

2024

# ASIA CLIMATE PIONEERS



Shanghai



气候创新  
实验室



Asia Pacific



The climate crisis presents a serious challenge confronting humanity today, of which the impact is particularly significant for Asia. The region's temperatures are rising twice as quickly as the global average, triggering more frequent extreme weather and natural disasters. In their "State of the Climate in Asia 2022" report, the World Meteorological Organization (WMO) found 81 weather, climate and water-related disasters in Asia that year that resulted in over 5,000 casualties, directly affected more than 50 million people, and caused more than US\$36 billion in economic damages. In addition, thawing, glacier melting, and rising sea levels in the region portend even greater socioeconomic disruptions. Avoiding serious, irreversible consequences calls for immediate and far-sighted climate action.

While deeply affected by climate change, Asia - one of the largest contributors to global growth - has seen its energy consumption skyrocket and its carbon emissions already exceed 50% of total global carbon emissions. Consequently, it needs to accelerate its transformation; it must swiftly and broadly develop and adopt innovative climate solutions that address the challenges of climate change.

We strongly believe that Asia's home-grown innovation can have a critical impact. Over the past decade, the average global cost of electricity for wind and solar projects has declined by more than 60% and 80%, respectively, with China's energy innovations playing a significant role. Data from BloombergNEF (BNEF) found that China, India, South Korea, and Japan gave the significant amount of venture capital and private equity funding to global climate technology companies in 2023. In particular, Chinese enterprises obtained more than

US\$11 billion, ranking second only to the United States and demonstrating the vitality of such active development.

However, we also found that support for climate innovation fell far short of that required to underpin the much-needed climate transformation. Various data showed that Indonesia, Malaysia, the Philippines, Thailand, India, and many other countries in Asia faced a huge climate finance gap, especially for small and medium-sized enterprises (SMEs). Nor did innovative solutions aimed at addressing climate change merit adequate systematic attention within Asia.

For those reasons, we decided to launch *2024 Asia Climate Pioneers 100*. As one of the world's largest business platforms focused on sustainability innovation and entrepreneurship, Impact Hub's core mission is to help early-stage impact startups commercialize, scale, and drive systemic change. Since Impact Hub Shanghai was established in 2017, we have closely connected global actors and resources with the local ecosystem. For the past seven years, we have been committed to catalyzing China's climate innovation ecosystem, empowering the development of climate innovation technologies, and promoting the transformation of key emission industries and regions. We hope that the launch of the *2024 Asia Climate Pioneers 100* - and its promotion in China, Asia, and worldwide - will give Asia's 100 leading climate innovation companies further opportunities for exposure and support, as well as spotlighting the region's innovation and leadership in combating climate change.

Based on desk research and project experience, the *2024 Asia Climate Pioneers 100* categorized the direction of climate innovation in Asia into nine key areas: energy transition, industrial decarbonization, low-carbon buildings, transport decarbonization, agrifood system reform, nature conservation, carbon removal, climate adaptation, and climate finance. The 100 companies encompass the innovative topics and trends of those key areas, providing an effective reference for industries, investors, startups, and other stakeholders interested in climate issues in Asia.

We searched extensively for Asian companies in those areas and finally limited our selection to early-stage innovators (defined as those with Series B funding and earlier in the last five years). It was based on Impact Hub's focus on supporting early-stage startups through the "valley of death." We believe that early-stage innovations in climate technologies are often capital intensive, technologically risky, and highly uncertain, so they require sufficient attention and investment from governments, the private sector, nonprofits, and entrepreneurial platforms. According to the information publicly disclosed by the companies and reviews from investment experts, we screened and compared the companies on four metrics - innovation, impact, commercialization, and team profile - before selecting 100. We believe that they have successfully shown technological, business model-, or application-related innovations in their respective fields; have certifiably demonstrated their commercial potential and feasibility (that is, all the

companies have received financing, and most of them have partnerships with large enterprises in the industry); and have been recognized and endorsed to varying degrees by other authoritative parties (e.g., inclusion in prestigious lists domestically and abroad or winning high-quality international awards). Those factors illustrate why they are worthy of further recognition and recommendation.

It is also worth noting that in selecting the *2024 Asia Climate Pioneers 100*, Chinese companies accounted for 70%, while companies from the rest of Asia accounted for 30%. This does not represent the true distribution of countries in which climate innovations are located but, rather, is based largely on the scope of Impact Hub Shanghai's work. At the same time, we also aim to help more international stakeholders understand Chinese companies and to realize international exchanges and collaborations in the future.

The Asia Climate Pioneers 100 is not comprehensive. Given the inability to include every innovative company in Asia that contributes to the climate transition, we welcome criticisms and comments from experts and peers. We look forward to using this report to spotlight climate change and to showcase innovative technologies, models, and actions in Asia in response to that issue. We are also eager to see how these innovative enterprises inspire and motivate stakeholders to address climate change - and, together, face the great challenge of our times.



# 2024 Asia Climate Pioneers 100

\*The business cases are listed in no particular order.

## Energy Transition



## Transport Decarbonization



## Agrifood System Reform



## Nature Conservation



## Industrial Decarbonization



## Low-carbon Buildings



## Carbon Removal



## Climate Finance



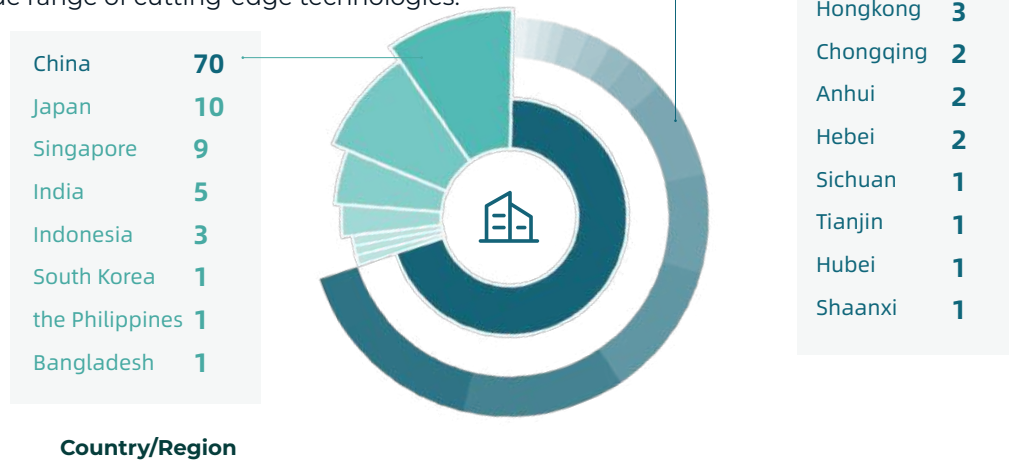
## Climate Adaptation



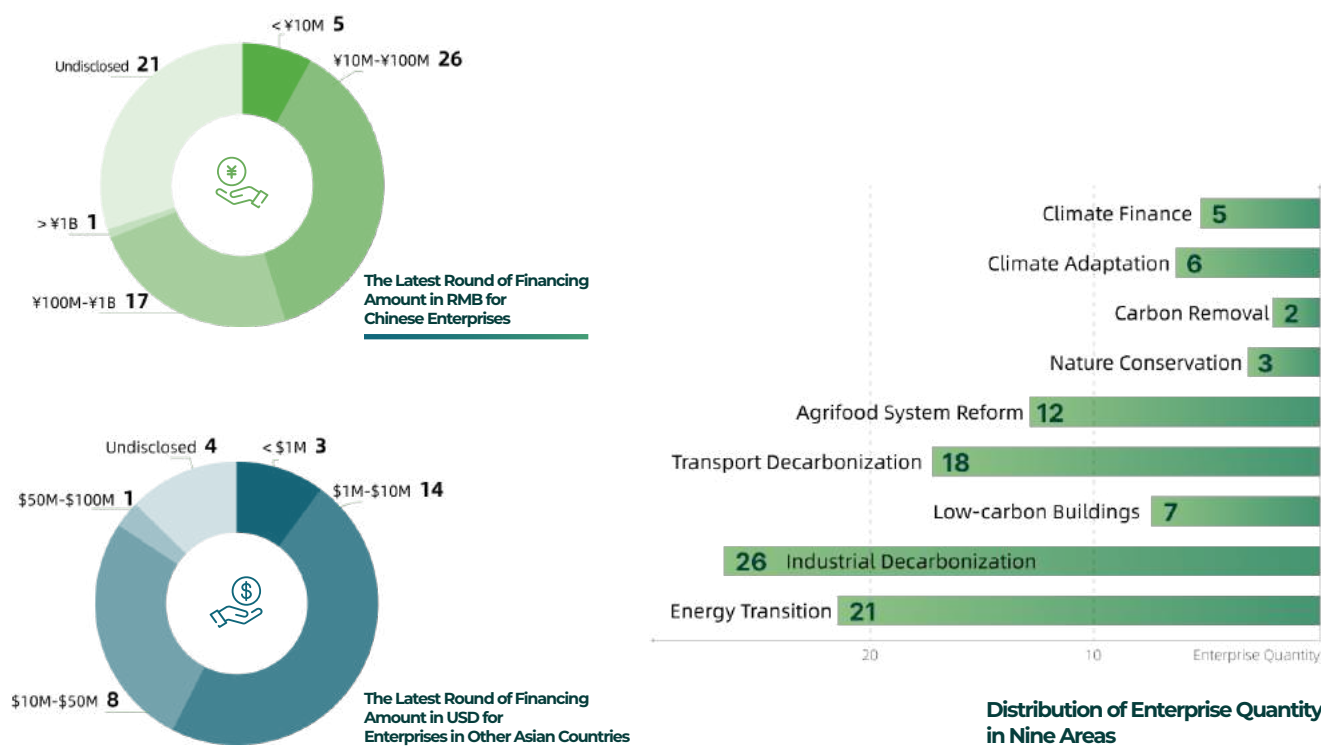
# The profile of 100 cases

## The profile of 100 cases

The 100 companies included in this year's collection come from eight Asian countries, including China, Japan, Singapore, India, and South Korea. The vast majority of the Chinese companies are from the eastern seaboard, primarily Beijing, Shanghai, and Guangdong. We found that international organizations frequently mentioned China and Japan in references to climate technology and innovation, but Singapore has also performed well in that area, as seen in their large number of climate innovation companies and their wide range of cutting-edge technologies.



In selecting these companies, eligible enterprises tended to concentrate in four main areas: energy transition, industrial decarbonization, transport decarbonization, and agrifood system reform. In contrast, there were only a few companies funded in nature conservation and carbon removal. In addition, adaptation financing is smaller and less frequent than mitigation financing, a trend consistent with Oxfam's observations from 2013 to 2020 in its "Climate Finance in Asia" report. Within specific technical areas, companies working in photovoltaics, batteries, and alternative proteins seemed to secure large financing at higher rates than companies in other sectors.

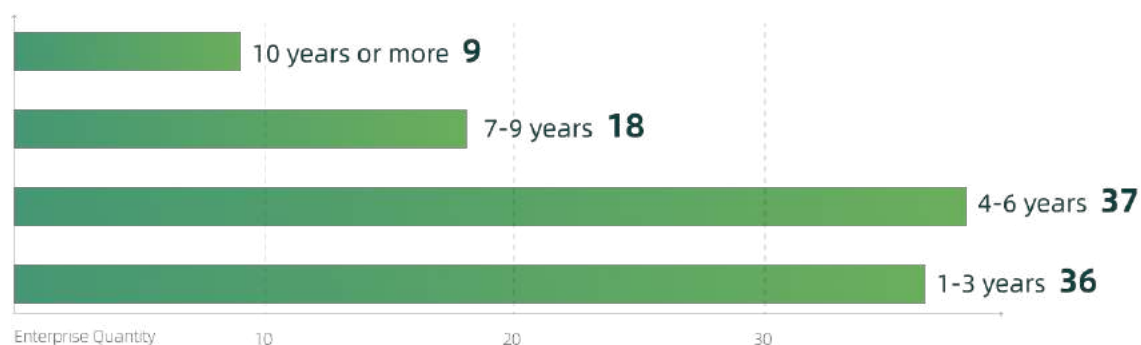


\* Some enterprises' financing amounts have been converted at real-time exchange rates.

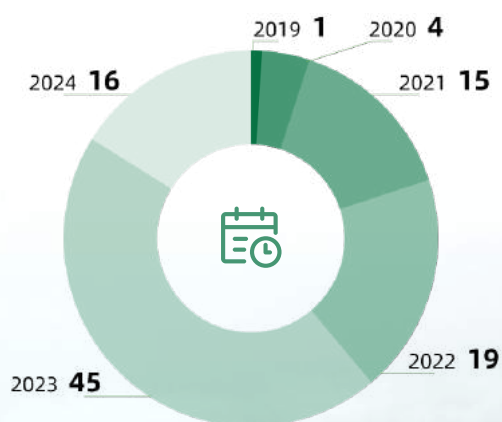


As for their founding years, the majority of the 100 companies here were established between 2018 and 2021, suggesting that these climate innovation firms take about 3 to 6 years from inception to the establishment of their business models. In addition, this report includes four companies founded in 2023, of which three work in industrial carbon reduction. To some extent, that reflects the high growth rate of certain technology companies in that field.

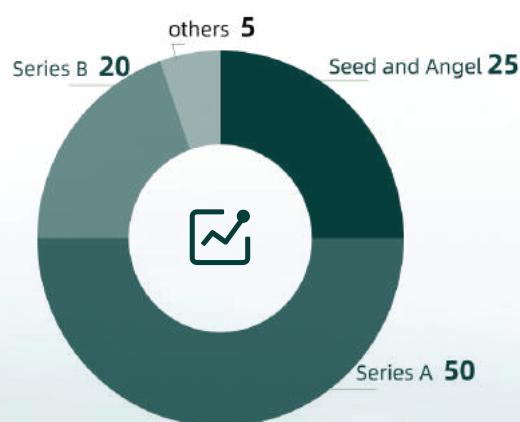
Moreover, we are pleased to identify climate companies in India, Indonesia, Bangladesh, and the Philippines committed to a just transition. They may not have the world's leading innovative technologies, but through innovative service models or application scenarios, they provide mitigation or adaptation solutions that are truly tailored to the developmental needs of local communities and benefit vulnerable local groups.



