nitric oxide (NO) mixtures and their combination with medical oxygen has demonstrated benefits not only in respiratory diseases but for critical Covid patients too, ultimately saving lives. Through a strategic acquisition, Nippon Gases will be positioned as a Tier One provider for these therapies and will now be able to cover the complete cycle, using a high quality medical device and a reliable production of NO mixtures that covers all medical indications.
- The increased use of telemedicine services. The pandemic has demonstrated that telemedicine is an extraordinary tool to provide medical care when the optimum conditions for diagnosis are not readily available. Our group has launched a company in Italy specialised in providing telemedicine services according to the needs of Italian (regional) healthcare organisations. In this way, patients have access to doctors in real-time, avoiding wasting time travelling to hospitals, and further enabling healthcare systems to improve their medical provisions.

#### 2. Digitalisation

As a consequence of the pandemic, our digitalisation strategy has significantly accelerated.

Home working has been guaranteed within our organisation through the corresponding IT infrastructure. At the same time, interactions with our customers, suppliers and other stakeholders have been successfully maintained using different applications. Virtual meetings, smart glasses, augmented reality (AR), and 'social selling' are all now part of our day-to-day work and will continue beyond the pandemic.

Digitalisation plays a very significant role in sustainable development, as the digital transformation of multiple sectors - especially energy, water and transport, among others - are determining factors in the management of climate change.

At **Nippon Gases**, we are committed to innovation to improve our services in every industry in which we operate.

Our wastewater treatment plant simulation technology, for example, allows us to better understand our customers' systems and provide them with a customer service that is tailored to their real needs.

Equally, our SansoScan® software allows our customers in aluminium production and other sectors to increase productivity, improve energy efficiency, and reduce emissions and maintenance through a flame image analysis system.

There are just two examples. In fact, our commitment to digitalisation and innovation goes further still. The digital solutions of **Nippon Gases** – such as our traceability system or MiruGas<sup>®</sup> - have contributed significantly to facilitating our customers' access to and control of the parameters of their gas installations, as well as offering data on all of the products they consume.

Not only do we develop such digital technologies for different markets to help our clients achieve their sustainability goals, but we also enable the electronics industry to advance thanks to a stable supply of high purity nitrogen and specialty electronics materials (EM's) and gases, as well as total solutions.

We support our customers in this transformation through the installation of special piping for high-purity specifications (essential in the electronics industry), as well as related equipment including exhaust gas abatement systems and cylinder cabinets, among other high-tech elements.

To align with the commitment of the EU to increase the production of electronic components in Europe, our company is implementing an expansion of production capacity in our electronics gases plant in Oevel, Belgium. Nippon Gases will, therefore, actively contribute to the EU realising this objective, providing both new and existing production facilities with access to reliable and high quality electronics gases and chemicals that are so essential for this industry.

#### 3. Decarbonisation and environmental initiatives

It is clear that the Covid-19 pandemic not only changed our way of life, but at the same time made us more sensitive to current environmental conditions and the importance that sustainable activities will have on our health, our economy and our day-to-day lives.

Europe has now taken a clear step ahead of other regions of the world in the control of GHG's and the negative consequences these are having on our lives.

**Nippon Gases** is fully aligned with this European strategy and is focused on providing different solutions to our customers, to support their own initiatives to reduce their CO<sub>2</sub> footprint.

#### Boosting the transition to a low-carbon emissions industry

For years, the oxyfuel combustion solutions of Nippon Gases have helped energy-intensive consumers to reduce fossil fuel consumption in their production processes.

However, the need to further reduce GHG emissions requires specific solutions for each industry. The use of Hot Oxygen Burner (HOB) technology and ScopeJet® Burners allows the use of fossil-free fuels, therefore having a direct impact on the reduction of CO<sub>2</sub> emissions in the production of aluminium, cement or metals, and many other products.

In the steel industry, for example, the use of low-carbon fuels - combined with specially designed oxygen burners - and recovered CO<sub>2</sub> as a chemical feedstock will lead to significant CO<sub>2</sub> emission reductions in classical blast furnaces.

In other industries such as glass production, our thermochemical regeneration process provides a creative and environmentally-efficient solution, reducing CO<sub>2</sub> emissions by up to 40% compared to classic regenerative air furnaces, and 60% compared to classic air recovery furnaces.

Nippon Gases has the experience and services needed to control and improve the processes in wastewater treatment. Our Mizu® solutions combine the use of pure oxygen with equipment that improves oxygen dissolution.

Regardless of the type of industry, any aerobic biological treatment can be improved with the injection of oxygen from increasing the capacity of the wastewater treatment plants, to being able to treat more load (volume and/or chemical oxygen demand), eliminating odours, removing ammonia, and enabling seasonal intensive industries to fulfil environmental requirements.

Water treatment remains a significant application when it comes to sustainability. Our Mizu® 03 technology guarantees the quality of drinkable water, replacing chemical-based solutions. This solution eliminates viruses and bacteria, allowing the reuse of treated water and contributing to the circular economy.

## 2.1.3 Outputs

The high quality of our products and services is the key to our work.

users, from those who require a few cylinders of product, to big production plants such as steel mills, oil refineries and chemical or petrochemical companies with onsite production for their gas needs.



Furthermore, the use of CO<sub>2</sub> in this industry provides an efficient, safe and environmental solution, replacing dangerous acids and contributing to the objective of optimising natural resources, at a time when stable and potable water supplies are an increasingly pressing topic.

Capturing emitted  $CO_2$ , at the right cost, is key to a decarbonised economy, alongside a diversified energy sector – and **Nippon Gases** is actively engaged in all of these areas. On one hand, we provide different CO<sub>2</sub> capture solutions to our customers, proposing the most adequate recovery method according to flue gas characteristics and volume; on the other hand, we are also involved in the production of biomethane fuel.

As part of the circular economy approach, transforming biogenic wastes into biogas via anaerobic digestion (AD) and upgrading to biomethane has become an increasingly viable initiative to reduce natural gas consumption. Nippon Gases can propose various solutions in this market, including a complete solution to liquefy or compress the biomethane and provide a green mobility solution to the vehicles of our customers.

## José Ramón Calvo



#### Leading the global efforts of NSHD towards carbon neutrality solutions for our customers

Europe is widely seen as taking a global lead when it comes to decarbonisation and sustainability, so tell us about that from a Nippon Gases perspective...

There is no doubt that Europe is leading the efforts in the fight against global warming, through an ambitious policy that combines regulatory guidelines related to GHG's and incentives for innovation and transformation of the actual production processes to be decarbonised.

At Nippon Gases we think that our philosophy - Proactive, innovative and collaborative - matches perfectly with the spirit of this decarbonisation roadmap. Only with a proactive approach can we provide gas-based solutions that enable our customers to embark upon their own path to decarbonisation; only with an innovative and open-minded attitude can we find the alternative solutions to actual problems; and only by being collaborative can we be truly successful in our shared decarbonisation Initiatives. We work

together with different technology partners and with our customers as a team.

We've alluded to the exciting new carbon neutrality strategy at NSHD here in this report. As a key stakeholder in this, could you tell us more in your own words?

Across a period of seven months, a group of 45 people representing all the companies of NSHD has been working together to create the Carbon Neutrality Strategy that will be implemented globally and will be an essential pillar of NSHD's strategic mid-term plan.

At **Nippon Gases**, we are proud that our senior management team has selected our company to lead this initiative. Coordinating such a number of experienced people, from different backgrounds, geographies and positions of regional decarbonisation policies, according to different governments, has been a challenging experience. We have been proud to see extraordinary efforts from all members of the team - and the result has been great! And the best part, is, we're only just getting started!

Based on our deep knowledge of the production processes of the big CO<sub>2</sub> emitters, we have created

Marketing Director Nippon Gases Euro-Holding S.L.U.

a global organisation responsible for developing specific solutions for each market and providing specialised support to the regional carbon neutrality organisations responsible for implementing our solutions. So 'think globally, act locally' is the name of the game for this initiative to provide the best solution adapted to the requirements of the different European countries.

#### Finally, tell us more about the focus areas for the strategy...

Based on the challenges and opportunities that we have carefully identified, we have segmented our carbon neutrality strategy into the following five key pillars:

- Greening combustion processes via the combination of specially designed burners and oxygen
- Green and low-carbon hydrogen using different production technologies
- CO<sub>2</sub> capture/recovery
- Circular economies, reusing wastes (including CO<sub>2</sub>) as a feedstock
- Digitalisation, to enable the transition to the carbon neutral solutions

To help the industry to reach its objectives of decarbonising production processes, it is necessary to provide the best solution with the most suitable technology. To have access to these technologies, both now and in the future, we work with our own resources to develop core technologies and complement this with strategic partnerships, alliances and M&A with external companies.

Of course this is an activity that need to follow new technology developments and regulatory and market trends.

## 2.2 Stakeholders' engagement

We engage with our stakeholders to create social value through innovative gas solutions that increase industrial productivity, enhance human wellbeing and contribute to a more sustainable future.

The relationship with all stakeholders (employees, customers, shareholders, suppliers, communities, industry associations, and governments and regulators) is based on the overarching need to ensure the sustainability of our business in all its different aspects, including the impact of our operations on the community and the environment.

#### Customers ------

- At Nippon Gases we approach our customers with innovative thinking and solutions to their most pressing operational challenges. Finding a value solution may become a partnership opportunity.
- The key sustainability concerns of our customers vary by business, but typically focus on how our products and technologies can help them improve resources and energy efficiency, and reduce their environmental impact through the reduction of GHG emissions.
- We focus on continuing to operate as a safe, reliable and quality product supplier to our customers.
- We monitor the safety and quality incidents our customers' experience when using our products, and work to improve conditions in such cases.
- Communication is continuous through the sales and application teams and the customer service personnel.
- The implementation of our environmental gas applications solutions contribute to the GHG emission reduction of our customers, keeping their costs competitive and complying with EU policies

#### Communities .....

- Nippon Gases is a good neighbour committed to community engagement initiatives. See chapter 4.5 (Community Commitment).

#### Governments and regulators

- All Nippon Gases' activities are ethical, transparent and in compliance with all legal requirements.
- Nippon Gases participates in the preparation and update of regulations through its membership of industry associations, which help to maintain open dialogue with local, regional and national authorities.



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In FYE2022, internal stakeholder engagement activities focused - amongst other things - on our European employee pulse survey. Dialogue with external stakeholders centred on a number of key important issues, including sustainability across our supply chain, our activities for climate protection and Green Deal activities.

We continuously identify and evaluate sustainability issues working together with internal and external stakeholders.

Our Sustainability Committee discusses our strategy with stakeholders who are experts in different fields.

#### Employees

- Nippon Gases is committed to a safe work environment where our employees can grow and thrive.
- We promote communications with our employees for a continuous personal development and sustainability initiatives.
- Nippon Gases promotes benefits that reward performance and provide opportunities for a healthy work-life balance, and engages employees in wellbeing activities.

#### Suppliers

- Nippon Gases engages with suppliers proactively in order to promote increased environmental responsibility and the use of cleaner technologies.
- Supplier periodic qualification reviews offer an opportunity to evaluate supplier performance as per Nippon Gases standards

#### Industry associations

- Nippon Gases actively participates in European and national industry associations, ensuring promotion and alignment with market sustainability initiatives and best practices.

#### Shareholders

- The way to serve our customers with excellence, develop and reward our employees, and support our communities, is to have a profitable company with satisfied shareholders.
- NSHD represents and channels its shareholders' interest. Through quarterly reviews we have a two-way channel to align interests.
- We regularly report to NSHD through guarterly NGEH Board meetings, where a thorough review of the main business areas is undertaken

## 2.3 Strategy

Industrial gases are and will continue to be an essential contributor in Europe's journey toward a more sustainable and a carbon neutral society.

"When I say our gases are vital, I'm not exaggerating. A steel mill cannot produce steel without oxygen; at a chemical company, if there is no nitrogen, there can be safety risks; a manufacturing shop can hardly weld without argon. Industrial gases have to be available 24/7, otherwise most have to stop operations."

"We aim to create social value through innovative gas solutions that increase industrial productivity, enhance human wellbeing and contribute to a more sustainable future."

Eduardo Gil Elejoste President of Nippon Gases Published by The CEO Magazine, 2nd November 2021

The Nippon Sanso Holdings Group aims to realise a sustainable society and global environment through the industrial gases business. NSHD naturally considers it our mission to maintain the global environment in a sustainable manner for the future. In addition to the global environment, the group will also address various social issues by proposing solution-based strategies through products and services that utilise its technological capabilities.

The Nippon Sanso Holding Group has just launched its mid-term management plan, titled 'NS Vision 2026' and with a group slogan of 'Enabling the Future'. The strategy of the mid-term management plan is structured by group strategy, with five fields of focus, and by regional business strategy across four regional industrial gas operations (Japan, US, Asia & Oceania, and Europe) and the Thermos business.

The five focused fields of the strategy are comprised of:

- 1. Sustainability management
- 2. Exploring new business toward carbon neutrality
- 3. Total electronics
- 4. Operational excellence
- 5. DX initiatives

With this plan, sustainability underpins our business strategy and is fundamental to our long-term growth. Nippon Gases is committed to minimising its environmental impact and improving its social presence, whilst executing on group strategy and delivering best practices in both programmes and processes. Nippon Gases also aspires to drive improvements in the sustainability performance of the global Industrial gases industry.

Industrial gases, therefore, are and will continue to be an essential contributor in Europe's journey toward a more sustainable and carbon neutral society.

By effectively making use of the properties of industrial gases, we develop and offer gas solutions which contribute to increased production efficiency and decreased energy consumption and waste. Due to this nature of the industrial gases businesses and our growth in the healthcare business across Europe, Nippon Gases is contributing to the welfare of both the environment and society as a whole.

Our growth will be balanced between investment projects, applications and technology opportunities, as well as new opportunities to do things that we are not doing today.

As an example, we continue to invest in new technologies that improve our customer integration and optimise our operational processes, and uphold our commitment to reach certain Sustainable Development Goals (SDGs) introduced by the UN to eradicate poverty, protect the planet and guarantee prosperities for all.



"People excellence is mission-critical for us, it is therefore imperative to provide an inclusive, diverse workplace that fosters innovation and teamwork and promotes work-life balance as a pillar of our retention strategy. For example, 27.8% of our employees today are women and we will be reaching 30% in a couple of years."

"We are very easy to work with, any potential customer that makes a call will be directed very quickly to the right person."

Eduardo Gil Elejoste President of Nippon Gases Published by The CEO Magazine, 2nd November 2021.

Nippon Gases is part of the medium-term strategic plan that the corporation has elaborated for the period FYE2023 to FYE2026.

Nippon Gases' main strategies, as a regional business strategy of the NSHD medium-term management plan, are as follows:

#### Enforce governance

- Be best-in-class in safety
- Be the high-quality industrial gases company
- Best-in-class compliance & risk management

#### People excellence

- Leadership excellence
- Optimise talent and motivation of the employees
- Optimise diversity and inclusion

#### Optimise base business

- Protect and defend the current business, with special attention to resilient markets
- Continue to invest in applications technology
- Evaluate and take action on market mix and portfolio of offerings

NIPPON GASES





#### Business growth

- Seize Green Deal opportunities in decarbonisation and hydrogen
- Partner with our customers to help them achieve their sustainability objectives
- Expand geographical footprint
- Consider M&A opportunities

#### **Operational excellence**

- Take full advantage of digital transformation and automation
- Achieve internal sustainability leadership

#### Tax strategy

Nippon Gases' approach to tax matters is completely aligned with the group ethics and compliance philosophy. Its guiding principles can be summarised as follows:

- Strict compliance with local applicable laws and regulations
- Advisors' guidance where complexity or uncertainty exists
- Business customers and suppliers' alignment to ensure accuracy in transactional taxes
- Solid cooperation with local tax authorities.

Since the nature of **Nippon Gases'** business is fundamentally local, we generate our income and pay our taxes in the 13 countries in Europe where we operate. And in the limited cross-border transactions in our business, **Nippon Gases'** approach is always to comply with OECD transfer pricing guiding principles such as the arm's length principle.

Our tax contribution in each country is substantial and similar in scope, with a total figure in Europe in the €240 million region, which mainly includes Corporate and Value Added Tax but also other taxes (mainly Energy & Municipal). It is a significant contribution across the continent.

## **Todd Kuroiwa**



#### Why successful integration activities are intrinsically linked to group success

Integration activity: it could easily be overlooked, so tell us what it is and why it's important...

When we refer to integration activities, we're talking about a joined-up approach across the entire NSHD ecosystem. It's the confluence of strategies, technologies, innovations and people - and without a successful and harmonious integration strategy, a business cannot truly leverage all of the opportunities ahead of it.

Integration activity in the last fiscal year was spread across all NSHD group companies, with the NSHD mid-term management plan in mind, which started in April 2022 for a period of four years, until March 2026.

#### Can you tell us a bit more about the extent of this integration activity?

Absolutely, given how important it is, I'd be delighted to. Our activity can be categorised into four areas: exploring a sustainable future;

operational excellence; enforcing governance; and expanding business opportunities.

#### Exploring a sustainable future:

José Ramón Calvo, Marketing Director of **NGE**, together with our business experts, played a key role in these activities to define the way the NSHD group should create social value through innovative gas solutions that contribute to a more sustainable future as the mission of the NSHD group. The strategy and roadmap were approved by the Board of NSHD and as you can see, the actions of this are now in progress.

#### Operational excellence: Nippon

Gases continuously provides NSHD group companies, mainly in Asia and Oceania, with the know-how and experiences of productivity programmes in Europe. In fact, an increasing number of group companies have initiated a productivity programmes with the same methodology of Nippon Gases.

Enforcing governance consists of safety and quality management, compliance and risk management, and information security. César Callejo, CIO of NGE, led the Global Information Security Council (GISC) of NSHD group, and the council

has made technical assessments on group IT security systems and elaborated action plans for the period of NSHD's new mid-term plan.

Integration Director

Nippon Gases Euro-Holding S.L.U.

#### Expanding business opportunities

is directly linked to day-to-day business activities in electronics, gas applications and engineering, among other lines of business. Here we see a great example of global collaboration and integration, with TNSC's plant engineering centre actually manufacturing the first ASU for Europe. The plant will be installed in Italy and powered by 100% renewable sources and, starting from the second half of 2023, will produce the new Green Bulk Gases (nitrogen, oxygen, argon) to reduce the carbon footprint in our own operation as well as our customer's.

#### And finally, can you underline how important successful integration is to a successful and sustainable business?

The success of the NSHD midterm management plan is hugely dependent on the success of the continuous efforts of integration activities across the group companies. Nippon Gases has contributed excellent financial and non-financial results to the NSHD group, and we wish to be a key contributor for the future from both perspectives , as the catalyst within the NSHD group.



## 2.4 Corporate governance

**Nippon Gases** has a simple but clear philosophy: Proactive. Innovative. Collaborative. Making life better through gas technology.

Our philosophy is supported by our vision: we aim to create social value through innovative gas solutions that increase industrial productivity, enhance human wellbeing and contribute to a more sustainable future.

Sustainability, together with safety, compliance, diversity and inclusion, is one of our core values and is represented within our logo, which symbolises the seamless integration of state-of-the-art technology and nature and evokes our resolution to achieve growth through superior quality and transparency, and to ensure a future that is clean, safe and healthy.

Our commitment and responsibility to this cause is embodied in the **Nippon Gases** Code of Conduct, which is designed to respond to the expectations of customers and society at large and represents the standard of conduct which all Nippon Gases employees are expected to meet in their business endeavours (for example, compliance with laws, regulations and corporate ethics, transparency, fairness, integrity).

In line with our philosophy, vision and values, we set the necessary guidelines, starting from the approval of the relevant policies, the individuation of objectives and targets on material issues, the governance structure, risk management, the sustainability performance indicators and the management of communication and stakeholder engagement plans.

Nippon Gases aligns sustainability reporting with current and emerging disclosure standards to ensure the group discloses relevant and meaningful data on sustainability performance. This includes compliance with obligations under EU Directive 2014/95/EU on nonfinancial reporting and its transposition in Spain. The NSHD group voluntarily aligns reporting with the Task Force on Climate- related Financial Disclosures (TCFD) guidance, the Sustainability Accounting Standards Board (SASB), and the Global Reporting Initiative (GRI). This report has been prepared in reference to GRI standards: Core option. Criteria for choosing specific GRI standards are based on compliance with Spanish Law 11/2018 and material issues. In cases where alignment was not possible, other standards aligned to our industry guidance or internal frameworks were used.

## 2.4.1 Governance structure

In line with the group's organisational structure, sustainability initiatives across all operating companies and support functions are coordinated at a group level and implemented autonomously in each region, under the responsibility of the local companies.

The role of providing oversight and direction for sustainability programmes at a group level is played by NGEH's Board of Directors, which is committed to implementing the sustainability guidelines of its parent company and to define the main areas of focus - considered the pillars of our ESG strategy - as well as the policies, control systems and processes necessary to ensure the company vision is embraced by everyone within the organisation. The Board is supported by the committees outlined below, among which is the Sustainability Committee.

#### Relationship with parent company

NSHD fully supports and cooperates with **Nippon Gases** in accordance with its Group Management Regulations. On a day-to-day basis, **Nippon Gases** functions independently with autonomous management, financial, sales and other corporate functions. Four NSHD executives have been appointed to the Board of Directors of NGEH, thus assuring the sole shareholder's direct supervision of the company's management.

NGEH's Board of Directors grants continuous alignment with its parent company; it reviews the company's plans, budgets, and goals, and ensures compliance with laws, regulations and internal policies and that both the shareholders and other stakeholders' interests are protected.

#### **Decision-making management**

Considering of the specificities of our business activity, business judgments, decision-making and oversight must be based on expert knowledge derived from the experience of working closely with the industry from multiple perspectives.

Our current management structure centres on the Board of Directors, which is responsible for defining the correct level where different types of decisions must be made and delegating appropriately, making sure that the decisions taken are aligned with company goals, that all stakeholders are informed, and that the management team is aligned and accountable to ensure prompt and efficient execution.

This is done through the approval of rules and policies which are designed to guarantee appropriate checks and controls, to ensure that decisions are taken after careful consideration of all relevant aspects and that they are ethical and comply with all rules and laws.

Strategic decisions are reserved for the Board of Directors, which has the authority to resolve transactions above a certain threshold, including those regarding M&A and investments.

The definition of the level of authority to approve decisions within Nippon Gases below the threshold reserved for the Board of Directors, is done through the ATA (Authority to Approve) system. Through the same system, clear powers for making key decisions are conferred upon regional general managers and functional executive teams within Nippon Gases.

To grant a proper evaluation of any decision and assure that the same can bring value to all the stakeholders involved, the ATA system requires the input from different functions, and defines the necessary reporting lines, to allow the Board to monitor the results of business activities and be timely informed of any relevant issue. The objective of the ATA Process is to achieve seamless business operation while ensuring that business decisions of a certain magnitude are appropriately escalated.

## 2.4.2 Highest governance body

#### The NGEH Board

The NGEH Board of Directors is responsible for making decisions regarding management policies and key matters related to business execution, which include formulating key management indicators and medium to long-term strategies, as well as supervising the execution of business activities.

The Board has oversight of key aspects of the governance structure in areas including director independence, appropriate board committees, board effectiveness, outreach to the parent company and alignment with parent company goals and longterm strategy, and adherence to a comprehensive sustainability programme.

Board members are appointed by the sole shareholder, the parent company.

The Board of Directors implements the company policies with a focus on our commitment to diversity and inclusion, safety, health, the environment, human rights, corporate citizenship, and the prevention of bribery and corruption.

It is the view of Nippon Gases that non-financial issues are a key component of the company's values, culture and performance expectations. **Nippon Gases** has established non-financial goals in the areas of safety, compliance, sustainability, human resources, productivity, strategy and integration.

#### The NGEH' Board of Directors' composition is the following:

#### Yujiro Ichihara 1974 Joined the Nippon Sanso Corporation Member of the Board 2005 Executive Officer, Deputy General Manager of Business





2013 2014

2008

Managing Director and General Manager of General 2010 Affairs Division Senior Managing Director and General Manager of 2012

Nippon Sanso Corporation

General Affairs Division

- Corporate Administration Division Executive Vice President, Director, and General Manager of Corporate Administration Division
- Executive Vice President and Director, with responsibility for Corporate Administration Division and Corporate Planning & Global Operations Division

Planning Division and General Affairs Division, Taiyo

Senior Executive Officer and General Manager of

Representative Director, President CEO 2014

Europe, Praxair España S.L.

2021 Current Chairman of the Board of Directors, Nippon nso Holdings Corporation

Director Marketing responsible for Spain and Portugal

Director Business Development responsible for

Director Marketing responsible for Europe, Praxair

CEO, Germany and Benelux, Praxair Euroholding S.L.

CEO, Germany, Praxair Euroholding S.L.

#### Eduardo Gil Elejoste 1981 Joined Argon S.A. Chairman of the Board 1992

1996 2000



CEO, Praxair España S.L. 2016 CEO, Praxair Portugal S.A. President, Praxair Euroholding S.L. 2018

Argon S.A.

Euroholdina S.L

- Chairman and President, TNSC Euro-holding S.L.U. (now Nippon Gases Euro-Holding S.L.U.) 2019
- Director TNSC, Chairman and President Nippon Gases Furo-Holding S L LL Current Director NSHD, Chairman and President

Certified Public Accountant, Lumsden & McCormick

2020 Nippon Gases Euro-Holding S.L.U.

Internal Auditor, Praxair, Inc.



- 1999 Financial Analyst and Subsidiary Controller, Praxair, Inc. 2000 Senior Financial Analyst, Praxair, Inc. 2001 Finance Manager, Praxair, Inc. 2002 North Region Controller, Praxair, Inc. 2004 Director Volume and Revenue Analysis, Praxair, Inc. 2005 Director of Accounting & Operations Controller, Praxair, Inc. 2009 Finance Director, Praxair Surface Technologies, Inc. 2014 Vice President Finance & Operations Excellence Praxair Surface Technologies, Inc.
  - 2017 Vice President Finance, Praxair Furoholding S.L.
  - 2018 Chief Financial Officer, Nippon Gases Euro-Holding S.L.U.
  - Current Executive Officer & Chief Financial Officer. 2020 NSHD

#### 1984 Joined Nippon Sanso Corp. Director of Technology, Messer Nippon Sanso GmbH 1999 & Co.KG 2005 Vice President, Linde Nippon Sanso GmbH & Co.KG 2008 Electronics Marketing 2015



General Manager, Taiyo Nippon Sanso Corp. Senior Vice President, Matheson Tri-Gas Inc.

Electronics Vice President, Taiyo Nippon Sanso (China) Investment 2017 Co., Ltd. for Total Electronics

2019 Current Director Integration, Nippon Gases Euro Holdina S.L.U.

#### Tsutomu Moroishi Member of the Board 1991

1984 Joined Nippon Sanso Corp. The Thermos Company USA General Manager, Corporate Communications, Taivo lippon Sanso Corporation

Corporation

- 2013 2014 2018 2021
- Corporate Planning & Global Operations, Taiyo Nippon Sanso Corporation Corporate Officer, Executive General Manager, Global

Deputy General Manager, Taiyo Nippon Sanso

- Operations, Taiyo Nippon Sanso Corporation Current Senior Executive Officer, Group Corporate
- Planning, Nippon Sanso Holdings Corporation

Toshihiko Hamada 1981 Joined the Nippon Sanso Corporation Member of the Board 2002

- Executive Vice President responsible for Specialty Gas Technology, Matheson Tri-Gas, Inc.
- Deputy General Manager of Semiconductor Gas 2005 Section of Flectronics Division, Taivo Nippon Sanso Corporation
- General Manager of Semiconductor Gas Section of 2006 Electronics Division, Taiyo Nippon Sanso Corporation
- 2010 Subordinate directly to General Manager of Electronics Division and General Manager of Business Strategy Promotion section, Taiyo Nippon Sanso Corporation
- 2014 Managing Director, Nissan Tanaka Corporation
- Senior Managing Director, Nissan Tanaka Corporation 2016 2017
- President and representative, Nissan Tanaka Corporation
- 2020 Director, Executive Vice President of the Taiyo Nippon Sanso Corporation (Aide to the president)
- Current Representative Director, President CEO, 2021 Ninnon Sanso Corporation

#### Wim de Raedt Member of the Board



- 1988 Compensation & Benefits Specialist Belgium, Holland, Germany, Praxair NV
- 2001 HR Manager Benelux & Germany, Praxair NV
- 2004 HR Director Germany, Praxair Deutschland Holding GmbH & Co Ka
- 2005 HR Director Germany & Benelux, Praxair Deutschland Holding GmbH & Co Kg
- 2008 HR Director Europe, Praxair Euroholding S.L.
- HR Director Europe & Member of the Board, Nippon Gases Euro-Holding S.L.

## 2.4.3 Committees

#### The European Business Team (EBT)

As established by the NGEH Board of Directors, the European Business Team (EBT) meets, under the leadership of the European President, at least four times per year - once after every quarter, and often a fifth time for budgeting purposes and when there is a strategic plan review or for any other important specific purpose.

The EBT (mainly Regional Managing Directors and functional European Directors) reviews safety, legal and compliance matters, sustainability initiatives and SDG status, business results, business forecasts, investment proposals, risks and opportunities, HR matters and other issues requiring attention at any given time.























Justin Corcho Maters Member of the Board	2001	Certified Accountant, Arthur Andersen, Rotterdam, Netherlands
	2002	Senior Auditor, Deloitte & Touche BV Rotterdam, Netherlands
	2005	Manager Global IFRS and Offering Services , Deloitte SL Madrid Spain
	2011	Senior Manager Financial Accounting Valuation and Securitisation group, Deloitte LLP New York, US
	2014	Director Internal Audit, South/Central America and Europe, White Martins Gases Industriais Ltda (Praxair, Inc.) Rio de Janeiro, Brasil
	2017	Director Merger, Integration & Divestiture, Praxair Inc. Danbury, US
	2018	Financial Controller, M&A and Special Projects Director, Nippon Gases Euro- Holding S.L.U. Madrid, Spain
	2020	Current Vice President and Chief Financial Officer, Nippon Gases Euro-Holding S.L.U. Madrid, Spain
<b>Dr. Annette</b> <b>Kaffsack</b> Member of the Board until 10th	2005	Director Legal and Compliance for the German and BeNeLux Industrial Gas (incl. Electronics) Business and the German Coating Business. The same responsibility since 2007 for the Joint Venture with Yara in Scandinavia and for UK since 2013.
March 2022	2009	Director Legal, Administration and Quality: additional responsibility for Quality for the German Industrial Gas Business.
	2013	Current Director Legal Europe and Chief Compliance Officer Europe
47	2018	Current Member of the Board of Directors, Nippon Gases Euro- Holding S.L.U. and Company Secretary, Nippon Gases Euro-Holding S.L.U.
	2018	Current General Manager, Nippon Gases Deutschland Holding GmbH
Laura Zanotti	1999	Italian Legal Counsel, Rivoira S.p.A.
Member of the Board from 10th March 2022	2013	Italian Legal and Compliance Director, from 2014 responsible also for legal and compliance matters for Scandinavia, Praxair Scandinavia
	2017	Italian Legal Compliance and Quality Director, Rivoira S.p.A.
	2020	Additional responsibilities as Sustainability Champion for Italy, Nippon Gases Italia S.r.l.

