PLUG AND PLAY

SILICON VALLEY SUMMIT

MAY 19-21, 2026

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SUSTAINABILITY EXPO

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OPENING REMARKS

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Opening Remarks

Robert Grey

Director, Sustainable Future
Plug and Play

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TODAY'S AGENDA

- Sustainability Overview
- Corporate Spotlight
- Panel Discussion
- Startup Presentations
- Trends Presentation
- Startup Presentations
- Closing Remarks

PLUGANDPLAY

Sustainability Program

Overview



Our History in Sustainability



Alliance to End Plastic Waste Global Network



PLUGANDPLAY | ALLIANCE TO END PLASTIC WASTE

Established Oct. 2019

Driving plastics innovation with startups

Launched the partnership together on October 23rd, 2019 at Plug and Play in Silicon Valley.

Sourced and reviewed **4,000 startups** from across the plastic value chain and around the world. Accelerated **163 startups; resulted in $190M+ capital deployed, 240+ Pilots and PoCs**

Established **8 different hubs:** Silicon Valley, Paris, Singapore, Shanghai, São Paulo, Johannesburg, Tokyo, and Riyadh

Brought together the **75 Top Corporations** from across the plastics value chain and **70+ other investors, nonprofits and cities** onto one platform to drive innovation with the mission of ending plastic waste.



- **Collection**
- **Sorting**
- **Processing**
- **End Use**
- **Finance**
- **Waste Materials Exchange**
- **Design**

$190M+ Capital Deployed

240+ Pilots Launched

Plug and Play: The World's Largest Innovation Platform

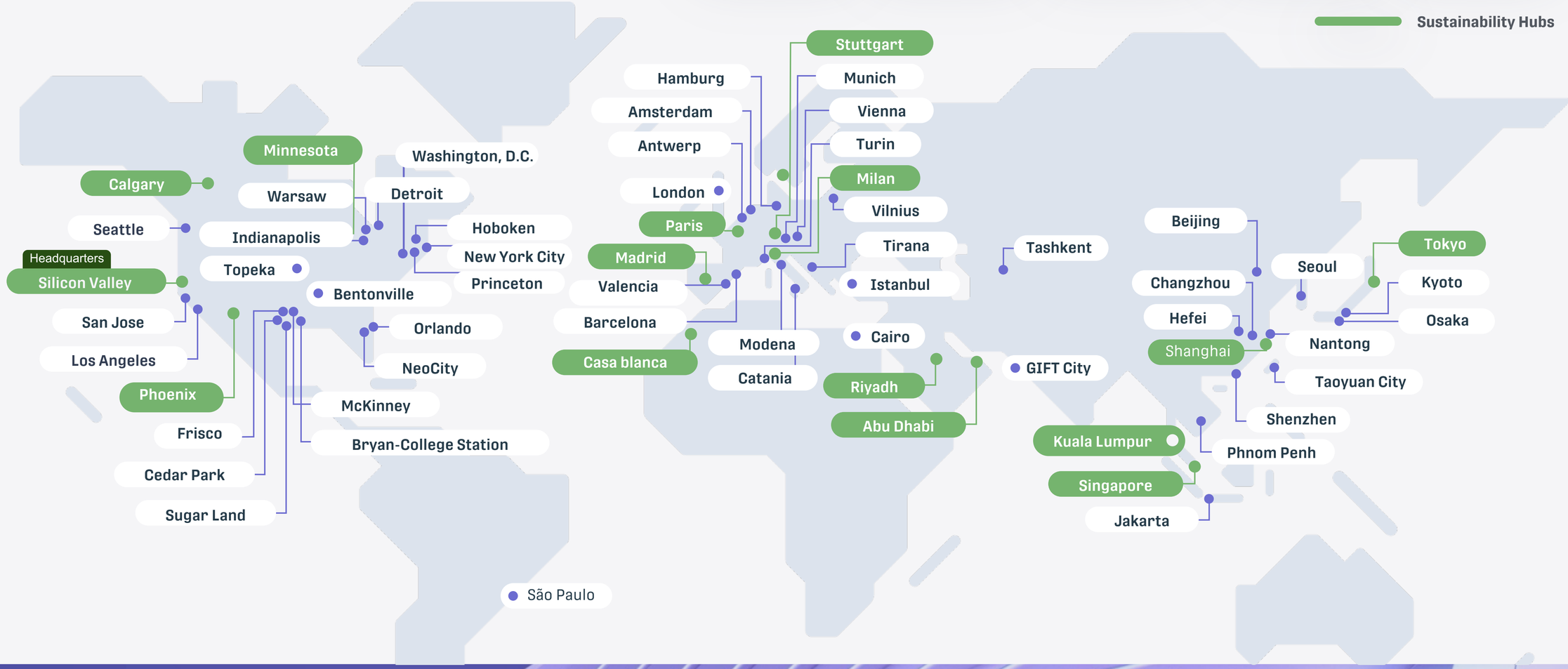
100K+ STARTUP ECOSYSTEM

2.5K+ PORTFOLIO

25+ INDUSTRY VERTICALS

550+ PARTNERS

60+ OFFICES



Our Growing Accelerator Programs

Circular Economy

- Collection
- Sorting
- Processing
- End Use Markets- Recycling Technologies
- Finance
- Waste Materials Exchange
- Design
- Reusable

Industrial Decarbonization

- Green Manufacturing
- Materials Decarbonization
- Carbon Neutral Fleets
- Carbon to Value
- Carbon Tracking, Verification & Reporting
- CCUS Technology
- Plant Optimization

Sustainable Data Centers

- Water Management
- Cooling
- Onsite Power Generation
- Energy Efficient Chips
- Waste Heat Recovery
- Hardware Circularity
- Sustainable Design & Construction
- Grid Management & Resilience

Mining

- EV Battery Passport & Recycling
- Ethical Practices
- Mineral Traceability
- Water Resilience
- Decarbonizing Heavy Equipment
- Mine Tailings and Brine Utilization
- Carbon Capture
- Bioremediation

Fashion

- Digitalization
- Upcycling
- Sustainable Dyes
- Recommerce
- Textile Recycling
- Water Treatment
- Bio-Based Materials

Sustainable Aviation Fuels

- Carbon to Fuel
- Bioenergy
- Waste-to-Fuels
- Feedstock Innovation
- Hydrogen to SAF
- F.T. Power to SAF
- Production
- Equipment Retrofitting

Plug and Play is investing in sustainable digital infrastructure and the industries of the future







Our investments have enabled us to earn our spot in the best names in climate tech investing.

FAMILY OFFICE INVESTMENTS

70+
# of Portfolio

Pre-Seed
Stage

FUND I OVERVIEW

14+
# of Portfolio

Seed - Series A
Stage

PORTFOLIO SINCE 2019

Heirloom
Circulor
Basetwo
RUBI
greyparrot
Sylvera
CHECKERSPOT
Connect Earth
epoch BIODESIGN
Thalo labs
sopht
Carbon Ridge
dhom
Carbon Reform
SUN BEAR BIOWORKS
KUBIK
FINRES
SolarMente
APOHA
rePurpose
SIMPLIFYBER

PORTFOLIO SINCE 2023

mona lee
QUEENS CARBON
ATOMIC CANYON
ISOMETRIC
CarbonRun
UCANEO
GENERAL GALACTIC
GIGABLUE
vaulted deep
METRIS
Melazyme
Senpilot

Most Impactful Early-Stage VC Globally
2nd Most Impactful VC Globally Overall

CLIMATE50

Winners Platform About in

1st	Energy Impact Partners 2025	Growth	North America	>=$1bn
2nd	Plug & Play Ventures 2025	Early stage	North America	>=$100m
3rd	Shell Ventures 2025	Corporate	Europe	>=$1bn
4th	Future Energy Ventures	Early stage	Europe	>=$100m
5th	Breakthrough Energy Ventures	Growth	North America	>=$1bn

Plug and Play Sustainability
Evolving Investment Focus Areas

Electrification and the Grid

- Grid Management & Resilience
- Energy Storage
- Behind-the-Meter Power Systems
- Sustainable Data Centers
- Cooling Technology
- Waste Heat Recovery
- Enhanced Geothermal
- Energy Efficient Chips
- Nuclear Fusion

