

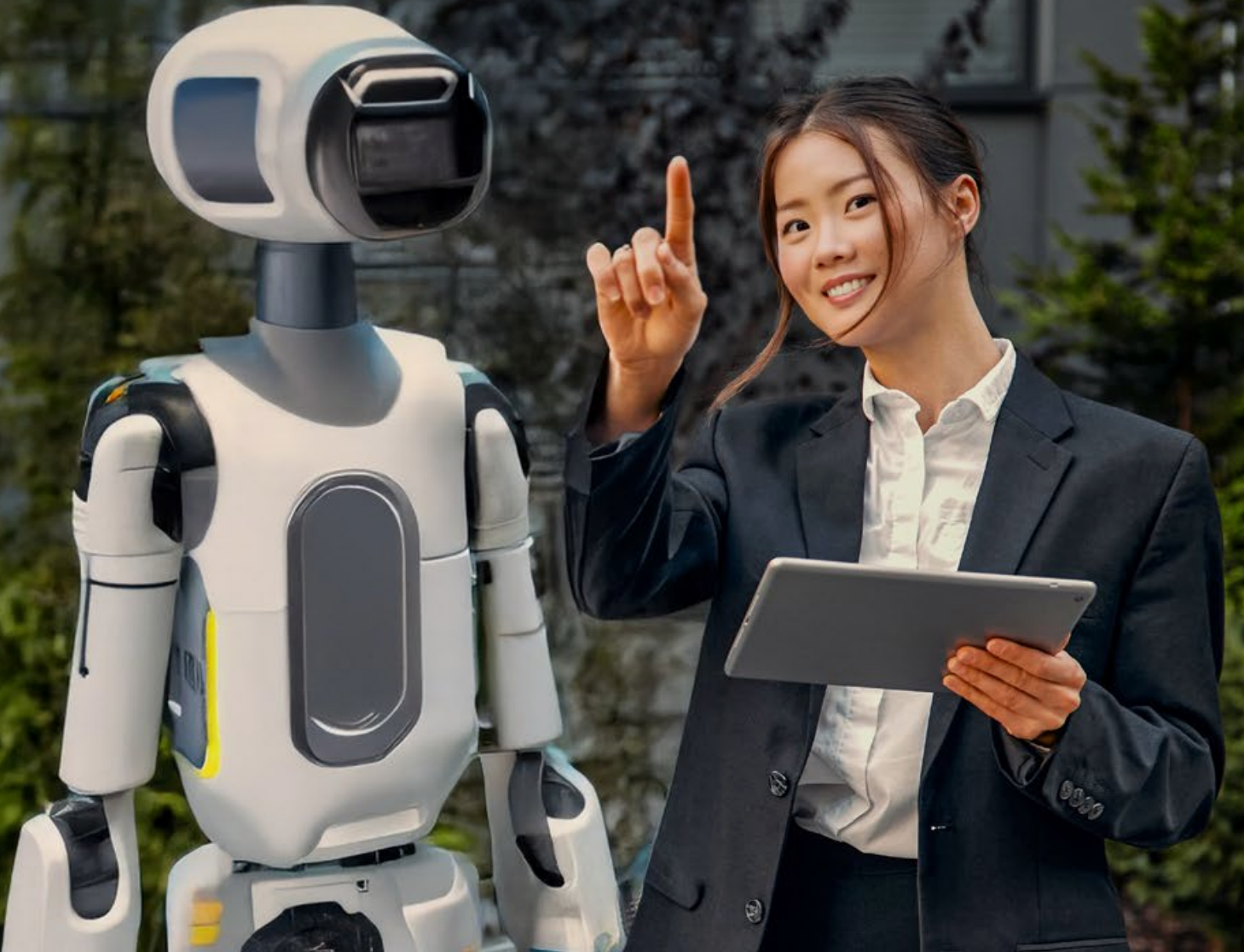
ZAYED
SUSTAINABILITY
PRIZE



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زايد
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Accelerating Impact: China's Innovation for Global Sustainability

BEYOND Expo 2025 – Macao, China



Zayed Sustainability Prize

Uniting Global Pioneers of Change

The Zayed Sustainability Prize, a tribute to the visionary legacy of the UAE’s founding father, Sheikh Zayed bin Sultan Al Nahyan, stands as a beacon of hope and progress for sustainable development. This prestigious award honours and empowers those who are driving transformative change across the categories of Health, Food, Energy, Water, Climate Action, and Global High Schools.

Each year, the Prize rewards organisations and high schools for their groundbreaking solutions, fostering innovation on global challenges. Over the past 17 years, through its 128 winners, the Prize has positively impacted over 400 million lives worldwide. By recognising these innovators, the Zayed Sustainability Prize inspires countless others to amplify their efforts, creating a positive ripple effect.



Accelerating Impact: China’s Innovation for Global Sustainability

As the global community seeks scalable solutions to meet the urgency of sustainable development, China’s innovation ecosystem is emerging as a powerful driver of environmental, social, and economic transformation. Recognising this momentum, the Zayed Sustainability Prize convened its Forum on 22 May 2025 during BEYOND Expo in Macao, under the theme “Accelerating Impact: China’s Innovation for Global Sustainability.”

