CATALYST

IMPACT REPORT 2025

Driving accountability and positive impact through transparent reporting

https://catalyst.ae

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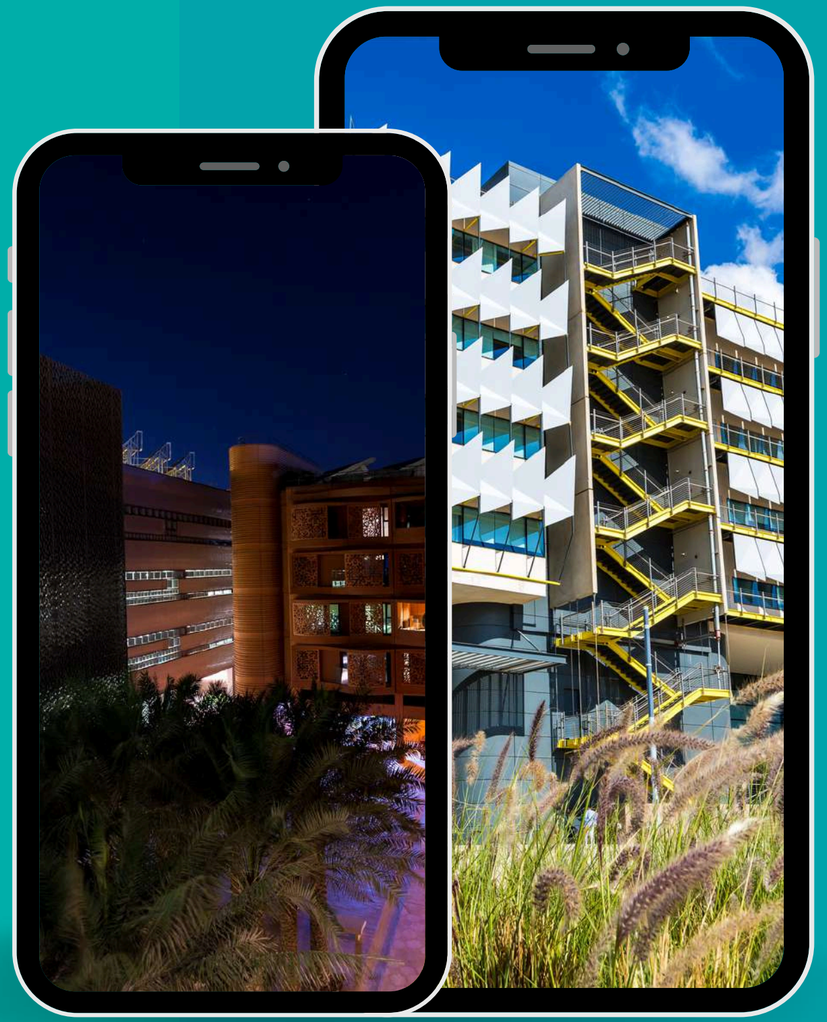
Introducing the Catalyst

Catalyst, a Masdar City and BP joint partnership, is the first-ever clean-tech accelerator in the MENA region that purely focuses on Sustainability, Energy and Cleantech. We invest in Pre-seed and Seed stage startups with founders who are actively working on finding sustainable solutions for the challenges we face today and the future.

Through our program offering, startups in sustainable verticals will have access to funding, incubation, startup package, mentorship, coaching, and access to our shareholder network and investors.

As a key player in the clean-tech ecosystem, Catalyst not only accelerates business growth but also shapes the future of sustainability. By fostering collaboration among startups, investors, and stakeholders, Catalyst plays an instrumental role in driving the MENA region's transition to a greener, more sustainable future. Its commitment to nurturing groundbreaking innovations is transforming the clean-tech landscape, paving the way for a cleaner, more sustainable world for generations to come.



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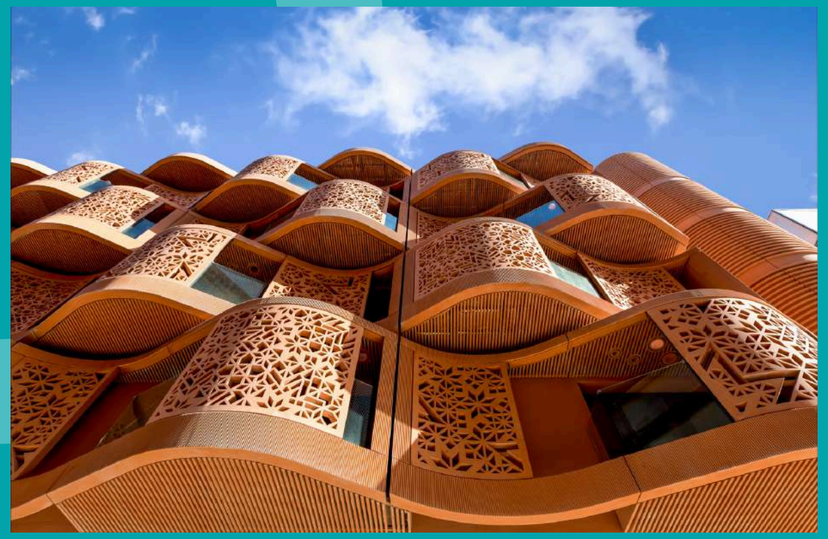
Creating Sustainable Ecosystem



Startups

- Stimulate the green-tech ecosystem by their potential to grow their teams and business out of Masdar City

Corporations

- Increase and expand startup customer base
- Speed up time to UAE and MENA markets
- Co-develop technology with startups

Investors

- Establish Masdar City as a green-tech funding destination
- Facilitate investing opportunities

Governments & Regulators

- Engage with tech community on policy and regulations

Accelerators

- Upskill startups on business building
- Offer investments

Academia

- Provide access to workforce
- Develop entrepreneurs
- IP sharing between startups and academic institutions

Cross-border

- Source startups from different geographies
- Open global markets to Catalyst startups
- Attract skilled technical workforce to Abu Dhabi

Technical Know-how

- Provide access to best technical experts
- Opportunity to get pilot project with our shareholders and other industry partners

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Catalyst Leadership Team

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BOARD OF DIRECTOR

Ahmed Bahgoum
CEO, Masdar City

Salem Bin Ashoor
bp, Vice President, and Head of Country, UAE

Mohamed Al Breiki
Masdar City, Executive Director Sustainable Development

Mohammed AlNakhi
bp, Business Development Manager, Hydrogen

INVESTMENT COMMITTEE

Sophia Nadur
bp Ventures
Managing Director - AsPac & MENA

Hiba Abedrabo
bp, Regional Advisor

Andrey Badalyants
Masdar City, Sr Manager, Investments and Fin. Planning

Padmanabha Bhat
Masdar City, Senior Investment Manager

ADVISORY COMMITTEE

Kanan Shikhlinski
bp , Sr. Manager, BD & Integration

Imran Qureshi
Masdar City, Head Commercial & Program Managemetn

Christian Tabet
bp Ventures, Venture Advisor

Swethal Kumar
Catalyst, Managing Director

Catalyst Media Announcement

MOUs signed with Flat6labs, Hub71 and Bee'ah at Abu Dhabi Sustainability Week 2025

Organized Accelerator Program Cohort 1 demo day at MBZ University of A.i.

Catalyst Media Announcement

Hosted graduates from Washington State Univerity

Hosted Panel during ADIPEC 2025

Catalyst stand at Gitex Dubai

Participartion in Gitex Europe, Berlin

Catalyst in A.i. for good panel by UNESCO

Catalyst Investment Stats and Mandate

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Catalyst contribution towards achieving the Sustainable Development Goals

Investment Stage
Pre-Seed & Seed

21
Investments-To-Date

10
New Investments expected in 2026

Up To - $100K
Ticket Size - Initial Investment

Up To - $250K
Ticket Size - Follow-on Investments

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Catalyst Portolfio Companies

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CATALYST 1.0 - INVESTMENT & GRADUATE

VOLTS energy storage

Circa Biotech

DE L'ARTA OUTDOOR LIVING LABORATORY

KEY TECHNOLOGIES

QSMonitor

solva

HYDROPOD

Seramic Materials

EFUEL APP

CATALYST 2.0 - INVESTMENT

Solumar

aed energy

batsand

مزنة للحلول الزراعية

coral 2

Leedana

نضيرة NADEERA

TILTSUN

NOOR NATION

DENEDL

CATALYST 2.0 - GRADUATE ONLY

P-vita

HYVEGEO TERRAFORM EARTH

Bochra.Neptune

CARBELIM Redefining Green Engineering

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Catalyst Screening and Selection 2025

