



CATALYSTS OF CHANGE

**EUROPE'S LEADING IMPACT VENTURES
IN WATER, ENERGY & FOOD**

UNKN WN



UNKNOWN

Dear reader,

I present to you our Catalysts of Change - a list of high potential ventures in Europe that we see make a lasting impactful change in their industry. This report will give you a glimpse into the future of water, energy, and food, by presenting to you Europe's most impactful ventures. With their bold solutions, we are certain that they will be the ones shaping a better future.

The list is compiled out of ventures we have met in the past year with Unknown Group, and our global startup competition Get in the Ring. The aim of the report is to put a spotlight on these beautiful ventures to increase their exposure, and scale their impact. This report is developed for agents of impact to get inspired by impactful technologies, and potentially get in touch with the founders to explore collaboration opportunities.

At Unknown Group we fuel founders to answer their calling. We provide capital, and access to market through one-on-one, and programized support. We like to go beyond with these ventures that transform industries. I hope you join us on this journey. Want to fuel bold solutions together? Don't hesitate to contact us.

On behalf of Unknown Group,



Jurgen Nieuwenhuijsen

Partner Unknown Group and Director Get in the Ring

jurgen@unknowngroup.com

WHAT TO EXPECT

1. **HOW WE SEE IMPACT:** A nexus between food, water, and energy connected to the Sustainable Development Goals.
2. **IMPACT VENTURES:** A high level overview of 149 impact startups, and scaleups containing a short description, their respective impact area, country and link to their own webpages.
3. **GET INSPIRED:** A series of in-depth impact venture profiles, including two use-cases on vertical farming and wind energy.
4. **ABOUT UNKNOWN:** Learn how our Vengine Engine methodology fuels ventures all over the world, and get in contact with us.
5. **SPECIAL THANKS TO:** This report would not have been possible without the support of our partners. Meet them all on page 28.

HOW WE SEE IMPACT

Impact ventures step into the Unknown, and turn global food, water, and energy challenges into innovation opportunities.

We see impact potential everywhere from food growing, water quality to energy storage. Guided by the United Nations Sustainable Development Goals the model below outlines the impact areas scoping the search for the ventures listed in this report.



THE IMPACT VENTURES

METHODOLOGY

The impact ventures in this report have all participated in the Get in the Ring Impact Competition - the European tour to select the most promising impact startups solving global challenges in the fields of energy, food & water. The Get in the Ring Impact Competition is an initiative by Unknown Group and ImpactCity - the startup and scale-up community of The Hague, to strengthen the impact ecosystem across Europe.

The report gives a high level overview of the startups containing a short description, and their respective impact area. The companies are listed alphabetically and do not reflect a preference or verdict.

SELECTION METHODOLOGY

APPLICATIONS The ventures in this report is a collection of selected applicants to the Get in the Ring Impact Competition.

SELECTION CRITERIA: The ventures have been selected according to their relevance in the three industry domains (food, water and energy), novelty of their technology, and impact potential.

SELECTION JURY: The startups, and scaleups have been endorsed together with a jury of industry leaders, and innovation experts recognized on [page 28](#).

GEOGRAPHICAL SCOPE: Six local competitions were held mainly in The Netherlands, Portugal, Germany, Switzerland, Norway, and Denmark. However, for this report a variety of companies were also selected from other countries within the European continent.

	IMPACT VENTURE	DESCRIPTION	IMPACT AREA	COUNTRY
	1. <u>Agri Marketplace</u>	Cloud-based blockchain digital marketplace creating transparency and traceability in food distribution.	Food distribution	
	2. <u>AgriStarbio</u>	Production of sustainable organomineral fertilizer from organic waste.	Food production	
	3. <u>Alver World</u>	High protein vegan superfoods made with golden chlorella microalgae.	Food processing	
	4. <u>AmiNIC</u>	Handheld sensor measures the freshness of meat and fish, thus accurately predicts expiration dates to limit food waste.	Food waste	 P. 10
	5. <u>Amnis Pura</u>	Hydrogen purification technology including fuel cells and pressure swing adsorption units.	Energy generation	
	6. <u>Ampyx Power</u>	Utility-scale airborne wind energy system with a tethered aircraft accessing more powerful wind resources at higher altitudes.	Energy generation	 P. 14
	7. <u>Aqua Naturae</u>	Nature based wastewater management solutions to restore ecosystems and sequester CO2.	Water availability	
	8. <u>Aquaponics Iberia</u>	Delivers ultra-organic, local fish and vegetables by embracing the "farm to fork" strategy.	Food growing	
	9. <u>AOVA</u>	Water meter with leakage alert and able to transfer consumption data to the billing systems.	Water availability	
	10. <u>B'ZEOS</u>	Home-compostable, and bio-digestible packaging solutions made from seaweed extracts to combat plastic pollution.	Food packaging	
	11. <u>Baltic Freya</u>	Modular vertical farming systems that without the use of soil for food & medical plant growing.	Food production	 P. 19
	12. <u>Bandora</u>	AI virtual facility manager to operate and maintain buildings, monitoring and calculating energy savings.	Energy consumption	
	13. <u>BBKW</u>	Smart dryers for food dehydrating at low temperature with controlled humidity.	Food processing	
	14. <u>Beon energy</u>	Plug-in solar units deployed into any domestic power socket.	Energy generation	
	15. <u>Bergen Carbon Solutions</u>	Raw material carbon-nanofibers produced from CO2 to be used in batteries, composites and electronics.	Circular resources	

