

Company Presentation

2021.03





GREEN · SAFE · DEVELOPMENT

CONTENTS

01 Company Profile Operating Performance









Company

• GSD Technologies Co., Ltd.

Stock Code

+ 6641

Established

• Oct.,2013

Chairman

Hung-June, Hsieh

Paid in capital

◆NTD 340 Millions

Major business

 Water and waste water equipment manufacturing, sales and technical services

Brand

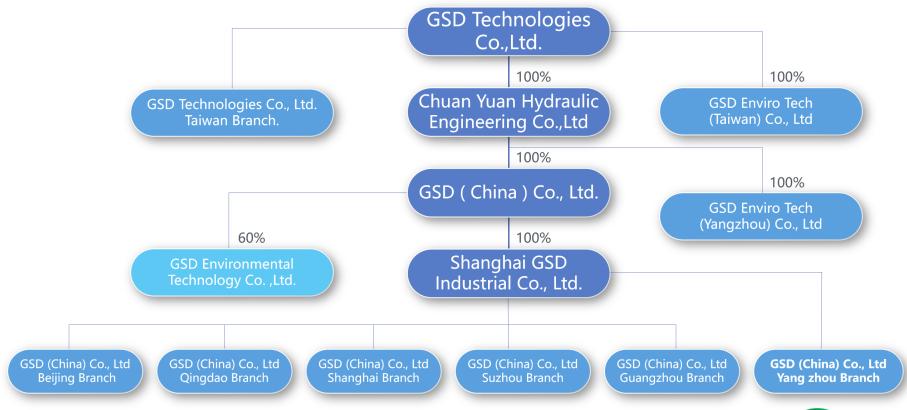
• GSD

2 Plants

Pinghu & Yangzhou

Staffs

◆ 557 employees (2020.12)



Business Philosophy

GREEN A promise to keep the nature environment to be green for

the Earth.

SAFE A promise to keep quality of products to be safe for

customers.

DEVELOPMENT A promise to keep company developing for staffs,

stockholders and society.

Mission:

To optimize the ecological environment and to benefit the

whole world.

Mission & Vision

Environment: All rivers are clean and no water is dirty.

Company: The paragon among all brands, the leader in WWTP industry.

Colleagues: To enable our staff' s devotion in wonderful career and life.











- Support Hubei new infectious disease hospital.
- Solar power generation electricitysaving.
- Support local river governance.
- Construction of sponge factory.
- Continuous development of energy saving products.





Cleaning plate activity
Business culture activity
Team building activity
Skill competition
Collecting goods for rural schools...







Managmen for E.S Improve efficiency and save energy through AIOT.

Design for E.S.

Energy-saved by process transformation.

Mechanical operation for E.S

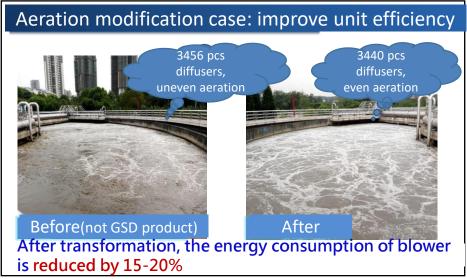
Energy-saved by mechanical designed.



Help customers to save energy and reduce CO₂

E.S=Energy saving.

ESG



Customized matching design reduces 4kw motor power.







More than 200 products have Energy saving certification.

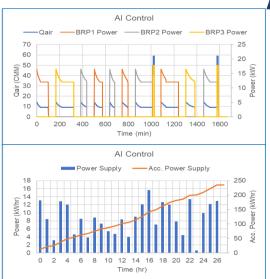
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Set-Point Control





Dood Blower	Set-Poin	t Control	Intelligen	t Control	Al Control			
Root Blower	range	Avg.± Std.	range	Avg.± Std.	range	Avg.± Std.		
Power (kW)	1.41 ~ 52.43	13.98 ± 10.82	0.20 ~ 36.16	12.32 ± 8.43	0.61 ~ 15.66 8.71 ± 3.9			
Cumulated(kWhr)	517	'.10	406	5.56	235.21			
Saving (%)	46.	.14	57.	.65	75.50			