CATALYST

NO. OF APPLICATIONS

457

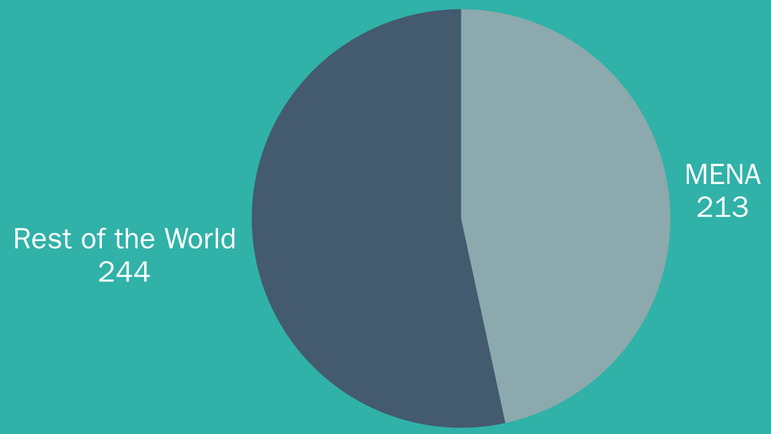
INVESTMENT APPROVED

11

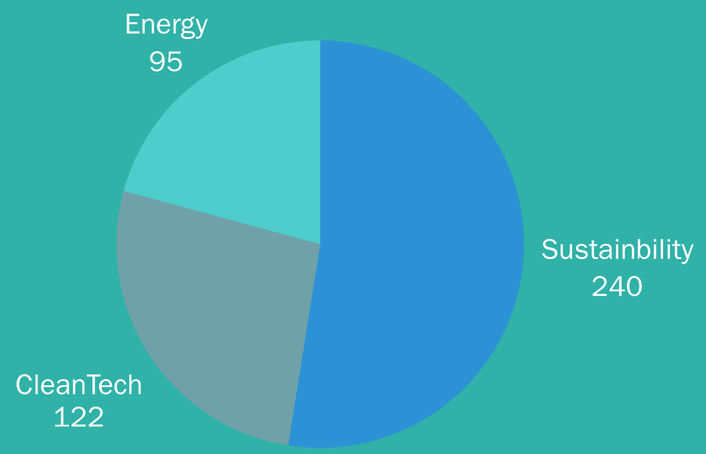
CONVERSION

2.5%

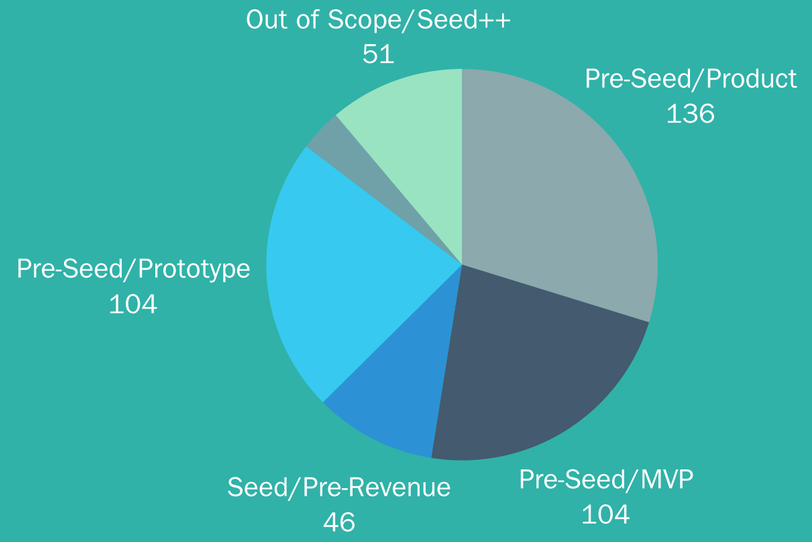
GEOGRAPHY



SECTOR



STAGE



Our New 2025 Portfolio

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1 batsand

Batsand, (UAE)

Batsand is a UAE-based “heating battery” that can be charged with renewable energy and store heat for over 6 months to help homeowners meet heating needs with lower cost and lower carbon.

2 aed energy

AED Energy, (UK)

Aed Energy is a UK-based long-duration energy storage company building a thermal storage system that converts electricity to heat and regenerates electricity using thermophotovoltaic (TPV) technology, delivering dual power and heat output.

3 Solumar

Solumar, (BULGARIA)

Solumar is a Bulgaria-based cleantech developing an aviation-derived electromagnetic retrofit device for ships/ports and oil & gas operations to cut emissions by capturing up to 98% of black carbon/particles/VOCs and GHG in a single unit.

4 نضيرة NADEERA

Nadeera, (UAE)

Nadeera’s “Yalla Return” platform simplifies recycling with rewards, achieving 95% user retention across in three regions where the reverse vending maching and smart bag are being deeployed for the waste collection.

5 مزنة

Mozna, (EGYPT)

Mozna produces affordable liquid organic fertilizers from waste, reducing chemical use and promoting sustainable agriculture and clean energy.

6 جديد

Jadeed, (EGYPT)

Jadeed Climate Tech revolutionizes transportation with its IoT-enabled Green Turbo hydrogen cell, enhancing engine performance, cutting fuel and promoting sustainability.

7 Leedana

Leedana, (EGYPT)

Leedana Sandfarms offers affordable, water-saving sandponic farming, cutting water use by 90% and costs by 70% compared to high-tech alternatives.

8 coral $_2$

Coral, (UAE)

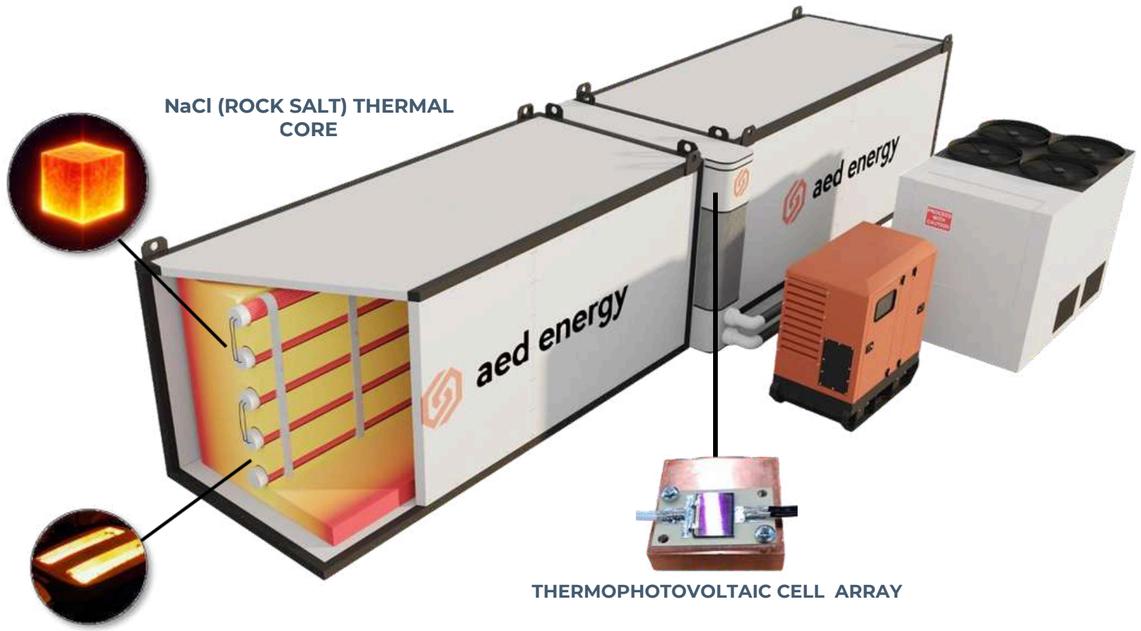
Coral is a UAE-based platform using AI and blockchain to manage carbon emissions with data collection, reporting, offsetting, and API integration for seamless e-commerce carbon calculations.

Our Upcoming Portfolio

1	2	3
Tiltsun, (Lithuania)	**Denodl, (Spain)**	**Noor Nation, (Egypt)**
TILTSUN is a Lithuania-based solar automation company developing a robotic solar-park installation system that installs up to 1 MW/day (>25× faster) and is delivered via installations, robot leasing, and O&M services.	**DENODL is a Spain-based agritech company developing the HYDROBALL IoT soil probe and software to reduce water consumption by creating a facility digital twin, measuring water tension, conductivity, temperature, and soil texture with no cables and no maintenance.**	**NoorNation is an Egypt-based developer and manufacturer of solar-powered, containerized LifeBox units that provide clean electricity + safe water (desalinated/purified), sold through direct LifeBox sales or electricity-and-water-as-a-service subscriptions.**

01. aed energy

AED Energy's solid-state TPV system offers high efficiency (over 40%), low maintenance, and scalability for a range of applications. It combines resistive heating and Thermophotovoltaic (TPV) power conversion, achieving high energy efficiency with solid-state technology. It utilizes earth-abundant, non-toxic materials for heat storage, enhancing safety, sustainability, and reducing dependency on rare or hazardous materials like cobalt and lithium.



Storage for weeks

Dispatch 4-24+ Hours

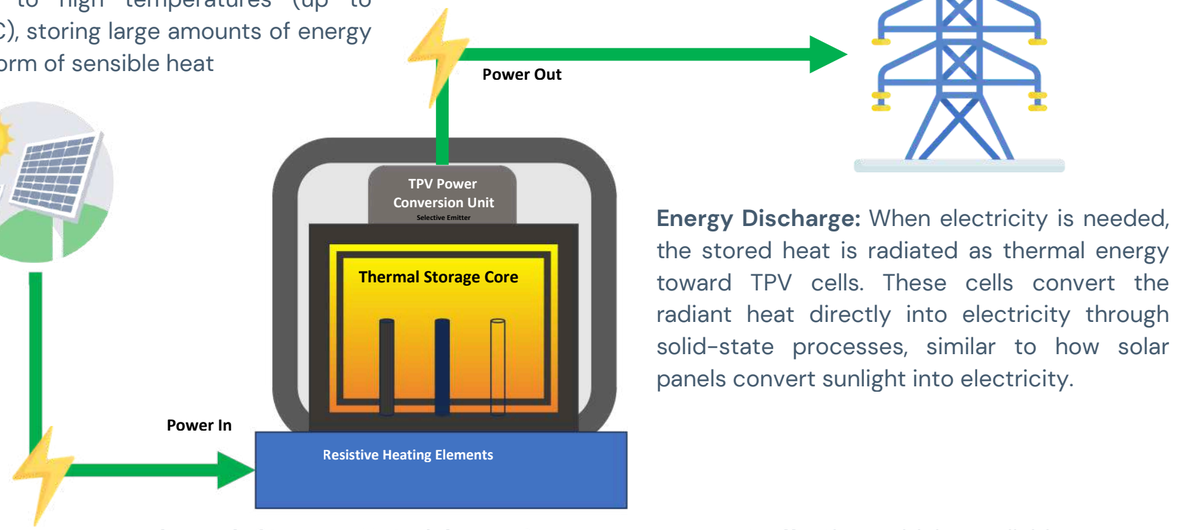
Dual Power & Heat

Modular Design

100x Cheaper Materials

Sustainable Sourcing

Energy Storage: The system uses electricity (e.g., from renewable sources like solar or wind) to heat a thermal storage medium. This medium can be heated to high temperatures (up to 2000°C), storing large amounts of energy in the form of sensible heat



Energy Discharge: When electricity is needed, the stored heat is radiated as thermal energy toward TPV cells. These cells convert the radiant heat directly into electricity through solid-state processes, similar to how solar panels convert sunlight into electricity.