GET INSPIRED

FOOD IMPACT



AMINIC: Handheld sensor that measures the freshness of meat and fish and accurately predict the expiration dates.

WEBSITE: www.aminic.eu

FOUNDATION YEAR: 2018

COUNTRY: Denmark

IMPACT AREA: Food waste prevention

IMPACT

Food businesses in the EU throw away more than 3 million tons of perfectly good meat and fish due to incorrect freshness determination and expiration date predictions, resulting in overcautious behaviour. This is estimated to be responsible for 17% of our carbon footprint from food waste.

Aminic's handheld sensor replaces costly, faulty or subjective solutions like microbial analysis, rule of thumb, and human smell used by the industry today. Their solution can potentially save 7% of our GHG emission from food waste.

AWARDS WON

Inno booster, Future Food, and Bioresource Innovation, Agro Business Park Innovation Prize

PARTNERSHIPS

University of Southern Denmark, Teknologisk Institut, TekPartner

































Jeanette Hvam
Co-Founder and CEO



Jesper Hugaard
Co-Founder and Chairman

"Amazing technology covering a "white spot" in the market - digitising smell and freshness"

Fredrik Arnander
Tech entrepreneur and investor

IMPACT VENTURE	DESCRIPTION	IMPACT AREA	COUNTRY
 16. <u>Billie Wonder</u>	High-end, hemp based reusable and washable cloth diapers.	Circular resources	
 17. <u>Bioo</u>	Electricity generation from the decomposition of organic substances by soil microorganisms.	Energy generation	
 18. <u>BIOWEG</u>	Bio-based materials and ingredients combining biotechnology, material science and machine learning.	Food production	
 19. <u>BladeInsight</u>	Data-driven maintenance of wind turbine blades, including autonomous drone inspections and asset management.	Energy generation	
 20. <u>Bloom Biorenewables</u>	Converts plant structures into petroleum to be used as fuels or petrochemicals.	Energy generation	
 21. <u>Bluact Technologies</u>	Water purification through nanofiltration technology.	Water quality	
 22. <u>Blue Oasis Technology</u>	Ocean recovery and revitalisation solutions building large scalable engineered reef structures.	Water resilience	
 23. <u>Boreal Light</u>	Off-grid solar water desalination systems from any kind of high saline and polluted water resources.	Water availability	
 24. <u>Botanic Bites</u>	Vegan meals with a long shelf life without using E-numbers.	Food processing	
 25. <u>Bound4Blue</u>	Wingsail technology assisting clean propulsion of vessels through wind thrust.	Energy consumption	
 26. <u>BRØL</u>	Beverage food tech company developing circular brewery solutions.	Food processing	
 27. <u>Burgs Foods</u>	Processes insects into high quality nutritious food products.	Food processing	
 28. <u>Cable Energia</u>	Cable designs servicing electric vehicles charge point networks.	Energy Distribution	
 29. <u>CaribAlgae</u>	Biofuel cultivated from microalgae with wastewater and flue gas resources.	Energy generation	
 30. <u>Cellicon</u>	Nano cellulose and clean lignin replacing fossil fuel based materials such as plastics, coatings and construction materials.	Circular resources	

