



All rivers are clean and no water is polluted.



6641

GSD Technologies Co.,Ltd.

2023.09.06

GREEN · SAFE · DEVELOPMENT





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Operating
Strategy



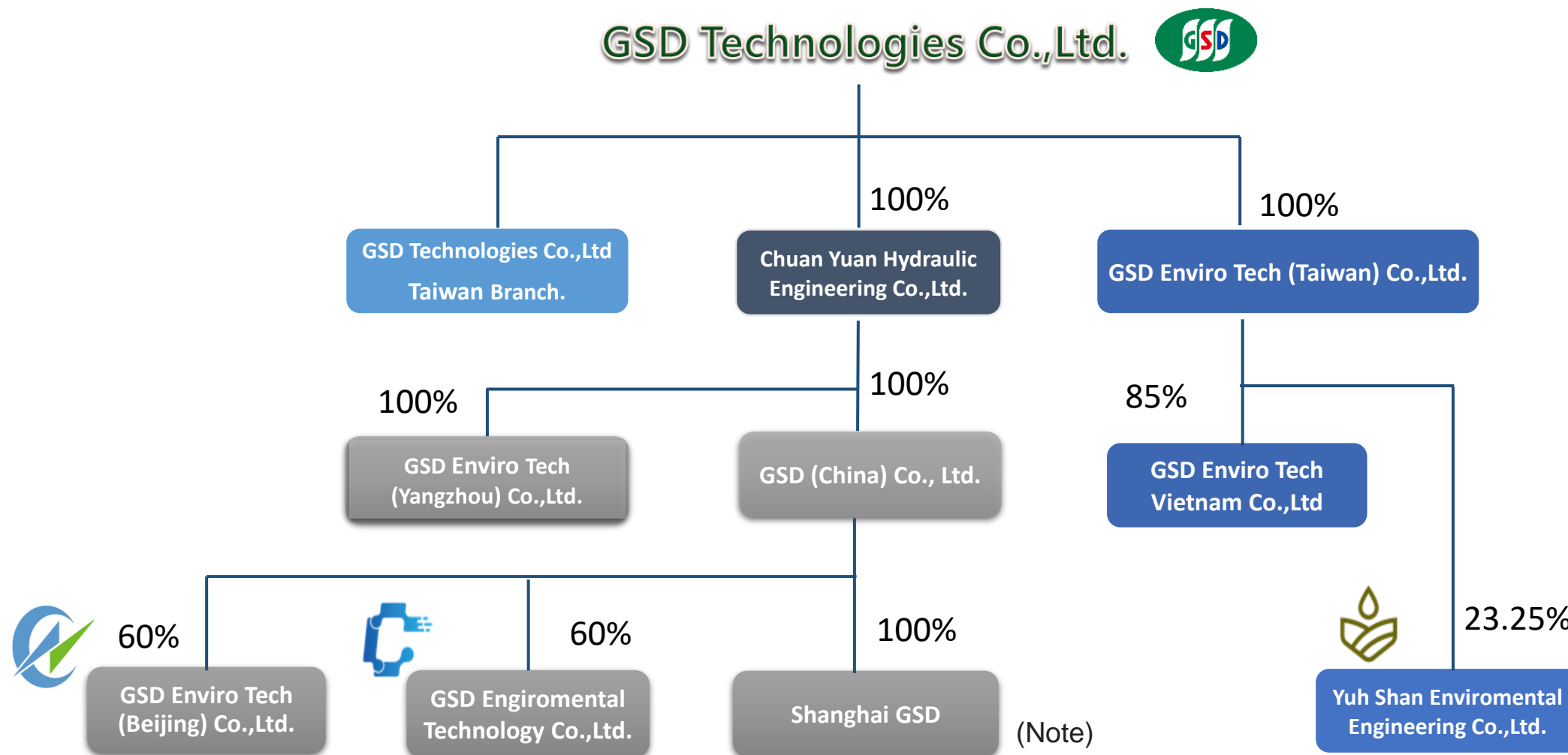
Company

Profile

01

Company	◆ GSD Technologies Co., Ltd.
Stock Code	◆ 6641
Established	◆ Oct.2013
Chairman	◆ Hung-June, Hsieh
Paid in capital	◆ NTD 370 Millions
Major business	◆ Environmental equipment manufacturing, sales and technical services.
Brand	◆ GSD
2 Plants	◆ Pinghu in Zhejiang & Yangzhou in Jiangsu
Staffs	◆ 600 employees (2023.6.30)

Company Structure



(Note) The board of director has approved the merge of Shanghai GSD by GSD (China), relevant procedures are in progress.

GREEN

Friendly commitment to the earth's environment and ecology.



SAFE

Responsible commitment to customer / supplier / employee / stakeholder/other relative organization.

DEVELOPMENT

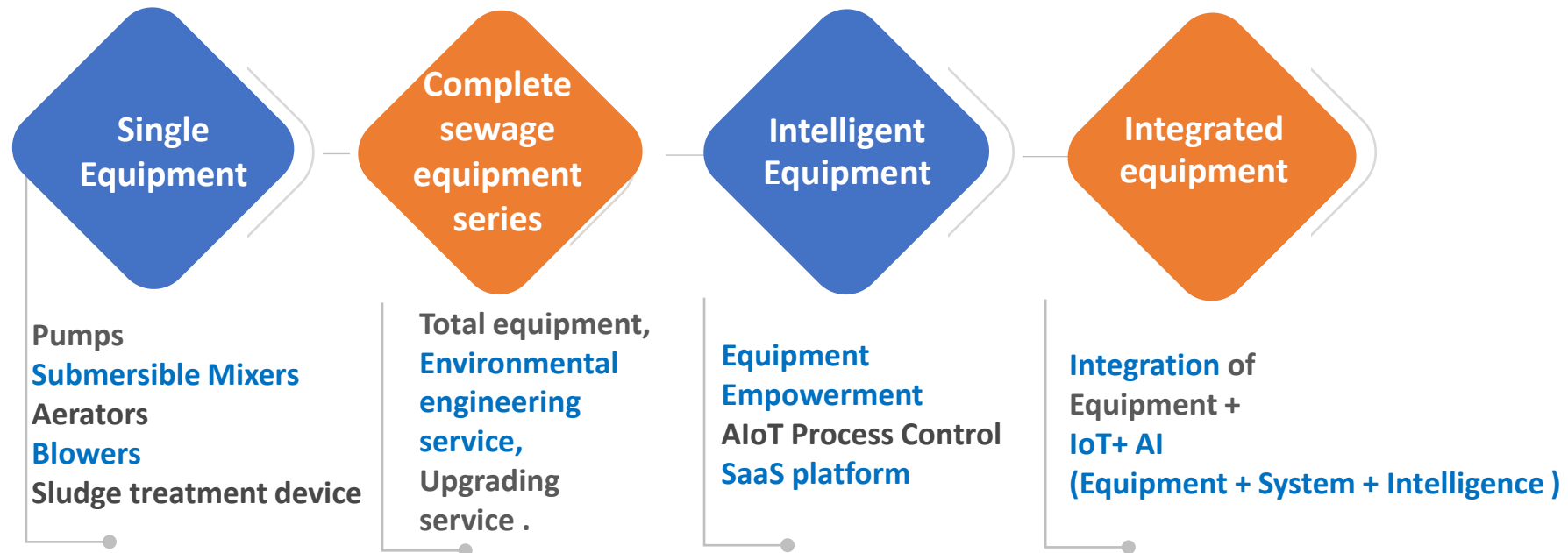
Commitment to sustainable development of the company.

