



Quantum Hub Deal Flow - September 2022

	Title	Solution (Short)	Description	Industries	Funding stage	Product Stage	Founded	Website	Partner
Mobility & Automotive									
1	RadarWiz	V2X Solution	A cloud-based Sensing and Control solution that collects and fuses data from multiple automotive radar networks for Smart City applications.	Mobility & Automotive	Pre-seed	R&D	2022	-	Hyundai, Taavura, VDL
2	Compact Drive	Driving Policy for Safer, Connected driving.	<p>AI solution that reduces the stress of driving and makes it safer.</p> <p>The Scenario Engines break every driving scenario down to its parts and continually predict the evolution of each element, including all interactions and dependencies between them - just like an experienced human driver, but objectively and instantaneously.</p> <p>The solution enables a shift from simple extrapolation to deep contextual understanding. Road agents' actions are predicted and confirmed according to learned patterns.</p>	Mobility & Automotive	Pre-seed	R&D	2021	https://www.compactdrive.ai/	Hyundai, Kia Talcar, Taavura
3	Incareye	Driver monitor system	AI system with a built-in sensor analyzes the driver's movements before and during the drive. The system can identify the type of distraction the driver engages with and alert in real-time.	Mobility & Automotive	Pre-seed	R&D	2022	https://www.incareye.com/	Kia Talcar, Taavura
4	NayamWings	Wind Propulsion System for Merchant Ships	NayamWings is developing a novel wind propulsion system for maritime vessels based on a rigid wing sail. The unique maneuverability of the system (patent in process) enables the use of an asymmetric airfoil wing with exceptional propulsive performance. The companys target markets are shipping companies, shipping operator companies, and ship builders.	Mobility & Automotive	Bootstrap	R&D	2020	https://www.nayamwings.com	Hyundai, Kia Talcar, Ray Shipping



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5	NOVAlert IVS	automotive and aviation safety technologies	<p>Platform solutions for underserved & emerging market needs</p> <p>1. SENSEat™ enables through-clothing biometric monitoring of the state of drivers, pilots and astronauts, alerting upon early signs of fatigue, drowsiness and sudden ill-health. Smart seat cushions are embedded with multiparameter, dual-backup sensors that can also be worn behind G-suit or space suit, conforming to the body once sitting. The SENSEat™ can be programmed to function as a Homeland Security covert polygraph.</p> <p>2. SMARTag™ wireless tag, clipped onto the seat belt, enables remote, reliable passenger counting in HOV (High Occupancy Vehicles) carpools, passenger state monitoring, and abandoned child in car.</p> <p>3. “Virtual Black Box” human factors recording of inevitable crash and communicated alerts.</p> <p>4. Seat pads incorporate vibrators enabling monitoring reaction time and consciousness and arousing virtual rumble strips as fatigue countermeasures.</p>	Mobility & Automotive	Bootstrap	R&D	2021	https://www.novalert.com/	Taavura
6	Chiral Energies	Nano technology-improving efficiency of Electrolyzers, Fuel Cells and Batteries	Chiral developed patented technology that uses chiral materials in order to coat electrolyzers, fuel cells, and batteries. This process enables cheaper production, and increases the capacity, at a low cost, while lowering emissions and reducing risks.	Mobility & Automotive, Energy	Bootstrap	R&D	2021	-	Bazan, Hyundai, VDL
7	SolidT	Temperature Control System for Electric Vehicles	solidT develops an eMobility temperature control system, enables specific components heating and cooling, includes batteries, batteries cells and modules, high frequency processors, displays, interior and more, all without compressors and its systems.	Mobility & Automotive, Energy	Bootstrap	R&D	2022	-	Hyundai, Kia Talcar, Taavura, VDL
8	CityShob	IoT Data Gathering and Analysis from Urban Assets	CityShob develops an urban platform for controlling and operating city assets efficiently, reliably, and safely. Its technology provides the public and private sectors with tools for smart management of operations and informed decision making. By gathering IoT data from a city's assets and citizens, CityShob can provide advanced analytics and facilitate data collaboration with visualized information in order to predict, alert, and manage the city's events intelligently and safely.	Infrastructure, Mobility & Automotive	Bootstrap	Released	2015	http://www.cityshob.com/	Hyundai, Taavura, VDL



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9	Saiflow	Cybersecurity Solutions for EV Charging Sites and Energy Storage Platforms	SaiFlow Cyber has developed a set of solutions designed to run seamlessly and effectively on devices of typical energy production, delivery and storage sites, and networks. SaiFlows software is tailor-made for the cyber threats, risks, and types of attacks specific to the users particular network, providing API protection of charging devices, anomaly detection and pattern recognition (including for OCPP), and overall cybersecurity posture reporting.	Infrastructure, Mobility & Automotive, Energy	Pre-seed	MVP	2022	https://saiflow.com/	Hyundai, Kia Talcar, Taavura, VDL
Energy									
10	CarboNegev	Reducing carbon footprint	A novel and patented technology that converts carbon emissions, solid waste, biomass and waste gas directly into high-quality green liquid fuels and chemicals.	Energy	Pre-seed	R&D	2022	-	Bazan, Hyundai, VDL
11	QD-SOL	Sunlight-based Water Splitting for Green Hydrogen Generation	QD-SOL develops technology that uses sunlight as a renewable source of energy to split water for the purpose of green hydrogen generation. Unlike many current water-splitting methods, which are energetically unfavorable and contaminating, QD-SOLs technology efficiently uses the unlimited resource of sunlight to yield a clean splitting process. QD-SOLs nanoparticles provide a stable and efficient photocatalyst, offering an innovative solution for green, low-cost, nonpolluting hydrogen production.	Energy	Seed	R&D	2021	https://www.qd-sol.com	Hyundai, Taavura, VDL
Agritech									
12	Aquinovo	Accelerating Growth of Farmed Fish	AquiNovo develops proprietary non-hormonal, non-GMO specialty feed additives designed to increase fish yields and revenues while improving fish feed utilization, thus reducing feed costs. The value proposition for fish farms is higher fish yields at an increased profit. The companys initial products target tilapia, the second most commonly farmed fish for human consumption, and future products will target species such as salmon, carp, and shrimp. AquiNovo will sell its products to feed producers to be incorporated into their feed and sold to fish farms. Beyond providing an exceptional business opportunity, AquiNovos technology has a clear positive impact on sustainability and societies. It promotes achievement of the UN Sustainable Development Goals, including preserving fish populations in the sea, providing food security and reducing hunger and poverty, and fostering responsible production.	AgriFoodTech	A	Beta	2015	https://aquinovo.com/	VDL