Thermal Storage Material: AED Energy uses cost-effective, widely available materials that are non-toxic and capable of withstanding high thermal stress without degradation. The materials are engineered to operate at near-constant temperatures, minimizing thermal cycling and material fatigue.

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2025 milestones and key highlights – AED Energy

Projects delivered (2025):

- First high-temperature thermal battery demonstrator commissioned
- Dual-output architecture validated (heat + TPV power)
- First international pilot deployment initiated (Nigeria)
- POCs delivered: Innovate UK demonstrator; Nigeria university pilot (grant-funded)
- MOU: 50 MWh green ammonia project (South Africa), scaling to 1 GWh by 2030
- Early pilots/MOUs in pipeline: 50 MWh biomethane (SA); 30 MWh mining (Morocco); 30 MWh mining (SA)

Funding (total): Equity + SAFE £1.0M (incl. £370K in 2025); Government grants £1.2M (incl. £1M Innovate UK demonstrator)

~800 °C	**high-temperature thermal battery demonstrator commissioned (NaCl–Graphite)**
10 MWh	**System design complete; DNV certification in progress**
1.32 GWh	**Commercial pipeline under evaluation (pre-commercial)**

Dual output integrated: dispatchable heat + TPV electricity

in 2026 to reach 100% by 2030

Awards / recognition (2025):

- Energy Storage Awards 2025: Newcomer / Start-Up of the Year
- Completed TechX Accelerator
- Selected into EarthScale cohort
- Joined Eco Ventures Counsel

2,500–4,000 tCO_2e/yr	**Avoided per 10 MWh unit (diesel heat displacement, example case)**
Team 7	**(net +2 hires in 2025; 2 female hires)**
3 patents filed	**(1 published, 2 pending)**

Commercial status:

Revenue Jump (2024 vs 2025)

- 2024 revenue: £0 (pre-revenue)
- 2025 revenue: £0 (grant-funded demonstrator and pilots)

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2025 milestones and key highlights – AED Energy

International footprint (2025)

Active Countries:

- UK (HQ/R&D),
- Nigeria (pilot),
- Early-stage project development in South Africa / Morocco /Saudi Arabia

Legal Entities:

- UK parent
- USA Branch (Texas)
- UAE Branch (Masdar City)

GHG impact

- **Baseline:** fossil heat/power; 250–900 $kgCO_2e/MWh$ (application-dependent)
- **Post:** renewable/curtailed-power charged thermal storage; operational emissions ~zero (excl. upstream electricity)
- **Scope:** S1 avoided combustion, S2 electricity input, S3 mfg/logistics under assessment
- **Method:** IPCC / DEFRA / IEA emission factors; operational boundary
- **Assumptions:** daily cycling; 70–90% load factor; 6–18h dispatch

People & governance / mapping

- **Emiratization:** none yet (planned post-commercial)
- **Human rights:** UK employment law; no standalone policy yet
- **SDGs 7/9/12/13; GRI 302/305; ISSB/IFRS S2; GHG Protocol**

Resource / co-benefits

- **Reduced fossil fuel use:** enables firm use of solar/wind
- **NOx/SOx/PM elimination vs diesel/coal:** improved safety (less fuel handling)
- **Water:** heat recovery can support water treatment/desalination (project-specific)

Media Announcement - AED Energy

Aed Energy Commissions 800°C Thermal Storage Demonstrator ahead of Nigeria Field Trials

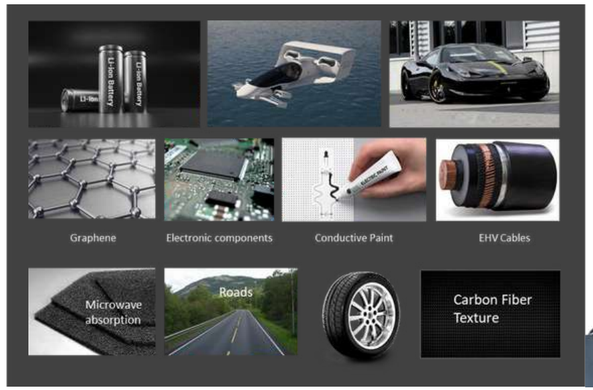
Aed Energy secures investment to scale thermal storage in MENA

CREATED: 01 JULY 2025

02. Solumar

Solumar specializes in providing cutting-edge air and gas filtration technology designed to capture up to 99.9% of black carbon and particulate matter (PM) and 90-95% of volatile organic compounds (VOCs) and greenhouse gases (GHGs) such as CO_2, NO_x, and SO_x

RETROFIT TO ANY EQUIPMENT



CAPTURES
99.9%
BLACK CARBON ASH, DUST, PM

CAPTURES
90 -95%
VOC & GHG (CO2, NOX, SOX)

6-8 times
Lower Capex and Opex

Turn Collected Carbon into Reusable Carbon Powder

BLACK CARBON
(COLLECTED AS SOLID EPM2.5)
$2,000/MT

Solumar's technology incorporates patented innovations and trade secrets, ensuring its uniqueness and competitive advantage in the emissions control market

- **Multi-Layer Modular Design:** Efficiently traps various pollutants using sequential treatment stages, ensuring the "cleaner air" process for each module.
- **Plasma Vortex Technology:** Utilized for neutralizing VOCs, odors, and GHGs with minimal energy consumption.
- **Carbon Powder Production:** Includes methods to split CO2 into reusable carbon and oxygen.
- **Water Atomization and Treatment:** Ozonated and magnetically activated water for pollutant capture.

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2025 milestones and key highlights – Solumar

Projects delivered (2025):

- Launched City Smog Capturing Towers (AI/IoT-enabled) - Up to 99% capture efficiency of city smog and fine particulates and Fully IoT- and AI-enabled, integrated into smart-city systems.
- Designed, manufactured, and deployed 4 industrial-grade demonstrators (Bulgaria + UAE). Started ATEX certification preparation (TÜV discussions)
- Signed co-development with Enova H2O for circular carbon product (R&D) to converts captured carbon emissions into fish/algae feed
- Delivered paid deployments: BRB Engineering (6 units); Biovet/HUVE Pharma (2 units)

SDG impact - PM Pollution Reduction: SDG 3/ 11/ 13/ 9

Funding (2025): No external funding raised; fundraising planned Q2 2026

99%	**Capture efficiency (PM_1/$PM_{2.5}$/PM_{10} + black carbon)**
140.3M m^3	**Air treated (estimated)**
8	**units deployed (2025)**
$75B	**TAM (stated)**
4,949 t PM	**Captured (estimated impact proxy)**
Patents filed	**Utility Model Patent #3878 U1 and #BG3250U1 - both granted**

Active pipeline: KCM Manufacturer (expected 2026 deal $250K; est. CLV $4M); and **Tubacex** (LOI signed)

