

For Immediate Release

60 Global Rising Stars from 1,200 Universities will Converge in Singapore for SMU's 12th Lee Kuan Yew Competition Grand Finals

- 60 finalists for SG60 milestone edition selected by an international panel of judges and visionary partners
- Focus on empowering Urban Solutions and Sustainability to solve the world's most essential, urgent challenges
- Pioneered a new AI screening platform to enhance the discovery of disruptive startups
- Record global participation with S\$2.5 million+ prize pool



PlastiFri, a startup from Karlsruhe Institute of Technology, Germany, won the Infinity Prize at the 11th edition of the Lee Kuan Yew Global Business Plan Competition organised by SMU Institute of Innovation & Entrepreneurship in 2023.

Singapore, 7 August 2025 (Thursday) [UPDATED 28 August 2025]— Singapore Management University (SMU) announces the 60 finalists of the [12th Lee Kuan Yew Global Business Plan Competition](#) (LKYGBPC), celebrating a major milestone as Singapore commemorates its 60th year of independence. Organised by SMU's Institute of Innovation and Entrepreneurship (IIE), this year's competition sets a benchmark for university-led deep-tech startup competitions, with new records for global participation.

Held every two years, the LKYGBPC is one of the largest university-led startup competitions in Asia. This year, finalists will gather at SMU's city campus between **29 September and 2**

October 2025 to pitch their innovations to a judging panel during the LKYGBPC Grand Finals Week.

Startups will compete for a prize pool of over S\$2.5 million in the 12th edition of the biennial competition this year. The global competition shines a spotlight on startups with Urban Solutions and Sustainability innovations that address today's universal grand challenges. From airless wheels based on NASA technology and transistors that cut data centre energy use by 30 per cent, to bioplastics tough enough to rival petroleum-based plastics, on-demand hydrogen production at sea, and self-healing concrete, these breakthroughs are amongst the shortlisted entries that challenge decades-old limits in energy, mobility, and infrastructure.

"The 12th LKYGBPC saw record-breaking 1,500+ applications from more than 1,200 universities across 91 countries, a 57 per cent increase compared to the previous edition's submissions. Entries from Asia increased by 70 per cent, and we also saw a significant increase in submissions from North America, the Middle East and North Africa," said Ms Shirley Wong (王秀萍), Entrepreneur-in-Residence at SMU IIE, Managing Partner of TNF Ventures, and Chairperson of the 12th LKYGBPC Advisory Committee.

"These numbers reflect the growing confidence from startups globally in leveraging Singapore as a business and technology gateway to the rest of Asia. Hosting LKYGBPC alongside SG60 – a nation-wide movement celebrating Singapore's next chapter of her nation-building journey – and the Singapore Grand Prix adds a higher level of energy and global attention, making it a powerful platform for entrepreneurs to connect, learn, and co-create with trailblazers worldwide," she added.

Startup founders are drawn to the 12th LKYGBPC as Singapore offers a regional springboard for scaling across Asia, with its status as a global multilingual hub of innovation and talent. Said Evangelos Moschos, a finalist of the LKYGBPC and post-doctoral researcher at France's Ecole Polytechnique, is also the Co-Founder and CTO of OceanTech startup Amphitrite. He shared, "Singapore is the world's busiest transshipment hub where we can access leading shipping lines, investors, government agencies, and tap into a world-class R&D ecosystem. We anticipate engaging with local academic partners through the competition to explore joint research projects. We're also keen to hire Singaporean talent, including SMU students, to work in Paris or Singapore."

This year, startups will compete across 12 focus areas, namely Carbon Tech, Climate Tech, Emerging Tech, Energy Transition, Food and Land Use, Green Buildings and Construction, Homeland Security, Public Health, Sustainable Materials and Circularity, Transport and Logistics, Urban Mobility and Water Solutions.