Mission To optimize the ecological environment and benefit to the world.

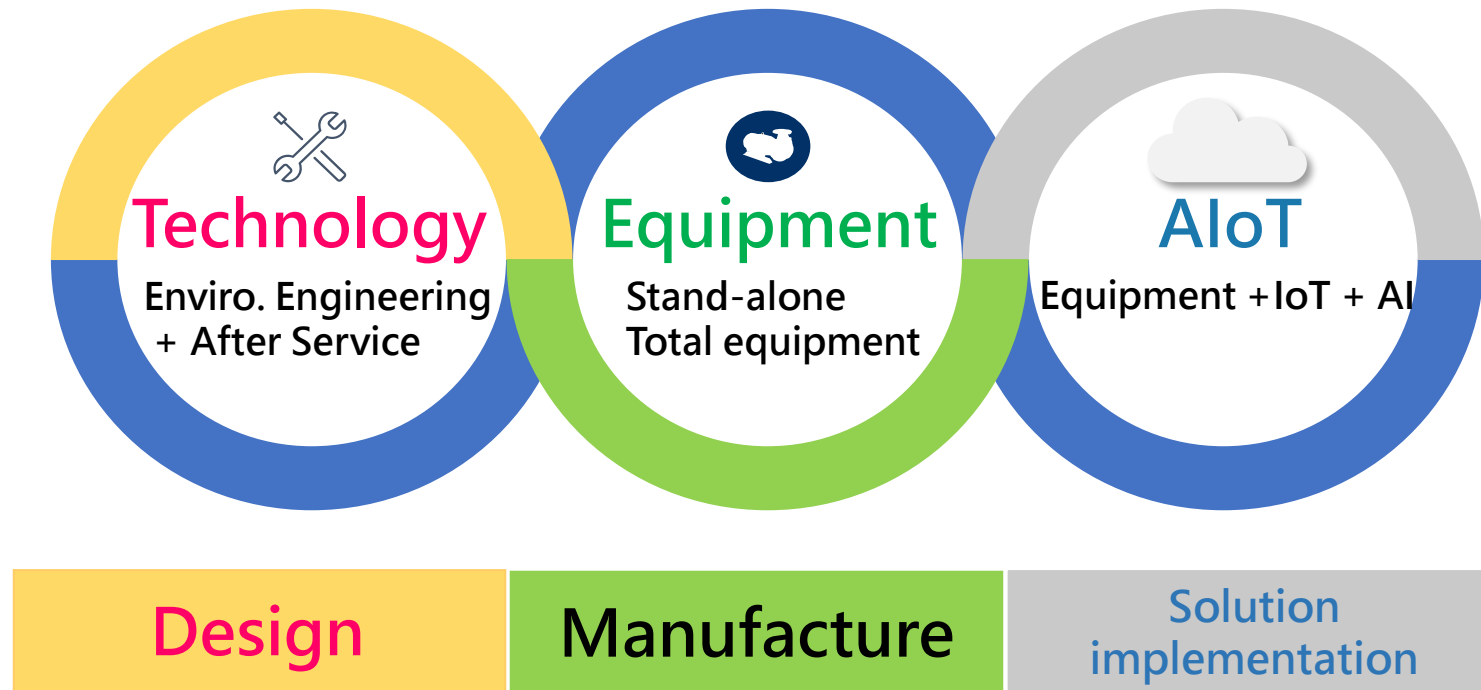
Vision

- Environment** : All rivers are clean and no water is dirty.
- Company** : Being paragon to all brands, being leader in WWTP industry.
- Colleague** : To enable our staff' s devotion in wonderful career and life.

Comprehensive provider of environmental governance



Comprehensive service provider of environmental governance





Operating Performance

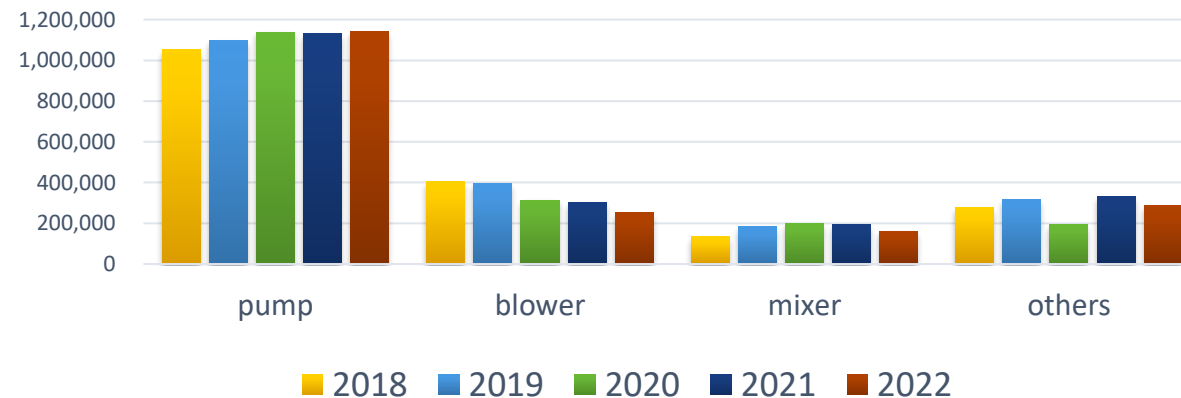
02

Product Sales/ Income Statement

Items	2018	2019	2020	2021	2021
Revenue	1,867,639	1,992,051	1,846,674	1,960,518	1,840,584
Sales margin	739,292	771,093	739,951	751,949	660,284
Op. Income	263,642	240,532	262,105	203,227	115,651
EBIT	280,499	282,631	290,949	256,126	201,685
Net income	213,672	227,154	215,511	212,274	173,925
EPS	6.86	6.79	6.52	6.30	5.00

item	2018		2019		2020		2021		2022H1	
	AMT	%	AMT	%	AMT	%	AMT	%	AMT	%
pump	1,051,424	56.30	1,097,049	55.07	1,138,671	61.66	1,130,537	57.67	1,141,152	62.00
blower	406,255	21.75	395,382	19.85	313,497	16.98	302,771	15.44	251,843	13.68
mixer	133,092	7.13	182,604	9.17	199,597	10.81	195,171	9.96	161,280	8.76
others	276,868	14.82	317,016	15.91	194,909	10.55	332,039	16.94	286,309	15.56
Total	1,867,639	100.00	1,992,051	100.00	1,846,674	100.00	1,960,518	100.00	1,840,584	100.00