IMPACT VENTURE	DESCRIPTION	IMPACT AREA	COUNTRY
 31. <u>Ciclogreen</u>	Gamified online platform encouraging commuters to cycle.	Energy consumption	
 32. <u>Circularise</u>	Data driven standardised information on material flows, material composition and components.	Circular resources	
 33. <u>Circunomics</u>	Cloud-based IoT platform digitising the life-cycle of batteries.	Energy storage	
 34. <u>Cittamap</u>	Geospatial AI data insights on infrastructure assets and services in the built environment for risk assessment and impact evaluation.	Energy distribution	
 35. <u>Clean Energy Global</u>	Battery-as-a-Service licensing for hard- and software.	Energy distribution	
 36. <u>ClevAir</u>	Plug & Play energy optimising software for commercial real estates.	Energy consumption	
 37. <u>Clever Solar Devices</u>	Real-time AI performance monitoring device managing photovoltaic production plant.	Energy generation	
 38. <u>CoirWood</u>	High-quality boards made from leftover coconut husk to be used for a wide range of furniture products.	Circular resources	
 39. <u>Crocus Labs</u>	Smart lighting systems for indoor farms, improving yield with smart sensors and advanced data analytics.	Food growing	
 40. <u>DigiFarm</u>	Neural network models detecting high accuracy field boundaries and seeded acres.	Food growing	
 41. <u>DWR Offshore</u>	Mooring and electrical riser systems for all types of offshore renewable energy units.	Energy generation	
 42. <u>Eco Clarity</u>	Waste water treatment facilitating responsible and convenient disposal of fats, oils, and grease.	Water quality	
 43. <u>Ecochain Technologies</u>	Environmental intelligence platform measuring and visualise environmental impact data.	Energy consumption	
 44. <u>Ecofoot</u>	Low resource fabric dye processes for textile production.	Water resilience	
 45. <u>EH Group Engineering</u>	Compact high performance PEM fuel cells for mobile or automotive applications.	Energy generation	

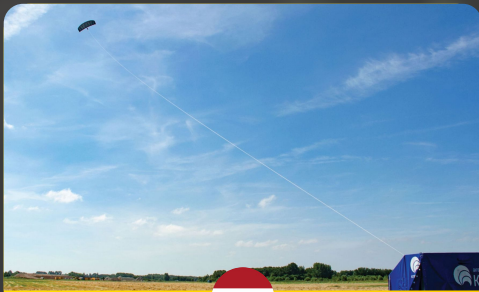
IMPACT VENTURE	DESCRIPTION	IMPACT AREA	COUNTRY
 46. EMPYRIO	Compact mono-incinerator for sewage sludge and other organic waste utilization	Water resilience	
 47. Enline	Power grids monitoring of transmission lines, fault location, climatic variables & energy quality.	Energy consumption	
 48. Envio Systems	End-to-end smart building system with a suite of IoT tools to digitally connect, analyze, and optimize the monitoring & control of facilities.	Energy consumption	
 49. Exowave	Wave energy converter, fully modular and scalable, submerged, robust.	Energy generation	
 50. farmer connect	Supply chain tracking from farmers to consumers through blockchain, self-sovereign identity, and AI.	Food distribution	
 51. FaunaPhotonics	Insects monitors with sensors ensuring sustainable crop management and pest control.	Food growing	
 52. Field Factors	Decentralised water management for urban areas collecting and reusing rainwater.	Water availability	
 53. Food Sourcing Specialists	Compostable packaging solutions for long-life dry and semi-liquid products.	Food packaging	
 54. FOODLOGICA	Last mile food distribution and logistics solutions supporting food producers, catering and food e-commerce.	Food distribution	
 55. Forest Wool	Fiber production from pine needles, a waste product of the timber industry, used for manufacturing of textiles.	Circular resources	
 56. FOTENIX	Crop analytics enabling smart operation of agricultural machinery.	Food growing	
 57. Genuine Way	Software solution enabling consumer brands to certify their environmental sustainability and social impact on blockchain.	Food consumption	
 58. genviot	Sensor data and weather forecast to automatically adjust the irrigation timing to correspond to the real needs of the garden.	Water availability	
 59. Green+Kode	Smart IoT technology to reduce food waste streams in commercial kitchens in real-time.	Food waste	
 60. Greentech Innovators	Single cell protein production from food waste to be used as feed ingredient and fertilizer.	Food production	

GET INSPIRED

USE CASE AIRBORNE WIND ENERGY

OPTIMISE LAND USE & ENERGY GENERATION BY AIRBORNE WIND ENERGY

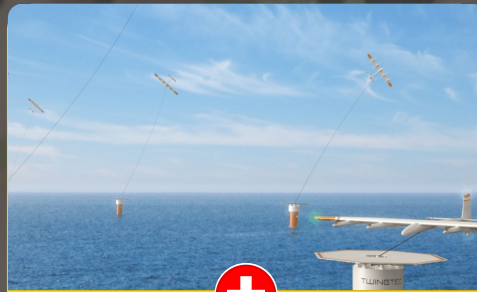
In the next decades the energy demand will increase enormously following increasing population growth if we are to sustain the quality of life of people around the world. In order to, at the same time mitigate climate change, the need to abandon fossil fuels is clear. Airborne Wind Energy (AWE) is a promising use case in this energy transition. This technology utilizes wind energy to create electricity from flying blades or wings that are tethered to the ground. Because these devices operate at higher altitudes, AWE technologies are able to use other wind resources than wind turbines, while also providing a more constant flow of electricity production. Additionally, AWE solutions are more mobile applications that can be used in remote locations that otherwise wouldn't have had access to electricity.



