

Future Technology for you

# OCEAN



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- 06. Air Condition, Heating/Cooling Maintenance
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# Introduction

01. CEO Message

02. Management Philosophy

03. Organization Chart

04. Sales Trend

05. History

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Ocean Engineering

(주)오션엔지니어링



Established in 2004, Ocean Engineering Co., Ltd. has experienced growth by prioritizing the HAVC sector and diversifying into building energy-related industries. Our main focus is on customer satisfaction, achieved through building trust and investing in cutting-edge technology through ongoing research and development, in our efforts to establish ourselves as a top energy company. Our aim is to position ourselves as a prominent company in eco-friendly HVAC, refrigeration, and building energy by taking on new challenges and implementing innovative strategies.





## Mission

Enhance customer satisfaction by carefully choosing the optimal furniture for each room and providing expert advice on the most fitting options



## Vision

No.1 Energy solution company



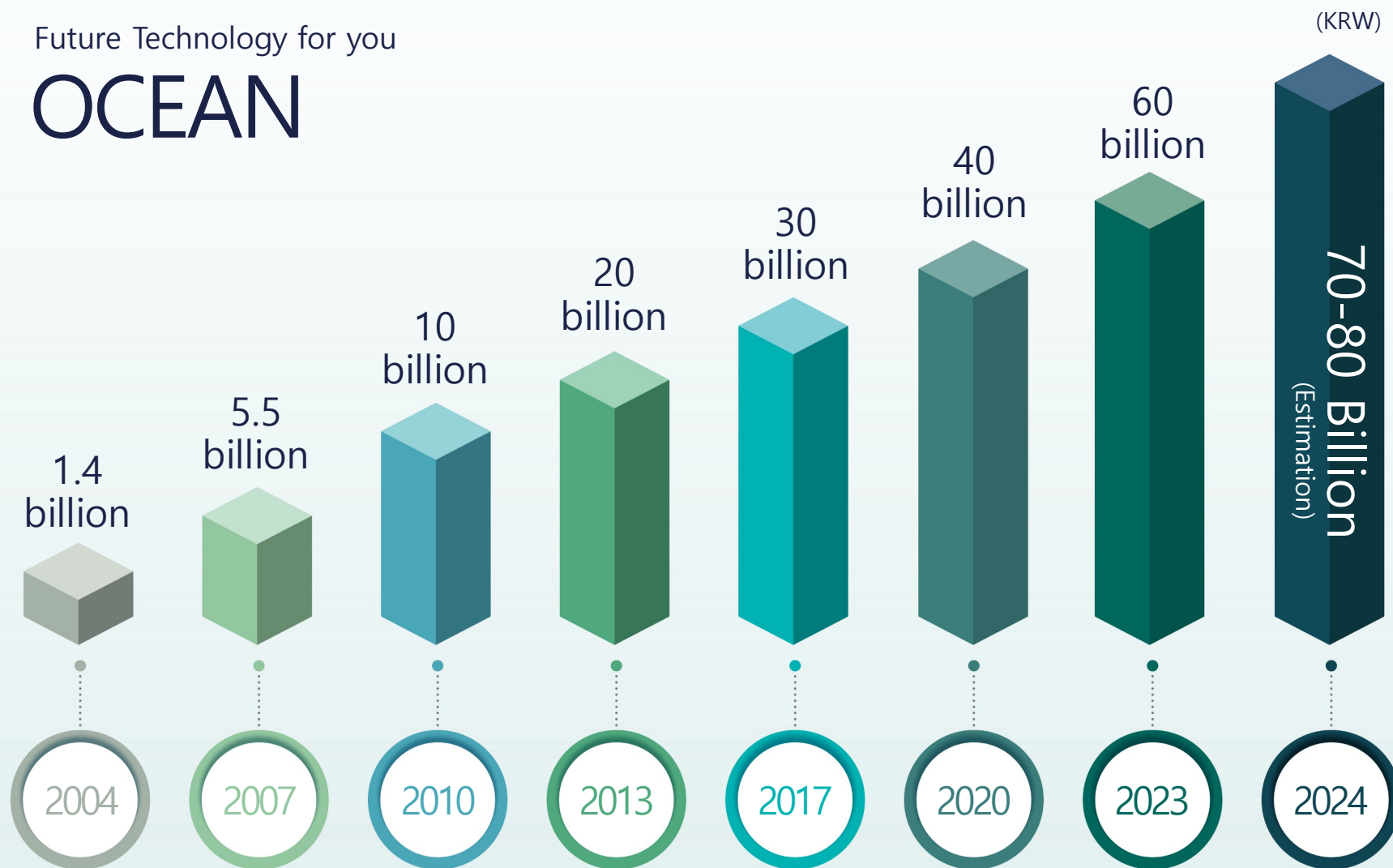
## DNA

Ownership  
Challenge  
Excellence  
Achievement  
Next wave

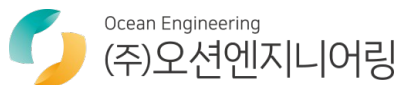


Future Technology for you

# OCEAN







2004 ~ 2006

- Established Ocean Engineering Co. Ltd.
- Registered as a Samsung Electronics Store
- Registered as a procurement agency company
- Registered as a partner company of NH Development
- Recognized as a DVM technical shop by Samsung Electronics
- Selected as the best store by Samsung Electronics

2007 ~ 2010

- Registered as a Mechanical Contractor
- Establish Daejeon branch
- Registered as an engineering business
- Registered as an energy saving company
- Registered patent for high efficiency water temperature difference heat pump
- Registered as a renewable energy specialist (geothermal)
- Registered as an ESCO (Energy Saving Company)
- Recognized by Samsung Electronics as a DVM, GHP, ERV specialty store

2014

- Selected as a green remodeling business by the Ministry of Land, Infrastructure, and Transport
- Selected as a participant in the renewable energy supply project by the Korea Energy Management Corporation

