



NANYANG
TECHNOLOGICAL
UNIVERSITY
SINGAPORE

NTU Innovation & Entrepreneurship Deep Tech Portfolio



NTU's First Unicorn: Nanofilm Technologies



Founded in 1999 as an NTU spin-off, **Nanofilm Technologies** has grown into Asia's leading provider of sustainable nanotechnology solutions. Built on proprietary, self-developed technologies and equipment, Nanofilm pushes the frontiers of material science to tackle global challenges such as climate change.

Market Cap at IPO
S\$1.7B
30 October 2020

Today, Nanofilm is a key player in the supply chains of the world's largest corporations, delivering mission-critical solutions across Automotive, Consumer Electronics, New Energy, Life Sciences, and Semiconductors.

With a global workforce of over 3,000 employees, five R&D centres and nine production plants spanning Singapore, China, Vietnam, Japan, and Europe, Nanofilm stands as a testament to NTU's ability to nurture research-driven innovations into billion-dollar enterprises.



Notable Exits



Acquired in 2020 by OmniVision



CelePixel Technology is an IC design company specialising in computer vision with their CeleX[®] dynamic vision sensors (DVS). Inspired by biological vision, CeleX[®] captures ultra-fast motion with up to 1,000x less data than high-speed cameras, enabling real-time, cost-efficient processing for advanced driver assistance systems (ADAS), autonomous driving, robotics, unmanned aerial vehicles (UAVs), industrial automation, and AR/VR.

Acquired in 2023 by Element Solutions



Kuprion's ActiveCopper™ materials — including sintering pastes, adhesives, inks, and gaskets — deliver superior thermal and electrical performance with tunable CTEs (coefficients of thermal expansion) that match diverse substrates. Lead-free and RoHS compliant, they integrate seamlessly into standard manufacturing, enabling electronic devices to operate reliably at higher power, voltages, frequencies and temperatures with improved fatigue resistance.

Acquired in 2025 by Nanoveu Limited



EMASS pioneers offline deep learning for IoT and wearables, enabling AI-powered devices to perform seamlessly in energy-constrained environments. Combining advanced algorithms, ultra-efficient hardware, and innovative design, EMASS delivers high-performance, energy-efficient embedded AI solutions that power next-generation applications in wearables, Industry 4.0, and beyond.

Exited in 2025



SatSys pioneered Singapore's first commercial earth observation satellite, TeLEOS-1, and has held AS9100 Certification since 2016. The company delivers high-performance microsatellite systems and end-to-end space solutions, including avionics design, system integration, testing, mission control, and payload planning software, working closely with partners and customers to meet stringent aerospace requirements.



Top Portfolio Companies

SUSTAINABILITY | HEALTHCARE | INDUSTRY 4.0 | DIGITAL & AI



IPO in
2021

Amount
raised at IPO
S\$50.7M

Market cap at IPO
S\$345.0M

Rethinking water
filtration through
nature-inspired
biotechnology

aquaporin.com



AQUAPORIN

Aquaporin is a pioneering water technology company headquartered in Denmark with operations in Singapore, China, Turkey and the United States. The company solves global water challenges through biotechnology, reimagining how water is cleaned, reused and made accessible.

Technology & Innovation

At the core of Aquaporin's solutions is its award-winning Aquaporin Inside® technology, inspired by nature and based on Nobel Prize-winning research. By harnessing the properties of aquaporin proteins — nature's own water channels — the technology is embedded into membranes that deliver superior performance in water filtration. Its formation was built on earlier research funded by Singapore's Environment & Water Industry (EWI) programme, which supported the development of aquaporin-based membranes through strategic public-sector investment in water innovation. Combining biology, chemistry and physics, Aquaporin has created a unique platform that works across industries and environments.

Global Presence

With a footprint spanning Asia, Europe and North America, Aquaporin collaborates with customers, governments and industry partners worldwide. Its membranes and solutions are used in homes, industrial facilities, food and beverage processes, and even by NASA for space applications — showcasing the versatility and scalability of its technology.

Impact & Applications

Aquaporin provides solutions for industrial wastewater treatment, food and beverage concentration, and drinking water enhancement, helping communities and industries use water more efficiently. By merging biotechnology with sustainability, Aquaporin is driving a cleaner, more responsible future for global water management.