KITEPOWER

Website: kitepower.nl

Description: Kitepower uses kites to generate electricity. Their current product, the Kitepower Falcon, is designed to provide remote communities in the world with power to mitigate their dependence on non-sustainable energy sources such as diesel.



TWINGTEC

Website: twingtec.ch

Description: TwingTec is developing autonomous tethered drones which operate at higher altitudes for stronger winds. Their first product, the TTI00, is a containerized mobile system that operates fully autonomously and is easily deployed to provide an uninterrupted power supply.







AMPYX POWER

Website: ampyxpower.com

Description: Ampyx Power are demonstrating their AP-3 prototype AWE technology: an automatic aircraft that moves in a regular cross, generating energy when the aircraft moves and pulls the tether that drives the generator. The AP-3 has been developed to be scalable to the commercial system.

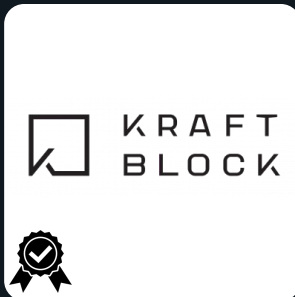
(1) <https://airbornewindeurope.org/about-airborne-wind-energy/>

IMPACT VENTURE	DESCRIPTION	IMPACT AREA	COUNTRY
 61. <u>H2SITE</u>	On-site, renewable hydrogen production for small and medium consumers in industry and mobility segments.	Energy production	
 62. <u>Hamwells</u>	Water saving shower system.	Water availability	
 63. <u>Heaboo</u>	Water heat storage technology heats the cold water in the pipeline, eliminating the waiting time for hot showers.	Water availability	
 64. <u>Hexagro Urban Farming</u>	Decentralize vertical-indoor farming system for domestic or office use.	Food production	
 65. <u>hiLyte</u>	Ecological batteries providing energy for people still using kerosene for lighting in rural areas.	Energy storage	
 66. <u>Hive Power</u>	Software-as-a-service for smart grid analytics helping energy retailers and grid operators.	Energy distribution	
 67. <u>HOFITECH</u>	AI-driven technology recycling industrial wastewater to market-ready ceramic powder product.	Circular resources	
 68. <u>Hydract</u>	Manufacturer of pipe fittings and pump houses made from stainless steel plate by use of deep drawing technology.	Food growing	
 69. <u>iFarm</u>	Data-driven technology turnkey solution to grow vegetables in vertical farms suitable for production sites of any size.	Food growing	 P. 19
 70. <u>IM Efficiency</u>	Energy technology for fleet operators reducing fossil fuel consumption of heavy-duty vehicles.	Energy consumption	
 71. <u>InanoEnergy</u>	IoT and energy harvesting solutions using flexible thermoelectric and piezoelectric micro-/nanogenerators.	Energy consumption	
 72. <u>INDRESMAT</u>	Thermal performance optimisation of building's envelope through biobased polyurethane (bioPUR).	Energy consumption	
 73. <u>Innoscentia</u>	Ink compositions with the ability to measure gas concentration within a food package.	Food Packaging	
 74. <u>Innovopolis</u>	Mobile application digitalising and managing the takeback ecosystem of high value consumer products.	Circular resources	
 75. <u>instrAction</u>	Water filtration with resin material removing selectively toxic heavy metals and bacteria in a single filtration step.	Water quality	

IMPACT VENTURE	DESCRIPTION	IMPACT AREA	COUNTRY
 76. <u>Intoto</u>	High-tech product for instrumentation in rivers, streams, fjords, harbor basins.	Water resilience	
 77. <u>iwell</u>	Cube battery to stores green energy from sun or the wind and distributes in peak demand periods.	Energy storage	
 78. <u>iWin</u>	Photovoltaic modules integrating in compact and multi-functional windows.	Energy generation	
 79. <u>Karma Kebab</u>	Vegan kebab 100% made from plants.	Food production	
 80. <u>Kitepower</u>	High-altitude wind energy system generating electricity through a mobile kite solution.	Energy generation	 P. 14
 81. <u>Klugit</u>	Smart device to optimizes energy usage of the water heater with artificial intelligence-based solutions.	Energy consumption	
 82. <u>Kraftblock</u>	High temperature energy storage systems to recycle waste energy.	Energy storage	 P. 17
 83. <u>Kumbaya</u>	Solar-powered, telecommunication and media hub delivering power, connectivity and knowledge.	Energy consumption	
 84. <u>LAGOSTA</u>	Recycling by-products from lobster production valorized for potential biomedical applications.	Circular resources	
 85. <u>LAM'ON</u>	Produces 100% biodegradable laminating film for print based on corn with an toxic-free adhesive layer.	Food packaging	
 86. <u>Lite+Fog</u>	Advanced irrigation methods using fog for indoor cultivation of plants.	Food growing	
 87. <u>Lowimpact food</u>	Transforming byproducts from food industries into an optimized insect's feed. Insects are then transformed into high protein products.	Food production	
 88. <u>Lupinta</u>	Alternative protein tempeh products produced by fermentation of lupine beans.	Food production	
 89. <u>Manna Insect</u>	Black soldier fly larvae products to be used in bio waste processing, protein and fertilizer production.	Food production	
 90. <u>Meight</u>	Digital twins platform tracking vehicle data to support fleet management, objectives control, routes and fuel consumptions.	Energy consumption	