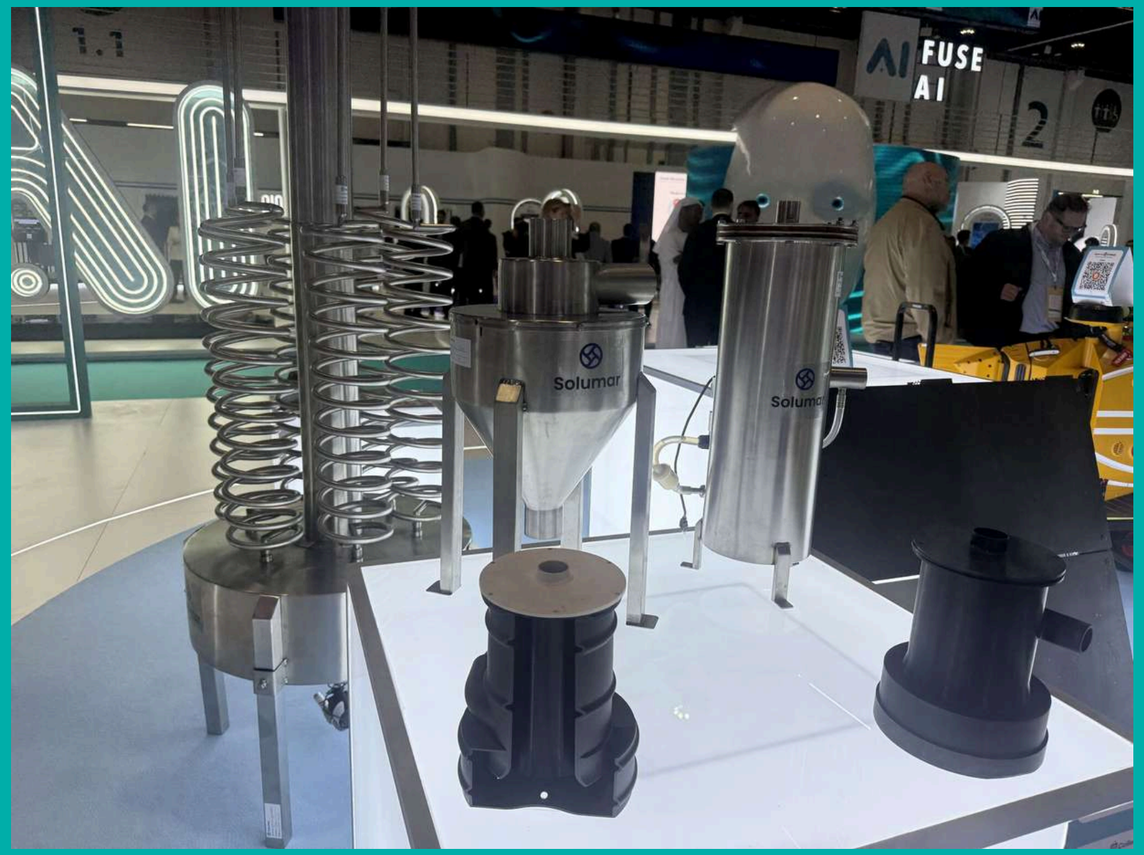
Awards / recognition (2025):

- Top 5 globally – Acceli City Accelerator (Clinton Foundation network)
- 1st Prize – TIE Berlin (qualifies for TIE Global World Cup, Jan 2026)
- 1st Prize – Village Capital × Zuora Finals (London)
- World Business Outlook Awards 2025 (UAE): Most Impactful Ocean-based Sustainability Initiative
- Nominations: Earthshot Prize; Gulbenkian Prize for Humanity

Commercial status:

- **Executed & paid revenue:** $129K (2025); Forecast $1Mn (2026)
- **Government pipeline:** EAD (Abu Dhabi) RFT participation; est. CLV ~$50M (subject to pilot/rollout)

Media Announcement - Solumar



Solumar exhibiting at the World Future Energy Summit 2026 - ADNEC, Abu Dhabi 🌍⚡

Solumar featured in Forbes 2025, highlighting climate-tech innovation and urban air quality impact.

Industrial-grade units deployed (Bulgaria) and demonstrated in real operating environments (BG and GCC).

03. نضيرة NADEERA

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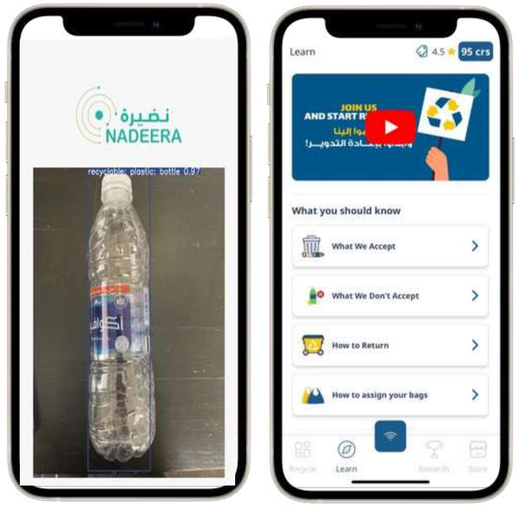
Nadeera provides a technology-enabled recycling engagement platform that utilizes smart infrastructure, such as Smart Bins, Reverse Vending Machines (RVMs), AI recognition software, and Rewards Systems to improve recycling rates. Its gamified engagement tool features informative awareness material, AI recognition and generative programs, and verification tools to educate users and track performance.



Digital Engagement

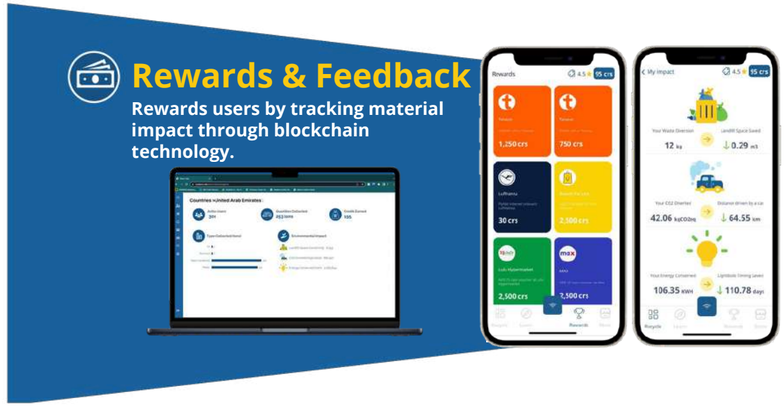
features AI detection, gamification, leader boards, informative resources, and access to Smart Deposit solutions.

Smart Bin

Access controlled equipped with level sensors

Reverse Vending Machine

Raises awareness on recycling using AI detection



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2025 milestones and key highlights – Nadeera

Projects delivered (2025):

Nadeera has signed several new contracts in the past few months. Two key contracts are with Al Jomaih (KSA) and Tadweer (UAE).

- 43 New communities with Aldar Abu Dhabi and Beeah Group
- Smart Recycling Program in Southern Lebanon - CESVI (Lebanon)
- Frezha Recycling program in Riyadh, KSA - Al Jomaih (KSA)
- Tadweer Rewards Program and Reverse Vending Machines - Tadweer (UAE)
- Received $75,000 in the form of a impact grant from Alfanar
- Renewed major contracts with Aldar, Tadweer, and Al Jomaih
- Re-engaged and onboarded previous clients such as Innoventures Education onto our Yalla Return Program
- Achieved a 99.1% detection accuracy for our Ai-image recognition software
- Established Nadeera in Qatar.

Funding (total): $750k+ grants/investments to date (incl. $130k Catalyst); ADQ/F6L: 10% equity investment finalized

$75,000	**Impact grant received (Alfanar) – equity-free**
99.1%	**AI image-recognition detection accuracy**
2 launches (Sep 2025):	**Large Reverse Vending Machines + updated AI model**
25%+	**Pipeline conversion (interested clients onboarded)**
Patent	**Filed 1 - PCT/IB2002/055337 for waste attribution system**

Awards / recognition (2025):

- Future 100 Award (Ministry of Economy);
- Accepted into Dubai Holding “Innovate for Tomorrow Challenge”

Commercial status:

- **>4x improvement;** loss (2024) → profit (2025) on comparable revenue
- **Signed several new contracts:** > AED 500,000 including worth AED 385,000 with two major UAE and KSA based companies.

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2025 milestones and key highlights – Nadeera

Abu Dhabi Tractions since inception

74,000 kg	material recovered
71	no. of locations
14,700	Households onboarded
20,790	Apps downloaded
9,858	Active users

Dubai Tractions since inception

250,000 kg	material recovered
42	no. of locations
15,758	Households onboarded
5,753	Apps downloaded
4,398	Active users

Saudi Arabia Tractions since inception

44,800 kg	material recovered
10	no. of locations
4,500	Households onboarded
2,300	Apps downloaded
1,800	Active users

Media Announcement - Nadeera

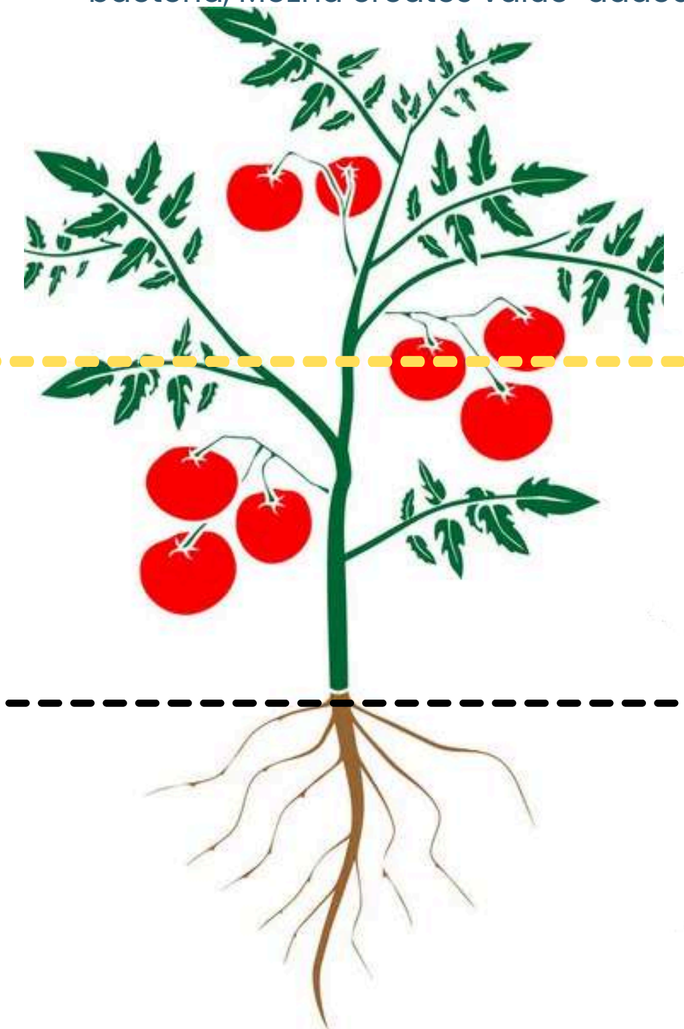
Tadweer Group purchases first batch of Reverse Vending Machines from Nadeera in initial rollout

PepsiCo partners with Danube to extend Nadeera's Yalla Return recycling program to consumers in Jeddah

Nadeera was recognised for its Yalla Return trash-for-cash system

04.