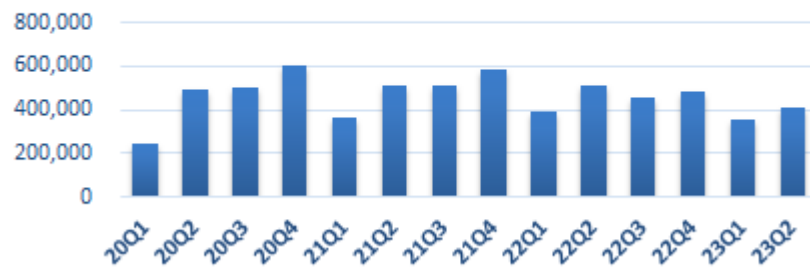
Sales by Product



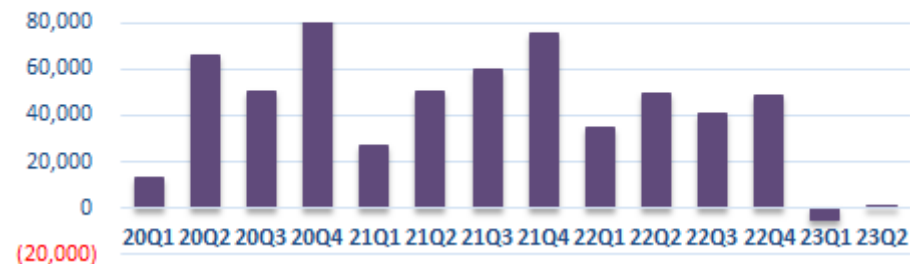
Income statement

Items	2020Q1	2020Q2	2020Q3	2020Q4	2021Q1	2021Q2	2021Q3	2021Q4	2022Q1	2022Q2	2022Q2	2022Q2	2023Q1	2023Q2
Net Sales	248,663	493,929	501,031	603,051	361,672	506,872	507,774	584,200	391,236	509,063	455,796	484,489	352,805	414,039
Sales margin	99,188	207,187	192,320	241,256	145,642	211,623	183,314	211,370	127,867	170,944	170,179	191,294	122,625	142,974
Op. Income	9,338	83,944	65,398	103,425	24,959	67,917	43,095	67,256	13,659	30,197	30,975	40,820	(7,673)	(4,761)
EBIT	17,589	91,686	67,861	113,813	30,530	62,506	76,860	86,230	32,735	58,067	47,239	63,644	(404)	3,721
Net income	13,171	65,935	50,296	86,109	27,205	50,316	59,438	75,315	35,017	49,698	41,026	48,184	(5,099)	1,379

Revenues

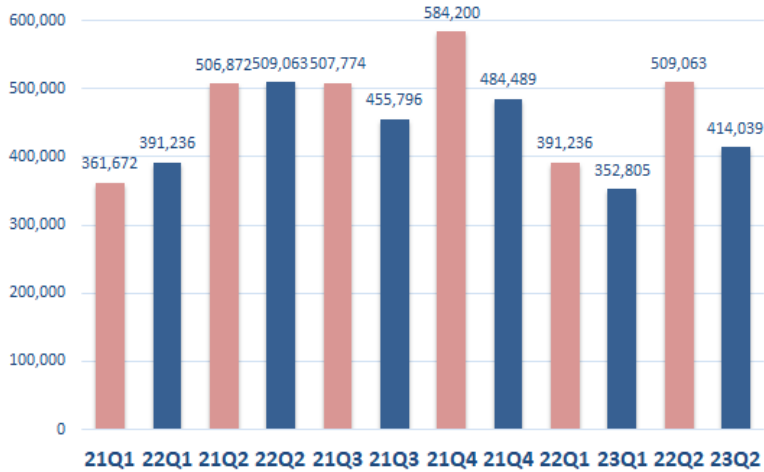


Net Income

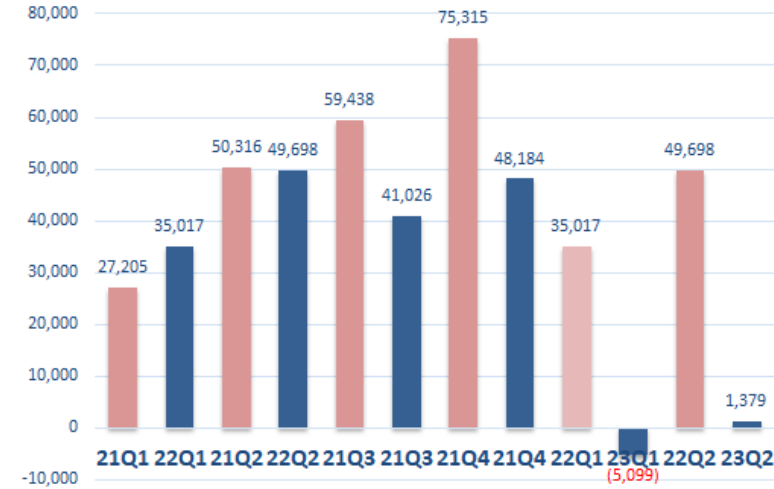


QoQ Performance

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Revenue



Profit

Items	21Q1	22Q1	21Q2	22Q2	21Q3	21Q3	21Q4	21Q4	22Q1	23Q1	22Q2	23Q2
Revenue	361,672	391,236	506,872	509,063	507,774	455,796	584,200	484,489	391,236	352,805	509,063	414,039
Net Income	27,205	35,017	50,316	49,698	59,438	41,026	75,315	48,184	35,017	(5,099)	49,698	1,379