**Years in Operation**



**Latest Financing Year**





**Latest Financing Rounds**





\*Others include Venture Round, Corporate Round, Grant, Strategic Financing, etc.

# 01

## Energy Transition

It is to reduce emissions from electricity and heating through technologies and services like renewable energy, the construction of new power grid systems, novel energy storage system, energy efficiency increasing, methane emissions reducing, clean cooking, and CCUS (Carbon Capture, Utilization, and Storage); and to promote a just transition through resettling affected populations and improving electricity accessibility.

<p>The Founding Year <b>2020</b></p> <p>Country/Region <b>Singapore</b></p> <p>Latest Financing Year <b>2023</b></p> <p>Latest Financing Rounds <b>Seed</b></p> <p>Financing Amount <b>2M USD</b></p>	<p><b>SunGreenH2</b></p> <p>SunGreenH2 utilizes advanced nanotechnology to produce low-cost green hydrogen as a feedstock or fuel for companies in hard-to-abate industrial sectors like chemicals, cement, and steel. It has created modular, scalable electrolyser systems using proprietary high-performance electrolyser components that were designed, developed, and manufactured in-house. The result was a highly efficient, low-cost water electrolysis process that used electrochemistry and nanotechnology to produce zero-carbon hydrogen. Compared to commonly seen commercial electrolyser systems, SunGreenH2's patented technology doubles hydrogen production from the same electrolyser size while reducing the use of expensive precious metals and reducing plant stack capex by 50%.</p>
<p> <b>XURYA</b> revolutionizing energy</p>	<p>The Founding Year <b>2018</b></p> <p>Country/Region <b>Indonesia</b></p> <p>Latest Financing Year <b>2022</b></p> <p>Latest Financing Rounds <b>A</b></p> <p>Financing Amount <b>11.5M USD</b></p> <p><b>Xurya</b></p> <p>Xurya provides solar leasing and installation services with end-to-end solar consulting and product leasing services for commercial and industrial property owners in Indonesia. It offers on- and off-grid configurations based on customer needs and a zero-investment program for installing solar rooftops, allowing homeowners to go solar with no investment. It currently operates 174 successful solar rooftop projects and has generated more than 166 million kilowatt-hours of clean energy annually, equivalent to 148 million kilograms of carbon emissions reduction per year. Xurya was featured on the 2022 APAC Cleantech 25 list and was also named to the Forbes Asia 100 to Watch 2023.</p>
<p>The Founding Year <b>2018</b></p> <p>Country/Region <b>India</b></p> <p>Latest Financing Year <b>2021</b></p> <p>Latest Financing Rounds <b>A</b></p> <p>Financing Amount <b>4.52M USD</b></p>	<p> <b>GREENJOULES</b></p> <p><b>Greenjoules</b></p> <p>Greenjoules is a green energy technology startup that uses non-food and non-feed wastes to create biofuels that meet the standards of currently used fossil fuels, like diesel and liquefied petroleum gas. Its main products include liquid fuels and gaseous fuels, which can be widely used in boilers and automobiles, while its flagship product, Abhilasha liquid fuel, has been tested and validated by the Indian Institutes of Technology (IIT) Chennai and found equal to fossil diesel in engine performance. It is practically free of sulfur oxides and can reduce greenhouse gases from diesel-powered machines by up to 90%. In addition, its manufacturing process produces by-products like biochar, which can be used – among other purposes – as a soil amendment and in green construction.</p>

	<p>The Founding Year <b>2011</b></p> <p>Country/Region <b>Japan</b></p> <p>Latest Financing Year <b>2021</b></p> <p>Latest Financing Rounds <b>Corporate Round</b></p> <p>Financing Amount <b>2.83M USD</b></p>	<h3>Connexx Systems</h3> <p>Connexx Systems specializes in providing power generation and energy storage systems. It has a series of advanced battery-enabled technologies, including the BIND Battery (a hybrid battery combining lithium-ion and lead-acid technologies), the HYPER Battery (an ultra-high-power lithium-ion battery), and the SHUTTLE Battery (a disruptive, ultra high energy density, iron-air battery). Utilizing these battery technologies, Connexx Systems has built energy storage infrastructures and developed high-capacity, compact industrial energy storage systems for disaster preparedness and emergency power outages, as well as containerized high-capacity energy storage systems. In addition, it owns several patented technologies and is developing the world's most advanced silicon-based high-capacity anode materials, whose capacity is expected to exceed that of ordinary anode materials by more than three times.</p>
<p>The Founding Year <b>2021</b></p> <p>Country/Region <b>Japan</b></p> <p>Latest Financing Year <b>2024</b></p> <p>Latest Financing Rounds <b>B</b></p> <p>Financing Amount <b>9M USD</b></p>		<h3>Emulsion Flow Technologies</h3> <p>Emulsion Flow Technologies (EFT) has developed an innovative solvent extraction technology for the horizontal recovery of rare metals from lithium batteries and selectively extracts the target components from immiscible liquids. The solvent extraction developed by EFT combines the three stages of mixing, settling, and separating into one synchronized process, enabling the efficient, high-purity recovery of rare metals. EFT is more efficient than traditional mixing and precipitation methods, allowing for solvent extraction equipment to be downsized and rare metals to be purified at a lower cost. It is also researching on the recovery of valuable components and organic synthesis.</p>
	<p>The Founding Year <b>2018</b></p> <p>Country/Region <b>Japan</b></p> <p>Latest Financing Year <b>2022</b></p> <p>Latest Financing Rounds <b>B</b></p> <p>Financing Amount <b>Undisclosed</b></p>	<h3>Enecoat Technologies</h3> <p>Enecoat Technologies is a perovskite solar cell company originating from the laboratory of Kyoto University. It uses a wet process based on organic chemistry to prepare organic-inorganic hybrid perovskite films, and its low-temperature coating process and nano-level ultra-thin films help to lower manufacturing costs. Its solar cells, based on ultra-thin glass and film as substrates, are lightweight and flexible, with single-section conversion efficiency reaching 25.7% and module efficiency reaching 19.4%. Moreover, they maintain high conversion efficiency under moderate to low light conditions. Enecoat is focused on developing perovskite solar cells for applications in vehicle-integrated photovoltaics by combining perovskite solar cells with Toyota's in-vehicle technology for solar panels.</p>
<p>The Founding Year <b>2014</b></p> <p>Country/Region <b>Shanghai, China</b></p> <p>Latest Financing Year <b>2020</b></p> <p>Latest Financing Rounds <b>B</b></p> <p>Financing Amount <b>12M USD</b></p>		<h3>Sunman</h3> <p>Sunman is a leading clean energy company specializing in solar photovoltaic (PV) technology. Compared to traditional PV modules, its flexible, glassless PV modules offer a thickness of less than 2mm, a minimum bending radius of 0.9m, and a weight reduction of more than 75%, as well as excellent weather resistance, durability, lightness, flexibility, and greater agility and adaptability. It can be used on industrial and commercial color steel tile roofing and other distributed generation applications, on cars and boats, and for portable energy. Finally, it addresses the issues facing traditional PV modules, such as installation difficulties and insufficient load-bearing capacity in buildings and elsewhere.</p> <p>The company's flexible PV products have been widely used in more than 30 countries and regions. Sunman currently partners with large-scale industrial enterprises, including Huaigang Special Steel, BADER Leather, and Yulin Energy. In recognition of its lightweight PV technology, it was named to the 2024 Global Cleantech 100 from Cleantech Group.</p>





The Founding Year  
**2022**  
Country/Region  
**Anhui, China**  
Latest Financing Year  
**2023**  
Latest Financing Rounds  
**A**  
Financing Amount  
**1.5B RMB**

## Qingdian Photovoltaic Technology

Qingdian Photovoltaic Technology is a photovoltaic power generation service provider committed to building a green, silicon-based industrial chain ecosystem offering excellent quality, advanced technology, and low total energy consumption in hopes of integrating the silicon-based industry. It aims to improve the efficiency of PV modules, significantly reduce those manufacturing costs, and provide "stable, reliable, and cost-effective" high-efficiency silicon wafers and cells. In 2022, Qingdian built a photovoltaic silicon-based demonstration industrial park. Its silicon-based project uses the modified Siemens process, and its energy consumption uses coupled distillation columns, saving more than 30% in steam and cooling water.

The Founding Year  
**2021**  
Country/Region  
**Jiangsu, China**  
Latest Financing Year  
**2023**  
Latest Financing Rounds  
**B**  
Financing Amount  
**Over 100M RMB**



## Northern Electric Power (NEP)

NEP provides solutions for solar microinverters, rapid shutdown solution, and micro-grid smart energy systems. The company's module-level power electronics (MLPE) are both economic and safe and have been certified for a full range of products in the U.S. and Europe, while its module-level rapid shutdown products are one of the few in the world with a patented shutdown core. In addition, its microinverters can be adapted to different lighting in different parts of the world, greatly reducing its market limitations. NEP has a standing in the international market and a stable channel of clients in high-end markets like North America. In 2022, it was named to Solar Power World 2022 Top Solar Inverters and Power Electronics list. The following year, NEP launched its first energy storage microinverter to store photovoltaic-derived direct current directly in batteries, enabling continuous, 24-hour power supply.



The Founding Year  
**2015**  
Country/Region  
**Jiangsu, China**  
Latest Financing Year  
**2023**  
Latest Financing Rounds  
**B+**  
Financing Amount  
**Undisclosed**

## Legend Energy


Legend Energy is a high-tech enterprise specializing in new energy and energy storage. It has provided solutions for optical storage and charging, equipped its energy storage system, and integrated its self-developed predictive AI algorithm for thermal runaway for micro-grids. This compensated for the discontinuity of solar power during peak shaving and vastly improved the security of the energy storage system. In addition, Legend has built a smart user-side service platform and is committed to delivering a smart user-side energy storage ecosystem. It has collaborated for many years with well-known new energy application platforms like Didi, Aulton New Energy, BAIC Motor, and Didi Bikes.

The Founding Year  
**2021**  
Country/Region  
**Shanghai, China**  
Latest Financing Year  
**2022**  
Latest Financing Rounds  
**Angel+**  
Financing Amount  
**Undisclosed**









## FIRMLI

FIRMLI is dedicated to the research and development of sulfide all-solid-state batteries and is deeply engaged in the development and application of key materials for high-energy batteries. Given the demand for long battery life and high-energy density, FIRMLI has established an integrated R&D system of material development, battery application, pilot testing, and circuit control, and its products can be applied to energy storage power stations and other scenarios. Its germanium-free electrolyte formula and all-solid-state electrolyte membrane has delivered both cost reductions and output realization, while its R&D of sulfide solid-state battery materials can effectively improve the air stability of electrolytes, negative stability, and electrode affinity while significantly reducing impedance and side reactions. The pilot testing base was constructed in 2022, followed by the launch of the pilot line and debugging. Its production capacity in 2023 was 150Mwh, with its sulfide solid-state electrolyte-prepared cells reaching 5Ah-level power.

<p>The Founding Year <b>2018</b></p> <p>Country/Region <b>Zhejiang, China</b></p> <p>Latest Financing Year <b>2023</b></p> <p>Latest Financing Rounds <b>B</b></p> <p>Financing Amount <b>Over 100M RMB</b></p>		<h3>ZD Power</h3> <p>ZD Power is an innovative national high-tech enterprise focused on the smart transformation of China's electrical energy, and it has also implemented the full-link operation of virtual power plants in dozens of places, including Zhejiang, Jiangsu, and Shanghai. It is committed to building a smart energy network through digital technology and energy technology, providing digital energy services to corporations and governments, and constructing an interconnected, smart energy management system that extends the whole industry chain, from energy production to consumption. ZD Power has signed a strategic cooperation agreement with State Power Investment Corporation (SPIC) Zhejiang to build an integrated, zero-carbon smart power plant in Zhejiang Province.</p>
	<p>The Founding Year <b>2021</b></p> <p>Country/Region <b>Hubei, China</b></p> <p>Latest Financing Year <b>2022</b></p> <p>Latest Financing Rounds <b>Angel</b></p> <p>Financing Amount <b>Several tens of millions of RMB</b></p>	<h3>Ju'an Energy Storage</h3> <p>Ju'an Energy Storage is a technology company specializing in a new, large-scale, high-security, iron-based liquid flow energy storage system. It has the world's first alkaline all-iron liquid flow energy storage system and self-stratifying battery architecture technology, which address the safety and cost concerns of energy storage technology. Ju'an's products offer large capacity, increased security, high efficiency, low costs, long lives, and recyclability, accelerating the development of durable energy storage. Its clients include electric utilities, energy storage system integrators, and new energy development operators. In 2023, its energy storage system was recognized by China's National Energy Administration on its "List of the First (Set) Major Technical Equipment (Projects)" in the field of energy storage.</p>
<p>The Founding Year <b>2021</b></p> <p>Country/Region <b>Jiangsu, China</b></p> <p>Latest Financing Year <b>2024</b></p> <p>Latest Financing Rounds <b>A</b></p> <p>Financing Amount <b>Several hundreds of millions of RMB</b></p>		<h3>Renshine Solar</h3> <p>Renshine Solar focuses on the R&amp;D of all perovskite tandem solar cells and has continuously set world records for the conversion efficiency of its perovskite photovoltaic cells. In January 2024, it developed a 30cm x 40cm-sized perovskite module with a steady-state efficiency (MPPT) of 20.1%, marking the highest MPPT and the most stable operation among perovskite modules of the same size. Renshine Solar has the world's first R&amp;D line of 10MW all perovskite tandem solar cells, and in January 2024, it also completed production of its 150MW all perovskite tandem photovoltaic module project. In 2023, the company achieved a 29% steady-state power conversion efficiency of all-perovskite tandem solar cells, which was certified by Japan Electrical Safety and Environment Technology Laboratories (JET). It consecutively set world records for the conversion efficiency of its cells.</p>
	<p>The Founding Year <b>2014</b></p> <p>Country/Region <b>Shanghai, China</b></p> <p>Latest Financing Year <b>2022</b></p> <p>Latest Financing Rounds <b>A</b></p> <p>Financing Amount <b>Undisclosed</b></p>	<h3>EQuota</h3> <p>EQuota is a smart energy management service provider whose SaaS technology enables energy savings of 5% to 20%, allowing clients to save hundreds of millions in energy consumption costs each year. It has also creatively applied Non-Invasive Load Monitoring (NILM) technology to the commercial market, using information technology to reform energy system management. EQuota owns several internationally patented algorithms, and its core technologies of predictive modeling, deconstructive analysis, and anomaly detection are among the world's leading technologies. In addition, its independently developed and promoted smart energy and carbon management products have already been used by industry leaders, including the State Grid Corporation of China, China Southern Power Grid, Dubai Electricity &amp; Water Authority (DEWA), Baowu, and BASF, assisting power and industrial enterprises with energy transition.</p>