Founded
2023

USD
\$92.5M
raised to date

USD
\$160.0M
Post-Money
Valuation

*Figures based on completion of
Series A funding (est Nov 2025)

Enabling
the future of
electrification
with solid state
transformer
technology

amperesand.io

Amperesand is a deep-tech company delivering advanced infrastructure solutions that accelerate global electrification. Headquartered in Singapore, the company develops high-performance systems powered by solid state transformer (SST) technology, enabling more efficient, intelligent, and resilient power distribution across industries and regions



Technology & Innovation

Amperesand's SST technology uses silicon carbide (SiC) devices and proprietary high-frequency transformers that significantly outperform traditional transformers. Each SST module is designed with scalability in mind — allowing simple, application-specific expansion and delivering up to a 10X acceleration in time to power. The company's first SST systems will be available in 2, 4, and 6 MW units, which can also be combined for larger power requirements.

Global Presence

Spun out of research from Energy Research Institute @ NTU and supported by Xora Innovation, Amperesand leverages Singapore's position as a hub for clean energy technology to expand its reach globally. Its modular and scalable solutions are designed to meet diverse electrification needs worldwide.

Impact & Applications

By enabling faster, safer and more flexible deployment of energy infrastructure, Amperesand is helping industries and utilities transition to next-generation electrification. Its innovations support renewable integration, grid resilience and the rapid expansion of sustainable energy systems worldwide.



Founded
2018

USD
\$36.9M
raised to date

USD
\$50.0M
Post-Money
Valuation

Founded in 2018 and headquartered in Singapore, **VFlowTech** is a deep-tech company specialising in vanadium redox flow battery (VRFB) systems for long-duration energy storage. The company's mission is to accelerate the global transition to clean energy while driving energy equity — making reliable, affordable power accessible to all.

Technology & Innovation

VFlowTech's product suite includes the PowerCube (an advanced VRFB system in multiple sizes) and in-house software solutions (Energy Management System, Battery Management System & AI-powered Cloud Energy Management Platform). They are designed to meet growing demand for safe, scalable and cost-effective energy storage. Unlike conventional batteries that degrade over time, VRFB systems are inherently safer, longer-lasting, and capable of storing energy for extended durations without loss of performance. Together, the PowerCube and software solutions deliver reliability, flexibility and economic efficiency across a wide range of applications.

Global Presence

VFlowTech has already deployed its long-duration energy storage systems in over 11 countries, supporting projects that integrate renewable energy into grids, enhance energy resilience and reduce reliance on fossil fuels. Its global footprint reflects both its rapid growth and the scalability of its technology.

Impact & Applications

By providing safe, sustainable and innovative energy storage solutions, VFlowTech is unlocking the full potential of renewables. Its innovations are critical to building resilient, low-carbon energy systems and enabling the clean energy transition globally.

Renewable
Energy CEO of the
Year, 4th Solar
Energy Storage
Future Asia 2025

Powering the
future with
sustainable
long-duration
energy storage
systems

vflowtech.com



Founded
2013

USD
\$15.7M
raised to date

USD
\$33.3M
Post-Money
Valuation

Driving
sustainability
through
precision carbon
and resource
management

evercomm.io

Evercomm is a Singapore-based engineering and technology company with over a decade of expertise in carbon emissions monitoring, reporting and reduction. Founded on the belief that lowering emissions can drive both prosperity and sustainability, the company develops advanced solutions that help enterprises and communities thrive in a low-carbon future.

Technology & Innovation

Evercomm's platform delivers precision-driven planning and simulation tools that enable businesses to optimise resource efficiency, reduce emissions and manage climate risks. Grounded in internationally recognised ISO Standards, the system ensures data integrity, credibility and verifiability across all reporting. By integrating global compliance frameworks such as GRI, SBTi, ISSB and CSRD/ESRS, Evercomm empowers organisations to meet evolving regulatory requirements with confidence.

Global Presence

Evercomm collaborates with global partners and enterprises across multiple industries. Its award-winning solutions support businesses navigating the fast-changing sustainability landscape while building long-term operational and financial resilience.

