

# Leader Environmental Technologies Limited

January 2021



**Leader Environmental Technologies Limited**  
**利德环保技术有限公司**

(Incorporated in the Republic of Singapore on 15 August 2006)  
(Company Registration Number: 200611799H)

# Important Notice



**This Presentation is for information purposes only and does not constitute an invitation or offer to acquire, purchase or subscribe for the securities of Leader Environmental Technologies Limited (“Company”) referred to herein.**

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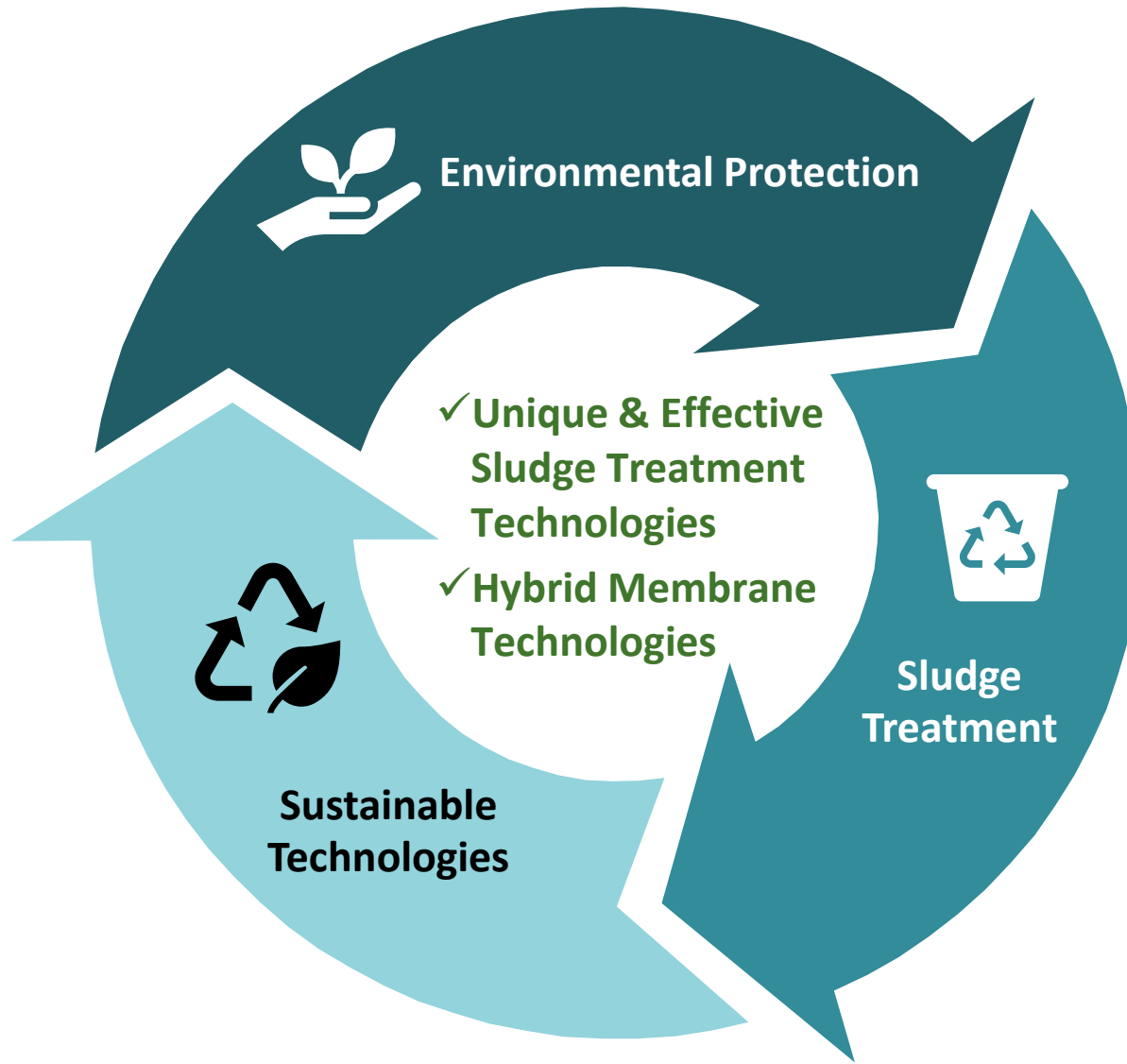