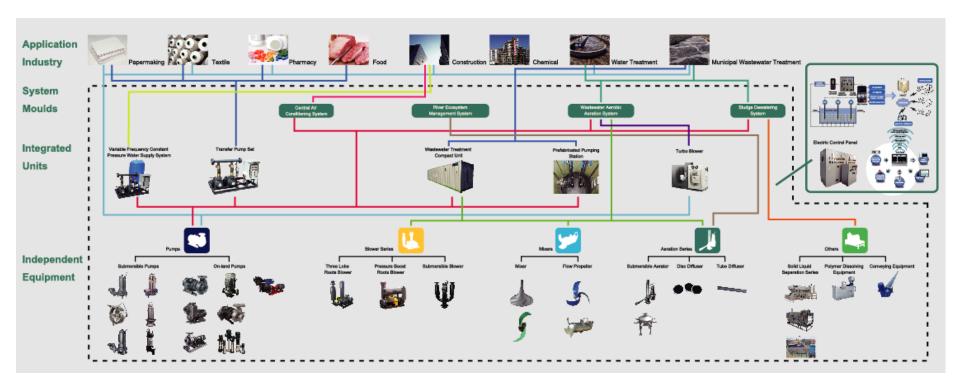
Through the data simulation analysis, the energy saving is obvious by AI Control.

Product Scope





Product Scope & Application



To Invest TAIWAN



GSD Technologies (Taiwan) since 2019. GSD Enviro Tech (Taiwan) since 2021 Feb. GSD invests in Yuh Shan Environmental Engineering Co.



NCKU-GSD Hydrotech Reasarch Center was established in 2019.

Activities in Taiwan 2020.July-Sep.

Organizer: Construction & Planning Agency Ministry of the Interior Location: Taipei Evergeen International Convention Center

Topic: Comprehensive Start-Perspective Sewage Sewer Smart

Management Forum





Organizer: Environmental Protection Administration Location: Taipei Evergeen International Convention Center Topic: Joint Efforts to Reduce Pollution & Create Sustainability

Activities in Taiwan 2020.July-Sep.

Organizer: Taiwan External Trade Development Council

Location: Taipei World Trade Center

Topic: Taiwan International Water Week (TIWW)





Organizer: GSD & Advantech

Location: Kaohsiung Metal Industries R&D Centre

Topic: Smart Factory, Intelligent Plant Innovation & Application

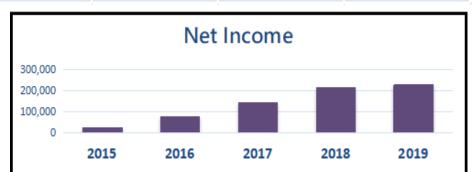




Consolidated income statement

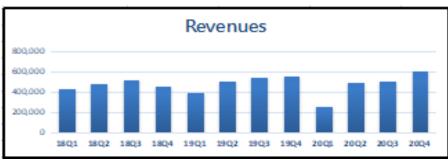
Items	2015	2016	2017	2018	2019	2020
Revenue	1,171,289	1,290,919	1,622,684	1,867,639	1,992,051	1,846,674
Growth Rate		10.21%	25.70%	15.10%	6.66%	-7.30%
Sales margin	452,080	503,034	635,387	739,292	771,093	739,951
Op. Expenses	416,041	421,865	445,830	475,650	530,561	477,846
Op. Income	36,039	81,169	189,557	263,642	240,532	262,105
EBIT	42,662	106,469	202,756	280,499	282,631	290,949
Net income	25,773	75,529	144,433	213,672	227,154	215,511
Income gorwth %		193.05%	91.23%	47.94%	6.31%	94.87%
EPS	0.86	2.52	4.81	6.86	6.79	6.52