Mozna’s liquid organic fertilizers are tailored to the specific growth stages of plants from root to harvest, offering solutions for diverse agricultural needs. The products are derived from advanced fermentation processes and by utilizing agricultural and animal waste applied with microbiology bacteria, Mozna creates value-added products that directly replace chemical fertilizers, thus aligning with global sustainability goals.



Application for Fruits

Mozna’s liquid organic fertilizers for fruit crops boost flowering, fruit development, and yield quality by providing essential nutrients like potassium, phosphorus, and trace minerals. These eco-friendly fertilizers enhance plant resilience to environmental stresses, benefiting farmers with larger, better-tasting, and higher-value harvests while reducing chemical dependency and costs.

Application for Leaf & Stem

Mozna’s liquid fertilizers for vegetative growth enhance leaf and stem health, boosting photosynthesis and plant productivity. Formulated with nitrogen-rich compounds and micronutrients, they improve leaf area, chlorophyll content, and stem strength. These fertilizers support soil conservation and water retention, especially in arid regions. Farmers benefit from healthier plants, higher yields, and reduced pesticide use.

Application for Root

Mozna’s root-focused fertilizers promote deep, extensive root growth, enhancing nutrient uptake, water absorption, and plant stability. Enriched with phosphorus and root-stimulating nutrients, they are ideal for early growth stages and nutrient-depleted soils. Farmers benefit from healthier plants, greater resilience to stress, and improved yields in challenging conditions.

Technological processes

•**Stage 1:** Advanced fermentation for the decomposition of animal waste

•**Stage 2:** Manufacturing Liquid Organic Fertilizer

- **Stage 3:** Selling and distributing products

- **Stage 4:** Use on agricultural land according to the plant growth stage

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2025 milestones and key highlights – Mozna

Projects delivered (2025):

- Waste recycling and organic fertilizer supply delivered to farm customers
- Agreement reached to establish a production unit inside Almarai factory (with BioMasr); contracts in progress

Impact

- Estimated reduction of ~1,750 tCO_2e/year; direct and indirect job creation in rural communities (esp. Upper Egypt); reduced open burning of agricultural waste and supported circular economy principles.

Launched an improved formulation of liquid organic fertilizer for vegetable and fruit crop in Sep 2025

1,750 tons	**CO_2 emissions reduced (est.)**
4,200 tons	**Agricultural + animal waste recycled**
620,000 liters	**Liquid organic fertilizer produced/distributed**
18–25%	**Reduction in customers' chemical fertilizer cost**
260	**Served small-scale farms**
12	**Served medium commercial farms**

Awards / recognition (2025):

- Innovation for Humanity Award 2025 in collaboration with UNIDO
- Selected for EcoScale Program (GIZ + Egyptian Ministry of Environment; with Gesr Accelerator)
- Participated in a regional program supporting startups in circular economy and sustainable agriculture

4 POCs	**Signed and executed (3 paid, 1 unpaid)**
IP	**Trademark registration initiated**
1 patent application prepared	**(Under review)**

Media Announcement - Mozna

bp Egypt team visit in Mozna facility

Mozna: The Egyptian startup converting agricultural wastes into high-nutrient organic fertilizers

05.

Jadeed Climate Tech transforms transportation with its Green Turbo hydrogen cell, cutting fuel use by 60%, emissions by 75%, and enhancing engine lifespan. it delivers eco-friendly, IoT-enabled energy solutions globally. Their IoT subscription service enables real-time monitoring, and they are advancing hydrogen electrolysis mobile units and station development for industrial use.

Device Model:
GT-V1= 160$
Engine CC: 2000

Device model:
GT-V2 = 195$
Engine CC: 4000

Device Model:
GT-V3= 300$
Engine CC: 8000

Device model: GT-V4 =515$ Engine CC: 20000

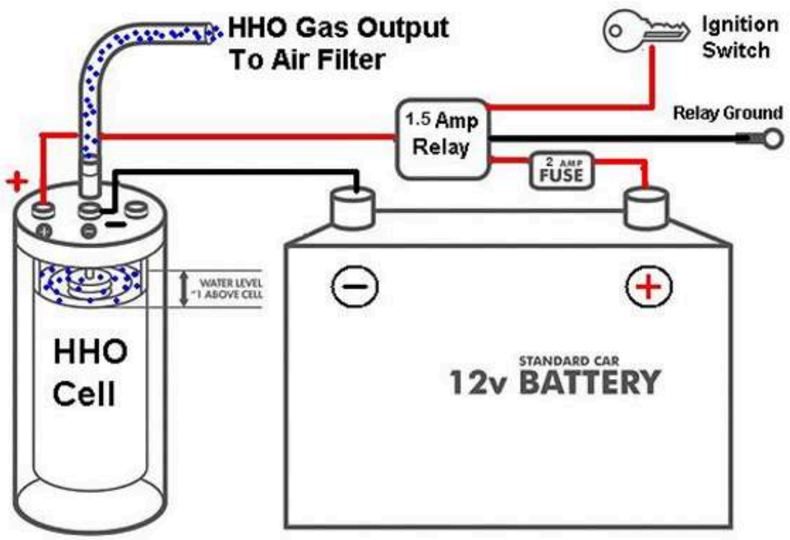
Green Turbo

Achieves up to **40%** savings with an ROI within **18K KM**

IoT App

Hardware: $30 (offline)
V2: Launching **Q4**
Subscription: **$9/month**

Technological processes



Smart Hydrogen Cell

Converts water into hydrogen (H_2) and hydroxy gas (HHO) via electrolysis.

Green Turbo System

Electrolyzes water on demand to produce hydrogen without storage, adaptable to any ICE using fossil fuels

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2025 milestones and key highlights – Jadeed

Projects delivered (2025):

- Deployed hydrogen-enhanced combustion retrofit (“Green Turbo”) across 5,000 vehicles
- Workforce action: trained 100 installation technicians across 22 centers

Resource efficiency & circularity (2025):

15-60,000 kWh/vehicle	**Energy saved per year (fleet total ~75–300 million kWh/yr)**
~2.75–11 million liters	**Fuel avoided in 5,000 vehicles per year**
10–25 liters/vehicle	**Water usage per yr (total 50–125 m³/yr for 5,000 vehicles)**
15–25 kg/vehicle	**Waste avoided per year (Total 75–125 tonnes/yr)**

10–40%	**Fuel/energy reduction per vehicle**
NOx 40–60%, SOx 35–50%, PM 50–70%	**Air pollutants reduction per vehicle**
+175%	**vs 2024 (increase +3,500 tCO_2e/yr)**

Safety/reliability: zero workplace safety incidents; ~40% reduction in overheating incidents; ~30% reduction maintenance breakdowns

SDG impact: SDG 7/ 8/ 9/ 11/ 12/ 13/ 17

GRI impact: 305-1/ 302-5/ 401-1/ 403-9/ 405-1

5,500 tCO_2e/yr	**Avoided (across 5,000 converted vehicles) vs 3,500 tCO2e in 2024**
~1.1 tCO_2e/ yr	**Per Vehicle avoided on average**
Team 35	**2 female leaders in senior management**

Targets

- **2026:** 11,000 tCO_2e/yr avoided (10,000 vehicles)
- **2030:** 110,000 tCO_2e/yr avoided (100,000 vehicles)

Official Announcement | 10-Year Warranty on Green Turbo

Jadeed Wins the Green Innovation Award at the Egypt's Entrepreneur Award

06. Leedana

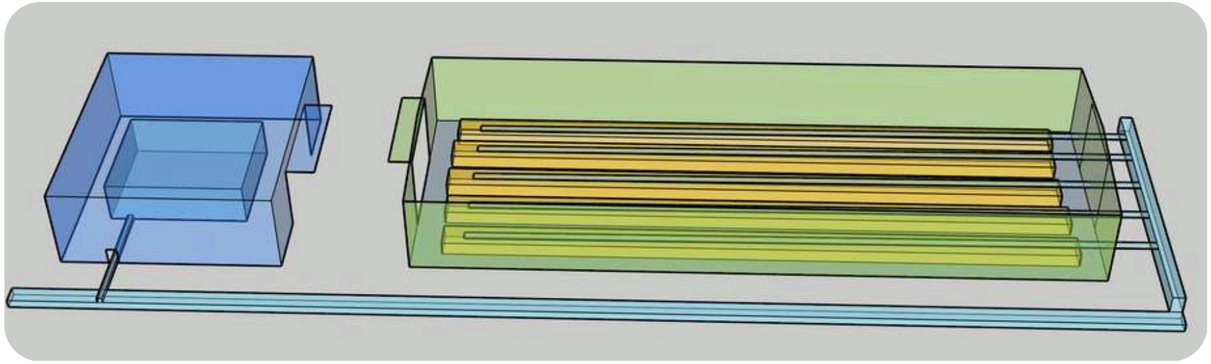
Leedana Sandfarms, egyptian based startup, delivers low-cost, water-efficient farming solutions using sandponic technology, saving 90% of water and 80% of energy compared to traditional methods, while costing 70% less than high-tech alternatives.