2012 ~ 2013

- Registered patent for Gas Engine Heat Pump
- Registered a patent for geothermal source constant temperature and humidity
- Registered as an electrical construction business
- Established Chungju branch
- Registered as an energy diagnostic organization

2011

- Registered as a Venture Company
- Registered as a groundwater contractor
- Established Gyeonggi Branch
- Registered as an energy diagnostic organization
- Registered as a fire protection facility business

2015 ~ 2017

- Selected as the main contractor for Green Remodeling
- Obtained a license for boring and grouting
- Awarded a plaque of merit from the Korea Equipment Association
- Registered as a building construction business

2018 ~ 2020

- Relocated to Hueam-dong new office
- Registered as a specialized fire facility construction business
- Registered patent for ventilation system using heat pump
- Established Busan Branch
- Registered as an industry utilizing groundwater development
- Registered as a real estate development business
- Registered as a venture company
- Supply Agreement with Mitsubishi Heavy Industries Thermal Systems, Ltd. for Heat Pumps

2021 ~ 2023

- Register as a machinery performance Inspector
- Registered as refrigerant recycling business
- ISO 45001 Safety and Health Management System Certification
- Registered as an SME (medium-sized enterprise)
- Established a company-affiliated research center
- Certified as an Inno-biz
- Established a branch in the western region (Gwangju Branch)
- Registered the factory





## Certifications

ISO45001 Safety and Health  
Management System

Samsung 4STAR Partner for  
5 consecutive years

Corporate Credit Rating A-

SME

ESG Composite Rating 4

Samsung Electronics Service  
Center



## Green Energy

Engineering company

Energy diagnostic  
agency

Green remodeling  
company

Energy conservation  
company

A central blue circle with the word "Construction" is surrounded by eight white rounded rectangular boxes, each containing a service. The boxes are arranged in two columns of four, connected to the central circle by small black dots. The background features a blurred image of a computer keyboard and a hand holding a pen.