GET INSPIRED

ENERGY IMPACT



KRAFTBLOCK: High temperature energy storage systems to recycle waste energy, and to perform excellent sector-coupling

WEBSITE: www.kraftblock.com

FOUNDATION YEAR: 2014

COUNTRY: Germany

IMPACT AREA: Energy storage from residual heat

IMPACT

To create thermal energy the world still relies heavily on fossil fuels as renewable energy, which constitutes only 17% of total energy consumption.

Kraftblock is a high-temperature (up to 1,300°C) energy storage system designed to decarbonize the industry. Their solution can store approximately 3 times more energy, and charges twice as fast as than current industry solutions. The process produces only 180 CO₂ kg/MWh which is almost five times more efficient than alternatives.

Furthermore they build an open storage system that can be charged by electricity, hot air, flue gases and steam. The storage system can also be mobile, where a 20-foot container can store up to 16MWh abt 1.000°C.

AWARDS WON

DENA #Set100, Top Innovator 2018, Hello Tomorrow, Expreneurs, EIT Climate KIC, BMW Foundation

PARTNERSHIPS

MAN, Paul Wurth, Fraunhofer, DLR, Kanthal



Martin Schichtel
Founder and CEO



Susanne König
Founder and CFO

"Promising approach, particularly with regard to Return of Investment and versatility of use."

Dr. Claus Fischer
Business Development Manager
at BAE Batterien GmbH

IMPACT VENTURE	DESCRIPTION	IMPACT AREA	COUNTRY
 91. MOWEA	Modular small wind turbines generating wind-based energy during hours of peak energy demand.	Energy generation	
 92. MPower Ventures	B2B platform providing turnkey clean energy solutions for emerging markets.	Energy distribution	
 93. MycoNourish	Improving crop production through the beneficial microbes 'arbuscular mycorrhizal fungi'.	Food growing	
 94. NANOSEEN	Nanomaterials as water desalination and purification technology without the need for power supply.	Water quality	
 95. NaturaYuva	Agroforestry ingredient production for food, nutraceuticals, phytopharma and cosmetics industries.	Food growing	
 96. Odd.Bot	Lightweight farming tools and swarm robotics for wet land applications.	Food growing	
 97. OLOID Solution	Waste water and liquid media treatment technologies using agitation and aeration techniques.	Water quality	
 98. OMNIFLOW	Smart IoT lamppost powered by wind and solar integrating 5G, city surveillance, EV charging, emergency communication.	Energy distribution	
 99. Origin by Ocean	Marine biomass based ingredients for food, cosmetics and pharmaceutical industries.	Food processing	
 100. OURZ	Blockchain intelligence platform making the food supply chain transparency for food & beverage brands.	Food distribution	
 101. Ozo Innovations	Ozone-based hygiene and pathogen control technologies for improving food safety, effective cleaning and disinfection.	Food packaging	
 102. Papkot	Paper coating making packaging fully biodegradable, fully recyclable, plastic free and fluorine free.	Food packaging	
 103. PATS Indoor Drone Solutions	Bat-like drones automating insect control for horticulture with preventing pests.	Food growing	
 104. Pavnext	Road pavement energy harvesting device that reduces the vehicles speed without any driver action.	Energy generation	
 105. PlanA.Earth	Platform measuring and monitoring emissions providing analytics for carbon reduction.	Energy consumption	

GET INSPIRED

USE CASE VERTICAL FARMING

OPTIMISE LAND USE & FOOD PRODUCTION WITH VERTICAL FARMING

Conventional agriculture demands a lot of nature's resource. Each year 70% of the world's fresh water goes to agriculture and 70% of water pollution comes from food production on land. At the same time 135 million people suffered from hunger in 2020 according to the World Food Programme, with the COVID-19 pandemic escalating these numbers even further. Vertical farming aims to combat these two global challenges by cultivating crops inside buildings. This use case offers the possibility of growing crops in layers, optimising land use in a controlled environment, optimising yield and limiting waste.