Currency	2022Q2	2023Q2	Difference
NTD/CNY	4.426	4.408	-0.41%

EPS & dividend (NTD %)

Items	2018	2019	2020	2020	2022
EPS(1)	6.86	6.79	6.52	6.3	5.0
EPS(2)	6.28	6.79	6.55	5.91	5.0
Cash dividend	3.8	4.5	4.5	4.5	3.5
payout ratio (%) (N1)	61%	66%	69%	76%	70%

EPS(1): counted by average shares

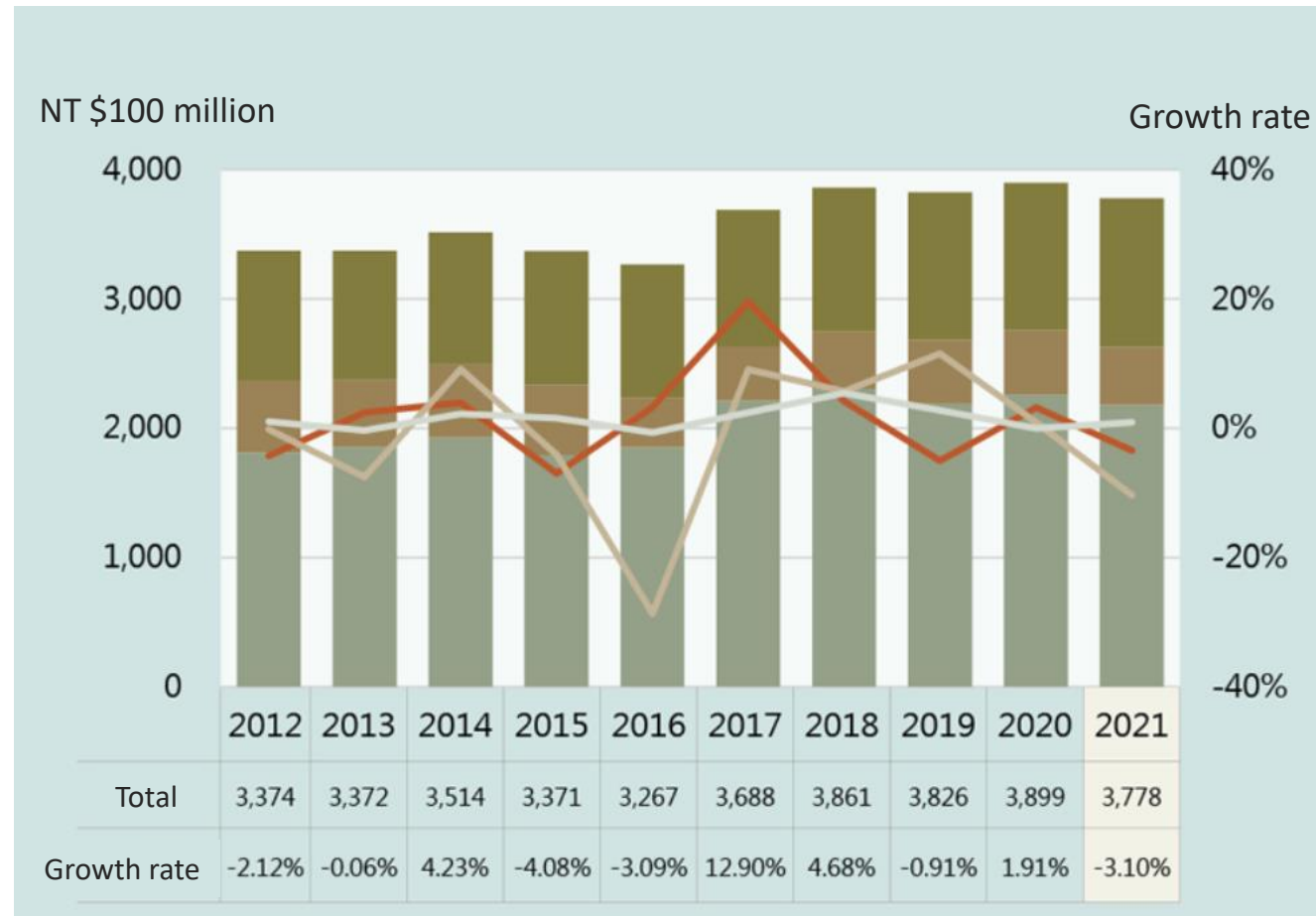
EPS(2): counted by year end shares

N1: counted by EPS(2)



Industry Overview

03



Source: Output Value of Environmental Protection Industry (Bioenergy and Environmental Protection Industry Information Network)

Taiwan's pollution prevention and control expenditure in 2021

Function	2021		2020	Difference in 2021 & 2020	
	NTD (100 million)	ratio (%)	NTD (100 million)	NTD (100 million)	ratio (%)
Expenditure on pollution prevention and control	1,923.5	100.0.	1,778.3	145.3	8.2
Air pollution prevention and control	540.3	28.1%	458.7	81.6	17.8
Greenhouse gas reduction	37.0	1.9%	24.0	13	54.2
Prevention and control of water pollution	437.4	22.7%	438.7	-1.4	-0.3
Waste disposal	661.7	34.4%	619.5	42.2	6.8
Noise and vibration control	16.3	0.8%	14.5	1.8	12.7
Prevention and control of soil and groundwater pollution	19.4	1.0%	17.9	1.5	8.3
Research development	13.0	0.7%	9.1	3.9	43.1
Other	198.5	10.3%	196.0	2.5	1.3

Source: Environmental Protection Agency

In April 2017, Taiwan proposed a "forward-looking infrastructure design plan" about NT \$250.8 billion is expected to be invested in "water environment construction" within 8 years. With a view to creating a high-quality water environment that is free from water scarcity, good drinking, flooding, and proximity through the integration of resources across departments.

2023 China Economic growth targets **5%**

Be steady

Adhere to the principle of maintaining stability of stabilize growth, employment, and prices
"In the past, focus on " whether there is a problem "was solved, and in the future, attention should be paid to solving the problem of" whether it is good or not "."

Intelligent+Green

Vigorously develop the digital economy, support the development of the platform economy, and accelerate the construction of a modern industrial system through **Intelligent** and **Green** directions.