Organised in partnership with the Sino-International Entrepreneurs Federation (SIEF), the Forum provided a high-level platform for dialogue, connection, and collaboration, bringing together investors, policymakers, entrepreneurs, and youth to explore how Chinese-led advancements are shaping the global sustainability landscape.

Through a dynamic programme of keynote addresses, panel discussions, TEDx talks, and curated networking sessions, the Forum showcased how frontier technologies, social enterprises, and inclusive capital models are being mobilised to address challenges in climate action, clean energy, food security, water access, and health equity.

More than just a convening, the Forum reflected the Prize’s commitment to cross-border partnership and inclusive dialogue. Youth ambassadors and Prize winners shared the stage with Chinese innovators and regional stakeholders, reinforcing the message that impactful innovation thrives through global collaboration.

Held within the broader framework of BEYOND Expo – Asia’s flagship innovation summit – the Forum underscored China’s growing leadership in driving innovation-led impact through entrepreneurship, public-private partnerships, and a strong focus on inclusive outcomes.

With over 400 million lives already touched by its winners, the Zayed Sustainability Prize continues to catalyse solutions and amplify progress through platforms like the Forum. In Macao, this mission came to life as participants explored new pathways for cooperation, innovation, and investment, solidifying a shared commitment to building a more sustainable and inclusive future for all.

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Opening Keynote

by H.E. Sheikh Saoud Al Mualla

As a reflection of the deepening strategic ties between the United Arab Emirates and China, the Forum featured a keynote address by His Excellency Sheikh Saoud Al Mualla, Consul General of the UAE in Hong Kong.

His Excellency's participation highlighted the UAE's commitment to advancing global sustainability through international cooperation, economic partnership, and innovation leadership. His presence also reaffirmed the strong diplomatic and economic relationship between the two nations—an essential foundation for the Forum's focus on fostering cross-border collaboration in support of sustainable development.

In his speech, H.E. Al Mualla recalled that since the establishment of diplomatic relations in 1984, the two countries have maintained regular high-level visits to build a robust partnership rooted in mutual respect.

Emphasising economic ties, he reported that bilateral non-oil trade reached US \$86.68 billion in 2023 and has been increased by 12% from the previous year with plans to double this figure to US \$200 billion in the coming years.

H.E. Al Mualla noted that the UAE now proudly serves as the largest hub for Chinese businesses in the Arab world, hosting more than 15 major Chinese companies and facilitating about 60% of Chinese trade through UAE ports to over 400 cities across the Middle East and North Africa.

He described the UAE as one of China's most important strategic trade gateways, and stressed that bilateral cooperation extends far beyond trade, including energy, logistics, financial services, agriculture, tourism and space.

His speech also underscored the partners' shared commitment to clean energy and innovation. H.E. Al Mualla highlighted landmark UAE projects co-developed with Chinese partners, from record-breaking solar and wind power plants to smart-city initiatives and the growing presence of Chinese electric vehicle manufacturers.

He also pointed out that the UAE has pursued an inclusive approach to sustainable development, proactively supporting efforts in the Global South, by committing US \$4.5 billion to renewable energy projects in Africa through public-private partnerships.

H.E. Al Mualla highlighted the global role of the Zayed Sustainability Prize and the Forum in fostering leadership and collaboration, and serving as a catalyst to connect leaders from government, industry and civil society.

H.E. Al Mualla's keynote provided a guiding framework: it affirms that by deepening bilateral ties and cross-sector collaboration, both nations and beyond can accelerate sustainable impact around the world.

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“The Zayed Sustainability Prize has become a global force for thought leadership and collaboration.”

H.E. Sheikh Saoud Al Mualla

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Welcome Address

by William Wang, Chief Representative for Middle East & Africa at Sino-International Entrepreneurs Federation

William Wang, Chief Representative for the Middle East and Africa at the Sino International Entrepreneurs Federation (SIEF), delivered the welcome address at the Zayed Sustainability Prize Forum, held as part of BEYOND Expo.

He welcomed a diverse audience of global entrepreneurs, investors, and changemakers, emphasising the importance of international cooperation in advancing wellbeing and environmental stewardship.

Wang highlighted the legacy of the Zayed Sustainability Prize and its global reach, recognising 128 winners and positively impacting over 400 million lives. He praised the Prize's role in bridging ideas and action, particularly as it hosts its first-ever event in China.

Reflecting SIEF's mission to foster cross-border collaboration beyond politics and geography, he underscored the potential of regions like the Middle East and Africa, not only as sources of energy and investment but as centres of innovation and culture.

Concluding with a call to action, Wang encouraged attendees to forge new alliances and collective solutions to global challenges in health, food, energy, water, and climate.

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“We are deeply honoured to create platforms like this –bridges of trust, opportunity, and shared purpose – to scale solutions that serve both local and global good.”