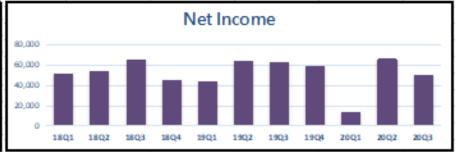




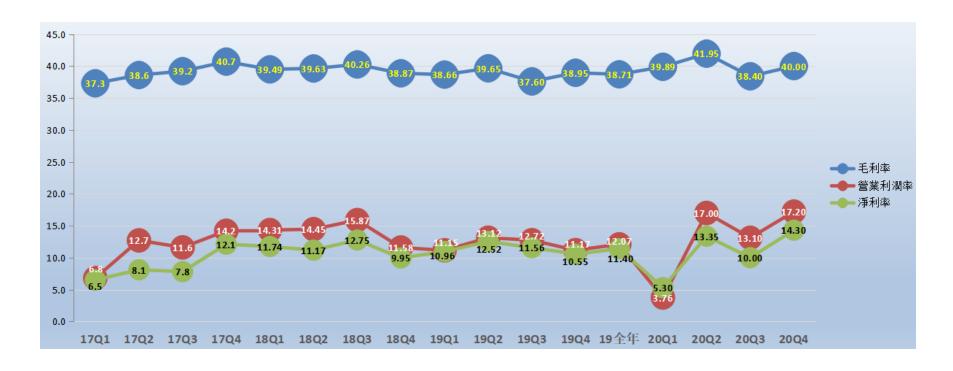
Consolidated income statement

Items	18Q1	18Q2	18Q3	18Q4	19Q1	19Q2	19Q3	19Q4	20Q1	20Q2	20Q3	20Q4
Revenue	430,567	476,365	510,410	450,291	394,512	505,098	535,690	556,751	248,663	493,929	501,031	603,051
Sales Margin	170,020	188,768	205,466	175,038	152,536	200,285	201,412	216,860	99,188	207,187	192,320	241,256
Op. Income	61,625	68,843	81,024	52,150	43,969	66,249	68,149	62,165	9,338	83,944	65,398	103,425
EBIT	67,496	72,644	83,817	56,542	55,620	81,035	79,788	66,188	17,589	91,686	67,861	113,813
Net Income	50,561	53,214	65,101	44,796	43,230	63,256	61,927	58,741	13,171	65,935	50,296	86,109

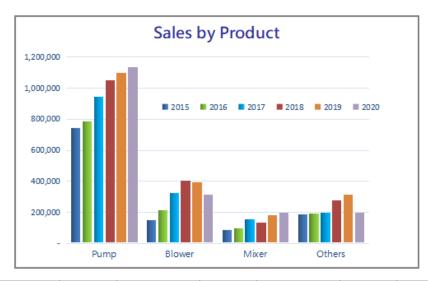




Profitability

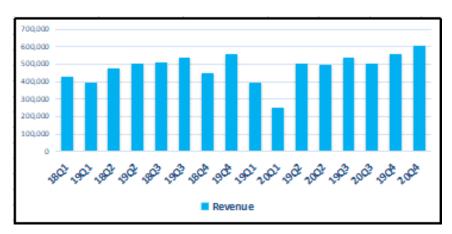


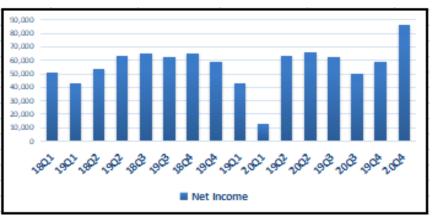
Revenue by products



Item	2015		2016		2017		2018		2019		2020	
item		%		%		%		%		%		%
Pump	745,671	63.66	787,805	61.03	945,796	58.29	1,051,424	56.30	1,097,049	55.07	1,138,671	61.66
Blower	152,522	13.02	211,701	16.40	327,277	20.17	406,255	21.75	395,382	19.85	313,497	16.98
Mixer	87,466	7.47	98,067	7.60	153,279	9.45	133,092	7.13	182,604	9.17	199,597	10.81
Others	185,630	15.85	193,346	14.98	196,332	12.10	276,868	14.82	317,016	15.91	197,909	10.55
Total	1,171,289	100.00	1,290,919	100.00	1,622,684	100.00	1,867,639	100.00	1,992,051	100.00	1,849,674	100.00

QoQ Performance



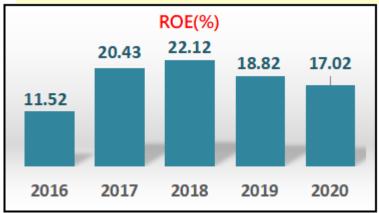


Items	18Q1	19Q1	18Q2	19Q2	18Q3	19Q3	18Q4	19Q4	19Q1	20Q1	19Q2	20Q2	19Q3	20Q3	19Q4	20Q4
Net Sales	430,567	394,512	476,365	505,098	510,410	535,690	450,297	556,751	394,512	248,663	505,098	493,929	535,690	501,031	556,751	501,032
Net Income	50,561	43,230	53,214	63,256	65,101	61,927	44,796	58,741	43,230	13,171	63,256	65,935	61,927	50,296	58,741	86,109

Currency	2018	2019	Difference	2019	2020	Difference
NTD/CNY	4.56	4.472	-1.93%	4.472	4.282	-4.25%

Dividend (NTD %)

EPS exceeded NTD 6.5 and distribution rate exceeded 60% for last 3 years.



Items	2017	2018	2019	2020
EPS (1)	4.81	6.86	6.79	6.52
EPS (2)	4.81	6.28	6.79	6.55
Cash Dividend	3.01	3.8	4.5	4.5
payout ratio(%) (N1)	62.58%	55.39%	66.27%	68.70%

EPS(1): Counted by average shares

EPS(2): Counted by year end shares

N1: Counted by EPS(2)

Dividend yield rate: by end of 2019 closing price (4.5/68.5=6.57%); by end of 2020 closing price (4.5/64.1=7.02%)

PE: by end of 2019 closing price (68.5/6.79=10.09); by end of 2020 closing price (64.1/6.52=9.83)