	<p>The Founding Year <b>2021</b></p> <p>Country/Region <b>Jiangsu,China</b></p> <p>Latest Financing Year <b>2022</b></p> <p>Latest Financing Rounds <b>Pre-A</b></p> <p>Financing Amount <b>50M RMB</b></p>	<h3>Teplore</h3> <p>Teplore develops innovative distributed energy storage products and services and provides safe, efficient distributed energy storage systems to customers. The company focuses on distributed energy storage in factories, commercial buildings, charging stations, and other industrial and commercial users. It can configure the capacity of large energy storage systems to correspond with actual demand and effectively reduce energy loss. Its self-developed energy storage system can adapt its charging and discharging to customer needs, thereby improving the operational efficiency of the system, and it can also significantly increase the proportion of green energy in microgrids. Teplore has signed a battery purchase agreement of close to 1 GWh capacity with Contemporary Amperex Technology (CATL) to jointly develop the industrial and commercial energy storage market.</p>
<p>The Founding Year <b>2021</b></p> <p>Country/Region <b>Beijing,China</b></p> <p>Latest Financing Year <b>2023</b></p> <p>Latest Financing Rounds <b>A</b></p> <p>Financing Amount <b>Undisclosed</b></p>		<h3>VppTech</h3> <p>VppTech provides virtual power plant technology services. Through cloud computing, AI and big data, and other technical capabilities, it integrated iterative data-driven optimization with its virtual power plant system to coordinate power load users like the community, industrial parks, and urban buildings. VppTech has responded to power scheduling, met demands for lower-cost and flexible demand, enabled the smooth interaction of multiple devices, and encouraged household participation in constructing a new type of power system. At present, the company collaborates with well-known power enterprises like the State Power Investment Corporation and the China Southern Power Grid. In early 2024, VppTech also helped to develop and complete Shanxi's first test platform for the regulation capability of virtual power plants.</p>
	<p>The Founding Year <b>2018</b></p> <p>Country/Region <b>Shanghai,China</b></p> <p>Latest Financing Year <b>2023</b></p> <p>Latest Financing Rounds <b>A</b></p> <p>Financing Amount <b>600M RMB</b></p>	<h3>WeView Energy Storage Technology</h3> <p>WeView Energy Storage Technology is a high-tech enterprise specializing in long-lasting energy storage battery R&amp;D and manufacturing. Its zinc-iron flow battery is highly safe and offers more than 8 hours of energy storage capacity. The low cost of materials also creates more room for other cost reductions, bringing clearer cost advantages in later stages compared to all-vanadium redox flow batteries. In 2023, the company reached a cooperation agreement with China Energy Engineering Group Co. and Huadian New Energy Group. In October 2023, it built and put into full production the world's first zinc-iron flow battery intelligent manufacturing factory have a mass production capacity exceeding 1GW and achieving an annual production capacity of more than 6 Gigawatt-hours.</p>
<p>The Founding Year <b>2021</b></p> <p>Country/Region <b>Guangdong,China</b></p> <p>Latest Financing Year <b>2023</b></p> <p>Latest Financing Rounds <b>A</b></p> <p>Financing Amount <b>Undisclosed</b></p>		<h3>SPF Hydrogen Energy</h3> <p>SPF Hydrogen Energy is a technology enterprise focused on the third generation of electrolytic water hydrogen production technology and offering AEM water electrolysis hydrogen equipment, from membranes, catalysts, and membrane electrodes to control systems and system integration. Its services and products include preparation methods for high-performing AEMs, high-efficiency AEM bimetallic catalysts, high-efficiency OER and HER electrodes, and integrated systems control for electrolyzers. SPF Hydrogen Energy has successfully broken Western technological barriers in the field of hydrogen energy and holds an international competitive advantage.</p> <p>In December 2023, it released the world's first 10kW AEM electrolyser cell, lowering manufacturing cost by 40% per kilowatt compared to its predecessor. The cell also offers improvements in energy density and system integration, making it more suitable for large-scale applications. SPF Hydrogen is currently working with large energy companies to build a 100MW energy storage plant.</p>

<p>The Founding Year <b>2021</b></p> <p>Country/Region <b>Shaanxi, China</b></p> <p>Latest Financing Year <b>2023</b></p> <p>Latest Financing Rounds <b>A</b></p> <p>Financing Amount <b>Several tens of millions of RMB</b></p>	 <p><b>新能源科技</b> NEW ENERGY TECHNOLOGY</p>	<h3>Xi'an 1908 New Energy Technology</h3> <p>Xi'an 1908 New Energy Technology is a high-tech enterprise founded on the basis of original scientific and technological achievements of Xi'an Jiaotong University. The company manufactures high-density, solid-state, light metal hydride/graphene composite hydrogen storage materials that offer high hydrogen storage density, hydrogen release under a broad range of working conditions, high environmental safety, and efficient storage and transportation. This enhances density of hydrogen storage and release, and it also addresses the low-temperature release of hydrogen from solid-state hydrogen storage materials, which can reduce transportation costs and enable highly efficient, safe, and controllable hydrogen release from hydrogen storage materials. For its hydrogen storage and transportation solutions, the company won the grand prize in the Green Hydrogen category of the UNIDO 2023 Global Call.</p>
	<p>The Founding Year <b>2015</b></p> <p>Country/Region <b>Shanghai, China</b></p> <p>Latest Financing Year <b>2023</b></p> <p>Latest Financing Rounds <b>B</b></p> <p>Financing Amount <b>Undisclosed</b></p>	<h3>enjoyelec Tech</h3> <p>Enjoyelec is an innovative energy digital enterprise driven by battery AI and energy AI technologies. Based on those two core technologies, it launched its core product, a virtual power plant (VPP) management platform; built a VPP network comprising of energy storage, photovoltaics, microgrids, and charging stations; coordinated and controlled distributed energy sources like distributed power supply, energy storage microgrids, and energy storage system; and realized functions like a balance of power supply and consumption, storage management, and strategic operations. It develops smart modules for the interconnected energy industry, provides energy management solutions like VPPs and distributed energy management systems for the new energy sector, and has partnered with companies like FAW Group and Alibaba Cloud.</p>










# 02

## Industrial Decarbonization



It is to achieve energy savings, carbon reduction, and green transformation in industrial sectors such as steel, cement, and chemicals, through green material substitution, re-engineered industry processes, energy efficiency increasing, utilization of waste heat and pressure, and CCUS.

<p>The Founding Year <b>2018</b></p> <p>Country/Region <b>Singapore</b></p> <p>Latest Financing Year <b>2023</b></p> <p>Latest Financing Rounds <b>A</b></p> <p>Financing Amount <b>12M USD</b></p>	<div data-bbox="411 943 622 1016">  <b>SepPure</b> Technologies         </div> <div data-bbox="671 846 991 882"> <h3>SepPure Technologies</h3> </div> <div data-bbox="671 898 1453 1137"> <p>SepPure Technologies specializes in nano-filtration technology, with its innovations designed to provide sustainable solutions for industrial chemical separations by replacing traditional distillation with chemical-resistant nanofiltration membranes. It developed chemical-resistant membranes with pores of only one nanometer in diameter, allowing chemical mixtures to be effectively separated at the molecular level without the need for applied heat. Using this innovative filtration process, SepPure Technologies reduced the energy requirements of industrial chemical separation and the use of fossil fuels. Compared to conventional separation methods, it can cut energy consumption and CO<sub>2</sub> emissions by up to 90%.</p> </div>
<div data-bbox="156 1361 338 1438">  </div> <p>The Founding Year <b>2015</b></p> <p>Country/Region <b>Singapore</b></p> <p>Latest Financing Year <b>2021</b></p> <p>Latest Financing Rounds <b>B+</b></p> <p>Financing Amount <b>95.1M USD</b></p>	<div data-bbox="671 1234 919 1267"> <h3>RWDC Industries</h3> </div> <div data-bbox="671 1285 1453 1608"> <p>RWDC Industries is a biotechnology company primarily working in the production of medium-chain-length polyhydroxyalkanoate (mcl-PHA). It developed Solon as an ideal alternative to petroleum-based, single-use plastics for food packaging, straws, non-woven textiles, paper coatings and films, and other applications. Solon can be made from post-consumer or waste cooking oil to produce Solon™ PHA material and align with the circular concept of recycling, all while having a significantly lower carbon footprint compared to traditional plastics. In addition, Solon has received internationally recognized biodegradability and compostable certifications from TUV Austria, proving that it can biodegrade in any natural environment. In 2023, RWDC Industries signed an agreement with US-based petrochemical company Lummus Technologies to cooperate on global PHA deployment initiatives and provide solutions for the circular economy.</p> </div>
<p>The Founding Year <b>2023</b></p> <p>Country/Region <b>Japan</b></p> <p>Latest Financing Year <b>2023</b></p> <p>Latest Financing Rounds <b>Seed</b></p> <p>Financing Amount <b>Undisclosed</b></p>	<div data-bbox="400 1787 638 1841">  <b>iPEACE223</b> </div> <div data-bbox="671 1682 829 1718"> <h3>iPEACE223</h3> </div> <div data-bbox="671 1733 1453 1951"> <p>iPEACE223 is a chemistry startup invested by Tokyo Institute of Technology (TIT) to develop zeolite catalysis technology, which converts bioethanol-based ethylene to propylene, in collaboration with Mitsubishi Chemical Corporation and TIT. The company offers products like bioethanol and propylene, which can be used as green alternatives to liquified petroleum gas (LPG) and chemicals. It has exclusive IP rights to the zeolite catalysis technology and has achieved high propylene yields of 90% in the lab. The use of this technology is expected to reduce CO<sub>2</sub> emissions by about 30%, compared to petrochemical-derived products.</p> </div>

	<p>The Founding Year <b>2023</b></p> <p>Country/Region <b>India</b></p> <p>Latest Financing Year <b>2023</b></p> <p>Latest Financing Rounds <b>Seed</b></p> <p>Financing Amount <b>2M USD</b></p>	<h2>Sentra.World</h2> <p>Sentra.World is an environmental technology service provider dedicated to decarbonizing industrial manufacturing by offering a SaaS platform to support the environment, social, and governance (ESG) performance of industrial companies. Through its AI and blockchain solutions, it helps industrial companies track and monetize their CO<sub>2</sub> emissions. Its products also feature real-time integration with suppliers, enabling real-time visibility of Scope 3 emissions. With its blockchain technology, Sentra.World further enhances the traceability of the entire value chain. By making emissions transparent, its products lay the foundation for sustainability-linked loans, sustainability-linked bonds, and carbon credits. It currently serves industries like steel, cement, aluminum, mining, and automotive.</p>
<p>The Founding Year <b>2021</b></p> <p>Country/Region <b>Guangdong,China</b></p> <p>Latest Financing Year <b>2022</b></p> <p>Latest Financing Rounds <b>A</b></p> <p>Financing Amount <b>Undisclosed</b></p>		<h2>Powered Carbon</h2> <p>Powered Carbon is a new energy-driven bioelectrochemical company focused on carbon dioxide utilization and dedicated to using captured CO<sub>2</sub> from CCUS. It uses highly efficient selective electrocatalytic and synthetic biology technologies to transform carbon dioxide into bulk chemicals and biochemicals, enabling the low-energy, low-cost, high-value-added utilization of industrial carbon dioxide emissions. Through this technology, Powered Carbon has partnered with China Energy Conservation and Environmental Protection Group, PetroChina, and other prominent companies in pilot projects to promote change among high carbon-emitting enterprises.</p>
	<p>The Founding Year <b>2023</b></p> <p>Country/Region <b>Anhui,China</b></p> <p>Latest Financing Year <b>2023</b></p> <p>Latest Financing Rounds <b>Pre-A</b></p> <p>Financing Amount <b>200M RMB</b></p>	<h2>PolyX Material</h2> <p>PolyX is a high-tech enterprise engaged in the high-value utilization of carbon dioxide and the industrialization of carbon-negative materials. Through its CO<sub>2</sub>-based catalysts and synthesis technology for carbon dioxide, it has introduced more than 30% CO<sub>2</sub> into its synthetic product, CO<sub>2</sub>-based polyol (PCE). Its CO<sub>2</sub>-based materials can be applied to adhesives, artificial leather, water-based coatings, soft foam, elastomers, degradable materials, and more, while its products can be broadly applied to industries like construction, automotive, footwear and clothing, and packaging.</p>
<p>The Founding Year <b>2021</b></p> <p>Country/Region <b>Guangdong,China</b></p> <p>Latest Financing Year <b>2023</b></p> <p>Latest Financing Rounds <b>Angel</b></p> <p>Financing Amount <b>Several tens of millions of RMB</b></p>		<h2>Zhongke Huizhi</h2> <p>Zhongke Huizhi provides materials and technology for gas precision separation and purification, focusing on materials, technology, and R&amp;D for gas molecular identification. It also separates and purifies gases, including O<sub>2</sub>, N<sub>2</sub>, CO<sub>2</sub>, VOCs, CO, and NO<sub>x</sub>. Its rotary adsorption for carbon capture uses complex carbon sources with concentrations ranging from 3% to 65% after undergoing continuous variable-temperature adsorption, which can be applied to extracting thick oils and thin oils. Moreover, innovations in materials, processes, and equipment have significantly reduced the costs of facilities, equipment, operations, and floor space while improving the efficiency of the carbon capture and utilization of the coal-fired boilers. In 2023, Zhongke Huizhi was selected as one of the top 30 companies in the first round of Tencent CarbonX program.</p>





The Founding Year  
**2018**  
Country/Region  
**Shanghai, China**  
Latest Financing Year  
**2024**  
Latest Financing Rounds  
**A**  
Financing Amount  
**Undisclosed**

## Greenore

Greenore is a high-tech, carbon-negative, environmentally friendly startup that aims to provide solutions for reducing and reusing solid waste in industrial sectors like steel, cement, and chemicals. Specifically for the iron and steel industry, it developed technology to convert metallurgy waste and metallurgy waste gas, like steel slag and carbon dioxide, into recyclable, raw metallurgical materials, a solution that addressed the industries' high carbon emissions and struggles with solid waste treatment. Moreover, its CCUS mineralization greatly removed calcium and magnesium oxides from steel slag. Raw materials only needed to be obtained from solid waste and can be produced under neutral conditions at ambient temperatures, enabling low-carbon, high-value disposal of steel slag.