#### Compliance Review Board (CRB)

The Compliance Review Board (CRB), under the leadership of the Chief Compliance Officer (CCO), meets every quarter and as required. All managing directors report on their local CRB meetings and the CCO on all other compliance-related issues, including incidents/ potential cases, precautions taken and training processes.

The members of the European CRB are the President of Nippon Gases, the Managing Directors of the local businesses, and the European Directors for Finance, HR, Legal and Operations. The CRB identifies and assesses risks unique to Nippon Gases, verifies measures aimed at reducing these risks, and reports on risks that have manifested as issues. The committee also periodically verifies the appropriateness of riskmanagement systems through risk-reduction activities.

#### Sustainability Committee

**PROACTIVE** - CORPORATE GOVERNANCE

The Sustainability Committee, under the leadership of the European President and managed by the Sustainability Director, is formed by the **Nippon Gases** representatives of the functional leaders and meets guarterly. The Sustainability Committee is responsible for:

- Reviewing and making recommendations on strategy and commitments regarding Nippon Gases' sustainable development
- Coordinating with the NSHD CSO (Chief Sustainability Officer) when establishing sustainable strategy, indicators and defining ESG goals and targets
- \_ Monitoring the performance of Nippon Gases' Sustainability KPIs related to SDGs, as well as compliance, safety, quality, supply chain, human resources, environmental, energy and community initiatives
- Promoting and coordinating the publication of the annual Nippon Gases Sustainability Report

#### **Capex** Committee

The Capex Committee, formed by the European President, the CFO, the Operations Director, the Integration Director, the Engineering Director and other European directors as needed, meets monthly to review the approval of investment projects presented by the regional businesses.

#### Safety and Environmental Committees

The European Safety and Environmental Committees, under the leadership of the HSE Director, meet every guarter. Members of these committees are all Safety and Environmental Heads of the different European regions, and the HSEQ/Sustainability Director.

The committees are responsible for the development and implementation of the European Safety and Environmental Plans. In addition, incidents are discussed, and corrective measures are agreed and initiated.

## 2.4.4 Governance performance

#### FYE 2022 performance

The European economy has been slowly recovering from the impact of the Covid-19 pandemic, with very negative consequences impacting our business. During the second half of the FYE 2022, extremely elevated power prices have challenged our business and the company has conscientiously worked with customers and suppliers to manage the situation and reduce the impact to all stakeholders.

During the last quarter of our fiscal year, the Ukraine war started and even though we have no direct business or assets in the affected countries, Europe relies on natural gas from Russia and prices were highly affected, resulting in extreme high energy prices. Such pricing actions pose an adverse effect on the economy and, potentially, on **Nippon Gases**. We are monitoring the situation, however, for FYE 2022 this had limited effect.

Nippon Gases' cash flow, liquidity, and balance sheet remain strong. We demonstrated excellent working capital during this fiscal year, mainly driven by strong collections and payment terms on our services.

Sustainability underpins our business strategy and is fundamental to our long-term growth. Nippon Gases is committed to minimising its environmental impact and improving its social impact, whilst executing on group strategy, and delivering best practices in both programmes and processes.

Besides our company financial performance, in the setting of annual performance-based variable compensation targets and goals, the NGEH Board determined that selected strategic and non-financial factors will be considered critical to measuring our business success.

Based on management assessment of the degree of achievement in each goal, and considering their relative importance to Nippon Gases' long-term success, in April 2022 the NGEH Board determined that Nippon Gases' performance with respect to non-financial goals was favourable and awarded a positive adjustment to the variable compensation award determined by the financial goals.

## **Justin Corcho**

A remarkable year of sustainability in operations, finances and fortitude

It's that time of year again, and it's also been a year of challenging headwinds, so tell us how the company performed in the past 12 months...

Nippon Gases closes the fiscal year with remarkable results, and our strong business model focused on long-term structural growth continues to develop steadily. In this FYE2022, we achieved revenues of €1.601 million and an operating income of €206 million, which corresponds to a margin of 12.9%.

You're right, there have been many unforeseen headwinds. The economic effects of the Covid-19 pandemic slowly wore down, which we noted in slowly returning to pre-Covid levels, however during the summer of 2021 we were hit by another crisis - the increasing natural gas and power prices. We therefore had to switch back to crisis mode and, through contractual pass-through clauses, temporary surcharges and specific price increases, these temporary and long-term additional costs have been recovered. There may have been a delay, but in the end the aim was to cover the additional costs, which we succeeded to do.

And of course, during the last month of the fiscal year, a war started in Ukraine and gas prices and power prices subsequently skyrocketed even more than they had already. Even though we are still in crisis mode and dealing with all the increased costs, for which we have the mechanisms in place to pass through, for some of our customers these high energy prices result in more drastic decisions and we have seen customers temporary shutting down activities. This could ultimately result in our volumes being affected.





#### How does the subject of ESG affect you as CFO?

It affects me in several ways. On the one hand, I'm part of the Sustainability Committee, which is the governance forum where we set the agenda for the company, and also on the Sustainability Task Force where we get more detailed into the actions and monitoring of initiatives. So I have a very active business and strategy development role for ESG in Nippon Gases. I am also contributing insights on various sustainable financerelated matters. These are, first and foremost, the tracking, performance measurement and planning of our sustainable finance targets that we have both committed to within the NSHD Group and set ourselves internally.

At its core, sustainable finance involves the allocation of capital, taking into account Environmental, Social and Corporate Governance (ESG) factors. From a capital perspective, this would mean calibrating return expectations based on the viability and Internal Rate of Returns (IRRs) of the underlying projects. As the CFO of Nippon Gases, I notice a direct benefit from better environmental practice; long-term planning is a



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#### Chief Financial Officer Nippon Gases Euro-Holding S.L.U.

critical part of business success, and it is aligned with sustainability issues.

One of our focus areas this year was increasing transparency around non-financial metrics to show how the company is accounting for and measuring sustainability risks. Throughout this report, you will see some of this in the disclosures of our KPI's (key performance indicators).

The economic environment continues to remain uncertain, as you have alluded to. What are the key focus areas for you, in this environment?

We are a resilient company and as we progress, we are finding new and innovative ways to recover from all the turmoil. We are maintaining a focus on both the top line and bottom line, but being an employeecentric organisation, we are committed to keeping and attracting the right talent - which always takes

## **Justin Corcho**

priority over P&L (profit and loss) for us. We firmly believe that if we are able to take care of our employees in these (hopefully temporarily) turbulent times, then recovery becomes much easier in terms of achieving our long-term objectives.

#### Covid-19 has affected companies in the way they operate. How did this affect Nippon Gases?

This situation has reaffirmed and fast-tracked an evolution in the operating environment of our company, led by a digital transformation and faster continuous change in the way we do business, to adapt to the 'new normality'. As an organisation, we should be prepared for remote working, a hybrid working model, and a greater focus on technology and digitisation. We successfully challenged the stigma around 'remote working'. Nippon Gases realises that remote working is not only the new normal during these times, but that it has also proven to be an effective and cost-effective model of talent and resource; this model allows us to hire people from across the country, where employees can best work from their base locations.

During this fiscal year we have embarked upon a hybrid working model, however as time progresses this will need to be fine-tuned and adapted to the changing



environment. With these new ways of working, the only increased challenge that comes with this idea is to ensure employees are engaged and connected and still foster a sense of team spirit, which now requires a more employee-centric approach to be sustained with these new ways of working.

## In what ways has your role as a CFO changed during these turbulent times?

The CFO is not just the financial leader but, when it comes to communications and the translation of those financial results or any other metric or KPI, that individual has the main leadership perspective and the accountability for reporting. Being responsible for managing the financial health of the organisation, it is extremely important in these times to analyse the P&L as well as to be able to forecast future risks and through this, ensure the whole management team is aligned with the direction we need to take. At the same time, one also needs to contribute to all the strategic initiatives that Nippon Gases is taking to guarantee stable future growth.

These turbulent times require a lot of energy in continuous communication with all stakeholders and the team, so that we all are well-connected and work for a common goal.

Having said that, what are your thoughts on the future outlook?

Well, after two years of the Covid-19 pandemic and with government restrictions easing, life seemed like it might soon return to normal. That thread of hope was destroyed when Russian troops attacked Ukraine. Even though we, as **Nippon Gases**, have no activities nor employees in Ukraine or Russia, some of our employees have family and/or friends there. Our thoughts are always with them.

Chief Financial Officer

Nippon Gases Euro-Holding S.L.U.

From a business perspective, we continue to perform very well but the war, which started at the end of February, is exacerbating all of the factors described earlier in this report: sustained high prices in natural gas and electricity, as well as fuel; increased logistics costs and delays in the supply chain; high inflation; product shortages; capital project delays; and a slowdown in industrial production, potentially leading to a recession.

The European economic recovery will surely come, however the timing and shape of this recovery is uncertain and hence, **Nippon Gases** remains focused on continuing to develop initiatives to grow sustainably and improve our cost-base – with a focus on a sustainable energy purchasing strategies and working together with our customers to overcome headwinds in variable costs.

We have an ambitious budget for next year. Of course, this did not consider a war happening that would affect European activities, however, we are a resilient company and I'm confident that we will overcome this crisis and emerge stronger as we have done in the past.

We will, therefore, focus on maintaining and strengthening our financial health on a European consolidated basis, continue to review our organisational structure, conduct further initiatives in productivity, efficiency and the strengthening of cost management, all of which will contribute to increasing shareholder value for our parent company.

## 2.5 Risk management

The Board of Directors has overall responsibility for ensuring that **Nippon Gases** has an appropriate risk management framework, including the determination of the nature and extent of risk it is willing to take to achieve its strategic objectives. The Board has oversight of the group's operations to ensure that internal controls are in place and operate effectively. Management is responsible for the effective operation of the internal controls and execution of the agreed risk mitigation plans. However, all personnel at **Nippon Gases** should feel responsible for, and be empowered to take ownership of, risk management within their function and for their level of responsibility.



## 2.5.1 Roles and responsibilities

#### FYE 2022 performance

**Nippon Gases** has established a business-focused corporate governance system in which certain key management members are included in the 'Authorisation To Approve' (ATA) process.

#### **NGEH Board of Directors**

The role of the NGEH Board is to represent the shareholder and to promote and protect the interests of the company. The Board is specifically responsible for establishing the delegated limits of authority to the geographical and functional executive teams and attending to matters reserved for board decision-making. These limits are set out in the ATA Process.

The Board has ultimate responsibility for ensuring that:

- A. The group risk appetite and tolerance is clearly articulated
- B. There are appropriate policies in place to manage risk and maintain internal controls, and that this policy allows businesses managers to operate appropriately within those boundaries.
- C. A regular programme of audits is undertaken to test the adequacy of and compliance with prescribed policies

D. Proper remedial action is undertaken to address areas of weakness. On an annual basis, the NGEH Board of Directors reports the outcome of its risk assessment analysis to the executive board of NSHD.

#### **Delegation of authority**

Through the ATA Process, the regional general managers and functional executive teams within **Nippon Gases** are given the authority to act within their authorised limits. They are responsible:

- For the implementation and coordination of risk management
- For the management of all risk factors within the strategic, operational and financial framework to mitigate and to reduce risks.
- For providing timely and accurate information about the risks that the company faces, as well as steps taken to ensure their effectiveness
- For the coordination of information flow and documentation relating to the risk management

#### **Employees and contractors**

Every **Nippon Gases** staff member is responsible for effective management of risk, including the identification of potential risks. Management is responsible for the development of risk mitigation plans and the implementation of risk reduction strategies. Risk management processes should be integrated with other planning processes and management activities.

Managers are accountable for strategic risk management within areas under their control, including the promotion and training of the risk management process to staff.

It is the responsibility of all **Nippon Gases** employees and contractors to:

- Report any breaches of policies, laws or regulations to their supervisor
- Report to their supervisor any perceived risks that may not be covered by existing risk management practices and policies

## 2.5.2 Internal framework

The group has an Enterprise Risk Management (ERM) policy which has been approved by the Board. This policy sets the framework for a comprehensive risk management process and methodology, ensuring a robust identification and assessment of the risks facing the group, including emerging risks. Enterprise risks are assessed and plotted on an enterprise risk map (with individual risk maps produced for each region and relevant function). This system ensures that the appropriate business practices are reinforcing internal control by clarifying decision-making authority and business processes, among other issues.

We have also established Compliance and Safety Risk Assessment, and Management Committees with the aim of reinforcing compliance and ensuring the effectiveness of our internal control system.

In addition to our annual business risk assessment, at **Nippon Gases**, we have completed a three-point risk analysis which covers:

- Risks to the quality of our products and services.
- Environmental risks.
- Health and safety risks to our employees and to our processes (this review was conducted within the framework of the Seveso regulation and the national HSE regulations).

#### Manuals and standards

The **Nippon Gases** Management System is supported by the information documented in manuals in which we can find the development of activities (procedures) and the documents that report the results encountered (records).

## 2.5.3 Risk management model

The **Nippon Gases** risk management model can be summarised as follows:



In order to identify risks and assess their likelihood and potential impact, **Nippon Gases** performs an annual business risk assessment aimed at taking a comprehensive look at the risks faced as a company. These surveys are prepared by the managing directors of the different regions and the functional leaders, and result in a risk map for **Nippon Gases**, highlighting priority issues. Both strategic and internal operational risks as well as risks in the **Nippon Gases** value chain are evaluated.

This is a bottom-up survey of potential risks, and it specifically addresses a range of human rights risks such as employee safety, welfare and working conditions. Employee safety and welfare are part of our guiding principles and are always considered in the **Nippon Gases'** risk assessment, since substantial management resources are allocated to this area. The results of these surveys are presented to the European Business Team, and potential risks related to fraud and corruption are an explicit focus. Afterwards, on a European level, a summary is made of the key risks, which are subsequently reported to the parent company.

Key controls and mitigations are documented, including appropriate response plans. Where risk treatments require time to implement, short-term mitigations are assessed and the timeline to risk mitigation and consequent risk acceptance discussed and agreed. Every principal risk has clear Management Committee oversight. As part of the risk management framework, potential emerging risks and longer-term threats are considered to identify new trends, competitor actions, regulations, governments' interventions, or business disruptors that could impact the group's business strategy and plans. These emerging risks are monitored within the overall risk framework as 'on watch' until they are re-assessed to be no longer a potential threat to the business or where an assessment of the risk impact over the next two to three years can be made, and appropriate mitigations can be put in place.

The **Nippon Gases** Board of Directors discusses risk and considers the risk environment as part of wider Board discussions, including a review of the assessment of **Nippon Gases'** performance against its risk appetite, scenarios for assessment of viability and the outputs from the viability modelling. All risks are assessed for likelihood and impact against the group's business plan and strategy.

#### Goals of the risk assessment are to:

- Align risk appetite/tolerance and strategy
- Link growth, risk and return
- Enhance risk response decisions
- Minimise operational surprises and losses
- Identify and manage cross-enterprise risks
- Provide integrated responses to multiple risks
- Include all possible strategic and operational risks
- Continue to build risk ownership culture and organisational capabilities around identification and evaluation of risks
- Establish a regular cadence of risk management activities and updates

The steps of planning and implementing a response strategy are determined by the individual regional and/ or functional leaders in conjunction with the European management team. The monitoring performance is generally a local/functional responsibility, whereby the key topics are also actively monitored at the European level.

## 2.5.4 Risk identification

Key risks identified in 2022 are the following:

- Third-party product sourcing and logistics: The worldwide shortages and delays in supply and distribution chains can result in product shortages, lack of drivers and an increase in transportation costs.
- Power price fluctuations: Due to the importance of electricity in our business, power price fluctuations resulting from the European electrification transition can severely impact financial results.
- Loss of key large customers: Bankruptcy or loss of a big client can have a material impact on both short and long-term profitability and liquidity in a particular region.
- Political tensions and trade wars: Worldwide or regional political tensions can result in further protectionism or other types of escalations, which can impact the economy and supply chains.
- **Cyber-security: Nippon Gases** may be materially impacted financially, operationally or reputationally by the effects of a successful cyber-attack.
- Continued uncertainties as a result of the Covid-19 pandemic: which can severely impact financial results and liquidity.

These key risks co-exist next to any risks related to safety, compliance and diversity, which are all part of our guiding principles inherently engrained in our company-DNA.

Other important recurring themes in our risk assessment are related to the retention of people (our main asset) and other risks in our daily operations. The constant monitoring and mitigation of different risks is at the core of our daily activities and aimed at the uninterrupted delivery of our gas products where needed.

#### Actions taken in 2022

- Timely reaction to developments in supply and distribution chains
- Pricing actions to offset the impact of increasing inflation and power prices
- Intensified strategic cooperation in innovation
- Cyber-security awareness activities
- Continued safety measures to protect our employees and our clients against Covid-19

## Timely reaction to developments in supply and distribution chains

Through having close contact with our suppliers and customers, we were able to react in a timely fashion to any developments in the supply and distribution chains and thereby minimise supply interruptions for our customers.

## Pricing actions to offset the impact of increasing inflation and power prices

Increased inflation, including power prices, has an important impact on our cost base. Through contractual pass-through clauses, temporary surcharges and specific price increases, these temporary and long-term additional costs are recovered.

#### Intensified strategic cooperation in innovation

The intensification of cooperation with different NSHD group entities has enabled us to further strengthen our abilities to provide innovative solutions to our clients, supporting them with different solutions in the transition towards a more sustainable and carbon-neutral society.

#### Cyber-security awareness activities

Cyber-security activities were further strengthened with a focus on the creation of awareness and basic abilities that help to better distinguish suspicious cyber-security threats.

## Continued safety measures to protect our employees and our clients against Covid-19

To enable us to support the community to fight the Covid-19 pandemic, **Nippon Gases** continued to take additional health and safety measures. This ensured that our employees and customers were protected as much as possible, while enabling us to continue the uninterrupted delivery of our gas products where needed.

## 2.5.5 Climate risk

Climate risk is an important element that **Nippon Gases** evaluates as part of its annual risk assessment. As mentioned above, topics like waste, water, energy and fuel reduction, and the development and use of low-carbon technologies, are at the core of our long-term strategic evaluation of business risks and opportunities.

As part of NSHD's support of the Task Force on Climaterelated Financial Disclosures (TCFD) requirements, **Nippon Gases** performed a medium (2030) to long-term (2030-2050) financial information scenario analysis, with the overall outcome shared and evaluated with NSHD management. This assessment was used as an important input factor for setting the European medium-term (2026) non-financial environmental KPI's. The assessment evaluated both the estimated possibility and the estimated magnitude of each topic on a three-point scale, whereby an indication was also given to the overall importance of each topic.

## 2.6 Ethics & compliance

## 2.6.1Internal framework

Each employee, manager and director of **Nippon Gases** as individuals, as well as the group as a whole, strive to be ethical in all business endeavours, following and applying the Code of Conduct.

The code summarises our core compliance values and principles and states our commitments to compliance, as it is fundamental for us to promote a compliance culture towards our business partners and stakeholders too, as evidence of our understanding of what it means to be a good neighbour in the community.

The code, available in different European languages and in both print and digital versions, explains what the reporting channels are for any potential compliance violation.

In fact, to achieve its goals of business integrity, **Nippon Gases** actively encourages employees to report any suspicions: they can anonymously (at their choice) report violations through several channels, both internal (management, HR or legal department, compliance champions) and external (a dedicated hotline and the e-mail address compliance@nippongases.com).

All reports and related discussions are treated with the utmost confidentiality and with defined completion times. In any case, we make sure that the persons involved do not receive any unfavourable treatment.

**Nippon Gases'** Compliance Programme and the Code of Conduct is supplemented by policies on specific conduct, adopted both at group level and locally, of which the following are the most important:

- Competition Law
- Gifts, entertainment and sponsoring
- E-mail management
- Reporting and investigating possible compliance violations
- Privacy and data protection management
- Human rights
- Document management including retention of documents

Every year a 'recertification process' is completed, to ensure the Code of Conduct is known and fully understood by all employees.

A thorough review of all compliance matters takes place every quarter, through the local and European Compliance Review Boards' meetings.

In addition to the annual recertification of the Code of Conduct, the Compliance Training Programme oversees training for new employees, bi-annual general compliance training for the majority of employees, and occasional other needs.

Review of all compliance matters is carried out by local management teams and the European Management Team, on a quarterly basis and/or on occasion.

Compliance metric measures are:

- Training and communication
- Fines
- Compliance programme operation
- Integrity/compliance issues

## 2.6.2 Fair competition, anti-corruption and bribery

**Nippon Gases** is also committed to ensuring fair competition at all levels of the production and supply chain.

The group firmly believes that new business opportunities should be obtained solely on the basis of the products and services offered, in compliance with all antitrust and fair competition laws. To this end, it is committed to safeguarding competition, avoiding the exchange of confidential corporate information with other market competitors.

For this purpose, **Nippon Gases** has developed detailed policy and guidelines, conducts regular training, and broadcasts messages to remind employees of the importance of correct competitive behaviour. The guidelines mainly deal with who is allowed to communicate with competitors, on which topics, and how contacts with competitors have to be reported and reviewed.

Further, to avoid any corruption and/or bribery cases, **Nippon Gases** has clear rules and protocols on making and accepting gifts, entertainment and sponsoring, setting clearly defined values.

## 2.6.3 Prevention of money laundering

Due to the nature of our business and the relationship with business partners, the risk of money laundering activities is very low.

To maintain sensitivity regarding this matter, the finance department sends out regular alerts.

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## 2.6.4 Respect for human rights

**Nippon Gases** supports the spirit and meaning of the Universal Declaration of Human Rights, the United Nations Global Compact, and the International Labour Organisation's Declaration on Fundamental Principles and Rights at Work, and promotes respect for human rights in the workplace and the creation of adequate working environments.

In this regards, **Nippon Gases** has published a Human Rights policy and a statement in accordance with the UK's 2015 Modern Slavery Act.

We consider it essential to create a respectful and fair work environment and promote the respect of human rights in our supply chain, through our procurement procedures that require suppliers' qualification processes which include specific checks on this regard and, in some cases, the obtainment of an undertaking from the suppliers to abide by **Nippon Gases** Human Rights policy or confirm a commitment to human rights via their own policies.

In January 2022, **Nippon Gases** was accepted as a participant of the United Nations Global Compact and commit to align operations and strategy with their 10 principles. The commitment to our respect of human rights has been confirmed by the Chairman of the **Nippon Gases** Board of Directors, who has engaged to meet fundamental responsibilities in four areas: human rights, labour, environment and anti-corruption.

This commitment is a clear sign of **Nippon Gases'** resolution to continue to make human rights principles an integral part of its business strategy, day-to-day operations and organisational culture.

## 2.6.5 Extraordinary compliance initiatives

- Confirmed incidents of ethics/corruption and/or antitrust issues: 0
- Public legal cases regarding corruption and/or antitrust matters: 0
- Reports of human rights violations: .0
- Confirmed cases of bullying/harassment: 2
- % of employees who have received training on the code of compliance: 100% of eligible employees

During FYE2022 the European Compliance Program has been promoted through 116 trainings sessions across Europe.

In October 2021, **Nippon Gases** performed across Europe – for the second time since 2019 – a Compliance Commitment Week. Whereas in 2019 the content was about general topics on compliance and **Nippon Gases'** compliance programme and culture, in 2021 we chose to focus on cyber-security, supplemented by our IT control standards and data protection/confidentiality.

Rapidly advancing digitalisation is making the handling of data more complex on the one hand, and simpler, faster and more efficient on the other. But it also makes IT systems more vulnerable to attacks which risk the unlawful use of this data, which could lead to enormous financial damage for corporations and society. **Nippon Gases** therefore took this as an opportunity to hold a Europe-wide Compliance Commitment Week from 4th – 15th October 2021, with the above mentioned focus.

During these weeks, all managers were asked to discuss with their teams the following topics:

- IT security, including email phishing,
- Nippon Gases IT standards
- Protection of corporate and personal data.

2051 employees where participating and we received 290 feedbacks in the managers discussions.

All managers were also asked to provide their feedback.

Furthermore, employees were assigned a total of three training sessions on the following topics:

- Privacy/confidentiality
- IT Acceptable Use Policy
- Email phishing

2514 employees completed the training.

Beside this initiative, we have continued with monthly email phishing tests, targeting employees with multiple phishing topics. These phishing tests also include a learning experience when someone clicks a link in a test (i.e. fails the test). Indirectly these could also be considered a training, in which we always target all employees with company computer. The completion percentage in this case is 100%.



## Dr. Annette Kaffsack

#### Legal Director & Chief Compliance Officer Nippon Gases Euro-Holding S.L.U.



# Why compliance is so fundamental to sustainability

#### Let's dive straight in – we know compliance is key, but perhaps you could tell us why?

As **Nippon Gases** we've built our reputation as a supplier of industrial, medical and specialty gases and related applications and securing the trust of our customers, employees and all other key stakeholders is our top priority. If we fail to meet their expectations this may lead to risks that could have an impact on our business. That's why we strive to be seen by our stakeholders as a trustworthy and reliable partner in order to strengthen the competitiveness of our company. Compliance is fundamental.

With this in mind we've implemented an effective compliance program that results in a strong and sustainable compliance culture very well integrated throughout the entire organization and capable of avoiding any kind of compliance violations that could have serious consequences for the company.

In the last fiscal year we only had compliance cases of minor importance, which were rapidly resolved. This success is not to be attributed to chance or luck; it is the result of the continuous commitment of the management team and, above all, of our people.

#### So how do you engender compliance?

We foster a compliance culture through extensive and regular training since we believe that compliance, like safety, is a matter of discipline and hard work and training is an essential part of it.

Our compliance program at **Nippon Gases** includes mandatory actions and, as an example of our disciplined approach, also in the FYE 2022 we've completed our annual recertification process, in which our employees confirm that they have read and understood the Code of Conduct.

Additionally, to keep on strengthen our compliance culture we take additional measures, such as regular compliance news and periodic training, and our Compliance Commitment Week, where we devote special attention to the topic of compliance.

#### Fantastic, so tell us more about Compliance Commitment Week – why was cyber-security chosen as the theme?

The reason of this choice stems from the fact that for many, everyday life has changed considerably since the outbreak of the coronavirus and many employees have started to work from home. This development poses increasing challenges for compliance teams since in these unprecedented circumstances, the risk landscape also has increased, in terms of direct cyberattacks on IT systems, email phishing or indirect attempts via our partners. Fortunately, in **Nippon Gases** we have so far been able to protect ourselves from these attacks, in the last fiscal year we registered only an unsuccessful cyber-attack, but we are aware that the outlook on the number and sophistication of these cyberattacks will continue to rise in the future.

The compliance Commitment week took place in the first two weeks of October and it was successfully completed, supported by a strong communication campaign it has been structured in two parts. The first was characterized by open discussions with Managers during which employees were invited to provide their feedback about cybersecurity topic. The second one was dedicated to interactive online trainings about IT Acceptable Use Policy, Cyber Security, Data Protection/ Confidentiality.

Online training sessions were assigned to 2544 employees, with close to 99% passing them successfully to date.

When it comes to cybersecurity, we try to follow a holistic approach to keeping the Company safe, which translates into several work areas. This begins with, a strong Governance security framework that includes standards, policies and procedures complemented with a set of new security technologies to protect our systems better. Furthermore, we regularly conduct awareness training on this topic for all employees and advanced training for particularly vulnerable departments such as Finance, Procurement and internal administration sales.

In addition, we use to conduct monthly email phishing tests and fortunately, we have seen a steady sensitivity increase in the last year.

Finally we are aware that whistleblowing hotlines are essential to identifying areas of risk and we continually promote this, so that employees are aware of their existence.

When employees turn on their computers a pop up is shown containing a message about our Code of Conduct and the importance of reporting irregularities in fully anonymity, through the hotline or a mailbox.

For me, this is emblematic rigour that **Nippon Gases** applies to all ethical behaviour.

## 2.7 Customers

## 2.7.1 Internal framework

**Nippon Gases'** management maintains its commitment to the safety, quality and environmental management systems already implemented, defining policies that are communicated to all personnel and ensuring that they are understood and applied.

**Nippon Gases'** main purpose is to provide a stable supply of quality products and services according to the needs of our customers, ensuring the specified quality requirements, optimising production costs and meeting agreed timelines.

At **Nippon Gases**, we have quality principles which govern the way we do business. The Quality Principles of Business conduct refer to the following main areas:

- Management focus on customers and stakeholders
- Excellence of people and operations
- Continuous improvement
- Commitment of employees
- Compliance with standards
- Communication

## 2.7.2 Customer relationships

**Nippon Gases'** management systems have drawn up different communication channels in order to get continuous feedback from customers and establish what their requirements or complaints are, as well as to implement an efficient administrative flow for the correct functioning of the business.

#### Customer complaints management

At **Nippon Gases**, we have a European information system in place for the reporting and management of quality problems due to received customer complaints or detected internal or suppliers non-conformities of products, services or processes.

Any **Nippon Gases** employee who either receives a comment, complaint or claim from a customer by any means of communication (mail, phone), or detects an internal or supplier non-conformance, reports and register it in the European information system as a quality incident indicating what occurred, when, where and who the actors were, as well as the identification of the product, site, business area and application. This includes an initial classification of the problem in order to be communicated in advance to the interested people of the organisation. All the quality incident reports are verified by the quality department for their final approval.

Quality management monitors, periodically, how the incidents were managed, the trend of the different type of the reported problems and complaints, its seriousness and recurrence in order to consider taking additional actions.



#### Average days of resolution of closed complaints

#### % Product out of spec/total complaints



## % Complaint reports investigated and closed out within 90 days of the incident



**Nippon Gases** has, in each country, a system through which they receive feedback by means of customer satisfaction surveys. The surveys are managed in a coordinated way by quality and marketing departments at the different companies, using questionnaires for a target group of customers depending on the information needs regarding customer perception and market trends.

The results of the surveys are internally evaluated and communicated to the interested departments in charge of the necessary actions, to correct or improve relevant products and services, according to customer perception.

#### **Product safety**

The safety of customers when using our products is essential for **Nippon Gases**, and the **Nippon Gases** HSE manual includes a chapter that sets out all necessary requirements regarding product safety, covering the following areas:

- New product risk assessments
- Product design safety management
- Product hazard communications

All our products are labelled according to EU 1272/2008 Classification, Labelling and Packaging, which brought the Globally Harmonised System (GHS) into force in Europe. Safety Data Sheets are provided for all our products.

As a result of our risk assessment, sales to a customer or sale of a product for a specific application may be approved or denied accordingly.

## 2.8 Supply chain

At **Nippon Gases**, we view our supplier base as an extension of our business. We are committed to working with suppliers who share our adherence to operating responsibly.

Responsible procurement is a key aspect of our business values and it is how we ensure the reliability and longevity of our ability to operate.

Sustainable supply chain management means engaging with suppliers proactively in order to promote increased Corporate Social Responsibility (CSR) and the use of clean technologies; we are committed to operating responsibly in line with our values.