The 2020 interest rate is adjusted to 4.567164 per share due to treasury shares







Taiwan

													Unit: NT	\$100 million
Catagory	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019 (estimate)
1.Environmental Inspection service industry	34.44	16.98	20.42	16.71	25.23	67.47	72.93	78.82	81.41	82.20	97.61	104.69	139.74	136.34
2.Wastewater treatment industry	35.07	37.40	39.89	42.54	45.37	48.39	51.60	55.03	58.69	59.08	73.34	79.70	82.63	85.68
3.Waste removal and treatment industry	321.59	711.79	503.49	440.66	411.77	483.99	493.81	503.84	520.71	539.41	642.69	680.73	700.00	719.80
4.Environmental engineering and technical consultancy services	45.52	55.30	55.90	60.86	66.36	66.44	65.43	58.43	60.11	59.07	110.11	101.60	69.28	78.87
5.Vector control industry	13.43	11.86	15.09	13.92	15.54	17.16	18.94	20.91	23.08	• 24.51	20.13	22.28	23.01	23.75
6.Resource recovery industry	169.34	373.00	264.61	270.83	234.53	320.58	348.51	378.86	404.99	424.41	367.49	377.66	388.12	398.87
7.Pollution control industry	24.57	24.25	23.93	23.61	23.31	23.00	22.70	22.40	23.25	23.29	37.76	41.69	46.04	50.83
8 Energy technology service industry (ESCO)	5.37	11.98	22.52	20.65	35.92	66.50	78.20	107.00	110.00	125.00	117.00	131.06	146.79	164.40
9.Environmental related verification services	15.99	15.72	15.45	15.18	14.92	14.66	14.40	14.15	14.68	14.78	14.81	15.15	16.57	18.12
10.Environmental management technology service industry	7.84	11.45	12.47	10.19	10.21	9.35	10.14	10.55	10.84	10.55	10.35	10.58	11.43	12.34
Subtotal of environmental services	673.16	1,269.73	973.77	915.15	883.16	1,117.54	1,176.66	1,249.99	1,307.77	1,362.28	1,491.29	1,565.15	1,623.59	1,689.00
Environmental service industry - growth rate		88.62%	-23.31%	-6.02%	-3.50%	26.54%	5.29%	6.23%	4.62%	4.17%	9.47%	4.95%	3.73%	4.03%
Environmental protection equipment and equipment manufacturing industry	188.94	206.83	215.10	157.71	230.31	263.60	245.87	259.31	254.36	246.89	254.63	257.52	272.75	298.74
Environmental protection material manufacturing case	356.45	326.50	300.46	223.21	280.57	323.79	319.99	305.39	331.25	295.95	162.81	186.21	191.51	200.78
Subtotal of environmental protection equipment industry	545.39	533.33	515.56	380.93	510.89	587.39	565.86	564.70	585.61	542.84	417.44	443.74	464.27	499.52
Environmental protection equipment industry - growth rate	-	-2.21%	-3.33%	-26.11%	34.12%	14.97%	-3.67%	-0.20%	3.70%	-7.30%	-23.10%	6.30%	4.63%	7.59%
1.Water supply industry	276.55	281.36	282.65	270.63	284.26	289.96	292.29	296.44	303.41	300.83	314.36	326.95	329.39	339.55
2.Resource based product manufacturing	385.00	420.00	482.00	487.00	544.00	658.00	658.00	659.00	670.00	678.00	671.00	681.00	723.40	768.44
Subtotal of environmental protection and resources industry	661.55	701.36	764.65	757.63	828.26	947.96	950.29	955.44	973.41	978.83	985.36	1,007.95	1,052.79	1,107.99
Environmental protection and resources industry - growth rate	-	6.02%	9.02%	-0.92%	9.32%	14.45%	0.25%	0.54%	1.88%	0.56%	0.67%	2.29%	4.45%	5.24%
Total of environmental protection industry	1,880.10	2,504.42	2,253.97	2,053.71	2,222.31	2,652.89	2,692.82	2,770.13	2,866.80	2,883.95	2,894.08	3,016.84	3,140.64	3,296.51
Environmental protection industry - output value growth rate	-	33.21%	-10.00%	-8.88%	8.21%	19.38%	1.51%	2.87%	3.49%	0.60%	0.35%	4.24%	4.10%	4.96%