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Capital for Impact

Finance is no longer just about returns; it's about legacy. How can capital be harnessed to drive scalable, equitable, and transformative solutions for our planet? In this session, we explore the role of green finance, China's unique position as a hub for sustainable capital and technology, and how to bridge gaps between investors, policymakers, and grassroots innovators

The Forum's first panel examined how Asia's maturing investment ecosystem is increasingly aligning capital with purpose. The session was moderated by Nicky MacCallum, Co-founder of M Impact Investment Fund, and featured Crystal Ding, Co-founder and Director at Everlasting Capital; Wu Xianoning, Director of Impact Investment at AVPN (Asian Venture Philanthropy Network); and Zhang Junyi, Co-founder at NIO Capital.

The discussion focused on how capital is no longer viewed solely as a financial tool but is increasingly seen as a mechanism to generate measurable, intentional impact across societies and ecosystems.

Speakers shared examples across development priority areas such as social inclusion, and sectors including renewable energy and healthcare, where investment structured through blended finance or carbon-linked revenue models has helped to de-risk projects and achieve impact. Panellists agreed that traditional capital allocation models focused narrowly on financial returns are no longer adequate.

Xianoning noted that the regional infrastructure supporting impact investment is strengthening. She referred to local fund managers, evolving policy frameworks, and new platforms for learning as critical enablers.

She shared the case of Heritas Capital, a Singapore-based private equity firm that evolved from commercial VC to launching one of the first impact-first funds in Asia in 2023. The fund raised US \$20 million in its first close from a mix of corporate entities, family offices, and foundations. This example illustrated the increasing sophistication of Asian investors in integrating impact into their strategies.

Junyi emphasised the importance of strategic focus when investing in scalable ventures with measurable outcomes. He cited Da Yu, a startup producing affordable post-surgical garments for women recovering from breast cancer. The products, designed locally, are 75 percent less expensive than imported alternatives and better suited to local needs.

“With the right momentum, innovation, and capital, impact investing in China holds tremendous potential to grow and deliver meaningful change.”

Crystal Ding



Ding underscored that financial capital alone is insufficient. She discussed US-based Husk Power Systems, a mini-grid company and previous Prize finalist, that converts rice husk and agricultural waste into electricity for off-grid villages. The company builds bioenergy plants costing approximately US \$40,000 each, supplying around 500 households. These hybrid mini-grids improve energy access and reduce dependence on kerosene. LGT Venture Philanthropy, where Ding previously worked, provided early-stage support to Husk Power in 2012, offering both funding and strategic guidance. The company is now preparing for a US \$400 million capital raise, with plans to go public by 2027.

The session concluded that Asia's opportunity lies not only in scale but in purpose. For capital to deliver true impact, it must be guided by intent, structured for resilience, and aligned with the needs of the communities it aims to serve. The region's stakeholders now face a critical decision: whether to remain contributors to the global impact movement or to take a leading role in shaping its direction.

Looking forward, panellists encouraged continued development of the region's impact investment ecosystem. They recommended strengthening policy frameworks, fostering platforms for knowledge exchange, and blending public, private, and philanthropic capital to reduce risk and scale impactful ventures. The key message was that, through collaboration and strategic innovation, capital for impact can become a central force in building a more inclusive and sustainable future across Asia and beyond.

“This is the right time for cross-sectoral, cross-border collaboration—mobilizing more capital, technology, and best practices to drive lasting impact.”

Wu Xianoning

Champions of Change

This session spotlights the pioneers of change; those turning urgency into action and innovation into lasting impact. From clean energy to water systems and community empowerment, the Zayed Sustainability Prize has championed bold solutions that challenge the status quo. The discussion will explore the mindset behind transformative progress, insights from the field, and how collaboration fuels real change.

In this conversation moderated by Lu Peixian of AVPN, Philip Cornell, Senior Vice President for Global Affairs at Ignite Energy Access, and David Pong, Co-founder and CEO of Watroam, shared their journeys as solution-builders addressing energy insecurity and water scarcity. The core theme: scalable technologies in energy access and water security can catalyse inclusive development when grounded in human-centric design and community engagement.

Cornell painted a picture of how innovative off-grid energy solutions are powering progress across Africa. Ignite has become the continent's leading provider of distributed renewable energy, delivering solar-based infrastructure and essential services to areas unreachable by traditional power grids. Cornell explained that Ignite's model starts with solar home systems but extends far beyond, stacking services like internet connectivity, financial tools, and commercial energy uses on top of the basic power supply. This integrated approach means families not only gain electric light, but also connectivity and economic opportunities – all fundamental for uplifting communities.