# 1. COMPANY OVERVIEW



# Our Business Objectives

We provide environmental solutions with our First-of-its-Kind & sustainable technologies





# Our Proprietary Technologies

## We solve critical environmental problems in China

### KEY ENVIRONMENTAL CONCERNS



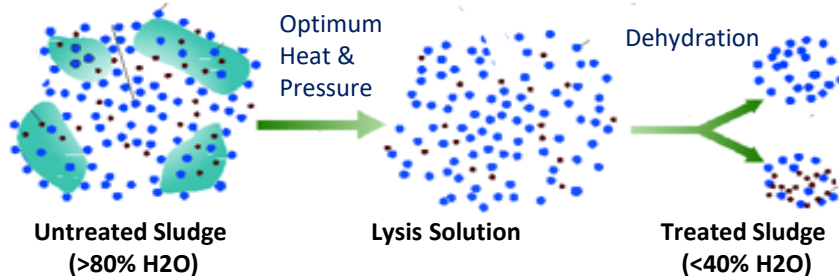
- Sewage sludge is a by-product of wastewater treatment process
- Traditional sludge-to-landfill disposal method leads to **secondary pollution**
- **Huge shortage of landfill sites** in China and globally
- In China, >60 million MT of sludge was produced in 2020\*
- Rising wastewater discharge standards in China

### Our Treatment-as-a-Service



#### Sludge Treatment Technologies

- 9 patented technologies to breakdown sludge particles
- This reduces the total sludge mass



- Treated Sludge can be incinerated to generate energy
- By-product of treated sludge can be recycled to produce building materials etc.



#### Nanosun's Hybrid Membrane

- Cylindrical-hollow structure instead of flat sheet to save space
- Hybrid organic polymer and inorganic crystalline titanium membrane results in enhanced durability (pores will not collapse easily)
- Easy to clean; non-sticky
- Cost-effective
- Uses significantly lesser chemicals
- Eliminate fouling
- Treats industrial wastewater which is recycled for industrial use
- Promotes environmental sustainability

# Company Highlights



## Transformation into a Green High-Tech Environmental Treatment-as-a-Service Provider



### Proven Leadership & Execution Track Record in the Environmental Sector

- Under leadership of Dr. Lin Yucheng, a well-regarded authority on the environmental sector with >30 years of business experience
- Founder and former-CEO of CITIC Envirotech (formerly known as United Envirotech Ltd) (“CEL”) for 13 years
- United Envirotech Ltd transformed into a vertically-integrated waste-water solutions provider and was divested to CITIC at valuation of SGD1.9 billion
- Served as adviser to Singapore government on the environment and water industry
- Experience in completing environmental protection projects in the PRC



### Capabilities to solve the Pressing Sludge Problems in China

- In China, >60 million MT of sludge was produced in 2020. China’s sludge treatment market has exceeded RMB50 billion since 2017 and is forecasted to increase at a rate of 10% p.a.\*
- Sludge treatment is expected to be a multi-billion nascent industry in China since 2017
- Local governments recognise of the sludge problems and willing to pay for sludge treatment solutions
- We have the proven and effective sludge treatment technologies to solve sludge-related problems



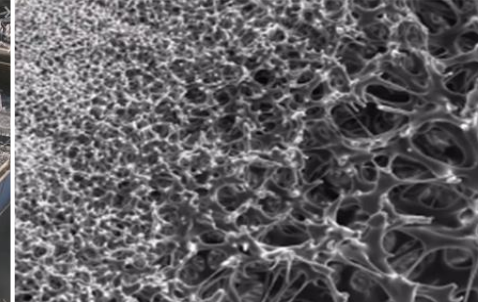
### Proprietary First of its Kind Environmental Technology

- We have the capabilities to treat industrial waste-water to meet higher water-discharge standards in China
- Established joint-venture with Nanosun Pte Ltd (“Nanosun”) to produce state-of-art, first-of-its-kind, Nano-Hybrid filtration membranes
- Nanosun is established by Professor Darren Sun, an internationally-renowned scientist in the fields of nanomaterials and 3D printing membranes. He has won numerous prestigious international awards and was a Distinguished Shimizu Professor at Stanford University