90% less water

80% less energy

Low cost

Closed-loop

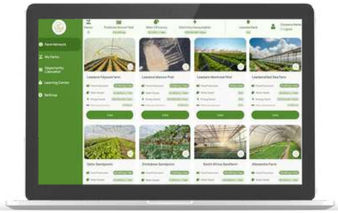


The first platform for easy sand farming.

Optimizing Sand Farm Development

Building Sustainable Sand Farms

Daily Operations Management



CATALYST

2025 milestones and key highlights – Leedana

Projects delivered (2025):

- **Egypt (Fayoum):** 2.5 operational pilot units (~500 m²) as the reference site.
- **Egypt (Sinai / Habiba Community):** First standard unit (350 m²) built and operational; stable commercial production in Q4 2025.
- **Egypt (Fayoum expansion):** Construction started for an additional standard unit with design upgrades.
- **UAE (Masdar City / Hyvegeo):** MOU signed for one standard unit (350 m²), planned for early 2026 build.
- **Mexico (Tulum):** Pilot agreement signed; site preparation completed.
- **USA (University of Arizona - Maricopa Agricultural Center):** Pilot agreement signed for Oct 2025–Oct 2026 deployment.
- **Product (software):** Oasis Farm Management Web App v2 launched (Nov 2025).

SDG impact: SDG 2/ 6/ 7/ 12/ 13

SAFE: $100,000 (The Catalyst) + Angel $10,000 + Non-dilutive support $90,000+

~2.5M L	**Net freshwater saved**
25.0M L	**Water recycled internally**
~213,700 kWh/yr	**Energy saved per unit (95% reduction)**
~112.5 tCO_2e	**Avoided (Scope 2) + ~3.0 tCO_2e (Scope 3 partial)**
17,285 kg	**Organic food**
59,500	**Meals**

Awards / recognition (2025):

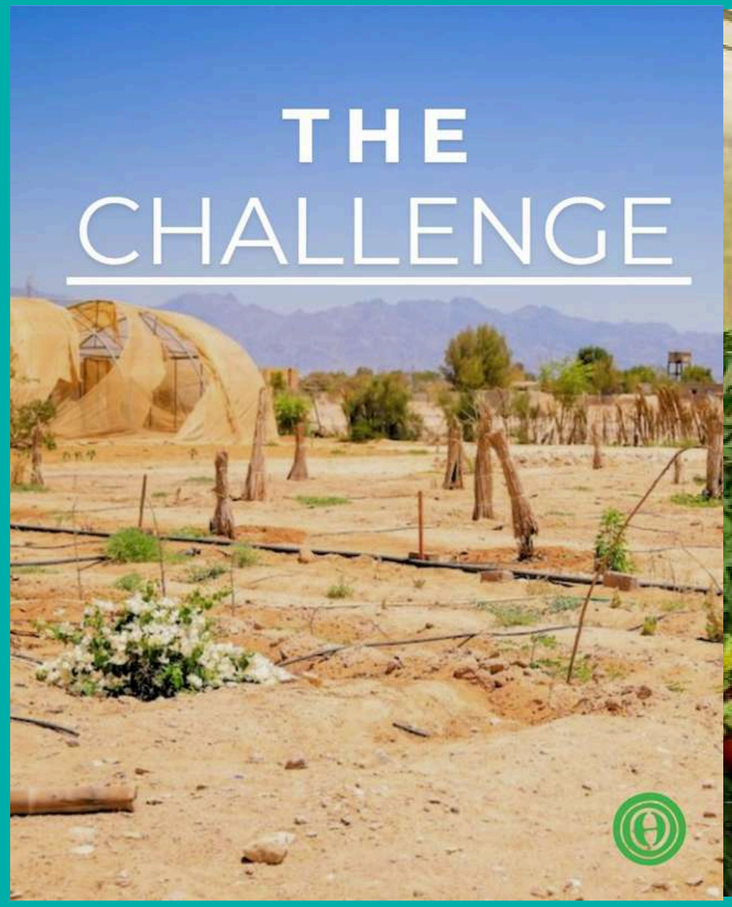
- Mancini Entrepreneurial Award
- Desjardins Caisse des Technologies × Cycle Momentum Climate Award
- Catalyst Accelerator
- AquaEntrepreneur Program
- Zone Agtech × SVG Thrive Go Global
- UNDP Egypt
- Main Momentum PI Grant
- Desjardins × Cycle Momentum
- C3 UAE
- Dobson International Fundraising Tour
- StartUs Insights – Top 10 Desert Farming Solutions to Watch (2025)

Intellectual Property:

- Provisional patent updated; patentability assessment completed (Fasken), confirming U.S. patentability.
- Trademark filings in progress.

CATALYST

Media Announcement - Leedana



To Opportunity

07. coral

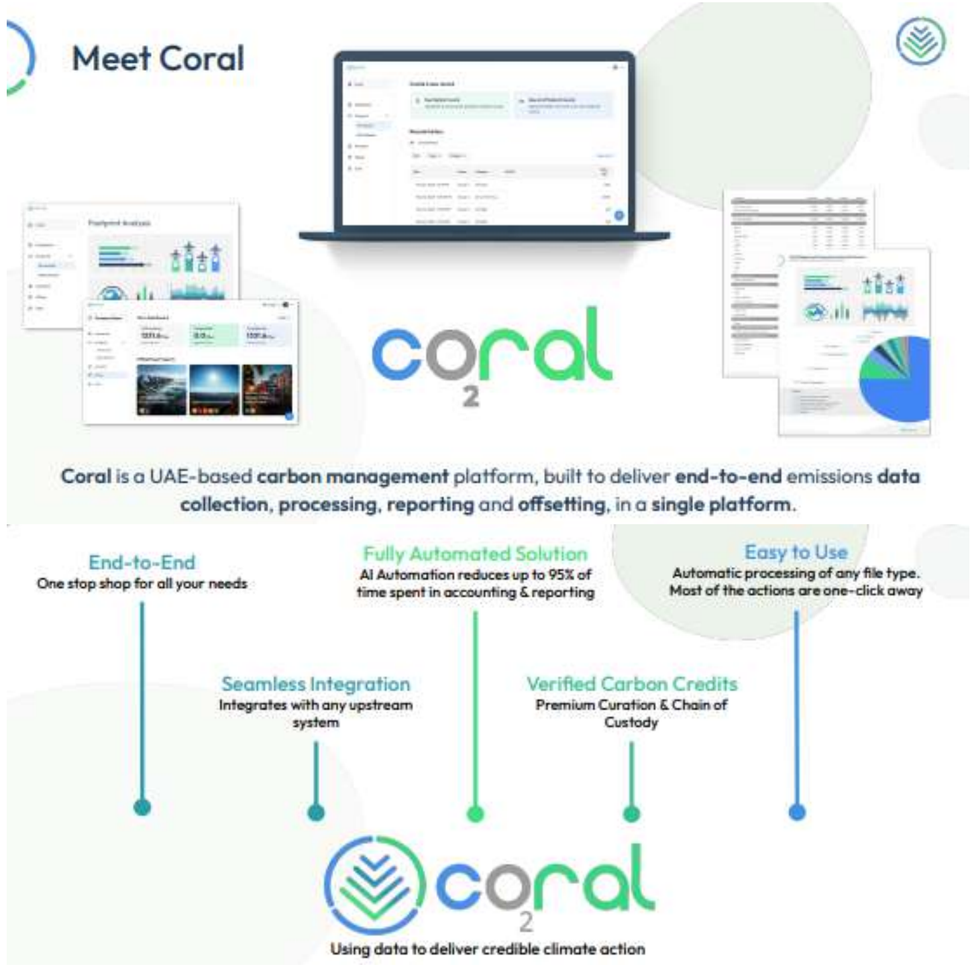
Coral is a UAE-based ESG Management Platform that leverages AI and blockchain technologies to deliver comprehensive solutions for emission management. It provides tools for data collection, processing, reporting, and offsetting, catering to businesses aiming to manage and reduce their carbon footprint efficiently.

🤖 **Automated Emissions Tracking:** Coral's AI-powered engine automatically calculates and tracks Scope 1, 2, and 3 emissions in real-time by scanning financial and operational data.

🔗 **Blockchain-Based Carbon Credit Tracking**: Carbon credits are tokenized on a blockchain, ensuring authenticity and traceability, with smart contracts automating transactions and preventing fraud.

💻 **API & System Integrations:** Coral seamlessly integrates with existing enterprise systems and offers an e-commerce API for instant carbon offsetting at checkout.

📊 **Data Collection & Emissions Calculation**: Automatically collects data from various sources,and AI matches activities with emission factors to generate real-time carbon footprint reports.



📉 **Emissions Management & Reduction Planning**: AI-driven insights recommend reduction strategies, enabling companies to set and track progress towards net-zero goals.

♻️ **Carbon Offsetting & Marketplace Transactions:** Businesses can purchase and retire high-quality carbon credits through Coral's blockchain-powered marketplace, ensuring transparency and compliance.

📄 **Reporting & Compliance:** Generates automated audit-ready reports for regulatory filings and ESG disclosures, with blockchain-based verification ensuring that offset transactions are publicly traceable.