Sources: https://eris.utrust.com.tw/environet/EINEWS/EINEWSE/EINEWSE_C



Taiwan

Function	Total (100 million)	Structure ratio (%)	Government departments (100 million)	Structure ratio (%)	Industrial sector (100 million)	Structure ratio (%)
Expenditure on pollution prevention and control	1754.6	100.0	840.6	100.0	913.9	100.0
Air pollution prevention and control	464.1	26.5	100.3	11.9	363.9	39.8
Greenhouse gas reduction	26.0	1.5	4.5	0.5	21.5	2.4
Prevention and control of water pollution	426.3	24.3	162.7	19.4	263.7	28.8
waste disposal	588.2	33.5	365.1	43.4	233.0	24.4
Noise and vibration control	14.6	0.8	12.9	1.5	1.7	0.2
Prevention and control of soil and groundwater pollution	16.0	0.9	8.7	1.0	7.3	0.8
Research development	11.2	0.6	5.2	0.6	6.0	0.7
Other	208.3	11.9	181.3	21.6	26.9	2.9





2019 Taiwan's expenditure on pollution prevention and control

Source: EPA

China

2011-2015	2016-2020	2021-2025	2026-2030	2030~
	Ten Water Phase I	Ten W Phas	se II	Ten Water Phase III
	1.Periodic improvement of water environment quality.	1.Overall improvement quality		1.Overall improvement of ecological environment quality.
	2.The seriously polluted water has been greatly reduced.	2.Preliminary Restor ecosystem function.	ration of water	2.Ecosystem achieves a virtuous circle.
Twelfth Five	Thirteenth Five	Fourteenth Five	Fifteenth Five	
 Improve the drainage network. Improve sewage treatment capacity. Improve the effluent quality of sewage treatment plant. Improve the harmless treatment of sludge. Improve the reuse capacity of reclaimed water. 	1. Improve the sewage collection system. 2. Enhance the capacity of sewage treatment facilities. 3. Attach importance to harmless treatment of sludge. 4. Promote the use of recycled water. 5. Initial rainwater pollution control. 6. Strengthening the treatment of black and odorous water bodies in cities. 7. Strengthen supervision capacity building.	Environme	ntal spending is	al goals of water regulations, expected to continue to grow. water resource are key words.
Investment amount: RMB 427.1 billion	Investment amount: RMB 564.4 billion			

China

2020, Sep. China proposed Carbon Neutral project, aiming to reach the peak by 2030 and achieve carbon neutral by 2060.

The 14th Five-Year Plan

Energy conservation and emission reduction become mainly indicators: China will implement the emission permit system & the market-oriented trading right of Emission, Energy usage, Water usage and Carbon emission.

China will improve the efficiency of resource utilization, promote total resource management, scientific allocation, conservation and recycling. Implement water-saving actions and establish a water resources system.

The energy saving & consumption reduction of 250 million tons in sewage treatment plant, combined with the carbon emission policy is a huge market.

China

Key words for the 14th Five-Year Plan **Carbon Neutral**

Energy saving & Emission reduction

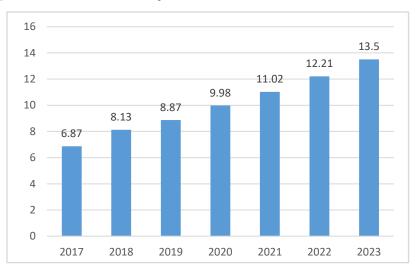
Water is becoming resource

Carbon Neutral

Discharge Absorb

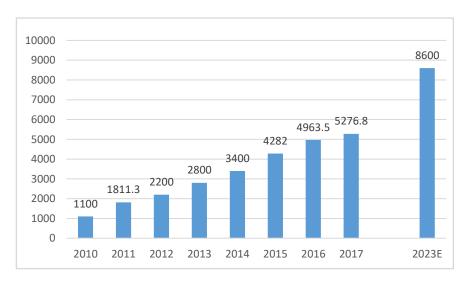
China

Statistics and forecast of China's environmental protection industry from 2017 to 2023



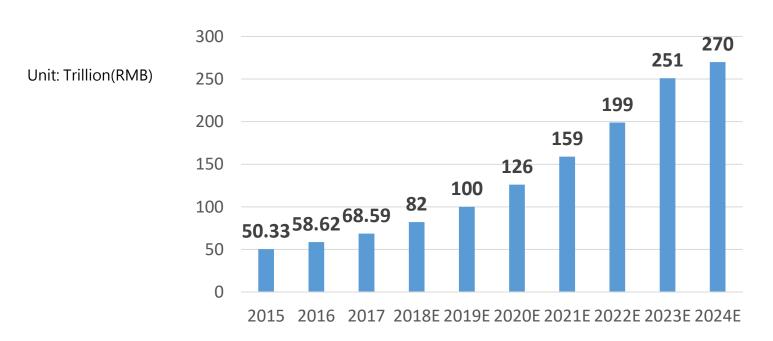
Unit: Trillion(RMB)

2010-2023 China's water industry market size



Unit: 100 million (RMB)

www.gsd.net.tw www.gsd.net.cn



China's smart water market size and forecast





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GSD business advantage to Maximize customers 'value

Product + Service

Full range of product scope & maintenance, Environmen tal Eng. Technology, Plant Design.