\*Source: Intelligence Research Company (2019), 污水处理行业, 市场运营态势及投资前景评估报告



# Our Core Business – Treatment-as-a-Service




Sludge Treatment	Industrial Wastewater Treatment	High Performance Membrane Specialist	Greentech Investments
<ul style="list-style-type: none"> <li>Supply integrated sludge solutions for municipal/industrial sludge treatment using our proprietary technologies</li> <li>Innovative sludge pretreatment and efficient energy recovery system to achieve the objectives of zero-waste discharge and resource recovery</li> </ul>	<ul style="list-style-type: none"> <li>Treatment and recycling of highly pollutive industrial wastewater using advanced membrane-based technologies, namely, Membrane Bio-reactor (“MBR”), Continuous Membrane Filtration (“CMF”) and Reverse Osmosis (“RO”)</li> <li>Higher margins than municipal wastewater treatment</li> </ul>	<ul style="list-style-type: none"> <li>Manufacturing of high-performance NANO-hybrid membrane products, mainly for wastewater treatment to generate “surface” water for reuse</li> <li>Significantly reduces the maintenance costs of regular cleaning of membranes with chemicals and down-time</li> </ul>	<ul style="list-style-type: none"> <li>Equity investments in start-ups in technologies, high-tech products &amp; services for environment protection</li> </ul>



# Capital Market Information

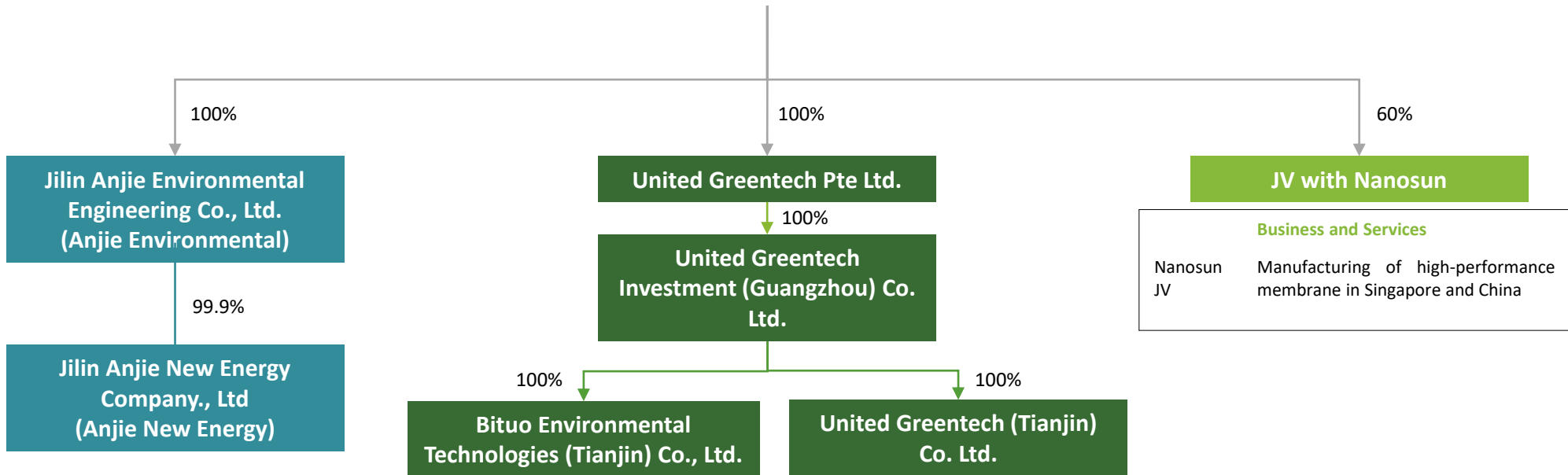


<b>Company Name</b>	 <b>Leader Environmental Technologies Limited</b> 利德环保技术有限公司
<b>Listing Venue</b>	SGX-Mainboard
<b>Ticker</b>	SGX : LS9
<b>Market Capitalisation</b>	S\$237.5 million, based on the last closing price of S\$0.179 on 28 January 2021
<b>Total Outstanding Shares</b>	1,326,976,200
<b>Board of Directors</b>	Lin Yucheng – Executive Chairman and CEO Lin Baiyin – Executive Director Lim Kuan Meng – Lead Independent Non-Executive Director Mak Yen-Chen Andrew – Independent Non-Executive Director Lee Suan Hiang – Independent Non-Executive Director