BALTIC FREYA

Website: balticfreya.com

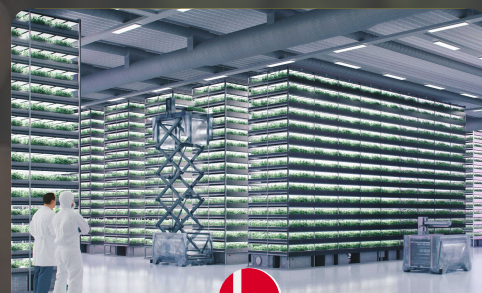
Description: Baltic Freya's has developed its own proprietary fog generation system. The plants are grown with their roots hanging in nutrient rich mist. This mist provides the plants the exact amount of water, and nutrients needed, creating the right physical properties for the plants.



IFARM

Website: ifarm.fi

Description: iFarm created the data-driven technology Growtune responsible for automatization, and management of the vertical farm. The technology for growing plants all year round, and without sun or soil in a fully controlled indoor environment.



SEASONY

Website: seasony.io

Description: Seasony is enabling vertical farming with robotics. Their mobile robot "Watney" takes care of all internal logistics, and monitors plant growth while providing a base for all kinds of automation modules for harvesting, pruning, cleaning, etc.

IMPACT VENTURE	DESCRIPTION	IMPACT AREA	COUNTRY
 106. PurOceans Technology	Sophisticated cleaning of water bodies from oil, microplastic and chemical sediments	Water quality	
 107. Pylon Network	Hydrogen-based battery technologies and data analytic services.	Energy consumption	
 108. QuinteO Energy	Kinetic energy storage from a rotating mass flywheel enclosed in a vacuum and levitated reducing energy losses from friction.	Energy storage	
 109. RanMarine Technology	Robotic vehicle moving on the ocean surface picking up floating plastic waste in an on-board bin.	Water quality	
 110. REDstack	ElectroDialysis (ED) for desalination of various types of salt and brackish water streams.	Water quality	
 111. reNature	Model farms and model schools of regenerative agriculture and agroforestry systems.	Food growing	
 112. RePack	Repurposing technologies converting used EV batteries into modular plug-and-play battery storage systems.	Energy storage	
 113. Responsibly	Agnostic data pipeline for responsible sourcing helping procurement teams make sense of supplier data.	Circular resources	
 114. Saving Grains 301	Hermetic storage and micro-warehousing technologies helping smallholder farmers to reduce post-harvest losses.	Food distribution	
 115. SCUBIC	Cloud-based analytics platform helping utility industries improve the performance and safety of their networks and processes.	Water availability	
 116. Seasony	Mobile robotics for vertical farming taking care of internal logistics and monitoring of plant growth, harvesting, pruning and cleaning.	Food growing	 P. 19
 117. Sensefinitly	Real-time connection, analytics and machine learning for assets in global supply-chains	Food distribution	
 118. Sensorfact	Wireless energy sensors enables real-time consumption data and calculating energy saving on machine level.	Energy consumption	
 119. ShemaTic	Modular systems increasing light electric vehicle's powertrain and enables higher torque for electric motors and battery packs.	Energy consumption	
 120. Sibio	Alternative food ingredients, functional extracts, bio active components and biopolymers.	Food processing	

IMPACT VENTURE	DESCRIPTION	IMPACT AREA	COUNTRY
 121. <u>Skypull</u>	Converting high-altitude winds into low cost electricity using a drone connected to a ground station.	Energy generation	
 122. <u>SmartCloudFarming</u>	Remote sensors for soil analytics using data and AI, enabling remote soil monitoring and 3D digital soil maps.	Food growing	
 123. <u>SmartHelio</u>	IoT sensor technology using deep learning to predict systems' behavior of solar plants to localize and predict faults.	Energy generation	
 124. <u>Solaga</u>	Biological air purifier using the natural properties of algae biofilms to clean the air in a picture frame on the wall.	Energy consumption	
 125. <u>Solar Dew</u>	Solar water purification technology treating brackish, saline water or chemically contaminated water.	Water quality	 P. 22
 126. <u>Solar for Schools</u>	Online tools and financing options assisting installation of solar panels in schools and colleges.	Energy distribution	
 127. <u>Solho</u>	Off-grid solar energy system powering greenhouse-based horticulture projects.	Energy generation	
 128. <u>Spowdi</u>	Solar powered water pumps for agricultural irrigation for small-scale farmers.	Water availability	
 129. <u>StoredEnergy</u>	Stationary energy storage systems from used e-scooter battery packs.	Energy storage	
 130. <u>SunPlower Propeller</u>	Compact scalable propeller hub harvesting renewable energy using wind, solar hydro and tidal energy.	Energy generation	
 131. <u>The Helia</u>	Portable solar generators in tents and parasols for festival use.	Energy generation	
 132. <u>Thinai Group</u>	Packaging products and material using various sustainable technologies.	Food packaging	
 133. <u>Think Outside</u>	Snow radar sensor devices created to avoid avalanche risk zones.	Water availability	
 134. <u>Throw No More</u>	Food waste prevention app giving an overview of local grocery stores with soon to expire food at reduced prices.	Food waste	
 135. <u>Ticinsect Sagl</u>	Bioconverts food waste into protein ingredients for animal feed by rearing <i>Hermetia illucens</i> larvae.	Food waste	