The Founding Year  
**2014**  
Country/Region  
**Beijing, China**  
Latest Financing Year  
**2023**  
Latest Financing Rounds  
**Pre-A**  
Financing Amount  
**Undisclosed**



## Yuanchu Technology

Yuanchu Technology has developed a mineralization technology to sequester and utilize carbon dioxide, and it specializes in the large-scale, low-cost, sustainable development and application of carbon dioxide mineralization and stable carbon sequestration. The method starts with sourcing raw materials from calcium- and magnesium-containing industrial solid wastes, such as carbide slag, steel slag, and waste concrete. Through patented and proprietary equipment and circulating mediums, it efficiently mineralizes and utilizes carbon dioxide to produce eco-friendly, low-carbon calcium carbonate products with commercial value and applicable to a range of applications, working conditions, and concentrations. The company partners with well-known enterprises like China Energy Investment and PetroChina to help the chemical, steel, cement, and other industries transition to zero carbon. In 2022, Yuanchu Technology was selected as one of the world's top 60 companies in the XPRIZE Carbon Removal competition, becoming the only Chinese company selected for global mineralization technology. The following year, its mineralization technology for capturing and permanently sequestering carbon was selected as one of the top 30 projects of Tencent CarbonX Program.



The Founding Year  
**2021**  
Country/Region  
**Zhejiang, China**  
Latest Financing Year  
**2021**  
Latest Financing Rounds  
**Seed**  
Financing Amount  
**Millions of RMB**

## Doctor Scrap

Doctor Scrap is a technology-based company focused on using AI and other technological means to promote bulk waste recycling. The company has developed the "Doctor Scrap" trading platform for identifying and pricing bulk waste recycling, which led to the world's largest waste database from AI and computer vision. It also developed intelligent "eyes" and "brains" for the recycling industry, which can be deployed at scale to accurately address the challenges of waste that is too jumbled to be standardized, significantly improving the recycling rate of waste and effectively increasing decarbonization in the industrial chain. In 2023, Doctor Scrap and Budweiser China launched a pilot partnership project in which they selected 48 tons of recycling-compliant cans from around the world. They then processed and produced those cans into recycled UBC aluminum that met Budweiser China's quality requirements for recycled aluminum.

The Founding Year  
**2011**  
Country/Region  
**Beijing, China**  
Latest Financing Year  
**2022**  
Latest Financing Rounds  
**B**  
Financing Amount  
**100M RMB**



## Carbonstop

Carbonstop provides carbon management software and consulting solutions. Back in 2011, the company launched its carbon management software, CAMP (Carbon Accounting and Management Platform), to provide users with a full range of consultant services, including carbon accounting, management, and analysis. It also jumpstarted the latest attempt to digitize carbon management. Carbonstop has since launched its SaaS carbon management platform Ccloud with closed-loop carbon management of "data collection—accounting—analysis—target setting and path planning—reduction of carbon emissions—carbon neutrality," offering an efficient, all-in-one stop for carbon management. Carbonstop and the China National Institute of Standardization (CNIS) have jointly established a database of China's local carbon emission factors, thereby improving the efficiency of carbon emission calculations for carbon-intensive industries. The company currently provides carbon management services to more than 1,000 corporate organizations, helping well-known clients like Alibaba, Dow Chemical Company, and CNOOC reach carbon neutrality.

<p>The Founding Year <b>2015</b></p> <p>Country/Region <b>Beijing, China</b></p> <p>Latest Financing Year <b>2023</b></p> <p>Latest Financing Rounds <b>A++</b></p> <p>Financing Amount <b>100M RMB</b></p>	<div data-bbox="416 461 627 528">  </div> <h3>Carbon Energy</h3> <p>Carbon Energy is a technology company centered on carbon-negative and green hydrogen as its core technology. It also independently researched and developed key membrane and catalysts used in alkaline electrolyzed water for hydrogen production. Integrated with carbon "capture and use" process, Carbon Energy directly and efficiently converts and utilizes captured CO<sub>2</sub>, preparing it into synthesis gas, formic acid, green methanol, and other green chemicals and new materials with industrial application value, achieving carbon use while absorbing renewable energy, thus solving the industry's dependence on front-end carbon capture technology. Carbon Energy's clients currently include LONGi, HuaDian Heavy Industry, and Sinopec Energy Management.</p>
<div data-bbox="165 831 338 954">  </div>	<p>The Founding Year <b>2016</b></p> <p>Country/Region <b>Beijing, China</b></p> <p>Latest Financing Year <b>2023</b></p> <p>Latest Financing Rounds <b>B+++</b></p> <p>Financing Amount <b>Over 400M RMB</b></p> <h3>Bluepha</h3> <p>Bluepha is a science-based company dedicated to the research and development of PHA, a biodegradable material. It uses its breakthrough biomanufacturing technology, called "Biohybrid," to synthesize PHA from the mixed carbon sources of carbon dioxide and plant oil. Bluepha is committed to progressively increasing the proportion of carbon derived from greenhouse gases. For its excellent strength, heat resistance, and barrier properties, as well as its ability to biodegrade in soil and marine environments, the PHA products have been awarded the full range of TÜV-OK degradable material certificates. In 2020, the company won the first prize in the SCIP+ Green Chemistry and Chemical Engineering Innovation and Entrepreneurship Contest in China.</p>
<p>The Founding Year <b>2021</b></p> <p>Country/Region <b>Beijing, China</b></p> <p>Latest Financing Year <b>2023</b></p> <p>Latest Financing Rounds <b>A+</b></p> <p>Financing Amount <b>359M RMB</b></p>	<div data-bbox="411 1294 639 1402">  </div> <h3>PhaBuilder</h3> <p>PhaBuilder is an innovative technology company with synthetic biotechnology, focusing on the transformation and engineering of halophilic microorganisms. Through its proprietary gene modification technology (with a genome editing efficiency rate of up to 90%), the company modified halophilic bacteria and obtained excellent, high-performance strains, to carry out a series of innovative R&amp;D and production of synthetic biology, including the biodegradable material PHA, the pharmaceutical intermediate ectoine, nylon-56 precursor cadaverine, and other high-value-added products. In 2023, PhaBuilder was successfully shortlisted in the list of biomedical materials, published by the Ministry of Industry and Information Technology (MIIT) of China as part of their "bounty system" aimed at boosting tech innovations.</p>
<div data-bbox="172 1771 351 1809">  </div>	<p>The Founding Year <b>2014</b></p> <p>Country/Region <b>Jiangsu, China</b></p> <p>Latest Financing Year <b>2022</b></p> <p>Latest Financing Rounds <b>Angel</b></p> <p>Financing Amount <b>Several tens of millions of RMB</b></p> <h3>CellUranics</h3> <p>CellUranics researches and develops bio-based materials (e.g., FDCA) that offers higher thermal stability and barrier properties than petroleum-derived PTA. Given that, its materials are expected to replace PTA as an important raw material for high performance polymers. Its hexanedioic acid technology is compatible with the production process of PTA, drastically cuts the equipment costs required for FDCA production, and keeps total costs below 10,000 yuan per ton, close to the production level of PTA. It helps promote the substitution of biobased materials for petroleum-derived materials.</p>





The Founding Year  
**2021**  
Country/Region  
**Tianjin, China**  
Latest Financing Year  
**2024**  
Latest Financing Rounds  
**Pre-A**  
Financing Amount  
**Over 100M RMB**

## Feynman Dynamics

Feynman Dynamics develops industrial-grade electrolysis catalysts and membrane electrodes. Its CCUS technology passes captured carbon dioxide into an electrolyzer and converting it into carbon monoxide and oxygen in contact with a catalyst-coated membrane electrode, which is then synthesized with industrial products like methyl alcohol, fuel oil, and acetic acids, converting carbon dioxide into green chemicals and fuels. Feynman Dynamics remains the world's only technology-based company with mass production capabilities for both industrial-grade CO<sub>2</sub> electrolysis catalysts and membrane electrodes. In 2023, it was selected as a top 30 company in the initial phase of Tencent CarbonX Program for its green electrolysis of carbon dioxide, used to produce economic and eco-friendly aviation fuel.

The Founding Year  
**2022**  
Country/Region  
**Guangdong, China**  
Latest Financing Year  
**2024**  
Latest Financing Rounds  
**Pre-A**  
Financing Amount  
**Undisclosed**



## Oxsys

Oxsys developed cell-free synthesis technology that includes full coverage, from coenzyme cycling and immobilized enzymes to real-time quantitative monitoring. Its cell-free enzyme cascade technology can dramatically accelerate bacterial transformation compared to traditional artificial cells, while its synthesis process uses electrical energy to supply biocatalysis. This not only achieves a zero-carbon footprint but also maximizes the productivity of bioenzymes and drastically reduces overall costs. The company's first minimal viable product, NAD(P)H (the reduced form), costs only 4.6% of the market price and could play an important role in medical and diagnostic reagents.



The Founding Year  
**2021**  
Country/Region  
**Zhejiang, China**  
Latest Financing Year  
**2024**  
Latest Financing Rounds  
**A**  
Financing Amount  
**About 100M RMB**

## Zhongke Guosheng (GS Biotech)





Zhongke Guosheng is an enterprise specializing in the design and development of furan-based biomaterials, with nearly 20 years of research and industrialization experience in catalytic conversion of biomass and in the design and development of furan-based materials. In particular, it focuses on the production path of HMF biomaterials, for which it has efficiently and accurately expanded the product pipeline of downstream derivatives of HMF. It has also developed and validated high value-added biomaterials like FDCA, which replaced petroleum-derived PTA, and has been widely utilized in the fields of functional polyesters, surfactants, and feed additives. In 2022, Zhongke Guosheng placed first in the SCIP+ Green Chemistry and Chemical Engineering Innovation and Entrepreneurship Contest in China.

The Founding Year  
**2017**  
Country/Region  
**Zhejiang, China**  
Latest Financing Year  
**2024**  
Latest Financing Rounds  
**A**  
Financing Amount  
**Several tens of millions of RMB**



## Hymater

Hymater is a high-tech enterprise that develops, produces, applies, and promotes all kinds of special separation membrane and membrane engineering. Membrane separation allows for greater precision and significantly reduces energy consumption compared to traditional separation methods like rectification, evaporation, and adsorption. Hymater has built a production line for molecular sieve membrane, complete with a fully automated testing system. With an average annual production capacity of 30,000 square meters of production scale, it can research, develop, and manufacture zeolite membranes, MOF molecular sieves membranes, carbon molecular sieves membrane, and other advanced membrane products. The company adopted microwave synthesis molecular sieve membrane technology, used pressure-driven separation instead of thermal rectification, and achieved large-scale, continuous production of second-generation molecular sieve membranes. At present, the company has partnerships with Wanhua Chemical Group, Yangzi Petrochemical Co., COFCO Group, and other well-known enterprises to drive long-term stability.