TW

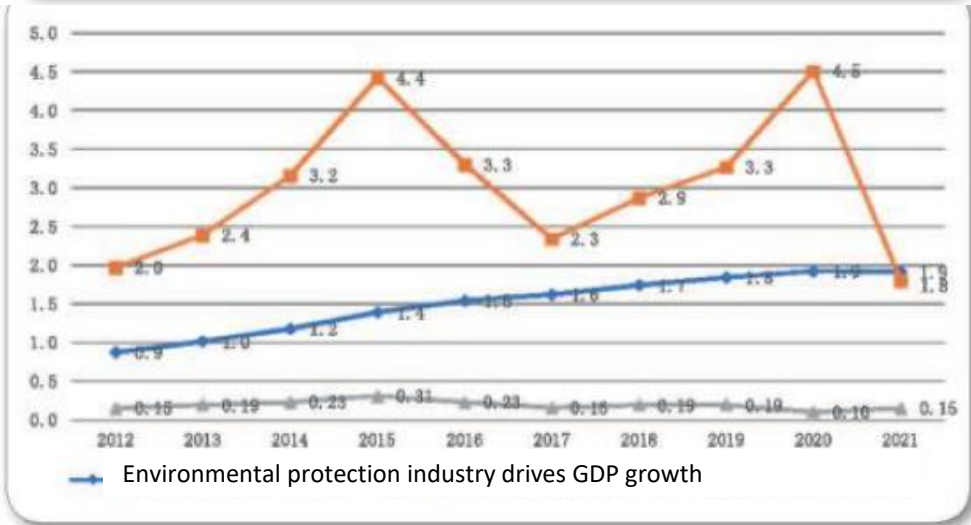
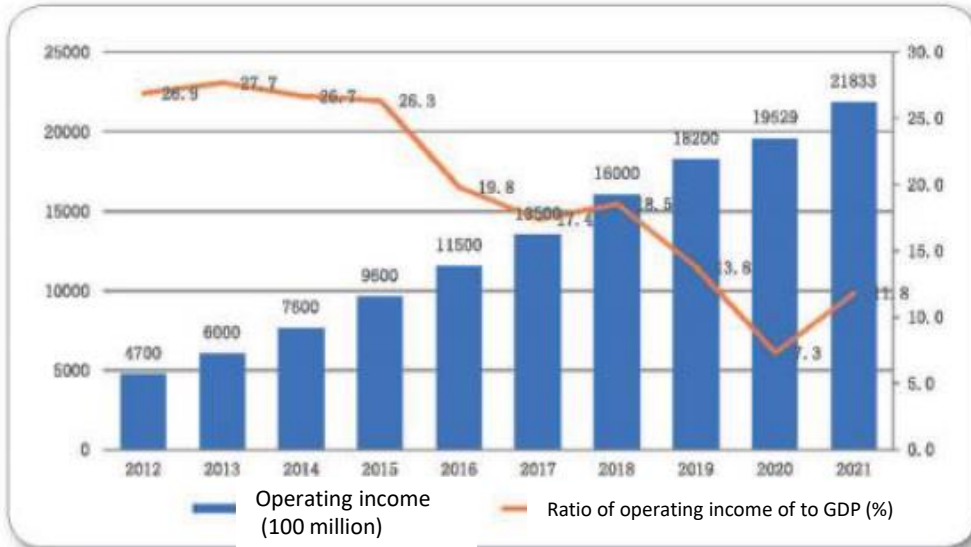
Taiwan's DGBAS Office announced · the GDP in Q1 was revised to -3.31%, the GDP in Q2 was 1.36%, the latest forecasts for Q3 and Q4 were 2.54% and 5.59% respectively, and the annual economic growth rate was estimated at 1.61%.

CHINA

China's GDP in Q2 was weaker than expected. In Q2 of 2023, the GDP increased by 6.3% , and in H1, China's GDP increased by 5.5% . Economic growth in Q2 was affected by sluggish demand and weak overall recovery, which was lower than market expectations of 7%. GDP grew 0.8% in Q2 from the previous quarter, down from 2.2% growth in Q1.

Viet Nam

Vietnam's GDP growth in Q2 was 4.14%, better than the 3.28% in Q1. The weak global demand caused exports to drop by 14.2% and imports fell by 22.3% in the same period. So far this year, Vietnam's central bank has cut interest rates four times by a total of 1.5%. Smartphones accounted for the largest proportion, and exports in the second quarter fell by 27.1%, clothing fell by 2.9% year-on-year, and shoes also fell by 4.1%.



The output value of the environmental protection in 2022 increased compared to 2021 (Note)

1.9%

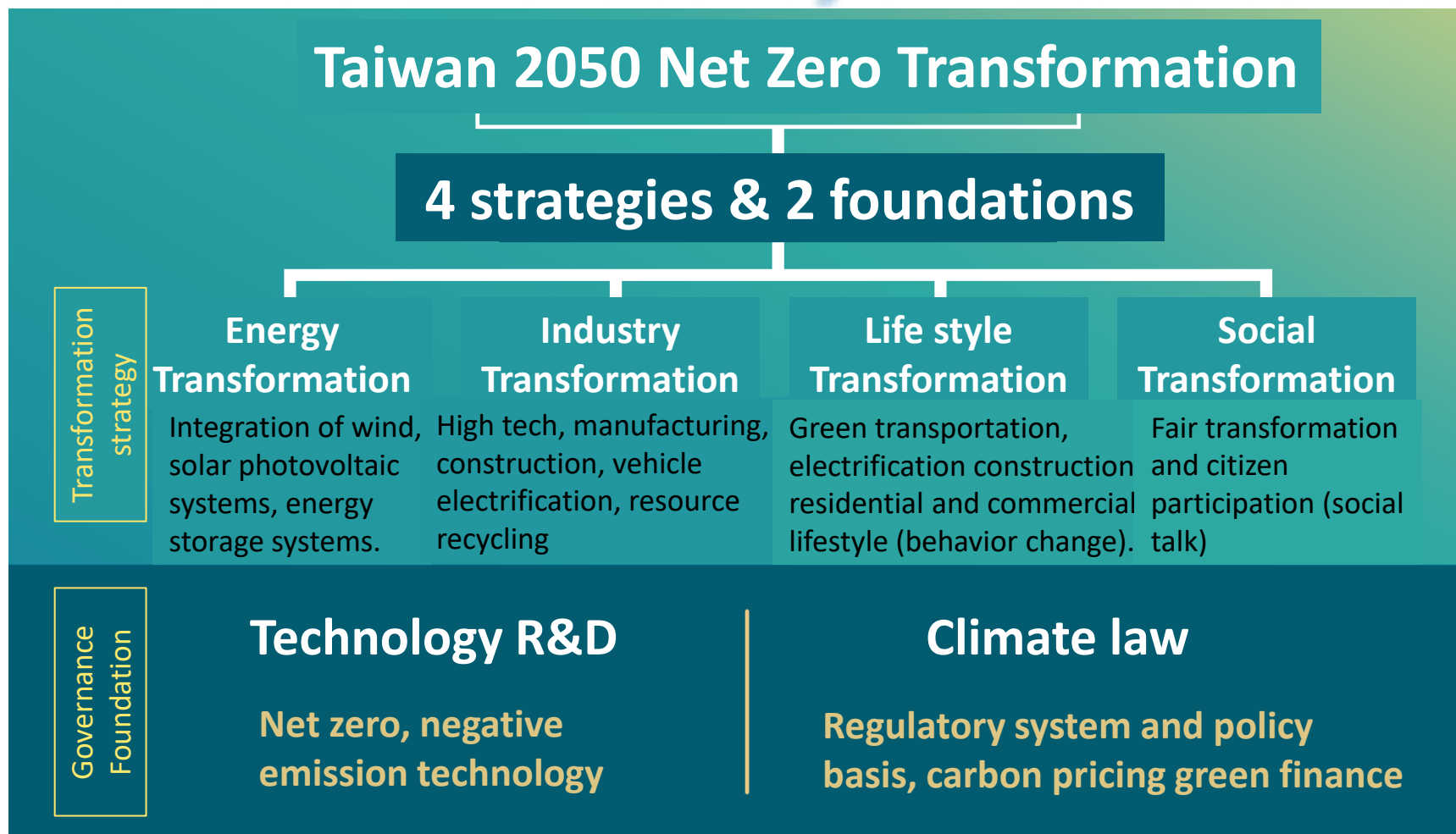
<Note> According to the estimation of China Environmental Protection Industry Association, the annual revenue of the ecological and environmental protection industry in 2022 is about 2.22 trillion RMB, an increase of about **1.9%** compared to the same period in 2021.