Our supplier base provides **Nippon Gases** with different categories of equipment and services that enable the production and distribution of our products. Our extensive and interconnected supply chain is critical to the success of our business and includes manufacturing companies, carriers, distributors, and service providers.

## 2.8.1 Supply chain procedures

The most substantial positive impact on the environment comes when suppliers work on extending their commitment to responsible business practices by integrating fair working conditions and good environmental practices throughout the supply chain, in order to promote increased corporate social responsibility.

Our evaluation of new vendors is generally attained by market reference checks and in some cases, reinforced by these methods:

- 1. Historical: former suppliers with quality historical rate
- 2. References: from other NSHD areas
- 3. Audit: Direct inspection
- 4. Samples/proof of concept/pilot: directly tested by the impacted business

Historically, there have been very few re-evaluations due to the extremely small number of non-conformities we have experienced.

Significant progress has been made integrating our key productivity initiatives linked to sustainable development projects in our business to our systems which will increase our capability to execute and manage our supply chain operation more effectively and expand their impact.

#### Supplier non-conformity management process

A non-conformance matter that a product or service did not meet one or more requirements from **Nippon Gases**. Requirements might be defined by our customers, a regulatory body, or as part of our internal procedures. **Nippon Gases'** employees, report and ensure any nonconformities are registered in the European incidents database. This system captures what is happening, when products and services are received or in operation at our sites or at a customer location.

This year we started to use our new incident reporting tool and process, we have made a step change in our internal processes to include additional incidents in addition to product or service specific defects, such as administrative and supply chain-related issues, enabling our team to improve other areas of the business to better manage our end-to-end processes.

As part of the incident management system, nonconformities related to supplier problems are co-managed by the procurement departments in order to improve the behaviour and control of the products and services received from them. Supplier non-conformities are also classified into three different categories:

- Internal, if they occur 'inside the fence' before the product leaves the factory or as the product/service is received
- 2. External, which means they were detected at the customer's site
- 3. Safety-related non-conformities

Reported non-conformities	FYE2019	FYE2020	FYE2021	FYE2022
Internal	51	41	40	62
External	10	7	26	142
Safety	0	0	0	0
Total	61	48	66	204

## 2.8.2 Responsible supply chain

We set ambitious standards for how we operate, and we expect our supplier partners to do the same. We choose to work with suppliers who provide a safe workplace and comply with all local regulations, who share our commitment to the responsible use and protection of the natural environment through conservation and sustainable practices, and who protect and advance human rights, and collaborate with us to achieve mutual remarkable results. The framework for supply chain



activities is defined in the **Nippon Gases** procurement policy.

Each region has specific selection criteria aligned to their own requirements.

**Nippon Gases** continues developing the ESG criteria for the evaluation of the suppliers, our commitment to environmental stewardship not only improves our own environmental impact, our vision also encourages us to focus on our key stakeholders who strive to shape an environment where we both encourage and support long-term responsible solutions in the market -by incorporating additional benefits to our business partnership as shown below:

Innovation in the supply chain	More sustainable products
Reduced risk of legal non- compliance	Improved productivity and efficiencies
Attracting more environmentally aware customers	Inclusion of ESG criteria in procurement procedures

## 2.8.3 Supply chain innovation

**Nippon Gases** continues to focus on providing economical and innovative solutions in four key areas – waste, water, energy and fuel reduction – and promoting the development and use of low-carbon technologies as much as available.

We are constantly striving to improve our process, reducing our plant energy costs (KWh) while working with partners who may continue to help us decrease our air separation plant costs by investing in designing highly efficient components and equipment, such as compressors, turbines, and intercoolers. These are just a few examples.

We are also looking at distribution software suppliers with the capability to assist in the reduction of fuel consumption, by reducing our per tonne/km cost on an ongoing basis through the utilisation of state-of-the-art demand forecasting and routing algorithms.

Selecting energy providers to find the best balance on renewable energy sourcing, helps us to comply with the European Green Deal 2030 and 2050 carbon neutrality commitments.

We perform supplier audits to review their performance as we continue to expand key suppliers scope. **Nippon Gases** is implementing a new supplier portal to better understand the status of key initiatives we have with them, helping us to better understand where each initiative stands and communicating with the people responsible for execute these initiatives on a bidirectional effective way, improving our performance in all key supply chain functional areas, including those related to ESG. The result of the assessment is 100% favourable as reflect the best practices and the non-conformities. The recurrent assessments confirm the corrections of the non-conformities, improving the overall supplier performance.

## **Gabriel Kiewek**

#### Procurement & Productivity Director Nippon Gases Euro-Holding S.L.U.



#### Sustainable procurement sets the tone in our company... and our industry

## Why is sustainable procurement important to Nippon Gases?

Leading the process of ensuring Nippon Gases has a sustainable procurement programme is one of the key initiatives in our corporate social responsibility (CSR) journey. It is clear that some of the driving forces related to global warming and the effects that population growth has on our planet can be linked back to industry. Sustainable procurement, therefore, sets the tone in our company and for our industry to lead in reversing these effects. It demonstrates that our business is aware of potential impacts and considers them when we make purchasing decisions.

Investors and consumers are becoming more aware and interested in companies that have a proven record in this process and the potential impact they could have. While the current initiatives in our business are geared towards opportunities to reduce our carbon footprint by incorporating better technologies and more efficient tools in our system, innovation will be a fundamental driver to help us meet our sustainability goals.

This is not a sprint by any means, it is a long and important process that, with the right leadership, disciplined approach and commitment, will produce the desired effects for our environment. We have already made significant progress in recent years, such as lower power consumption in many of our plants and significant improvements related to tonnes per kilometre reduction in transportation, as a couple of examples.

## How would you define sustainable procurement within Nippon Gases?

I would define sustainable procurement as a resilient process where our procurement and operations teams constantly identify and generate specific initiatives to reduce our cost, our carbon footprint and our environmental impact. A few examples are:

- Identifying suppliers who are willing to participate with us in our productivity initiatives as part of their efforts to partner with us in this process and grow their business.
- Looking at the procurement process with a Total Cost of Ownership approach (TCO), understanding not only

which equipment has the lowest acquisition cost but incorporating concepts such as power consumption through the life of the equipment, maintenance frequency, spare parts costs, and disposal costs and effects.

- Incorporating technologies that allow our plants and offices to automatically turn off specific areas (lights and equipment) when they are not in use.
- Integrating spaces for our people that make it more appealing to them to be in a safe and productive environment, and designing each space with fit for purpose concept.

## What are the some of the main benefits of a sustainable procurement programme?

The key benefits can be broken down in to four areas, and I'll try to simplify them here:

**Revenue growth:** Customers and end-users that buy into sustainability actively seek out ethical and sustainable products and organisations.

**Future-proofing:** Developing a sustainable procurement process and plan is one way to future-proof the organisation against a potential shortage in supply. Such plans will also contribute to protecting against changes in social, economic, and environmental effects.

Lower costs: A sustainable supply chain can reduce an organisation's costs by reducing waste and energy costs.

#### Reduce risk and reinforce

**reputation:** Ignoring, not knowing or not caring about suppliers with bad practices can create significant reputation and financial harm to the organisation and its brand value.





AVISO CONDUCTORES

CONDUCTORES



# Innovative

At **Nippon Gases** we believe that innovative, responsible and sustainable

Nippon Gases' commitment to our customers, suppliers, employees and

**NIPPON GASES** 



#### SUSTAINABILITY REPORT 2022

## 3.1 Climate change

#### **GHG** emissions

Nippon Gases is strongly engaged with sustainability and the application of the KAITEKI philosophy approach advocated by MCHC\* to our day-to-day activities.

KAITEKI means, 'the sustainable wellbeing of people, society and our planet Earth'. Founded on this philosophy, Nippon Gases considers that global warming (a consequence of increased GHGs) is having a strong impact, not only in terms of the environmental impact but also through direct consequences on the health and economy of our community.

For years we have been implementing initiatives focused on the three main areas that have a direct impact on GHG emissions: energy consumption at our production plants; emissions from the transportation fleet; and GHG emissions related to the commercialisation of our products and solutions. Of course, the first step was to identify the GHG footprint at each step of our business cycle and put in place a methodology that can measure the different GHG impacts.

As an intensive energy user at our production plants, efficiency has a direct impact on GHGs. Our efforts are based on productivity programmes that contribute to reducing waste, improving plant performance, optimising energy consumption and minimising product losses during the different production steps and unscheduled plant shutdowns. We have a robust programme promoting productivity initiatives. Furthermore, this programme is part of our business plan and has a boltedon quarterly review and follow-up procedure.

As previously described, product transportation is a big contributor to GHG emissions. To mitigate this, we have put in place specific programmes that help to optimise transportation by adapting our transport to customer patterns and avoiding unnecessary km driven, reducing fuel consumption per unit of delivered product.

To reduce the consumption of fossil fuels, on a case-bycase basis we are replacing diesel vehicles for natural gas-fuelled alternatives as well as biomethane, derived from the upgrading of biogas produced through the anaerobic digestion (AD) of biogenic wastes.

#### Helping customers to reduce GHG emissions through our solutions and technology

Nippon Gases' commitment to GHG emissions reduction does not stop at the gate of our plants. The development of technology related to gas applications for our customers is helping the industry to be more efficient and environmentally-friendly.

"Mitsubishi Chemical Holdings Corporation" (MCHC) is scheduled to change its name to "Mitsubishi Chemical Group Corporation" effective July 2022.

NSHD corporation has committed to expand products and services that enable customers to reduce GHG emissions. The goal is to achieve and exceed customer avoided emissions, compared with the company emissions according to scope 1+2.

In line with the corporation commitment, Nippon Gases is also pursuing the same goal, implementing product and services in our customers to help them reduce their GHG emission compared to those of our company. See table below with customer applications that reduce their GHG emissions.

FYE2022	Tonnes CO2e
Nippon Gases GHG emissions	894.769
Emissions Avoidance Customers	1,520,400
Steel making (blast furnace)	840,063
Steel making (electric furnace)	316,337
Ar Welding	19,500
Refrigerants Low GWP	344,500





#### Greening combustion processes

No doubt, the single largest share of CO<sub>2</sub> emissions are related to production processes that incorporate fossil fuels in a combustion step or operation.

Our technology provides our customers with a more efficient solution, reducing fossil fuel consumption and enabling the use of alternative, fossil-free fuels. Each customer is unique and we provide solutions that start with a simulation process and end with a tailor-made solution that combines specially designed burners, gas control skids and the tracking of main parameters that enable reports customised according to customer requirements.

Digitisation using either the MiruGas® or SansoScan® platforms contributes to the optimisation of combustion processes. In this way, carbon emissions are reduced, helping our customers to meet their environmental requirements while keeping their production costs competitive.

In FYE2022, our expertise and technology in combustion contributed to reducing more than 12,116 tonnes/year of GHG emissions for new customers applications during FYE2022.

#### Green and low-carbon hydrogen in combustion

Through the development of specially designed burners, biogenic fuels or low-carbon hydrogen can be mixed with fossil fuels, thereby reducing CO<sub>2</sub> emissions.

In the case of green hydrogen, our burners provide a flexible alternative that guarantees optimum combustion conditions according to the available renewable power fluctuations.

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#### Green hydrogen for cleaner mobility in the cities

The replacement of fossil fuels with green or low-carbon hydrogen is a perfect solution for public transport in cities.

In the city of Hürth, in Germany, a fleet of 12 municipal buses equipped with fuel cells are using our hydrogen - contributing to cleaner air in the city by reducing CO<sub>2</sub>, NOX and other emissions produced by traditional diesel engines.

#### Circular economy: Transforming wastes in valuable products

Through our highly specialised wastewater treatment team, we contribute to the reduction of CO<sub>2</sub> emissions by replacing mineral acid with CO<sub>2</sub> in several applications of wastewater or process water treatment.

With our highly efficient oxygen dissolving technology, we reduce electrical energy compared with traditional oxygenation methods, like aerators, in biological water treatment plants. Additionally, by increasing treatment efficiency, we reduce problems such as bad odours or seasonal peaks of highly contaminated water that in the case of traditional plants, will require an increase of treatment infrastructure with the negative impact in 'ground contamination' and under-utilisation of treatment plant capacity.

Thanks to our solutions, million m<sup>3</sup> of wastewater have been treated and either released to water source or recycled, always fulfilling environmental standards.

Yet the valorisation process continues; sludge from wastewater treatment plants, organic wastes from the food industry, and waste landfills through an AD process transform the wastes in biogas that, after an upgrading process, produce both biomethane and 'BioCO<sub>2</sub>'. Biomethane can replace fossil fuels in mobility applications either as BioLNG or BioCNG, or can be injected into the grid or used as a source of green/lowcarbon hydrogen using an onsite generator.

Our specialised teams provide the most suitable technology to upgrade biogas and propose to our customers the best valorisation solution for the biomethane products.

#### New line of refrigerants and their contribution to GHG reduction

Refrigerant gases continues to be a shifting landscape as environmental compliance evolves, and Nippon Gases has introduced a range of new products or initiatives in this area, including:

- The introduction of new low-GWP (Global Warming Potential) refrigerants reduced the environmental impact of greenhouse-effect gases
- The most important contribution came from the alternative refrigerants for low-temperature application, such as R448A, R449A and R452A, which are substitutes for high-GWP gases such as R404A and R507

During FYE2022 Nippon Gases contributed to a reduction of more than 344.5 thousand CO2e tonnes through the replacement of high-**GWP refrigerants with Low-GWP** alternatives.

## Nippon Gases sponsors the Keicho Awards.

Nippon Gases Europe is not only intensively working on innovation in all departments of the organisation, but also sponsoring innovation award events in Europe.

Our company sponsored the 5th edition of the Keicho Innovation and Technology Awards, organised annually by the Japan-Spain **Business Circle. The event was** held on July 6th, 2021, at Círculo Ecuestre in Barcelona.

The first award was granted to SATLANTIS, for the development of the first miniaturised optical camera for Earth observation. This project has been carried out with the collaboration of JAXA (Japan Aerospace Exploration Agency. The second award was granted to AGC Pharma Chemicals Europe, S.L.U., part of the AGC Group, for the expansion of its European **Active Pharmaceutical Ingredient** Manufacturing base.

#### Our compromise



## **3.2 Environment**

For us, a harmonious relationship between people, society and the planet is the way we want to work, today and every day.

## 3.2.1 Internal framework

In its European Safety, Health and Environmental Standards library, **Nippon Gases** devotes a full section related to its policies in this vital area, including its environmental management responsibilities, the environmental management system, environmental key performance indicators (KPIs) and basic environmental training. This is the framework for Nippon Gases' environmental activities.

Our work is driven by our commitment to sustainable development, as well as taking on board emerging environmental regulations and higher standards of ecoefficiency.

That's why we are committed to turning ideas we have today into diverse solutions tomorrow which optimise and refine processes, save valuable resources, and protect the environment for the future. For us, a harmonious relationship between people, society and the planet is the way we want to work, today and every day.

All employees must therefore commit to meeting environmental requirements, preventing pollution, reducing waste, and conserving energy and other key resources in all phases of our processes and services.

Nippon Gases' focus is on taking consistent precautions - to ensure safety and sustainability in our day-to-day work, in the operation of production facilities, and in the distribution and storage of our products. All our environmental and energy-conscious efforts increase eco-efficiency and are a basic requirement for every job and workplace.

To achieve this, the Environmental Guiding Principles of Nippon Gases demand that management on every level lead Nippon Gases along an ethical pathway that increasingly benefits society, the economy and the environment, while adhering to the following principles:

- To lead our companies in an ethical way that increasingly benefits society, the economy, and the environment
- To design and develop products that can be manufactured, transported, used, and disposed of or recycled safely
- To work with customers, hauliers, suppliers, distributors and contractors to foster the safe and secure use, transport and disposal of chemicals, and to provide hazard and risk information that can be accessed and applied in their operations and products
- To design and operate our facilities in a safe, reliable and environmentally sound manner

- To promote pollution prevention, minimisation of waste, and conservation of energy and other critical resources at every stage of the lifecycle of our products
- To cooperate with governments at all levels and organisations in the development of effective and efficient safety, health, environmental and security laws, regulations and standards
- To support education and research on the health, safety, environmental impact and security of our products and processes
- To make continual progress toward our goal of no accidents, injuries or harm to human health and the environment from our products and operations, and to openly report our health, safety, environmental and security performance

#### A world of risks and opportunities

At Nippon Gases, we drive forward actions to reduce the impact on the global environment and prevent pollution in compliance with local regulations. Due to the nature of our production, we do not see major environmental risks. Legal requirements and internal standards to mitigate environmental risks are followed.

In general, ever-more stringent environmental legislation may, under certain circumstances, lead to additional requirements in the production and marketing of some products.

Our main opportunities are in the reduction of energy consumption, water and waste, as well as improvements in transport optimisation. Nippon Gases participates in many initiatives promoting low-carbon activity.

## 3.2.2 Environmental management

Nippon Gases has established an Environmental Management System (EMS) to continually improve its environmental performance and to meet regulatory requirements while minimising its environmental impact

This comprises:

- Nippon Gases Environmental Policy
- European HSE management system, applicable to all operations and aligned with ISO 14001
- Employee training based on job functions
- Risk assessment processes for both processes and products
- Fulfilment of regulatory requirements
- EHS assessments conducted by our EHS assessment team
  - NIPPON GASES

- Environmental performance review on a national and European level
- Internal reporting and review on a monthly basis
- External reporting on environmental performance through our Sustainability Report.

#### HSE management system

Nippon Gases' EMS is based on the Principles of Sustainability, as well as ISO 14001. If conditions make certification appropriate, full implementation of **Nippon** Gases' EMS should logically ensure that a site achieves ISO 14001 certification.

ISO 14001 certification as a management system is implemented in the majority of countries in which we operate. The current implementation rate is up to 70% of the operational sites

#### **Environmental compliance**

In every region there is a HSE organisation in which a dedicated environmental expert deals with all specific environmental issues. In addition, country environmental leaders, the Europe HSE and Sustainability Director meet once per quarter at the European Environmental leaders meeting, allowing for further development of the Environmental Management System at **Nippon Gases** to be coordinated at the highest level.

Environmental compliance is monitored on a country level, with the local HSE organisation performing HSE assessments reviewing compliance with permits.

Nippon Gases' employees are actively involved in the different working groups and councils at the European Industrial Gases Association (EIGA), which oversee the following up of environmental regulations. In the countries where a national gas association exists, Nippon Gases is also actively involved.

In FYE2022, no significant fines or non-monetary sanctions for non-compliance with environmental laws and/or regulations were received.

In addition, the European HSE assessment team checks the compliance of the assessed facilities according to internal standards. No serious breaches were detected.

Last year, our European HSE assessment organisation conducted seven environmental assessments for compliance with internal standards. The senior management teams from the respective countries and the European Business Team received the assessment results, which showed no significant environmental issues.

Environmental assessments are performed on facilities which might have a major impact on the environment, not for sites such as small warehouses or logistics centres. Environmental assessments were performed together with the safety assessments.

In addition to these European assessments, local HSE organisations perform additional environmental audits,

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on top of the regular audits from the external ISO 14001 certification body.

It should be noted, that within the framework of ISO 14001 certification, both compliance with the legal requirements and the Environmental Management System as a whole are regularly checked and certified.

#### Number of European environmental assessment



#### What is Nippon Gases' environmental impact?

There are several areas where the company's activities currently can impact the environment

The process of air separation and of filling cylinders are both environmentally friendly processes; the main raw material is ambient air, and Scope 1 emissions are minor.

Waste generation is minimal and the water in the ASU is only used for cooling purposes, with no external contaminants introduced into the water stream and this resource mostly recirculated in a semi-closed loop operation.

The main emissions of note are related to the use of electrical energy in our plants and fuel for the distribution of our products with trucks (for energy analysis see Energy management, chapter 3.3).

The focus of **Nippon Gases** is to continue improving its existing facilities, while any new installation will always be engineered with the best available technique (BAT) to minimise emissions.

#### Biodiversity

For all major capital projects, we evaluate their environmental impact to preserve the ecological health of the place or region.

## Rainer Wysotzki

Health, Safety & Environment Director Nippon Gases Euro-Holding S.L.U.



#### Leading the global efforts of NSHD towards carbon neutrality solutions for our customers

In our last interview, we talked about further measures in terms of the circular economy. Where do we currently stand with these measures?

Last year, our new environmental policy came into force, in which we focus on minimising plastic waste in particular. Most sites now have equipment for separate disposal of plastic waste, which generally consists of transport and product packaging. On the one hand, this enables us to record the quantities in detail and, on the other hand, we achieve a significantly better improvement of the recycling cycle.

Nippon Gases is considered one of the largest  $CO_2$  suppliers in Europe. Generally,  $CO_2$  is seen as harmful to the environment, yet the fight against Covid-19 via vaccines would be impossible without it. How do these two sides of the coin come together?

 $CO_2$  is a special product. In our total of 14  $CO_2$  plants in Europe, we only process gas that is generated in

other processes and recovered there. We thus use CO<sub>2</sub> gas that is available anyway as a feedstock for our products. For processing, it merely makes a 'technical stopover' - in one of our 19 European dry ice plants, where it is converted into a solid state and shaped. This dry ice then ensures the cold chain for vaccines or even food, for example. Although there is too much CO<sub>2</sub> in the atmosphere, it is a product whose availability is limited. That's why our newly built CO<sub>2</sub> plant in Dordrecht, the Netherlands, has a recovery system for which Nippon Gases received the EIGA Environmental Award 2021. This is where the circle closes.

That's great! Awards can only spur employee engagement in sustainability. Does Nippon Gases have plans to support them further in these efforts?

We take the same approach as with safety: consistent training leads us to excellent results. Basic training already exists. Our employees can access this via the companywide training platform, and we are currently working on its further development. At the end, there will be a multi-level training, the complexity and content of which will be aligned with different levels of responsibility in the company. Finally, Nippon Gases is recognised for its high safety performance. How do you maintain this level against a backdrop of remote/hybrid working?

We continue to deliver good safety results and have even further improved our accident rate. We are adapting to the changing working conditions and are currently focusing on the wellbeing of our employees. With the help of the 'Create your own work environment' campaign, we are raising our employees' awareness of the accident potential and health risks that mobile working also entails. With the guiding principle that 'only a clean workplace is a safe workplace', we are also extending Nippon Gases' claim to the home environment. A training course with five modules ranging from 'Emotional motion' to 'The hybrid office' will support and guide employees.

## 3.3 Energy management

Our efforts to contribute to the prevention of global warming are through the optimisation of energy and water consumption at our production facilities, the reduction in transport of our products, and by selecting energy providers that promote renewable energy sources and, therefore, set us on the path to a carbon neutral industry.

At **Nippon Gases**, energy is one key resource in the manufacture of our products and hence, is also at the centre of our initiatives to optimise its utilisation as we bid to combat climate change by helping to mitigate global warming.

In this section we will describe the main processes through which we manufacture our products, how they are delivered to the end customer, and our various initiatives to optimise energy management in these activities:

- Energy consumption overview
- Air separation process to produce the air gases
- HyCO units. Production of H<sub>2</sub> (hydrogen) and CO (carbon monoxide)
- CO<sub>2</sub> liquefaction and purification process
- CO<sub>2</sub> shipping. A unique Nippon Gases transportation mode
- Productivity through cost reduction projects.
   Describing how Nippon Gases maintains its facilities at their optimum operation mode
- Liquid products transport optimisation. Transport is the second-largest source of GHG emissions
- Energy Management strategy

#### Energy consumption overview

For the production of **Nippon Gases'** core products, the air gases (oxygen, nitrogen and argon) as they are known, the production of hydrogen and CO (carbon monoxide) and the liquefaction and purification of  $CO_2$ , the main resource is electricity.

 $CO_2$  emissions attributable to the use of electricity used for this purpose account for 89% of total **Nippon Gases**  $CO_2$  emissions.

Total electric energy consumed by **Nippon Gases** in all Europe entities in FYE 2022: 2,795 GWh.

Energy	Electric GWh				
	FYE2019	FYE2020	FYE2021	FYE2022	
Europe	2,795	2,679	2,531	2,795	

Energy	Thermal Energy Terajoules*				
	FYE2019	FYE2020	FYE2021	FYE2022	
Europe	1,174	1,211	1,030	1,352	

(\*) Thermal energy: Natural Gas+ Steam

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#### Air separation process

Air separation units (ASUs) produce oxygen, nitrogen and argon by separating atmospheric air into its constituent gases.

Air is first compressed, and then cooled almost to the point where the gas liquefies, after which it is ready for the distillation column. Here it is separated into its major components using a thermal distillation process which obtains the basic components: nitrogen, oxygen and argon.



The products of the ASU are mostly in their gaseous phase. These products could be compressed and distributed by a pipeline system to our network of customers, which provides the lowest energy supply mode. 72% of our ASU molecules are supplied by pipeline to our end customers, therefore avoiding the additional processes of liquefaction and transport.

Alternatively, these gas products can be liquefied by means of a liquefier system, with a pure nitrogen primary circuit that transfers the required cold to the air gases, which are then stored at cryogenic temperatures in their liquid state.

These cryogenic liquid products are transported by our insulated trailers to our end customers. This secondary process has the additional energy usage of fuels used in the transportation.

One alternative to optimise the supply to our end customers is investing in a dedicated onsite unit which would match the capacity and quality required by the customer's process. Most of these units run unmanned, remotely controlled by a Remote Operation Centre (ROC). In this case, the energy otherwise devoted to transport is saved.

For smaller applications or when the quality of the product requires a very unique specification, the product can be delivered to the customer in cylinders containing compressed gas.



All of the above processes are subject to optimisation and, therefore, we are taking steps to reduce the energy consumed at our production facilities, by continuously analysing the efficiency of the processes and promoting energy-saving measures, and striving to increase the efficiency of product transport.

#### Efficiency MWh/Eq 0, Tonne vs FYE2019

## FYE2019: 100% | FYE2020: 104% FYE2021: 102% | FYE2022: 100%

In FYE 2022, the consumption of energy per produced unit by our air separation facilities matched our base line year of FYE 2019, and has improved 2% compared with last year.

## HyCO units: Production of H<sub>2</sub> (hydrogen) and CO (carbon monoxide).

There are several technologies to produce hydrogen, and the current market demand is to focus on those with a lower carbon footprint impact.

The most prevalent process still today is via the SMR (steam methane reformer), which produces  $H_2$  and CO. The main raw material is natural gas, and electricity and water are at a much smaller scale. Natural gas, composed mainly of methane (CH<sub>4</sub>), together with steam reacts inside a furnace with catalyst-filled tubes. A synthesis gas (syngas) composed mainly of hydrogen and carbon monoxide is produced. A secondary reaction step produces the syngas, composed mainly of hydrogen and carbon dioxide.

Hydrogen production through electrolysis is based on the dissociation of water molecules ( $H_2O$ ) using electricity, to extract hydrogen and oxygen molecules. When the electricity used for the electrolysis is from a renewable origin, the  $H_2$  produced is considered carbon-free.

Another mode of  $H_2$  production is by purifying a by-product from other industries, such as chlorine production. In this case, the energy resources are minor and so too is its carbon footprint.

In all the above modes, the hydrogen is purified and pressurised in gaseous form and delivered to end customers mostly transported via tube trailers.

#### CO<sub>2</sub> liquefaction and purification process

The atmospheric gases - oxygen, nitrogen and argon - are present in the air we breathe. The source is unlimited and is available wherever we need to capture and use it. In comparison, the sources of the 'process gases' such as carbon dioxide  $(CO_2)$  are limited to the location and availability of the sources.

The main source for the CO<sub>2</sub> that we process and sell is a by-product of another industry. In Europe, the largest source is agricultural fertiliser production (ammonia producers), followed by bioethanol production and the SMR process.  $CO_2$  plants take a raw gas stream from the source plant, which is then compressed, purified and liquefied before it can be delivered to our customers. As a practical consequence, the required  $CO_2$  purification and liquefaction facilities are located close to the raw gas source and the distribution network plays an important role in delivering to customers.

In FYE2022, the consumption of energy per produced unit by our  $CO_2$  facilities was 5% higher than FYE2021. This excess of consumption was due to the shortage of  $CO_2$  raw gas supply at the sources due to the natural gas high price, running in less efficient mode.

The actual molecules of  $CO_2$  that are marketed do not constitute any additional 'carbon footprint value' and, in our report, are considered in the Scope 3 boundary. Under the terms of the European Union Emissions Trading Scheme (EU ETS), carbon dioxide is always counted as part of the emissions from the source plant – for example, the fertilisers production plants.

CO <sub>2</sub> Liquefaction NGE	FYE2019	FYE2020	FYE2021	FYE2022
MWh/Tonne CO <sub>2</sub> delivered vs FYE2019	100%	106%	106%	111%

Ships NGE	FYE2019	FYE2020	FYE2021	FYE2022
MGO Maritime Gas oil	3,226	3,273	3,253	3,674
$CO_2$ emissions generated /Ton Liquid $CO_2$ transported vs FYE2019	100%	107%	96%	111%

#### $\rm CO_2$ shipping

As the  $CO_2$  source plants are remote in relation to some markets, it is necessary to transport relatively large quantities of liquid  $CO_2$  to those markets to balance production capacity with market demand.

**Nippon Gases** owns and operates a fleet of three  $CO_2$  tanker ships. Each ship can deliver a cargo of between 1,200 and 1,800 tonnes of liquid  $CO_2$  per trip. This unique mode of distribution ensures a more reliable supply of  $CO_2$  to our customers.



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#### Transport of liquid products optimisation

When it comes to the transport of air gases molecules produced at our main air separation facilities, 72% is distributed by pipeline, while the remaining 28% is distributed in liquid mode to end customers.

The transport of these liquid products, plus the additional liquid CO<sub>2</sub>, is performed daily by trucks which drive circa 56 million km/year.

These deliveries are performed based on customer orders, and also by utilising forecasts of customer requirements based on telemetry installed at customer tanks. A proper analysis of customer consumption forecasts provides a dual optimisation opportunity, to both maximise the delivered volumes and minimise the mileage.

A second area of optimisation is driven by the proper planning of the delivery routing of our trucks, which again minimises the kilometres driven in supplying end customers. Further still, a new optimisation system has been launched that will lead to combined savings in all liquid transportation costs of 5.5%, compared to current transportation costs.

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The implementation of this system is being performed during the period from FYE 2021 – FYE 2024

Together with bulk transportation, we also reach the end customer by servicing molecules in high pressure cylinders, which requires our transport fleet to drive an additional 24 million km (FYE 2022). The homecare business, in which our personnel visit patients' homes to carry out healthcare activities, also led to 10 million km (FYE 2022) being driven.



#### Million km driven for all products

km driven in Europe for all products	FYE2019	FYE2020	FYE2021	FYE2022
Europe (Million Km)	95.4	94.9	86.6	89.7
% Bulk km	57%	59%	60%	62%
% Pag Km	27%	26%	27%	27%
% HomeCare km	17%	15%	12%	11%
Km/Ton Liq vs FYE2021	100.0%	102.4%	101.0%	99.7%
Km/Cyl vs FYE2019	100.0%	100.3%	103.0%	98.9%

The improvement km/cyl in FYE2022 for packaged gas transportation was largely attributed to the recovery after Covid-19 crisis in 2020, which lesser emergency cylinder (oxygen) supply.