AI Screening to Boost Objectivity in Startup Evaluation

As a new feature this year, LKYGBPC also introduces the **DueAI™ Challenge**, a novel initiative that leverages Artificial Intelligence (AI) to enhance the efficiency and comprehensiveness of startup screening. This approach reflects emerging trends in the global venture capital (VC) and startup landscape, where AI-enabled capabilities are increasingly adopted to



streamline data collection, accelerate deal flow, and support data-driven investment decisions.

Dr Sze Tiam Lin (徐添仁), the Senior Licensing Advisor at SMU IIE who created this new initiative, said, “The DueAI™ Challenge demonstrates how AI can transform entrepreneurial evaluation for investors and deliver greater scalability and objectivity while empowering human decision-making.”

What’s On during Grand Finals Week

Throughout the Grand Finals Week, held from 29 September to 2 October 2025 at SMU, the 60 global finalists will participate in a series of events designed to connect them with key stakeholders. These include closed-door roundtable sessions with influential regional business families. The startup founders will gain invaluable insights and mentorship, while the business families can engage with cutting-edge technologies relevant to their investment portfolios and industries.

This year's competition will also serve as a vital pipeline for internship and career opportunities for Singapore-based students. Via an inaugural Talent Exchange segment, students will have the chance to pitch their expertise directly to the finalist startups for the opportunity to join startup teams from universities such as the University of Tokyo, ETH Zurich, Tsinghua University and Harvard University,

The week will culminate in the highly anticipated Blaze Mixer Night, an open invitation for Singapore's youth to engage with the young founders from the 60 finalist startups, be inspired by their new technologies, and grow their network.

Catalysing Innovation with a Growing Community of Partnerships

The 12th edition of LKYGBPC also welcomes the Agency for Science, Technology and Research (A*STAR) as its first official Scientific Knowledge Partner, bringing their world-class scientific expertise and network to the competition.

In addition, the LKYGBPC is honoured to be supported by a growing ecosystem of visionary partners, who have provided continuous support to the finalists over the years and enabled the competition to deliver enduring impact across Asia.

The Zhang Fan Global AI Initiative Award, which will be presented for the second consecutive edition of LKYGBPC, aims to empower startups which are pushing boundaries in AI. Mr Zhang Fan (张帆), formerly Co-founder of Sequoia Capital China and a four-time Forbes ‘Midas List’ honoree VC, said, “I’ve had the privilege of backing innovators fresh out of university who dare to reimagine the future. LKYGBPC convenes a truly world-class cohort of founders poised to engage with Southeast Asia, where catalytic funding and mentorship remain essential. As we stand on the cusp of a new AI era, I look forward to leveraging my experience and resources to help these teams transform breakthroughs into meaningful impact.”



Among the other new collaborators is Indorama Ventures, which is behind the Future of Sustainable Materials Award, tapping its end-to-end R&D and manufacturing expertise to spotlight breakthrough materials innovations.

“Our mission at Indorama Ventures is to create indispensable chemistry, transforming lab-born innovations into global solutions that touch billions of lives every day. Through LKYGBPC’s global pipeline, we can engage closely with early-stage deep-tech ventures from Asia and beyond, helping us accelerate innovation and build a more sustainable world for decades to come,” said Mr Yash Lohia, Executive President of Petchem and Chairman of the ESG Council, Indorama Ventures.

Greater support for entrepreneurs aiming to drive a resilient and more sustainable future will also come in the form of awards backed by leading Venture Capital firms such as Antler, TRIREC and Wavemaker Partners. Mr Paul Santos, Managing Partner of Wavemaker Partners, is a steadfast supporter of LKYGBPC through the LKYGBPC Investment Prize that supports innovative Enterprise, Deep Tech, and Sustainability-focused startups.

He said, “Over the years, the competition has attracted bold, young founders from all over the world, reinforcing Singapore’s role as a rising global hub for entrepreneurship. This aligns closely with our mission of investing in founders building companies that are solving meaningful problems and creating real, lasting impact.”