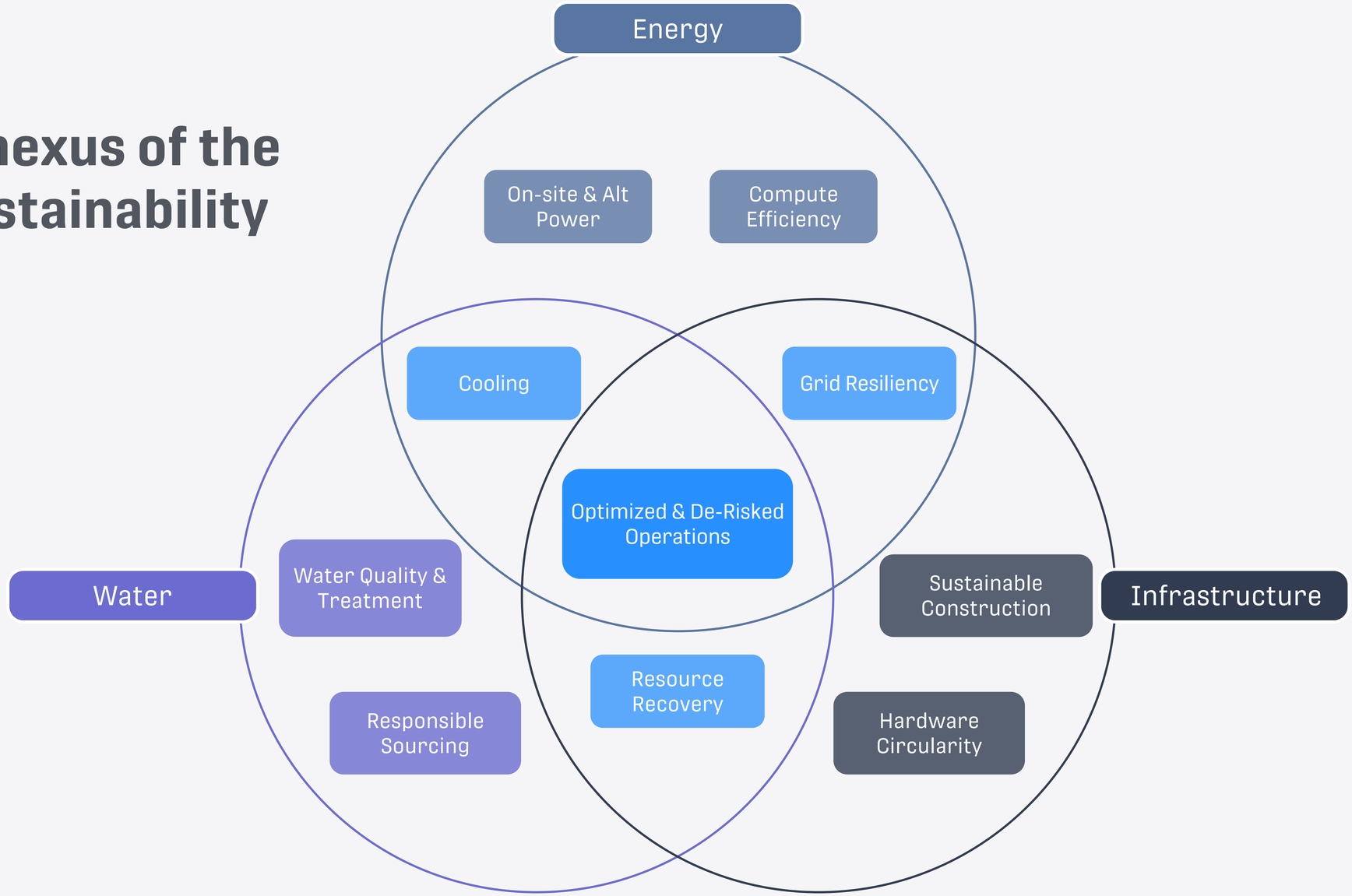
Industrial Decarbonization

- Green Manufacturing
- Materials Decarbonization
- Carbon Neutral Fleets
- Carbon to Value
- Sustainable Design & Construction
- CCUS Technology
- AgTech
- Plant Optimization

Resilience and Adaptation

- Intelligent Waste Sorting
- Advanced Recycling
- Sustainable Mining
- Hardware Circularity
- Materials Exchange
- Novel Insurance & Natural Disaster Mitigation
- Water Management

The innovation nexus of the next wave of Sustainability



Our newest Sustainability Program!

amazon







Amazon Devices Climate Tech Accelerator



Designed to accelerate integration of your innovation into Amazon Devices.



amazon PLUGANDPLAY

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PANEL DISCUSSION

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SUSTAINABILITY PANEL



MODERATOR

Matthew Claxton

Partner & Global Head of Sustainability
Plug and Play



Maiken Møller-Hansen

Director, Energy & Sustainability
Amazon Devices & Services



Julie Rapoport

Head of Platforms & Devices
Net Zero Strategy & Environmental Footprinting
Google

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EMCEE

Palak Jauhari

Ventures Associate
Plug and Play

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STARTUP PRESENTATIONS

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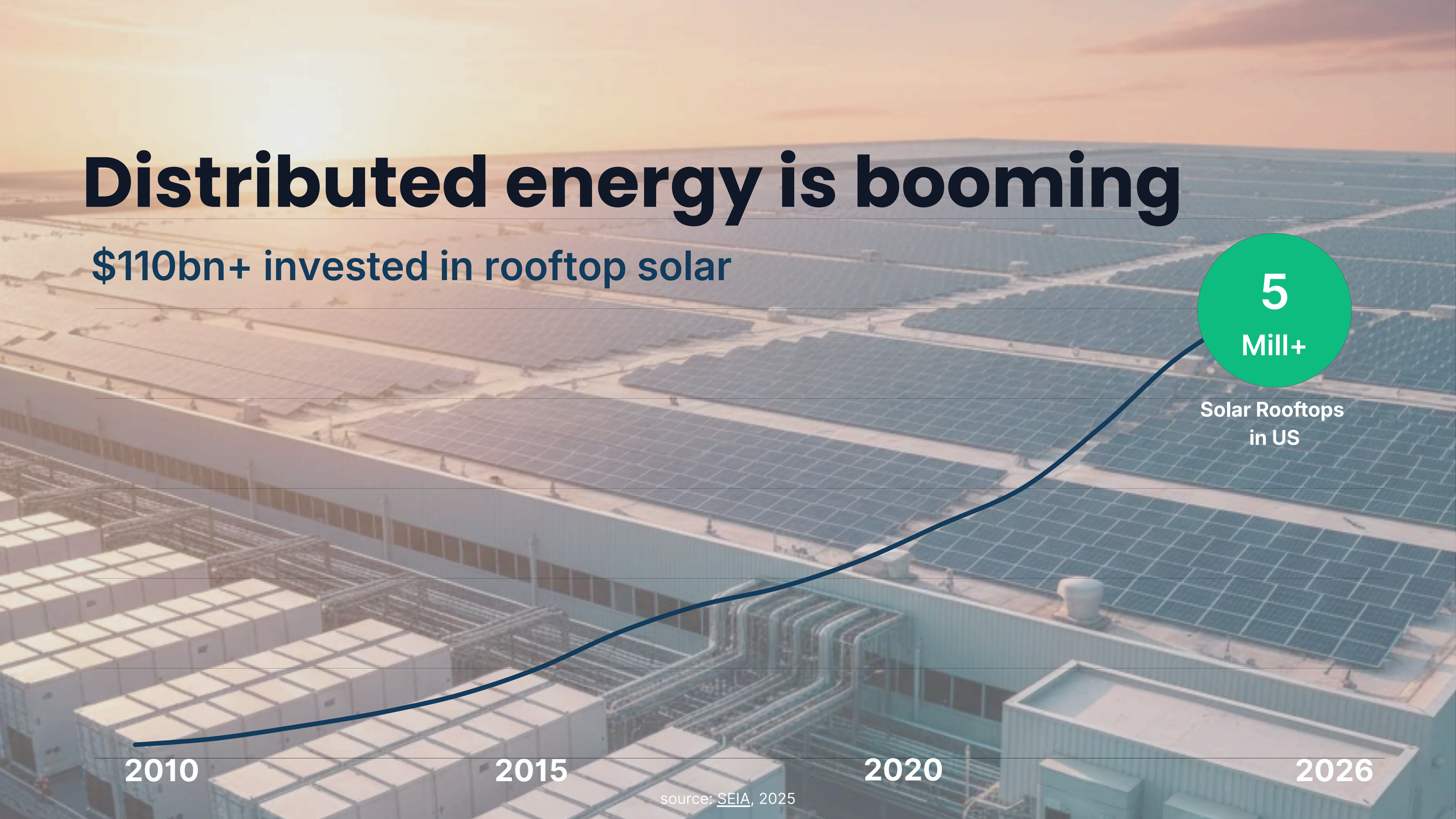
METRIS

The AI-native operating system for distributed energy

Distributed energy is booming

$110bn+ invested in rooftop solar



source: SEIA, 2025

But projects are failing in operation

8-12% distributed energy lost in operation.

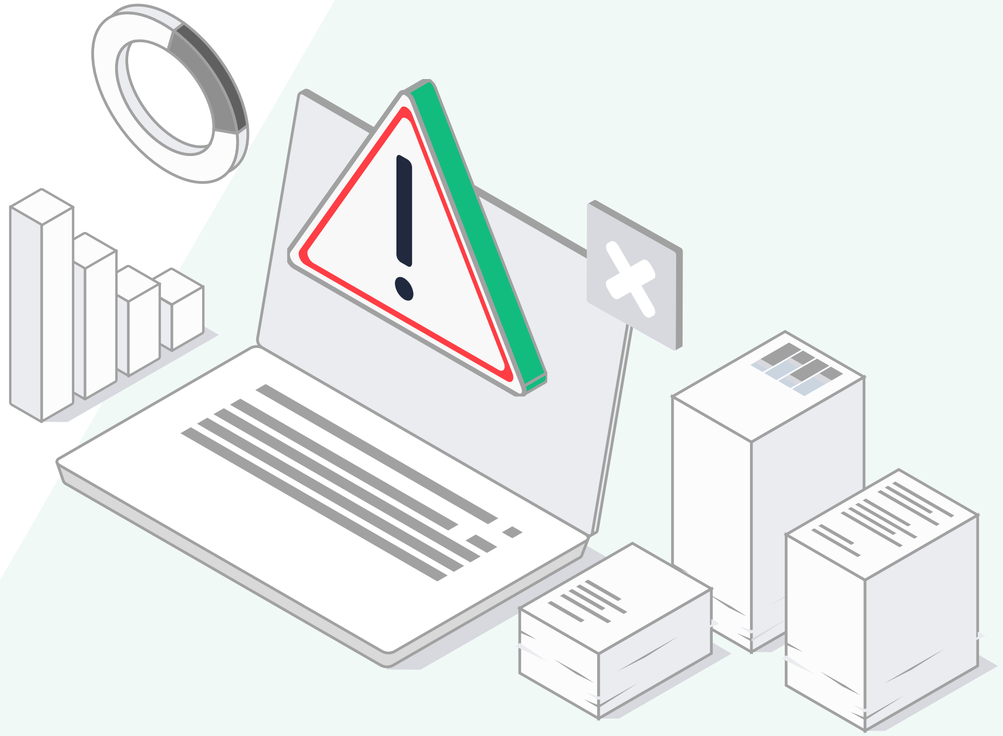
$10bn lost value every year.