<p>The Founding Year <b>2016</b></p> <p>Country/Region <b>Shanghai,China</b></p> <p>Latest Financing Year <b>2021</b></p> <p>Latest Financing Rounds <b>A+</b></p> <p>Financing Amount <b>Undisclosed</b></p>		<h3>Yo-I</h3> <p>Yo-I is an industrial big data solution provider committed to leading industrial upgrades through industrial digitalization, intelligentization, and resource efficiency. When combined with its digital twin technology, the company's core product, ThingswiseiDOS platform, can perform real-time mirror modeling and computation of enterprise production, significantly improving the energy efficiency of basic industrial enterprises like iron, steel, non-ferrous materials, and the chemical industry, while enhancing management and energy savings. In early 2024, Yo-I signed an eco-cooperation agreement with Digital China to jointly promote creating a standardized, scaled, and economic green supply chain, carbon footprint measurement, and ESG compliance for industrial enterprises in China.</p>
	<p>The Founding Year <b>2019</b></p> <p>Country/Region <b>Jiangsu,China</b></p> <p>Latest Financing Year <b>2023</b></p> <p>Latest Financing Rounds <b>B+</b></p> <p>Financing Amount <b>Several tens of millions of RMB</b></p>	<h3>DaMaoNiu</h3> <p>DaMaoNiu is a technological company that has mass-produced “ultra-low-density foaming.” It offers local substitutions and cost reductions on the most cutting-edge foaming technology and breaks through the monopoly on foaming long held by foreign countries, all while delivering a zero-emission, zero-pollution production process. In March 2024, DaMaoNiu broke ground on its zero-carbon demonstration factory in Leizhou, and it also signed a cooperation agreement with the Jiangsu branch of the Bank of Communications to facilitate improved, more convenient financial services for the company.</p>
<p>The Founding Year <b>2015</b></p> <p>Country/Region <b>Shanghai,China</b></p> <p>Latest Financing Year <b>2023</b></p> <p>Latest Financing Rounds <b>A</b></p> <p>Financing Amount <b>Several tens of millions of RMB</b></p>		<h3>Re-mall Environmental Protection</h3> <p>Re-mall Environmental Protection specializes in developing technology and eco-friendly solutions for plastic recycling and environmental protection. The company has established an integrated process for plastics recycling to produce stable, environmentally friendly materials that have been used successfully in household chemicals, textiles, automotive, packaging, and other sectors. Re-mall has also built a dynamic tracker for carbon footprints that demonstrates the traceability of the carbon footprint of recycled plastics. In addition, it offers a complete evaluation system for plastics recycling with its “nine-dimensional” method, and it has assisted in formulating national standards for recycled plastics, which helps to regulate, stabilize, and improve the quality of recycled plastics. In 2023, Re-mall was awarded as a Top 10 company by the 2023 For Good Awards and the 2023 Bluetech Carbon Neutrality Pioneers Award.</p>
	<p>The Founding Year <b>2019</b></p> <p>Country/Region <b>Guangdong,China</b></p> <p>Latest Financing Year <b>2022</b></p> <p>Latest Financing Rounds <b>Pre-A</b></p> <p>Financing Amount <b>About 100M RMB</b></p>	<h3>Demeter Bio-Tech</h3> <p>Demeter is a technology enterprise focusing on the research and development of microalgae biotechnology and its products. Its photon-carbon smart biomanufacturing platform enables the smart design of various lighting intensity and increased the light utilization efficiency of microalgae cultivation to 10%. Under precise light formulas, the algae convert carbon dioxide into proteins, functional lipids, and other microalgae-based substances, allowing for the large-scale production and commercialization of microalgae-based products. With this technology, Demeter has developed and scaled up the production of microalgae-based functional lipids and proteins so that it can release the reliance on petrochemicals, agriculture, and fisheries in traditional production methods.</p>





The Founding Year  
**2011**  
Country/Region  
**Hongkong,China**  
Latest Financing Year  
**2020**  
Latest Financing Rounds  
**A**  
Financing Amount  
**50M HKD**

### Ecoinno

Ecoinno, which specializes in the research of innovative materials, is the only high-tech enterprise that complies with both the EU's single-use plastic directive and the food waste recycling requirements set by Hong Kong's Environmental Protection Department. Its self-developed Green Composite Material, made from plant fibers, can fully decompose in the natural environment within 75 days and without producing microplastics. In October 2023, Ecoinno signed a contract with the government of Shilong Township to set up headquarters in China's Mainland and invest 3 billion yuan to establish a flagship plant base for the fully automated, smart production of plant fiber that meets international standards.

The Founding Year  
**2019**  
Country/Region  
**Zhejiang,China**  
Latest Financing Year  
**2022**  
Latest Financing Rounds  
**Pre-A**  
Financing Amount  
**Several tens of millions of RMB**



### SMARTSORT

SMARTSORT designs and develops smart waste sorting robots, and it aims to scan and sort tens of thousands of wastes per second by using high-performance sensing and recognition technologies and ultra-high-speed AI recognition. Its maximum processing capacity is up to 200 tons per hour. SMARTSORT's services encompass recycling of household waste, construction debris, municipal solid waste, refuse-derived fuel, scrap cars, plastics, wastepaper, waste cable, e-waste, and metal sorting.



The Founding Year  
**2022**  
Country/Region  
**Jiangsu,China**  
Latest Financing Year  
**2024**  
Latest Financing Rounds  
**Angel**  
Financing Amount  
**Undisclosed**

### Passive Edge Tech

Passive Edge Tech is a new materials technology company specializing in thermal management and thermal energy storage. It is dedicated to developing nano phase change materials (PCM) technology and promoting PCM applications in construction, storage, textiles, liquid cooling, and other civil applications. The current global demand for energy storage has grown rapidly, with thermal energy demand accounting for 40-50% of the energy structure. Given their high energy density, PCMs offer a more efficient and cost-effective solution for heat and cold storage needs in domestic, commercial, and industrial scenarios, yet existing PCMs are limited by low thermal conductivity, short service life, leakages in encapsulation, and other problems.

To this end, Passive Edge Tech has developed its PASSIVE EDGE® – the high thermal conductivity, all-solid PCM – and realized the highly stable, low-cost, nation-wide mass production of nano phase change microcapsules, which can be homogeneously distributed in the liquids. It can be used as an additive in preparing high energy density functional liquids, solving the problem of the low heat capacity of traditional liquid-cooled carriers while delivering lower costs and higher efficiency and meeting a gap in the market.

# 03





## Low-carbon Buildings



It is to reduce carbon emissions throughout the life cycle of buildings through measures like energy-saving designs and renovations, low-carbon building materials, optimized operation management, and resource utilization of construction waste.

<p>The Founding Year <b>2015</b></p> <p>Country/Region <b>Singapore</b></p> <p>Latest Financing Year <b>2022</b></p> <p>Latest Financing Rounds <b>Pre-A</b></p> <p>Financing Amount <b>1.28M USD</b></p>	<p><b>Ampotech</b></p> <p>Ampotech provides AI-enabled internet of things (IoT) solutions for energy management in Asian buildings. It works with leading real estate companies to deploy connected devices in commercial, industrial, and residential buildings, leading to energy and costs savings. Ampotech assists owners and facility managers in reaching goals like billing tenants, achieving green building certification, optimizing energy performance, detecting faults and anomalies, and streamlining data collection and integration for sustainability and ESG reporting. Since launching its products in 2018, Ampotech has won several awards for its technology and innovation, including the ASEAN Energy Award in 2022. Its clients currently include leading energy companies like Sunseap.</p>
<p><b>ENERGYX</b></p>	<p>The Founding Year <b>2019</b></p> <p>Country/Region <b>South Korea</b></p> <p>Latest Financing Year <b>2023</b></p> <p>Latest Financing Rounds <b>B</b></p> <p>Financing Amount <b>20.3M USD</b></p> <p><b>EnergyX</b></p> <p>Energy X is a sustainable building platform that relies on AI and data cloud-based technologies to provide information, monitoring, data analytics and control, redesign, and other online services for the building industry and its carbon neutrality. Its core products include building energy management systems (BEMS) and AI management systems (AIMS) meant to optimize energy management and control and to maximize resource efficiency. Since its inception, Energy X has carried out 1,090 projects involving 3.7 trillion won in production value. In addition to designing and participating in the construction of energy-efficient buildings, Energy X is actively researching solar technologies, including building integrated photovoltaics (BIPV) for energy production; heating, ventilation and air conditioning (HVAC) for energy conservation, and BEMS for energy management.</p>
<p>The Founding Year <b>2021</b></p> <p>Country/Region <b>Beijing,China</b></p> <p>Latest Financing Year <b>2023</b></p> <p>Latest Financing Rounds <b>Angel+</b></p> <p>Financing Amount <b>Several tens of millions of RMB</b></p>	<p><b>Clean CO<sub>2</sub></b></p> <p>Clean CO<sub>2</sub> is committed to developing CCUS mineralization and utilization. Using its mixed solid waste prescription and its self-developed CCUS-CO<sub>2</sub> standardized equipment, it captures carbon dioxide that can be sequestered in concrete materials at a conversion rate of 98%. Its mineralized products cut carbon emissions by approximately 80% in comparison to existing products, providing a low-carbon solution for the construction and infrastructure industries without adding a “green premium.” In addition, 90% of the raw materials for the gas-solid reaction are taken from industrial solid waste, allowing for large consumption of industrial waste. In 2023, the company undertook China’s first recycled aggregate project using 100-ton CO<sub>2</sub> mineralization-enhanced waste concrete. That same year, it was listed as one of top 30 companies on Tencent’s CarbonX program.</p>






 <p>The Founding Year <b>2019</b> Country/Region <b>Beijing, China</b> Latest Financing Year <b>2023</b> Latest Financing Rounds <b>B</b> Financing Amount <b>Undisclosed</b></p>		<h3>Unisolar</h3> <p>Unisolar is a national high-tech enterprise engaged in the R&amp;D and production of new types of energy generation, with a specialty in building-integrated photovoltaics (BIPV). Its main products include photovoltaic floor tiles, photovoltaic curtain walls, photovoltaic roof tiles, and other BIPV materials. It developed the world's first lightweight rigid solar panels that are 75% lighter in mounting weight per unit area compared to traditional alternatives. By ensuring ultra-high efficiency in power generation, it solves the issues plaguing traditional crystalline silicon solar panels, like fragility and battery cracking. It also significantly reduces the weight per unit area while enhancing security. Unisolar currently has strategic partnerships with China Association of Building Energy Efficiency and the Beijing Institute of Architectural Design, and it has worked closely with large-scale enterprises like State Power Investment Corporation (SPIC) Anhui and CGN New Energy.</p>
<p>The Founding Year <b>2018</b> Country/Region <b>Shanghai, China</b> Latest Financing Year <b>2021</b> Latest Financing Rounds <b>A</b> Financing Amount <b>About 10M USD</b></p>		<h3>Onesight Technology</h3> <p>Onesight Technology is dedicated to construction technology and innovation. It uses AR/MR and 360-degree panorama to closely connect BIM and pan-BIM data with the project site that leads to 1:1 digital twin construction result, reducing rework costs and improving project quality. Its AR Construction platform Onesight® AR Construction Assistant, which includes SaaS-based software products and smart hardware, provides services to builders, constructors, and design institutes, thereby enhancing smart construction and digital management in the construction industry. Meanwhile, its smart digital products can help builders improve their management efficiency by 60%, constructors reduce their rework rate by 70%, and municipal agencies reduce their data reuse cost by 50%, allowing for more efficient management across the entire stage of the project.</p>
	<p>The Founding Year <b>2022</b> Country/Region <b>Guangdong, China</b> Latest Financing Year <b>2023</b> Latest Financing Rounds <b>Pre-A</b> Financing Amount <b>Millions of RMB</b></p>	<h3>i2Cool</h3> <p>i2Cool, a technology startup incubated by City University of Hong Kong's HK Tech 300 program, has successfully developed the world's leading passive radiative cooling paint that requires no refrigerants and zero energy. Its coating draws its cooling source from outer space and achieves cooling effects through efficient solar reflection and mid-infrared emission. Actual tests have shown that roof surfaces can cool up to 30°C and that the cooling effect becomes more apparent as temperatures rise. Its electricity-free cooling iPaint has been patented in the Chinese Mainland, Hong Kong, and the United States, with relevant products sold in Southeast Asia, Europe, and the Americas.</p>
<p>The Founding Year <b>2017</b> Country/Region <b>Beijing, China</b> Latest Financing Year <b>2024</b> Latest Financing Rounds <b>A</b> Financing Amount <b>About 100M RMB</b></p>		<h3>Beike Yunhong</h3> <p>Beike Yunhong is a new materials company centered on the production of all-solid-waste low-carbon cementitious materials. Its cementitious materials do not require high-temperature calcination, nor do they consume natural mineral resources, enabling a low-carbon process from raw materials to production. It offers the characteristics of traditional cement while enhancing its strength and durability. In addition, the production cost is only 50% to 60% of traditional cement, while the energy consumption is reduced by more than 70%, thus offering a favorable alternative to cement.</p>

# 04



## Transport Decarbonization



It is to reduce emissions in transport sector (e.g. road, rail, sea, and air transport) through methods like electrification, fuel substitution, smart transport, and green travel.

<p>The Founding Year <b>2019</b></p> <p>Country/Region <b>Singapore</b></p> <p>Latest Financing Year <b>2023</b></p> <p>Latest Financing Rounds <b>Pre-B</b></p> <p>Financing Amount <b>20.5M USD</b></p>	<p><b>Green Li-ion</b></p>  <p>Green Li-ion is a lithium-ion battery recycling technology company producing modular hardware solutions that convert battery waste and spent batteries into cathode and anode material. Its closed-loop battery recycling solution takes black mass and directly produces pCAM (precursor cathode active material), anode-grade graphite, and lithium carbonate (Li<sub>2</sub>CO<sub>3</sub>), which accelerates the recycling process and lowers costs. Its patented technology for removing impurities is cleaner and more efficient than current lithium-ion battery recycling methods, with precious metal extraction efficiencies of up to 95%. In addition, its customizable, modular solution can be seamlessly integrated into the battery recycling process of pre-existing factories.</p>
	<p>The Founding Year <b>2019</b></p> <p>Country/Region <b>Indonesia</b></p> <p>Latest Financing Year <b>2024</b></p> <p>Latest Financing Rounds <b>A</b></p> <p>Financing Amount <b>22M USD</b></p> <p><b>Swap Energi</b></p> <p>Swap Energi specializes in the development of battery swapping systems. They offer swap stations or charging points for electric motorcycles, where users can change batteries in as little as 9 seconds. Through the mobile app, users can monitor their vehicles' status and mileage, as well as turning off their motor remotely. In support of Indonesia's zero-emission goals, Swap has established more than 1,500 power exchange stations in Indonesia in partnership with gas stations, chain stores, and convenience stores.</p>
<p>The Founding Year <b>2021</b></p> <p>Country/Region <b>Japan</b></p> <p>Latest Financing Year <b>2023</b></p> <p>Latest Financing Rounds <b>Pre-A</b></p> <p>Financing Amount <b>2.14M USD</b></p>	<p><b>NABLA Mobility</b></p>  <p>NABLA Mobility is a technology startup that uses AI and machine learning to design, develop, and produce flight optimizations for airlines. Its Weave software ingests and analyses individual flight plans to produce pilots with an upgraded set of plans to avoid turbulence. NABLA Mobility's innovative platform improves the accuracy of turbulence prediction by 7x to 14x while increasing the resolution of turbulence data from 100x100km down to 0.25 degrees. In turn, this reduces additional fuel consumption when turbulence arises. Estimates have found fuel consumption to fall by up to 4% to 5% on average, thus contributing to decarbonization by way of improving operational efficiency for the aviation industry.</p>