#### Productivity: Cost reduction projects

**Nippon Gases** is further focusing its Cost Reduction Programme to reduce the consumption of natural resources, such as fuels, water and energy, in particular at air separation facilities, by replacing ASU components with new high-efficiency upgrades and optimising endto-end facility process control to better reflect market demands.

We have established a Cost-Reduction Group as a sub-section of our productivity programme across the European business. The Cost-Reduction Group promotes optimisation in bulk production by identifying processes subject to improvement, defining the solution, and facilitating the execution of projects which result in a more efficient use of our natural resources.

# In FYE 2022 we developed 142 cost reduction projects that accounted for 10,780 tonnes of C02eq.

We also have focused on our packaged business by working in areas such as:

- Improving our processes by automation where machines, equipment and people have strong interaction such as product sorting inspection and picking together with its plant movement. New layouts already designed.
- Moving from push to pull system via better plant scheduling solutions.
- Optimisation of our distribution process by better inventory management

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#### Energy management strategy

Energy management is performed at a country level, due to specific national regulations and existing market environments, with the aim of adapting energy supply contracts to our customers' consumption profiles, while optimising the efficiency of our manufacturing processes.

Energy providers allow the option to purchase a Guarantee of Origin (GO) certificate, allowing our facilities to manufacture gases by using certified renewable energy. **Nippon Gases** has started a strategy to increase its usage of renewable energy through these GO certificates as well as dedicated contracts for renewable energy, also knowns as PPA's (Power Purchase Agreements), allowing the end-user (customer) to benefit from a 'green' origin product.

The total electrical energy consumed in FYE 2022 – 2,795 GWh – is the result of the energy supplier mix portfolio, with an improved renewable energy share due to the acquisition of GO certificates.

## 3.4 GHG emissions

We are committed to the reduction of emissions generated in our activities. We categorise these according to their source.

For the categorisation of greenhouse gas (GHG) emissions, we are following the Scope 1 and Scope 2 categories and Scope 3 according to the GHG Protocol Corporate Value Chain Accounting and Reporting Standard.

Scope 1 relates to the direct emissions generated by the facilities and equipment, mostly by burning fuels such as natural gas, and diesel for our transportation.

Scope 1 also includes the GHG emissions of the following gases included in the Kyoto Protocol: Carbon dioxide  $(CO_2)$ , methane  $(CH_4)$ , nitrogen oxide  $(N_2O)$ , hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulphur hexafluoride (SF6) and nitrogen trifluoride (NF3).

Scope 2 emissions are the indirect emissions that occur as a result of the consumption of third-party energy, such as electric energy and steam.

And Scope 3 emissions includes all other indirect emissions not included in Scope 1 and Scope 2.

The calculations of Scope1, Scope 2 and Scope 3 emissions are certified by a third-party verifier as per the GHG Protocol Corporate Value Chain Accounting and Reporting Standard.

In the calculation of electrical energy emissions (Scope 2), the energy suppliers' emissions factors have been utilised and the allocation of the Guarantee of Origin (GO) certificates has been incorporated. Nippon Gases has adopted a similar approach in the

#### The current ratio of renewable energy is: 34% renewable energy which improved from 19% last year.

The intensity of greenhouse gas emissions from electricity generation in Europe was 402 gr/kWh (G27 Residual Mix, European Environmental Agency), while the average emission of **Nippon Gases** was 286 gr/kWh. The GHG intensity of **Nippon Gases** electricity consumption has decreased by 29% during the last year.

ISO 50001 certification recognizes the utilization of an energy management system at a site. Today 25 sites hold the certification, basically located in Germany, Norway, Sweden and Spain. The strategy is to increase this number, although is some countries there are specific requirements (external energy audits).

boundaries of the sustainability report as the NSHD corporation and has shifted from Equity Control to Financial Control consolidated approach across the emission calculations. This change has originated that the non-financial consolidated JV's to be removed from the energies and emissions calculations from Scope 1&2 and reported into Scope3, from previous sustainability reports. The data has been recalculated with this new approach since our baseline year FYE2019 and incorporating the historical data in this report.





## Nippon Gases Europe Emissions $CO_2e\%$ vs FYE2019 (SCOPE 1 + 2)



CO2e emissions in thousand tonnes					
	FYE2019	FYE2020	FYE2021	FYE2022	
Europe Emissions C02e tonnes (Scope 1+2)	1,424	1,373	1,105	895	
% vs FYE2019	100%	<b>97</b> %	78%	63%	
Scope 1	63.8	68.2	67.5	84.6	
Scope 2	1,360	1,305	1,038	810	
Scope 3			1,475	1,505	



## The GHG Protocol Corporate Value Chain (Scope 3)

Accounting and Reporting Standard (also referred to as the Scope 3 Standard) provides the guidance to assess the report of GHG emissions inventory that includes indirect emissions resulting from value chain activities.

The Scope 3 inventory splits the overall emissions profile of their upstream and downstream activities and identifies the largest categories related to energy, materials and emissions. The use of this Scope 3 calculation is intended to enable comparisons of a company's GHG emissions over time.

Reporting emissions across the value chain, will allow us to better focus on:

- Identifying risks and opportunities associated with value chain emissions
- Identifying GHG reduction opportunities, setting reduction targets, and tracking performance
- Engaging value chain partners in GHG management

Scope 3 Calculations	FYE2022	Thousand tonnes CO2e
Upstream (Category 1-8)		305.8
Category 1	Purchased goods and services	183.3
Category 2	Capital goods	69.9
Category 3	Fuel- and energy related	52.5
Category 4	Upstream transportation	NA
Category 5	Waste generated in operations	0.064
Category 6	Business travel	NA
Category 7	Employee commuting	NA
Category 8	Upstream leased assets	NA
Dowstream (Category 9-15)		1,199.2
Category 9	Downstream transportation and distribution	65.2
Category 10	Processing of sold products	NA
Category 11	Use of sold products	1,091.7
Category 12	End-of-life treatment of sold products	NA
Category 13	Downstream leased assets	42.3
Category 14	Franchises	NA
Category 15	Investments	NA
Total		1,505.1

#### Facility-related emissions

Emissions sources at our plants comprise the following:

- Natural gas-burning emissions
- Transport emissions
- Ozone-Depleting Substances (ODS) emissions
- NOx emissions
- Electricity consumption
- Steam consumption
- Other indirect emissions included in Scope 3
- Noise and light pollution

#### Natural gas-burning emissions

The main contributor for direct emissions in our facilities are the emissions resulting from burning natural gas in our HYCO and ASU facilities as a heat source.

#### Emissions related to transport

Transport trucks are mostly equipped with diesel engines, and the amount of diesel fuel used and measures taken to reduce this are described in this chapter. Around 90 million km were driven in product

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transportation in the last year, involving hundreds of different trucks and vans for the transport of our liquid products in insulated trailers, our high pressure cylinders and our homecare services attending patients at their homes.

It should also be noted that the ship transportation of our  $\rm CO_2$  product across the North Sea is included in these emission calculations.

On top of the mileage optimisation programme described in chapter 3.3, we have expanded three programmes (in dedicated countries) to reduce transport related air pollution.

- To promote hauliers to use trucks from the best available emission class
- To substitute trucks with diesel engines with others that use LNG/CNG engines to reduce NOx and SOx emissions. In FYE 2020 Nippon Gases Deutschland put 12 natural gas-fuelled vehicles into service in Germany. This programme was replicated in Italy in FYE 2021, with three vehicles, and in Germany with an additional four vehicles In Germany, starting in FYE2020, Nippon Gases invested in alternative drive technologies using LNG (liquefied natural gas) and CNG. Currently, 25 vehicles are used in the areas of BAG and PAG with this drive technology. By the end of 2022, the low-emission fleet will number around 20% of the total fleet. The combination of CNG and LNG reduces nitrogen oxide emissions per vehicle by up to 85% and  $CO_2$  emissions by up to 15%. In Sweden, in FYE2022, **Nippon Gases** Sverige managed to reduce its CO<sub>2</sub> emissions by almost 400 tonnes CO<sub>2</sub>eq in its PAG distribution. To help in the battle against climate change, **Nippon Gases** Sverige has reduced its emissions by using fossil-free fuel as a replacement for conventional diesel. HVO is a well-established synthetic green fuel, the use of which can reduce emissions by 90%
- To switch the transportation of gases from road to railway, especially in countries where the CO<sub>2</sub> emission factor is very low due to a high proportion of renewable energy in their generation mix



## Ozone-Depleting Substances (ODS) and Global Warming Potential (GWP) compounds

At **Nippon Gases** we use ODS as refrigerants in our cooling systems. In addition, **Nippon Gases** fills some of these products (purchased from third parties) for later marketing. The emissions of these processes are also monitored which have increased in FYE2022 due to the increase of market demand.

The  $\rm CO_2$ -equivalent from the use of refrigerants in our cooling systems is shown in the following table.

	FYE2021	FYE2022
CO2e Tonnes from F-gases in refrigerant systems	2,348	2,274

The CO<sub>2</sub>-equivalent from the fugitive emissions from the filling process are:

	FYE2021	FYE2022
CO2e Tonnes from F-gases in transfilling or process emissions	23,434	31,759

#### NOx emissions

INNOVATIVE - GH

Natural gas is used at **Nippon Gases** mainly as a process gas in HYCO plants and as a means of regeneration energy in our ASUs.

The resulting NOx emissions are calculated based on an average EPA emission factor of natural gas. The increased emissions on FYE2022 are due to a higher workload on our HyCO facilities, however still a very low amount of emissions.

	FYE2021	FYE2022
NOx emissions in metric tonnes	31	47

#### Noise and light pollution

**Nippon Gases** considers that its light pollution does not have a material impact on outdoor areas. Operation permits are based on national and local regulations, which cover the impact of our facilities in terms of noise pollution.

Compliance with regulations is provided to the relevant authorities upon request.



## José María Martínez-Gallo



Supply chain and logistics are under scrutiny – and we're our biggest scrutineer

Which are the current drivers behind sustainability in operations and logistics ?

Over recent years, **Nippon Gases** Europe has incorporated different solutions for the ongoing reduction of GHG emissions into our own business practices, and we are now seeking ways to drive down emissions even further, beyond our own operations.

More than ever, logistics and supply chain operations are coming under scrutiny, and businesses are looking at ways of reducing the impact of their operations on the environment. They are being challenged on multiple fronts: by governments charged with sustainability targets; by customers aware of the need for businesses to reduce their carbon emissions; and from pressures within organisations to develop sustainable logistics and supply chain management strategies.

At **Nippon Gases**, we ourselves are our biggest scrutineer; we pursue sustainability in our own operations and beyond. Affordable green logistics options exist for all kinds of businesses. These include more efficient distribution solutions, greener types of transportation, and digitalisation.

## Let's talk supply modes and distribution – what's happening in compressed gases?

We continue to take a closer look into our cylinder distribution, and how we could better serve our customers in delivering cylinders in a timely manner by decreasing the amount of kilometres driven. This can be done via route planning and Inventory management. The most efficient route to meet customers' timely demand will save product and cost, and will ultimately help to secure new customers too. This value-add can be enhanced with data and digitalisation, providing the customer with visibility into where their product is located and pre-advising of its expected arrival.

This visibility in the supply chain is a key point. By working closely with the cylinder filling plants, for example, we can together establish the right stock levels throughout the supply chain, from plants to depots and customers, enabling them to sustainably plan their own operations accordingly. This is the kind of prognosis we are strongly working on in every country in Europe. The increasing use of digitalisation technologies is essential to what we might call the Four S': sequencing, scheduling, strategic planning, and sustainability.

## From cylinders to bulk supply – what's happening in liquid distribution?

We see similar trends in the bulk distribution segment, in the way we supply our liquid products to our customer by establishing a vendor management inventory system, together with routing and demand planning. This is often more complicated than strategies related to cylinder distribution across Europe, since liquid distribution has to take many other factors in the algorithms.

The clear goal is the same, however: to deliver critical products to several

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customers, by optimising the deliveries based on specific inventory and customer policies. The aim of the programme is to deliver more product and reduce the kilometres driven, thereby reducing fuel consumption. It may seem an easy exercise, but we have to deal with many customer restrictions, which calls for a flexible programme to enable the best fit between customer needs and optimal logistics.

## And finally, let's talk 'Green Trucking' – what do we mean by this?

In the long-term, zero-emission vehicles will be available in the market, powered either by full electrification or with hydrogen. Considerations for each must balance the distances to be covered from source to customer, geographical coverage, how repetitive routes are, and breaks. This is the realm of 'Green Trucking' and at Nippon Gases, we are closely watching the technologies available in the market to ensure we work together with our hauliers to effectively move in that direction. What is important in the shortterm is to further dig into transition technologies powered by liquefied natural gas (LNG), compressed natural gas (CNG) and biofuels, each with its own design and operational efficiency, respectively.
# 3.5 Water management

The production of industrial gases requires water to cool equipment such as gas compressors. Replenishing the

water for this purpose constitutes the bulk of our water consumption.

Currently, 100% of **Nippon Gases'** main consumer sites are covered by water management programmes which allow for the tracking of water system parameters.

The most intense users of cooling water are the ASUs. In these units, there are several types of cooling systems, and 78% have semi-open water recirculating systems which require water withdrawal to replenish losses from evaporation and blowdown to the sewer.

A small percentage (22%) of ASUs have a once-through system where the water is pumped into our facility, cools the process, and returns back to the source without consumption and without alteration to the chemistry or pollution of the water. The once through systems are available when the production facility is located inside a large industrial area which serves the water for as an utility or in few cases when for the plant located in areas with very high water availability. In all cases the "oncethrough" is considered as zero environmental impact due to its zero consumption and pollution.

Due to the strong relationship between water withdrawal, consumption, and discharge, following GRI 303 recommendation, Nippon Gases is to report on all three topic-specific disclosures.

As per Global Reporting Initiative GRI-303 - Water and Effluents:		
Water withdrawal	Sum of all water drawn from surface water, groundwater, seawater, or a third-party for any use over the course of the reporting period	
Water Consumption	Sum of all water that has been withdrawn and incorporated into products, used in the production of crops or generated as waste, has evaporated, transpired, or been consumed by humans or livestock, or is polluted to the point of being unusable by other users, and is therefore not released back to surface water, groundwater, seawater, or a third-party over the course of the reporting period	
Water Discharge	Sum of effluents, used water, and unused water released to surface water, groundwater, seawater, or a third-party, for which the organisation has no further use, over the course of the reporting period	

Year	FYE2020	FYE2021	FYE2022
Water Withdrawal Mi m3	27.90	27.89	27.60
Water Discharge Mi m3	23.37	23.78	23.31
Water Consumption Mi m	4.52	4.10	4.29







In FYE 2022 Nippon Gases' water consumption was 4.29 million m3 from various sources. 21% came from freshwater sources such as rivers and lakes, 8% came from ground wells, 26% from municipal supply, and the remaining 45% from third-party supply, mainly industrial recycled water.

Year	FYE2020	FYE2021	FYE2022
Water Consumption	%	%	%
ASU	86%	86%	86%
HYCO	2%	1%	2%
CO <sub>2</sub>	12%	12%	12%

Around 86% of the Nippon Gases water consumption goes to the air separation units which separate the components of atmospheric air (oxygen, nitrogen, argon).

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Water back into the original source, without causing pollution or changing the water's main physical-chemical characteristics.

Year	FYE2020	FYE2021	FYE2022
Total Water Consumption Mi m3	4.52	4.10	4.29
Consumption Sources			
City water	24%	25%	26%
Third Party water	40%	39%	45%
Fresh Surface water	29%	28%	21%
Ground water	7%	8%	8%
Consumption Destination			
Cooling tower evaporation	69%	70%	72%
Cooling tower blowdown	31%	30%	28%

#### Discharges into air and water

in the industrial gases business are limited, by our process nature. Air separation plants use the water for refrigeration purposes and the circuits are separated from the process. As a consequence, no process pollutants are incorporated into the water circuits, nor in the discharge streams.



#### Reused water consumption

**NNOVATIVE** -

Most of the water entering the cooling circuit of our production facilities enters a semi-open circuit, where it is recirculated and cooled to provide refrigeration for the equipment. The water (72%) is evaporated to the atmosphere and the remainder (28%) is blowdown to the sewer, maintaining levels of chemistry concentration as per the process limits.

The blowdown from these semi-open water circuits (cooling towers) is mostly piped back into a controlled sewer that will, at a later stage, perform treatment to allow the water to be recycled.

#### Water management within the value chain

Water is a limited environmental resource, critical to the health and sustainability of our planet. **Nippon Gases'** facilities cannot operate without adequate water supplies, and this reality drives us to be good stewards.

**Nippon Gases** optimises water consumption through close follow-up of the cooling water circuit parameters and adjusting water treatment accordingly, in order to minimise the discarding of water to the sewer – thereby optimising water usage.

The main purpose is to minimise the usage of such a valuable resource as municipal water, fresh surface and ground waters.

The water cycles indicates the ratio of water consumption to the cooling tower vs the water blowdown. The higher concentration cycle indicates a more optimal usage of the water.

Also the m3 consumption per consume MWh indicates the optimisation ratio, the less the better.

The absolute water consumption in FYE2022 has increased from last year due to two additional water circuits (facilities) have been incorporated into our population, however the water usage efficiency has improved as indicated per the water cycles (7% improvement) and water m3/MWh (4% improvement) ratios.

Another area of action is the reuse of water that is not valid for human use. The most common alternative is industrial recycled water, where those contaminant levels render it unsuitable for drinking, but mean it can be used for industrial cooling services.

Water KPI's include the following:

Year	FYE2020	FYE2021	FYE2022
Cycles	3.27	3.33	3.57
Water m3/ MWh	1.59	1.53	1.47
# circuits	26	27	29

#### Focus on water stress locations

Nippon Gases has incorporated into its water management programmes the efficiency analysis of the Very High Stress water locations as defined by the World resource Institute (WRI) and its Aqueduct Atlas, to identify those locations as per their water stress parameter, which indicates the ratio of total water withdrawals to available renewable surface and groundwater supplies.

**Nippon Gases** has placed focus on its facilities under Very High Stress Water locations.

As a result, the water consumption in the total Very High Stress locations has been reduced by  $41,000 \text{ m}^3$  (-5%) and their concentration cycle improved till 2.49(+11%)



Very High Stress Locations Consumption Mi m3 water	FYE2020	FYE2021	FYE2022
Cooling tower consumption	0.85	0.76	0.72
Cooling tower blowdown	0.44	0.34	0.29
Cycles	1.96	2.24	2.49

# Water intensity. Consumption vs sales . Base year FYE2020

Following the Mid-term plan, here the SGD goal of reducing the water intensity:

Year	FYE2020	FYE2021	FYE2022
Water Consumption Mi m3	4.52	4.10	4.29
Sales Revenue Mi €	€ 1,371	€ 1,290	€ 1,601
Water Intensity %	100%	96%	81%

# 3.6 Raw material usage

Most of the raw materials **Nippon Gases** used to produce nitrogen, oxygen, argon and carbon dioxide in the past year were considered renewables, notably air and water.

Nippon Gases divides the waste stream into three partial streams:

- 1. Waste that is generated by our suppliers during the production of our main input materials
- 2. Waste that is generated in the manufacture of our products at our plants
- 3. Packaging waste from the delivery of our products to our customers.

The main supplied materials used at our production facilities are electricity, ambient air or process gases like  $CO_2$ . The environmental aspect of the use of electrical energy is described in chapter 3.3. The supply of raw gas  $CO_2$  to our facility, does not generate additional waste at our suppliers.

The waste generated at our plants is mainly non-hazardous waste like metal, plastic, paper, wood and domestic waste.

Waste	FYE2021	FYE2022
Waste total in tonnes	2,390	3,030
Waste on landfill in tonnes	99	120
% on landfill	4,1%	3.4%

Last year there was an increase in the total amount of waste, which is due to various one-off effects. These included, among other things, various reconstruction projects that generated an insignificant amount of construction waste.

In FYE 2022 our new environmental policy came into force, in which we focus on minimising plastic waste in particular. Most sites now have facilities for the separate disposal of plastic waste, which generally consists of transport and product packaging. On the one hand, this enables us to record the quantities in detail and, on the other hand, we achieve a significantly better improvement of our recycling loop.

Hazardous waste is comprised by some process materials, such as oils and residues from the scrubber in SPG (specialty gases plant) filling plants.

A small percentage of the hazardous waste generated by **Nippon Gases** ends up in landfill (6.1%)

Hazardous Waste	FYE2021	FYE2022
Hazardous Waste total in tonnes	461	596
Waste on landfill in tonnes	16	37
% on landfill	3,4%	6,1%

The significant increase in either the total amount of hazardous waste or the amount of hazardous waste on landfill is related to the increase of the production of specialty and electronic gases and to some one-off effects, like emptying oil separators.

# Waste intensity. Waste total vs sales . Base year FYE2020

Following the Mid-term plan, here the SGD goal of reducing the waste intensity:

	FYE2020	FYE2021	FYE2022
Waste Total tonnes	2,654	2,390	3,030
Revenue Mi €	1,371	1,290	1,601
Waste intensity	100%	96%	98%

**Nippon Gases** produces very little packaged waste. The main delivery modes of our products are:

- A. Delivery by pipeline
- B. Delivery as bulk liquid
- C. Delivery as packaged gas in cylinders

Both pipeline deliveries and the delivery of liquid products to tanks installed by customers, do not generate any waste.

**Nippon Gases** uses gas cylinders made from steel or aluminium for the distribution of packaged gases. The company operates a 'closed-loop' business model for reusable and refillable gas cylinders. Every refillable gas cylinder is designed and intended to contain gas throughout its lifetime, and to be repeatedly refilled. When the cylinder is empty, it is brought back from the customer to **Nippon Gases** for refilling and continued use in a closed-loop system.

The refillable gas cylinder is an industrial package that is kept in continued use and has an economic lifespan of more than 25 years. Each time cylinders are returned for refilling, there are standard procedures to check if they are suitable for continued use. On average, each cylinder is filled at **Nippon Gases** several times per year.

The cylinder only enters the waste stream if it fails its periodic inspection. Further still, the gas cylinder is fully recyclable at the end of its lifetime.

With this sustainable business model concept, **Nippon Gases** makes a major contribution to avoiding waste.

# Collaborative

Our highly qualified and experienced workforce is the cornerstone of Nippon Gases' success. We are a great company because we have a great team, thanks to a diverse and inclusive talent management that leads us to achieve people excellence - the lever that enables a collaborative spirit with all our stakeholders.

We engage and collaborate with our customers, suppliers, employees, shareholders and communities in order to understand how we can benefit each other and grow by moving forward together, enabling industries to advance thanks to our technological solutions and giving back to the community in the best possible way by fulfilling our social responsibility through our corporate activities.

**NIPPON GASES** 

SUSTAINABILITY REPORT 2022

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# 4.1 Human capital

Growing our business by growing our people, was the basis of our Human Resources Strategy at **Nippon Gases** in FYE 2022. Despite the ongoing Covid-19 crisis, a number of new initiatives were successfully implemented again this year.

# 4.1.1 Internal framework

As you will clearly see in our eight bullets outlining the HR strategy for **Nippon Gases**, a big step forward has again been made in supporting the business to be more successful. The main focus of our improvements remained on digitalising our systems, developing our people in-house and improving the work-life balance.



#### 1. Attract and engage the best possible talent

Our recruitment process is now successfully digitalised. All parts of the recruitment process are now managed digitally, from the approval to start the recruitment process to the offer letter of the selected candidate. The HR team is now working fully on digitalising the on-boarding materials in the respective languages of the country where we have our businesses. Shortly, we will start working on defining and implementing our hiring KPI's.

#### 2. Retain the workforce

Despite a low turnover of staff, we also maintained a high focus on the retention of our employees. Several bonuses, long-term incentives and benefits (mainly in the pension and healthcare areas) were reviewed, discussed and saw changes approved in collaboration with an external specialist. Hybrid working became a fixture in the **Nippon Gases** way of working for both eligible existing employees and for eligible new hires.

The interest of our eligible employees in working in a hybrid manner is very high and we have responded to this request.

# 3. Develop and improve leadership and technical skills

Due to the ongoing Covid-19 crisis, the roll-out of our Growing Our Leadership programme, completely managed by in-house specialists, was done in a digitalised manner. It was remarkable to see how quickly people adapted to this new way of conducting training. Our leadership programmes, as well as our leadership webinars, remained very successful. Newly established this year were the Tech Talks sessions; in these meetings, we try (with in-house specialists) to explain technical topics in a very simple way to both a technical and non-technical audience. The fact that employees offer their lunch breaks for these webinars, clearly demonstrates the positive learning atmosphere within our organisation. The Cornerstone Professional Skills database was implemented to offer an even broader range of free and accessible training to all of our employees.

Needless to say, our safety, compliance and phishing training programmes remain as important as ever.

#### 4. Develop a high-performance culture

The PDP process (Personal Development Plan) remains the key contributor for developing our high-performance culture. The combination of individual goals and an individual development plan, managed both by the employee and the manager, creates a win-win situation for both parties. Due to a high number of people able to retire in the coming years, an extended succession planning process has been rolled out. We are working now on analysing the gaps and solving them with enough time in advance. The investment in developing our people in the previous years is helping us in overcoming these employee changes.

#### 5. Promote diversity

Increasing diversity, equity, and inclusion is at the core of **Nippon Gases'** strategy. And that is the spirit that motivated the foundation of WINGS and EQUALS, two new employee resource groups within **Nippon Gases** that have been successfully established.



**EQUALS** - The LGBTIQ+ community of **Nippon Gases** employees and allies, with a clear mindset aimed at building a sense of community, equality and belonging for LGBTIQ+ employees and allies, connecting people socially and professionally and encouraging interaction among them. The mission of this ERG is to create a safe, supportive and inclusive work environment for LGBTIQ+ employees and allies of **Nippon Gases**.



**WINGS** – To promote women's visibility, network and development in or across the regions. This is achieved by raising ideas, discussions or questions about their personal or professional projects, development needs and career goals. The key goal is to obtain career mobility towards women in leadership and senior leadership levels.

Our female diversity rate kept on increasing during FYE 2022, with a healthy breakthrough observed in sales and marketing positions.

#### 6. Promote community engagement

In the second year of Covid, our employees remained highly motivated in supporting community engagement projects, where possible. 73 projects were organised or supported by our employees, mainly through financial support. As in the previous years, the majority of our projects are in the area of educational support, health and social outreach. In the coming year, it is hoped our employees can participate in 'do' and 'connecting' activities once again.

#### 7. Direct communication style

Needless to say, our communication strategy of 'Communicate, communicate, communicate' remains key for the success of our company. A new intranet was launched, therefore, back in February (2022) as a tool for all employees to keep up-to-date on what happens in the company and to bundle interesting information and policies in one concise place. More user-friendly, readily available information, and more tools added at the request of our employees, will make this a big success.

#### 8. Work-life balance

The different regions worked successfully on the implementation of the Hybrid (working) Policy, based on the local legislations in place. The interest of our employees in working in a hybrid manner is very high and we have responded to this request. (see also point 4.3 Work-Life balance).

# 4.1.2 Headcount

The diverse and talented group of employees of **Nippon Gases** have strived to achieve the same mission and values for many years now. In order to reach these goals, **Nippon Gases** relies on a diverse group of people from different countries, genders and in different stages of their life and career.

Next to the measurable diversity (as allowed by GDPR), **Nippon Gases** has proven to be a friendly home for anyone, no matter their background or personal lifestyle. With this philosophy, **Nippon Gases** also complies – in all regions – with the relevant legislation on the employment of disabled individuals, resulting in more than 40 disabled individuals employed.

Headcount continued to a headcount of 3.077 individuals under the impulse of:

- The acquisition of the Home Medicine business in Italy
- The stabilisation for cost and legal obligation in all regions of our European business
- The growth of our business in Europe

**Nippon Gases** maintains its social responsibility by hiring trainees and internships in all regions based on the local legislations. The company truly believes that by offering these young people a trainee or internship position, we are able to attract excellent young talent for the future. During FYE 2022, we employed 64 trainees, of whom 8 were hired permanently.

# 4.1.3 Employee turnover

**Nippon Gases** uses a stable methodology to calculate turnover, to provide consistent comparison data yearon-year. This rate is based on all terminations (voluntary, involuntary and retirement) during the 12 previous months, divided by the headcount figure of the last month.

Year-on-year the turnover remained below the average in the European Union (EU). **Nippon Gases** is not seeing any consequences of 'The Big Resignation' as seen in so many other companies and sectors around the world following the pandemic. Some strategic decisions (such as the employment of people through fixed term contracts instead of through temp agencies) will naturally have some impact on the turnover figures. Further still, going forward and due to the ageing demographic of our workforce (retirement), we foresee future increases in our turnover.

# 4.1.4 Compensation

**Nippon Gases'** compensation for employees is based on four pillars, starting with a correct base salary. These base salaries are compared to the market salaries based on a well-established, globally recognised methodology. The comparison is undertaken on a per country and per job level basis. Each year, a revision of the market data is performed to ensure that the salaries of our employees are in line with the market.

Base salaries not only influenced by the market; other factors also come into play, such as statutory increases, performance, promotions and experience. Alongside base salaries, we also try to create a healthy mix between fixed and variable compensation. In this way, our employees are rewarded according to both their performance and the company's results. The mix between fixed and variable depends on the impact that the function has on the results. Nippon Gases also offers benefits packages which are locally-orientated, based on several factors such as social security coverage, collective labour agreements, tenure and level/grade. These are largely focused on pensions (in order to promote financial welfare for the long-term) and medical care plans (to ensure physical and mental health provision). Elements such as gender, part time/full-time status, or age are never taken into account in order to determine any eligibility for benefits.

Finally, **Nippon Gases** will always comply with local legal obligations and respect collective bargained agreements.

Striving for gender equality in every single area of the company is a strong commitment that **Nippon Gases** has made. Under the same employment conditions, we can say that there is no discrimination based on gender existing in **Nippon Gases** Europe. Due to our historical hiring records and low turnover, we still have a gap in what relates to overall gender pay. However, when analysing the data from a more regional point of view, improvements were made in almost all countries. Because we have chosen to proactively tackle this issue, we take every opportunity to reduce this gender pay gap.

# 4.1.5 Equality of opportunity

# How do we ensure the equality of opportunities in our company?

At **Nippon Gases**, we work hard on having equality of opportunities in our company. In order to ensure equal opportunities of visibility, networking and development inside the organisation, we are completing several actions. One of the top initiatives finalised in May 2022 after 18 months of hard work: the female sponsorship program. The program had the main goal of facilitating visibility and development to **Nippon Gases** women, in order to obtain career mobility and promotion into top-leadership roles. Other initiatives are ensuring an equal representation of male and female in the development programs, promotions or in our internal communications. We are looking to improve our female diversity with the hire of young employees through interns, department rotation and ensuring diverse slates in our hiring processes. As we strive for excellence, more initiatives will come in the coming year.

As well, in FYE2022 we launched the EQUALS Network. EQUALS's mission is to create a safe, supportive and inclusive work environment for LGBTIQ+ employees and allies of **Nippon Gases**, where we are all treated equally, building awareness and celebrating our own diversity.