## Construction

Building construction

Machinery facility works

Fire fighting facility  
construction

Electrical works

Machinery facility  
performance inspection

Boring and grouting construction /  
groundwater development and utilization  
construction

Real estate development

Refrigerant recycling

A central dark teal circle with the word "Development" is surrounded by four white rounded rectangular boxes, each containing a service. The boxes are arranged in two columns of two, connected to the central circle by small black dots. The background features a blurred image of a bar chart and a hand holding a pen.

## Development

Inno-Biz

Participated in work-  
life balance campaign

Company-affiliated  
research center

Work-learning  
balance project



The diagram features two central circular nodes. The top node is labeled 'Patents' and is surrounded by five callout boxes: 'Energy-saving high-efficiency water temperature difference heat pump heating and cooling system', 'Constant temperature and humidity using geothermal with improved reheating', 'Ventilation system using heat pump', 'Gas-engine heat pump system', and 'Shrink heat heating and cooling system'. The bottom node is labeled 'MTH Certified Distributor' and is surrounded by two callout boxes: 'Heat pump chiller' and 'CO2 Heat Pump Water Heater'. The background is a blurred image of a laptop and a person's hand.

## Patents

Energy-saving high-efficiency water temperature difference heat pump heating and cooling system

Constant temperature and humidity using geothermal with improved reheating

Ventilation system using heat pump

Gas-engine heat pump system

Shrink heat heating and cooling system

## MTH Certified Distributor

Heat pump chiller

CO<sub>2</sub> Heat Pump  
Water Heater



# Business

01. Air Condition, Heating/Cooling

Maintenance Engineering

02. Public Procurement

03. AI Ventilation and Purification

04. Heat Pump Chiller / CO<sub>2</sub> Heat Pump Water Heater

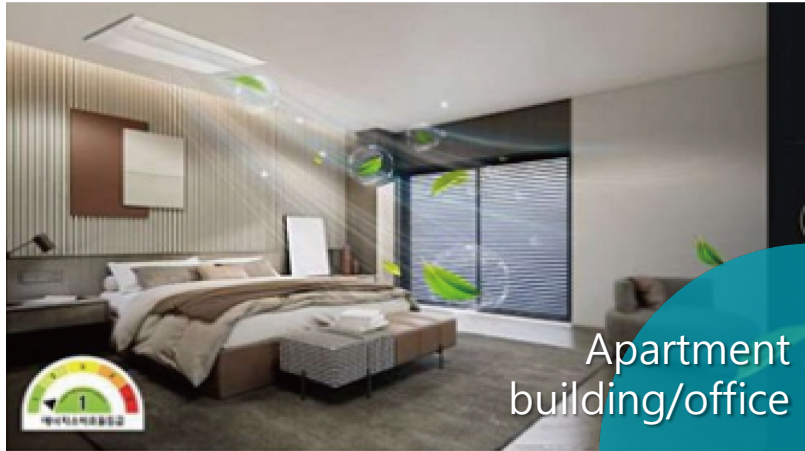
05. Energy Solution

06. Air Condition, Heating/Cooling Maintenance

07. Construction Engineering



Provides various air conditioning options tailored to the size and classification of the space, encompassing large, medium, small, residential, and central air conditioning systems.





