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Reference

## Sustainability Initiatives

ESPEC CORP.  
May 23, 2024

# About ESPEC's Sustainability

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Guided by our corporate philosophy,  
“THE ESPEC MIND,” ESPEC will help to solve social and  
environmental issues through businesses centered on  
environmental creation technology, with the aim of achieving  
sustainable growth.

# Corporate Philosophy

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Our important values that have been passed on since our inception  
“THE ESPEC MIND” (Excerpt)

## The Origin

Aim for better value exchange as a public institution

## Mission

Provide more certain Seikankyo (living environment) via environmental creation technology

## Style

Progressive, Reliable, Open, Fair

## Declaration

What ESPEC promises society

“compliance,” “culture,” “human rights,” “the environment,”  
“education/enlightenment.”

# Sustainability Policy and Materiality

Looking toward sustainable growth, we formulated a sustainability policy, and identified materiality (important issues) that must be addressed in order to produce social and economic value.

## Sustainability Policy

- By putting our corporate philosophy (THE ESPEC MIND) into practice, we are working to create and improve both social value and economic value.
- By maintaining a good exchange of value with our stakeholders, we are aiming for continuing growth.
- Based on ESPEC Vision 2025, we will contribute to solutions for the global environment and social issues through our business activities, centering on Environmental Creation Technology.
- We will engage in active disclosure of information related to sustainability.

## Materiality

- Solve social challenges through global business
- Provide products and services with responsibility
- Be environmentally friendly
- Help employees grow and create job satisfaction
- Carry out fair and transparent management

# ESPEC's Contribution to the SDGs

ESPEC will contribute to the realization of a sustainable society by supplying products and services centered on environmental creation technology in a wide range of fields, including advanced technologies.

## ESPEC

### The Value ESPEC Provides

- Supply products and services centered on environmental creation technology
- Provide environmental preservation services
- Provide plant factories to address global warming and extreme weather

### Strengths

- Business domains essential to the development of society
- Global leading brand and high-quality products and services based on a unique technologies
- Global production and sales networks

## Customer products and technologies



- Automobiles  
(EVs and automated driving)
- Electronic components (semiconductors)
- IoT
- AI
- Batteries
- Pharmaceuticals
- Food
- Materials
- Environmental preservation
- Agriculture etc.

## Society

Realize a sustainable society



- Realize a safe and secure society through the development of automated driving and preventive safety technologies for automobiles
- Contribute to the solution of environmental and energy problems through the development of energy-saving technologies and EV technologies
- Alleviate personnel shortages and improve productivity through the development of IoT-related technologies
- Preserve biodiversity through the environmental preservation business, including reforestation (tree planting) and waterfront biotope restoration
- Support research on the creation of new plant species to cope with extreme weather and provide a stable supply of food through plant factories. etc.

# ESPEC's Businesses and the SDGs

## Equipment Business



Contribute to the development of advanced technologies through the supply of products and services leveraging environmental creation technology

- Supply products and services that contribute to the development of advanced technologies to solve social and environmental issues

### ● Environmental Test Chamber

Supply environmental test chambers that artificially replicate environmental factors such as temperature and humidity, thereby ensuring the reliability of products

### ● Energy Device Equipment

Supply evaluation systems for secondary batteries and fuel cells installed in eco cars

### ● Semiconductor Equipment

Supply products such as burn-in chambers and systems for semiconductor inspection and measurement and evaluation systems

### ● Pharmaceutical Equipment

Supply products such as Freezer for Temperature Controlled Transport for transporting biopharmaceuticals etc. and stability test chambers for pharmaceuticals etc.



Temperature & Humidity Chamber  
"Platinous J series"



Drive-In Chamber for Vehicle Testing



Burn-In chamber  
for semiconductor inspection



Secondary Battery Charge-Discharge  
Evaluation System

# ESPEC's Business and the SDGs

## Service Business



Contribute to the development of advanced technologies through the supply of products and services leveraging environmental creation technology

- Supply products and services that contribute to the development of advanced technologies to solve social and environmental issues

### ● After-sales Service and Engineering

Conduct product maintenance and preventive maintenance so that customers can use systems with peace of mind.

### ● Laboratory Testing Services

Provide laboratory testing services based on technologies and testing expertise developed through environmental tests.



Technical support using IT



Capable of performing various safety tests for secondary batteries compliant with United Nations regulations and other standards

Battery Safety Testing Center



# ESPEC's Business and the SDGs

## Environmental Conservation Business



### Contribute to biodiversity conservation

Environmental conservation business to restore the natural environment, including reforestation (tree planting) that contributes to biodiversity and CO2 fixation, waterfront biotope restoration to restore natural rivers, and grassland creation using native species.