To date, Ignite's distributed solar networks serve roughly 3 million households (about 15 million people) who previously lacked reliable electricity, and the company aims to reach 100 million people by 2030. The company has grown from 3 to 14 markets since 2018 through a mix of organic expansion and four strategic acquisitions, including MG Energy Access. This ambition addresses a sobering reality: over 600 million people in Africa still live without electricity, a gap that represents lost opportunities and hardship; from women giving birth in darkness to children unable to study at night. By targeting this last-mile population, Ignite is directly tackling energy inequity as a human development issue. Cornell emphasised that affordability and accessibility are central to Ignite's mission. By harnessing smart technology and scaling efficiently, the company has reduced the cost of solar energy access to under US \$1 per month for many users—making clean power attainable even for low-income rural households. He noted that this level of affordability was made possible by leveraging field-level data and partnering with AI labs like Google to optimise deployment, streamline maintenance, and inform policy engagement. These behind-the-scenes innovations have enabled Ignite to democratise energy access on an unprecedented scale.



Cornell outlined Ignite's financing model, which is built around the sale of verified carbon credits. By using reliable impact data to demonstrate measurable results, the model helps reduce investment risk. This has attracted greater interest from international financial institutions, private investors, and markets that have traditionally been hesitant to support underserved regions. Cornell credited winning the Zayed Sustainability Prize in 2023 as a turning point that opened doors to new partnerships and funding avenues, validating Ignite's model on the global stage.

“You can't just copy-paste solutions. Each community, each country brings unique challenges and opportunities.”

Philip Cornell

Representing another critical dimension of sustainable development, Pong shared insights from his company, Watroam, which is dedicated to addressing the vital challenge of clean water access. Pong opened with a stark reminder of the scale of today's water crisis: “2 billion people worldwide still drink contaminated water regularly.” Climate change is compounding the problem. If these trends continue unchecked, water scarcity could spark conflicts and destabilise communities. In this urgent context, Watroam's mission is to deliver reliable clean water to those who need it most, particularly people in disaster-hit regions and rural settlements far from any centralised water treatment.

Founded in 2014 in Singapore, Watroam develops portable, user-friendly water filtration systems that can be deployed quickly in the field. Pong shared how the team's journey was marked by early hurdles that ultimately shaped their innovative design philosophy. Initial prototypes, while technically effective, failed to gain traction because they weren't suited to the realities of remote villages as they were too complex, required specialised maintenance or costly logistics for filter replacements,



and villagers struggled to use them. The breakthrough came only after years of iteration and listening to community feedback. When they tested the first bicycle-pump inspired prototype at a village well in Cambodia, the effect was immediate. Locals instantly grasped how it worked.

This simple innovation became one of Watroam's flagship solutions embodying the startup's three core design principles: devices must be Safe, Simple, and Swift. By rigorously sticking to these human-centred design principles, Watroam has now brought clean water to over 400,000 people in more than 40 countries across Southeast Asia, South Asia, Africa, and the Pacific. From flood-ravaged villages in Indonesia to remote schools in East Africa, Watroam's compact purifiers are restoring health and hope, one community at a time.

Pong outlined Watroam's strategy to address rising water demand across agriculture, industry, and households by using AI and IoT for efficient irrigation, wastewater recovery, and leak detection. He emphasised low-energy desalination and nature-based solutions as future priorities, backed by blockchain-verified data to support carbon financing and results-based funding mechanisms

An overarching shared theme was the power of partnerships and collaboration in scaling impact. "No one can do it alone" was an underlying message as the panellists described the ecosystems that enabled their success.

Cornell highlighted how Ignite's expansion was built on multi-level partnerships: from working with national governments to integrating off-grid energy into policy plans, to securing investment from development banks and sovereign funds, to teaming up with technology suppliers and researchers to improve their offerings, to securing community buy-in through every expansion.

Being part of the Zayed Sustainability Prize network and locating their global base in the UAE plugged Ignite into a vibrant community of innovation and financing in the Middle East and beyond. Pong similarly described Watroam's collaborative model: the company relies on NGOs with "boots on the ground" to deploy filters and educate communities, partners with multilateral organisations to lend credibility and coordinate disaster responses, and works with governments by turning field results into case studies that can inform public water strategies.

From a financing perspective, both entrepreneurs have engaged with non-traditional investors who recognise that impact sectors require patience and a balanced expectation of both social and financial returns. Impact-oriented venture capital firms, philanthropic foundations, and development finance institutions have played a critical role in filling funding gaps often overlooked by purely profit-driven investors.

The session concluded with a strong call for increased cross-sector and cross-border collaboration. Pong emphasised that addressing a challenge as extensive as the global water crisis requires the alignment of diverse stakeholders – political commitment from leaders, technical innovation from entrepreneurs, and sustained support from investors and civil society – working together in a coordinated effort. Cornell added that convenings such as the Zayed Sustainability Prize Forum serve as vital catalysts, fostering meaningful connections that inspire fresh ideas and galvanize new commitments to advance the shared mission.

By the session's close, the narrative of the Champions of Change had vividly demonstrated what the Zayed Sustainability Prize Forum set out to showcase: how practical innovation, anchored in inclusivity and cooperation, is changing lives on the ground. From a solar micro-grid illuminating a remote hamlet for the first time, to a portable filter turning muddy well water crystal-clear, the impact of these initiatives is tangible and profound.