Sales Channels

32 sales points, providing prompt services (direct store + distributors) Brand

Well-known brand positioning for highend quality, costeffective. Team Power

Manageme nt talents + Environmen tal Eng. experts + R & D team Result: Obtained more than 98 patents.

Good Enterprise Management Platform Corporate culture + Business logic + Management logic

- Sustainable
- Manageable
- Affordable
- Responsive
- Transparent



- Water/Waste
- Aeration
- Toxics
- Energy
- Resources

Bio · AI · IOT · Equipment · Integrated

Taking environmental engineering biotechnology, AI, and IoT as the core of innovation. Turning the accumulated knowledge of environmental engineering into growth momentum. Committing to upgrading of the environmental industry and creating new value.

Microorganisms
Rapid Screening tech.

Anammox Technology

AI + IOT + DB



Op. & Maintenance platform

Alliance platform

Energy Mgt. platform

Water resources Mgt.

<u>B</u>io · <u>A</u>I · <u>I</u>OT · <u>E</u>quipment · <u>I</u>ntegrated

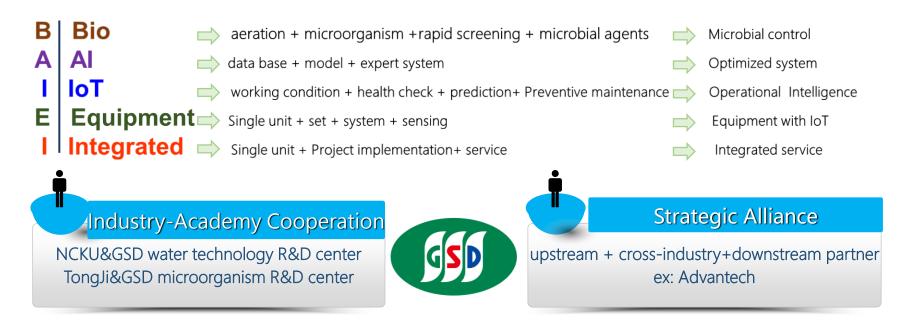
To Smart equipment



By means of intelligence
Benefiting water resources management

AIOT Process Control





Environmental Steward / The 3rd Party Governance / Operation / Supervision / Investment

The cooperation case of GSD and NCKU wins the Ministry of Science and Technology Special Award



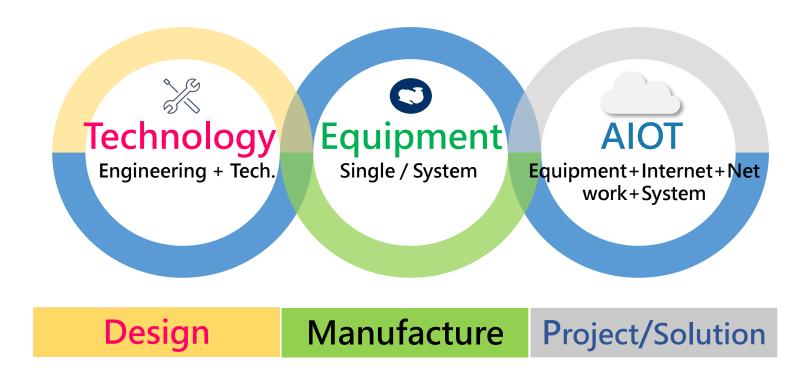




NCKU & GSD Water Technology R&D Center

TongJi & GSD Microorganism R&D Center

Both sides invest in microbiology-related industry-academic cooperation



Consultant / Design Company Business Model (Policies, Regulations) **Equipment Supplier** (Function, Cost, Maintenance) User **Operating Company** (Cost, Benefit, Guarantee) Constructor / Contractor (Supervision, benefit) (Technology, Competitiveness, Service capability) **System Integrator** (Localization, Rapid integration)

Complete full-cycle management of water treatment

system Purpose

Programs

☆ Equipment

Empowerment

Objectives Control

- Equipment life extension
- Operation optimization
- Energy and cost saving
- ❖ E Inspection