A forest restored along the approach to Rinno-ji Temple in Sendai



Waterfront biotope restoration on the Sumida River Terrace in Tokyo

## Plant Production Systems Business



### Contribute to a stable food supply to address global warming and extreme weather

Provide plant factories and research devices that can efficiently produce vegetables by controlling temperature, light, and other factors, as well as systems such as aquaponics that circulate water and nutrients to grow vegetables and fish together.



Plant factory using deep sea water  
Produce and sell vegetables high in minerals



Experimental System for Analyzing Responses of Dryland Plants to Climate Change  
(Arid Land Research Center, Tottori University)



# Contribute to SDGs in the Supply Chain

## Procurement

- Conduct supplier evaluations, including factors such as the environment and compliance
- Address unforeseen conditions through business continuity management
- Curtail increases in effluents at the time of procurement



## Development and design

- Develop and design environmentally friendly products with features such as energy efficiency, low GWP, reduced emissions of chemical substances, and reduced environmental impact during disposal



## Production and logistics

- Reduction of CO<sub>2</sub> emissions
- Appropriate management of chemical substances and emissions mitigation
- Reduction of water intake amount and appropriate management of wastewater
- Effluent reduction and recycling
- Environmentally friendly logistics



## Sale of products and services

- Supply products and services that contribute to the development of advanced technologies to solve social and environmental issues
- Supply environmentally friendly products and services
- Promote the environmental preservation business such as reforestation (tree planting) and waterfront biotope restoration
- Promote the plant production systems business



## Disposal

- Product collection
- Chlorofluorocarbon gas collection
- Recycling and resale



## Foundation supporting the supply chain

- Improve customer satisfaction and ensure product quality and safety
- Respect for human rights • Promote the success of diverse human resources
- Provide appropriate information disclosure and communication
- Fair management with transparency



# Products and Services that Contribute to Resolving Environmental and Energy Issues

- Product lineup to evaluate the performance and durability of secondary batteries, fuel cells, solar batteries and power devices



Secondary Battery Charge-Discharge Evaluation System



Fuel Cells Evaluation System



Temperature Cycle Test System for Solar Battery Modules



Power Cycle Test System for Power Device

- World's first Battery Safety Testing Center

Supports the implementation of testing and certification application services compliant with United Nations regulations on the safety of automotive rechargeable batteries.



Battery Safety Testing Center

- Laboratory testing services using 100% renewable energies (domestic)

# Environment Targets / Mid-term Plan on the Environment

## Environment Targets for FY2030

Reduce greenhouse gas emissions

by 60% for SCOPE 1+2, 30% for SCOPE 3 (compared with FY2019 levels)

In July 2023, received Science Based Targets (SBT) certification from the international SBT Initiative\*

\*SBT Initiative

An international initiative that encourages firms to set scientifically-grounded targets for reducing greenhouse gas emissions so that the goals of the Paris Agreement may be achieved. Jointly managed by CDP, which is an NGO involved in environmental information disclosure, UNGC (United Nations Global Compact), WRI (World Resources Institute), and WWF (World Wide Fund for Nature).



## The 8th Mid-Term Plan on the Environment (FY2022-FY2025)

Basic Policy: “Contributing through business with customers involved with developing green technologies”

Strengthening efforts toward combating global warming and conserving biodiversity

### ■ Environment Targets for FY2025

- Reduce greenhouse gas emissions by 55% for SCOPE 1+2 and 10% for SCOPE 3 (compared with FY2019 levels)
- Contribution of 95t (total) of carbon fixation through 50,000 trees planted by ESPEC MIC Corp.
- Biodiversity conservation activities through the “ESPEC’s 50-Year Forest” in Sanda City, Hyogo Prefecture



# Biodiversity Preservation Initiatives (1)

## Kobe R&D Center, a hub for biodiversity preservation activities ESPEC Bambi-no-Sato Certified as a “Natural Symbiosis Site” by the Ministry of the Environment

The site has a forest of approximately 30,000 trees comprising native plant species, planted and grown by employees; rooftop green space using plant species native to the northern Rokko region on the roof of the technology development building; and a biotope made up of two ponds and a stream.

Certified as “Natural Symbiosis Site” an Other Effective area-based Conservation Measures (OECM) site by the Ministry of the Environment in October 2023.



Received 2022 the Kansai Director-General's Award of a Regional Bureau of Economy, Trade and Industry (FY 2022), at the National Award for Greenery Factory sponsored by METI.