Proportion of environmental protection to GDP in 2021 is

1.9%

Source: report on the development of China's environmental protection industry (2022)

Taiwan and the World Jointly Strive towards Net Zero



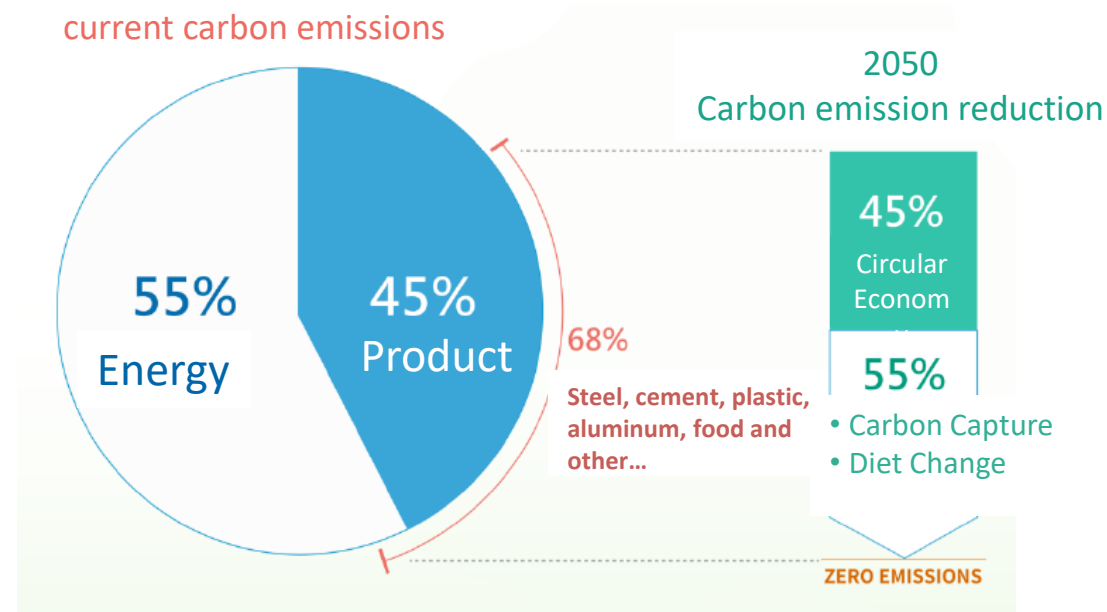
Source: Taiwan 2050 Net Zero Emission Path and Strategy Overview

Increase the carbon reduction target to **24%±1%**

Taiwan plans to increase its carbon reduction target by 2030 to **24% ± 1%** from a 20% reduction compared to the base period of 2005. "We will maximize the carbon reduction results by 2030 through the input of the" Twelve Key Strategies ".

12 key strategies create **NTD 5.9 trillion**

By promoting the "12 Key Strategies" to reducing carbon emissions equivalent to 29% by 2020, it can also create huge opportunities. It is expected that from 2023 to 2030, it will drive private investment of over **NTD 4 trillion** and create an output value of **NTD 5.9 trillion**.



Source: Resource Cycle Zero Waste Key Strategic Action Plan (Draft) Environmental Protection Department

- Through **7 major promotion strategies** and **48 measures**, energy conservation measures were promoted in the 5 major areas of **industry, commerce, housing, transportation, and technology**.



Knowledge transfer leads to social energy-saving actions

5 measures: **advocacy and promotion**, **visualization of electricity**, incentives for energy conservation, promoting **public awareness & concrete implementation**.



Expanding successful experience

13 measures to **integrate successful experiences** to replicate cost-effective models through business model changes.



Energy Efficiency Grading & Net Zero Construction

10 measures to set a rating system for **energy efficiency**, **green building materials** and **construction**.



Energy conservation & Ecosystem

4 measures to strengthen the **energy management**, establish **ESCO model** to promote energy conservation.



Empower enterprises for energy conservation

2 measures to **set energy conservation goals** and promote the **upgrading of energy management levels**, encourage voluntary response and diffusion into the **supply chain**.



Equipment efficiency in line with international standards

8 measures to improve the **penetration rate** of major **energy consuming equipment** (air conditioning, refrigeration, and motors).



Intelligent energy-saving & technological innovation

6 measures to introduce **intelligent technology**, and continue to **invest in energy conservation** technology research and development, laying out future energy conservation technology paths

Source: 2050 Net Zero Key Strategy "Energy Conservation Strategic Plan" (Energy Bureau, Ministry of Economy)

Follow the path of green development

China released on Jan.19th.2023: The White Paper on China's Green Development in the New Era unswervingly follows the path of green development.

Ecological Construction : Carbon/Pollution reduction/ Green expansion/ Keep growth

From the harmonious coexistence to synergistic efficiency of pollution & carbon reduction.