Operations teams can’t keep pace

Asset managers and O&M teams already feel pain from:

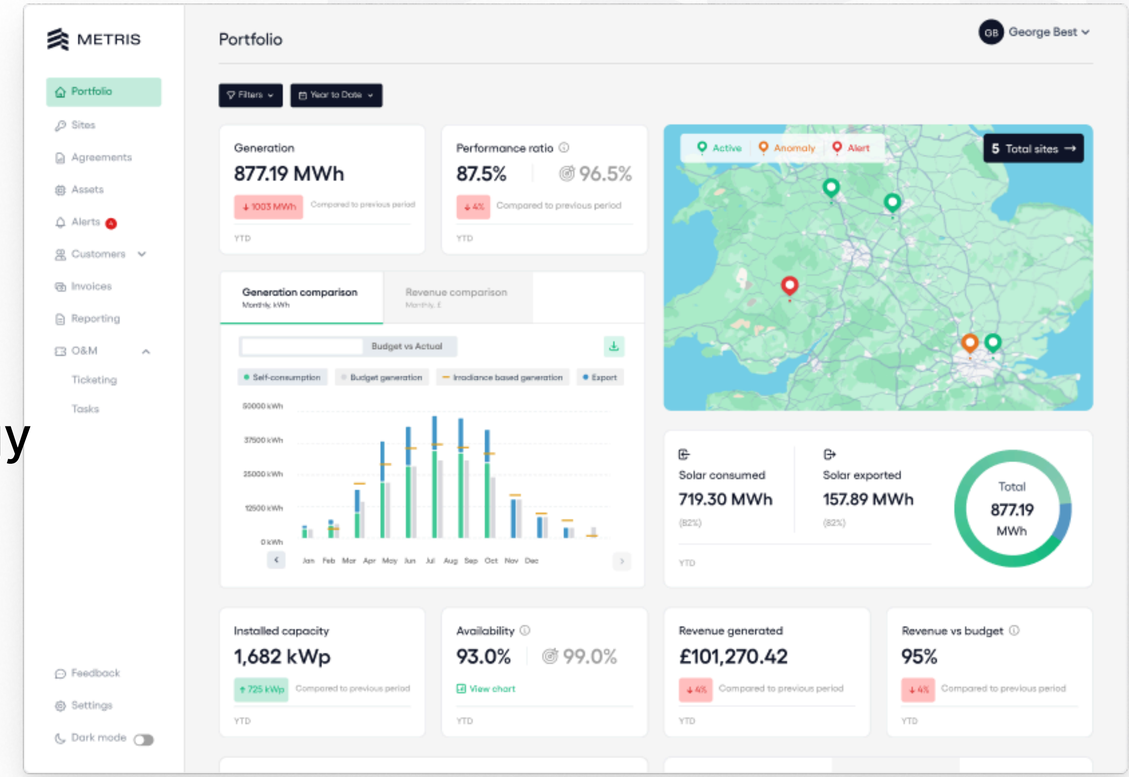
- **Endless, Noisy Alarms**
- **Scattered Data & Systems**
- **100s of Documents & Spreadsheets**
- **Customer Call Outs**

Complexity scales with number not size of asset



Meet MetrisOS

The AI-native operating system for distributed energy



Our mission

to maximise every kW of renewable capacity

Data Engine

Centralise asset data

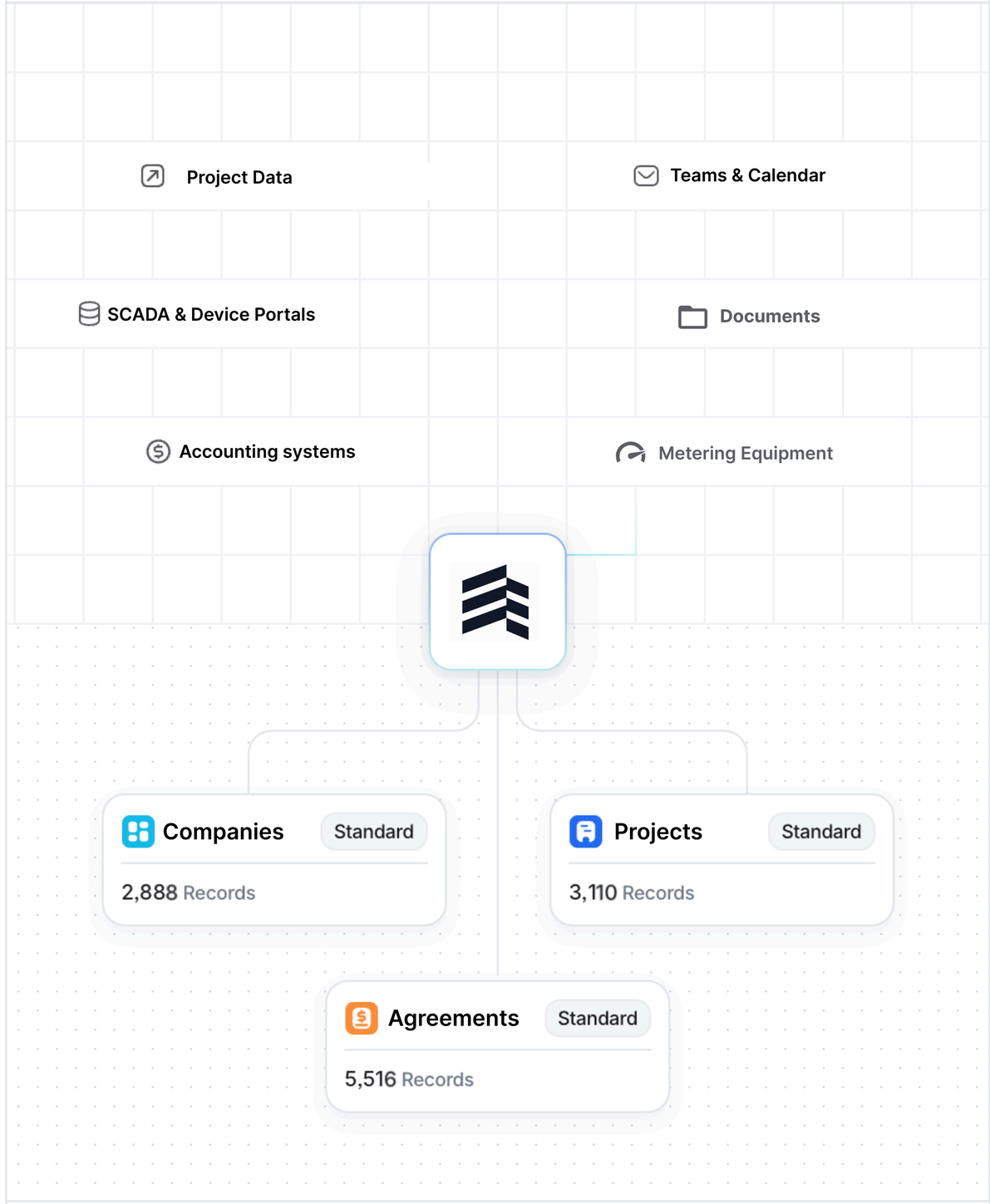
A single system of record for all portfolio assets, performance data, documents, and operational info.

Connect your stack

Eliminate data siloes. Bring commercial and technical asset management in one place.

Monitor every project in one place

Metris supports portfolios across multiple entities, technologies and geographies.



Agentic O&M

Fault triage

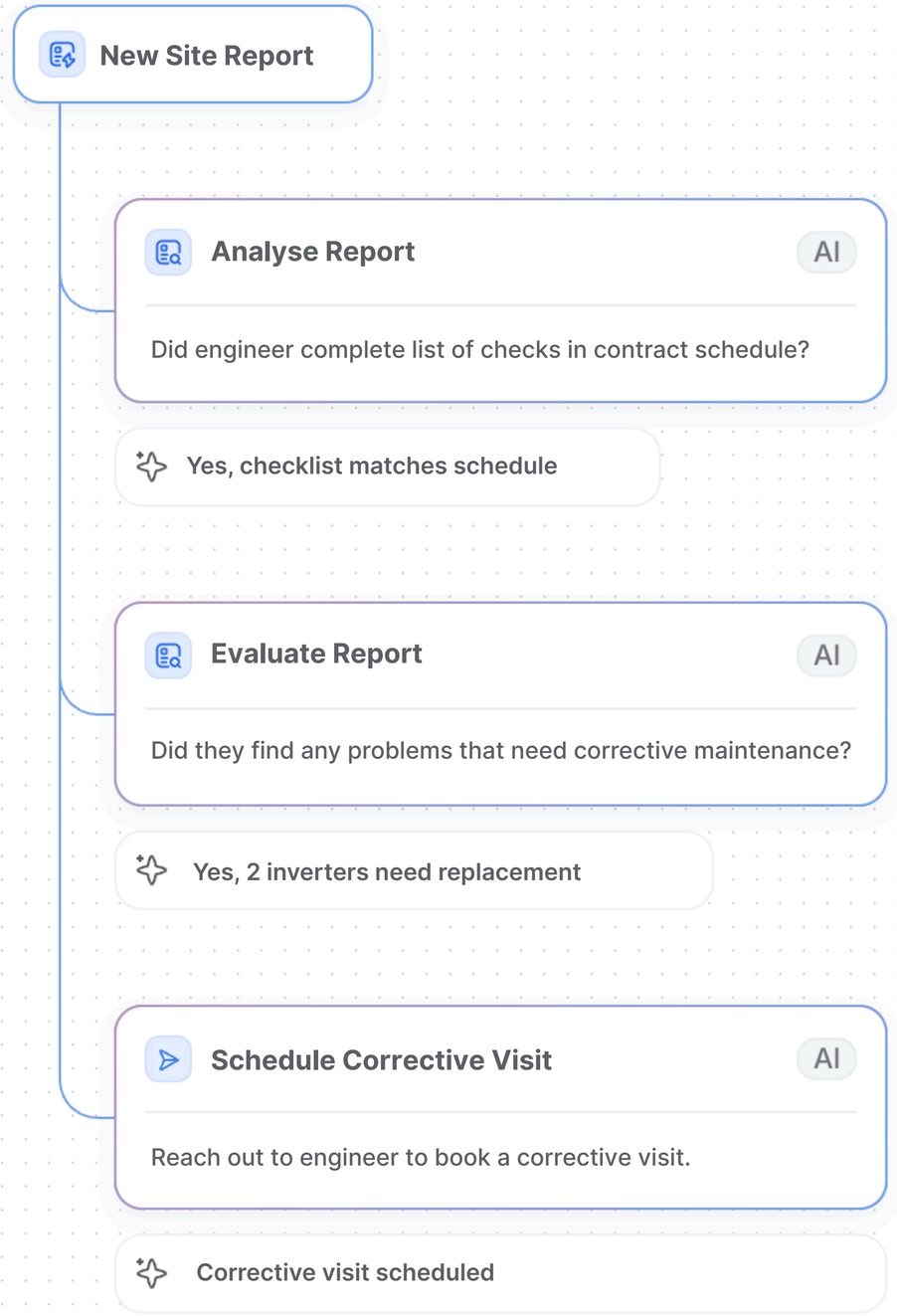
Surfaces critical performance alerts by severity.
Groups repeats alarms. Highlights faults in progress.

Automated workflows

Automatically notifies customers, assigns field engineers, sends automated reminders and surfaces report summaries.

Schedule on autopilot

Leverage our AI assistant to schedule corrective and preventive visits via call, email and whatsapp.