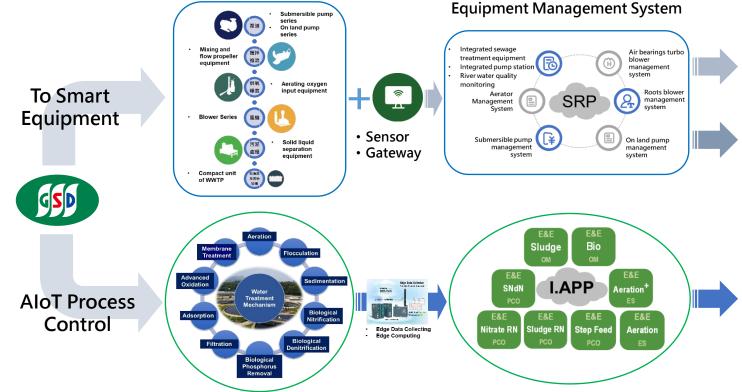
 Intelligent process remote control

- Equipment empowerment to improve efficiency
- Preventive maintenance & active warning
- Precise dosing to reduce cost
- Trend analysis & full observation
- Water quality & water supply safe and stable

AIOT Water Resources Management Platform

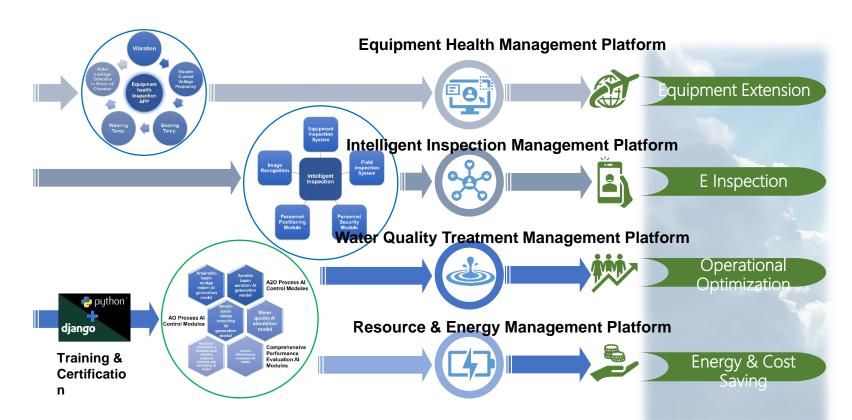
G<mark>S</mark>D

AloT

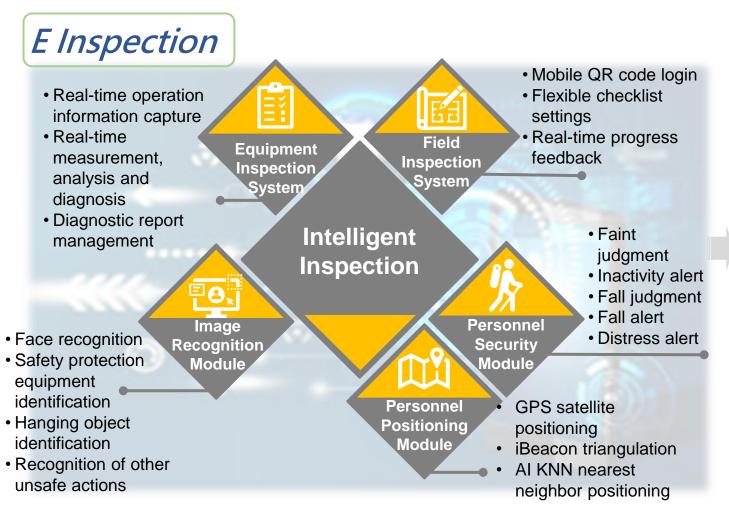


Intelligent Process Monitoring & Control Modules

AloT



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- Accurate detection failure factors hidden to arrange preventive maintenance in advance.
- Patrol inspection no longer just pass, but patrol according to items scanned.
- Precise positioning, toxic gas detection and safety risk control throughout full process to ensure personnel safety.
- Identification of identity/object/unsafe actions for quick detection of risk warnings.



Intelligent water business in southern of Taiwan

- (1) Objective: Enhance the benefit & efficiency of the the biological treatment system, so as to improve the stability of the system and reduce the risk of decision-making.
- (2) Content: Smart control module and intelligent management model.

Intelligent Agriculture Project in North of Taiwan (1)Intelligent monitoring system. (2)water supply platform.

(3) Water supply control system.

Meet emission standards

Energy saving & efficiency improvement



Blower room of Tainan technology industrial zone





Operation optimization + energy/cost saving Case

GSD(China)Co.,Ltd.





Intelligent Compact Unit Reactor for WWTP

Suitable for: urban and rural domestic sewage, General industrial wastewater and black & smelly rivers.