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13	FreezeM	Revivable Insect Freezing Technology	FreezeM offers a technology designed to optimize the use of insects, and black soldier flies in particular, as a protein source for animal feed. Its products are designed to overcome a number of the limitations of using insects as a protein source, including cost, availability, and regulatory concerns. FreezeM has developed methods for condensing and freezing fly eggs in large quantities for easy defrosting on organic waste. Once defrosted, the eggs develop into larvae that eat the waste, rapidly increasing their mass. The grown larvae can then be harvested and processed into protein meal. The frozen eggs are tightly packed and can be shipped worldwide.	AgriFoodTech	A	Beta	2017	https://www.freeze-em.com/	VDL
14	Growin	Vertical Aeroponic Farming System	Growin smart farming is turning vacant urban spaces into productive green vertical modular farms. The company's system uses computer simulations to conduct early tests to evaluate how a variety may perform when faced with different sub-climates, nutrition mixes, weather patterns, and other factors. Based on machine learning, its growing units are accurate, efficient, and capable of evaluating a wide set of variables. Growin's crowd-wisdom system is multipurpose, scalable, soil-less, and season-less with a closed-loop water system. It is designed to predict and generate high-quality yield in short-growth harvest cycles. The robotic-ready system ensures superior food safety and minimal environmental impact near or amid consumer population centers.	AgriFoodTech	Seed	R&D	2019	https://growin.ag/	VDL
15	Imaginedairy	Animal-free Dairy Products	Imagindairy is developing a commercial and viable animal-free protein-based dairy product based on the company's technology. The company's proprietary computational technology integrates AI technology with system biology to increase the expression of milk proteins in microflora.	AgriFoodTech	Seed	R&D	2020	https://imagindairy.com/	VDL
16	CarobWay	Carob Crops	CarobWay develops acclimatized carob crops native to the Israeli growing region. CarobWay is reintroducing this climate-resilient superfood, including proprietary ingredients. CarobWay uses the entire fruit (seeds and pulp) to produce 15 traditional and innovative products for food, nutrition, and cosmetics based on science-backed research.	AgriFoodTech	Pre-seed	Released	2020	www.carobway.com	VDL



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Industry 4.0 & Other									
17	Airovation Technologies	Industrial Carbon Capture and Residential Air Purification Solutions	Airovation has developed a carbon-capture mineralizing technology for industrial-scale use cases that converts carbon dioxide into valuable minerals. The company is also developing partnerships with chemical, pharmaceutical, food, agrotech, and oil and gas companies to scale and secure the value chain for a carbon-neutral future. Airovation's technology converts carbon dioxide, harmful gases, and bio-pathogens into oxygen-enriched clean air. Currently running joint developments with home appliance brands around the world, Airovation's capability to convert carbon dioxide, viruses, and airborne bacteria into clean air will soon become commercial in an effort to improve people's health and wellbeing.	Industry 4.0, Energy	A	Beta	2013	https://airovation-tech.com/	Bazan, VDL
18	Twine	Digital Thread and Yarn-dyeing System	Twine Solutions has developed a proprietary digital thread-dyeing system and a digital dye-to-match color application. Twine's system continuously dyes a single, white, off-the-shelf thread to any requested length and in any color. Twine's Digital Selective Treatment technology enables thread dyeing on demand and is ready to use within seconds in a waterless, eco-friendly process. Twine's technology offers an alternative to conventional bulk dyeing, eliminating the need for colored thread stock and reducing logistics, dead stock, and other waste costs. The single-thread, single-needle, multi-color method improves production efficiencies, margins, and overall profitability, resulting in a return on investment of less than a year and low total cost of ownership.	Industry 4.0, Other	Revenues	Released	2015	https://twine-s.com/	VDL
19	Vyuz.ai	Visual Monitoring for Pallets and Freight in Transit	Tracking and analyzing pallets' location and operational actions on warehouse / docks / terminals through CCTV cameras	Logistic	Bootstrap	MVP	2022	https://www.vyuz.ai/	Hyundai, Taavura
20	BugEra	Insect Biotechnology	BugEra develops and produces novel black soldier fly (BSF) strains and specializes in genetic engineering for insects for future food security. BugEra increases the fly's natural traits by introducing genetic editing and modifications, resulting in the patent-pending Modified Black Soldier Fly (M-BSF) Platform.	Insect	Bootstrap	R&D	2020	-	VDL