Energy Saving and Carbon Reduction Policy

By 2025, the proportion of motors with energy efficiency level 2 and above will increase by more than 5% compared with 2021.

Achieve annual electricity saving of about 60 billion kW/h,
and carbon reduction of about 35 million tons.

UN World Meteorological Organization releases State of Global Water Resources report

The State of the World's Water report states that "fresh water resources are limited, but people's needs are growing." Nearly 3.6 billion people around the world do not have enough fresh water for at least one month of the year. ...—By 2050, this number may exceed 5 billion people.

Between 2001 and 2018, **74%** of natural disasters were **water-related**

Source: The United Nations world water development report 2021



Target 6.1

By 2030, achieve universal and equitable access to safe and affordable drinking water for all

Water resource & Net zero should also be prioritized in climate strategies

According to a survey of 2,934 companies worldwide by the non-profit organization CDP in 2020, **if enterprises continue to take NO action against water resources, they will pay more than 5 times the cost.** Conversely, if companies actively develop transformation measures related to water resources, **business opportunities can reach as high as US\$711 billion.**

The report also proposes that as global companies strive to proclaim the goal of "net zero", "water resources" should also be listed as the top priority issue in climate strategy. Enterprises should also deploy and develop "water security" strategies that are resilient or can create business opportunities.

Source: CDP GLOBAL WATER REPORT 2020

The cost of inaction
could be over



Water-related
opportunities
could be up to

**US\$711
BILLION**



Operating Strategy

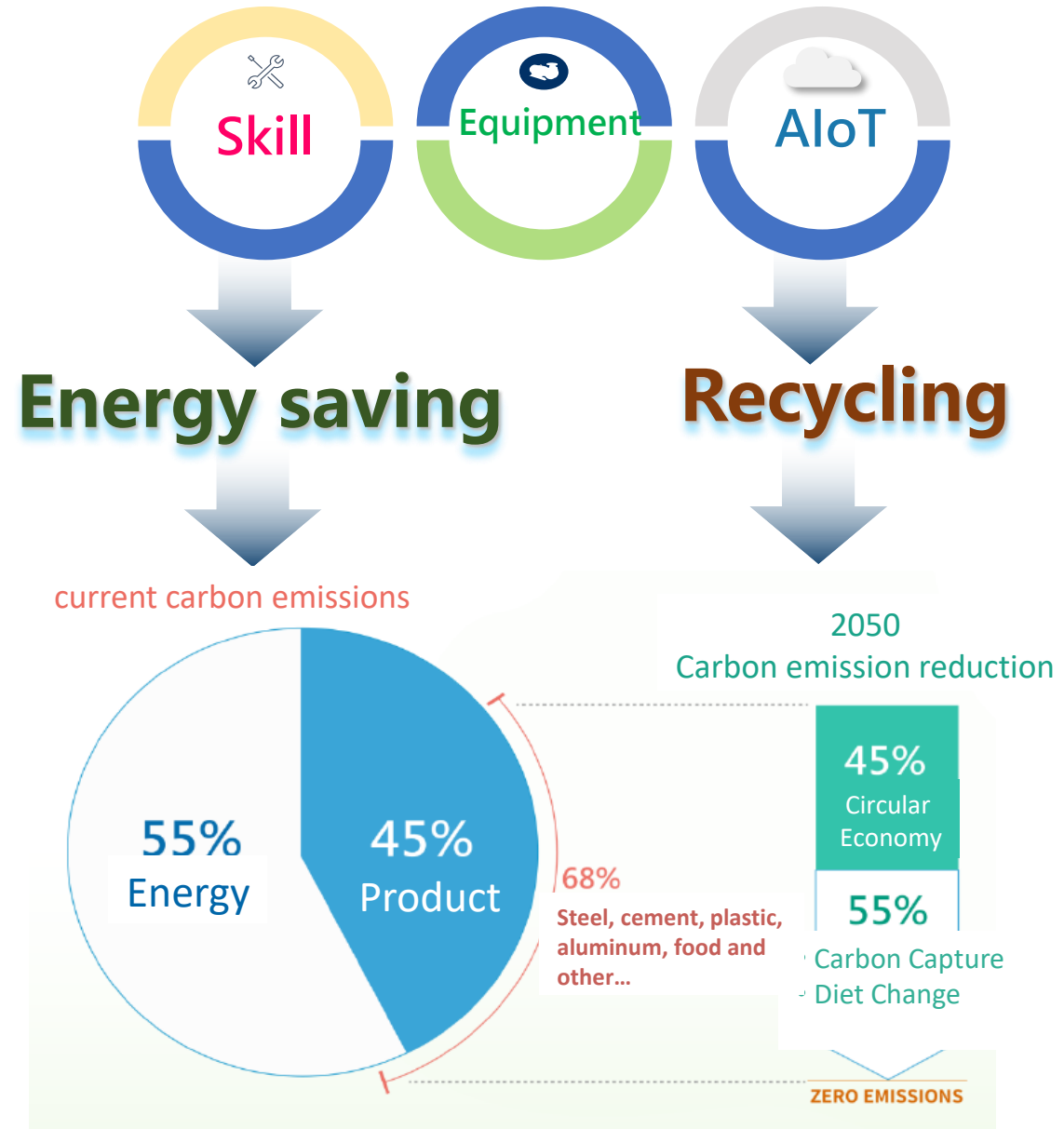
04

GSD

ESG

Green product

Green management



Mechanical energy saving

40% of total revenue

Upgrading & transformation

Improve energy eff. by process transformation

Energy saving

- To smart equipment
- AIoT process control
- Intelligent inspection

Participate in public bid

Promote green products
Assist owners in saving energy & reducing consumption

Green-manufacturing

- water-based paint
- recyclable turnover box
- solar energy generation

Employee Benefits

- Skill competition
- Physical activity
- Retired employees

Enviro Day

- Parent-child enviro education between employees.
- Feedback to our community
- Invite friend factory to participate

Green Product

- Energy saving to reduce carbon emissions, including mechanical & process .
- Smart energy saving & resource utilization (sludge, water recycling, SRF).

Green Management

Carbon emissions and carbon footprint inventory, setting 30/50 goals, ESG issues and formulating green investment strategies.

Low carbon Activities

GSD's Pinghu factory was rated as a green factory.