Earn on autopilot

Automated PPA & tenant billing

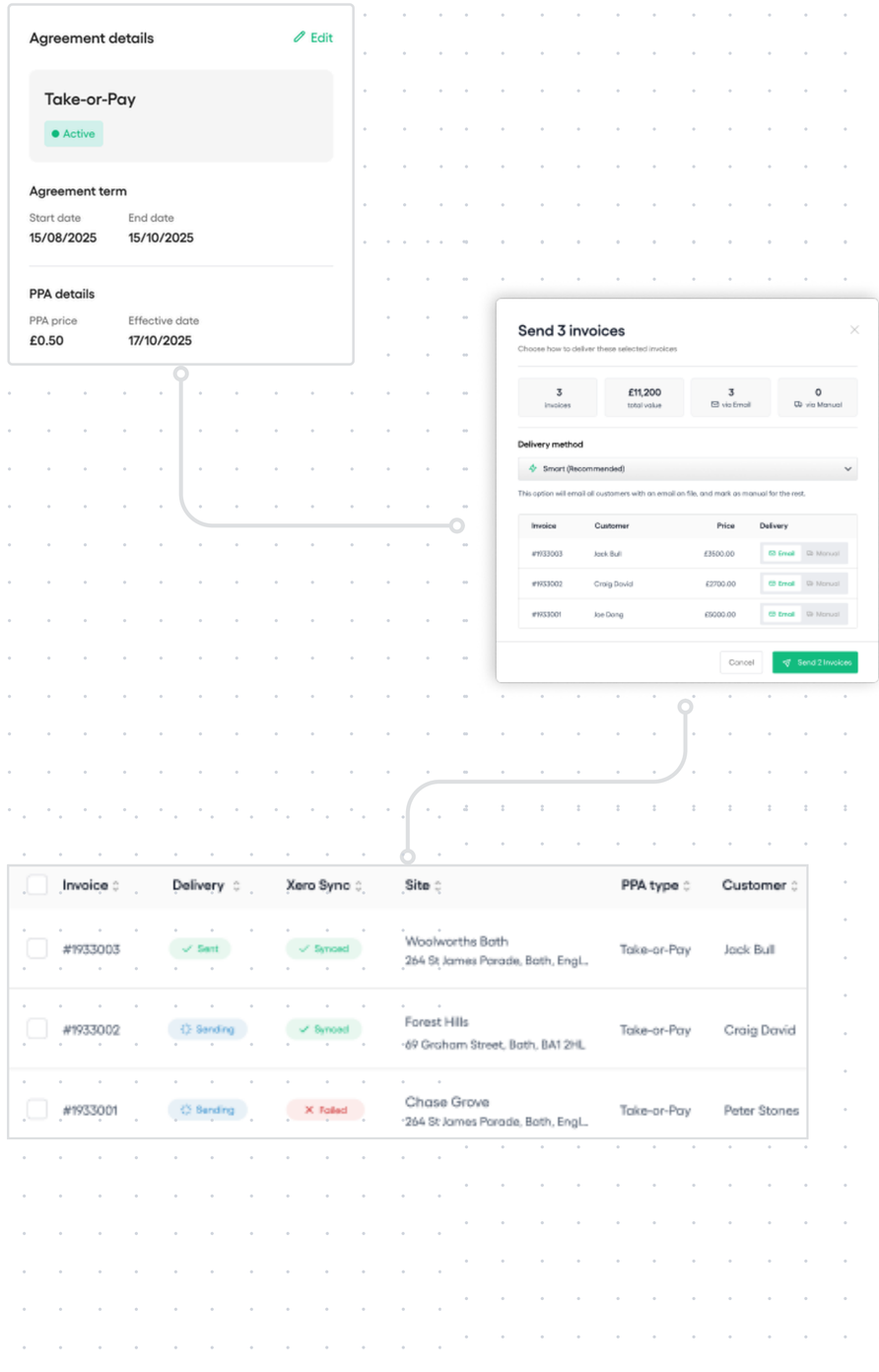
Best-in-class PPA invoicing. Metris automatically calculates, generates, and reconciles invoices.

Stack revenue streams

A platform as diverse as your revenue streams. Track revenue across PPA, FiT, CfD, REGOs and other local energy schemes.

Integrated energy finance workflows

Connect accounting and payment systems to facilitate eliminate manual data entry.



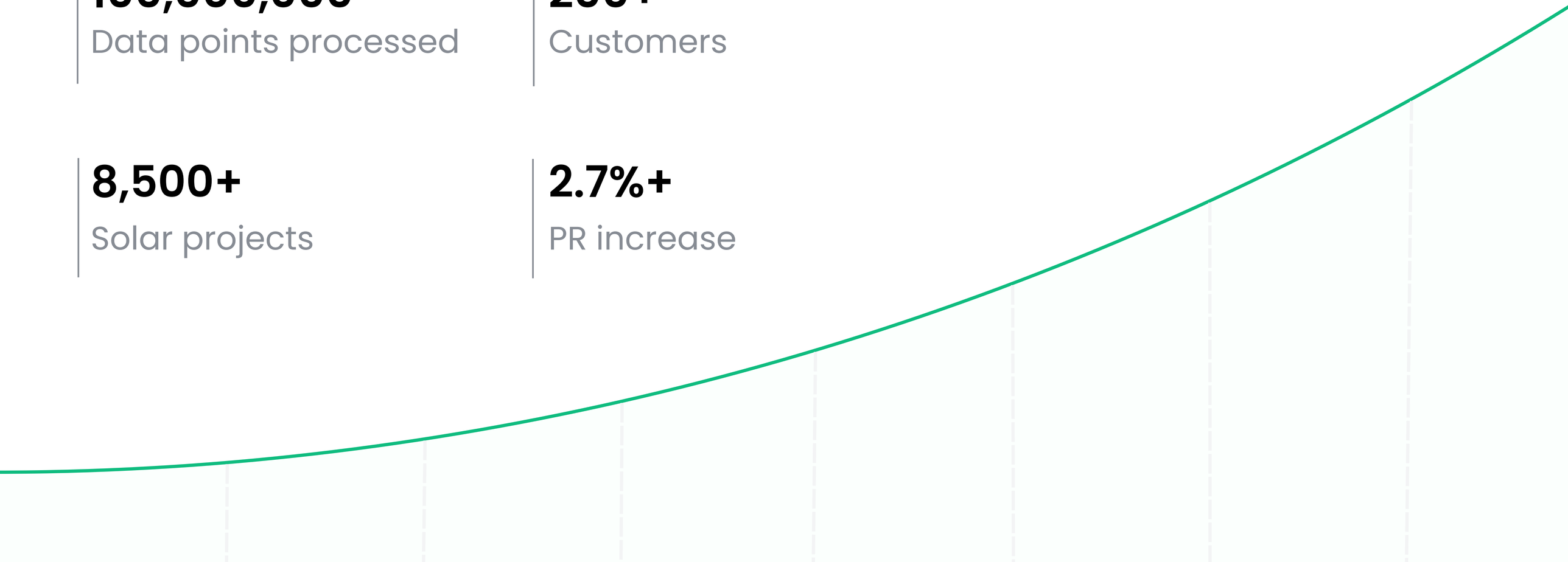
We’ve dominated the UK market

100,000,000
Data points processed

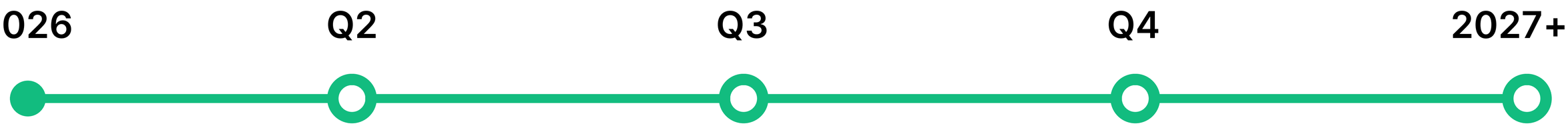
200+
Customers

8,500+
Solar projects

2.7%+
PR increase



Now, we're expanding markets



Batteries

BESS Integration
Technical KPIs
Energy Insights

Deepen Agentic O&M

Call handling
Troubleshoot Guide

US Expansion

Utility tariff set-up

Optimise Revenue

BESS Optimiser Benchmarking
Export Tariff Pool (UK)

Expand Assets

EVs
Heat Pumps



Our Vision

to become the intelligence layer for the distributed energy economy

Monitor | Maintain | Monetise

METRIS

www.metrisenergy.com

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STARTUP PRESENTATION

solidec

Solidec

Solidec is the path to emission-free chemicals and fuels.

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Join us at **pnptc.com**

Chemical manufacturing, simplified

solidec

contact@solidec.com
May 20, 2026

Chemicals shouldn’t come on trucks or trains.



50-Car Train Derailment Causes Big Fire in Ohio. Credit: Gene J. Puskar/AP Photo.

Today, the process of procuring chemicals is expensive, inefficient, unreliable, and unsafe.



Rising costs

Chemical and shipping prices are volatile and increasing.



Safety risks

Concentrated chemicals are hazardous to store onsite.



Unreliable deliveries

Frequent disruptions and delays affect your day-to-day operations.



Quality issues

Chemical impurities and additives affect equipment effectiveness and lifetime.



Chemical waste

Some chemicals degrade and produce hazardous waste, also wasting money.