From Soil to Software - TEDxTalk

This powerful session featured Justin Gong, Co-founder of XAG and farmer, who demonstrated how digital technology is revolutionising agriculture. Highlighting innovations such as AI-powered irrigation valves, drones, and autonomous tractors, he showed how these smart tools are replacing labour-intensive tasks and empowering small farmers to better adapt to climate change and address food security challenges.

The session started with an account of water scarcity in the deserts of Saudi Arabia. Satellite images showed circular wheat farms in Al Jouf, a region where pivot-sprinkler irrigation enabled agriculture in arid conditions three decades ago. These green circles have since diminished as groundwater levels declined, and wells now reach depths of 700 metres, making water more costly than oil due to pumping and purification requirements.

In an effort to reduce water consumption, farms transitioned to drip irrigation systems. However, this shift brought about a new challenge concerning labour demands. Gong explained that young workers, some as young as 16 or 18, were tasked with walking across vast fields in temperatures reaching 45°C to manually operate valve switches. This work was not only physically exhausting but also posed significant safety risks.

Automation provided the solution. Gong explained how AI-enabled, IoT-connected valves replaced manual labour. In China, for instance, traditional irrigation systems were retrofitted with electronic valves that adjust

water flow based on terrain and internal pipe conditions. This ensures uniform distribution of water and fertiliser without the need for human intervention. The transition from manual to automated irrigation demonstrates how software-based tools can address long-standing inefficiencies in agriculture.

Shifting focus to North America, Gong discussed the growing use of drones in crop management. He cited the example of a retired crop-dusting helicopter, now obsolete as precision drones assume its former role. Although initially met with scepticism by U.S. farmers, XAG's smaller drones, originally designed for use in Asia, have become more relevant as large farms are increasingly subdivided. Labour shortages and climate change have further accelerated this shift. Four drones can now complete the same work as one helicopter, prompting many operators to transition. He also highlighted Vietnam, where young farmers deliver drones to paddy fields by motorcycle, demonstrating how such technologies are revitalising interest in farming among youth.



Gong shared the case of Dai Hong, a young family farmer in China. Beginning with one acre, Dai expanded his farm to 100 acres by adopting technologies such as drone sprayers, autonomous rice planters, and self-driving tractors. His progress has earned national recognition, including a visit from the president of China. Gong noted that China is home to approximately four million family farms that form the foundation of its food system. He emphasised that this pattern extends across Southeast Asia, India, the Middle East, Africa, and Latin America, where smallholder farms continue to feed communities and nations.

Unlike large-scale corporate farms, smallholders serve essential local needs. Gong stressed the importance of closing the digital divide and integrating technology into rural farming operations. XAG prioritises equipping family farms with tools such as precision mapping, crop monitoring, and market access solutions. These systems enhance traceability, promote financial inclusion, and support informed decision-making for even the most remote producers. Through the application of sensors, connectivity, and AI, data and insight can be integrated directly into field operations.

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“We have to utilise AI and robots and automation technology to produce food for our future – because no one wants to drive a tractor anymore.”

Justin Gong

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In conclusion, Gong addressed the broader structural challenges facing global agriculture. He identified labour shortages caused by urban migration, the disruption of growing seasons due to climate change, and increasing concerns around food security.

Smart agriculture, he asserted, offers a solution by applying the same autonomy and intelligence to farms that is now standard in smart homes. He outlined XAG's three-step framework for achieving this vision. The first component involves building digital infrastructure for agriculture, including high-definition field mapping, navigation via GPS and China's Beidou satellite system, and online service platforms. The second component focuses on deploying precision equipment such as drones, ground robots, and autonomous tractors capable of executing AI-driven tasks. The third component aims to develop a sustainable farming

ecosystem supported by policies, investments, and education. As the average age of farmers rises, XAG has trained over 160,000 young drone pilots to create a workforce capable of supporting the sector's transformation.

In closing, Gong presented a pragmatic outlook on the future of agriculture. By integrating traditional agricultural knowledge with AI, robotics, and connected technologies, farming can become more efficient, resilient, and attractive to the next generation. As he stated, "We need to run farms the way we manage smart homes with autonomy and insight." The session closed with a portrayal of how an entrepreneur with farming roots is advancing that vision through real-world application, helping to ensure that the benefits of technology reach even the most remote areas and contribute meaningfully to sustainable development.



Fireside Chat

In this vibrant fireside chat, two prominent speakers discuss how green finance and impact investing can accelerate sustainable innovation, highlighting the role of philanthropic platforms in bringing sustainability into early-stage ventures.

In a dynamic discussion moderated by Jason Ho, Co-founder of BEYOND Expo, Dr. Huang Kuan, Senior Managing Director of Asia Green Fund, examined how impact investing and cross-border partnerships can accelerate green innovation. Their conversation focused on the intersection of green finance, transformative leadership, and intergenerational sustainability.

Both speakers emphasised the need for capital that delivers financial returns while generating environmental impact, along with platforms that connect entrepreneurs to global resources and markets. Jason noted that platforms like the Zayed Sustainability Prize can play a key role in bringing sustainability to the forefront of a startup's growth journey by offering early-stage visibility and support.