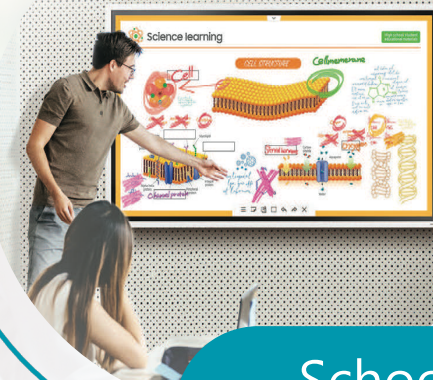


Heating and  
cooling

Schools, public  
institutions



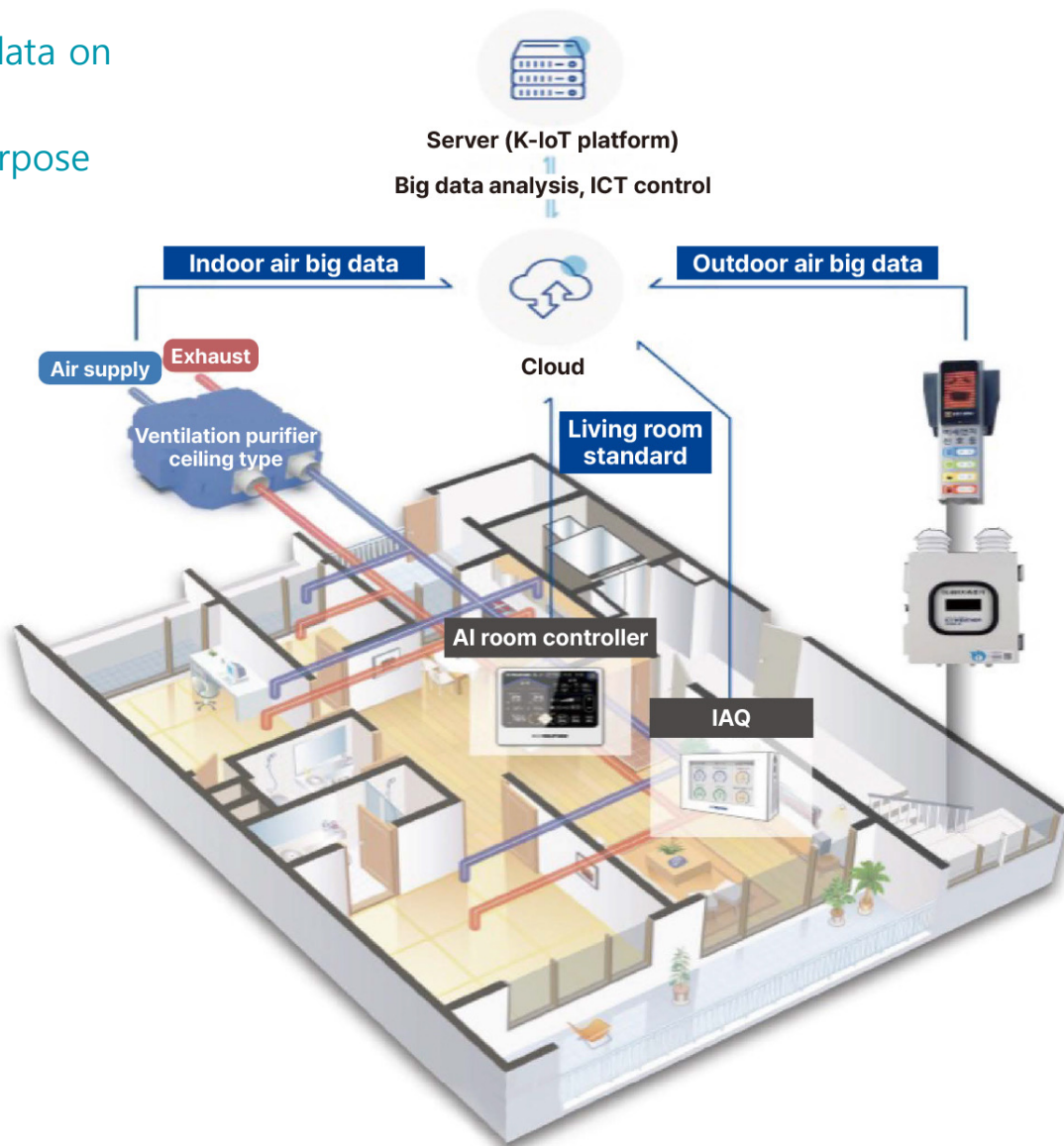
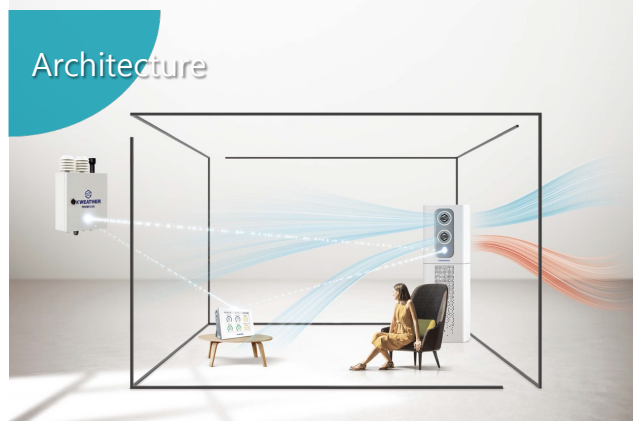
Inspection/  
Maintenance