Regulatory burden

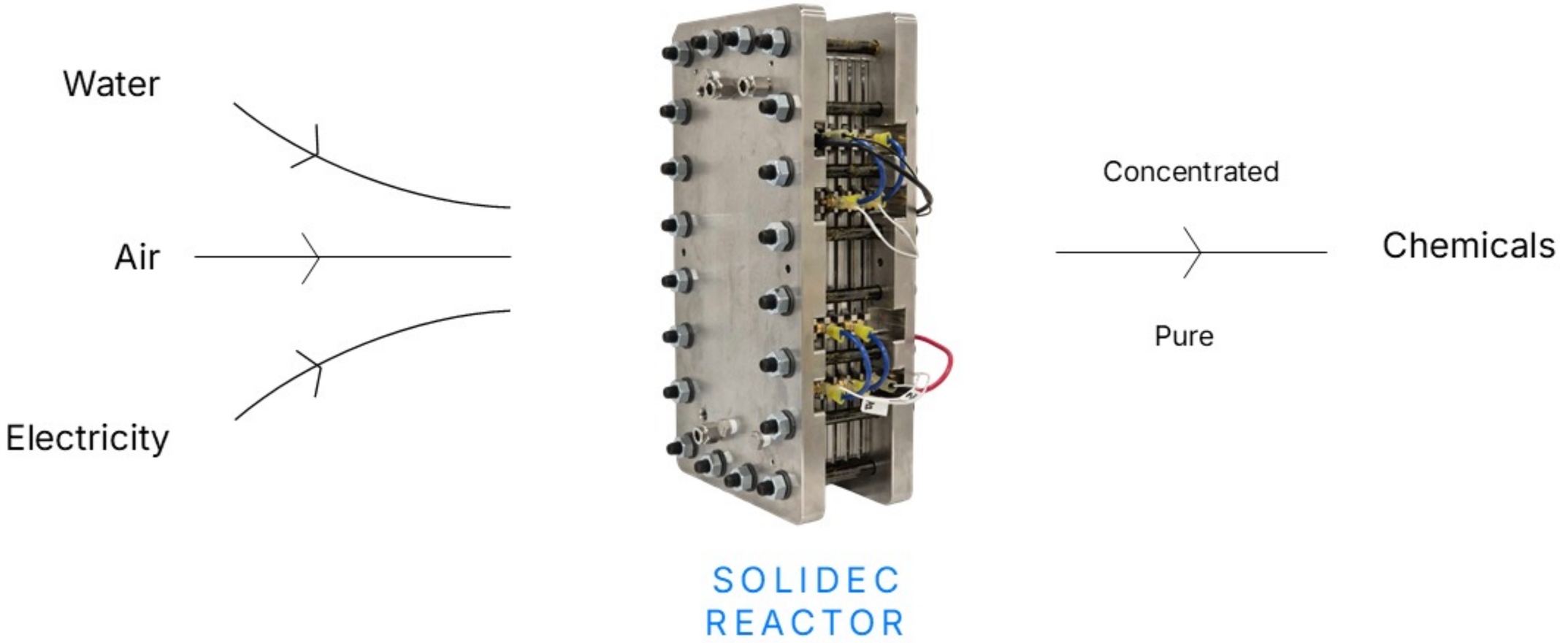
High costs of insurance, employee training, and permitting.



OUR SOLUTION

We make technology to generate chemicals on-site and on-demand.

Solidec’s reactor makes chemicals anywhere using only air, water, and electricity.



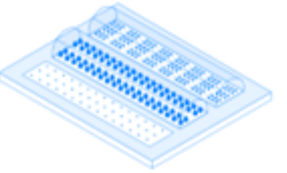
We are developing our flagship product to generate hydrogen peroxide on-site.

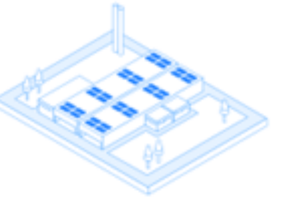


SOLIDEC
TECHNOLOGY


Pulp & paper


Semiconductors


Agriculture


Food & beverage


Mining


Water treatment

We produce hydrogen peroxide using six fewer steps than the traditional process.

Existing process

1 Steam reforming

Fossil Fuels

Palladium

2 Hydrogenation

3 Oxidation

Water

4 Extraction

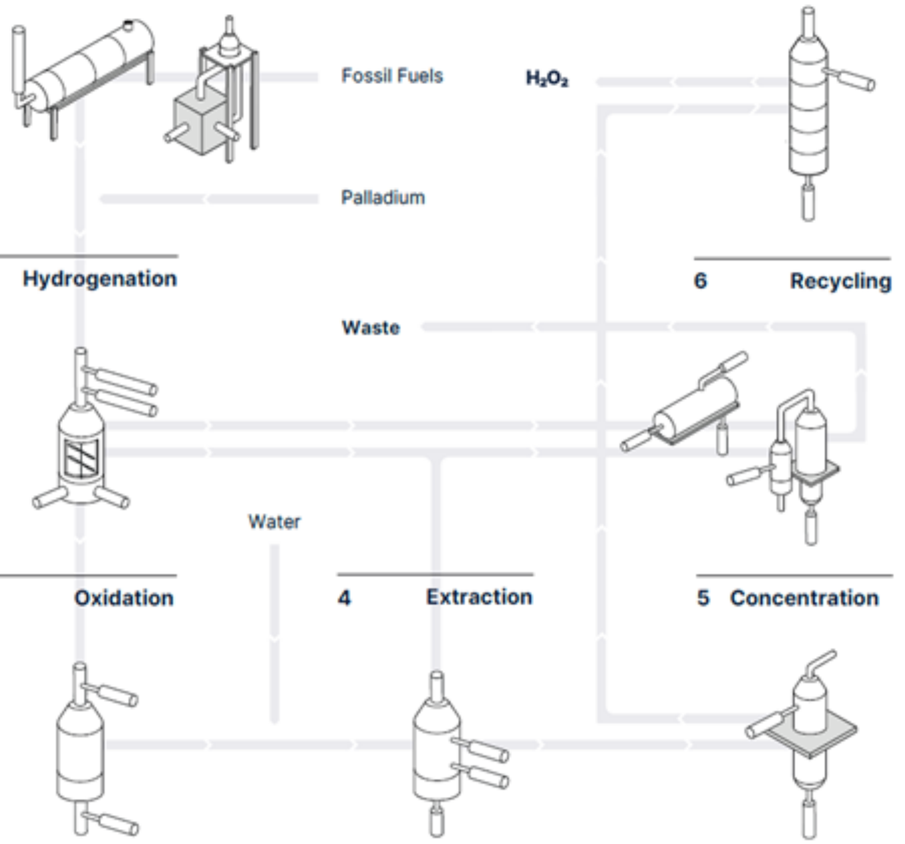
5 Concentration

Waste

6 Recycling

H_2O_2

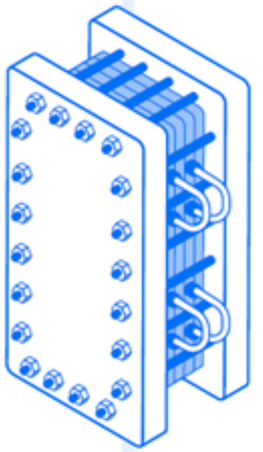
7 Purification



Solidec process

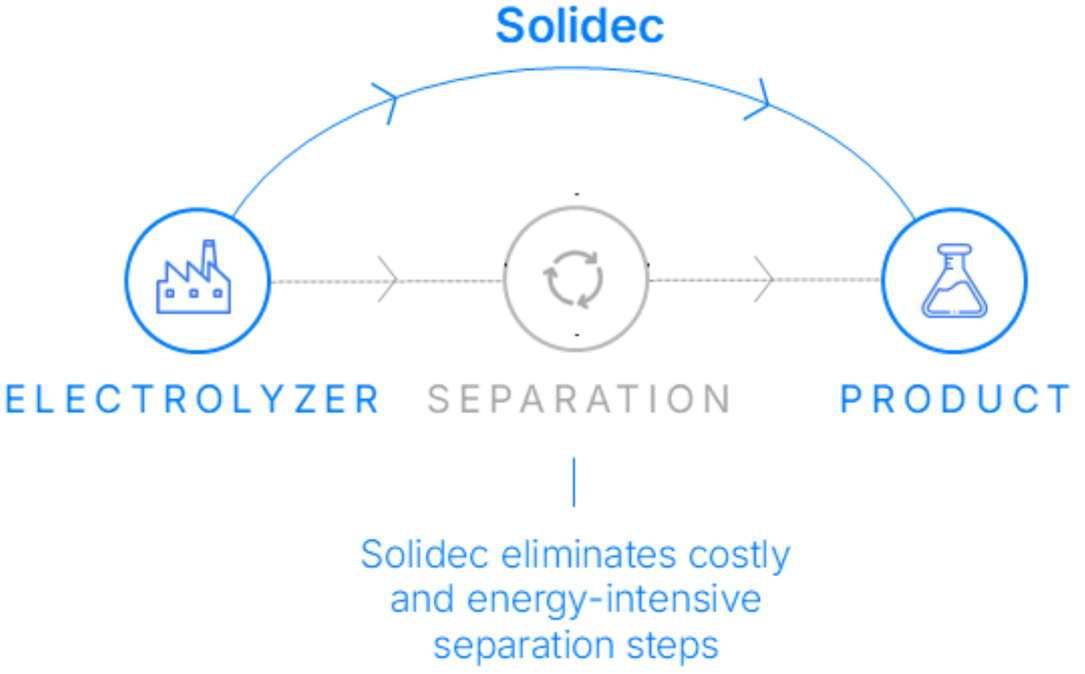
1. Electrolysis

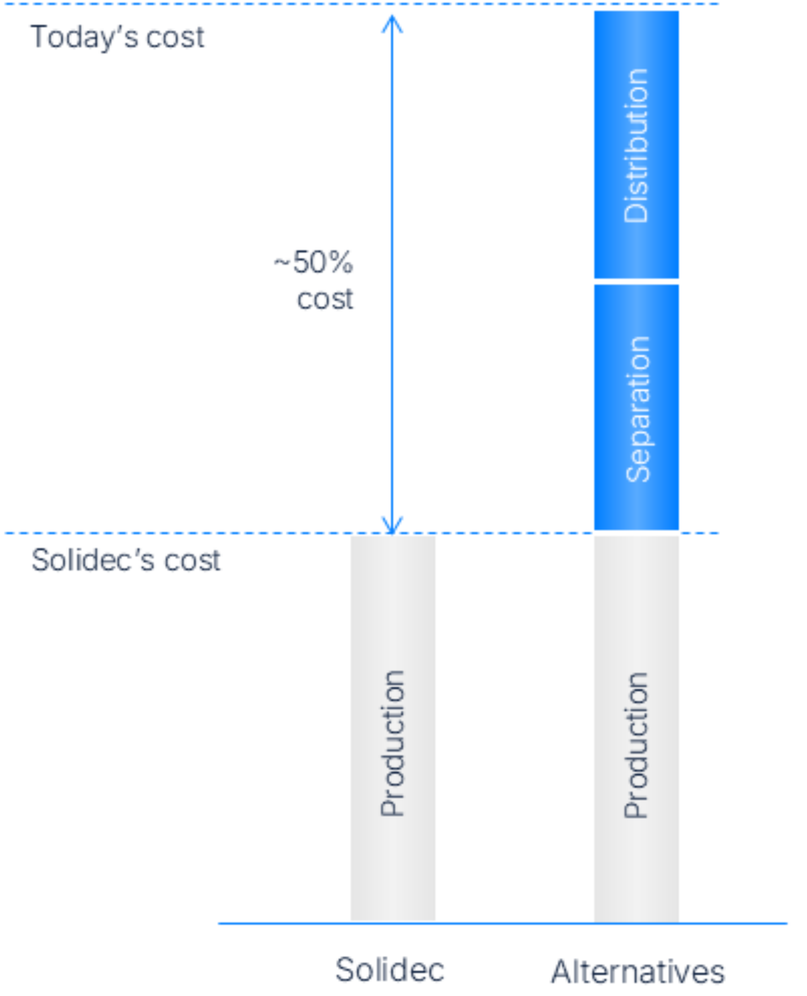
Water



H_2O_2

Solidec's reactor eliminates half the delivered costs of chemicals from competing processes.





