



# Cohort 8 Start-up Portfolio

Meet the tech pioneers that are shaping the future of clean, affordable and resilient energy.

CCUS

UTILISATION



TECHX ACCELERATOR COHORT 8 (2026)

ABERDEENSHIRE, UNITED KINGDOM

## HexSeed Technology

TRL 3

Production of industrial diamonds using captured Co<sub>2</sub> to combat thermal management in electronics.

### PROBLEM

Carbon removal is vital for Net Zero, but today it's too costly to scale. Most CO<sub>2</sub>-based products still depend on a green premium, limiting adoption. Meanwhile, industries relying on carbon-based materials face rising environmental impacts and fragile supply chains.

### SOLUTION

HexSeed is a CCU-integrated producer of high-value supermaterials, converting CO<sub>2</sub> into materials where cost and performance drive demand. By adapting existing processes, we produce low-carbon lab-grown diamonds that will enhance the performance of semiconductor power devices used in datacentres, telecommunications and EVs.

MORE INFO

LINKEDIN

WEBSITE

ALTERNATIVE FUELS

HYDROGEN



TECHX ACCELERATOR COHORT 8 (2026)

WESTHILL, UNITED KINGDOM

## Hypanode

TRL 3

Fuel cell technology combining the power density of a jet engine with the efficiency of a battery.

### PROBLEM

High-performance motion and power systems still depend on heavy materials and generate significant emissions, creating a trade-off between capability and environmental impact.

### SOLUTION

Hypanode's fuel cell technology combines the power density of a jet engine with the efficiency of a battery.

MORE INFO

LINKEDIN

WEBSITE

RENEWABLES + GRID

WIND



TECHX ACCELERATOR COHORT 8 (2026)

LONDON, UNITED KINGDOM

## ISONIK

TRL 4

Ultrasonic ice prevention technology for wind turbines and critical infrastructure.

### PROBLEM

65% of wind farms globally experience icing issues, losing up to 20% AEP. Traditional ice protection systems are energy-intensive, expensive, and often ineffective.

### SOLUTION

ISONIK uses sound waves to prevent ice build-up, offering a solution that is energy efficient, price competitive, and non-toxic. Our transducers are retrofitted inside the blade and are capable of ice detection and blade health monitoring.

MORE INFO

LINKEDIN

WEBSITE



TECHX ACCELERATOR COHORT 8 (2026)

 LONDON, UNITED KINGDOM

## MetaSenz

TRL 4

Light-based nanosensor technology for inherently safe hydrogen sensing.

### PROBLEM

Hydrogen is difficult to handle safely. It is highly leak-prone, invisible, and can create dangerous conditions if not detected quickly. As hydrogen production, transport and storage expand, the lack of reliable real-time leak detection creates safety risks that could slow the growth of the hydrogen economy.

### SOLUTION

MetaSenz have a real-time safety system that can detect hydrogen. By identifying leaks instantly and enabling rapid response, it reduces operational risk and protects infrastructure and people.

 MORE INFO

 LINKEDIN

 WEBSITE


TECHX ACCELERATOR COHORT 8 (2026)

 LONDON, UNITED KINGDOM

## Micro Thermal Energy

TRL 3

Off-grid on-site modular compact geothermal baseload power system.

### PROBLEM

Access to clean, reliable baseload power is limited because most renewable options are intermittent, and traditional geothermal requires rare high-heat geology and deep, costly drilling. Many regions lack a flexible, small-footprint solution that can be deployed close to where energy is needed.

### SOLUTION

A compact underground system that turns shallow geothermal heat into steady, clean electricity, installable almost anywhere with a small footprint.

 MORE INFO

 LINKEDIN

 WEBSITE


TECHX ACCELERATOR COHORT 8 (2026)

 EDINBURGH, UNITED KINGDOM

## Orchid Solar

TRL 5

Novel solar thermal concentrator delivering >500°C heat without fossil fuel usage.

### PROBLEM

Industries that require high-temperature heat still rely heavily on fossil fuels because most renewable systems can't reach >500°C. This creates a major emissions gap that require intense, continuous heat and there are few clean alternatives.

### SOLUTION

Orchid Solar use a solar concentrator that focuses sunlight to generate industrial-grade heat above 500°C, replacing fossil-fuel burners with a clean, high-temperature thermal source suitable for heavy industry.

 MORE INFO

 LINKEDIN

 WEBSITE



TECHX ACCELERATOR COHORT 8 (2026)

 CAMBRIDGE, UNITED KINGDOM

## StrainWorks

TRL 4

Low-waste, low-energy manufacturing of ultra-lightweight bearings

### PROBLEM

Conventional bearing production is heavy, energy-intensive, and carbon-intensive, and current machining-based methods can't easily make lightweight, low-carbon components at scale.

### SOLUTION

StrainWorks delivers a step-change in making bearings: in our novel manufacturing process, the final bearing is weight optimised for the loads it will actually experience in service. This reduces bearing weight and cuts material use, energy consumption, and embodied emissions, all while reducing processing steps to enable high-volume production at scale.

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TECHX ACCELERATOR COHORT 8 (2026)

 SOUTHAMPTON, UNITED KINGDOM

## Xmoor

TRL 6

Machine learning-driven floating offshore wind simulation and design optimisation platform.

### PROBLEM

Floating offshore wind is slow and costly to design because current simulation and optimisation tools are complex, time-intensive, and limit rapid, low-cost development.

### SOLUTION

Xmoor provide a machine-learning platform that rapidly simulates and optimises floating offshore wind designs, cutting the time, cost, and complexity of engineering high-performance floating wind projects

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