Enclosure: Annex 1: List of 60 finalist startups in the 12th edition of the Lee Kuan Yew Global Business Plan Competition.

**About SMU (新加坡管理大学):**

Established in 2000, Singapore Management University (SMU) is recognised for its disciplinary and multi-disciplinary research that addresses issues of global relevance, impacting business, government, and society. Its distinctive education, incorporating innovative experiential learning, aims to nurture global citizens, entrepreneurs and change agents. With more than 13,000 students, SMU offers a wide range of bachelors, masters and PhD degree programmes in the disciplinary areas associated with six of its eight schools - Accountancy, Business, Computing, Economics, Law and Social Sciences. Its seventh school, the SMU College of Integrative Studies, offers degree programmes in deep, integrative interdisciplinary education. The College of Graduate Research Studies, SMU's eighth school, enhances integration and interdisciplinarity across the various SMU postgraduate research programmes that will enable students to gain a holistic learning experience and well-grounded approach to their research. SMU also offers a growing number of executive development and continuing education programmes. Through its city campus, SMU focuses on making meaningful impact on Singapore and beyond through its partnerships with industry, policymakers and academic institutions. <https://www.smu.edu.sg/>

About SMU IIE (新加坡管理大学创新与创业研究院):

The Singapore Management University's Institute of Innovation and Entrepreneurship (IIE) empowers aspiring entrepreneurs and innovators to create positive change. It offers tailored training programmes, an equity-free incubator, and a vibrant community that connects innovators through events and networking opportunities, including the renowned Lee Kuan Yew Global Business Plan Competition (LKYGBPC). For more information: <https://iie.smu.edu.sg>

About Lee Kuan Yew Global Business Plan Competition (LKYGBPC) (李光耀全球创新创业大赛):

Organised by Singapore Management University's Institute of Innovation and Entrepreneurship, the Lee Kuan Yew Global Business Plan Competition (LKYGBPC) is a biennial university-led start-up challenge. One of the most exciting of such competitions in Asia, it derives its name from Singapore's founding Prime Minister Lee Kuan Yew, who developed the country's defining business plan that propelled Singapore onto the global stage. It is this spirit of entrepreneurship, innovation and ambition that the competition enshrines. LKYGBPC invites the brightest minds from the world's most entrepreneurial universities to come together to address the challenges of the 21st century and reimagine the future. For more information: smu.sg/lkygbpc

About the DueAI™ Challenge

The 12th LKYGBPC introduced the DueAI™ Challenge—a parallel competition where 14 independent AI models operated within a secured environment to screen startup applications submitted to LKYGBPC. These AI-driven evaluations ran in parallel with assessments by over 220 human judges from 46 countries, with results compared before the LKYGBPC finalists were selected. By embedding the DueAI™ Challenge into its official selection process, LKYGBPC became one of the first university competitions to explore at scale how AI enhances the discovery of promising startups.

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Annex
Startups in the 12th Edition of the
Lee Kuan Yew Global Business Plan Competition
Singapore Management University
29 September to 2 October 2025

No	Team	Executive Summary	Category	Name of University (Main Founder)	Geographies
1	Arculus	Arculus repurposes natural gas transmission pipelines for bulk transportation of either CO ₂ or hydrogen, thanks to a patented barrier coating applied on the internal surface of the pipe.	Beta	Massachusetts Institute of Technology	United States of America
2	Castomize	Castomize is making healthcare more accessible, effective, and less invasive through the creation of impactful medical devices using advanced manufacturing technologies.	Infinity	Singapore Management University	Singapore
3	ChemT Biotechnology	ChemT Biotechnology seeks to revolutionise bio-manufacturing with AI-designed small molecules that enable precise and tunable modulation of cell behaviour.	Beta	National University of Singapore	Singapore