Dr. Kuan described Asia Green Fund as an impact-driven fund launched in 2016 with a dual mandate. The fund is committed to delivering strong financial returns while achieving significant and measurable environmental impact. To fulfil this dual mandate, Asia Green Fund seeks out startups that meet three key criteria: scalability, connectivity, and business vitality.

Dr. Kuan illustrated Asia Green Fund's approach through specific investments. One portfolio company, Moja Bio, engineers bacteria to convert methanol and other non-food carbon feedstocks into carbon chemicals. The Fund arranged financing, industrial partnerships and established the plant to allow researchers to focus on innovation.

Similarly, King Wells is a startup that has developed a breathable yet waterproof textile, an essential material for manufacturing insulation products used in the construction industry. Thus, breaking into a market long dominated by a U.S. incumbent. Rather than competing directly with established players, King Wells leveraged innovation to reduce production costs and strategically pivoted toward higher-margin applications. With ecosystem-building support from Asia Green Fund, the startup was able to gain market share while sustaining profitability. This example illustrates how the fund's long-term capital and active structuring approach can effectively de-risk deep-tech ventures and accelerate their path to commercialisation.



Ho brought an entrepreneur's perspective on how early-stage companies balance mission and market. He noted that in a competitive environment, most startups put "survival" first. Many companies do not incorporate sustainability goals until they scale and have the financial capabilities to support them. He noted that platforms like the Prize and other accelerators offer targeted funding that can encourage companies to embed environmental impact sooner rather than later.

Ho also described BEYOND Expo as a platform to expand Asian innovation globally. He explained that by bringing together General Partners and large investors at the Expo, BEYOND creates a pipeline: when a family office invests in a fund, that fund can then back the startups featured on stage. This synergy between partnerships,

“Sustainability is a language, but it only makes sense when you integrate it into business strategy and articulate its value to your customers.”

Dr. Huang Kuan

events, and capital commitments contributes to a self-sustaining ecosystem—one that continuously fosters innovation, growth, and cross-border opportunity.

Dr. Kuan concluded by emphasising that the most challenging aspect of impact investing lies in translating a strong technical vision into tangible market reality, which requires building “the inner energy” of innovation and business model strength in tandem. He noted that policy incentives and multilateral partnerships matter less than the venture's core technology and commercial strategy. Only then can strategic alliances – between governments, industry giants, NGOs and investors – take root to amplify impact.

In the end, the fireside chat painted a balanced picture: impact funds like Asia Green Fund bring capital and industry muscle to promising green ventures, while platforms like BEYOND and Zayed Sustainability Prize nurture grassroots innovation and connect it to global opportunity. Both speakers agreed that trust in founders, in partners, and between regions is fundamental. By aligning finance with real-world impact, and by forging cross-border partnerships, such efforts can empower the next generation of sustainable enterprises.

Technology in Action

We are living in a pivotal moment in history, where the tools to address humanity’s most pressing sustainability challenges are within reach. From AI-driven energy grid optimisation to blockchain-enabled ethical supply chain tracking, technology is rapidly expanding the boundaries of what is possible for our planet. This session explored the forefront of these technological advancements, highlighting China’s distinctive role as both an innovator and a large-scale implementer of green technologies. It also examined how we can ensure that these solutions are deployed in ways that equitably benefit communities around the world.

The Technology in Action session, moderated by Remoca Shi, Deputy Secretary General of Shanghai Climate Week Momo Chau, brought together four Chinese innovators who are deploying cutting-edge solutions to address environmental challenges. The panellists included Ravenna Chen, Executive President of Intrinsic EO; Eric Ma, Chief Executive Officer of WeCarbon; Burt Guo, Chief Executive Officer & Chief Scientist of AEROFUGIA; and Sissi Chao, Chief Executive Officer of RePlasTerial. They reflected on how their ventures are turning advanced technologies into real-world impact.

Guo opened the discussion by offering a broad perspective on the future of urban mobility. He shared that his company was the first in China to successfully complete a full-profile flight test of an electric Vertical Takeoff and Landing (eVTOL) aircraft. Looking ahead, he envisions a “low-altitude economy” powered by new-energy aviation, which he describes as a cost-effective transportation network designed for everyday use by the general public.

For example, Guo noted that these eVTOL vehicles could serve as aerial medical transport, flying patients quickly to hospitals in emergencies. AEROFUGIA’s air taxis, being fully battery-powered and equipped with AI-driven operations, produce zero carbon emissions and demand minimal new infrastructure, making them a sustainable and efficient solution for urban mobility. As Guo explained, these aircraft share existing infrastructure with electric vehicles – meaning that urban air mobility can seamlessly integrate into current EV charging networks and digital systems. This compatibility allows for rapid scalability without introducing additional emissions. He explained how we can “share charging and 5G infrastructure with EVs to scale more efficiently,” making green air travel a practical complement to ground transportation.