GET INSPIRED

WATER IMPACT



SOLARDEW: Solar water purification technology specifically for treating brackish/saline water or chemically contaminated water.

WEBSITE: www.solar dew.com

FOUNDATION YEAR: 2019

COUNTRY: The Netherlands

IMPACT AREA: Water purification

IMPACT

Water scarcity, and increasing salinity of groundwater affects 700 million people today, which is expected to increase to 4 billion in 2030! Especially people living in rural communities that are affected.

To solve this problem SolarDew has developed cost-effective small-scale desalination technology that can be rapidly deployed as a compact, inflatable product offering drinking water for households and communities for less than US\$0.02 per liter. By 2023, the company aims to improve health and wellbeing of 100,000 people by reducing the expenditure on drinking water by up to 70%.

AWARDS WON

INNOWWIDE, Oi2Lab, KIWW World Water Challenge (Finalist)

PARTNERSHIPS

TYSA/SET, Moomish, InnoEnergy, Impact City, Wageningen University



Alexander van der Kleij
CEO

"What they are doing is interesting where they are taking atmospheric water generation in a passive method."

Alexander Crowell
Founding Partner/Managing Director
PureTerra Ventures

IMPACT VENTURE	DESCRIPTION	IMPACT AREA	COUNTRY
 136. <u>TotalCtrl</u>	Food waste prevention API modules streamlining food inventory management and monitoring expiration dates.	Food consumption	
 137. <u>Tracks</u>	AI-based predictive fuel management services for road freight for shippers, LSPs and carrier trucks.	Energy consumption	
 138. <u>TwingTec</u>	Containerized mobile wind energy system harnessing wind energy in remote off-grid areas.	Energy generation	 P. 14
 139. <u>Ü Impact</u>	Sustainable investment service platform, breaking down sustainability data & fund insights based on selected causes.	Circular resources	
 140. <u>Valuable Forests</u>	Native fruit production in agroforestry systems transformed into a frozen pulp maintaining taste, aroma and vitamin content.	Food growing	
 141. <u>Vaquita Technologies</u>	Automated water sample station with self-cleaning features that is self-powered by renewable energies.	Water quality	
 142. <u>VunaNexus</u>	Mobile urine recycling technology transforming human and livestock urine into fertiliser and distilled water.	Water quality	
 143. <u>Wakaru</u>	Utility AI systems for massive event analysing real time data flows to uncover abnormalities about water cycle and energy efficiency.	Energy consumption	
 144. <u>Wasser 3.0</u>	Detecting, removing, reusing microplastics and micropollutants from wastewater.	Water quality	
 145. <u>Waterjade</u>	Water analytics platform forecasting current and future water availability in the catchment area based configuration of a specific plant.	Water availability	
 146. <u>WattAnyWhere</u>	Solid oxide fuel cell based mobile bioethanol generators for noiseless energy storage for electric vehicle charging point operators.	Energy storage	
 147. <u>Wattero</u>	Virtual power plant, integrating decentralised energy production to smoothen demand peaks.	Energy distribution	
 148. <u>Wavepiston</u>	Wave energy system for electricity production and water desalination.	Energy generation	
 149. <u>Willicroft</u>	Plant-based cheese for dairy cheese lovers based on cashew nuts and legumes.	Food processing	