Our Human Rights policy, together with our Code of Conduct, are already providing us with a good framework towards equal opportunities in recruitment, job assignment, promotion, employability and occupational development.

Working on improving equal opportunities means, for **Nippon Gases**, promoting diversity, establishing a good company reputation, elevating employee engagement, and providing a strong pool of talent. An annual training session on the Human Rights policy is in the process of being developed and will be rolled out in next fiscal year.

No relevant complaints were raised during the last 12 months within **Nippon Gases**.

# 4.1.6Talent

Digitalising HR processes has been the most relevant mission of the HR department in recent years. It is a journey that started with the implementation of the employee management system in 2019. Since then, new functionalities have been implemented and improvements have continuously been made.

In FYE 2022, we have successfully met all of our goals in regards to digitalisation, always striving to be an innovative, dynamic and employee-centric department.

#### New digitalisation tools

The last modules to have been integrated have been the recruitment and on-boarding tools. These new modules increase the efficiency and objectivity of the overall process, allowing us to better detect the best fit for our company. We are able to collaborate better with our hiring managers through a fluid and transparent system of communications. They are involved in every step of the process and can provide instant feedback. Maintaining and promoting this level of collaboration within the business is key for a successful process. Our candidates and potential future employees are engaged with the culture of the company from the very first moment. Their recruitment experience starts with the newly created career site in our website, with useful information about our company and the recruitment process. Candidates that are ultimately successful in joining our teams experience a digital on-boarding process with a site in which they access the policies and all other necessary documents and information. Of course, all digital experiences are accompanied by close communication and collaboration with the respective managers and colleagues, especially so in the first days of employment.

It is fair to say that the pandemic has not stopped in general our recruitment processes, and we have made all necessary efforts to ensure a superior on-boarding experience for our new employees, despite home/ hybrid working policies. An example of this is the launch of European on-boarding sessions in which our HR Director shares a presentation on our company's history, business, and areas of expertise.

#### Improving the employee experience

The digitalisation process started in 2019, as aforementioned. Since then, we have embraced and integrated several new programmes to accompany the new employee management system: performance management, development, talent identification, and training.

During FYE 2022, it has been extremely important to fine-tune and settle these processes to ensure we are maximising them all. We are aware that new tools and processes require some time to be fully adapted, and this has been mostly the goal for this year. Moreover, we finally see the results of having all information and processes in one single site and being able to connect all of this information.

In terms of performance management, this process has continued and has involved over 2,200 employees from all European countries in which we operate. This process is extremely relevant for the rest of the modules in the PeopleHub system, as many processes are based on performance output.

In training, we can highlight the Growing Our Leaders programme, which has also moved forward. This leadership programme is divided into three different paths:

- I. For talents in individual contributors roles
- II. For managers
- III. For executives.

The path for managers was first released in October 2019 and our goal is to train all managers of the organisation before 2025. At the end of FYE 2022, 191 managers have already undertaken this training, which in some regions has meant we have trained 100% of the management population. These training sessions have continued

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despite the pandemic, and we have fully adapted to the new situation to avoid any unnecessary pauses in these training efforts that are so significant to the organisation.

The modules for talents individual contributors roles has been designed as a programme in which participants will increase the following competencies: business insight; self-development; situational adaptability; collaboration; plans and aligns; drivers for results. It is planned that we will start to implement this training with a yearly European session, beginning FYE 2023.

In terms of development, we have finalised the new talent programmes, which were comprised of: female sponsoring; pipeline talents; and talent to watch. These talent programmes were first implemented in FYE 2021 and allow us to prepare our organisation for the future, promoting a diverse, innovative and connected team.

One of the focal points this year has been succession planning, as we are preparing the organisation for a number of programmed retirements in the coming years. PeopleHub, our employee management system, has allowed us to create a succession planning process that best fits our needs. We have developed several digital processes that allow us to identify the best fits and the required development plans and actions. These processes do not only allow us to be ready for a smooth transition, but also provide us with an overview of how ready we are for the future, so we can take immediate action. We can perfectly analyse if there are risks at a certain region, level or position to be ready to tackle them.



# Wim De Raedt

# Chief Human Resources Officer

Nippon Gases Euro-Holding S.L.U.



#### Why digitalisation keeps us one step ahead with current and future talent

#### We're talking talent and digitalisation in this segment of the report, so what does 'digitalise HR' mean for an average employee of Nippon Gases?

The most important factor for employees is that they will no longer be confronted with all information on paper. The complete Personal Development Process (PDP) process, the outcome of salary review exercises, even bonus calculations, will all be digitally-accessible at any given moment. The same can be said of the organisation of training. In the past it was a back and forth distribution of materials on paper or via mail, but now this is all directly accessible online, at any moment.

Our employees also have the ability to enter their personal CV and competency developments in PeopleHub, which can/will be used by management to find the right resources for promotions, projects, and other functions.

# And what does it mean for candidates interested in joining the company?

Well, we see this as a positive element in attracting young talent

too. The upcoming generation(s) want to manage everything from their smartphone or computer. Again, the last thing they want to be confronted with is reams and reams of paperwork. These digital systems also allow us to ensure better communication with candidates, using online tools and keeping them in the loop of the process phase.

By digitalising the recruitment process, we are not only a step ahead in attracting talent, we are also enhancing the on-boarding process for new hires and providing a seamless integration.

#### How was the engagement of employees increased, even during the heights of the pandemic and lockdowns?

I think this was achieved through a mix of initiatives, actions taken that have been leading to this unexpected positive result. First of all, **Nippon Gases** took immediate action when the pandemic arose, for those working in plants and at home alike. All kinds of additional health and safety rules were put into place, with a remarkably low number of infected people in our organisation as a result. These measures were appreciated by the whole organisation. A lot of communications were sent throughout the organisation too, ensuring our employees were aware of what was happening in the company, as well as our business status and Covid status. Communication is always fundamental during such times of trauma and uncertainty.

It is also important to highlight that the success of these measures is in part due to a long-term ethos and safety culture; our leaders have built healthy relationships of trust with their teams over many years. This foundation made it possible to successfully change the way of working overnight.

# How do you feel about hybrid working within Nippon Gases?

Nippon Gases has taken the right decision with the implementation of hybrid working in the organisation. Of course, the process still needs to be fine-tuned, but clearly it is a benefit for the employee, the employer and the environment. We already see this today in the quest for talent; hybrid working plays a critical role in attracting and maintaining talent.

#### And finally, we see many great initiative underway in terms of talent development – are you already seeing the benefits of these?

Yes, increasingly we see our development efforts bringing benefits to the company. A lot of talent is ready now to take new and more extended roles. Year after year, we are moving closer to our desired situation: promoting our talent and repopulating the organisation from the ground up with young and diverse talent.

It's great to reflect on the fact too that so many of our development initiatives are run by our own experienced employees. As a result, these are trainers or mentors that know both the company and the products inside-out, and we find that using in-house examples guarantees the highest quality of training and engagement. In the coming year(s), we will focus on young professionals with the motto of 'Developing Yourself in **Nippon Gases**'.

# 4.2 Communication

One of the learnings obtained during the pandemic was how important it was for everybody to stay connected. Home offices and social distancing, staying safe by preventing small and big meetings, both formal and informal, did not make it easy to maintain communication.

From the internal communication department, we set high expectations to keep this communication alive and worked on several new projects to create new or renewed communication channels.

#### The new WeConnect

One of these big projects has been the design, development and implementation of the new WeConnect platform. A multi-disciplinary team was created to face this challenge. The first task was gathering information about what **Nippon Gases** employees wanted to find in a new intranet, and we were lucky to count on the feedback of more than 400 people, via surveys and focus groups. Bearing all their input in mind, we were able to get a grasp on the project and began to develop a new European site, and a regional intranet for the German region.

WeConnect shows different content based on the employees' regions, language, organisation and role. It has a very user-friendly structure, allowing for easier



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navigation, and includes a powerful search engine to help employees find anything they need quickly. It also allows employees to personalise some sections of the intranet, like the most common links or apps they may use. Employees can also add their comments and likes to articles, allowing the communication teams to know which topics are the most interesting for them. In each site, employees can also send their local communication teams suggestions to continuously improve the site.

To keep communication alive with other channels, monthly leadership webinars continued and with great participation success. These sessions allow employees to know first-hand the experiences and tips from top leaders in diverse areas such as work-life balance, how to handle a team successfully, how to make the best out of your current position, and many other inspiring topics. An evolution of these webinars has been our muchloved TechTalks, where two in-house experts explain technical topics related to the gas industry in less than 15 minutes per topic, in a simple and engaging way. All of these events are followed by a Q&A session, where those employees attending are encouraged to ask speakers anything they need to keep expanding their knowledge.

All of these initiatives help our employees to stay connected, but a special focus and effort is being made for new hires who require extra support. In European sessions addressed especially for them, our CHRO shares a presentation on our company's history, business, and areas of expertise.

From the internal communication department, we have also strongly supported the business in its need to stay connected with employees. This support has been particularly relevant to the Safety Awareness campaign and the compliance week initiative. Important communication campaigns accompanied these two initiatives so that employees were perfectly aware of the trainings, events and policies related to them, ensuring we can all perform our jobs appropriately.

For the next fiscal year, we aim to continue improving and interactive screens will also be implemented in our plants to keep our employees informed of everything going on in the company. We are well aware that a large number of our workers don't have daily access to corporate devices like computers or mobile phones, and digitalised communications must reach them too. These screens will be the perfect complement to our offline communications, such as our quarterly employee magazines, and will ensure that all relevant communications reach every single employee.

#### Constantly listening to our employees

In September 2021, together with Willis Towers Watson, the Pulse Survey was launched, to ensure that we were heading in the right direction and following the plan established after the Employee Engagement Survey held in May 2020. More than 1,600 employees answered a short version of the survey and the results exceed those of the previous survey in areas including Sustainability and Diversity. This is proof that we are all working in the right direction, and a motivator to remain a highperformance company.

#### Always improving

Throughout 2022, our communications team has continued to improve the way we communicate digitally. Following the launch of our website last year, in FYE 2022 we have continued to improve and analyse its functionalities in order to offer the best possible experience to our customers. These new features include improved forms management, thanks to an automated system that allows us to handle contact and enquiry forms more quickly and efficiently. The design and usability of various components has also been improved, making it more responsive and improving the content of pages such as the talent page, making the experience of potential candidates easier.

Since the beginning of this year, thanks to the improvement of our analysis and monitoring, we have been able to observe how our website has experienced an increase in visits compared to the previous year, reaching nearly 700.000 impressions in total , with an increase of more than 15% in the second half of the fiscal year compared to the same period of the previous fiscal year.

And yet the improvement of our digital channels does not end there. Aligned with the goal of keeping our users in the spotlight, at Nippon Gases we have strengthened our social media channels and content over the past year, with the creation of a common European strategy. This new plan has allowed us to increase our activity across our social networks, offering more varied content (such as business-related content, fun facts, event announcements and participation in international day campaigns, amongst others), as well as a new style of post that seeks greater interactivity with users that are coordinated together with local actions aimed at the target geographical audience.



Following the launch of our website last year, in FYE 2022 we have continued to improve and analyse its functionalities in order to offer the best possible experience to our customers.



# César Callejo



#### Progress in security, applications and the employee experience

#### Perhaps you could tell us, in your role, about some of the digital highlights for Nippon Gases in FYE 2022?

Sure, let's start with Information Security, which is core in our Digital Transformation strategy. We increased the protection of our operations network technology, improved our security operations processes and also introduced new cyber-security solutions, like the new Security Operations Centre (SOC). These were all big steps forward in the last year.

In terms of user awareness, we have seen a really positive result and commitment from the whole organisation in phishing, which was a focus area in 2021. We will continue to extend the scope of this in the coming years, covering other security areas relevant for the organisation to improve our overall position of security.

Several initiatives in the Governance, Risk and Compliance area have also been undertaken and we started the process to achieve a future ISO

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27001 certification, an international standard for Information Security.

From an infrastructure perspective, we launched a European project to modernise our existing networks, based on new SD-Wan technology. This new technology will provide a modern and resilient framework to support future demands in capacity and bandwidth. Half of the sites have already been migrated and we expect to finish the remainder in the upcoming year, representing a full deployment in 200 locations across Europe.

#### What progress have you seen in applications and operations?

Moving into the Business Applications area, together with the progress of existing initiatives, the CRM platform implemented in two additional countries or the new Dynamic Pricing platform, several new technologies are being introduced.

In Safety and Quality, the new EHSQ (Environment, Health, Safety and Quality) platform for incident management is fully operational, with future functionalities to be added in the future, such as Audit Management. We also continue to support the European operations department in its digitalisation

#### Chief Information Officer Nippon Gases Euro-Holding S.L.U.

journey. Cylinder Tracking (WeTrack) for PAG business, new routing optimisation software (Ortec), TruckFill for bulk business, and Tableau are just some of the technologies currently underway.

In the area of finance, the new Oracle technology for Budgeting and Forecasting (PBCS) has been implemented to complement the existing Consolidation solution (FCCS), while in Procurement a new platform for Strategic Sourcing (Zycus) covering Spend Analysis and Supplier Management is currently underway too.

Applications modernization was another key area this year, and where we achieved some key milestones, including the first implementation of the SAP S/4 Hana platform or the replacement of legacy solutions by Oracle JD Edwards and Microsoft.

#### And how about employee engagement? We understand a new intranet was launched, for example...

That's right, in the Employee Engagement and Collaboration area, the new European intranet was released, with a modern design and additional features for a better employee experience. We continue to work on the Collaborative Digital Champion initiative, a joint effort with the HR department, to extend and spread the knowledge and dexterity of employees in new technologies. We're also planning to incorporate new social network functionalities in our communities (like WING or EQUALS), based on Microsoft Yammer.

# 4.3 Work-life balance

Within **Nippon Gases**, we are fully aware of all the benefits that a good work-life balance brings to our employees and the company. On the one hand, working to a better work-life balance brings the employee less stress and better mental and physical health, while the employer observes increasing engagement, more creative thinking and higher levels of success from the employees.

During the last year alone, a lot of initiatives in this regard were launched in the European **Nippon Gases** organisation.

After we launched the Hybrid Working guidelines last year, the different country operations started working

on their local policies, taking into consideration the local legislation in place. Due to renewed waves of Covid-19, we struggled with the full implementation of hybrid working processes as a result of country-specific Covid limitations. The level of interest in hybrid working of our employees remains very high and we hope that we are able to completely roll-out hybrid working in the coming months. We are more than convinced that hybrid working is a strong tool to achieve a better work-life balance.

Needless to say, in all regions, we remained compliant with the local legislation related to work-life balance initiatives.

# 4.4H&S management

In addition to the protection of the environment, the protection of the employees is also of outstanding importance for **Nippon Gases.** 

We comply with all relevant regulations, and strive to maintain and improve our performance year-on-year in the areas of occupational safety, process safety, environmental protection, quality, food safety and medical product safety. We plan to achieve significant improvements through effective management practices and economically justifiable applications of technology.

All technical, commercial and organisational processes are designed and monitored in such a way that regulations and contractual agreements can be fulfilled.

#### Together, we are 'The Gas Professionals' and we all have the same goal – 'Improving the future through gases'.

The quality of our products and services, as well as the safety and health of our employees and contractors and the protection of the environment and the continual quest to improve our energy-related services have always been, and will remain, our highest priority. This aspiration is an essential part of our culture, and is reflected in our vision, mission, guiding principles and core values.

The **Nippon Gase**s philosophy demonstrates our commitment to being a leader in safety performance in the area of industrial gases.

Our goals are zero accidents and zero injuries for our employees and contractors, maintaining the safe operation of our plants, providing safe products to our customers, and being a good neighbour within the local community.

For this reason, we devote a high priority to raising awareness and developing a better understanding within our organisation in the following ways:

- Designing and developing products that can be safely manufactured, transported, used and disposed of or recycled without posing unacceptable risks to people or the environment.
- Maintaining a safety management system in accordance with the Seveso III Directive on Major Accidents to prevent major accidents and minimise their effects on people and the environment.
- The safe operation of our production facilities.
- A continuous improvement of our safety management and corresponding reporting, with regard to our goal of the absolute prevention of accidents, injuries, personal and environmental damage through our processes, products and services.
- The safe transport of our products to end customers in compliance with all relevant regulations
- Inclusion of all contractors, including hauliers, in the comprehensive Nippon Gases H&S management system.

All employees and contractors are therefore obliged to work and act safely in a result-oriented manner to ensure absolute customer satisfaction and to comply to our six safety principles. All our efforts increase safety for our employees, products, processes and services. They are a basic requirement for every job and every workplace.

The Safety Management System is described in the European HSE Management Manual, a comprehensive set of standards which applies to 100% of our European locations.

This system integrates internal policies and governmental regulations. In general, our internal policies are stricter than governmental regulations. The main elements of the Health and Safety Management system are:

- Nippon Gases Product Safety and Quality Policy
- Nippon Gases Occupational Safety and Health/ Industrial Safety and Disaster Prevention Policy
- HSE standard manual
- Employee training based on the job functions
- Risk assessment processes for process safety, worker safety, product and transportation safety
- EHS assessments conducted by our national and international EHS assessment team
- Internal reporting and review on a monthly basis
- External reporting on safety performance through our Sustainability Report and report to various stakeholders (EIGA, for example).

Our commitment to safety is integral, so we apply this premise in all our products - development, design and distribution - as well as human and environmental control.

We enjoy close collaboration with our internal and external supply chain partners, plus active measurement of external risk factors, safety performance and compliance metrics, as well as periodic review. All the above ensure that we remain fully informed and empowered to supply our products and services in line with both our customers' and our own expectations.

We have an extensive range of health and safety measures, starting with our safety principles. From this basis, we conduct safety assessments and structured safety training whilst promoting safety at every level. For example, every meeting starts with a safety topic, and each year we undertake a Safety Excellence Journey.

To prevent accidents, proactive action is of particular importance.



COLLABORATIVE - WORK-LIFE BALANCE

It is important to systematically record near misses, analyse them and take appropriate remedial action. This then allows risks to be eliminated before they lead to an accident and an employee is injured.

To facilitate this, a new reporting tool was introduced in 2021 that allows employees to report a near miss or unsafe situation in an uncomplicated way (via a mobile device, for example).

To emphasise the importance of this approach, the theme of the 2021 Safety Excellence Journey was 'A Near-Miss Today - An Accident Tomorrow'. All employees participate in the Safety Excellence Journey. Events were held at the sites, as well as pandemic conditional event held virtually via Microsoft Teams. Each event was led by a member of management and included presentations, videos, and group discussions.

**Nippon Gases** has taken a series of measures to prevent work-related injuries and fatalities. The strong commitment to safety across the **Nippon Gases** organisation throughout Europe is manifested in the six safety principles.

A more specific example is the extensive internal HSE regulations, compliance with which is regularly checked via HSE assessments.

If potential for improvement is found, either special measures and safety campaigns are launched, or the internal HSE standards are revised.

Our internal European HSE assessment programme was strongly influenced by the Covid-19 pandemic. This proven and well-established assessment system, in which the assessment teams were composed of experts from the different countries, could not be continued in the traditional way with face to face assessments onsite due to Covid-19 restrictions.

Instead, using various new technologies, the assessments were carried out either fully remotely or as a hybrid assessment (the lead assessors is onsite, while the other assessors join remotely).

In total, the European assessment organisation audited 14 plants over the past year to check compliance with internal standards. The senior management of the respective countries and the European Business Team received the results of these assessments, which did not throw up any significant safety issues.

#### HSE assessments

	FYE2019	FYE2020	FYE2021	FYE2022
HSE assessments	13	15	9	14

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Extensive safety training, job safety analysis, risk assessments or Europe-wide minimum requirements for PPE are further measures that help prevent accidents.

Any recordable accident or illness that results in one or more day(s) away from work as a result of a work-related accident or exposure is recorded as Lost Time Injury (LTI). Any work-related injury which requires a medical treatment is recorded as medical treatment case (MTC). Both are KPI's within HSE.

In addition, our policy states that all incidents and nearmisses must be reported and investigated. They are reviewed at a European level, on a monthly basis.

Serious incidents are discussed monthly at the business review meeting and are also reviewed in detail at a meeting with the European President.

In addition, Health and Safety and Environmental KPI's and metrics linked to the annual Personnel Development Plan (PDP) and salary reviews are set at all functional levels.

Work injury-related absenteeism is managed by both line management and human resources, reported to senior management on a monthly basis, and broken into trends to show areas of opportunity. Every case is investigated in detail according to internal standards.

#### Fatalities

A Fatality (FAT) is defined as a death that occurs while a person is at work or performing work-related tasks.

FYE 2019		
Woman	Man	Total
0	0	0
FYE 2020		
Woman	Man	Total
0	0	0
FYE 2021		
Woman	Man	Total
0	0	0
FYE 2022		
Woman	Man	Total
0	0	0

There were zero work-related fatalities for more than 10 years, neither for employees nor for contractors (including drivers).



#### Lost time injuries

A Lost Time Injury (LTI) is defined as any recordable accident or illness that results in one or more day(s) away from work as a result of a work-related accident or exposure.

FYE 2019		
Woman	Man	Total
0	2	2
FYE 2020		
Woman	Man	Total
0	5	5
FYE 2021		
Woman	Man	Total
0	4	4
FYE 2022		
Woman	Man	Total
1	2	3

The number of LTIs was again reduced. All three incidents are related to mechanical work.

#### LTI frequency rate

The frequency rate is not calculated by gender at **Nippon Gases** before FYE2021. This very low numbers confirms our commitment to safety.

FYE 2019		
Woman	Man	Total
NA	NA	0.71
FYE 2020		
Woman	Man	Total
NA	NA	1.03
FYE 2021		
Woman	Man	Total
0	0.98	0.72
FYE 2022		
Woman	Man	Total
0.64	0.48	0.52

NIPPON GASES

#### LTI severity rate

The LTI severity rate is defined as the number of lost workdays per 1,000,000 working hours.

FYE 2020		
Woman	Man	Total
0	42.75	31.07
FYE 2021		
Woman	Man	Total
0	31.09	22.72
FYE 2022		
Woman	Man	Total
4.48	14.91	12.06

The severity rate of the incidents was again reduced by almost 50%.

#### Number of MTC's by gender

#### Number of Recordable Injuries (RI's) by gender

The Recordable Injury (RI) is defined as the summary of FAT+ LTI+MTC (a Medical Treatment Case is defined as any work-related injury which requiring more than first aid and does not result in an LTI).

FYE 2019		
Woman	Man	Total
0	3	3
FYE 2020		
Woman	Man	Total
0	8	8
FYE 2021		
Woman	Man	Total
0	8	8
FYE 2022		
Woman	Man	Total
1	4	5

#### Fleet safety

Although the transportation of our liquid products and the vast majority of the transport of gas cylinders and dry ice throughout Europe is handled by contracted hauliers, fleet safety is an important issue for **Nippon Gases**. This is shown on the one hand by the fact that a separate chapter in the HSE management is dedicated to this topic, and also by special measures that have been implemented.

In addition, every High Severity Product Vehicle Accident (HSPVA) is investigated and reviewed by **Nippon Gases** and the haulier concerned. High Severity classification is due when the vehicle has to be tow-away or personnel injury has occurred An extensive training programme, to which the carriers are contractually obliged, is implemented. All bulk product vehicles are also equipped with a Safety On-Board Computer (OBC). This OBC monitors the driver's behaviour. The results are sent directly to the haulier, who then evaluates and initiates any appropriate measures. The number of serious traffic accidents involving product transport vehicles has been massively reduced through continuous work in this programme.

#### Number of High Severity Product Vehicle

In regard to the accidents, the preventable HSPVA - High Severity Product Vehicle Accidents, has increased significantly.

Although the ratio (preventable HSPVA per 1 million km) is at a low level, a special safety programme incorporated with the regional distribution teams, the hauliers and the driver was launched to reduce the HSPVA in the future.

Gravedad alta Vehículos de producto incidentes evitables				
	FYE2019	FYE2020	FYE2021	FYE2022
Número de incidentes	7	1	2	7
Tasa de incidentes evitables en vehículos de alta gravedad por millón de km recorridos				
	FYE2019	FYE2020	FYE2021	FYE2022
Valora			0.03	0.08
Tasa de incidentes evitables en vehículos por millón de kilómetros recorridos				
	FYE2019	FYE2020	FYE2021	FYE2022
Valora	0.32	0.12	0.08	0.16

#### Number of Contractor-LTI

# Contractor safety is as important as employee safety for Nippon Gases.

In FYE 2022, contractor-LTIs, which are mainly related to drivers, remains at the same level as the year prior and is mainly related to slip-trip and fall incidents.

Number of accidents of subcontractors (Lost Time Injury)				
	FYE2019	FYE2020	FYE2021	FYE2022
Unit	12	5	10	9



# 4.5 Community commitment

Unfortunately, FYE 2022 again proved to be a year beset by Covid-19, once more having an impact on our community engagement activities across all our regions. The number of activities increased again despite this setback, but were understandably still below the levels seen in years prior to Covid. Whilst the main projects **Nippon Gases** were engaged in were related to supporting hospitals in their hard fight against the pandemic, spontaneous initiatives were

also set up to support communities that were hit by the terrible summer storms, underscoring the company's commitment to the community.

With the Covid-19 pandemic hopefully under control, many more initiatives are expected to get underway in the year ahead. Colleagues are eager to gather once again to support all kinds of initiatives in their local communities.

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# **4.6 Success Stories**

At **Nippon Gases** we believe that innovative, responsible and sustainable

# **The Earth**

**Customers** 





**NIPPON GASES** 

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# People



# 4.6.1 The Earth

### Low-emission mobility initiatives



Several country operations within **Nippon Gases** Europe launched initiatives to reduce greenhouse gas (GHG) emissions in FYE 2022.

The BNF (Benelux, Netherlands and France) team piloted a CNG (compressed natural gas)-powered fleet which reduces transport emissions while in Germany, investments in alternative fuel technologies using both CNG and LNG (liquefied natural gas) have existed since 2019 - and continued in FYE 2022. There are currently 25 such vehicles in the Germany operation, used in the areas of BAG and PAG. By the end of 2022, this low-emission fleet will account for around 20% of the total fleet.

The combination of CNG and LNG fuels reduces nitrogen oxide emissions per vehicle by up to 85% and  $\rm CO_2$  emissions by up to 15%.

Great examples of low-emission mobility are also seen in Sweden, where in 2021 **Nippon Gases** Sverige managed to reduce its  $CO_2$  emissions by almost 400 tonnes CO2eq in its PAG distribution. To do so, the company reduced its emissions by using fossil-free synthetic fuel as a replacement for conventional diesel. HVO is a wellestablished synthetic green fuel, the use of which can reduce emissions by 90%.

**Nippon Gases** Sverige is, together with its partner the partner, the M4 Transport Group, committed to reducing carbon dioxide emissions in PAG distribution and continues to explore new pathways.

# Recognising reforestation

Iberia

Europe

The very first **Nippon Gases** forest was created in the town of Miraflores de la Sierra, in Madrid on 13th November, with employees participating in the activity and as many as 750 trees planted, of several species native to the area.

Not only did this manage to offset the emission of 97 tonnes of  $CO_{2'}$  but a wealth of additional benefits were also achieved, such as the restoration of degraded spaces in abandoned areas, the creation and increase of biodiversity, the provision of shelter and food for wildlife and, finally, the prevention of soil erosion.

**Nippon Gases** recognises that forests play an important role in our efforts to combat climate change. The company is committed to guaranteeing the development of this new forest during the years ahead, and re-planting any trees that may have dried up or not evolved adequately.



#### Case study: Circular economy

**Nippon Gases** has signed a business cooperation agreement with Confecciones Oroel, a supplier of flameresistant clothing.

The main objective of the agreement is the research and development (R&D) of new personal protective clothing, focusing on an eco-design and the recovery of used textiles, therefore embracing a circular economy model.

Confecciones Oroel will leave several containers at our plants, where employees will have the ability to return personal protective clothing at the end of its useful life or when new sets of the same are delivered. Confecciones Oroel will collect the garments and transport them to the research plant.

Through this recycling of old, used protective clothing that would otherwise have been rendered textile waste, Confecciones Oroel establishes a circular economy model and an example to take forward in the future. Such textiles are seen as an important volume of postconsumer waste to abate.

#### Nippon Gases Germany goes green

Germany

For more than 10 years, **Nippon Gases** Deutschland has been aligning its operational activities with sustainability in mind, as reflected in the recently renewed ISO 14001 (environmental management) and ISO 50001 (energy management system) certifications.

The company is actively taking this one step further, however. At the start of FYE 2022, it took the decisive step to further increase its renewable energy share, with 'green electricity' derived from six solar parks in southern Germany with a total installed capacity of around 60 MW. At these locations, full utilisation hours of up to 1,100 hours per year are expected. Each megawatt hour generated from these plants receives the Guarantee of Origin certificate, and these renewable sources of energy save up to 40,000 tonnes of CO<sub>2</sub> from this year onwards.

With its decision, the German subsidiary is actively supporting the ongoing expansion of the domestic renewable energy infrastructure.

#### lberia



## Partnering in low-GWP refrigerants

Angelantoni Test Technologies Group, a world-leader in the manufacture of simulated environmental test chambers, has selected **Nippon Gases** as its partner in the development of the new ecological refrigerant gases R472A and R472B.

The new refrigerant blends offer an extremely low Global Warming Potential (GWP), thereby minimising the fluorinated greenhouse gas (GHG) emissions in accordance with the objectives of the EU F-Gas regulation.

R472A has the lowest GWP value ever (353), 98% lower than other gases used for ULT (Ultra Low Temperature) applications such as R23, while R472B is ideal for most environmental test standards used by worldwide testing laboratories, and has only 526 GWP – around 96% lower than R23.

The production of these two gases has been committed exclusively to **Nippon Gases** and is made in the company's Chivasso laboratory, another example of its determined efforts in decarbonisation.

# 4.6.2 Customers

# Adding a shine to zinc recycling

Nippon Gases BNF (Benelux, Netherlands and France) has assisted a major zinc recycling company in the region to reduce it emissions.

The company was keen to understand the CO<sub>2</sub> footprint of each of its products and put in place an IT system which automatically monitors the Life-Cycle-Analyses (LCA) of its complete chain of production.

In just two years, Nippon Gases BNF converted all of the customer's air/natural gas burners to oxygen/natural gas burners, reducing the CO<sub>2</sub> emissions of the zinc melting process by up to 40% and providing a major contribution to the eventual LCA outcome.

## New ASU brings gases closer in north Norway

As part of Nippon Gases' commitment to supplying local product and reducing emissions where possible, a new ASU began operations in Malm, Norway on March 12th 2021.

In addition to providing gases for new customers in the area, the ASU assists the fish farming industry in the country's north region, where colder fishing waters exist, to reduce its carbon footprint with more locally-sourced gases. In 2021, a 16% emissions reduction was achieved for such transport, resulting in a reduction of 290 tonnes of CO2eq.