With onsite generation, Solidec provides supply chain control with less hassle.

Control costs
End exposure to volatile market pricing & delivery surcharges.

Simplify compliance
Reduce regulatory burden by eliminating bulk hazardous storage and Scope 3.

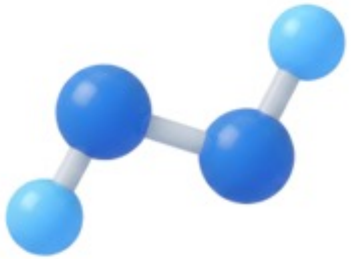
Eliminate hazmat risk
Chemicals only at the concentration you need.

Eliminate waste
Only enough chemical for what you use — no chemical goes wasted.

Reliable supply
Get chemical instantly, right where it is needed. No shortages or delays.

Optimize footprint
Free up space by eliminating chemical storage.

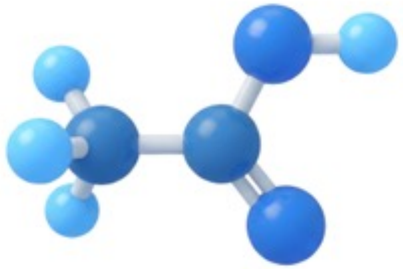
Our reactor platform can make a range of essential chemicals and fuels.



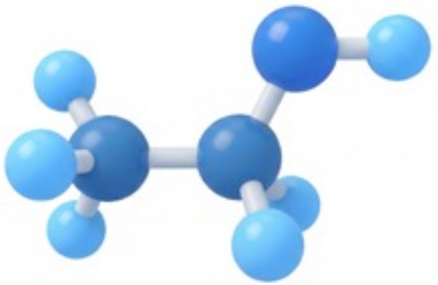
Hydrogen peroxide



Formic acid



Acetic acid



Ethanol

We are a team of innovators, supported by advisors with a track record of building successful companies.



Ryan DuChanois, PhD
CEO (Activate Fellow)
Yale



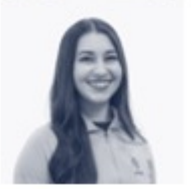
Daniel Frey, PhD
Sr. Engineer



Hangil Ko, PhD
Sr. Mech. Engineer
UNIST



Yang Xia, PhD
CTO (Activate Fellow)
RICE



Alex Fernandez
R&D Engineer



Julia Xiong, MBA
Head of Commercial
OCED
svb



Haotian Wang, PhD
CSO (Rice Professor)
RICE



Tanmay Kulkarni, PhD
Senior R&D Scientist
SACHEM



Mengjie Chen, PhD
Sr. Electrochemist
Fortescue

ADVISORS



Peter Fiske



Nisha Desai
Greentown Labs



Chock K.

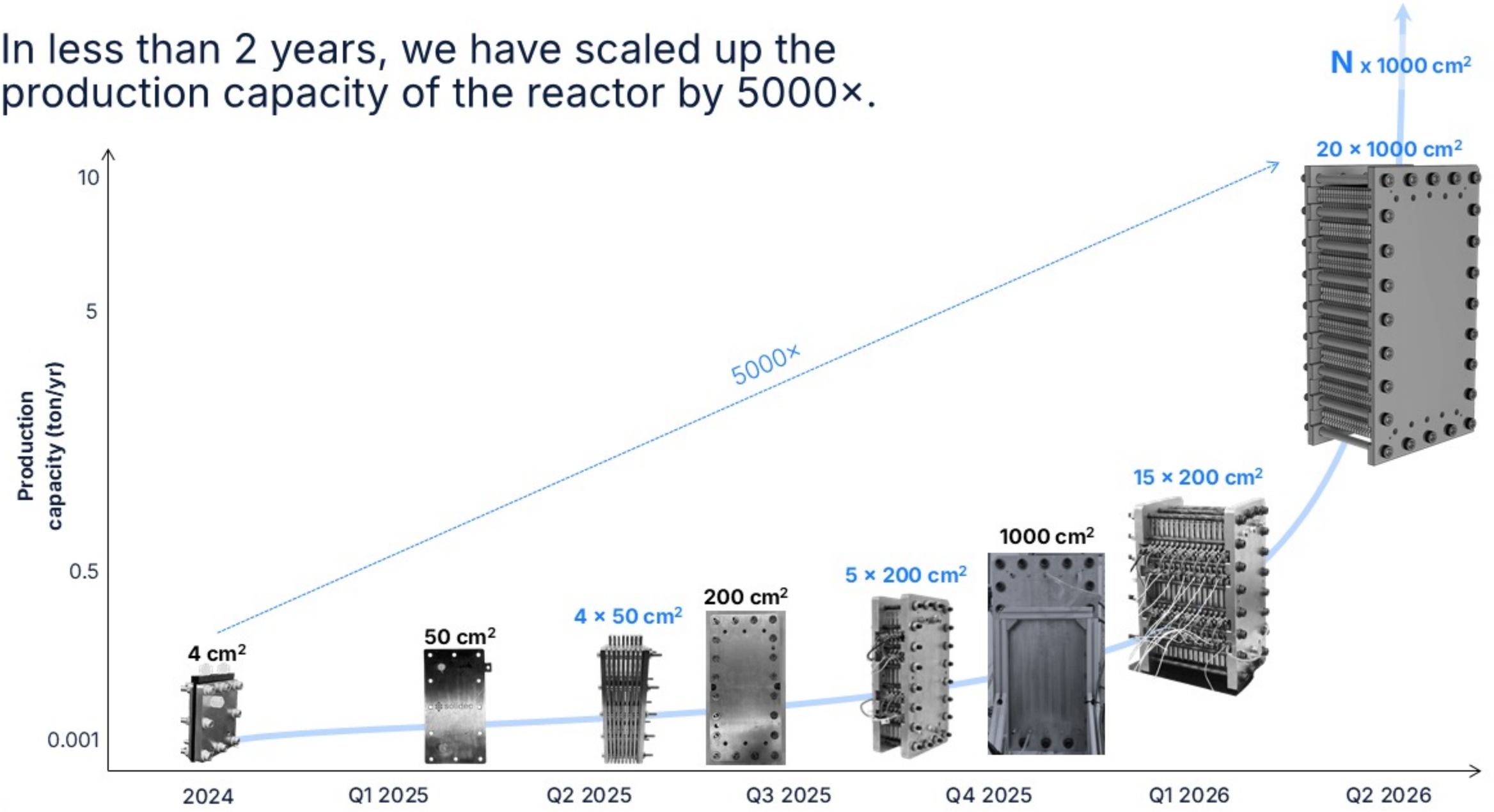


Andy Boal



John Walton
USP technologies

In less than 2 years, we have scaled up the production capacity of the reactor by 5000×.





Get in touch

contact@solidec.com

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STARTUP PRESENTATION

Liliput Technologies

Advanced Biomaterials to Enable Climate Resilient Agriculture

#PNPTCSiliconValley

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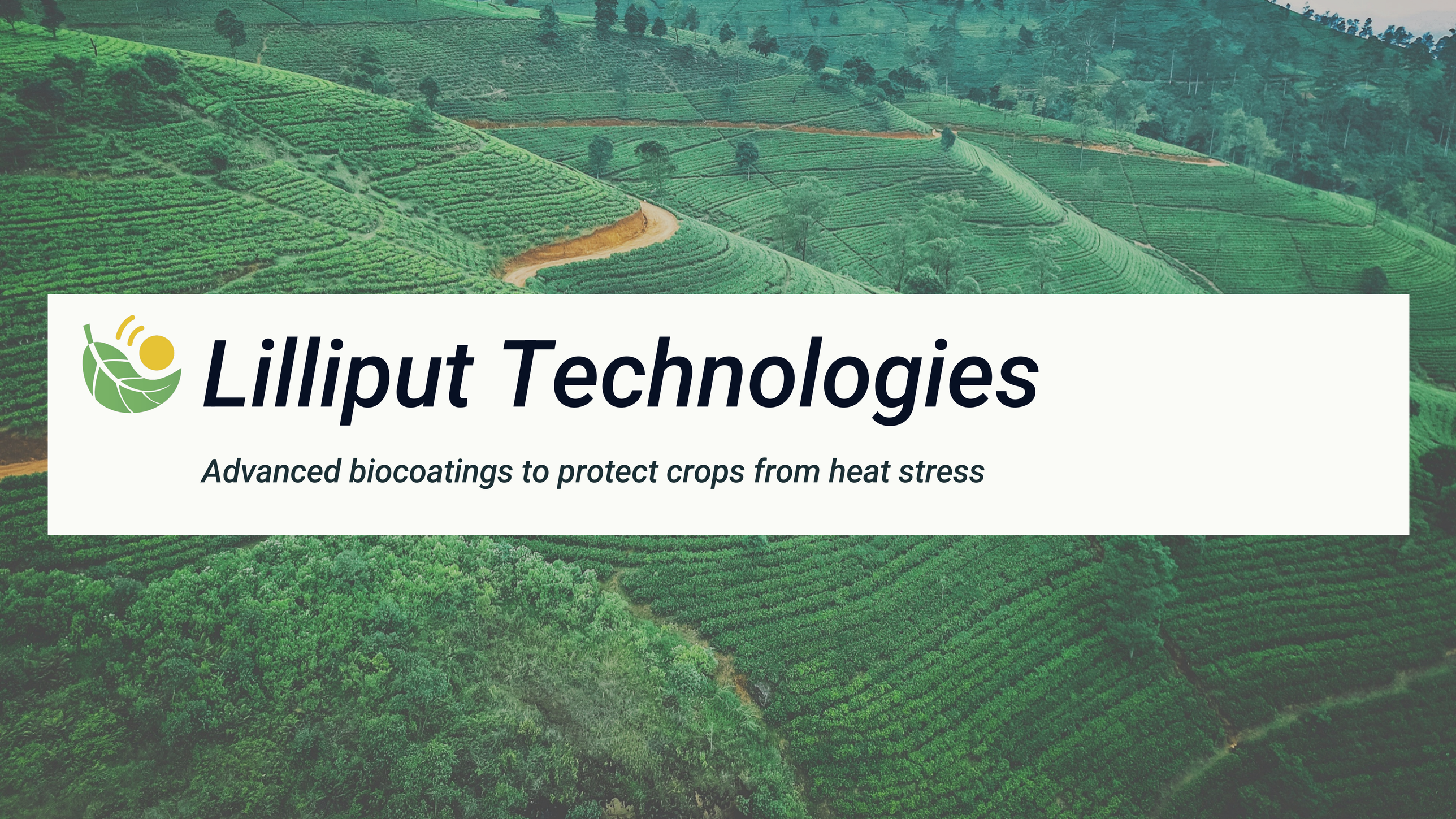