4	Cold Battery	Cold Battery is a cutting-edge solution for storing and delivering cold energy efficiently, boosting profits and slashing emissions across industrial cooling applications.	Beta	Nanyang Technological University	Singapore
5	Inviscid AI	Inviscid AI delivers physics-informed AI that creates digital twins and simulations up to 1000 times faster than traditional methods for design optimisation.	Beta	University of Oxford	United Kingdom
6	MabLab	MabLab has built the world's first multi-agent rapid test capable of detecting laced drugs and spiked drinks.	Infinity	Harvard University	United States of America
7	OmniPath H2	Novel industrial decarbonisation technologies lowering costs for the hydrogen economies of today AND tomorrow	Beta	Harvard University	United States of America
8	Sesame Sustainability	Sesame Sustainability's industrial-grade modelling platform transforms how energy companies plan multi-billion-dollar decarbonisation investments, compressing analysis from years to weeks.	Infinity	Massachusetts Institute of Technology	United States of America

9	8inks	8inks revolutionises battery manufacturing with multilayer curtain coating—enabling higher performance, lower cost, and scalable production of next-generation lithium-ion and solid-state batteries.	Infinity	ETH Zürich	Switzerland
10	AMPHITRITE	Harnessing Satellites & Artificial Intelligence to produce reliable ocean data and make the best decisions at sea	Infinity	École Polytechnique	France
11	CyanoCapture	Synthesising insulin and \$40 billion worth of drug precursor molecules by harnessing a photosynthetic cell discovered in 2020.	Infinity	University of Oxford	United Kingdom
12	Dunia Innovations	Dunia Innovations is revolutionising the field of material discovery by leveraging cutting-edge AI and autonomous experimentation to bring breakthrough materials to the world.	Infinity	University of Glasgow	United Kingdom
13	Enantios	ENANTIOS enables the fast, simple, and robust characterisation of complex and chiral molecules and biologics for the	Infinity	ETH Zürich	Switzerland

		pharmaceutical and chemical industry.			
14	exnaton	exnaton enables utilities to quickly launch innovative, data-driven electricity products with its AI-powered billing platform — accelerating the energy transition.	Infinity	ETH Zürich	Switzerland
15	HyveGeo	HyveGeo looks to remove CO2 from the air while boosting food security in arid regions.	Beta	University of Cambridge	United Kingdom
16	Luxtelligence	We develop energy-efficient photonic circuits for Quantum and AI, leveraging advanced thin-film materials to enable next-generation, high-performance connectivity solutions.	Beta	École Polytechnique Fédérale de Lausanne	Switzerland
17	Micromelt Ltd	Microwave-powered catalytic reactor that depolymerises mixed plastic waste into high-purity monomers and hydrogen gas in one step.	Beta	University of Oxford	United Kingdom
18	Mimicrete Ltd	Powering the smart infrastructure of tomorrow	Beta	University of Cambridge	United Kingdom
19	PRONOE	Restoring our oceans' natural capacity to	Beta	INSEAD	France

		permanently remove CO2. Worldwide.			
20	Vivid Dx	Vivid Dx is developing a next-generation platform to deliver broad pathogen ID in 30 minutes and phenotypic antibiotic susceptibility testing (AST) in 3 hours – directly from blood, with no blood culture required.	Beta	University of Oxford	United Kingdom
21	Aerologix	Aerologix is a drone technology platform connecting clients with 40,000+ pilots, delivering on-demand aerial data, mapping, and AI insights for infrastructure, environment, and industry.	Infinity	UNSW Sydney	Australia
22	Jmem Tek	Jmem Tek provides ready-to-deploy JPUF-based quantum resilient security solutions for vulnerable industries to address encryption obsolescence concerns as quantum computing advances.	Infinity	National Yang Ming Chiao Tung University	Taiwan
23	Koralo	Koralo creates functional food and feed enriching health and beauty with patented co-	Infinity	Windesheim University of Applied Sciences	Netherlands