# Waste water treatment plant (WWTP)

Nippon Gases Iberia continued to help its customers improve the discharge parameters of their wastewater in FYE 2022, reducing the emission of VOCs (volatile organic compounds) and minimising the noise derived from the necessary blower equipment.

Such efforts also reduce the energy consumption of the wastewater treatment plant by more than 30%, replacing the injection of air through blowers with pure oxygen. This lower energy consumption has a direct impact on the reduction of  $CO_2$  emissions.

Further still, the replacement of mineral acids with CO<sub>2</sub> (recovered by Nippon Gases) allows for the reduction of scaling, re-mineralising and neutralising, while being environmentally-friendly.

All of these practices help to improve the ecosystem by oxidising hundreds of tonnes of pollution present in

wastewater in the form of BOD on a daily basis, and by eliminating the introduction of chlorine and sulphates into the environment.



# 4.6.3 People

# Standing together in time of need: A flood-affected fundraiser for colleagues and community

Unusually heavy rainfall led to a flood disaster in parts of western Germany in mid-July 2021. The Ahr Valley and the Rhine Erft district, where the largest production sites of Nippon Gases Deutschland are located, were particularly flooded.

As a result, 10 employees of the company were affected and had their houses overcome with flood water. To support their colleagues, employees donated materials they needed for the first days of the disaster, as well as making a special fundraising effort by donating either their overtime or vacations days - adding up to 76

# Ukraine war: Red Cross fundraising campaign

Since 24th February (2022), the conflict with the Russian Federation in Ukraine has seen hundreds of thousands of people forced to leave their homes, their way of life and in many instances, their loved ones.

Throughout the country, especially in the East, infrastructure has been damaged or destroyed and the population faces disruption in its access to healthcare, food, water, heating, electricity and protection. According to the United Nations Refugee Agency,

## Sponsoring a special swimming school

Nippon Gases BNF (Benelux, Netherlands and France) continued its support for the local community in the past year with its sponsorship of ZGEEL, a swimming school of 500 members in Geel (Belgium), of which 120 are G-athletes (with either a physical or mental disability).

The school has been active over 30 years for G-athletes and is supported by VZF, the Flemish swimming league, and Parantee, the Flemish league for disabled sports. Not only does it offer swimming lessons, it also organises competitions for its members.

The Special Olympics has granted the Play Unified quality badge to ZGEEL, based on its efforts to invest in offering quality sports adapted to persons with intellectual disabilities and to promote integrative training sessions for persons with and without intellectual disabilities.

working days, of which a part was converted into money for the donation, in addition to the €6,715 collected. Nippon Gases Deutschland also donated €10,000.

This solidarity also benefited two social institutions in the region: the Heinz Kühn Senior Citizen's Centre, which offers day care for seniors in need of assistance, and SSV RW Ahrem, a sports club from the region. Both saw their facilities flooded in the disaster and the latter needed to have the locker room, equipment rooms and equipment for the children fully renewed.

an estimated 12 million people are in need of urgent humanitarian assistance.

Nippon Gases is collaborating with the Red Cross with a fundraising campaign to alleviate the extreme emergency situation that thousands of people are experiencing. The target of the campaign was achieved, 184 employees have participated with a total donation of €10,040, and **Nippon Gases** as a company has doubled the amount donated by its employees.





# Beyond oxygen: Supporting healthcare professionals

Iberia

Since the beginning of the coronavirus pandemic, **Nippon Gases** Healthcare and OXIMESA have made different donations to increase the diagnostic capacity of primary care centres and several hospitals.

One of the most important initiatives was carried out in the city of Gijón, where 1,000 portable pulse oximeters were delivered to an hospital in Gijón, Asturias, and primary healthcare professionals in the same area.

Another example involved the safety of essential professionals during the most difficult moments of the pandemic, with 1,500 Covid-19 antigen tests delivered to hospitals in Cabra, Córdoba and Úbeda, Jaén.

These acts were naturally appreciated by all those responsible, particularly given that they came during times of considerable strain and shortage of materials in the pandemic, preventing these essential professionals from carrying out their work with total confidence.



#### Spreading Christmas cheer in the community





Before Christmas, some **Nippon Gases** employees organised a solidarity initiative to demonstrate their closeness to the children of a family home in Ferentino, Italy, called II Girotondo. They did so by giving children the joy of finding a gift under the Christmas tree.

There are currently eight children under the care of the home on a stable basis, but the setting is also attended by children with mild disabilities.

Children who had written their letters to Santa Claus were able to see their wishes come true thanks to the **Nippon Gases** employees who participated, either by choosing a letter and purchasing the desired gift or with a cash contribution.

The wishes expressed by the children ranged from toys to small objects like the strings of a guitar, through to singing together or the desire to return to their mothers as soon as possible. The fulfilment of the smaller wishes aimed to show the children that 'they are not alone' and that their future is still to be drawn – they just have to want it! Each gift was accompanied by a message from Santa Claus who, of course, always sees and knows everything!



# Aspiring to help: Nippon Gases UK employees raise funds in sponsored swim challenge



## Portugal: "Your needs, our commitment" underlined

**Nippon Gases** Healthcare Portugal strengthened its important role in social responsibility and community engagement with Portuguese Hospitals all over the country during the ongoing Covid-19 pandemic.

Since the beginning of 2021, the company has supported 15 hospitals across the country through the donation of highly relevant medical materials, to face the massive influx of patients infected with Covid-19.

Around 250 medical supplies such as oximeters and stethoscopes were donated, while webcams that helped in the remote medical assistance provided during various lockdowns were also donated by the company.

As a result, the company really can proudly say that its products, services and actions were an important contribution in the fight the pandemic and upheld its mantra of "Your needs, our commitment." Autumn 2021 saw Gill Newcombe and Mandy Cook from **Nippon Gases** UK take part in the Aspire Swim Challenge, an initiative to swim 22 miles – the equivalent of the English Channel – for a national charity.

Aspire provides practical help to people who have been paralysed. Providing essential equipment, advice and housing to people with spinal cord injuries allows them to live their lives independently.

The swim took place over a three-month period using a combination of local pools and open water swimming; to put the distance into context, one mile is equivalent to 64 lengths of a standard pool.

When Mandy was asked why she had taken up the challenge, she explained that the main driving force was her friend Alice Fairbank, a very talented footballer and fitness fanatic who was left paralysed after a road traffic accident. She went on to say that it was a challenge to juggle work and other commitments, but that the generosity of everyone, including complete strangers, restored her faith in humanity.

Through sponsorship and donation, Gill and Mandy have raised over  $\pm 2,000$  for the cause.

lberia



# 4.7 Awards



#### EIGA Awards 2021

Association (EIGA), Nippon Gases received four top awards for its outstanding

EIGA Cat1 Safety Award 2021: Awarded to **Nippon Gases** Euroholding (all Europe)

EIGA Environmental Award 2021 Awarded to **Nippon Gases**-CO<sub>2</sub> Recovery (Netherlands)

EIGA Safety Innovation Award 2021: Contractor safety Awarded to Nippon Gases: Nippon Gases: Remote Safety Observation

EIGA Peter Jackson Award 2021: best improving organisation Awarded to Nippon Gases Norge

#### Safety performance recognised with LTI awards

Europe

Nippon Gases is rightly proud of its exceptionally good safety performance,

This was also recognised by EIGA during its 2021 awards, with 6 Nippon Gases

In fact, Nippon Gases España (Spain) was awarded with the 'Gold Four-Star

Overall, Nippon Gases has 14 sites without an LTI for more than 20 years, nine

# Recognition beyond industry

## Viralgen



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VIRALGEN

**ARETXABALETA** Lanbide Eskola

Goierri Eskola

#### Iberia

have recognised **Nippon Gases'** outstanding support while performing

# Aretxabaleta lanbide Eskola



## Healthcare services, recognised by St. Joseph de Bébéjia Hospital, Chad

Iberia

#### Healthcare services, recognised **Italy** by The Italy Japan Foundation

Nippon Gases Italia received thanks and recognition from the Italy Japan

Nippon Gases Italia provided support and expertise to hospitals, which were and equipment delivered by Nippon Gases Italia helped hospitals to meet the

SAFETY ternational afety Awards

International Safety Award, from the British Safety Council



Nippon Gases UK Limited, Immingham site and Offshore (Aberdeen) site,

# GOLD 2021 ecovadis Sustainability Rating

etr

ASSOGASTECNICI

# Gold Medal for Corporate Social Responsibility, from Ecovadis

The recognition of **Nippon Gases'** performance is the result of the company's change, employee health and safety - Nippon Gases' number 1 priority -, inclusion

# Entidad familiarmente Masfamilia

entidad familiarmente responsible (efr) certification was awarded to Nippon

# Safety performance, recognised by ASSOGASTECNICI

**Nippon Gases** Italy has been awarded with two of the most prestigious safety



The gold status reached by **Nippon Gases** places the company in the top 5% of

# responsible, from Fundación

Iberia

Italy

Europe

# Appendix



NIPPON GASES

# SUSTAINABILITY REPORT 2022

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# 5.1 Community initiatives

Country	Organization & Project Description	Category (Education, Diversity, Community Support (includes Disaster Relief), Health & Wellness, Environment)
Spain & Portugal	AECC (SPANISH ASSOCIATION AGAINST CANCER): Creating a health campaign, to promote the awareness, early detection, treatment, palliative care of those which are suffering brest cancer.	Community Support
Spain & Portugal	ECOHERENCIA: Worshop on line. Learn about renewable and clean energies. H2 master class. What is Nippon Gases doing?	Education
Spain & Portugal	ECOHERENCIA: Worshop on line. Learn about biodiversity, and why reforestation offsets $\rm CO_2emissions$	Education
Spain	BOSQUIA: Planting of 750 new and diverse trees in a degraded area in Miraflores (Madrid)	Environment
Spain	FUNDACIÓN ADDECCO, PLAN FAMILIA Nippon + Oximesa: We collaborate providing physio therapies, pedagogical and phsicological assitance to seven company children with profund dissabilities	Community Support
Spain & Portugal	FUNDACIÓN ADECCO: Disability week 2021.Awareness Campaign	Community Support
Spain	RAI (ROYAL ACADEMY OF ENGINEERING): Development job-seeking skills for five recent female graduates	Diversity
Spain	FUNDACIÓN JUNIOR ACHIEVEMENT ESPAÑA - CAMPAIGN 20-21: On-line talks for schools. Kids 12-16. STEM + Diversity	Education/Diversity
Spain	ASOCIACIÓN ALES: Collaboration with the association ALES, Proyecto Amigo, excursion to the natural world: Association for the fight against childhood cancer.	Community Support
Spain	FUNDACIÓN CONTRA LA HIPERTENSIÓN PULMONAR: Sponsorship of the XIII Anniversary of the FCHP and IV Training and Informative Conference for patients and families with pulmonary hypertension.	Community Support
Spain	FUNDACIÓN CONTRA LA HIPERTENSIÓN PULMONAR: Sponsorship Webinar "Asking my doubts to nursing". Collaboration with the visibility of the Nurses in the care of the respiratory patient with Pulmonary Hypertension and other associated respiratory pathologies.	Community Support
Spain	FUNDACIÓN EL COMPROMISO: Donation of 2 concentrators and 4 nasal cannulas, extension cords and 2 humidifiers. Assets, which belonged to Nippon Gases, were retired from the company assets.	Community Support
Spain	ASOCIACIÓN NACIONAL DE HIPERTENSIÓN PULMONAR: Collaboration World Pulmonary Hypertension Day 2021	Community Support
Spain	FIBAO (INSTITUTO DE INVESTIGACIÓN BIOSANITARIA DE ANDALUCÍA): Sponsorship of World EPOC Day 2021 - November	Community Support
Spain	FIBAO (INSTITUTO DE INVESTIGACIÓN BIOSANITARIA DE ANDALUCÍA): Sponsorship of World Asthma Day 2021 - May	Community Support
Spain	ASOCIACIÓN AVOI: Sponsorship of World Childhood Cancer Day. Collaboration with the Children's Oncology Volunteers Association.	Community Support
Spain	HOSPITAL GREGORIO MARAÑÓN: In order to increase protection, pots were given as a gift to those hospital employees who accepted to take the flu vaccination.	Community Support/Environment
Spain	TORNEO GOLF SOLIDARIO: Collaboration in a charity golf tournament promoted by the Albacete air base.	Community Support
Spain	HOSPITAL ISABEL ZENDAL: Collaboration in Christmas decorations for the hospital center	Community Support
Spain	HOSPITAL UNIVERSITARIO JAÉN (MATERNO-INFANTIL): Christmas gifts for children admitted to the Hospital	Community Support
Spain	HOSPITAL UNIVERSITARIO VIRGEN DE LAS NIEVES (MATERNO-INFANTIL): Christmas gifts for children admitted to the Hospital	Community Support
Portugal	HOSPITAL DE CASCAIS: Material delivery to Hospitals to be used in context of Covid -19 pandemy: 10 oximeters	Community Support

Portugal	HOSPITAL DE SANTA MARÍA: Material delivery to Hospitals to be used in context of Covid -19 pandemy: 18 stethoscopes	Community Support
Portugal	HOSPITAL DE SANTA MARÍA: Material delivery to Hospital to be used in context of Covid-19 pandemy for teleconsultation: 10 webcams	Community Support
Portugal	LIGA DOS AMIGOS DO CENTRO HOSPITALAR DE GAIA / CHVNG: Donation for acquisition of equipment to equip the Home Hospitalization Unit of the CHVNG	Community Support
Portugal	HOSPITAL DE VILA FRANCA DE XIRA: Material delivery to Hospitals to be used in context of Covid -19 pandemy: 15 oximeters	Community Support
Portugal	CENTRO HOSPITALAR UNIVERSITÁRIO DE COIMBRA: Material delivery to Hospitals to be used in context of Covid -19 pandemy: 5 stethoscopes	Community Support
Portugal	CENTRO HOSPITALAR UNIVERSITÁRIO DE COIMBRA: Material delivery to Hospitals to be used in context of Covid -19 pandemy: 15 oximeters	Community Support
Portugal	CENTRO HOSPITALAR DE VILA NOVA DE GAIA: Material delivery to Hospitals to be used in context of Covid -19 pandemy: 40 oximeters	Community Support
Portugal	CENTRO HOSPITALAR DE ALGARVE: Material delivery to Hospitals to be used in context of Covid -19 pandemy: 30 oximeters	Community Support
Portugal	CENTRO HOSPITALAR UNIVERSITÁRIO DE COIMBRA / HOSPITAL FIGUEROA DA FOZ: Material delivery to Hospitals to be used in context of Covid -19 pandemy: 20 oximeters	Community Support
Portugal	CENTRO HOSPITAL AR COVA DA BEIRA / HOSPITAL DE SANTARÉM: Material delivery to Hospitals to be used in context of Covid -19 pandemy: 20 oximeters	Community Support
Portugal	CENTRO HOSPITALAR UNIVERSITÁRIO LISBOA NORTE: Material delivery to Hospitals to be used in context of Covid -19 pandemy: 10 oximeters	Community Support
Portugal	HOSPITAL DE BRAGA: Material delivery to Hospitals to be used in context of Covid -19 pandemy: 4 oximeters	Community Support
Portugal	HOSPITAL DE SÃO JOÃO / HOSPITAL DE VILA REAL: Material delivery to Hospitals to be used in context of Covid -19 pandemy: 30 oximeters	Community Support
Portugal	UNIDADE DE SAÚDE LOCAL DO ALTO MINHO: Material delivery to Hospitals to be used in context of Covid -19 pandemy: 10 oximeters	Community Support
Belgium & Netherlands & France	DE ROZE MARS: Pink Ribbon, with The Pink March, is calling on everyone to take at least 10,000 steps every day - for a month. Nippon Gases BNF registered 150 employees: daily steps were loaded in an online platform. Money is donated to research and prevention of breast cancer.	Health and Wellness
Belgium	DE TROON: European football championship ; Gues the result of the matches. Revenue of action is donated to De Troon	Diversity
Belgium	YOUCA ACTION DAY: YOUCA is an organisation for and by young people that encourages them to work together towards a sustainable and just society. They do this by making them aware of important social challenges and by supporting them in their engagement. They also provide unique encounters with impact on cultural, business and public life. Nippon Gases engaged for a youngster to experience a day at work within their education field. The money collected goes to projects in Brazil and the Philippines. [] They will receive a boost in their projects to fight for equal opportunities for young people.	Education
Belgium & Netherlands	"WORLD WILDLIFE FUND 3FM SERIOUS REQUEST: Online quiz of 1,5 hours over lunch time to support WWF Nippon Gases added 5€ per employee subscription "	Environment
Scotland	MACMILLAN COFFEE MORNING:Staff baked or bought cakes -profit for selling was donated to McMillan organization	Health & Wellness
Scotland	GREAT BRITISH BEACH CLEAN: supporting MCS's Great British Beach Clean with a 2 hour clean up of Aberdeen Beach	Community Support
Scotland	STEP COUNT CHALLENGE: Staff were split into teams of 5, competing against one another to accumulate the most steps over a 4 week period. The winning team chose a charity to make a 1199 Euro donation to. The chosen charity was AberNecessities who support local disadvantaged families.	Community Support
Scotland	CHRISTMAS FRUIT & VEGETABLE HAMPERS: Staff purchased fruit and vegetable hampers, proceedings went to the charity CFINE	Community Support
Scotland	ABERNECESSITIES: Xmas Jumper Day - staff made a donation of toys and clothing	Community Support
Scotland	ABERNECESSITIES: Employees donated toys and gifts to a campaign - No Child Should Go Without, Believe In Magic, and also made donations to an appeal for cosy clothing for children.	Community Support

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Norway	RJUKAN MOUNTAIN BUS: The Rjukan mountain bus runs up and down to the ski destination from the centre of Rjukan. The lever is that all children should have the opportunity to go skiing even if they do not have a car.	Community Support
Norway	SPONSORSHIP TO LOCAL FITNESS CENTRE: Sponsorship to local fitness centre (volunteer trainers etc)	Health & Wellness
Norway	NORWEGIAN CHAMPIONSHIP FOR DISABLED YOUTH: Norwegian Championships for Youth and Disabled Youth	Community Support
Norway	CARITAS VENEZUELA: Caritas directs his actions towards the most needy, promotes justice and condemns to society the causes that generate poverty. Caritas Venezuela maintains active alliances with various national and international organizations, including: UNHCR, UNICEF, IOM, European Commission Humanitarian Aid, Radio	Community Support
JK	CATENACCIO FC JUNIOR FOOTBALL TEAM: Donation for football equipment for under 9 years team	Community Support (includes Disaster Relief)
JK	GUISBOROUGH UNDER 14'S RUGBY TEAM: Donation for rugby equipment for under 9 years team.	Community Support (includes Disaster Relief)
UK	HEMEL ACES - JAGUAR UNDER 9'S FOOTBALL TEAM: Donation for football equipment for under 9 years team.	Community Support (includes Disaster Relief)
UK	SHELTER: Bag packs containing warm clothing, bedding etc provided to local homeless charity	Community Support (includes Disaster Relief)
UK	WOMENS REFUGE: Daily challenge to complete 100 squats per day for the month of November 2021 in support of Refuge - the UK's largest provider of specialist accommodation and support to women and children escaping domestic violence	Health & Wellness
UK	ASPIRE - TO SWIM ENGLISH CHANNEL: 22 mile swim in local swimming pool which is the equivalent of the English Channel in support of Aspire a Spinal Chord Injury Charity	Community Support (includes Disaster Relief)
UK & Offshore	MACMILLAN CANCER SUPPORT: Cakes made and shared virtually together with quiz about cakes and baking. Gathered funding was given to organization .	Community Support (includes Disaster Relief)
Sweden	CANCERFONDEN (THE CANCER FOUNDATION): research to prevent and detect cancer	Health & Wellness
Denmark	DANSKE HOSPITALSKLOVNE (DANISH HOSPITAL CLOWNS): Support for hospitalized children and their families, to increase life courage and happiness when life hurts.	Health & Wellness
Denmark	KRÆFTENS BEKÆMPELSE (DANISH CANCER SOCIETY): The mission of the organisation is to increase cancer survival rates, reduce number of cancer cases and improve life with cancer. They do it through Research, prevention and patient support.https://danskehospitalsklovne.dk/om-danske- hospitalsklovne	Health & Wellness
Denmark	BØRNECANCERFONDEN (CHILDREN WITH CANCER): Health & Wellness - The purpose of the organisation is to help Children with cancer in Denmark. They focus on 3 important areas: support for the family, research and information.	Health & Wellness
Germany	DEUTSCHLANDSTIPENDIUM: The Deutschlandstipendium is a German Scholarship sponsored by the country and private or business parties. We started to fund one student so that she/he can concentrate on the studies.	Education
Germany	"NIPPON GASES DONATED FOR EMPLOYEES whohave been victims of flood / high tide around AHRWEILER: support to employees who lost many things/ everything during the flood. It helped them in the beginning to get the most neccessary support. It was also used for employees who helped other people living in their area during these time. "	Community Support
Germany	"1. SSV RW AHREM (SPORTS CLUB): The sports club had to deal with a completely flooded sports facility and now needs new locker rooms, equipment rooms, and equipment for the children's youth area."	Community Support
Germany	"HEINZ-KÜHN-SENIORENZENTRUM IN ERFSTADT-LECHENICH (ELDERLY HOME): The facility offers, among other things, day care for seniors with care needs. Donation was give to buy new equipment and amusement games for the habitants."	Community Support
Scotland	BLOOD DONATION: Raising awareness to staff on the importance of blood donation, allowing employees to donate blood during working hours.	Community Support
	foodbank	

Norway	AUST-BYGDA - OPENING OF THE CHRISTMAS /SINGING FOR ELDER: Village outside Rjukan organizes Christmas events in connection with Christmas. The children sing in different nursing homes and finally there is a small gathering for the children who have participated.	Community Support
Norway	"PROJECT - SHOOL KIDS (14 YEAR OLD) ARE SWIMMING FOR RAISING MONEY TO LEGER UTEN GRENSER (MÉDECINS SANS FRONTIÈRES, MSF)": Forgotten crisis - Kala-Azar is the second biggest parasitic killer in the world. Along with Chagas disease and sleeping sickness, kala-azar is one of the most lethal and neglected tropical diseases (NTDs).	Community Support
Norway	CLUB FOR KIDS/YOUTHS (TRAVELING AROUND) - TINN MUNICIPALITY - DISTRICTS NEAR RJUKAN : Supports a travelling club for children and youth in Tinn Municipality so that as many children as possible get a leisure offer.	Community Support
Italy	DYNAMO CAMP: Medical devices challenge in order to collect donations through the participation in sports initiatives	Health & Wellness
Italy	ASSOCIAZIONE DIABETE INFANTILE GIOVANILE LAZIO: Christmas card contribution for health research on a genetic disease	Health & Wellness
Italy	CASA FAMIGLIA FERENTINO: Funds collection to buy Christmas presents for children in a community home	Community Support

# 5.2 Membership list of associations

We are convinced that our business benefits from the active participation in organizations that represent our industry. During FYE2022 we were active in many associations and organizations, including:

Europe	EIGA: European Industrial Gases Association
Spain & Portugal	FEIQUE: The Spanish Federation of the Chemical Ind AEGE: Spanish Energy-Intensive Industry Group AFGIM: Association of Spanish Medical Gas Manufact CEJE: Association of Japanese companies in Spain AmCham Spain: American Chamber of Commerce in GASNAM: Asociación Española del hidrógeno AEBIG: Asociación Española de biogás AEC: Asociación española para la calidad CFAA: Centro de Fabricación Avanzada Aeronáutica AEDTFAA :Agrupación Empresarial para el Desarrollo CESOL: Asociación Española de Soldadura y Tecnolo BEQUINOR: Asociación Nacional de Normalizacion d APCSD: Asociação Portuguesa de Cuidados de Saúo APQuímica: Associação Portuguesa da Química, Petr
Italy	FEDERCHIMICA: Italian Association of Chemical Indu AGT: Italian Association of Industrial and Medical Gas UNIONE INDUSTRIALE: Association of Italian Manufa IJBG: Italian . Japan Business Group
Germany	IGV: Industrial Gas Association e.v. VCI: Association of Chemical Industry DVS: German Welding Association VIK: Association of Industrial Energy Consumers HyCologne: Association in Rheinland to promote the JIHK: The Japanese Chamber of Industry and Comm
Belgium	Essenscia: Federation of the chemical and life scient Waterstofnet VZW: Hydrogen Association of Belgium FEBELIEC: Federation of Belgian Industrial Energy C BJA: Belgium-Japan Association & Chamber of Com AmCham Belgium: American Chamber of Commerce Bemas (Non-profit organization in the field of mainte
	Spain & Portugal Italy Germany

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Netherlands	VFIG: Association of Manufacturers of Industrial Gases of Netherlands DUJAT: Dutch – Japanese Trade Federation Netherlands JCC (Japanese Chamber of Commerce in the Netherlands)
France	AFGC: Association Française de Gaz Comprimes France AFF (Association Françoise du Froid)
UK	BCGA: British Compressed Gases Organization CIA: Chemical Industries Association BSI: British Standards Institution Britsafe: British Safety Council SEDEX: Ethical Trading Organisation AGCC: Aberdeen & Grampian Chamber of Commerce
Denmark	PCG: Association of Comprised Gases Producers
Sweden	SIGA: Swedish Industrial Gas Association SWC: Swedish Welding Commission
Norway	NIGF: Norwegian Industrial Gas Association

# 5.3 2022 Summary data

# Environment

Greenhouse Gas (GHG) Emissions	Unit	FYE2019	FYE2020	FYE2021	FYE2022
GHG Scope 1	Thousands of tonnes CO2e	63.80	68.26	67.46	84.60
GHG Emissions Scope 2	Thousands of tonnes CO2e	1,360.38	1,304.57	1,037.68	810.17
GHG Scope 1 percentage vs Scope 1 + Scope 2	%	4%	5%	6%	9%
GHG Scope 2 percentage vs Scope 1 + Scope 2	%	96%	95%	94%	91%
GHG Emissions Scope 1 + Scope 2	Thousands of tonnes CO2e	1,424.18	1,372.83	1,105.13	894.77
ASU	%	88%	87%	85%	83%
НуСО	%	3%	3%	3%	5%
CO <sub>2</sub> liquefaction	%	5%	5%	6%	5%
Distribution	%	1%	1%	1%	1%
Filling Stations + F-gas + Others	%	4%	4%	4%	6%
GHG Emissions Scope 1 + Scope 2 vs FYE2019 (a)	%	100%	97%	78%	63%
GHG Emissions Scope 3 -Total	Thousands of tonnes CO2e			1,474.96	1,505.06
Category 1: Purchased goods and services	Thousands of tonnes CO2e			169.18	183.33
Category 2: Capital goods	Thousands of tonnes CO2e			64.13	69.92
Category 3: Fuel and energy activities not included in Scope 1 and 2	Thousands of tonnes CO2e			53.76	52.46
Category 4: Upstream transportation and distribution (Including transportation services whose cost is borne by the Company)	Thousands of tonnes CO2e			NA	NA
Category 5: Waste generated in operations	Thousands of tonnes CO2e			0.051	0.064
Category 6: Business travel	Thousands of tonnes CO2e			NA	NA

Category 7: Employee commuting	Thousands of tonnes CO2e		NA	NA
Category 8: Upstream leased assets	Thousands of tonnes CO2e		NA	NA
Category 9: Downstream transportation and distribution	Thousands of tonnes CO2e		54.94	65.22
Category 10: Processing of sold products	Thousands of tonnes CO2e		NA	NA
Category 11: Use of sold products	Thousands of tonnes CO2e		1,090.43	1,091.69
Category 12: End-of-life treatment of sold products	Thousands of tonnes CO2e		NA	NA
Category 13: Downstream leased assets	Thousands of tonnes CO2e		42.48	42.31
Category 14: Franchises	Thousands of tonnes CO2e		NA	NA
Category 15: Investments	Thousands of tonnes CO2e		NA	NA
(a) Calculated using a base of 100 in FYE2019. Reporting boundary: Nippon Gases and its consolidated subsidiaries in Europe. Scope 1 emissions: Direct emissions occurring from sources owned or controlled by the company Scope 2 emissions: Indirect emissions from the use of electricity, steam when supplied by third parties. Scope 3 emissions: Indirect emissions other than Scope 2 emissions. GHG emissions in Europe are calculated using emission factors specified recognised international standards as per verified protocol.				

Contributions to Environmental Protection through Products	Unit	FYE2019	FYE2020	FYE2021	FYE202
Greenhouse Gas Emission Reduction Customer Application Contribution	Thousands of tonnes CO2e		33	314	1,520
Descarbonisation customer initiatives	Number			>60	53
Greenhouse Gas Emission Reduction refrigerant gases business	Thousands of tonnes CO2e			336.11	344.5
Reporting boundary: Nippon Gases and its consolidated subsidiaries in Europe.					
Energy Usage	Unit	FYE2019	FYE2020	FYE2021	FYE202
Electric power	GWh	2,794.99	2,678.63	2,530.59	2,795.31
Air Separation Unit	%	92%	92%	92%	92%
CO, liquefaction	%	5%	5%	5%	5%
Filling Stations	%	1.7%	1.7%	1.7%	1.7%
НуСО	%	0.4%	0.4%	0.4%	0.4%
Others	%	0.9%	1.0%	1.0%	0.9%
Thermal Energy	GJ	1,173,51	1,210,52	1.029.76	1.352.32
Air Separation Unit		12%	11%	12%	9%
CO, liquefaction		16%	14%	18%	12%
HyCO		72%	75%	70%	79%
ASU efficiency change in energy consumption per Ton 02 equivalent produced (a)(b)	%	100%	104%	102%	100%
CO <sub>2</sub> liquefaction efficiency change in energy consumption per Ton liquid CO <sub>2</sub> produced	%	100%	106%	106%	111%
Renewable energy sourcing	%		5%	19%	34%
Reporting boundary: Nippon Gases and its consolidated subsidiaries in Europe. Purchased fuels and steam are converted into primary energy amounts. (a) Calculated using a base of FYE2019 (b) Gases produced (oxygen, nitrogen, argon) calculated in Tonnes of equivalent gaseous oxygen.					

oxygen.					
Environmental Impact	Unit	FYE2019	FYE2020	FYE2021	FYE2022
NOx emissions	Tonnes NOx	35	38	31	47
SOx emissions	Tonnes			n/a	n/a
Particulate emissions	Tonnes			n/a	n/a
VOC emissions	Tonnes			n/a	n/a
Releases of substances designated under the Pollutant Release and Transfer Register (PRTR)	Tonnes			n/a	n/a
Local and accidental pollution issues	Number			0	0
Local and accidental biodiversity issues	Number			0	0
Environmental Violations fines	Number			0	0
Environmental Violations fines	Euros			0	0
Fugitive emissions from cooling systems	Thousands of tonnes CO2e		3.08	2.35	2.27
Emissions from transfilling ODS	Thousands of tonnes CO2e			23.43	31.76
Reporting boundary: Nippon Gases and its consolidated subsidiaries in Europe.					