Lilliput Technologies

Advanced biocoatings to protect crops from heat stress

Heat Stress

Threatens Agriculture, Water and Food Security

20%

Global **Decrease in Agricultural Production** caused by higher temperatures over the last 60 years

12%

Estimated Global **Increase in Irrigation Water Demand** due to global warming

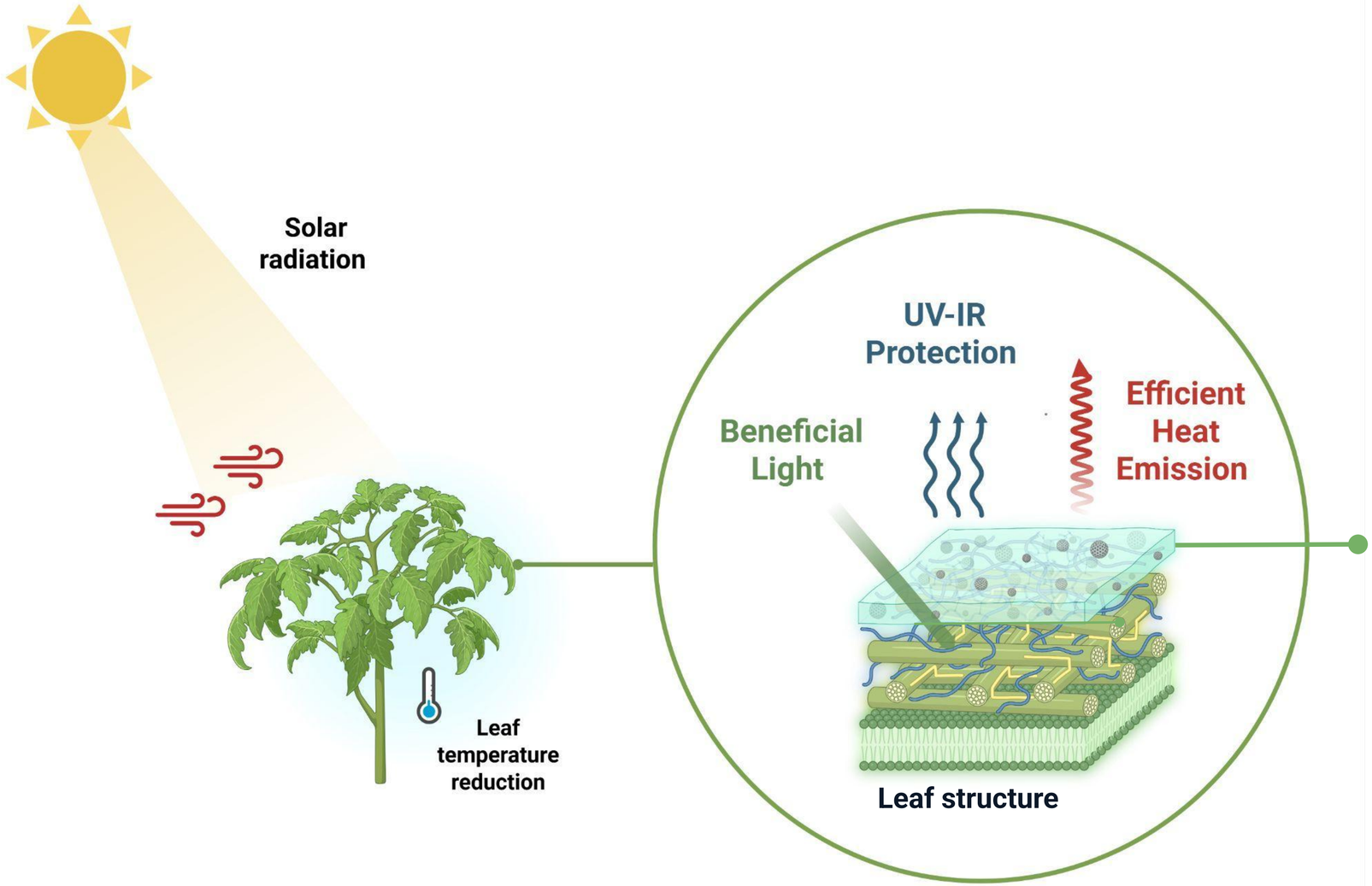
~$15 Billion

Annual Harvest Value Losses due to **heat stress** for targeted crops*

Current Solutions Fail to Meet the Challenge: They cause increased capital expenditures, operational costs and vulnerabilities to pests, pathogens and climate change.

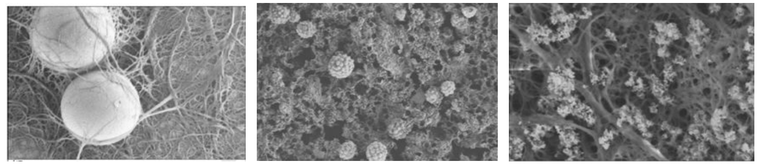
* Pineapple, Coffee, Grapes, Field Tomatoes

Lillishield Turns Heat Stress into a Self-Sustaining Solution



Our Patented Sprayable Biocoating

Is made of advanced materials based on biodegradable polymers and inorganic fillers with multiscale distributions and porous networks*



*Images captured using scanning electron microscopy (SEM)

Lillishield’s Biocoating Keeps Plants Cool and Increases Farmers’ Income



Biocoated Coffee (Coffea arabica L.) -seedling stage



Biocoated Pineapple - vegetative growth stage

Performance validated under relevant commercial conditions*

- Cools down plant temperature by up to **10°C**
- Reduces water use by up to **60%**
- Increases plant growth/yields by up to **40%**

*Technology has been tested in commercial coffee and pineapple farms and in testing beds under relevant conditions for tomatoes and lettuce. Results vary from crop to crop.

Competitors Don’t Solve the Problem

Competitors

	Universal Applicability	Reduced Energy & Water Demand	Protection Cost /ha	Integral Heat Protection	Optimal Light Management
Shade Nets	**No**	Yes	**>$5000 Capex**	Yes	**No**
Kaolinite Clay Coatings	**No**	Yes	$100	**No**	**No**
Irrigation Systems	**No**	**No**	**$6000-$20000 Capex**	**No**	**No**
Lillishield	**Yes**	**Yes**	**$100**	**Yes**	**Yes**

Lillishield can Deliver up to $3,250/ha Additional Annual Income for Growers*

Competitors' Benchmarking for Pineapple

Value Creation for Pineapple Growers	**Lillishield vs.** Shade Nets + Kaolinite Clay	**Lillishield vs.** Kaolinite Clay
Operating income growth	**12.8%**	**16.8%**
Extra income per ha/year	**$2,550**	**$3,250**



* For beachhead market, pineapple - SAM (bottoms-up) >$60 Million/yr

** Pays for itself in the first harvest. Cost per application/ha is $100 at 40% margin

Target and Expansion Markets with Urgent Demand

TAM for Targeted Markets:
>$15 Billion

- Pineapple
- Coffee
- Grapes
- Field Tomatoes

TAM for Expansion Markets:
>$50 Billion

- Citrus Trees
- Cacao,
- Ornamentals,
- Leafy Greens,
- Tree Nuts,
- Stone Fruits,
- Berries, etc.

Market for Current Competitors/Alternate Products

	Market Size ($Billion/yr)	**CAGR**
Shade Nets	15.2	6%
Agricultural Coatings	3.7	~8%
Smart Irrigation Systems	12.6	>11%
Biostimulants	4.0	~12%
Controlled Env. Agriculture	50	14%

Early Commercial Momentum Validated by LOIs, Successful Pilots, and FAO Recognition

- **$3.6M LOI** from Dole Tropical Products: In-house testing scheduled for 2027
- **Pilot paid** by *Mercy Corps Climate Venture Lab* - **$35k**
- **Full Patent Filed** at the *USPTO*
- **De-Risked Unit Economics at Scale** ($70/ha COGS)
- ***FAO* Award-Winning Technology**

KEY COMMERCIAL PARTNERS:

SUPPORTED BY:

Flexible Business Model & Multiple Revenue Streams

	Stage 1 (2026-2028)	**Stage 2** (2029-)	**Stage 3** (2030-)
Commercial Milestones	Paid Pilots, Offtake Agreements & Product Registration	Direct Sales to Major Producers	Technology Licensing & Distribution Agreements **Profitable by 2031**
Projected Annual Revenue	**~$100k**	**$1M+ by 2030**	**$6.5 M by 2033**

Experienced and Innovative Team Delivering Groundbreaking, Scalable Heat Stress Protection

Mauricio Herrera R. - *Co-Founder and CEO*

20+ years building and scaling AgTech ventures, leading climate adaptation and technology transfer programs with farmers.

Laura Chaves M. - *Co-Founder and CTO*

8+ years leading polymer and nanotechnology R&D for startups, specializing in IP strategy and scaling advanced materials into manufacturable products.