# Group Structure



**Leader Environmental Technologies Limited**  
利德环保技术有限公司



**Business and Services**  
Nanosun JV Manufacturing of high-performance membrane in Singapore and China

**Business and Services**

**Anjie Engineering** Research and development, design, manufacture and installation of environmental protection systems and provision of technical consulting and support services of environmental protection technologies and systems

**Anjie New Energy** Investment in construction and operation of new energy generation, water management and other related environmental projects

**Business and Services**

- **United Greentech Pte Ltd.** Investment holding companies
- **United Greentech Investment (Guangzhou) Co. Ltd.**
- **Bituo Environmental Technologies (Tianjin) Co., Ltd.** Municipal sludge treatment and management, industrial wastewater treatment and recycling, and other environmental related projects
- **United Greentech (Tianjin) Co. Ltd.**

# Key Management Team



## Dr Lin Yucheng, Executive Chairman / CEO



- Dr Lin was appointed as the Executive Chairman and CEO of LET since 1 Jan 2021
- He is a reputable entrepreneur who founded and invested in a spectrum of environment-related businesses in the last 30 years.
- He founded CITIC Envirotech Ltd and successfully groomed it into a billion-dollar market capitalization company.
- Under his leadership, CEL became a fully integrated environmental solution provider and attracted the support of world-class investors such as KKR and the CITIC Company.
- Dr Lin received his Ph.D. degree from Imperial College, London.
- He was the Advisor to the Singapore government on Singapore's environment and water industry.

## Professor Darren Sun, Nano-Membrane Scientist



- Prof. Sun established Nanosun in May 2013
- He is an internationally renowned scientist in the fields of nano materials and 3D printing membranes.
- He has won numerous prestigious international awards and was a Distinguished Shimizu Professor at Stanford University.
- The commercialization of his pioneering research work at NTU has received strong support from NTU and EDB.
- Nanosun's nano 3D printing membrane was chosen as a Top 5 technology at the 2019 Global Water Summit Technology Competition held in London.



## 2. INDUSTRY OUTLOOK





# Growing China Sludge Treatment Market

China's sludge treatment market has exceeded RMB50 billion since 2017 and is expected to increase at a rate of 10% per annum



- As of 2020, there were >4,000 sewage treatment plants in China, with a total treatment capacity of >200 million tons/day



- In 2020, these sewage treatment plants produced >60 million tons of sludge p.a. (>160,000 tons/day, with a moisture content of about 80%)



- Huge market opportunity for sludge treatment business in China



- China currently has >6,600 industrial parks



- China's industrial wastewater treatment market was estimated to be worth RMB1.3 trillion in its 13<sup>th</sup> Five Year Plan

# Global Wastewater Treatment Industry Outlook



The Global Water and Wastewater Treatment (WWT) market is expected to reach US\$211.3 Billion by 2025, rapidly growing at a CAGR of 6.5% during the forecast period of 2019 to 2025

## Key Growth Drivers



**Rapid population growth and urbanization**



**Growing demand for new water resources**



**Rising focus on water quality and public health**



**Increasing prevalence of water-borne diseases**



**Growing need to treat industrial wastewater and sludge**



**Stringent government regulations and enforcement actions on treating wastewater and sludge**

- Based on technology type, **membrane separation segment** is estimated to command the largest share of global water and wastewater treatment technologies market arising from:
  - ✓ Increasing demand for low energy consuming water treatment processes
  - ✓ Growing emphasis on reducing chemical usage
- The **APAC region** is expected to dominate the global water and wastewater treatment market through 2025, driven by:
  - ✓ large population base
  - ✓ Increased industrialization
  - ✓ Rising demand for advanced residential water treatment
  - ✓ Increased awareness about the environmental deterioration
  - ✓ Declining availability of clean water
  - ✓ Increasing public-sector investment in water infrastructure and increasing research and development expenditure






## **3. ESG CONSIDERATIONS**



# Our ESG Considerations

We are mindful of our responsibilities for the environment and society.