Acquired the FY 2022 ABINC Certification of the Association for Business Innovation in harmony with Nature and Community (ABINC)\* .

# Biodiversity Preservation Initiatives (2)

## Signed an agreement for promoting SDGs with the University of Hyogo

- In August 2022, ESPEC signed an agreement with the University of Hyogo aimed at promoting SDGs.
- Both parties will collaborate by harnessing their knowledge and technology in areas such as biodiversity conservation, education and human resource development, and environment and energy.



The signing ceremony  
University of Hyogo's President Isao Ota (right)  
ESPEC Representative Director and Chairperson Masaaki Ishida (left)

## Biodiversity conservation activities “ESPEC’s 50-Year Forest”

- In November 2022, started the forest creation for “ESPEC’s 50-Year Forest” using the “corporate forests” system under the Ministry of Agriculture, Forestry and Fisheries in Sanda City, Hyogo Prefecture
- Held a total of three tree-planting festivals by April 2024.
- Approximately 400 employees and others participated in planting a total of 12,000 trees over the past two years.



The 3rd Tree-Planting Festival  
Seeds were selected based on carbon fixation and biodiversity functions.



# Promotion of Diversity

## Initiatives to promote women's success



From the Ministry of Health, Labor and Welfare:  
The Company received the "Kurumin" certification, which is granted to companies that support child-rearing. And the highest ranking of the certification mark "Eruboshi" based on the Act on Promotion of Women's Participation and Advancement in the Workplace.



The female leadership development program

## ESPEC Smile Farm: a plantation staffed by workers with disabilities

- Opened a farm staffed by workers with disabilities within a rented farm operated by a company to support the hiring of people with disabilities in November 2021.
- 4 individuals were hired to work at ESPEC Smile Farm, specifically 3 staff members with disabilities and 1 farm foreman.
- The cultivated vegetables were donated to local children's cafeterias and distributed to employees.



Employees picked vegetables as a team



# Employee Education / Donation System

## Employee Education System Enhancement

- Implement training sessions to share the corporate philosophy
- Implement a Global Trainee Program aimed at developing human resources who are capable of working in international settings
- Enhance the education program to support management executive education and self-development



On-site training in the Global Trainee Program (U.S.)

## ESPEC Smile Club: a donation system featuring employee participation

- The matching gift system in which the company matches donations made by employees as part of activities to promote SDGs.
- Donated to an organization that conducts CSR activities related to children and medical care.
- In April 2024, donated to Save the Children's "Gaza Strip, Palestinian Authority - Emergency Assistance" and "2024 Noto Peninsula Earthquake Emergency Child Support" We donated a total of 893,400 yen to Save the Children Japan and Médecins Sans Frontières Japan.



# Contributions to Society

## ESPEC Foundation for Earth Environment Research and Technologies

- Provides funding support every year for research, technology development on global environmental conservation
- Grants totaling ¥138.4 million have been provided to a total of 273 groups over the past 25 years since the Foundation was established.
- Held a ceremony to commemorate the 25th anniversary of founding in September 2022



FY2022 award ceremony  
and 25th anniversary commemorative ceremony

## Tree Planting Ceremony at “Millenium Hope Hills” in Iwanuma, Miyagi Prefecture

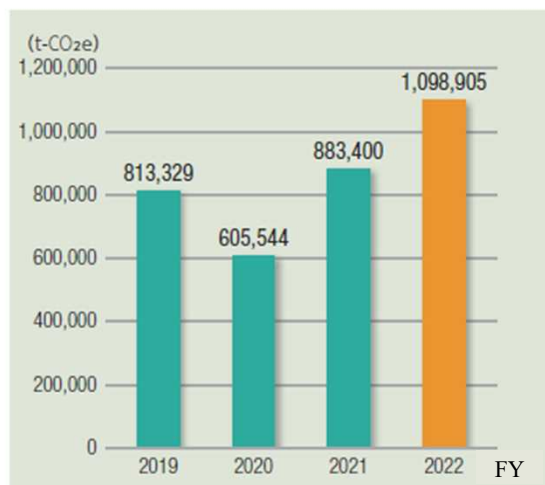
- A disaster recovery project started in 2013
- The project has cumulatively planted about 350,000 trees that will form a forested coastal tide embankment across a roughly 10km stretch of coastline in the city of Iwanuma.
- Group company ESPEC MIC CORP. supported the project.
- The final tree planting ceremony was held in June 2021 (first part) and May 2022 (second part).