CATALYST

2025 milestones and key highlights – Coral

Projects delivered (2025):

- 10 POCs delivered
- New vertical deployments initiated: Logistics, Banking, Real Estate, E-commerce, Data Centers (GCC + EU)
- First e-commerce multinational customer onboarded: Trendyol
- Nissan FE partnership renewed for 2 more years

GHG methodology-

- Emission factors used: IPCC, DEFRA, EPA, IEA, Ecoinvent, ICE, PCAF
- System boundary fields tracked: unit of analysis, geography, assets/facilities, customer segments, emission sources, scope categories

Coverage: **Scope 1 + Scope 2 + Scope 3 (supported in platform)**

Team: 6 **(2024) → 6 (2025); 41% female**

18.4m tCO2 (Scope 1–3) **CO_2 totals collected**

New product / technology launched (2025):

- AI data wrangler
- Advanced ESG reporting module
- Decarbonization module

SDGs supported (activity tracking): 2, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15
GRI / ISSB (IFRS S2) / GHG Protocol: Full coverage

Awards / recognition (2025):

- GreenTech Startup of the Year – Nexus Awards Scale AI 2025 (Baku)
- Finalist – KPMG Global Tech Innovator (Dubai)
- Accepted into NVIDIA Inception
- Graduated Misk / Plug and Play accelerator
- Graduated C3 / HSBC sustainability program

New Hire:

- 6 in 2024 and 6 in 2025 with 41% females

Media Announcement - Coral

April 30, 2025

The Power of Collective Climate Action

The COP28 climate summit in Dubai brought together leaders from governments, business, academia, and civil society to shap...

January 3, 2025

Coral API Launches on Shopify: Driving Sustainable E-Commerce Forward

We're proud to announce the launch of Coral's API on the Shopify platform, enabling businesses to embed emissions calculations...

08. TILTSUN

Tiltsun’s robotic solar installation system automates the entire deployment process from mounting to cabling and cleaning delivering unmatched speed and cost-efficiency. Capable of installing up to 1 MW per day with only two operators, it reduces installation timelines from months to days, doubles land-use efficiency, eliminates shading, and integrates a fully autonomous cleaning robot to maintain maximum energy yield.

Cost-Effective Solar Installations with Robotics

- Robotic solar installation system delivers >25× faster deployment than manual methods, installing up to 1 MW/day with just 2 operators .
- Advanced automation reduces human error, improves safety, and ensures consistent, high-quality installations.
- AI-powered inspection defect detection and install-quality verification.
- Fully autonomous 24/7 cleaning robot keep modules dust-free without manual intervention minimizing OPEX and maximizing long-term yield.
- Patented flat horizontal panel mounting system and 50% less land use compared to tilted panel systems (2× land efficiency, zero shading).
- Combined gains (speed, density, lower O&M) drive up to 40% lower LCOE.

CATALYST

2025 milestones and key highlights – Tiltsun

Projects delivered (2025):

- MVP completed; robotic system lab-tested (Jul 2025) and field-tested (Aug 2025)
- Started first real-world deployment: 5 MW project
- International presence: Abu Dhabi entity incorporated (Tiltsun Limited) + major exhibitions (Intersolar ME/Europe, GITEX Global/Europe, Solar & Storage Live KSA, Slush).

Patent Files

PCT/EP2025/060968, covering the flat-oriented solar installation method and the fully automated robotic installation system.

Funding status (2025): Term sheet signing in progress with Catalyst (Masdar + bp) and Strioga Family Foundation VC; EIC Pre-Accelerator application submitted (results expected Feb–Mar 2026).

3 Projects — **5 MW + 8 MW + 30 MW = 43 MW); Contract signed: €268k**

~2.70 $ktCO_2e$ — **Avoided from steel reduction (one-time at construction)**

2x Land Saved — **Tiltsun uses less land → ~50% saved): ~52 ha saved (range: 43.5–60.9)**

LOIs: 8 MW (€405k) + 30 MW (Lithuania, 2026) designed fully.

Awards / recognition (2025):

- Earthshot Prize nomination (final results in 2026)
- Supernova Semifinalist (GITEX Europe); Finalist (Startup Fair – Baltics)

Revenue: **€113,440 (2024) → €184,639 (2025) (+62.7%)**

€150k ARR — **(Estimated) over a 25-year lifetime**

€2.35M — **Project revenue pipeline (contracts + LOIs)**

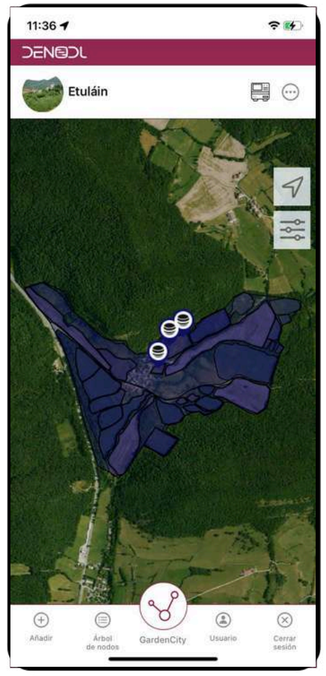
Media Announcement - Tiltsun

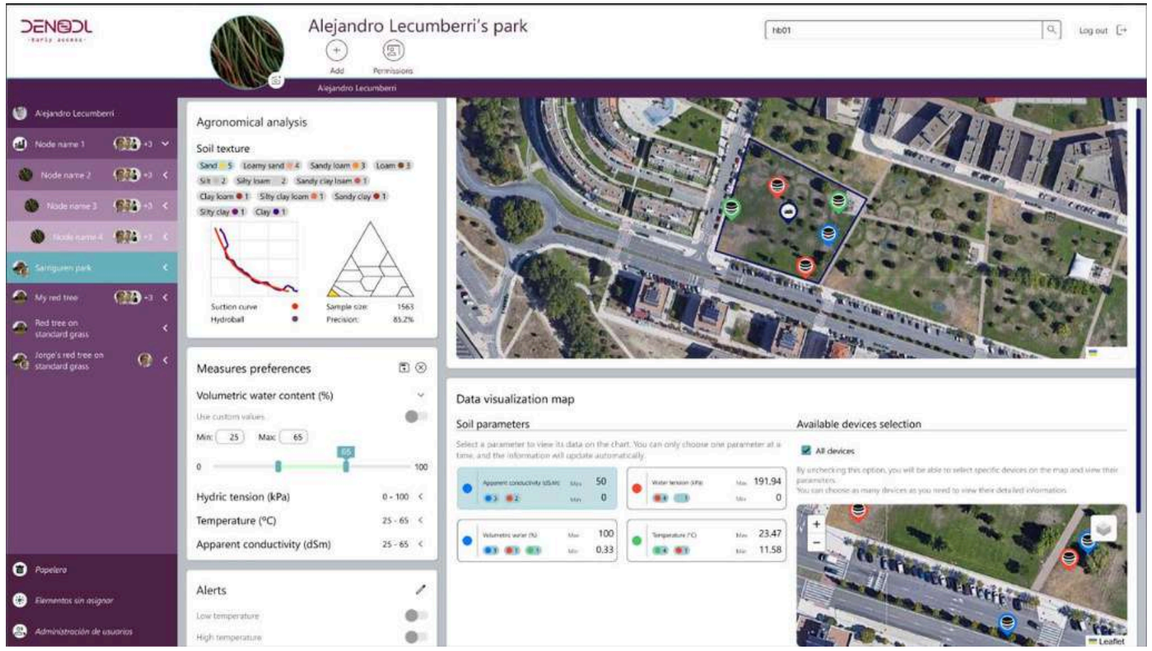
Tiltsun - First Flat - Mount Solar Park Lithuania

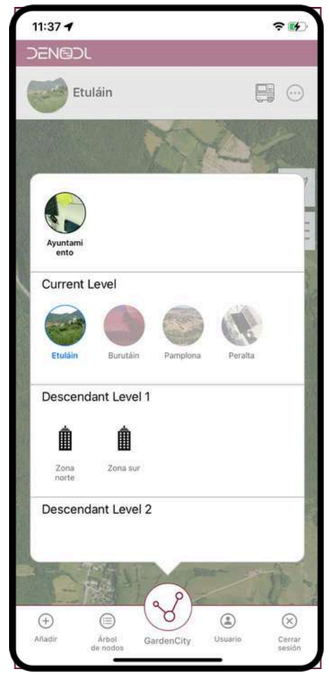
Tiltsun at Intersolar Europe 2025 — Munich

09. DENODL®

DENODL develops precision agritech solutions integrating proprietary IoT sensors with advanced analytics to optimize irrigation and crop management. The solution supports climate-smart irrigation, reducing water usage by 3% per week, increasing ROI, and enabling compliance with emerging water security policies in MENA and Europe.







1) In-soil sensing architecture (hardware core):- Buried, sealed root-zone probe at agronomic depth measuring volumetric moisture, soil water tension (matric potential), electrical conductivity (salinity), and temperature. On-device and cloud algorithms derive soil texture and plant-available water from suction-curve behavior to set field-specific irrigation thresholds.

2) Telemetry, firmware, and device security:- Two connectivity SKUs—LoRaWAN® and NB-IoT/LTE-M—enable coverage without on-farm infrastructure. Telemetry heartbeats expose battery status, radio quality, and sensor drift for remote diagnostics. Cryptographically signed OTA firmware (with rollback safeguards and version pinning) reduces service time, truck-rolls, and lifecycle cost; multi-year battery autonomy supports low-touch operation.

3) Analytics engine and automation hooks:- The platform converts signals into prescriptive “when/where/how-much” irrigation actions per block/crop/soil, with thresholds, alerts, and trend analysis. It supports automation via solenoid-valve control and third-party integrations through APIs, and includes a roadmap for remote-sensing fusion to extend coverage and provide cross-checks. Outputs generate farmer-friendly visuals and compliance-ready logs.