 <p><b>PJP Eye LTD.</b></p>	<p>The Founding Year <b>2017</b></p> <p>Country/Region <b>Japan</b></p> <p>Latest Financing Year <b>2021</b></p> <p>Latest Financing Rounds <b>A</b></p> <p>Financing Amount <b>Undisclosed</b></p>	<h3>PJP Eye</h3> <p>PJP Eye, a sustainable energy solutions provider, partnered with Kyushu University to develop a new type of battery that uses organic plant materials, instead of rare earth metals. In addition to being highly recyclable, the batteries are also safe, durable, high-capacity, and portable. Its patented technology uses plant-based carbon in both the positive and negative electrodes, resulting in faster charging times without the risk of thermal runaway. Compared to traditional lithium batteries, this new battery has a larger surface area and runs up to 15,000 cycles, which is 10 times the life of a traditional lithium battery. PJP Eye placed second at the COP26 Clean Energy Pitch Battle in 2021.</p>
<p>The Founding Year <b>2019</b></p> <p>Country/Region <b>India</b></p> <p>Latest Financing Year <b>2023</b></p> <p>Latest Financing Rounds <b>Pre-B</b></p> <p>Financing Amount <b>33M USD</b></p>		<h3>Battery Smart</h3> <p>Battery Smart specializes in battery swap stations that cater to the lithium-ion battery needs of electric two- and three-wheeler vehicles, providing battery-as-a-service (BaaS) solutions. It developed a retrofittable 48V lithium-ion dual battery system that is compatible with popular electric vehicles. Users can replace the battery with a fully charged one in just two minutes, eliminating long charging downtime and thus reducing the frequent expense of battery replacement. Battery Smart has built India's largest battery replacement network for EVs, completing more than 33 million battery swaps and reducing over 160,000 tons of CO<sub>2</sub> emissions.</p>
	<p>The Founding Year <b>2019</b></p> <p>Country/Region <b>Beijing,China</b></p> <p>Latest Financing Year <b>2019</b></p> <p>Latest Financing Rounds <b>Angel</b></p> <p>Financing Amount <b>Undisclosed</b></p>	<h3>Jaran Hydrogen</h3> <p>Jaran Hydrogen is a high-tech enterprise in the hydrogen energy field, focusing on hydrogen purification, hydrogen-containing exhaust absorption, and hydrogen gas testing. Its Modular Directional Purification (MDP) technology can be used in applications like hydrogen purification and hydrogen-containing exhaust absorption to efficiently capture and purify hydrogen. It can also be customized as hydrogen decontamination devices targeting impurities and content differences in the hydrogen, thereby improving the purity and the efficiency while reducing the cost. In 2023, Jaran Hydrogen was awarded a gold medal at the International Exhibition of Inventions Geneva for its MDP technology-hyclean.</p>
<p>The Founding Year <b>2012</b></p> <p>Country/Region <b>Guangdong,China</b></p> <p>Latest Financing Year <b>2023</b></p> <p>Latest Financing Rounds <b>B</b></p> <p>Financing Amount <b>Over 100M RMB</b></p>		<h3>Jiecheng New Energy</h3> <p>Jiecheng New Energy is a national high-tech enterprise dedicated to the comprehensive utilization of retired power batteries across the entire production chain. With its focus on retired batteries from new energy vehicles, the company has already opened up the whole industrial chain of recycling and collection, storage and transportation, cascade utilization, dismantling and regeneration, and chemical metallurgy. In addition to building a digital recycling channel for batteries through information technology, it has also utilized a highly efficient and green production line for crushing and dismantling batteries, achieving efficient recycling and low-cost high-value reuse of new energy vehicle batteries. In 2023, Jiecheng New Energy was named to the Venture 50 Carbon Neutral by Zero2IPO Ventures.</p>



The Founding Year  
**2018**  
Country/Region  
**Guangdong, China**  
Latest Financing Year  
**2023**  
Latest Financing Rounds  
**A**  
Financing Amount  
**About 100M RMB**

## Daotong

Daotong is an innovative tech company dedicated to the efficient regeneration and utilization of lithium batteries, as well as the life cycle management of lithium batteries. It is also the world's first enterprise to extract precursors of lithium-ion phosphate from lithium iron phosphate waste in multiple components at the mass production level, and it also guarantees the purity level and efficient regeneration of the batteries. Its technology targets the development of lithium iron phosphate powder, which reduces its raw material costs by more than 30% compared to similar companies using pole pieces. In terms of recycling, Daotong has maximized the recovery of high-value components from raw materials to deliver over 90% recycling on multiple elements and ensure the battery-grade purity of the lithium iron phosphate precursor extracted from recycling.

The Founding Year  
**2017**  
Country/Region  
**Shanghai, China**  
Latest Financing Year  
**2022**  
Latest Financing Rounds  
**A**  
Financing Amount  
**Undisclosed**



## Legend New Energy Technology

Legend New Energy Technology is an innovative technology company dedicated to providing development, testing, and smart manufacturing solutions for hydrogen energy equipment, fuel cell systems, and core components. The company has developed a series of hydrogen energy equipment, including metallic bipolar plates, membrane electrodes, stack modules, and smart production lines for fuel cell engines. For electrochemical impedance spectroscopy (EIS), it has also mastered core technologies like precision impedance equipment, quantitative impedance analysis, vehicle impedance products, and vehicle impedance algorithms. All of these enabled the company to implement reliable, precise testing of hydrogen fuel cells and identify localized substitutions of hydrogen energy equipment.



The Founding Year  
**2021**  
Country/Region  
**Chongqing, China**  
Latest Financing Year  
**2021**  
Latest Financing Rounds  
**Angel**  
Financing Amount  
**Undisclosed**

## Green Energy Cellulose Materials (GECM)





GECM's main products include binders for lithium-ion batteries: sodium carboxymethyl cellulose (CMC-Na), carboxymethyl cellulose lithium (CMC-Li), styrene-butadiene rubber (SBR), and polyacrylic acid (PAA). It is committed to promoting the development of regional new energy and new energy car companies. The highly flexible, water-soluble, high-viscosity CMC used in lithium battery anodes can effectively improve battery conductivity, cycle efficiency, cycling performance, low temperature resistance, and improved overall performance for lithium batteries. In 2023, GECM built the first automated production line in China that used slurries to produce cellulose materials for lithium-ion batteries.

The Founding Year  
**2019**  
Country/Region  
**Shanghai, China**  
Latest Financing Year  
**2022**  
Latest Financing Rounds  
**A+**  
Financing Amount  
**Over 20M USD**



## Enpower Greentech

Enpower Greentech develops all-solid-state batteries. Its lithium-metal-interface control and electrolyte technologies both reduce the proportion of inactive materials in the battery while accounting for the cycling stability, and improve the energy density of the battery. Its patents include prelithiated lithium metal anodes, sodium-ion battery compositions, and sulfide-based applications for renewable and recyclable battery applications that are moving from lithium-ion to semi-solid lithium metals to all-solid-state batteries. The company has successfully developed 1.2Ah/3.6Ah/10Ah class pouch cells and cylindrical cells of lithium metal batteries with energy densities up to 520 Wh/kg and 1100 Wh/L. It has also jointly developed all-solid-state batteries with sulfide-based solid-state electrolyte and lithium metal anode with SoftBank Group in 2023.

<p>The Founding Year <b>2021</b></p> <p>Country/Region <b>Chongqing, China</b></p> <p>Latest Financing Year <b>2023</b></p> <p>Latest Financing Rounds <b>Pre-B</b></p> <p>Financing Amount <b>Over 100M RMB</b></p>		<h3>Talent New Energy</h3> <p>Talent New Energy is a new energy technology enterprise focused on the technological development and industrialization of automotive-grade all-solid-state lithium batteries and key lithium battery materials with oxygen system. Compared with liquid lithium batteries, solid-state batteries are safer while offering both higher energy density and longer cycle lives. However, technological breakthroughs are urgently needed to address the poor solid-solid interface contact between solid electrolytes and electrodes. With its ultra-thin film material and interface flexibility, Talent's self-developed electrolyte solved two major issues of the oxide route: low lithium-ion conductivity and the solid-solid interface impedance facing solid-state lithium cells. Its technology was included in the second edition of the Green Technology Handbook 2023 by the World Intellectual Property Organization (WIPO), and Talent was named to 2023 Venture 50 Carbon Neutral by Zero2IPO Ventures at the same year.</p>
	<p>The Founding Year <b>2019</b></p> <p>Country/Region <b>Beijing, China</b></p> <p>Latest Financing Year <b>2023</b></p> <p>Latest Financing Rounds <b>A+</b></p> <p>Financing Amount <b>Undisclosed</b></p>	<h3>Circue</h3> <p>Circue has developed an intelligent battery infrastructure platform and is dedicated to smart energy infrastructure, as well as intelligent battery detection and recycling. Its large-scale pre-training model, PERB1.0, can train 50GWh of battery data, which comprises the core technology of the intelligent battery infrastructure. Circue also has its proprietary AI+ early warning algorithm that can provide battery failure alerts in days, rather than mere minutes. The average warning time is 3 days, with an average recognition rate of 93% for comprehensive failure and a false alarm rate of less than 0.1%. Currently, the company provides in-depth services to industrial chain partners like Shell and BYD, ensuring the safety of more than 300,000 electric vehicles.</p>
<p>The Founding Year <b>2018</b></p> <p>Country/Region <b>Heibei, China</b></p> <p>Latest Financing Year <b>2021</b></p> <p>Latest Financing Rounds <b>Strategic Financing</b></p> <p>Financing Amount <b>Undisclosed</b></p>		<h3>Flance</h3> <p>Flance is a technology company focusing on the research and development of new nanomaterials, and it hopes to expand the application of nanomaterials to fields like new energy, additive manufacturing, and carbon neutralization. Its technology platform can mass-produce and industrialize high-purity (99.999%), small (3mm) nanomaterials of all types, spanning more than 100 kinds of metal and alloy nanomaterials. This marked a breakthrough in the key preparation of new nanomaterials. Its products, aluminum oxide nanoparticles and tin nanoparticles, effectively improve the cycle stability of lithium batteries and increase the electrical conductivity of silicon anodes through coating the positive and negative electrodes. In turn, this greatly enhanced the performance of lithium batteries at a very low cost. In 2023, Flance won the first prize in the SCIP+ Green Chemistry and Chemical Engineering Innovation and Entrepreneurship Contest in China.</p>
	<p>The Founding Year <b>2021</b></p> <p>Country/Region <b>Shanghai, China</b></p> <p>Latest Financing Year <b>2024</b></p> <p>Latest Financing Rounds <b>A</b></p> <p>Financing Amount <b>20M USD</b></p>	<h3>TCab Tech</h3> <p>TCab Tech develops electric aircraft and is focused on the development, production, and operation of large manned eVTOLs (electric Vertical Take-off and Landing) to create a green and sustainable three-dimensional transportation ecosystem of the future. Fully electric and carbon neutral, eVTOLs also offer a new, green travel alternative that can alleviate the increasingly severe problem of traffic congestion problem and complement cars, high-speed rail, and other modes of transportation for short-distance travel. TCab Tech is committed to developing tilt-rotor technology for manned aircraft. Combining electric motors and electrified architecture design, it offers substantial improvements in safety compared to conventional engines, as well as being emission-free, quieter, and more economic. TCab Tech developed China's first tilt-rotor electric aircraft, E20 eVTOL, which completed its first round of flight tests in October 2023 and reached the same speed as the high-speed rail. It currently collaborates with well-known enterprises like Asian Express Aviation Group and Heli-Eastern.</p>





The Founding Year  
**2019**  
Country/Region  
**Beijing, China**  
Latest Financing Year  
**2023**  
Latest Financing Rounds  
**Pre-A**  
Financing Amount  
**Several tens of millions of RMB**

### Tanovus

Tanovus is a battery anode developer whose patented TANO3D technology can accurately synthesize new and controllable three-dimensional micro-nano structure materials. It precisely manipulates the micro-nano structure of macromolecules and nanocarbon materials and effectively addresses issues related to high expansion rates, poor cycling, and other challenges associated with silicon-based materials. Its high-performance lithium-ion battery anode materials can drastically improve battery performance and cost control, offering significant performance and cost advantages for new energy lithium batteries.

The Founding Year  
**2021**  
Country/Region  
**Beijing, China**  
Latest Financing Year  
**2021**  
Latest Financing Rounds  
**Angel**  
Financing Amount  
**Several tens of millions of RMB**



### LynkVertx

LynkVertx is a smart energy solution provider committed to the research, development, landing, and promotion of the vehicle-to-grid (V2G) smart energy system. It created an exclusive battery + power electronics + cloud native platform to deliver fast charging for EVs in all climates, and it also integrated photovoltaic, energy storage, micro-grid control, EV charging, and V2G into its Zero-C Cloud Smart Energy Platform. That brought about optimal control between energy and transportation, which addressed challenges of EV charging in low temperatures and the distributed consumption of renewable energy. At present, the company has partnered with China Southern Power Grid, BYD, and other automobile, battery, and energy companies in tackling low-temperature fast charging for EVs in low temperatures and the integrated management of optical storage and micro-grids.



The Founding Year  
**2015**  
Country/Region  
**Hongkong, China**  
Latest Financing Year  
**2021**  
Latest Financing Rounds  
**A**  
Financing Amount  
**13M USD**

### GRST

GRST is an innovative technology company specializing in the water-based lithium-ion batteries. Its proprietary WATMAR3 technology, in which water plays a key role, eliminates the need for toxic solvents and high-energy consumption. It reduces greenhouse gas emissions by up to 40% in production and up to 80% in recycling, and it dramatically improves battery safety. The improved production process enables a safer, cooler working environment, while its water-based recycling process reduces manufacturing and recycling costs.

# 05

## Agrifood System Reform



It is to create a low-carbon and sustainable food system, from sustainable agriculture, plant breeding innovation, and reduced food waste to low-carbon diets.