We will use our revolutionary membrane technology and environmental engineering capabilities to protect our environment

	Approach	Impact of Initiatives
<b>Environmental</b> 	<ul style="list-style-type: none"> <li>Evaluates the impact on environmental damage for every economic decision</li> <li>Enhancement in processes in rapidly changing environment while maximising resources preservation</li> <li>Commit resources to develop new technologies to stay competitive</li> <li>Explores public-private partnership projects with third-parties, financial institutions and government agencies</li> </ul>	<ul style="list-style-type: none"> <li>Higher treatment efficiency rates and lower emission rates</li> <li>Simple &amp; compact dust elimination and desulphurization technological system that are space savings</li> <li>Longer shelf-life of fabric dust bags; lower maintenance cost</li> <li>Lower energy consumption</li> </ul>
<b>Social</b> 	<ul style="list-style-type: none"> <li>Strengthen its occupational health and safety management system to be in line with its goal of eliminating occupational accidents</li> <li>Conducts pre-employment training, maintain committed training hours</li> <li>Supervision and guidance from qualified project managers on-site</li> <li>Succession planning as a key aspect of our talent management strategy and long-term sustainability</li> </ul>	<ul style="list-style-type: none"> <li>Maximise employees' potentials and capabilities, to drive long term success</li> <li>Bridge knowledge gaps between employers and employees</li> <li>Cohesive performing team that works together to grow the business</li> <li>Rejuvenate team with younger members</li> </ul>
<b>Governance</b> 	<ul style="list-style-type: none"> <li>Member of the Provincial Environmental Protection Industry Association of the Jilin province, with the primary objective of mandatory compliance with local laws and regulations with relevant governmental decisions within the province they operate.</li> <li>Maintain good corporate governance practice</li> <li>Continuously enhance Business Continuity Plan (BCP) to swiftly facilitate recovery of business from any potential threats</li> </ul>	<ul style="list-style-type: none"> <li>Cultivate an ethical corporate environment which is vital for good corporate governance practice</li> <li>Protect the interests of the shareholders and promote investors' confidence</li> <li>Employees given clear guidelines on acceptable standards of ethical behavior</li> <li>Raises employees' awareness on corporate social responsibility</li> </ul>



# Disclaimer



This Presentation is based on publicly available information, information obtained from market sources and information provided by the Company and its subsidiaries and/or their shareholders. The Company makes no representation as to the accuracy of the information used. The Company puts forward this Presentation in good faith as a basis for consideration by the Company and/or user of this Report (“User”). It is possible that the ideas proposed herein are inappropriate should the market information relating to the Company’s business and/or business environment be incorrect. Any information, as contemplated herein, may not be disclosed by the Recipient publicly or made available to any third parties. You should be aware that the Company is not, and does not hold itself to be an advisor as to legal, taxation, accounting or regulatory matters in any jurisdiction; accordingly, neither the Company, nor any of its directors, officers, employees or agents (each a "Relevant Person") shall incur any responsibility or liability with respect to any action, omission, recommendation or comment made by them or any Relevant Person in relation to any such matter or anything contained herein, and the User shall be responsible for obtaining all such advice as it thinks appropriate on such matters. The User alone shall be responsible for making its own independent investigation and appraisal of the risks, benefits and suitability of the Presentation and the Company shall incur no responsibility or liability whatsoever to the User in respect thereof. No action, omission, recommendation or comment made by the Company or any Relevant Person in relation to the Presentation shall constitute, or be deemed to constitute, a representation, warranty or undertaking by the Company or any Relevant Person. This Presentation has not been reviewed with appropriate or relevant legal counsel and the Company reserves the right without assuming the obligation to seek such legal opinions as may be required to ensure that the views set out by the Company fully complies with all legal and regulatory requirements.

**Forward-looking statements involve risk and uncertainty because they relate to future events and circumstances and there are many factors that could cause actual results and developments to differ materially from those expressed or implied by these forward-looking statements.**

These factors include but are not limited to:

- Changes in general economic, political or market conditions of the businesses;
- Currency exchange rate fluctuations;
- The successful execution of internal performance plans, including cost reduction and productivity efforts;
- Product performance risks, as well as project development and management risks;
- Customer, supplier and subcontractor performance or contract negotiations, including financing issues;
- Competition and consolidation in the industries the Company operates in;
- The outcome of political and legal processes including the availability of financing for certain projects;
- Research and development costs in connection with new products;
- Legal, financial and governmental risks related to international transactions;
- Legal and investigatory proceedings and other economic, political and technological risks and uncertainties;
- The full impact of the COVID-19 pandemic and the resulting health and economic crisis.

As a result, the Company’s actual results may differ materially from the plans, goals and expectations set forth in such forward-looking statements.



**THANK YOU**