Impact & Applications

Evercomm helps organisations unlock growth opportunities by turning compliance into competitive advantage. By combining carbon, energy, and waste reduction strategies with robust reporting, the company enables transparent disclosure, enhances resource efficiency and strengthens resilience — ensuring sustainability remains central to business success.

Top 100
Climate Tech
Startups in Indo-
Pacific region by
HolonIQ, 2024

Top 10
Renewable
Energy Solutions
Company in APAC
by Energy CIO
Insights, 2019



Founded
2013

USD
\$26.0M
raised to date

USD
\$93.0M
Post-Money
Valuation

Redefining drug
delivery through
next-generation
polymer
nanotechnology

acmbiolabs.com

Founded in Singapore in 2013, **ACM Biolabs** is a clinical-stage biotechnology company developing innovative solutions for drug delivery. Its proprietary polymer-based nanoparticle platform is designed to overcome the limitations of conventional lipid-based systems, expanding possibilities for new therapies.

Technology & Innovation

At the core of ACM Biolabs' innovation is the Tunable Platform (ATP™), a patented polymer/lipid hybrid delivery system. ATP™ enables the delivery of multiple payloads — including oligonucleotides, proteins, small molecules, and mRNA — while offering superior stability. Unlike lipid nanoparticles, ATP™ allows mRNA to be stored at 4 °C, removing the need for ultra-cold storage.

Global Presence

Headquartered in Singapore and Switzerland, ACM Biolabs also operates a new facility in Sydney, Australia, to support the company's growing clinical programs. This global footprint provides access to leading biotech ecosystems and strengthens its clinical capabilities.

Impact & Applications

By advancing therapies that can target specific tissues, organs, and immune cells, ACM Biolabs is enabling new possibilities in oncology, infectious diseases, and other therapeutic areas. Its platform combines innovation, scalability and real-world applicability, positioning ACM Biolabs as a pioneer in the future of medicine.

Emerging NTU Spin-Offs



HEALTHCARE

Gray Matter Solutions, a medtech spin-off from NTU, is developing digital tools for the early detection and management of cognitive impairment. Its flagship platform, ReCOGnAlze, delivers rapid and reliable detection of Mild Cognitive Impairment (MCI) and provides personalised differential diagnostic models to distinguish between MCI sub-types. By enabling precise triaging and tailored care pathways, ReCOGnAlze lays the foundation for RevitalAlze, a digital therapeutic under development that offers personalised cognitive interventions.

graymattercognition.com



INDUSTRY 4.0



Speedcargo Technologies is transforming air cargo operations with computer vision, AI, robotics and advanced algorithms. Their solutions digitise and automate cargo workflows for airlines and ground handlers, optimising space, improving efficiency and enhancing resilience — paving the way for a smarter, more sustainable global air freight industry.

speedcargo.sg



NTU Tech Portal

Our innovations go beyond the lab, delivering practical solutions with real-world applications.

Explore our tech listings and connect with our Technology Development Experts to unlock opportunities that elevate your business.

At NTU, we champion the power of partnerships. Collaborate with us to propel your business forward and pioneer advancements that will shape the future.

Because at NTU, we don't just innovate, we create impact.



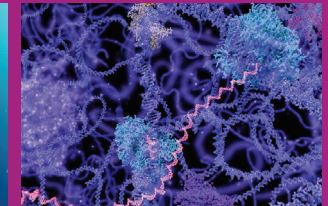
Scan to view the NTU Tech Portal



Artificial and Augmented Intelligence



Computer Networks and Communications



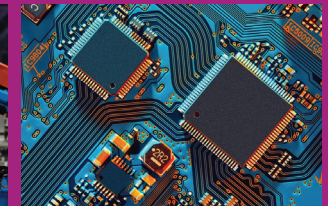
Diagnostics



Energy Efficiency and Storage Systems



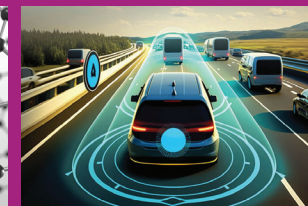
Intelligent Systems and Robotics



Microelectronics, Optoelectronics and Sensors



Nanotechnology and Materials Science



Smart Mobility Adoption



Sustainability and Clean Environment