Water Usage	Unit	FYE2019	FYE2020	FYE2021	FYE2022
Total Water Withdrawn	Millions of m <sup>3</sup>		27.90	27.89	27.60
Total Water Discharge	Millions of m <sup>3</sup>		23.37	23.78	23.31
Total Water Consumption	Millions of m <sup>3</sup>		4.52	4.10	4.29
ASU water consumption	%		86%	86%	86%
HyCO water consumption	%		2%	1%	2%
CO <sub>2</sub> water consumption	%		12%	12%	12%
Surface water e.g. river, lake	Millions of m <sup>3</sup>		1.32	1.15	0.91
Ground water e.g. well	Millions of m <sup>3</sup>		0.32	0.31	0.32
Brackish water e.g. sea water	Millions of m <sup>3</sup>		0	0	0
City water	Millions of m <sup>3</sup>		1.07	1.04	1.13

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Third party supply water	Millions of m <sup>3</sup>	1.81	1.60	1.93
Cooling Tower Water Evaporation	Millions of m <sup>3</sup>	3.14	2.87	3.09
Cooling Tower Water Blowdown	Millions of m <sup>3</sup>	1.38	1.23	1.20
Total Water Withdrawn in Extreme high stress areas	Millions of m <sup>3</sup>	0.85	0.76	0.72
Cooling Tower concentration cycles	Cycles	3.27	3.33	3.57
Water energy intensity	M <sup>3</sup> /MWh	1.59	1.53	1.47
City water consumption	%	24%	25%	26%
Water consumption intensity (a)	%	100%	96%	81%
Percentage main consumer sites with water management program (b)	%	100%	100%	100%
Reporting boundary: Nippon Gases and its consolidated subsidiaries in Europe. (a) Water consumption vs business sales. Base year FYE2020 (b) Water main consumers with water withdraw >30.000 m3/yr				

Waste	Unit	FYE2019	FYE2020	FYE2021	FYE2022
Waste total	Tonnes		2,654	2,390	3,030
Waste total on landfill	Tonnes		53	99	120
Non-Hazardous waste	Tonnes		2,230	1,929	2,434
Non-Hazardous Waste on landfill	Tonnes		48	83	83
Percentage Non-hazardous on landfill	%		2.0%	4.1%	3.4%
Hazardous waste	Tonnes		424	461	595.7
Hazardous Waste on landfill	Tonnes		5.3	16.0	36.6
Percentage Hazardous on landfill	%		1.2%	3.4%	6.1%
Zero waste program sites	%			100%	100%
Waste intensity	%		100%	96%	98%
Reporting boundary: Nippon Gases and its consolidated subsidiaries in Europe.					

Environmental Accounting	Unit	FYE2019	FYE2020	FYE2021	FYE2022
Investments e.g. efficiency projects with environmental emission reduction	Million Euro		19.5	14.5	6.5
Sustainable savings in cost- reduction projects	Thousands of tonnes CO2e		24	19.1	10.8
Reporting boundary: Nippon Gases and its consolidated subsidiaries in Europe.					

Transportation Footprint	Unit	FYE2019	FYE2020	FYE2021	FYE2022
Kilometers travelled by all vehicles delivering gas in liquid or cylinder form or services	Million km	95.4	94.9	86.6	89.7
Kilometers travelled by all vehicles delivering liquid		53.9	55.7	52.3	55.7
CO <sub>2</sub> emissions generated by road vehicles	Thousands of tonnes CO2e	63.3	59.9	55.9	66.1
Change in distance travelled per ton of liquid industrial gas delivered (oxygen, nitrogen, argon, carbon dioxide) truck delivery.(a)	%			100.0%	98.7%
Change in distance travelled per cylinder industrial gas delivered (oxygen, nitrogen, argon, carbon dioxide) truck delivery. (a)	%	100.0%	100.3%	103.0%	98.9%
CO <sub>2</sub> shipping					
MGO Maritime Gas oil	Thousand Itr	3,226	3,273	3,253	2,952
CO <sub>2</sub> emissions generated /Ton Liquid CO <sub>2</sub> transported (a)	%	100%	107%	96%	89%
Customer on-site and pipeline					
Estimate of truck transportation kilometers avoided through on-site customer units (in millions of km)	Million km			11.9	15.0
Estimate of transport CO <sub>2</sub> emissions avoided by on-site customer units	Thousands of tonnes CO2e			11.0	13.7
Percentage of deliveries of air gases via pipeline	%		71%	72%	72%
(a) Based year FYE2019					

Home-Health Care	Unit	FYE2019	FYE2020	FYE2021	FYE2022
Total number of patients treated by Nippon Gases	Thousands	261	262	260	267
Kilometers driven per patient monitored per year	Km	61	55	40	36
CO <sub>2</sub> emissions related to transportation (kg CO <sub>2</sub> /patient/yr)	Kg CO <sub>2</sub> e/ patient/yr	10.5	8.8	6.4	5.7

Certifications	Unit	FYE2019	FYE2020	FYE2021	FYE2022
Percentage of operational sites certified under ISO 14001 Environmental management system	%			55%	70%

# Society

Employees	Unit	FYE2019	FYE2020	FYE2021	FYE20
Total employees (Full time + Part time)	Number of individuals	2,696	2,948	3,007	3,077
Total # of employees & distribution by sex					
Female	%	26.04%	27.10%	27.70%	27.82%
Male	%	73.96%	72.90%	72.30%	72.18%
Total # of employees & distribution by age					
20s and below	%	5.71%	6.14%	6.65%	7.73%
30s	%	21.48%	22.46%	21.72%	22.52%
40s	%	31.49%	30.60%	29.83%	30.13%
50s and above	%	41.32%	40.81%	41.80%	39.62%
Total # of employees by professional category					
Director	%	2.89%	2.75%	2.89%	2.92%
Manager/specialists	%	41.43%	39.96%	40.07%	40.79%
Technical-Admin	%	55.68%	57.29%	57.03%	56.29%
HC permanent contracts	Number of individuals	2677	2921	2970	3046
Total # of employees & distribution by sex	%				
Female	%	25.92%	27.25%	27.81%	27.91%
Male	%	74.08%	72.75%	72.19%	72.09%
Total # of employees & distribution by age	%				
20s and below	%	5.57%	5.99%	6.26%	7.52%
30s	%	21.29%	22.32%	21.78%	22.59%
40s	%	31.57%	30.74%	30.00%	30.20%
50s and above	%	41.58%	40.94%	41.95%	39.69%
Director	%	2.91%	2.77%	2.93%	2.92%
Manager/specialists	%	41.58%	40.29%	40.47%	41.10%
Technical- Admin	%	55.51%	56.93%	56.60%	55.98%
HC by temporary contracts	Number of individuals	19	27	37	31
Total # of employees & distribution by sex	%				
Female	%	42.11%	11.11%	18.92%	19.35%
Male	%	57.89%	88.89%	81.08%	80.65%
Total # of employees & distribution by age	%				
20s and below	%	26.32%	22.22%	37.84%	29.03%
30s	%	47.37%	37.04%	16.22%	16.13%
40s	%	21.05%	14.81%	16.22%	22.58%
50s and above	%	5.26%	25.93%	29.73%	32.26%
Total # of employees by professional category	%				
Director	%	0.00%	0.00%	0.00%	3.23%
Manager/specialists	%	21.05%	3.70%	8.11%	9.68%
Technical- Admin	%	78.95%	96.30%	91.89%	87.10%
HC by part time contracts	Number of individuals	108	154	123	136
Total # of employees & distribution by sex	%				
Female	%	71.30%	66.23%	67.48%	65.44%
Male	%	28.70%	33.77%	32.52%	34.56%
	%				

20s and below	%	3.70%	11.04%	4.88%	5.15%
30s	%	17.59%	17.53%	11.38%	14.71%
40s	%	28.70%	27.27%	30.89%	29.41%
50s and above	%	50.00%	44.16%	52.85%	50.74%
Total # of employees by professional category	%				
Director	%	0.00%	0.00%	0.00%	0.74%
Manager/specialists	%	25.93%	23.38%	29.27%	26.47%
Technical-Admin	%	74.07%	76.62%	70.73%	72.79%
TOTAL # of terminations TOTAL					
Total terminations	Number of individuals	97	145	205	270
Total terminations by sex	%				
Female	%	31.96%	38.62%	30.73%	37.78%
Male	%	68.04%	61.38%	69.27%	62.22%
Total # terminations by age	%				
20s and below	%	13.40%	22.76%	18.05%	24.07%
30s	%	20.62%	19.31%	24.88%	28.15%
40s	%	21.65%	22.76%	20.00%	15.56%
50s and above	%	44.33%	35.17%	37.07%	32.22%
Total # terminations by professional category	%				
Director	%	1.00%	3.45%	0.98%	1.48%
Manager/specialists	%	37.00%	31.03%	27.32%	30.74%
Technical-Admin	%	62.00%	65.52%	71.71%	67.78%
Total # voluntary leaves (voluntary includes employees	Number of individuals	51	83	116	181
decision to leave the company)					
Total voluntary leaves by sex	%				
Female	%	37.25%	38.55%	38.79%	41.99%
Male	%	62.75%	61.45%	61.21%	58.01%
Total # terminations by age	%				
20s and below	%	25.49%	36.14%	29.31%	32.60%
30s	%	27.45%	27.71%	31.90%	36.46%
40s	%	35.29%	24.10%	23.28%	16.02%
50s and above Total # voluntary leaves by professional category	%	11.76%	12.05%	15.52%	14.92%
Director	%	0.00%	2.41%	0.86%	1.10%
Manager/specialists	%	43.14%	30.12%	24.14%	28.73%
Technical- Admin	%	56.86%	67.47%	75.00%	70.17%
Total # involuntary leaves (involuntary includes employers decision to leave the company)	Number of individuals	17	39	75	64
Total involuntary leaves by sex	%				
Female	%	17.65%	46.15%	24.00%	29.69%
Male	%	82.35%	53.85%	76.00%	70.31%
Total # involuntary leaves by age	%				
20s and below	%	0.00%	7.69%	4.00%	9.38%
30s	%	35.29%	12.82%	18.67%	15.63%
40s	%	17.65%	33.33%	18.67%	20.31%
50s and above	%	47.06%	46.15%	58.67%	54.69%
Total # involuntary leaves by professional category	%				
Director	%	0.00%	7.69%	7.69%	1.56%
Manager/specialists	%	52.94%	30.77%	30.77%	39.06%
Technical- Admin	%	47.06%	61.54%	61.54%	59.38%
Total # retirements	Number of individuals	29	23	14	25
Total retirements by sex	%				
Female	%	31.03%	26.09%	0.00%	28%
Male	%	68.97%	73.91%	100.00%	72%
Total # retirements by age	%				
20s and below	%	0.00%	0.00%	0.00%	0%
30s	%	0.00%	0.00%	0.00%	0%
40s	%	0.00%	0.00%	0.00%	0%
50s and above	%	100.00%	100.00%	100.00%	100%
Total # retirements by	%				
professional category					
Director	%	3.45%	0.00%	0.00%	4%
	%	17.24%	34.78%	50.00%	24%
Manager/specialists				F0 00%	72%
Manager/specialists Technical- Admin	%	79.31%	65.22%	50.00%	12/0
Technical- Admin		79.31%	65.22%	50.00%	
	% Number of individuals	79.31%	65.22%	263	347

new hires female	%		40%	36.5%	37.18%
Total Number of the new graduates newly hired (Full-time)					
Male				3	26
Female				1	17
Total Number of the mid-career newly hired (Full-time)					
Male				165	192
Female				95	122
Internships	Number of individuals		72	45	64
Years of continual employment (Unit: Years)(Full-time)	Year			13.6	12.73
Male	Year			14.5	13.69
Female	Year			11.3	10.26
Average age (Full-time)	Age			46.2	45.54
Male	Age			47.1	46.50
Female	Age			43.7	43.06
Managers	Age			47.9	47.49
nanagoro	, igo				
Compensation					
Gender pay gap Spain	%		7.1%	4.8%	2.0%
Gender pay gap Oximesa	%		1.8%	1.9%	3.7%
Gender pay gap Rest Nippon Gases	%		11.1%	13.2%	13.7%
Employees with incentive plan	%			85.1%	79.0%
Employees under collective agreement	%		94%	93.2%	93.3%
% of the total workforce across all locations represented by formal joint management-works councils, health & safety committees or employee representatives				95.7%	95.7%
Reporting boundary: Nippon Gases and its consolidated subsidiaries in Europe.					
Career-Performance	Unit	FYE2019	FYE2020	FYE2021	FYE2022
% of the total workforce across all locations who received regular performance reviews	%		67.8%	70.8%	72.8%
% of the total workforce across all locations who received regular career development reviews	%		67.8%	70.8%	72.8%
% of employees with an individual variable component as part of their remuneration	%			85.1%	79.0%
Average length of service in the Group	Years			13.6	12.73
Divorcity	Unit	FYE2019	FYE2020	FYE2021	FYE2022
Diversity Female employees as a % of the	%	H 12019	27.1%	27.7%	27,8%
total number of employees Female specialist & managers as	%		25.8%	27.1%	27.1%
a % of the total of the specialist & managerial positions					
Employees with disabilities as a % of total labour force	%		44 (1.5%)	49 (1.6%)	44(1.4%)
Reporting boundary: Nippon Gases and its consolidated subsidiaries in Europe.					
Work-Life Balance	Unit	FYE2019	FYE2020	FYE2021	FYE2022
Parental leave taken					
Male	Number of		50	65	43

Work-Life Balance	Unit	FYE2019	FYE2020	FYE2021	FYE2022
Parental leave taken					
Male	Number of individuals		50	65	43
Female	Number of individuals		40	58	36
Caregiver leave taken				NA	
Male	Number of individuals			NA	25
Female	Number of individuals			NA	17
Volunteer leave systems	Number of individuals			NA	
Male	Number of individuals			NA	13
Female	Number of individuals			NA	9
Male	Days			NA	
Female	Days			NA	

NIPPON GASES

Expenditures on social contribution initiatives (see Contribution to non-profit organizations)	Thousands Euro			148	116
Employee satisfaction survey in last 3 years	Number			1	1
Reporting boundary: Nippon Gases and its consolidated subsidiaries in Europe.					
	1		1	1	
Training	Unit	FYE2019	FYE2020	FYE2021	FYE2022
Employees who received training at least once during the year	%		100%	100%	100%
Employees who received safety training	%		100%	100%	100%
Employee training hrs/employee/ yr	Hrs/ employee		11	80	12
Safety training hours/employee/yr	Hrs/ employee		11	12	8
% of the employees who received training on environmental issues				67%	73%
% of the employees who received training to strengthen employees' knowledge and skills specific to their work or their career advancement.				88%	94%
Mandatory Training in PeopleHub					
Technicians & Administration					
Male	Train.hours reg.		209	4,155	8,759
Female	Train.hours reg.		167	1,768	2,992
Specialist					
Male	Train.hours reg.		307	6,147	8,992
Female	Train.hours reg.		118	2,570	3,424
Manager					
Male	Train.hours reg.		108	2,413	3,579
Female	Train.hours reg.		28	861	746
Director	T		17	070	1.00/
Male	Train.hours reg.		47	830	1,064
Female	Train.hours reg.		11	220	157
Total Male	Train.hours		673	13,545	22,394
Female	reg. Train.hours		325	5,419	7,319
i enidie	reg.		525	3,413	7,010
Soft Skill Training in PeopleHub					
Technicians & Administration					
Male	Train.hours reg.		1	419	759
Female	Train.hours reg.		4	216	657
Specialist					
Male	Train.hours reg.		117	1,680	2,413
Female	Train.hours reg.		40	1,084	1,846
Manager					
Male	Train.hours reg.		37	949	1,049
Female	Train.hours reg.		21	550	599
Director			47	10/	716
Male	Train.hours reg.		17	194	346
Female	Train.hours reg.		6	123	156
Total	<b>T</b> . 1 . 1		177	7.0/0	( 500
Male	Train.hours reg. Train.hours		173 74	3,242	4,566
Female	reg.		/4	1,973	3,257

Occupational Health and Safety	Unit	FYE2019	FYE2020	FYE2021	FYE2022
Occupational accidents resulting in recordable injury		3	8	8	5
Male		3	8	8	4
Female		0	0	0	1
Rate occupational accidents resulting in recordable injury (b)		1.07	1.65	1.43	0.90
Lost-time accidents of employees of at least one day (a)	Number of accidents	2	5	4	3
Male		2	5	4	2
Female		0	0	0	1
Rate of occupational accidents resulting in lost workdays (b)		0.71	1.03	0.72	0.52
Male		0.71	1.03	0.98	0.48
Female		0	0	0	0.64
Accident severity rate (c)			31.07	22.72	12.06
Male			42.75	31.09	14.91
Female			0	0	4.48
Absenteeism rate (g)	%	5.32%	3.75%	3.08%	4.41%
Male		5.27%	3.75%	3.28%	4.23%
Female		5.43%	3.75%	2.55%	4.86%
Number of accidents of subcontractors LTI(d)(e)		12	5	10	9
Frequency of accidents of subcontractors workers (f)	Number of incidents			6.70	5.50
High Severity Product vehicles preventable incidents	Number of incidents	7	1	2	7
High Severity Product vehicles preventable incidents rate (h)				0.03	0.08
Product vehicles preventable incidents rate		0.32	0.12	0.08	0.16
No occupational diseases reported			0	0	0
Reporting boundary: Nippon Gases and its consolidated subsidiaries in Europe. (a) Fatal work accidents for NG employees since 2017: none (b) Number of accidents involving lost time of at least one day, per million hours worked by Group employees and temporary workers. (c) Average number of days of lost time per million hours worked. (d) Personnel working under an Nippon Gases contract at a Group site, at a customer site, or as a delivery vehicle driver. (e) Fatal work accidents since 2017: None. (f) Number of accidents involving lost time of at least one day, per million hours worked (g) Absenteeism rate calculation: # of hours of illness / # of employees * annual working time by employee (h) Product vehicles preventable incidents with an injury or vehicle					

Assessments	Unit	FYE2019	FYE2020	FYE2021	FYE2022
Number of Health and Safety European Assessments		13	15	9	14
Number of Health and Safety European Assessments operational sites				9	8
Number of Environment European Assessments		4	3	8	7
Environmental operational assessment rate	%			89%	88%
% of all operational sites for which an environmental risk assessment has been conducted or ISO14.001 implementation				38%	70%
% of all operational sites for which an employee health & safety risk assessment has been conducted				100%	100%

Community	Unit	FYE2019	FYE2020	FYE2021	FYE2022
Community projects . # people participating	Number		500	400	658
Hours of volunteerism	Hours		NA	NA	NA
Community engagement. # projects	Number		64	56	73
Contribution to non-profit organizations	Thousand Euros		82	148	141

#### Governance

on ethics (Code of Conduct re-certification process)(100%)(100%)(100%)(100%)% employees received training on preventing discrimination and human rights violations (part of the Code of conduct re-certification process)%2,109 (a) (100%)2,100 (a) (100%)2,100 (a) (100%)% employees received training to prevent anti-competitive practices%2,082 (a) (100%)2,547 (a) (100%)	Management Configuration	Unit	FYE2019	FYE2020	FYE2021	FYE2022
individualsindividualsindividualsindividualsindividualsConfirmed incidents of ethics/ corruption and/or anti-trust mattersNumber000Public legal cases regarding corruption and/or anti-trust mattersNumber000Public legal cases regarding corruption and/or anti-trust mattersNumber000Human Rights violations complainsNumber0000Discrimination / Harassment cases reported and confirmedNumber0000Security breaches high severity casesNumber105116166% employees received training on ethics (Code of Conduct re-certification process)%1.870 (a) (100%)2.109				5	6	8
Compution and/or anti-trust mattersNumber00Public legal cases regarding corruption and/or anti-trust mattersNumber00Public legal cases regarding corruption and/or anti-trust mattersNumber00User finination / Harassment cases reported and confirmedNumber000Security breaches high severity casesNumber0000Security breaches high severity casesNumber105116000% employees received training on ethics (Code of Conduct re-certification process)%1,870 (a) (100%)2,109 (a) (100%)2,100 (a) (100%) </td <td>Directors Female BOD NGEH</td> <td></td> <td></td> <td>1</td> <td>1</td> <td>1</td>	Directors Female BOD NGEH			1	1	1
corruption and/or anti-trust mattersNumber00Human Rights violations complainsNumber000Discrimination / Harassment cases reported and confirmedNumber002Security breaches high severity casesNumber0000Security breaches high severity casesNumber0000Number of Compliance trainingsNumber10511616100%)2,100 (a) (100%)2,100 (a) (100%)	corruption and/or anti-trust	Number		0	0	0
complainsNumber002Discrimination / Harassment cases reported and confirmedNumber002Security breaches high severity casesNumber000Security breaches high severity casesNumber105116Number of Compliance trainings on ethics (Code of Conduct re-certification process)Number1,870 (a) (100%)2,109 (a) (100%)2,100 (a) (100%)2,109 (a) (100%)2,029 (a) (100%)2,109 (a)<	corruption and/or anti-trust	Number		0	0	0
Langes reported and confirmedNumber00Security breaches high severity casesNumber105116Security breaches high severity casesNumber105116Number of Compliance trainingsNumber105116% employees received training on ethics (Code of Conduct re-certification process)1,870(a) (100%)2,109 (a) (100%)2,100 (a) (100%)% employees received training on preventing discrimination and human rights violations (part of the Code of conduct re-certification process)%2,082 (a) (100%)2,547 (a) (100%)% employees received training to prevent anti-competitive practices%2,082 (a) (100%)2,547 (a) (100%)2,547 (a) (100%)% employees received training to information security risk practices%2,029 (a) (100%)2,514 (b) (100%)% employees received training to information security risk practicesNumber30Audits of control procedures (e.g. accounting, purchasing etc.) to prevent corruption and briberyNumber00Audits on information security risk performedNumber11Audits on information security risk performedEuros00Reporting boundary: Nippon Gases and its consolidated subsidiaries in Europes.[a) allowers[a] allowers(a) selected employees (b) employees with company[b] employees (b) employees with company[b] and [b] allowers		Number		0	0	0
casesNumber105116Number of Compliance trainings on ethics (Code of Conduct re-certification process)1,870(a) (100%)2,109 (a) (100%)2,109 (a) (100%)2,100 (a) (100%)% employees received training on preventing discrimination and human rights violations (part of the Code of conduct re-certification process)%1,870(a) (100%)2,109 (a) (100%)2,100 (a) (100%)% employees received training on prevent anti-competitive practices%2,082 (a) (100%)2,547 (a) (100%)2,547 (a) (100%)% employees received training to information security risk practices%2,029 (a) (100%)2,514 (b) (100%)2,514 (b) (100%)% employees received training to information security risk practicesNumber30Audits of control procedures (e.g. accounting, purchasing etc.) to prevent corruption and briberyNumber00Audits on information security risk performedNumber11Audits on information security risk performedEuros00Amount of political donations subsidiaries in Europes. (a) selected employees (b) employees with company00		Number		0	0	2
% employees received training on ethics (Code of Conduct re-certification process)%1,870 (a) (100%)2,109 (a) (100%)2,100 (	, , ,	Number			0	0
In service is consistent of the image of	Number of Compliance trainings	Number			105	116
on preventing discrimination and human rights violations (part of the Code of conduct re-certification process)(100%)(100%)(100%)% employees received training to prevent anti-competitive practices%2,082 (a) (100%)2,547 (a) (100%)% employees received training to information security risk practices%2,029 (a) (100%)2,514 (b) (100%)% employees received training to information security risk practices%2,029 (a) (100%)2,514 (b) (100%)Audits of control procedures (e.g. accounting, purchasing etc.) to prevent corruption and briberyNumber30Audits on anti-competitive practices performedNumber00Audits on information security risk performedNumber11Amount of political donations subsidiaries in Europe. (a) selected employees (b) employees with companyEuros00	on ethics (Code of Conduct	%				2,100 (a) (100%)
to prevent anti-competitive practices(100%)(100%)% employees received training to information security risk practices%2,029 (a) 	on preventing discrimination and human rights violations (part of the Code of conduct	%			=,	2,100 (a) (100%)
to information security risk (100%) (100%) Audits of control procedures (e.g. Number 3 0 control procedures (e.g. Number 3 0 0 prevent corruption and bribery Audits on anti-competitive Number 0 0 0 Audits on information security Number 1 1 1 Amount of political donations Euros 0 0 0 Reporting boundary: Nippon Gases and its consolidated subsidiaries in Europee. (a) selected employees (b) employees with company	to prevent anti-competitive	%				2,547(a) (100%)
accounting, purchasing etc.) to     Image: Second Sec	to information security risk	%				2,514 (b)
practices performed Number Audits on information security Number I 1 1 Audits on information security Number 0 0 0 Amount of political donations Euros 0 0 0 Reporting boundary: Nippon Gases and its consolidated subsidiaries in Europe. (a) selected employees (b) employees with company	accounting, purchasing etc.) to	Number			3	0
risk performed Euros 0 0 Amount of political donations Euros 0 0 Reporting boundary: Nippon Gases and its consolidated subsidiaries in Europe. (a) selected employees (b) employees with company		Number			0	0
Reporting boundary: Nippon Gases and its consolidated subsidiaries in Europe. (a) selected employees (b) employees with company		Number			1	1
Gases and its consolidated subsidiaries in Europe. (a) selected employees (b) employees with company	Amount of political donations	Euros			0	0
	Gases and its consolidated subsidiaries in Europe. (a) selected employees (b) employees with company					

Customers	Unit	FYE2019	FYE2020	FYE2021	FYE2022
Customer complaints with product out of specification %	%	5.4%	5.5%	4.6%	5.5%
Average days of resolution of closed complains	Days	62	55	39	30
Percentage of complaints reports investigated and closed out within 90 days of the incident	%	63%	60%	81%	90%
Reporting boundary: Nippon Gases and its consolidated subsidiaries in Europe.					

Supply Chain	Unit	FYE2019	FYE2020	FYE2021	FYE2022
Reported non-conformities	Number	61	48	66	204
Reported non-conformities – internal	Number	51	41	40	62
Reported non-conformities - external	Number	10	7	26	142
Reported non-conformities – safety	Number	0	0	0	0
Supply chain suppliers audits	Number			3	13
Percentage of targeted suppliers who have signed the supplier code of conduct	%				60
Reporting boundary: Nippon Gases and its consolidated subsidiaries in Europe.					

External Commitments	Unit	FYE2019	FYE2020	FYE2021	FYE2022
Audit, specifically related to CSR issues (e.g. Ecovadis)	Number			0	1

# 5.4 GHG emission verification statement



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Ref Declaration 02/958/311328-02

#### Greenhouse Gas Emissions Verification Statement

NIPPON GASES EURO-HOLDING S.L.U. declares its GHG emissions according to the established criteria of the GHG Protocol. GHG emissions of the fiscal year 2022 (from 01/04/2021 to 31/03/2022) have been verified by SGS with a limited level of assurance, consistent with the scope, objectives and criteria of UNE-EN ISO 14064-3:2019. Emissions are broken down into the following categories:

CO₂e tons	
Scope 2- Indirect GHG emissions associated with electricity	810,173
Total Scope 1+2	894,769
Scope 3- Other indirect emissions	1,505,057
GRAND TOTAL	2,399,826

SGS has planned and developed this work to obtain the information, explanations and evidence necessary to provide a limited level of assurance that GHG emissions during fiscal year 2022 have been correctly defined.

Our verification of the GHG Emissions Inventory of NIPPON GASES EURO-HOLDING S.L.U., includes the evaluation of the GHG information system, its control, and its notification protocol, This verification has included the collection of evidence supporting the reported data, and the verification of whether the procedures of NIPPON GASES EURO-HOLDING S.L.U. have been applied correctly.



#### Opinion

Based on the process and procedures performed, there is no evidence that the GHG declaration submitted:

- Is not materially correct and accurately represents GHG data and information, and
- It has not been prepared according to the criteria of the GHG Protocol, in relation to its quantification, control and notification

This opinion should be interpreted in conjunction with the Annual Greenhouse Gas Emissions Report "Nippon Gases GHG Inventory Report 2022 rev1a" (GHG Declaration),

Note: This declaration is issued for the use of NIPPON GASES EURO-HOLDING S.L.U., by SGS Tecnos S.A.U. ("SGS") according to the Beneral conditions included in http://www.sgc.com/terms\_and\_conditions.htm, The results obtained here, and the corresponding GHG statement can be consulted in NIPPON GASES EURO-HOLDING S.L.U., This statement does not exempt NIPPON GASES EURO-HOLDING S.L.U., This statement does not exempt NIPPON GASES EURO-HOLDING S.L.U. and therefore SGS declines all responsibility with other parties than NIPPON GASES EURO-HOLDING S.L.U.

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Ref Declaration 02/958/311328-02

#### Annex to the Emissions Verification Statement of Greenhouse Gases

SGS has been contracted by NIPPON GASES EURO-HOLDING S.L.U., for the verification of direct and indirect emissions of Greenhouse Gases (GHG) according to the GHG Protocol, whose criteria and scope are in accordance with what is defined in the standard UNE-EN ISO 14064-3:2019 as indicated by NIPPON GASES EURO-HOLDING S.L.U. in its GHG Declaration "Nippon Gases GHG Inventory Report 2022 rev1a", corresponding to the period: 01/04/2021 to 31/03/2022. Considered fiscal year 2019 (from 01/04/2018 to 31/03/2019) as a base year.

#### Responsibilities

HSE Department is responsible for the organization of its Greenhouse Gas system, the development and maintenance of records and reporting procedures in accordance with that system, including the calculation and determination of GHG emissions information, and the reporting of such emissions.

out in the GHG Declaration for the period from 01/04/2021 to 31/03/2022.

SGS has carried out a verification of the GHG emissions report against the principles of the GHG Protocol and UNE-EN ISO 14064-3:2019 standards, for the period from 01/04/2021 to 31/03/2022. The base year established by the organization is fiscal year 2019 (from 01/04/2018 to 31/03/2019).

#### Assurance Level

The agreed level of assurance is limited assurance.

#### Scope

Trespademe, 29 Edificio Barajas 1 28042 MADRID

recnos.

NIPPON GASES EURO-HOLDING S.L.U. has contracted an emissions verification to SGS Tecnos S.A.U. of the GHG emissions of the facilities and activities indicated below, to comply with the criteria and scope of the GHG Protocol in its facilities located in BELGIUM, DENMARK, FRANCE, GERMANY, IRELAND, ITALY, NORWAY, PORTUGAL, SPAIN, SWEDEN, the NETHERLANDS and UNITED KINGDOM.

This GHG Statement is not valid without the annex which includes its scope, objectives, criteria and





It is the responsibility of SGS to issue an independent GHG verification opinion on GHG emissions as set

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Ref Declaration 02/958/311328-02

The scopes included have been:

- Scope 1: Direct GHG emissions.
  - Emissions from stationary sources: consumption of natural gas.
  - Emissions from mobile sources: Fossil fuel combustion: own vehicles fleet and ships.
  - Fugitive emissions: refrigerants, Dry Ice manufacturing and ODS Gases.
- Scope 2: Indirect GHG emissions associated with energy.
  - Electrical power.
  - Steam.
- Scope 3: Other indirect emissions.
  - Purchased goods and services.
  - Capital goods.
  - Fuel-and-energy-related activities (not included in scope 1 and 2).
  - Upstream and Downstream transportation and distribution.
  - Waste generated in operations.
  - Use of sold products.
  - Downstream leased assets.