**Jiaxing
Green Factory**

嘉兴市经济和信息化局
2023年6月5日

vegetarian buffet



waste recycling



Employee Benefits



WaterOps Net Zero Carbon Strategy Blueprint

Short term goal

Equipment elimination & smart energy-saving management



Upgrading water treatment equipment

IoT on Pumps, Blowers

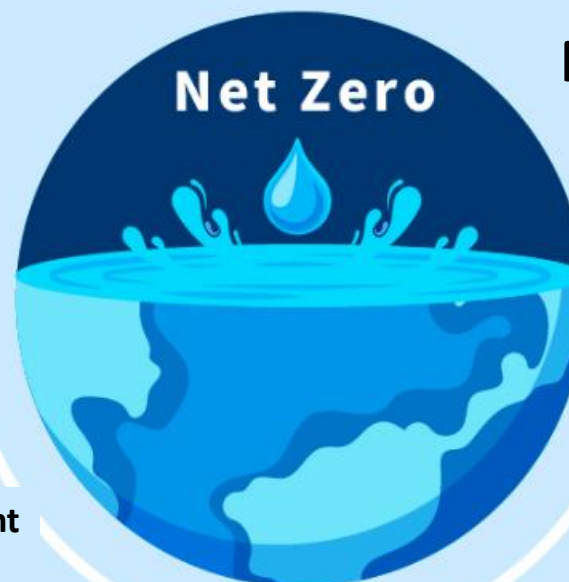
- Provide monitoring and early warning mechanism
- Reduce unit maintenance costs
- Extended service life



Building sludge treatment system & AI model

Drive the upstream & downstream of the ecosystem

- Building ISO5001
- Importing WaterOps



Medium & Long term goals

Full cycle management of water operation



Follow the 2X2 framework to develop technological innovation

By digital twins to copy a digital version of "virtual model" can be monitored, simulated and predicted.

- Accurate assessment & forecasting to reduce power and operating costs.
- Apply the AI module and computing efficiency of the WaterOps platform to plan carbon inventory, carbon neutrality and other green transformation preparations.

Note: 2X2 framework - 2x2 Net Zero Transformation Architecture "Energy-Industry" and "Low Carbon-Zero Carbon" .

Response 2050 Net Zero: Apply Smart Management module

AIoT process control

Three AI models have been put on the water platform to assist wastewater treatment operators with A²O, AO and ASP treatment programs to make AI prediction and decision.

To smart equipment

The Prognostic and Health Management AI model has been put into the Prognostic platform, and the prognostic & health management (PHM) model has been established.

Project	Customer applied
AIoT process control Precise dosing.	Semiconductor factory, Panel A, Water treatment plant, smart farm.
To smart equipment	Blower factory, Panel factory, dehydration factory, plasticizing plant.

Awards and honors

■ 2022 Winning in the "Green Technology Innovation

Award " of the Small and Medium Enterprises Division of the Ministry of Economic Affairs. Two cases, the "Plant Wastewater Discharge PH/COD (Chemical Oxygen Content) Prediction System" and the "Waste Soil Abnormal Image Object Detection System". GSD was selected as the priority cooperation by Juhe International Co., Ltd.

■ 2021 "Data Innovation and Application Competition"

Gold Award of the open data application group of the ministry of economy. Seeking Water, but not relying on sky-drought Prevention and early warning crystal ball.

■ 2020 Winning the First "Urban Data Reality

Competition". Innovative Technologies for Improving the Operation and Management of People's Livelihood Sewage Sewerage Systems.



Project	Tender amount (tax included)	Estimated project period
New Taipei City sewage treatment management turnkey project.	NTD 39.88 million	Aug/19/2022-Dec/31/2023
3 rd & 4 th Expansion Project of Water Resources Treatment Plant in Agricultural Biotechnology Park	NTD 192 million	Jan/18/2023-Aug/19/2024
A permanent water pump project added to the A-line pumping station in Linbian , Pingdong city.	NTD 23.98 million	Mar/15/2023-Jan/31/2024

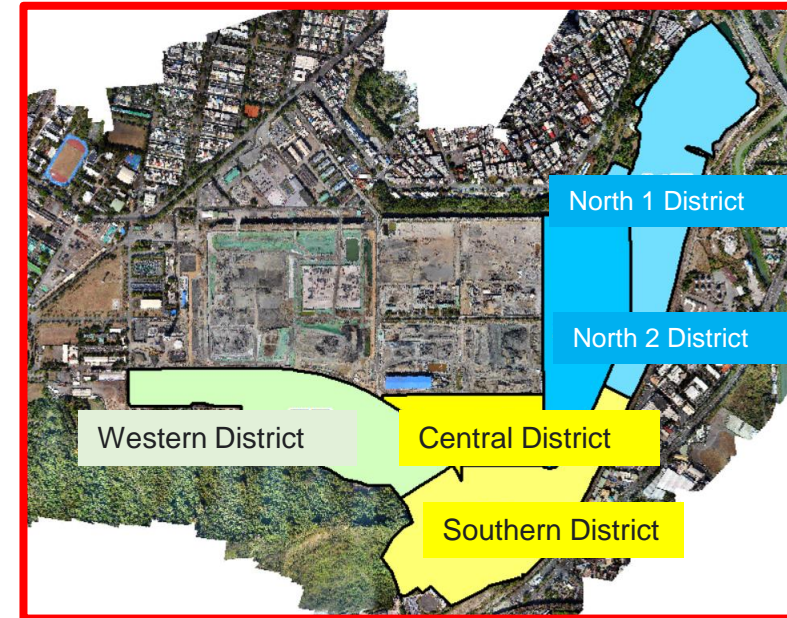
To better understand the needs of customers, GSD participate in some government bids

CPC Kaoshiung plant Refinery Tender

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"Accelerate the remediation of soil and groundwater pollution in Districts 1, 2, 5 and 6 of CPC Kaohsiung Plant Refinery Tender", with a total budget of NTD12.376 billion , divided into North 1 District Project, North 2 District Project, Central District Project, Western District Project, and Southern District Project



GSD' s investment Company – Yuh Shan has completed the tender for District 3. And at the beginning of August, it obtained the tender of Western District Project, with an estimated total amount of NTD 2.719 billion .



Stock
Code : 6641

Disclaimer

- This presentation is a summary and assessment of the past, present and future operations of our company at the time of the presentation. It contains forward looking statements that will be affected by risks, uncertainties and inferences, some of which will partially be beyond our control. The actual conclusions may differ greatly from these forward-looking statements.
- The information provided (including views on the future) does not express or imply that it is correct, complete and reliable ; nor does it represent a complete exposition of the company, the state of the industry and the subsequent major developments.
- The expectation for the future in this presentation reflects our company's view so far. If there is any change or adjustment, our company is not responsible for reminding and updating at any time.

Thank you !