<p>The Founding Year <b>2009</b></p> <p>Country/Region <b>Japan</b></p> <p>Latest Financing Year <b>2024</b></p> <p>Latest Financing Rounds <b>Venture Round</b></p> <p>Financing Amount <b>1.58M USD</b></p>	<p><b>Fermentation</b></p> <p>Fermentation, a B-Corp-certified company in Japan, uses its proprietary fermentation upcycling technology to convert unused biomass – such as food waste, residue, discarded agricultural products, and abandoned farmland – into high-value-added materials like ethanol. In this process, the fermented residue can be used as cosmetic ingredients and as animal feed for chickens and cows, while chicken and cow manure can be used as fertilizer. Together with local communities, Fermentation has established a circular and sustainable zero-waste system. In 2023, Fermentation was selected as a finalist in Big Bang Japan 2023, a competition organized by L'Oréal targeting innovative and sustainable raw material technologies.</p>
<p><b>JALA™</b></p>	<p>The Founding Year <b>2018</b></p> <p>Country/Region <b>Indonesia</b></p> <p>Latest Financing Year <b>2023</b></p> <p>Latest Financing Rounds <b>A</b></p> <p>Financing Amount <b>13.1M USD</b></p> <p><b>Jala Tech</b></p> <p>Jala Tech is an aquatic technology startup that provides end-to-end shrimp farming solutions designed to help shrimp farmers increase the cultivation production and efficiency of shrimp farming. The company's accurate, data-driven shrimp farm management platforms and applications provide shrimp farmers with water quality monitoring, planning and reporting tools, and a decision support system based on data collection and analysis. These tools enable shrimp farmers to detect and adjust cultivation methods and technologies and to implement timely preventive measures to reduce the risk of diseases, thus delivering sustainability in shrimp farming in Indonesia and globally. Currently, the platform has successfully monitored shrimp across more than 35,300 ponds and harvested over 9,900 tons of shrimp for the shrimp industry.</p>
<p>The Founding Year <b>2019</b></p> <p>Country/Region <b>Singapore</b></p> <p>Latest Financing Year <b>2021</b></p> <p>Latest Financing Rounds <b>A</b></p> <p>Financing Amount <b>30M USD</b></p>	<p><b>TurtleTree</b></p> <p>TurtleTree is a biotechnology company that produces clean milk and fermented milk products designed to usher in a new era of sustainable nutrition. Using sophisticated fermentation technology, the company has launched the world's first sustainably produced lactoferrin to address the global shortage of lactoferrin and to meet the needs of new consumers who have previously been denied access to the protein due to cost and supply constraints. By programming microorganisms to produce specific functional ingredients, TurtleTree eliminates the high methane emissions associated with traditional dairy farming and dramatically reduces its environmental impact, cutting greenhouse gas emissions by 91% while improving animal welfare. TurtleTree was featured on the Cleantech Group's APAC Cleantech 25 list in 2021.</p>



The Founding Year  
**2019**  
Country/Region  
**the Philippines**  
Latest Financing Year  
**2021**  
Latest Financing Rounds  
**Grant**  
Financing Amount  
**2K USD**

## AtoANI

With its on-demand production model, AtoANI developed the AtoANI iCROP platform to help farmers and agricultural organizations reduce crop waste, maximize the use of land, promote sustainable agricultural practices, and directly distribute crops to ensure that quality agricultural products are delivered to customers at agreed-upon delivery times in the most convenient manner. By implementing a data-based sustainable agriculture model for on-demand production, AtoANI supports farming communities and ensures that farmers have zero or significantly reduced crop waste. In 2023, AtoANI strengthened its core services by joining in partnership with Komunidad, a Singapore-based climate data analytics company.

The Founding Year  
**2021**  
Country/Region  
**Shanghai,China**  
Latest Financing Year  
**2024**  
Latest Financing Rounds  
**Pre-A**  
Financing Amount  
**Several tens of millions of RMB**



## SynMetabio

SynMetabio is an innovative technology company dedicated to converting plant-grown natural fibers into 100% biomaterials. Through its unique hydroponics method, the company integrates synthetic biology with materials to create bio-based leather "Naro" from all types of natural fiber wastes, like straw, coffee grounds, oatmeal residue, and spent grains. Naro offers significant environmental advantages: it consumes about 2% of the water resources per square meter of real leather, and its costs are expected to be lower than that of artificial leather after large-scale production, all while retaining the appearance, feel, and properties of leather. At the China International Import Expo in 2023, SynMetabio officially announced its partnership with Dole, in which defective and substandard fruits eliminated from daily processing would be used to make eco-friendly leather.



The Founding Year  
**2020**  
Country/Region  
**Shanghai,China**  
Latest Financing Year  
**2020**  
Latest Financing Rounds  
**Pre-Seed**  
Financing Amount  
**5M RMB**

## Wastely

Wastely integrates AI and big data technology to reduce food waste. It provides customized service using smart recognition hardware and AI technology based on SaaS software that monitors the waste arising from employees and the production process. It analyzes the data through smart algorithms and provides the best loss reduction solutions. Starting from the source, it helps customers lower the cost of food production and establish a scientific production system. Wastely currently serves restaurant clients like Marriott and Meet Fresh and has improved their food waste by more than 40%.

The Founding Year  
**2022**  
Country/Region  
**Guangdong,China**  
Latest Financing Year  
**2024**  
Latest Financing Rounds  
**Pre-A**  
Financing Amount  
**Several tens of millions of RMB**



## Peelsphere

Peelsphere is an innovative company that recycles and converts fruit waste into 100% biodegradable materials. The materials retain the aroma and texture of the fruit, offer more flexibility and elasticity than traditional PU materials, and can fully decompose in soil in as little as six months, earning a four-star "OK biobased" certification. The material can be used in fashion, car interiors, cosmetic packaging, interior design, and other industry sectors. Peelsphere placed first at the 2021 Kering Generation Award hosted by the international luxury goods company Kering.





The Founding Year  
**2019**  
Country/Region  
**Shanghai, China**  
Latest Financing Year  
**2020**  
Latest Financing Rounds  
**Angel**  
Financing Amount  
**15M USD**

## Enwise

Enwise is dedicated to efficiently converting organic waste into clean renewable energy and fertilizers, and its dry anaerobic digestion offers greater compatibility and saves more space than the traditional wet digestion. It can also reduce electricity consumption by 60%. The company can efficiently treat and reuse organic waste on-site in municipal kitchens, the food processing industry, agriculture, and other scenarios, and it has already partnered with PepsiCo, State Grid Corporation of China, Oatly, and Intel.

The Founding Year  
**2018**  
Country/Region  
**Shanghai, China**  
Latest Financing Year  
**2023**  
Latest Financing Rounds  
**Strategic Financing**  
Financing Amount  
**Undisclosed**



## Kangfen Ecolution

Kangfen Ecolution is an innovative biotechnology company specializing in converting soybean processing by-products and okara into high-end agricultural materials. Its aerobic bioreactor decomposes food processing waste into "new" materials with high organic matter and high humic acid content, which are provided to downstream users as soil amendments. The end product improves the soil capacity for nitrogen and carbon fixation, creating a closed-loop model of turning agricultural waste into organic fertilizer and returned to crops. In 2023, Kangfen Ecolution collaborated with Budweiser China on a pilot project on the resourceful utilization of okara, generating enough organic farming materials to cover approximately 1 mu of a test field and providing a demonstration area of 160,000 mu of barley.



The Founding Year  
**2021**  
Country/Region  
**Zhejiang, China**  
Latest Financing Year  
**2023**  
Latest Financing Rounds  
**Angel+**  
Financing Amount  
**Several tens of millions of RMB**

## Jimi Bio

Jimi Bio develops cultivated meat products with a focus on beef. It aims to promote new forms of meat through biotechnology, reduce the problems caused by industrial animal farming, such as public health, food safety, environmental pollution, and animal welfare, and propel humanity towards a future of slaughter-free protein production chains. In 2021, Jimi developed China's first fully cultivated beef and successfully launched JEVOS (Jimi Evolution System) two years later, accelerated the optimization of cells and culture media. In March 2023, it successfully developed China's first 100% cell-based meat, followed by the world's first deer antler stem cell line in August.

The Founding Year  
**2018**  
Country/Region  
**Zhejiang, China**  
Latest Financing Year  
**2023**  
Latest Financing Rounds  
**B**  
Financing Amount  
**Undisclosed**



## 4D Bios

4D Bios is a solutions provider for systematic, smart, and standardized agricultural planting. Through environment control, it enables efficient, continuous production of plants. Using modern industrial automation, biotechnology, nutrient solution, and information technology, it delivers automated control of key growth factors like temperature, humidity, light, carbon dioxide concentration, and nutrient supply throughout the entire growth process. This enables standardized production alongside conserving arable land and water resources. For its plant factory practices, 4D Bios was listed by Fortune as one of China's most socially impactful startups in 2023.

The Founding Year  
**2018**

Country/Region  
**Hongkong,China**

Latest Financing Year  
**2022**

Latest Financing Rounds  
**Angel**

Financing Amount  
**10.8M USD**

avant

### Avant Meats

Hong Kong-based Avant Meats is the only company in Asia using its proprietary technology to produce zero-residue protein directly from fish cells, which develops artificially farmed meats for use in food, skincare, and cosmetics. It created the world's first cultivated fish fillet prototype in 2020. Its cultivated fish can dramatically shorten the growth cycle of fish to about 6 to 8 weeks, and its technology has reduced costs by about 90%, making it competitive in the market. Avant Meats has been mentioned in Forbes Magazine and other internationally recognized media outlets.




# 06

## Nature Conservation



It is to address climate change through protecting, restoring, and sustainably managing ecosystems like forests, grasslands, wetlands, and oceans, along with biodiversity conservation and sustainable land use.



<p>The Founding Year <b>2017</b></p> <p>Country/Region <b>Japan</b></p> <p>Latest Financing Year <b>2023</b></p> <p>Latest Financing Rounds <b>B</b></p> <p>Financing Amount <b>2.49M USD</b></p>	<p><b>Biome Inc.</b></p>  <p>Biome Inc., a biodiversity startup company from Kyoto University, works to establish a business platform for environmental conservation through big data on the distribution of organisms around the world. Its products include the biodiversity collection app “Biome”, which identifies almost all Japanese species and provides biodiversity detection and education on ecosystem conservation. In addition, it has also developed a support package on TNFD (Taskforce on Nature-related Financial Disclosures) compliance for companies and to collect, analyze, and visualize biodiversity information. As of February 2023, the Biome app has been downloaded 700,000 times.</p>
	<p>The Founding Year <b>2023</b></p> <p>Country/Region <b>Singapore</b></p> <p>Latest Financing Year <b>2024</b></p> <p>Latest Financing Rounds <b>Seed</b></p> <p>Financing Amount <b>Undisclosed</b></p> <p><b>ArkadiaH</b></p> <p>ArkadiaH is committed to applying AI to the natural restoration of damaged fields. Through a combination of AI, LiDAR, satellite imagery, and field data, it built a platform that helps project developers, landowners, and businesses realize streamlined, nature-based climate solutions. These solutions aim to deliver high quality carbon removal and biodiversity credits, sustainable community impact and investment returns. The platform is currently being used in Southeast Asia and Australia, and it is supporting pilots with more than 15 pilot projects on feasibility studies and carbon stock digital measurements.</p>
<p>The Founding Year <b>2016</b></p> <p>Country/Region <b>Sichuan, China</b></p> <p>Latest Financing Year <b>2021</b></p> <p>Latest Financing Rounds <b>A+</b></p> <p>Financing Amount <b>Undisclosed</b></p>	<p><b>TerraQuanta</b></p>  <p>TerraQuanta is a big data service provider dedicated to AI+satellite remote sensing applications that has built efficient data access channels with NASA, the European Space Agency, and other leading satellite data providers. It analyzes massive geospatial data through independently developed and highly efficient AI algorithms and supercomputing capabilities. With its strong data acquisition and parsing capabilities, it has developed spatiotemporal data products for scenarios like agricultural disaster management, forest fire monitoring, and water environmental monitoring. TerraQuanta can also offer disaster prediction, monitoring, and other data services for agriculture, forestry, climate, and other industries. After it began working with Alibaba Cloud in 2021, TerraQuanta was able to effectively reduce the cost of long-term storage for massive amounts of data while ensuring performance.</p>





# 07

## Carbon Removal



It is to remove carbon dioxide from the atmosphere through carbon-negative technologies like bio-energy with carbon capture and storage (BECCS) and direct air capture (DAC).

<p>The Founding Year <b>2021</b></p> <p>Country/Region <b>Beijing, China</b></p> <p>Latest Financing Year <b>2023</b></p> <p>Latest Financing Rounds <b>Pre-A</b></p> <p>Financing Amount <b>Several tens of millions of RMB</b></p>	<div data-bbox="411 945 625 1003">  <b>霖和气候</b> </div> <div data-bbox="670 806 1043 842"> <h3>Linhe Climate Technology</h3> </div> <div data-bbox="670 857 1450 1124"> <p>Linhe Climate Technology is a company focusing on distributed CO<sub>2</sub> capture and utilization. Its wet and dry direct air capture (DAC) system, which leverages its moisture-swing carbon capture material (MSCCM), is one of the core technologies of distributed carbon capture independently developed by the company. Through humidity-induced adsorption and desorption, the material can be used for a variety of sources. Integrated with the business logic of distributed capture of using the need of each U (utilization) to determine the best C (capture), it addresses the pain point of disconnect between U and C and helps to realize a drastic reduction of the cost of capture. Linhe Climate Technology built Asia's first industrialized DAC system and was listed as a top 30 companies in Tencent's CarbonX program in 2023.</p> </div>
<div data-bbox="189 1361 320 1496">   DeCarbon Tech 深碳科技         </div>	<div data-bbox="408 1276 635 1574"> <p>The Founding Year <b>2022</b></p> <p>Country/Region <b>Guangdong, China</b></p> <p>Latest Financing Year <b>2023</b></p> <p>Latest Financing Rounds <b>Angel</b></p> <p>Financing Amount <b>Several tens of millions of RMB</b></p> </div> <div data-bbox="670 1272 893 1305"> <h3>DeCarbon Tech</h3> </div> <div data-bbox="670 1323 1450 1590"> <p>DeCarbon Tech is a global climate governance company built on second generation CO<sub>2</sub> capture technology. The company developed the industry first CO<sub>2</sub> capture technology for carbon dioxide using industrial solid waste like steel slag and coal ash, and combined with amine-based mesoporous nanomaterials to produce solid amine adsorbent materials, helped to lower the cost of CO<sub>2</sub> capture technology by about 30%. In addition, it developed a full-process, smart, modular carbon capture technology equipment and systems for different concentrations of flue gas and application scenarios. In 2023, the company was recognized as a top 30 finalist in the first round of Tencent CarbonX Program for its low-cost, high-efficiency carbon capture technology based on the clean utilization of solid waste.</p> </div>




# 08

## Climate Adaptation



It is to meet the challenges posed by extreme weather, such as high temperatures and heavy rainfall, through technologies and services like meteorological monitoring, early warnings, and agricultural innovations, along with innovations in construction, clothing, and other areas.