Ma of WeCarbon shifted the focus to the ground-based supply chain. As the CEO of a climate-tech startup, Ma described how his AI-powered platform helps global shippers and manufacturers cut emissions and risks from manufacturing and lab testing to shipping and logistics.



For example, in the maritime sector his team uses AI to optimise routes and issue climate-risk alerts. By analysing weather and operational data, WeCarbon can conduct route optimisation and climate risk incident alerts allowing the user to have a better vision, to identify potential disruptions in their supply chain, and to give precautions beforehand.

On land, the company offers fleet-management tools to schedule trucks and ports so that containers arrive on time with minimal waste. These services deliver both ecological and financial benefits, saving costs and even uncovering new business opportunities.

“Our AI-driven solutions make decarbonisation tangible and financially viable, helping clients reduce costs, avoid disruption, and scale their global impact.”

Eric Ma

Ma emphasised the dual impact of their work: reducing carbon footprints while making logistics more robust and profitable. Beyond the software itself, WeCarbon also helps broadcast best practices. The firm partners on international initiatives (such as the Dubai AI Festival) and co-authors sector reports (like the “Climate Tech in Focus” study on sustainable supply chains) to scale solutions globally.

Turning to sustainable materials, Chao of RePlasTerial discussed how her company closes the loop on plastic waste. Chao explained that the construction and real-estate sectors generate roughly 16% of global plastic waste and 40% of carbon emissions, so decarbonising those industries is critical. RePlasTerial addresses this by collecting discarded plastics (e.g., bottle caps) and transforming them into premium interior panels and furniture. The process involves sorting and pelletising the waste, then using heat and innovative design to turn it into high-value materials.

Chao reported that a single bottle's worth of plastic can be reborn as construction material. In practice, thousands of tons of waste plastic are reprocessed into carbon-neutral wall panels for retail stores, F&B outlets, and real estate projects – effectively replacing virgin wood or composites with recycled polymers.

To accelerate design, RePlasTerial has even built its own AI-powered recipe engine. Chao described how the AI learned to produce designs and has already generated over 5,000 new design patterns automatically. This has boosted innovation speed by roughly 1,000% – what used to take a week or more can now be done in a day. The combination of circular supply chains and smart design means local communities can turn trash into value, exemplifying grassroots innovation.

Finally, investor Chen, speaking for TurStar APAC, reflected on the ecosystem that supports such ventures. Chen argued that while funding is essential, it is strategic partnerships that truly scale solutions. For example, her firm engages with regulators and companies in Southeast Asia to identify critical problems (e.g., pollution in Indonesia's palm-oil or mining sectors). They then match these requirements from global regulators with proven technologies from their

portfolio, effectively co-creating demand and policy support. In practice, this means drafting white papers and reports that align new innovations with local needs. She described running vertical accelerators that bring together local researchers, Chinese experts, and regulators. These programmes provide early-stage grants and strategic consulting so that promising deep-tech projects can achieve real-world impact and be ready to go global. In short, Chen's investor perspective completed the picture: it's not just the technology that drives progress, but also the surrounding ecosystem of capital, policy, and cross-border collaboration that transforms pilot projects into scalable, systemic solutions.

In closing, the moderator and speakers emphasised that those actionable technologies follow the ethos of the Zayed Sustainability Prize: fostering community-led innovation within enabling ecosystems. RePlasTerial's work with plastic waste, WeCarbon's AI in logistics, and AEROFUGIA's eVTOLs each address a piece of the city-and-industry ecosystem, while Chen's investment strategy ties them back to regional needs and regulations. The impactful discussion demonstrated how grassroots innovation, from plastic repurposing to digital and aerial technologies, can evolve into integrated, systems-level solutions for global sustainability.

“It's not just about funding; it's about strategy. We match local needs with global innovations and guide startups from proof of concept to global expansion.”

Ravenna Chen

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Education for Impact

Today's students are tomorrow's scientists, policymakers, and problem solvers. This session explores how young people across China and beyond are leading sustainability efforts in their schools and communities – with support from platforms like the Zayed Sustainability Prize. From innovation in classrooms to grassroots climate action, we'll spotlight how nurturing youth leadership is essential to a just and lasting transition

The closing session, moderated by Anthemius X. Li, President of the Asia Pacific Education Students International Association at the Harvard Graduate School of Education, brought together three speakers: Jessie Yang, President of Providence Academy; Sarah Tong, Co-founder of Big Bang Academy; and Leo Tang, Founder and Executive Director of Youth Impact, and a former student of the Zayed Sustainability Prize-winning Beijing No. 35 High School. Together, they underscored the vital role of education in advancing global sustainability.

Each speaker brought a unique perspective shaped by their work in education and youth empowerment. Yang leads Providence Academy, a scholarship-supported platform that equips Chinese youth with skills, mentorship, and investor connections to launch tech-driven global solutions. Tong's STEM education company, Big Bang Academy, has reached over 30,000 students through a blended model of digital and hands-on learning, nurturing early curiosity and creativity. Tang, representing the student voice, shared his journey of transforming a high school science project into a sustainability initiative. Now, through Youth Impact, he is working to scale that vision via a new school model focused on innovation and purpose-driven learning.