School  
marketplace

Electronic boards,  
appliances, etc.

A solution that gathers and analyzes data on outdoor and indoor air in real time to regulate ventilation devices for the purpose of maintaining cleanliness and energy efficiency in the designated space.



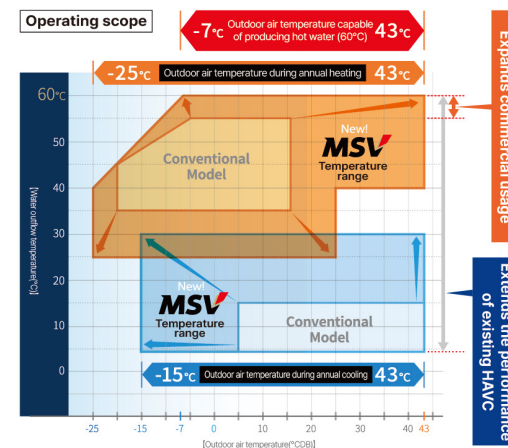


## 1 Heat pump chiller



HAVC systems for industries and environmentally-friendly buildings that retrieve heat energy from the air

Type	MSV1501P2C-K (50HP)
Cooling and heating capacity	150KW
Rated consumption (Cooling/heating)	46.4KW / 45.5KW
Cold/hot water	4°C / 60°C
Pipe diameter	65A
Operating conditions	-25°C ~ 43°C



### Application Scope



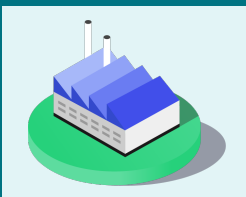
#### HAVC

Enhances capabilities of absorption-type water cooler and heater



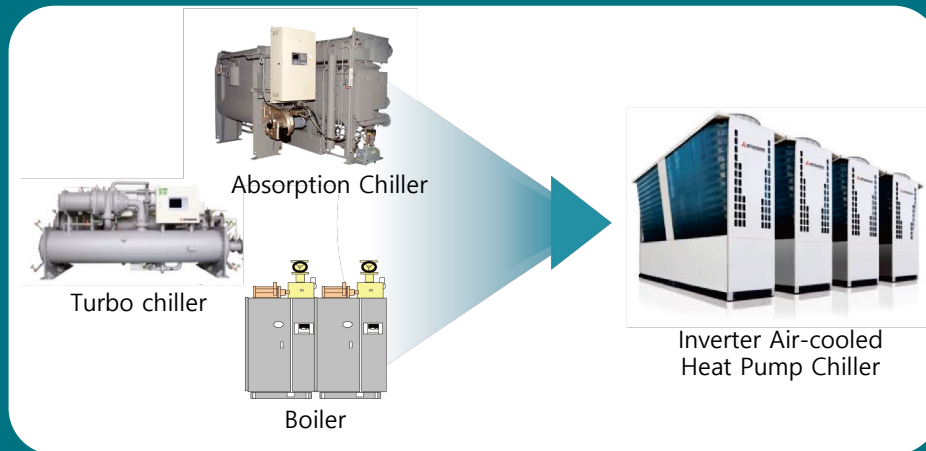
#### Commercial

Hot spring and swimming pool



#### Industrial

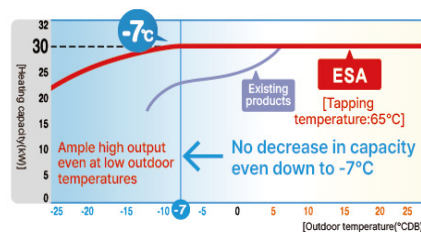
Cleaning, painting, and drying process





## 2 CO<sub>2</sub> Heat Pump Water Heater

Maintains full hot water performance in temperatures as low as  $-7^{\circ}\text{C}$  and ensures stable hot water delivery up to  $90^{\circ}\text{C}$ , even in conditions as cold as  $-25^{\circ}\text{C}$ , serving a dormitory housing 150 residents.