<p>The Founding Year <b>2018</b></p> <p>Country/Region <b>India</b></p> <p>Latest Financing Year <b>2023</b></p> <p>Latest Financing Rounds <b>A</b></p> <p>Financing Amount <b>4M USD</b></p>	<div data-bbox="411 940 619 1030"> </div> <div data-bbox="670 846 839 878"> <h3>EF Polymer</h3> </div> <div data-bbox="670 902 1444 1142"> <p>EF Polymer is an agricultural company focused on providing sustainable products and solutions. Using food waste, it developed a 100% organic polymer based on naturally rejuvenating the soil and roots. The super-absorbent polymer can absorb up to 100 times its own weight in water for up to six months without leaving any harmful residue. It reduces water use by 40% and fertilizer by 20% while increasing yields by 10% to 15%, thus helping to solve the water scarcity problem faced by farmers. Compared to traditional, petroleum-based superabsorbent polymers, EF Polymer is manufactured with very low CO<sub>2</sub> emissions and is more agriculturally compatible. In 2022, EF Polymer was named to the Cleantech Group's APAC Cleantech 25 list.</p> </div>
<div data-bbox="146 1355 359 1444"> </div>	<div data-bbox="411 1265 606 1534"> <p>The Founding Year <b>2017</b></p> <p>Country/Region <b>Singapore</b></p> <p>Latest Financing Year <b>2021</b></p> <p>Latest Financing Rounds <b>Seed</b></p> <p>Financing Amount <b>1M USD</b></p> </div> <div data-bbox="670 1236 841 1265"> <h3>Komunidad</h3> </div> <div data-bbox="670 1292 1444 1556"> <p>Komunidad, a developer of environmental intelligence platforms, strives to provide digital transformation and decision-support tools for climate adaptation and sustainable development, helping businesses and governments to address the challenges of climate change. It provides customized solutions that leverage local risk analysis and early warning systems to improve disaster response and recovery, maximize climate resilience, and reduce disaster risk. Its SaaS platform has already reached 1,200 barangays in the Philippines and 24,000 villages in India, along with providing localized weather forecasts to more than 1,500 farmers in Cambodia. Komunidad is recognized by global institutions like the Asian Development Bank (ADB), UK Aid, GSMA, and Sweden.</p> </div>
<p>The Founding Year <b>2018</b></p> <p>Country/Region <b>Japan</b></p> <p>Latest Financing Year <b>2024</b></p> <p>Latest Financing Rounds <b>A</b></p> <p>Financing Amount <b>3.21M USD</b></p>	<div data-bbox="406 1769 630 1814"> </div> <div data-bbox="670 1668 815 1697"> <h3>Ac-Planta</h3> </div> <div data-bbox="670 1720 1444 1933"> <p>Ac-Planta is an agricultural biotechnology company that aims to improve growing conditions for crops and combat climate change by increasing plant tolerance to drought and heat. It developed the Skeepon series of biostimulants that uses acetic acid to control abiotic stresses on plants to reduce the damage caused by climate and soil conditions. Unlike traditional pesticides or fertilizers, Skeepon safely and effectively improves the plant itself by making it more resistant to drought, heat, and salt damage. The watering amount can be reduced by one-third to one-half, while crop tolerance to drought and heat can be extended to more than one month.</p> </div>



	<p>The Founding Year <b>2018</b></p> <p>Country/Region <b>Guangdong, China</b></p> <p>Latest Financing Year <b>2022</b></p> <p>Latest Financing Rounds <b>Angel</b></p> <p>Financing Amount <b>Millions of RMB</b></p>	<h3>Richhold</h3> <p>Richhold specializes in microbial nitrogen-fixation with a focus on new technologies like microbial crop breeding. Its R&amp;D center for agricultural microbiome technology, led by a team of PhD graduates from Wageningen University and Research Centre who had returned to China, examines areas like microbial nitrogen fixation, plant protection, and crop breeding. The microbial inoculants and all microorganisms for nitrogen fixing developed by the company can be applied broadly to grains and oilseeds, achieve efficient nitrogen fixation, and reduce the use of nitrogen fertilizer by 10% to 30%. In addition, Richhold has also realized green prevention and control, significantly increased the rate of photosynthesis for crops and abiotic stress tolerance, and greatly improved crop resistance to extreme weather and various types of pests and diseases.</p>
<p>The Founding Year <b>2020</b></p> <p>Country/Region <b>Beijing, China</b></p> <p>Latest Financing Year <b>2022</b></p> <p>Latest Financing Rounds <b>Angel</b></p> <p>Financing Amount <b>Several tens of millions of RMB</b></p>		<h3>HurRain NanoTech</h3> <p>HurRain Nanotech is a science and technology enterprise focused on the R&amp;D of new materials and air-based water generation technology. By combining graphene-based, hygroscopic composite materials with air-source heat pumps, HurRain has developed direct air water capture (DAWC) that addresses the high energy consumption and high cost of traditional water collection products and alleviates pressure on water resources in water-scarce areas. In addition, the company has also developed adaptive thermal management clothing that can passively cool by 5°C to 10°C through radiative cooling and phase changing, which benefits outdoor workers subject to harsher environments due to climate warming.</p>
	<p>The Founding Year <b>2017</b></p> <p>Country/Region <b>Hebei, China</b></p> <p>Latest Financing Year <b>2023</b></p> <p>Latest Financing Rounds <b>A++</b></p> <p>Financing Amount <b>Over 100M RMB</b></p>	<h3>Molbreeding</h3> <p>Molbreeding is an innovative company specializing in the research, development, and application of plant and animal molecular testing and breeding technology. It is committed to growing China's seed industry through providing high-throughput, low-cost, precise genotyping and molecular testing. Molecular breeding can significantly shorten the breeding cycle and efficiently breed varieties with traits like adaptability to extreme climate and disasters. The company's self-developed GBTS (Genotyping by Target Sequencing) upends the foreign monopoly on that technology and stands as the first GBTS system in the industry able to standardize and universalize the detection of all biological varieties. It can adapt testing products to a wide range of testing needs while reducing application costs by more than 50%, breaking through the bottleneck of China's molecular breeding technology, and it also has the potential to quickly popularize molecular breeding in China.</p>



# 09

## Climate Finance

It is to catalyze the climate innovation ecosystem through innovative financial tools and strategies to promote responses, mitigation, and adaptation to climate change in Asia.

<p>The Founding Year <b>2020</b></p> <p>Country/Region <b>Singapore</b></p> <p>Latest Financing Year <b>2023</b></p> <p>Latest Financing Rounds <b>Seed</b></p> <p>Financing Amount <b>5M USD</b></p>	<div data-bbox="453 840 579 972">  </div> <h3>Climate Alpha</h3> <p>Climate Alpha is an AI-powered SaaS analytics platform designed to help financial institutions optimize their portfolios and drive sustainable investment globally. By utilizing Geographic Information System (GIS) data and economic modeling, it provides a comprehensive assessment of the locations of real estate assets. The platform helps financial institutions build more resilient portfolios by utilizing public and private data streams and proprietary machine learning algorithms, combining risk and resilience metrics to simulate and generate forecasts of the financial impact of climate change. The company has partnered with fintech pioneer Atlas Capital to create the world's first sustainable real estate investment trust (REIT) index.</p>
<p><b>sustaincraft</b></p>	<p>The Founding Year <b>2021</b></p> <p>Country/Region <b>Japan</b></p> <p>Latest Financing Year <b>2022</b></p> <p>Latest Financing Rounds <b>Seed</b></p> <p>Financing Amount <b>781K USD</b></p> <h3>Sustainacraft</h3> <p>Sustainacraft is a consulting firm specializing in research, carbon credit assessment, and climate finance analysis to leverage corporate funds for nature conservation projects and promote sound climate financing mechanisms for natural capital. It uses satellite remote sensing and other technologies to provide project appraisals, forest monitoring, and transparent carbon evaluation and to help companies mitigate risk and identify potential carbon credit buyers. It also develops and delivers innovative, nature-based monitoring solutions for governments, non-profit organizations, and private companies engaged in carbon credit projects derived from natural resources. In February 2024, SDG Impact Japan and Sustainacraft announced that they would collaborate to launch Japan's first investment fund for high-quality nature-based carbon credits, which aims to attract Japanese companies to nature-based solutions (NbS) projects to mobilize investments and to create a market ecosystem that fosters high-quality, nature-based credits.</p>
<p>The Founding Year <b>2019</b></p> <p>Country/Region <b>Bangladesh</b></p> <p>Latest Financing Year <b>2022</b></p> <p>Latest Financing Rounds <b>A</b></p> <p>Financing Amount <b>2.1M USD</b></p>	<div data-bbox="432 1740 614 1825">  </div> <h3>iFarmer</h3> <p>iFarmer is an agricultural fintech company dedicated to improving the lives of farmers and agricultural MSMEs (Micro-, Small and Medium-sized Enterprises) and to helping them maximize profits. It is building Bangladesh's largest agricultural input platform to provide farms with asset purchase, consulting, and training services and MSMEs with loans, insurance, and logistics services. This ensures that farmers and businesses not only have access to capital for their initial investment but can also increase their returns and realize sustainable agricultural practices. The company has more than 100,000 farmers on its platform to date, for whom they have provided with nearly US\$24 million in financing and has managed to reduce the cost of capital by 40%.</p>



The Founding Year  
**2021**  
Country/Region  
**India**  
Latest Financing Year  
**2023**  
Latest Financing Rounds  
**Seed**  
Financing Amount  
**569K USD**

## Neufin

Neufin is a green financing platform that empowers financial institutions, traders, and corporations to finance green projects and to transact in carbon offsets, International Renewable Energy Certificates(I-RECs), and green energy. It offers a full range of solutions for waste-to-energy, biofuels, electric vehicles, forestry, sustainable agriculture, and other industries with services like financing and refinancing green projects, prevention of greenwashing, and providing green Power Purchase Agreements (PPAs). The Neufin platform simplifies access to climate finance products and accelerates deal closure. It aims to drive more climate finance projects and sustainable development in regions like India, Africa, Southeast Asia, the Middle East, and North Africa.

The Founding Year  
**2016**  
Country/Region  
**Shanghai,China**  
Latest Financing Year  
**2023**  
Latest Financing Rounds  
**B+**  
Financing Amount  
**Several tens of millions of RMB**



## Lingshu.Net

Lingshu.Net is a data technology company offering blockchain and privacy computing technology and dedicated to the integration of industry with finance. It offers extensive experience in energy blockchain applications, carbon asset development, carbon accounting, and carbon credits. Using its blockchain and privacy computing technology, it has built three major fintech platforms, as an infrastructure for data sharing and asset circulation, connected industrial digitization with financial digitization, and enabled finance to better serve the real economy. Based on this, Lingshu.Net can ensure the authenticity of carbon data in carbon trading, implement fast and accurate tracking through onchain data, and solve the issues raised in digital trading, such as the difficulty of verifying the authenticity of information. In addition, it also put forth a "neutral network" data sharing model that, combined with the deep practices of the automotive industry, helped aggregate data for financial, energy, and automotive projects. This improved the efficiency of financial services for new energy vehicles while promoting ecological integratiXWon and cross-industry synergy.

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## An Introduction to Organizations

### About Impact Hub Shanghai

Founded in London in 2005, Impact Hub is a global network of impact-driven entrepreneurs, creators, innovators, and intrapreneurs, dedicated to creating a better future for people and the planet. Impact Hub now operates in 100+ cities across 60+ countries. In 2017, Impact Hub Shanghai became the first Impact Hub in Mainland China. Since then, it has at the forefront of building sustainable innovation ecosystems, offering innovation consulting, entrepreneur support, impact marketing, investment services, and research. It has supported more than 3,000 innovative companies, along with more than 90 industrial enterprises and governmental parks, to lead and build an ecosystem of sustainable development and co-create a better world.



### About Makeable

Makeable is an action research platform focused on sustainable innovation developed by Impact Hub Shanghai. It aims to empower the sustainable innovation ecosystem through research, dissemination and industrial capacity-building and to accelerate the realization of the SDGs through innovation.



### About 1.5DO Climate Innovation Lab

The 1.5DO Climate Innovation Lab, initiated in 2022, provides systemic solutions to address challenges arising from climate change. Through industry research, technological application and implementation, industrial innovation, data platforms and international dissemination, the lab builds a domestic climate innovation ecosystem, enables the development of climate innovation technologies, and promotes the transformation of key emitting industries and regions, ultimately contributing to the achievement of China's dual carbon target and the global 1.5 degree climate vision.

### About Impact Hub Asia Pacific

Founded in London in 2005, Impact Hub is one of the world's largest sustainable business innovation platforms, located in more than 100 locations across more than 60 countries. Impact Hub Asia Pacific currently has 12 Impact Hubs in the region, including Shanghai, Jakarta, Kyoto, Phnom Penh, and Yangon. Each hub is established and operated by a local team that is embedded in local markets and communities and connects regional innovation resources to amplify and extend global reach.

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# ASIA CLIMATE PIONEERS



Shanghai



气候创新  
实验室



Asia Pacific

2024