		fermentation of microalgae and mushroom roots - delicious, functional and affordable.			
24	MUI-Robotics	MUI-Robotics specialises in sensory-AI which imitates human smell sense with high accuracy for real-time quality control, safety, and environmental monitoring globally.	Infinity	Mahidol University	Thailand
25	Oculab	Oculab strengthens Tuberculosis (TB) monitoring by bringing AI-powered analysis to microscopes through the smartphone, reducing examination time to 10 minutes while achieving 87% accuracy rates.	Beta	University of Indonesia	Indonesia
26	Oriongo	Oriongo specialises in the development and integration of positioning algorithms, with strong R&D in inertial navigation, geomagnetic positioning, Wi-Fi, 5G, GNSS, BLE and AI positioning fusion technology	Infinity	National Taiwan University of Science and Technology	Taiwan
27	Puralink	Puralink is the autonomous robotics platform for pipe inspection, mapping, and repair	Beta	University of Technology Sydney	Australia

28	Qarbotech	Qarbotech develops patented photosynthesis-enhancing solutions that boost crop yields sustainably, helping farmers grow more food with fewer resources while combating climate change.	Infinity	University of Cambridge	United Kingdom
29	ReZinc	ReZinc - a sustainable innovation to transform carbon-based battery waste into high-quality carbon paint for metal surfaces.	Beta	VinUniversity	Vietnam
30	Saint Novel	Saint Novel enables drug discovery with innovative GenAI and full-stack drug development success experience (from in silico design to phase II trial which was sold to Sanofi at 1.5 billion USD).	Beta	University of Hong Kong	Hong Kong SAR
31	Untapped Energies	Untapped Energies seeks to unlock 100% renewable wind & hydro energy from unutilised, 'untapped' real estate.	Beta	Queensland University of Technology	Australia
32	Klimatech	Vortex is Klimatech's vertical-axis wind turbine (VAWT) that combines aesthetics and function for	Infinity	Asian Institute of Management	Philippines

		sustainable energy in urban, remote, and commercial spaces.			
33	EarthFlow AI	EarthFlow AI is making subsurface climate and energy solutions scalable with ultra-fast AI simulation.	Beta	Imperial College London	United Kingdom
34	Heliotrope Photonics	At Heliotrope Photonics, we are developing an innovative coating that transforms the sunlight to enhance solar panel performance.	Beta	New York University	United States of America
35	Helix Carbon	Helix Carbon provides electrolyzers to the steel industry that upcycle CO2 directly out of waste gas, no carbon capture required.	Beta	Massachusetts Institute of Technology	United States of America
36	Neela Biotech Note: The finalist lineup has been updated following standard compliance review procedures.	Neela Biotech produces carbon-negative aviation fuel from waste using AI and synthetic biology, leveraging existing biogas and HEFA refinery infrastructure.	Beta	University of Oxford	United Kingdom
37	MacroCycle Technologies	MacroCycle is adventure creating circular plastics and textiles at cost parity and with zero carbon emissions.	Infinity	Massachusetts Institute of Technology	United States of America

38	Map Collective	MapCollective.com is a multi-tier supply chain traceability data mining and dashboard platform, helping procurement and sustainability organisations gather supplier data.	Infinity	Georgetown University	United States of America
39	Nephrogen	Nephrogen is developing curative gene therapies for kidney and pancreatic diseases, which affect more than 15% of the global population but have zero effective treatments.	Beta	Stanford University	United States of America
40	Quon Energy	Quon Energy deals with the development and installation of next-generation geothermal power tailored to the geological conditions in the volcanic region.	Beta	The University of Tokyo	Japan
41	SinuStim	SinuStim is developing an oral appliance that instantly alleviates nasal congestion and facial pain for patients with chronic sinus disease by using gentle electrical pulses that regulate overactive nasal nerves.	Beta	Johns Hopkins University	United States of America