The organizational boundary was established following the Financial Control approach.

This commitment covers the verification of GHG emissions from anthropogenic sources included within the limits of the organization and based on UNE-EN ISO 14064-3:2019:

- Title and description of activities: Verification of the GHG Emissions Report for NIPPON GASES EURO-HOLDING S.L.U. fiscal year 2022 (from 01/04/2021 to 31/03/2022).
- Location of activities: Belgium, Denmark, France, Ireland, Germany, Italy, Norway, Portugal, Spain, Sweden, Poland, the Netherlands and United Kingdom plants.
- · Activities of the organization: for industrial and medical gases. The main products supplied by Nippon Gases in various physical forms and purities are oxygen, nitrogen, argon, carbon dioxide, hydrogen, helium, carbon monoxide, gas mixtures, electronic gases, specialty gases and the services and technologies associated with the use of these gases and mixtures.
- The GHG included are: CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O, HFCs, SF<sub>6</sub>, NF<sub>3</sub> and PFC.
- The period of the Verification is: from 01/04/2021 to 31/03/2022

This GHG Statement is not valid without the annex which includes its scope, objectives, criteria and

Ref Declaration 02/958/311328-02

#### Objective

#### The objectives of this verification project are to review independently, through audits:

#### Criteria

14064-3:2019.



The materiality required of the verification was considered by SGS to be bellow 10%.

Note: This declaration is issued for the use of NIPPON GASES EURO-HOLDING S.L.U., by SGS Tecnos S.A.U. ("SGS") according to the general conditions included in http://www.sgs.com/terms\_and\_conditions,htm, The results obtained here, and the corresponding GHG declaration can be consulted on NIPPON GASES EURO-HOLDING S.L.U. This statement does not exempt NIPPON GASES EURO-HOLDING S.L.U. This statement does not exempt NIPPON GASES EURO-HOLDING S.L.U. This statement does not exempt NIPPON GASES EURO-HOLDING S.L.U. This statement does not exempt NIPPON GASES EURO-HOLDING S.L.U. This statement does not exempt NIPPON GASES EURO-HOLDING S.L.U. This statement does not exempt NIPPON GASES EURO-HOLDING S.L.U. This statement does not exempt NIPPON GASES EURO-HOLDING S.L.U. This statement does not exempt NIPPON GASES EURO-HOLDING S.L.U. This statement does not exempt NIPPON GASES EURO-HOLDING S.L.U. This statement does not exempt NIPPON GASES EURO-HOLDING S.L.U. This statement does not exempt NIPPON GASES EURO-HOLDING S.L.U. This statement does not exempt NIPPON GASES EURO-HOLDING S.L.U. This statement does not exempt NIPPON GASES EURO-HOLDING S.L.U. This statement does not exempt NIPPON GASES EURO-HOLDING S.L.U. This statement does not exempt NIPPON GASES EURO-HOLDING S.L.U. This statement does not exempt NIPPON GASES EURO-HOLDING S.L.U. This statement does not exempt NIPPON GASES EURO-HOLDING S.L.U. This statement does not exempt NIPPON GASES EURO-HOLDING S.L.U.

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This GHG Statement is not valid without the annex which includes its scope, objectives, criteria and





• If the organization's GHG emissions match those declared by NIPPON GASES EURO-HOLDING S.L.U. • If the reported data are accurate, complete, consistent, transparent and free from errors or omissions, • Whether the inventory system meets, at a minimum, the criteria and scope set out in the GHG Protocol.

Criteria against which the verification assessment is undertaken are the requirements of with UNE-EN ISO

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# 5.5 Glossary

CCU	Carbon Capture and Utilisation
DX	Digital Transformation
ESG	Environmental, Social, and Governance
GHG	Greenhouse Gas
MAP	Modified Atmosphere Packaging
MCC	Mitsubishi Chemical Corporation
мснс	Mitsubishi Chemical Holdings Corporation. ("Mitsubishi Chemical Group Corporation" from July 2022).
N <sub>2</sub> 0	Nitrous Oxide
N <sub>2</sub> 0 NSHD	Nitrous Oxide Nippon Sanso Holdings Corporation
2	
NSHD	Nippon Sanso Holdings Corporation
NSHD PDP	Nippon Sanso Holdings Corporation Personal Development Plan
NSHD PDP PPA	Nippon Sanso Holdings Corporation         Personal Development Plan         Power Purchase Agreement
NSHD PDP PPA PPE	Nippon Sanso Holdings Corporation         Personal Development Plan         Power Purchase Agreement         Personal Protective Equipment
NSHD PDP PPA PPE RI - rate	Nippon Sanso Holdings Corporation         Personal Development Plan         Power Purchase Agreement         Personal Protective Equipment         Recordable Injury rate



# 5.6 About this report

The non-financial statement was prepared pursuant to the requirements of Royal Decree-Law 11/2018, of 28 December, amending the Spanish Commercial Code, the consolidated text of the Spanish Companies Act approved by Royal Legislative Decree 1/2010, of 2 July, and Spanish Audit Law 22/2015, of 20 July, on disclosures of non-financial and diversity information.

It also considered the European Commission guidelines on non-financial reporting (2017/C 215/01) arising from Directive 2014/95/UE.

Preparation also considered the content of the Global Reporting Initiative's Sustainability Reporting Guidelines (selected GRI Standards) and the principles in the Integrated Reporting Framework, published by the International Integrated Reporting Council, IIRC.

The scope of this report includes the information on FY2022 (from April 1st 2021 to March 31st 2022) of Nippon Gases. The following criteria have been applied to the information reported herein:

Extremely important aspects	Very important aspects	Important aspects
<ul> <li>Product and service safety &amp; quality</li> <li>Providing products and services that contribute to solving environmental and social issues</li> <li>Climate change mitigation and adaptation</li> <li>Effective use of resources and prevention of pollution</li> <li>Strengthening information security measures</li> <li>Improvement of productivity and promotion of production of production optimization</li> <li>Development and maintenance human resources</li> <li>Strengthening communication with stakeholders</li> <li>Sustainable supply chain</li> <li>Contribution to regional and industrial development as social infrastructure</li> <li>Diversity &amp; Inclusion</li> </ul>	<ul> <li>Pursuit of customer satisfaction</li> <li>Technology and R&amp;D capabilities that support the creation of customers and social value</li> <li>Promotion of initiatives for digital innovation</li> <li>Employee and family health</li> <li>Conservation of water resources</li> <li>Coexistence with the local community</li> <li>Improvement of employee engagement</li> <li>Providing comfortable and affluent lifestyles</li> </ul>	<ul> <li>Conservation of biodiversity</li> <li>Protection and effective utilization of Intellectual Property</li> </ul>

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- The financial information is presented in accordance with the consolidation principles applied in the annual accounts.
- Non-financial information relates to operations over which Nippon Gases maintains control (companies consolidated in the Consolidated Financial Statements in accordance with the full integration method).
- TThis report details and expands on the nonfinancial statement. Through the non-financial statement, Nippon Gases reports on relevant environmental, social and governance aspects, employee-related and human rights matters for the company in carrying out its business.
- During the preparation of this report and its contents selection, the results of the materiality analysis carried out have been considered with the following results:
- selection, the results of the materiality analysis carried out have been considered with the following results:

# 5.7 Legal entities list

# Consolidated entities

Tradename	Activity	Holding		Registered office
		Direct%	Indirect%	-
Nippon Gases España S.L.U.	Production, marketing and sales of industrial gases	100%	-	Orense 11,28020 Madrid, España
Nippon Gases Portugal Unipessoal, LDA.	Production, marketing and sales of industrial gases	100%	-	E.N. 13 Km 6,4, 4470-Maia Portugal
Oximesa S.L.U.	Production and sale of medical gases and services	100%	-	Orense 11, 28020 Madrid, España
Nippon Gases Italia S.R.L.	Production, marketing and sales of industrial gases	100%	-	Via Benigno Crespi 19, 20159 Milán, Italia
Nippon Gases Industrial S.R.L.	Production, marketing and sales of industrial gases	-	100%	Via Benigno Crespi 19, 20159 Milán, Italia
Nippon Gases Operations S.R.L.	Production, marketing and sales of industrial gases	-	100%	Via Benigno Crespi 19, 20159 Milán, Italia
Nippon Gases Pharma S.R.L.	Production and sale of medical gases	-	100%	Via Benigno Crespi 19, 20159 Milán, Italia
Nippon Gases Refrigerants S.R.L.	Marketing and sales of refrigerant gases	-	64%	Via Benigno Crespi 19, 20159 Milán, Italia
GemGas S.R.L.	Marketing and sales of industrial gases	-	100%	Via Benigno Crespi 19, 20159 Milán, Italia
Nuova Pescarito S.R.L.	Distribution of Industrial gases	-	100%	Via Cavalier Virginio Tedeschi 1 - 10036, Settimo Torinese (TO), Turin, Italy
Nippon Gases Industrial	Production, marketing and sales of industrial gases	-	60%	Via Benigno Crespi 19, 20159 Milán, Italia
Domolife S.R.L.	Production and sale of medical gases and services	-	51%	Via Aterno n. 56, Pescara, Italia
Dryce S.R.L.	Production and distribution of dry ice and CO	-	51%	via Aosta 5, Cernusco sul Naviglio, Italia
Nippon Gases Pharma S.R.L.	Production and sale of medical gases and services	-	70%	Via Benigno Crespi 19, 20159 Milán, Italia
Home Medicine	Holding company	-	100%	Salerno, Via San Leonardo 26 CAP 84131, Italia
Nippon Gases Deutschland Holding GmbH.	Holding company	100%	-	Hans-Böckler Strasse, 1, 40476 Düsseldorf, Alemania
Nippon Gases Deutschland GmbH.	Production, marketing and sales of industrial gases	-	100%	Hans-Böckler Strasse, 1, 40476 Düsseldorf, Alemania
Sauerstoff- und Stickstoff- rohrleitungs-gesellschaft mbH (SRG)	Distribution of industrial gases	-	50%	Hans-Böckler Strasse, 1, 40476 Düsseldorf, Alemania
Nippon Gases SP Z o. o.	Marketing and sales of industrial gases	-	100%	Al Korfantego, 40-004 Katowice, Polonia
Nippon Gases Belgium, NV.	Production, marketing and sales of industrial gases	100%	-	Lammerdries 29 2250 Olen,Bélgica
Antwerpse Chemische Bedrijven (LCB), N.V.	Production, marketing and sales of industrial gases	-	100%	Metropoolstraat 16, 2900 Schoten, Bélgica
Nippon Gases Netherlands, B.V.	Production, marketing and sales of industrial gases	-	100%	Beugsloepweg 3, 3133 KV Vlaardingen, Países Bajos
Nippon Gases CO2, B.V.	Production, marketing and sales of industrial gases	-	100%	Beugsloepweg 3,3133 KV Vlaardingen, Países Bajos

Nitraco, N.V.	Distribution of industrial gases		50%	Metropoolstraat 17, 2900 Schoten, Bélgica
Nippon Gases Danmark A/S.	Production, marketing and sales of industrial gases	-	100%	Rode Banke, 120, 7000 Frederica, Dinamarca
Nippon Gases Norge A/S.	Production, marketing and sales of industrial gases	100%	-	Ringnesveien 50, 0978 Oslo, Noruega
Nippon Gases Sverige AB.	Production, marketing and sales of industrial gases	-	100%	Volvogatan 14, 731 36 Köping Västmanlands län Suecia
Nippon Gases Europe Ship AS.	Distribution of industrial gases	-	100%	Fredrik Selmers vei 6, 0663 Oslo, Noruega
Nippon Gases UK Ltd.	Production, marketing and sales of industrial gases	100%	-	Gresley Way, Immingham Docks, DN40 2NT, United Kingdom
Nippon Gases Ireland Ltd.	Production, marketing and sales of industrial gases	100%	_	Unit 22, Viscount Avenue, Airway Industrial Estate, Santry, Dublin 17, Irlanda
Nippon Gases France SAS.	Production, marketing and sales of industrial gases	100%	-	Rue de l'industrie 60, Savigny, Francia
Nippon Gases Offshore Investments Ltd.	Holding company	100%	_	Howe Moss, Avenue, Kirkhill Industrial, Estate, Dyce, Aberdeen
Nippon Gases Offshore Ltd.	Production, marketing and sales of industrial gases	100%	-	Howe Moss, Avenue, Kirkhill Industrial, Estate, Dyce, Aberdeen
Nippon Gases Asia Pacific PTE Ltd.	Production, marketing and sales of industrial gases	100%	-	21 Tanjong Kling road, Singapore
Nippon Gases Finance Ltd.	Finance Company	100%	-	Suit 27, 21 Lower Baggot Street, Dublin, D02 X658

# 5.8 Table of contents required under Law

# General

Sub-category		Reporting framework	Reference	Comments/ Reason for omission
Business Model	<ul> <li>Brief description of the group's business model:</li> <li>Business environment Organization and structure</li> <li>Market presence</li> <li>Objectives and strategies</li> <li>Main factors and trends that affect the company's future evolution</li> </ul>	GRI 102-2 Activities, brands, products, and services. GRI 102-4 Location of operations. GRI 102-6 Markets served. GRI 102-7 Scale of the organization. GRI 102-15 Key impacts, risks, and opportunities.	pp. 10-31	
Materiality	Materiality Analysis	103-1 Explanation of the material topic and its Coverage	pp. 15	
General	Mention in the report of the national, European or international reporting framework used for the selection of key indicators of non-financial results included in each of the sections. If the company complies with the non-financial reporting law by issuing a separate report, it must be expressly stated that such information is part of the management report.	GRI 102-54 Declaration of preparation of the report in accordance with the GRI Standards	pp. 37	
Management Approach	Description of the policies applied by the group, which will include due diligence procedures applied for the identification, evaluation, prevention and mitigation of risks and significant impacts, and to verification and control, including what measures have been taken.	GRI 103-2 Management approach and its components	pp. 43-46	
	Results of these policies, including key indicators of relevant non-financial results that allow the monitoring and evaluation of progress, in accordance with the national, European or international reference frameworks used for each subject.	GRI 103-3 Evaluation of the management approach		
	Main risks related to those issues linked to the group's activities.	GRI 102-15 Main impacts, risks and opportunities		

# Environment

Sub-category		Reporting framework	Reference	Comments/ Reason for omission
Environmental management	Current and foreseeable effects of the company's activities.	"Internal reporting fram foreseeable effects of thee company's activitie GRI 308-2 Negative environmental impacts on the supply chain and measures taken."	рр. 60-62, 109	
	Fines or penalties derived from non-compliance with laws or regulations on the Environment	GRI 307-1 Non-compliance with environmental legislation and regulations.		
	Environmental assessment and certification procedures.	"Internal reporting framework: qualitative description of assessments and certifications. 308-1 New suppliers who have passed evaluation and selection filters according to environmental criteria"		
	Resources dedicated to the prevention of environmental risks.	Internal reporting framework: quan dedicated to the prevention oftitative and qualitative description of resources environmental risks.	-	Evaluation of environmental risk have not been identified as high probability with the locations we operate
	Implementation of the precautionary principle. Amount of provisions and guarantees	GRI 102-11 Precautionary Principle or approach. Internal reporting frame and guarantees forwork: q environmental risks.ualitative description of the amount of provisions	рр. 60-62, 109	
	Amount of provisions and guarantees for environmental risks.	Internal reporting framework: qualitative description of the amount of provisions and guarantees for environmental risks	-	Evaluation of environmental risk have not been identified as high probability with the locations we operate
Pollution	Measures to prevent, reduce or repair emissions that seriously affect the	GRI 305-6 Emissions of ozone- depleting substances (ODS)	pp.70-71, 109	
	environment, including any form air, noise and light pollution	GRI 305-7 Nitrogen oxides (NOx), sulphur oxides (SOx) and other significant emissions into the air		
Circular economy and waste prevention and management	Measures related to prevention, recycling, reuse and other form of waste recovery and disposal.	"GRI 301-2 Recycled inputs 301-3 Reused products and packaging materials GRI 306-1 Discharge of water according to its quality and destination GRI 306-2 Waste by type and method of disposal"	pp. 57, 62, 93, 109	
	Actions to avoid food waste.	GRI 306-2 Waste by type and method of disposal	-	Our process and facilities do not generate a material amount of food waste
Sustainable use of resources	Water consumption and water supply in accordance with local constrains	GRI 303-1 Water extraction by source	pp. 72-74, 94, 109	
	Raw materials consumption and measures taken to improve the efficiency of its use	GRI 303-3 Recycled water GRI 301-1 Materials used by weight or volume	рр. 75	
	Direct and indirect energy consumption	"GRI 302-1 Energy consumption within the organization GRI 302-2 Energy consumption outside the organization GRI 302-3 Energy intensity"	рр. 63-64, 109	
	Measures taken to improve energy efficiency	"Internal reporting framework: qualitative description of the measures taken. GRI 302-4 Reduction of energy consumption"	pp. 65-67	
	Use of renewable energy	GRI302-1 Energy consumption within the organization	pp. 63, 67, 93, 109	

SUSTAINABILITY REPORT 2022

Climate change	Relevant aspects regarding greenhouse gas emissions as a result of the company's activity, including goods and services produced by the company	"GRI 305-1 Direct GHG emissions (scope 1) 305-2 Indirect GHG emissions when generating energy (scope 2) GRI 305-3 Other indirect GHG emissions (scope 3) GRI 305-4 GhG emission intensity"	рр. 56-59, 67-70, 108	
	Measures taken to adapt to climate change	Internal reporting framework: qualitative description of the measures taken to adapt to the consequences of climate change.	pp. 57-58	
	Voluntary reduction targets	"Internal reporting framework: quantitative description of voluntary reduction targets. GRI 305-5 Emission reduction"	pp. 8-9, 18, 21, 68	
Biodiversity protection	Measures taken to preserve or restore biodiversity	304-3 Protected or restored habitats	pp. 92, 104	
	Impacts caused by activities or operations in protected areas	304-2 Significant impacts of activities, products and services on biodiversity	-	The company's impact on biodiversity is not significant

# Social and employee related matters

Sub-category		Reporting framework	Reference	Comments/ Reason for omission
Employment	Total number of employees and distribution by country, gender, age and professional category	GRI 102-8 Information on employees and other workers.	рр. 78-79, 110	The company reports the total number and distribution of employees by gender, age and professional category; the breakdown of the number of employees by country is not included to avoid a competitive advantage towards our competitors
	Total number and distribution of employment contract modalities	GRI 102-8 Information on employees and other workers.	pp. 110	
	Annual average of indefinite, temporary and part-time contracts by gender, age and professional category.	GRI 102-8 Information on employees and other workers.	pp. 110	The information provided refers to the number of contracts at the end of the fiscal year due to the difficulty to obtain average annual values. Given the company's low turnover rate, it is considered a good estimation of the average number of contracts for the year ended March 31, FYE2022.
	Number of dismissals by gender, age and professional category	Internal reporting framework: quantitative description of the number of dismissals and their breakdowns.	págs. 110	
	Gender pay gap	"Internal reporting framework: (average women remuneration - average men remuneration)/ average men remuneration. GRI 405-2 Ratio of basic salary and remuneration of women to men"	págs. 111	
	Average remuneration by gender, age and professional category.	Internal reporting framework: qualitative description of the average remuneration by gender, age and professional category.	-	The company does not report the average remuneration by gender, age and professional category.
	Average remuneration of the Board of Directors by gender.	Internal reporting framework: qualitative description of the average remuneration of the Board of Directors by gender.	-	The sole Administrator and the members of senior management who may hold positions of administrators or board member in the parent company have not received any specific remuneration for this concept.

Employment	Average remuneration of directors by gender.	Internal reporting framework: qualitative description of the average remuneration of directors by gender.		The company does not re the average remuneration directors by gender.
	Implementation of labor Disconnection policies.	Internal reporting framework: qualitative description of the implementation of labour disconnection policies.	-	The company has no labo disconnection policy.
	Number of employees with disabilities	Internal reporting framework	pp. 111	
Work organization	Organization of working time	Internal reporting framework: qualitative description of the organization of working time.	pp. 78-79, 86, 101	
	Number of absenteeism hours	"Internal reporting framework: quantitative description of the number of total hours of absenteeism. GRI 403-2 Types of accidents and frequency rate of accidents, occupational diseases, days lost, absenteeism and number of deaths due to accident at work or occupational disease"	pp. 112	
	Measures to promote work- life balance and co-parenting responsibilities	"Internal reporting framework: qualitative description of the measures. GRI 401-3 parental permission"	pp. 86	
Health and safety	Occupational health and safety conditions	"Internal reporting framework: qualitative description of occupational health and safety conditions. GRI 403-2 Types of accidents and frequency rate of accidents, occupational diseases, days lost, absenteeism and number of deaths due to accident at work or occupational disease"	pp. 86-89	
	Number of work accidents	GRI 403-2 Types of injury and rates of injury, occupational diseases, lost days, and absenteeism, and number of work-related fatalities.	pp. 88	
	Frequency rate by sex	"403-2 Types of accidents and	p.88	
	Severity rate by sex	frequency rate of accidents, occupational diseases, days	p.89	
	Occupational diseases by sex	lost, absenteeism and number of deaths due to accident at work or occupational disease 403-3 Workers with high incidence or high risk of diseases related to their activity"	-	No occupational disease have been registered
Labor relations	Social dialogue organization, including procedures to inform and consult with employees and to negotiate with them	Internal reporting framework: qualitative description of the organization of social dialogue. GRI 403-1 Representation of workers in formal worker-company health and safety committees.	pp. 83-84	
	Percentage of employees covered by collective agreements, by country	GRI 102-41 Collective bargaining agreements.	pp. 80	
	Balance of collective agreements especially in the field of health and safety	Internal reporting framework: qualitative description of the balance of collective agreements.	pp. 111	
Training	Training policies implemented	"GRI 404-1 Average training hours per year per employee GRI 404-2 Programs for upgrading employee skills and transition assistance programs."	pp. 48, 80-81, 87, 89, pp.111	
	professional category	assistance programs."	1- p	

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Universal accessibility of people with disabilities		Internal reporting framework: qualitative description of the universal accessibility of people with disabilities.	рр. 79
Equality	ualityMeasures taken to promote equal treatment and equal opportunities for women and men"Internal framework: Qualitative description of measures taken to promote equal treatment and opportunities for women and menEquality plans measures adopted to promote employment, protocols 	рр. 80-81	
		pp. 80-81	
		pp. 79	
	Policy against all types of discrimination and, where appropriate, management of diversity	Reporting framework: Qualitative description of the diversity management.	pp. 80-81

# Human rights

Subcategory	Reporting framework	Reference
Application of due diligence procedures in the field of human rights	"GRI 102-16 Values, Principles, Standards and Norms of Conduct. GRI 102-17 Counselling mechanisms and ethical concerns."	pp. 44, 46-47
Prevention of the risks of violation of human rights and, where appropriate, measures to mitigate, manage and repair possible abuses committed		pp. 44-47
Human rights violations complaints	"GRI 102-17 Mechanisms for advice and concerns about ethics. GRI 406-1 Cases of discrimination and actions corrective measures undertaken"	pp. 47, 112
Promotion and compliance with ILO's provisions related to freedom of association and collective bargaining; the elimination of work discrimination, forced or compulsory labor and the effective abolition of child labor	"GRI 102-16 Values, principles, standards, and norms of behavior GRI 102-17 Mechanisms for advice and concerns about ethics."	рр. 80, 11

# Corruption and bribery

Subcategory	Reporting framework	Reference
Measures taken to prevent corruption and bribery	"GRI 102-16 Values, principles, standards, and norms of behavior. GRI 102-17 Mechanisms for advice and concerns about ethics."	pp. 44, 46-47
Measures to combat money laundering		pp. 46
Contributions to non -profit organizations	GRI 201-1 Direct economic value generated and distributed	pp. 112

# Society

Sub-category		Reporting framework	Reference	Comments/ Reason for omission
Commitment with sustainable development	Impact of the company's activity on employment and local development	"GRI 413-1 Local community involvement operations, impact assessments and development programmes GRI 102-43 Focus on stakeholder engagement"	pp. 32-33, 90-97	
	Impact of the company's activity on local populations and territories		pp. 32-33, 90-97	
	Company's relations with local communities' agents and dialogue channels		pp. 32-33, 90-97	
	Partnerships and sponsorship actions	GRI 102-13 Membership of associations.	pp. 90-97, 104-108	
Sustainable supply chain	Inclusion of social, gender equality and environmental matters in the company's purchasing policy	"GRI 308-1 New suppliers who have passed evaluation and selection filters according to environmental criteria. GRI 414-1 New suppliers who have passed evaluation and selection filters according to social criteria."	pp. 8, 50-51	
	Consideration in the suppliers and subcontractors' relations of their social and environmental responsibility	Internal reporting framework: qualitative description of the management carried out.	pp. 43, 50-51	
	Monitoring systems and audits and results	Internal reporting framework: qualitative and quantitative description of monitoring and audit systems, and the results.	pp. 43, 50-51, 112	
Consumer relationship management	Measures to protect consumers' health and safety	GRI 416-1 Assessment of health and safety impacts of categories of products or services	86-87,94, 109	
	Complaint systems	"Internal framework: Qualitative description of the complaints received and their resolution. Internal framework: Qualitative description of the complaints received and their resolution."	pp. 49,112	
	Complaints received and their resolution		pp. 49	
Tax information	Profits obtained by country	Internal reporting framework: quantitative description of the profits obtained before taxes	-	No information is provided on the profits obtained before taxes and taxes on profits paid and its historical evolution by country as such disclosures are considered detrimental to the company's commercial and competitive position. Profits obtained before taxes and taxes on profits paid are located in Note X of the Group's Consolidated Annual Accounts FYE2022
	Taxes paid on profits	Internal reporting framework: quantitative description of taxes on profits paid.	pp.35	
	Public subsidies received.	GRI 201-4 Financial assistance received from government	-	The company has received no material public subsidies during the fiscal year.



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Independent Limited Assurance Report of the Sustainability Report for the year ended March 31, 2022

NIPPON GASES EURO-HOLDING S.L.U. AND SUBSIDIARIES

#### INDEPENDENT LIMITED ASSURANCE REPORT OF THE SUSTAINABILITY REPORT

Translation of a report originally issued in Spanish. In the event of discrepancy. the Spanish-language version prevails

To the Shareholders of NIPPON GASES EURO-HOLDING S.L.U.

Pursuant to article 49 of the Code of Commerce we have performed a verification, with a limited assurance scope, of the accompanying Sustainability Report for the year ended March 31, 2022, of NIPPON GASES EURO-HOLDING S.L.U. and Subsidiaries (hereinafter, the Group), which is part of the accompanying Consolidated Directors' Report of the Group.

The content of the Sustainability Report includes additional information to that required by prevailing mercantile regulation in relation to non-financial information that has not been subject to our verification. In this regard, our review has been exclusively limited to the verification of the information shown in the Appendix 5.8 "GRI Content Index & Table of contents required under Law 11/2018" of the accompanying Sustainability Report.

#### **Responsibility of the Board of Directors**

The preparation of the Sustainability Report included in the Consolidated Directors' Report and its content is the responsibility of the Board of Directors of NIPPON GASES EURO-HOLDING S.L.U. The Sustainability Report was prepared in accordance with the content required by prevailing company law and in conformity with the criteria outlined in the Global Reporting Initiative Sustainability Reporting Standards (GRI standards) selected, as well as other criteria described in accordance with that indicated for each subject in the Appendix 5.8 "GRI Content Index & Table of contents required under Law 11/2018" of the Sustainability Report.

The Board of Directors are also responsible for the design, implementation and maintenance of such internal control as they determine is necessary to enable the preparation of a Sustainability Report that is free from material misstatement, whether due to fraud or error.

They are further responsible for defining, implementing, adapting and maintaining the management systems from which the information necessary for the preparation of the Sustainability Report is obtained.

#### Our independence and quality control

We have complied with the independence and other Code of Ethics requirements for accounting professionals issued by the International Ethics Standards Board for Accountants (IESBA), which is based on the fundamental principles of integrity, objectivity, professional competence, diligence, confidentiality and professionalism.

Our Firm complies with the International Standard on Quality Control No. 1 and thus maintains a global quality control system that includes documented policies and procedures related to compliance with ethical requirements, professional standards, as well as applicable legal provisions and regulations.

The engagement team consisted of experts in the review of Non-Financial Information and, specifically, in information about economic, social and environmental performance.



#### Our responsibility

Our responsibility is to express our conclusions in an independent limited assurance report. Our review has been performed in accordance with the requirements established in prevailing International Standard on Assurance Engagements 3000 "Assurance Engagements Other than Audits or Reviews of Historical Financial Information" (ISAE 3000 Revised) issued by the International Auditing and Assurance Standards Board (IAASB) of the International Federation of Accountants (IFAC) and the guidelines for verifying Non-Financial Statement, issued by the Spanish Official Register of Auditors of Accounts (ICJCE).

The procedures carried out in a limited assurance engagement vary in nature and timing and are smaller in scope than reasonable assurance engagements, and therefore, the level of assurance provided is likewise lower.

Our work consisted in requesting information from Management and the various Group units participating in the preparation of the Sustainability Report, reviewing the process for gathering and validating the information included in the Sustainability Report, and applying certain analytical procedures and sampling review tests as described below:

- Meeting with Group personnel to know the business model, policies and management approaches applied, the main risks related to these matters and obtain the necessary information for our external review.
- Analyzing the scope, relevance and integrity of the content included in the Sustainability Report based on the materiality analysis made by the Group and described in the Appendix 5.6 "About this report", considering the content required by prevailing mercantile regulations.
- Analyzing the processes for gathering and validating the data included in the Sustainability Report for the year ended March 31, 2022.
- Reviewing the information on the risks, policies and management approaches applied in relation to the material aspects included in the Sustainability Report.
- Checking, through tests, based on a selection of a sample, the information related to the content of the Sustainability Report for the year ended March 31, 2022 and its correct compilation from the data provided.
- > Obtaining a representation letter from the Board of Directors and Management.

#### Basis for qualified conclusion

The Sustainability Report does not include information regarding to the number and distribution of employees by country, the average remuneration of directors by gender nor the average remuneration of employees disaggregated by gender, age and professional category, as required by the Law 11/2018, of 28 December, on the subject of non-financial information and diversity.



#### Qualified conclusion

Based on the limited assurance procedures conducted and the evidence obtained, except for the impact of the matters described in "Basis for qualified conclusion", no additional matter has come to our attention that would cause us to believe that the Group's Sustainability Report for the year ended March 31, 2022 has not been prepared, in all material respects, in accordance with the contents required by prevailing company law and the criteria of the selected GRI standards, as well as other criteria, described as explained for each subject matter in the Appendix 5.8 "GRI Content Index &Table of contents required under Law 11/2018" of the Sustainability Report.

#### Use and distribution

This report was prepared in response to the requirement established by prevailing company law in Spain and may not be appropriate for other uses and jurisdictions.

June 30th, 2022

ERNST & YOUNG, S.L.

(Signature on the original in Spanish)

Alberto Castilla Vida