In the start of the discussion, Yang began the discussion by highlighting that education is more than classroom teaching; it is a complex ecosystem, framing education as a platform for innovation. For example, she pointed to a Chinese startup that aggregates over 100 educational "influencers" on platforms like TikTok; these creators sell digital courses through social media. In short, Yang's practical projects showed how AI and networks are reshaping the flow of learning content and educational funding, scaling access and lowering barriers for students worldwide.

Yang highlighted a fintech venture, Easy Transfer, which uses AI to simplify cross-border student payments. Designed for Chinese students studying abroad, the platform streamlines tuition remittances and compliance checks—reducing costs and improving efficiency by functioning as a payment infrastructure. Her example illustrated how even peripheral services like money transfers can become critical enablers in the global education ecosystem.



At the same time, Yang stressed that AI cannot replace the human element in education. Technology, she argued, is a powerful enabler—but not a substitute for teachers. While algorithms can personalise learning and manage logistics, they cannot spark curiosity or instil a sense of purpose. Her message was clear: meaningful impact requires investment in both digital tools and the people who inspire learning. She noted that platforms like the Zayed Sustainability Prize can play a key role by supporting solutions that blend technology with mentorship and opportunity.

“Investing in education technology has shown me that education is an ecosystem. AI is transforming not just how students learn, but also how educational products are distributed and how teachers interact with students.”

Jesse Yang

Continuing the discussion on the human dimension of AI, Tong emphasised the importance of maintaining personal connection in science education. While acknowledging that the rise of AI in schools is inevitable, she stressed the need to preserve face-to-face engagement as a core part of the learning experience. At Big Bang Academy, which she founded five years ago, students take both online modules and hands-on, experiential classes. In her recounting of the Covid-19 pandemic, Tong observed that excessive screen time can “dehumanise” young learners, leaving them weaker at real-world problem-solving. To counter that, her programmes emphasise project-based learning and physical labs where children can be engaged in practical activities. Tong even shared that her own childhood “spark” came at age six, when she obsessively took apart a TV remote to rebuild its circuit, finding joy in engineering, a playful example of the curiosity she now aims to kindle in students.

Tong also highlighted personalised learning empowered by AI: the Academy uses data analytics to tailor lessons to each child's pace and interests. However, she stressed that personalisation is a tool, not the whole story. For example, Tong argued that students should still learn coding as a basic skill, much like math or language, because it gives them the language to instruct AI. In sum, Tong's vision is one where children benefit from high-tech resources and hands-on mentorship: by combining AI-driven content with curiosity-driven projects, education becomes a launchpad for innovation.

Tang, speaking as a representative from a Prize-winning high school, illustrated these ideas in action. Tang credited project-based learning with setting him on this path. He explained how, as his high school exit exams approached, his parents had shifted him into innovative programmes at home. The approach also connected him to a global network of peers, boosting his confidence. After achieving initial successes (including local science prizes), Tang felt ready for "a bigger stage" and applied to the Zayed Sustainability Prize.

Tang's Prize-winning solution was highly practical: vacuum-insulated glass panels combined with solar PV. After his school won the award, he retrofitted roughly 200 square metres of windows in his old school. As Tang reported, this upgrade will reduce the building's carbon emissions by about one tonne per year. A student's idea is now saving energy and cutting emissions in real time, which is a concrete sustainability outcome borne of an educational environment that nurtures innovation.

Tang shared that the Prize helped amplify his ideas, leading him to launch a startup school in Shenzhen to scale his educational approach. He credited the platform for turning a student project into both an enterprise and a teaching model.

Tang also offered a student's perspective on AI in learning. He agreed that AI can handle routine tasks, but this makes independent thinking even more critical. In practice, AI can give brief ideas in the first step, but students must keep giving it prompts to reach a great solution. In Tang's view, this back-and-forth is exactly why project-based learning is now more essential than those traditional knowledge subjects. He illustrated how his own education combined guided mentorship with the freedom to experiment: tools like AI become starting points, but young people must practice the critical thinking and iteration that AI alone cannot do.

The insights underscored that education is a cornerstone of the Zayed Sustainability Prize's mission. All three speakers showed how learning can empower youth to tackle real-world problems with creativity and purpose. In closing, the session made clear that technological tools are most powerful when paired with engaged teachers, hands-on experiences, and a sense of purpose. Yang reminded us that algorithms can scale solutions, but only teachers can spark inspiration. Tong demonstrated how she fosters balance by encouraging both personal curiosity and digital innovation in her students. And Tang proved that a motivated student, given resources and responsibility, can devise solutions that save energy and spark new learning models. Together, they painted a picture of education that is practical, dynamic, and inclusive, equipping young people with the knowledge, skills and confidence to become agents of sustainable change.

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“Educators today must focus on teaching students how to think critically and iteratively, guiding them beyond simply using AI tools to develop their own problem-solving processes.”

Leo Tang

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