&mpact Unit

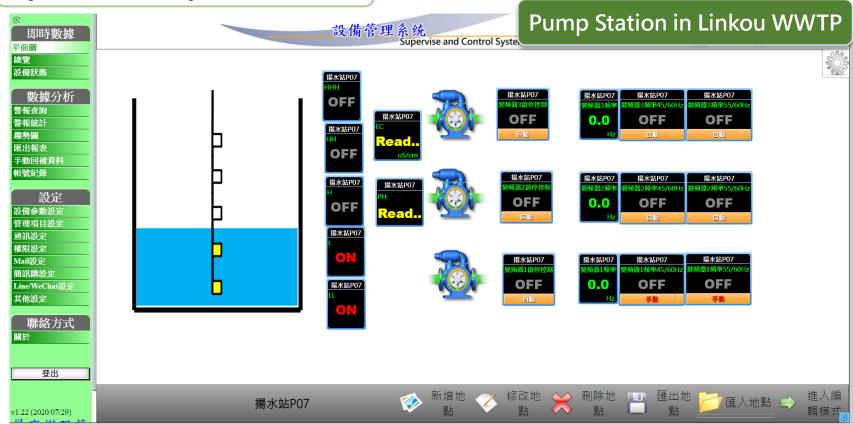
Equipment life extension





Operation optimization





Equipment life extension





Equipment life extension



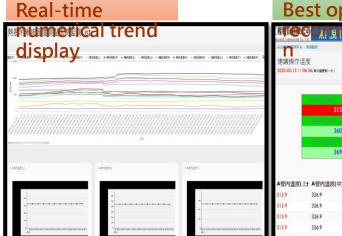
Problem Description

Soil Thermal Desorption

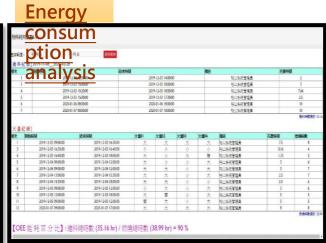
Before the introduction of intelligent thermal desorption equipment, the owner controls the fire rate and feeding time according to experience, which results in great energy consumption (oil consumption), and the treatment effect may not meet the treatment standard.

After applying GSD solution

Through the customized platform, online intelligent remote control can be realized, and the efficiency and yield rate are improved.







Reclaimed water



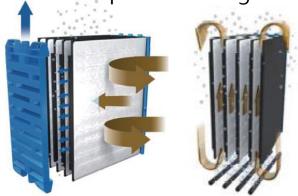
Linyuan Factory in Kaohsiung

Expansion of existing sewage treatment plant

On the basis of the original sewage plant, a new recovery system was added. It can handle 800 tons/day

Benefit

After installing the GSD's MBR (membrane bioreactor) module, sewage can be efficiently treated in the original space, eliminating the traditional need for a large amount of space and long-term maintenance costs.







Based on China



Invest Taiwan



Invest Southeast Asia

Focus on..

Production Capacity,

Product Development

- Pinghu II plant construction
- Yangzhou plant construction

BOD approved SPO on 20210319.

Focus on..

Strengthening

Competitiveness

- AloT
- Equipment Factory
- Engineering Consultant
- Operating Company
- Circular economy

CB: NT\$ 300 million

Focus on..

Market Expanding

- Short-term: Building Channel
- Long-term: Capacity Development
- Method: Integrating Taiwan Resources .

Cap. Inc. 150 million

Amount of CB & Cap. inc. will be adjusted according to the auction price and the issue price per share.

To Invest Taiwan: GSD Enviro Tech (Taiwan) Co,Ltd.

- ◆ GSD Enviro Tech is a wholly-owned subsidiary of GSD Technologies Co.,Ltd. with a capital of NT \$20 million and is expected to \$150 million in the middle of the year.
- ◆ Main Business: Intelligent business (AIOT), project or service provided about environmental protection equipment, product and technology development, reinvestment.
- ◆ Through strategic cooperation or reinvestment, integrate Taiwan resources and technology, reinvest or expand Southeast Asian business.

To Invest Taiwan: Yuh Shan Environmental Engineering Co., Ltd.

BOD resolved to obtain shares of Yuh Shan , By NT \$18/share. (shareholding : between18.1%-23.53%)



Yuh Shan Environmental Engineering Co., Ltd.

Enter the market of soil, groundwater pollution treatment and mechanical biological treatment (MBT) (circular economy).

To Invest Taiwan: Yuh Shan Environmental Engineering Co., Ltd.

- ◆ Established in 1993, current capital is NT \$195 million, the capital increased by 255 million.
- ◆ It is qualified for technical consulting company, professional construction industry, environmental inspection and measurement organization, and also obtained the certification of ground water drilling. The turnover in 2020 is about NT \$490million.
- ◆ Since 2000, it has ≥ 110 projects engaged in the remediation of soil & groundwater pollution.
- In recent developed washing and thermal desorption methods for soil remediation have great results, and have obtained some cases from CNPC.
- ◆ Investing MT/MBT projects recently, it has achieved the goal of reduction of more than 80% by taking out the available resources from the waste. At present, in Yunlin has been in operation, and also in Pingdong, action will be started.

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 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!