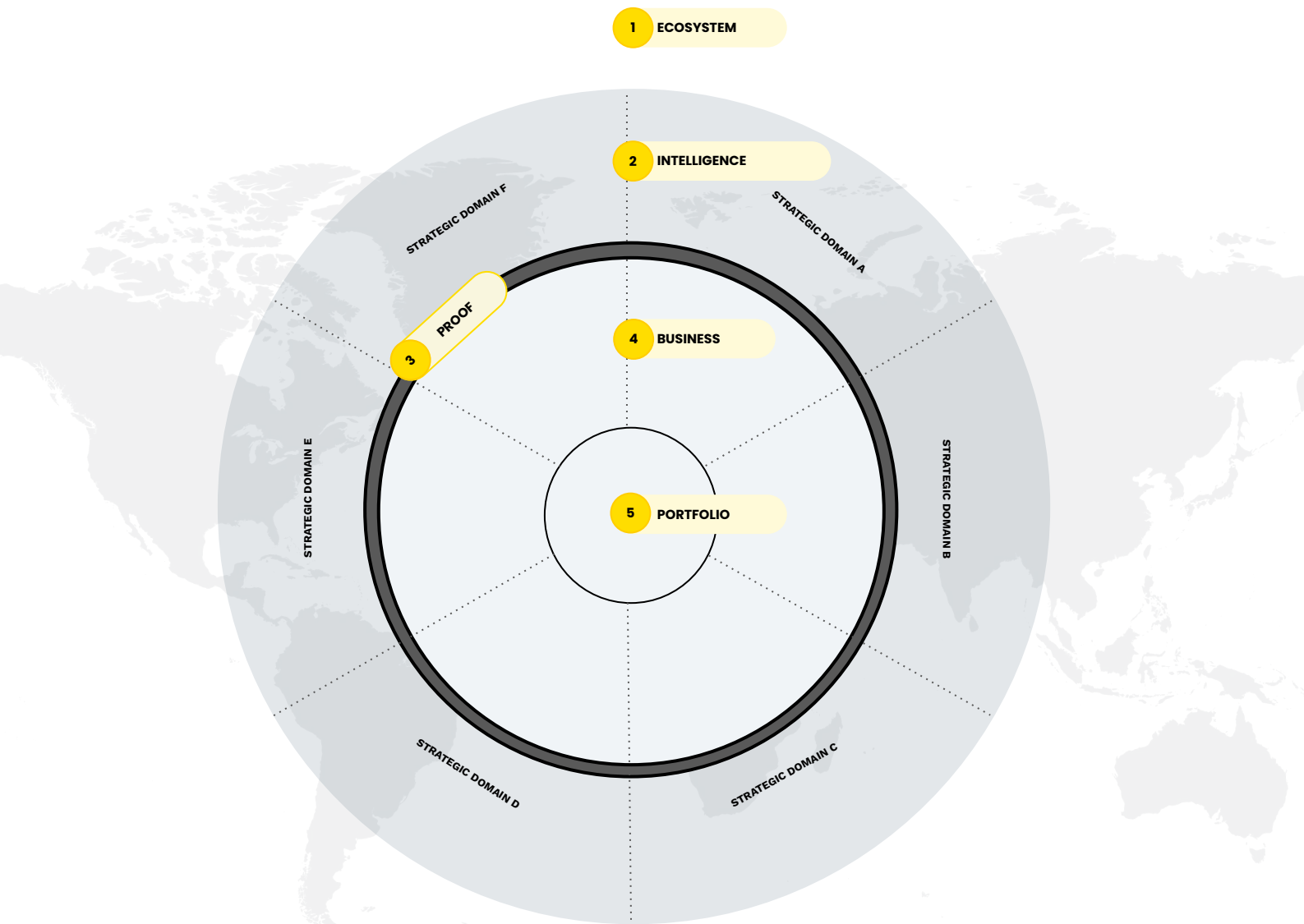
ABOUT UNKNOWN GROUP

UNKNOWN

Unknown is an early-stage venture capital and business development firm, supporting founders and industry leaders to successfully bring innovations to the market: a “Venture Engine®”. With a fresh approach delivering venture success, lining up the industry and creating a pool of solutions ready to be adopted by the market.

Unknown’s experience in global startup scouting and corporate venturing, combined with the investment expertise of VenturesOne, strengthens the ambition to increase the success rate of innovations that address pressing local and global challenges.

VENTURE ENGINE®



Unknown is a Venture Engine. Creating networks of industry leaders alongside a pool of validated solutions and their founders. Together they make tangible change in specific domains. Through business development and investments we ensure that founders find traction in their market and are able to deliver upon their solution.

CHALLENGING TIMES CALL FOR UNCONVENTIONAL SOLUTIONS

Get in the Ring has the mission to support unconventional solutions in all corners of the world to prove their solutions and solve 21st century challenges. Working alongside industry leading partners, we support the scale and impact that startups make across the globe.



**EMPOWERING THE
WORLD'S SMARTEST MINDS
TO SCALE INNOVATIONS**

CONNECTIONS

Offering founders from all corners of the world opportunities and access to industry leaders and investors

COMMUNITY

Successfully scaling innovations is all about people. We grant founders access to an unprecedented network

CAPITAL

Through our founder friendly loans we grant founders a kickstart of their journey, that we like to be part of.

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