Tree Planting Ceremony

# Non-Financial Data (1)

Greenhouse gas emissions  
Total of SCOPE 1 + 2 + 3 (consolidated)



Greenhouse gas emissions  
Total of SCOPE 1 + 2 (in-house emissions)  
(consolidated)



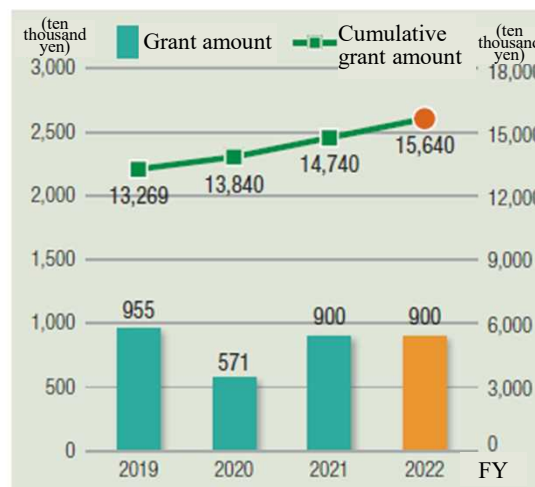
Total amount of Discharge (non-consolidated)



Certification acquisition rate for the  
Certification Test for Environmental  
Specialists (Eco Test) (non-consolidated)



Grants from the ESPEC Foundation for Earth  
Environment Research and Technologies



Number of trees planted through  
environmental preservation business



\*Actual results for ESPEC MIC CORP.

# Non-Financial Data (2)

Ratio of female managers

Ratio of female new graduates hired  
(non-consolidated)



\*As of beginning of each fiscal year

Percentage of employees with disabilities  
(non-consolidated)



\*As of the end of each fiscal year

Frequency rate\* (non-consolidated)



\*Number of accidents with sick leave  
/total number of worked hours × million hours

# Non-Financial Data (3)

		Unit	2019	2020	2021	2022
Number of Employees*1	Consolidated total	Persons	1,512	1,526	1,628	1,691
Number of Employees*1	Male	Persons	673	658	643	636
	Female	Persons	113	122	127	142
	Non-consolidated total	Persons	786	780	770	778
Average years of service		Years	17.4	19.2	19.1	17.2
Average age		Years old	41.2	43.1	43.0	41.2
Turnover rate*2		%	2.4	2.3	1.6	1.4
Average overtime hours		Hours	21.2	11.0	15.5	22.6
Average number of paid holidays taken		%	73.4	65.8	69.1	75.1
Ratio of employees taking childcare leaves	Male	%	7.0	12.5	30.8	13.3
	Female	%	None	100	100	100
Occupational accident (excluding cases without lost workdays)		Cases	1	0	2	0
Percentage of health checkups		%	100	100	100	100
Composition of Board of Directors*3	Ratio of independent outside*4	%	25	25	25	40
	Female ratio*4	%	0	0	0	20

\*1 The number of employees is as of the end of each fiscal year.

\*2 Retirees are excluded.

\*3 The Company has transitioned from a company with an Audit & Supervisory Board to a company with an Audit & Supervisory Committee in June 2022.

\*4 The number of female directors (including executive officers) is as of the end of June of each fiscal year.



# External Recognition

## ■ 2024

- Mar. • Selected as Supplier Engagement Leader for two consecutive years, the Top Rank in the CDP Supplier Engagement Ratings
- Feb. • Rated “B” score for the fourth consecutive year in the CDP Climate Change 2023, “C-” score for Water Security
- Ranked 375th in Toyo Keizai Inc.’s 2024 CSR Corporate Ranking



## ■ 2023

- Dec. • Awarded a Bronze Prize in the Gomez IR Website Ranking 2023
- Selected a Commendation Award of the 2023 Internet IR Award of Daiwa IR
- Selected as a "GRADE AAA" company website in the All-Japanese Listed Companies' Website Ranking 2023
- Nov. • Rated 3.5 stars in the Nikkei's 5th SDGs Management Survey
- Rated 3 stars in Nikkei's 7th Smart Work Management Survey
- Oct. • Ranked 157th in the Nikkan Kogyo Shimbun's 19th Corporate Power Ranking
- Aug. • First Awarded as an excellent company in the Gomez ESG Website Ranking 2023
- June • Selected for the First Time as an Asia-Pacific Climate Leader by the Financial Times in the UK and German data provider Statista.



FTSE Blossom  
Japan Sector  
Relative Index

## ■ Inclusion in ESG indexes

FTSE Blossom Japan Sector Relative Index (First Selection in April 2022)



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