Conventional heat pump water heaters have a weakness in cold weather

The existing task involves commercial CO<sub>2</sub> heat pump water heaters.

As outside temperatures drop both Heating capacity Efficiency (COP) decrease significantly.



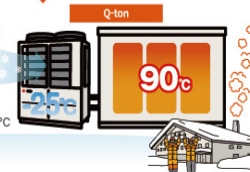
Development concept of Mitsubishi Heavy Industries Thermal Systems

Cold-resistant, high-performance, high-efficiency

**Q-ton Launched!**

Incredibly high performance, high efficiency

- Works even in freezing conditions with an outside temperature of  $-25^{\circ}\text{C}$
- Achieve industry-leading COP 4.3

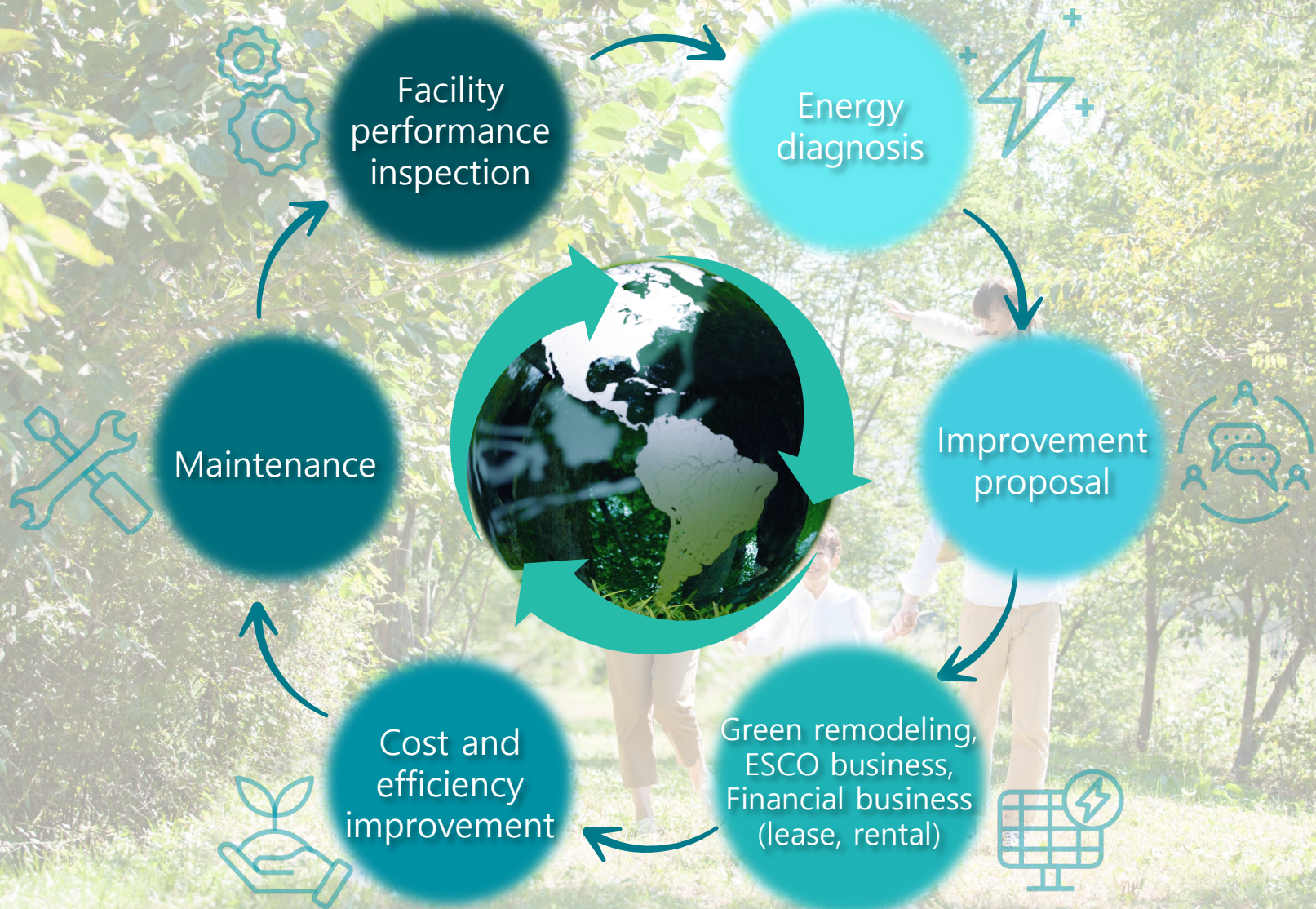


Transfers heat from the air to water



Enabling hot water provision





Regularly maintaining your air conditioner not only enhances air quality but also helps lower maintenance expenses and prolong the unit's lifespan.



## 1 Maintenance

Regular inspection

Prompt service

Remote management

Demand management

Energy analysis

Solution