42	SMART Tire	SMART Tire makes the world's first high-performance airless tires, based on NASA technology.	Beta	University of Southern California	United States of America
43	UpcycleX	UpcycleX, out of MIT, is transforming the chemical industry with a scalable, zero-emissions electrocatalytic platform that turns plastic waste into high-value products, unlocking an \$80 billion market opportunity.	Beta	Massachusetts Institute of Technology	United States of America
44	Vertical Horizons	Vertical Horizons is developing the next-generation power infrastructure using scalable vertical GaN technology to dramatically improve energy efficiency and power density for AI, in data centres.	Beta	Massachusetts Institute of Technology	United States of America
45	ChipEvo Ltd	Towards One-Click Chip Generation: ChipEvo leverages Large Language Models to revolutionize silicon design and verification with 10 times faster development and significant cost savings	Beta	Texas Tech University	United States of America
46	CLEAN CO2	CLEANCO2 is China's CCUS	Infinity	Tsinghua University	China

		mineralization technology pioneer and industrialisation leader			
47	深度原理 (Deep Principle)	A world-leading technology innovation company specialising in AI for Chemistry/Materials .	Infinity	Queen's University Belfast	United Kingdom
48	Genia	Genia builds Generative Design CoPilots for engineers in construction helping them design permit-ready drawings 10 times faster with 20% material savings.	Infinity	University of Pennsylvania	United States of America
49	Kerong Catalyst	Kerong seeks to lead the Application of Precious Metal Catalyst Technology in the Environmental Protection Industry.	Infinity	Brunel University London	United Kingdom
50	光子芯力 (PhotonCore)	PhotonCore Technologies focuses on the cutting-edge development of Electronic-Photonic hybrid computing architecture chips.	Beta	Tsinghua University	China
51	SynMetabio	SynMetabio seeks to be the world's first company to mass-produce bio-based synthetic leather for high-performance uses like automotive and footwear.	Infinity	ShanghaiTech University	China

52	Tidetron Bioworks	Tidetron Bioworks is a pioneering platform that integrates synthetic biology and AI to drive low-carbon innovation.	Infinity	Sun Yat-sen University	China
53	UniversalLab	Reshaping the \$60 billion materials R&D testing industry with AI agents	Infinity	École Polytechnique Fédérale de Lausanne	Switzerland
54	Xatoms	Xatoms discovers new materials using AI and quantum chemistry for water purification.	Infinity	University of Toronto	Canada
55	浙江极码电子科技有限公司 (Jima Technologies)	With deep R&D experience in the field of smart microgrids, Jima Technologies' research focuses on smart grids, offering multi-point real-time voltage regulation and load balancing in renewable-heavy power grids	Infinity	Tianjin University	China
56	SpaceFields	SpaceFields is building the "Northrop Grumman of the 21st century" from India. SpaceFields aspires to be the dedicated merchant developer and integrator for next-gen bespoke solid propulsion for burgeoning aerospace & defence markets.	Infinity	Veer Surendra Sai University of Technology, UCE Burla (Odisha, India)	India

57	Expedock	Expedock's flexible tech solutions automate workflows and improve visibility, empowering teams to focus on what matters most.	Infinity	Stanford University	United States of America
58	Puffer AI	Puffer AI unifies under-utilised startup data, expert know-how and AI-driven workflows to accelerate research, scouting and evaluation—turning scattered information into smarter, faster investment decisions.	Due AI Challenge	N/A	Singapore
59	Evalyze	Evalyze streamlines startup fundraising and VC deal screening by automating due diligence, investor matching, and personalised outreach. Founders receive an investor readiness score and a tailored fundraising roadmap, while VCs use Evalyze to evaluate pitch decks, benchmark startups, and prioritize deals. Trained on 8,000+ successful raises, Evalyze cuts months of manual work into days, empowering better,	Due AI Challenge	N/A	Canada

		faster funding decisions on both sides.			
60	Shensu AI	Shensu AI creates AI-driven automation tools that optimise financial operations, enhancing efficiency and reducing costs for individuals and enterprises alike.	Due AI challenge	N/A	India

For the latest updates on the list of LKYGBPC finalists, please see:
<https://lkygbpc.smu.edu.sg/12th-lkygbpc-finalists>

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