CATALYST

2025 milestones and key highlights – Denodl

Projects delivered (2025):

- European distributor network expanded (Spain + Portugal, Germany, Austria, Netherlands, Belgium, Sweden, Greece, Cyprus, Bulgaria)
- Product launches: HYDROBALL G2 (Aug 2025); HYDROBALL Twin (Nov 2025)
- POCs delivered: Masdar City; Dubai Holding (Business Bay); Dubai Municipality (Jaddaf); Dubai Sustainable City Urban Farm; Univ. of Florida; Monte Rei (Portugal); Gorraiz Golf (Spain)
- Sensorization of soccer fields (Spanish, Belgian, German 1st divisions)
- DENODL Analytics project funded (advanced analytics + AI)

Funding (total): €1.07M capital raised (2025) in capital increase + €350k CDTI grant (DENODL Analytics)

10+	**New EU markets + first sales in USA & Mexico**
Water savings	**20–80% (agriculture); 15–25% (sports turf); 15–30% (urban gardening)**
6.0x	**€215k revenue (2025) vs €35.8k (2024)**
29%	**Pipeline conversion (€220k realized from €750k forecast)**
5	**New Hire (incl. 2 female hires)**

SDG Impact: SDG 7/ 12/ 13

Awards / recognition (2025):

- Citrus Innovation Awards (May 2025) – winner (HYDROBALL®)
- F6S rankings (Aug 2025) – listed in multiple Spain AgriTech / IoT rankings
- Tracked in Tracxn AgriTech landscape (2025)

Patents & IP

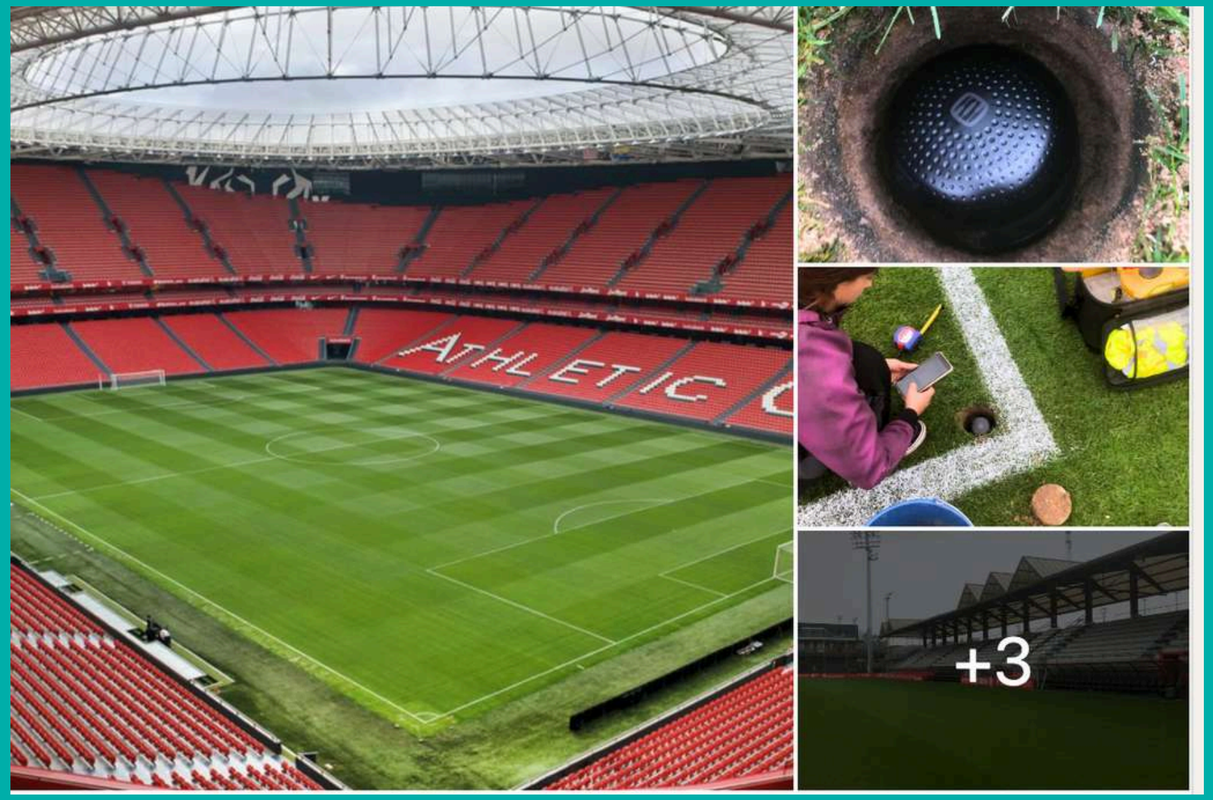
- HYDROBALL patent: ES 2735474 B2.
- HYDROBALL Twin/Twin+ patent: In process.
- HYDROSTICK patent: In process.
- DENODL trademark: Registered.
- HYDROBALL trademark: Registered.
- HYDROSTICK trademark: In process.

Commercial status:

- **Revenue:** 2024: 35.794,80€. and 2025: 215.000,00€.
- **New commercial contract signed:** Servicentre (sports turf, Spain): €45,000 and Royalverd: (soccer fie Spain): €15,000.

Media Announcement - DenodI

CEEI Aragón selects the first eleven projects for its matriX program



Bilbao Athletic Club has chosen DENODL's® precision technology to raise the quality of its pitch at San Mamés and in the Lezama youth academy.

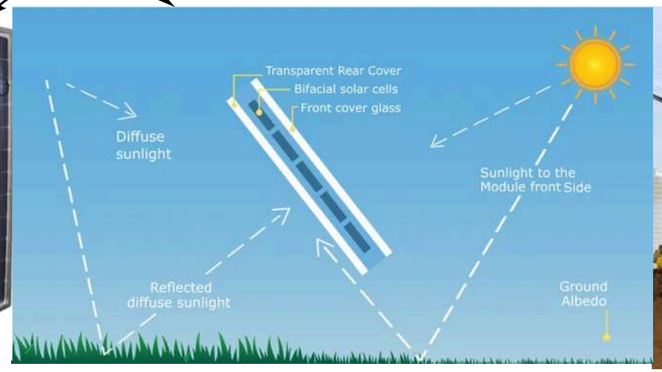
10. NOOR NATION

NoorNation designs, manufactures, and deploys decentralized, tech-enabled clean energy and safe water systems for underserved agricultural and rural markets. Its flagship LifeBox integrates solar energy generation with water pumping and desalination in a modular, rapidly deployable form factor, delivering immediate infrastructure without costly grid or pipeline connections.

Circuit Breakers
String Array Led Indicator
PV Input
AIR Ventilation

- SOLAR - POWERED
- SELF - CONTAINED
- FAST - DEPLOYMENT
- REMOTE - MONITORED
- Power capacity from 5 to 200 kWp
- Water capacity Up to 1000 m3/d

PV Modules & its Working



LifeBox:Plug-and-Play Energy & Water Infrastructure

- *Containerized, solar-powered, self-contained unit that delivers electricity + pumped/desalinated water for agriculture and rural services. Scalable 5–200 kWp with integrated pumps, filtration, and controls; up to 1,000 m^3/day from brackish/high-salinity sources. Compact, plug-and-play, relocatable; serves farms, villages, ecolodges, clinics, and agri-processing.*
- *Dual-utility, battery-light design (daytime solar; water storage for 24/7 availability) cuts capex and maintenance. IoT RMC provides real-time kWh, m^3, uptime, CO_2, alarms, and remote control; enables SLAs, impact reporting, predictive maintenance, and portfolio analytics.*

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2025 milestones and key highlights – Noor Nation

Projects delivered (2025):

- Sharjah PoC: replaced diesel pump; 30,000 L/day fresh water; salinity 6,000 ppm → 110 ppm; valued at $68,000.
- Grant-supported pilots: WFP innovation accelerator + adaptation fund; $150,000 secured.
- Commercial contracts delivered: UNICEF Tajikistan (Nov 2025) 2 LifeBoxes / 20 m^3/day; Eden Investment (Sept 2025) 9 LifeBoxes / 2.153 MWp; Sultan Gardens Resort (July 2025) 404 kWp rooftop solar; Agrify (Mar 2025) 82 kWp LifeBox.

- **Funding 2024-2025 (Total):** Funding raised $278,500 ($50,000 equity; $228,500 non-dilutive);
- **Funding Since 2022 (total):** $596,000 ($250,000 equity; $346,000 non-dilutive).

2,725 kWp	**Capacity Installed**
16	**LifeBox units deployed**
2.5 GWh	**Clean Energy Produced**
6M	**Liters Water Desalinated**
$550K	**Farmer savings**

Financial/Growth (2025):

- **Total contracted value $737,273 (2025) vs $176,448 (2024); projected +417.84% YoY sales growth.**

Awards / recognition (2025):

- CNN feature at COP28; COP27 National Initiative (1st Place Egypt)
- One Creation Award (Global Winner)
- Northern Africa Startup Awards (Green Tech Startup of the Year 2024)
- SolarX Grand Challenge (Africa Winner)
- UNICEF Innovation30Award
- UN Climate Champions (Climate Leader status – COP29 Outlook)

Team	**23 (2025) vs 17 (2024); 6 female roles**
2,000	**Acres served**
2,250	**Tons CO2e reduced**

Media Announcement - Noornation

From NoorNation factory with their newest innovations NoorBox - portable, plug & play solar generator

LifeBox unveils a solar-powered mobile desalination unit (600 m^3 of water/day). Made in Egypt, the LifeBox is an all-in-one system that desalinates seawater or brackish water using only solar energy.

CATALYST

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