Genuine-part cleaning

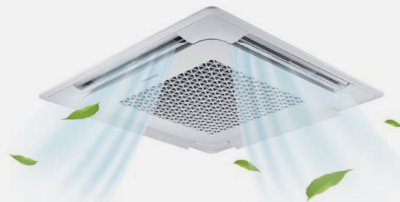
Certified cleaning  
chemical

Follow-up service

## 2 Heating and cooling cleaning

### Ensure a cozy

Indoor atmosphere by using certified chemicals and specialized cleaning products to eliminate dust, food odors, and other pollutants from the indoor and outdoor air, ensuring a clean, secure, and ideal indoor setting.



### Clean hazardous materials

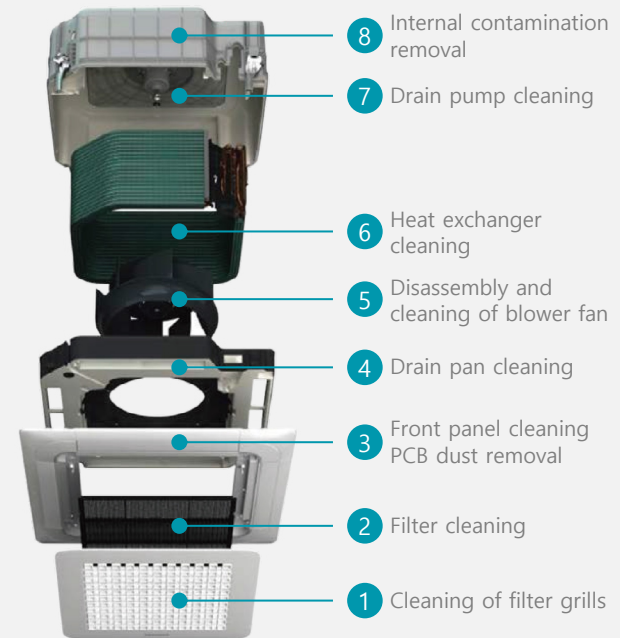
- ✓ Complete dismantling
- ✓ Cleaning with approved cleaning agents.

### Maintain the ideal indoor

- ✓ Environment by optimizing efficiency
- ✓ Airflow, and noise levels

### Systematic cleaning process

Regular cleaning helps eliminate sources of contamination and maintain products in good condition.







Construction  
works



Mechanical  
facility works



Fire protection  
works (machinery,  
electrical)



Electrical  
works



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**Thank you**



Ocean Engineering  
(주)오션엔지니어링