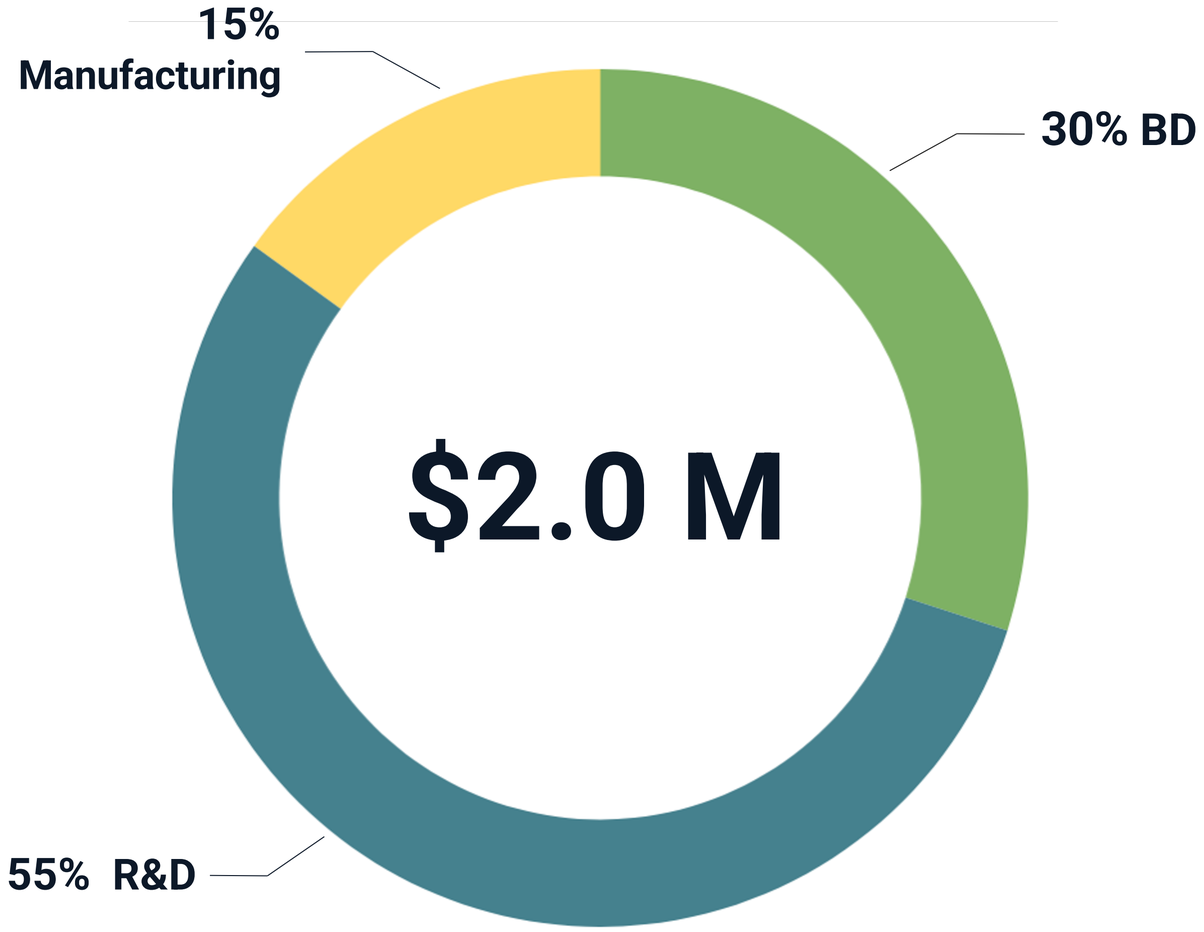
Andrea Colina B. - *R&D Scientific Lead*

Ph.D. in Environmental Geochemistry with 10+ years of expertise in chemistry, plant physiology, and environmental science.



***FAO - Startup Innovation* Awards (2025)**
Best innovation for climate resilience and water security in agriculture

Pre Seed: Scaling Proven Execution



Key Outcomes:

Product Manufacturing: *Scale-up production for expanded commercial testing*

Customer Development: *Conversion of LOIs/TEAs into purchase orders and off-take agreements*

R&D and Product Development: *Expanded commercial testing and product registration*



Increase agricultural productivity. Build climate resilience. Join us !

Contact:
mauricio@lilliputtech.com
lilliputtech.com

PLUG AND PLAY

SILICON VALLEY SUMMIT

STARTUP PRESENTATION

Lemna Pro

Pioneering a groundbreaking plant-based functional protein derived from Water Lentil

#PNPTCSiliconValley

Join us at **pnptc.com**


lemnapro
PLUGANDPLAY



GLOBAL FOOD PRICES ARE EXPERIENCING A SHARP RISE

+70%

10 years Beef Index

+38%

10 years WW FOOD Index


THE WORLD IS ENTERING
A PROTEIN SCARCITY CRISIS
40%
Plant-Based by 2035

WATER LENTIL
IS NATURE'S MOST ROBUST PROTEIN PRODUCTION PLATFORM

45% Protein

30% Fiber

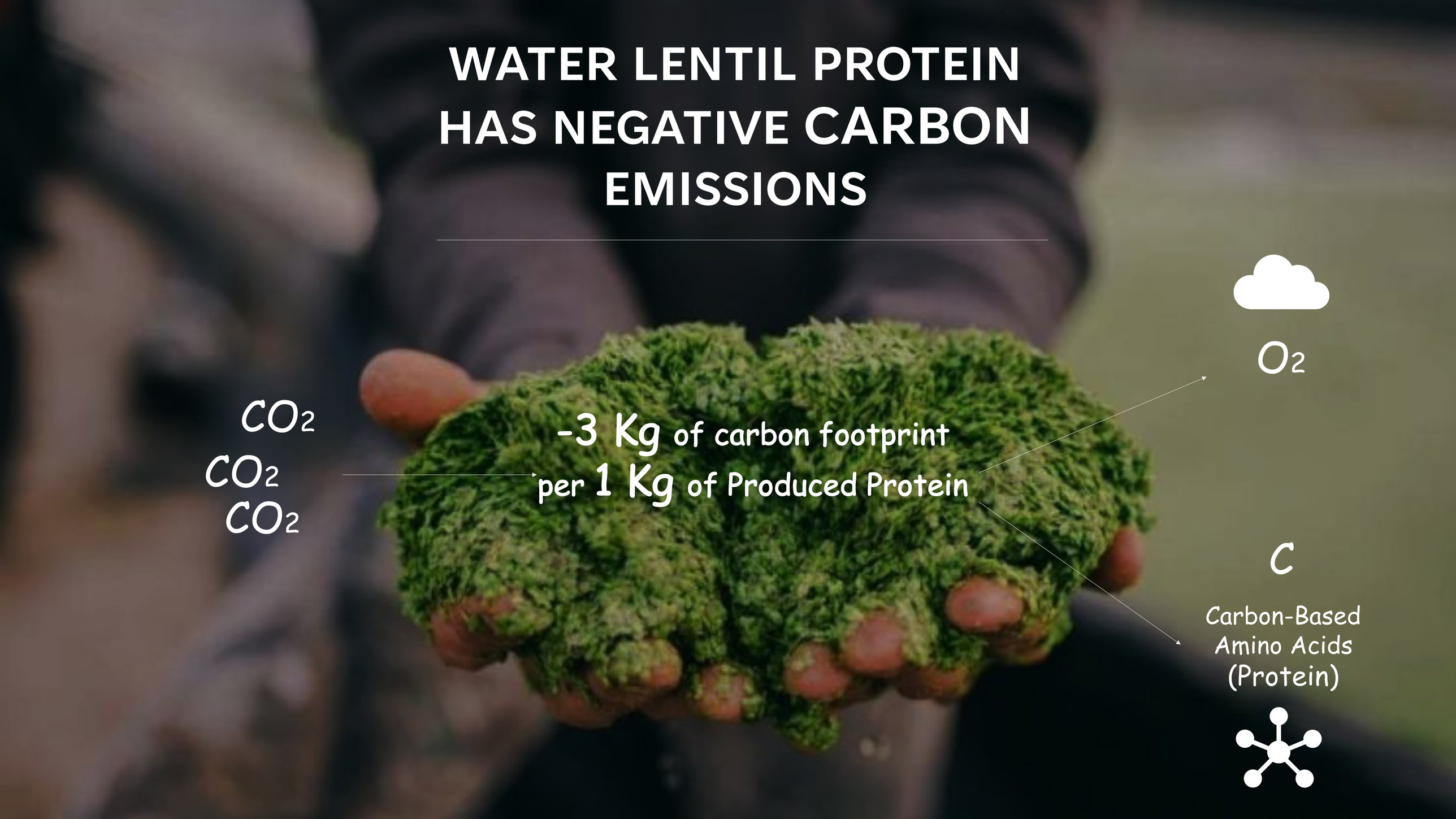
Iron

Ω3

B12



WATER LENTIL PROTEIN HAS NEGATIVE CARBON EMISSIONS



LEMNA OUTRIVELS OTHER PLANT-BASED PROTEIN

Source	Purity %	Dry Mass Protein g/100g	PDCAAS	Nutritional Score	Functional Score	BCAA (g/100g prot)	Sustainability (1-10)
Lemna	**60**	**50**	**1.0**	**5.0**	**8.5**	**22.3**	**9.5**
Pea	60	48	0.89	4.3	6.0	17.8	7.5
Soy	60	48	0.91	4.4	7.0	18.2	6.0
Chickpea	60	20	0.78	0.9	6.5	17.5	7.0
Spirulina	65	65	0.86	5.6	7.5	19.5	8.5
Quinoa	60	14	0.85	0.7	7.0	18.0	7.5



LEMNA MATCHES WHEY PROTEIN

WITH HALF THE PRODUCTION COSTS



Proprietary Cultivation and Extraction Methods



95

Patents & Trademarks

lemnapro

AFFORDABLE HIGH-QUALITY PRODUCTS







Food & Dietary Supplement TAM > $120B

EXECUTION PLAN

2024-5 $2.8M F&F For Product Development

- **2026** Scale Up Facility
- **2027** $200M Sales Pipeline
- **2027** Complete all regulatory work
- **2028** 700 MT Production Facility
- **2030** Scale out our production



David Bengal
CEO



Igal Gelfer
CTO



Orit Greenberg
COB



Dr. Moran Olivia
Chief Scientist



Dr. Matthew Van Ert
Scale-up Advisor



Yoshinori Oikawa
Advisor



Dr. Robert Smith
Downstream Advisor



Doron Maor
Food Specialist

EXECUTION TEAM

PRODUCTS PROFITABILITY PER KG

COGS $4 — LG 42%-50% Protein — MRSP $6kg

$2.0
Profit Margin

COGS $6 kg — LDG 42%-50% Protein (White) — MRSP $9kg

$3.0
Profit Margin

COGS $8.0 kg — LPC 65% (Green) — MRSP $14kg

$6.0
Profit Margin

Expected Profit Margin Per Kg.

WE ARE SEEKING:

1. “Believers” - Equity Partners
   $10M SEED Round

2. Strategic Business Partners –
   Test & Place Orders

3. Local Partner to set up a scale-up facility



SAME TASTE, BETTER NUTRITIONAL VALUE



PLUG AND PLAY

SILICON VALLEY SUMMIT

STARTUP PRESENTATION

PROTON H2

ProtonH2

Producing ultra-low cost, clean hydrogen from hydrocarbon reserves

#PNPTCSiliconValley

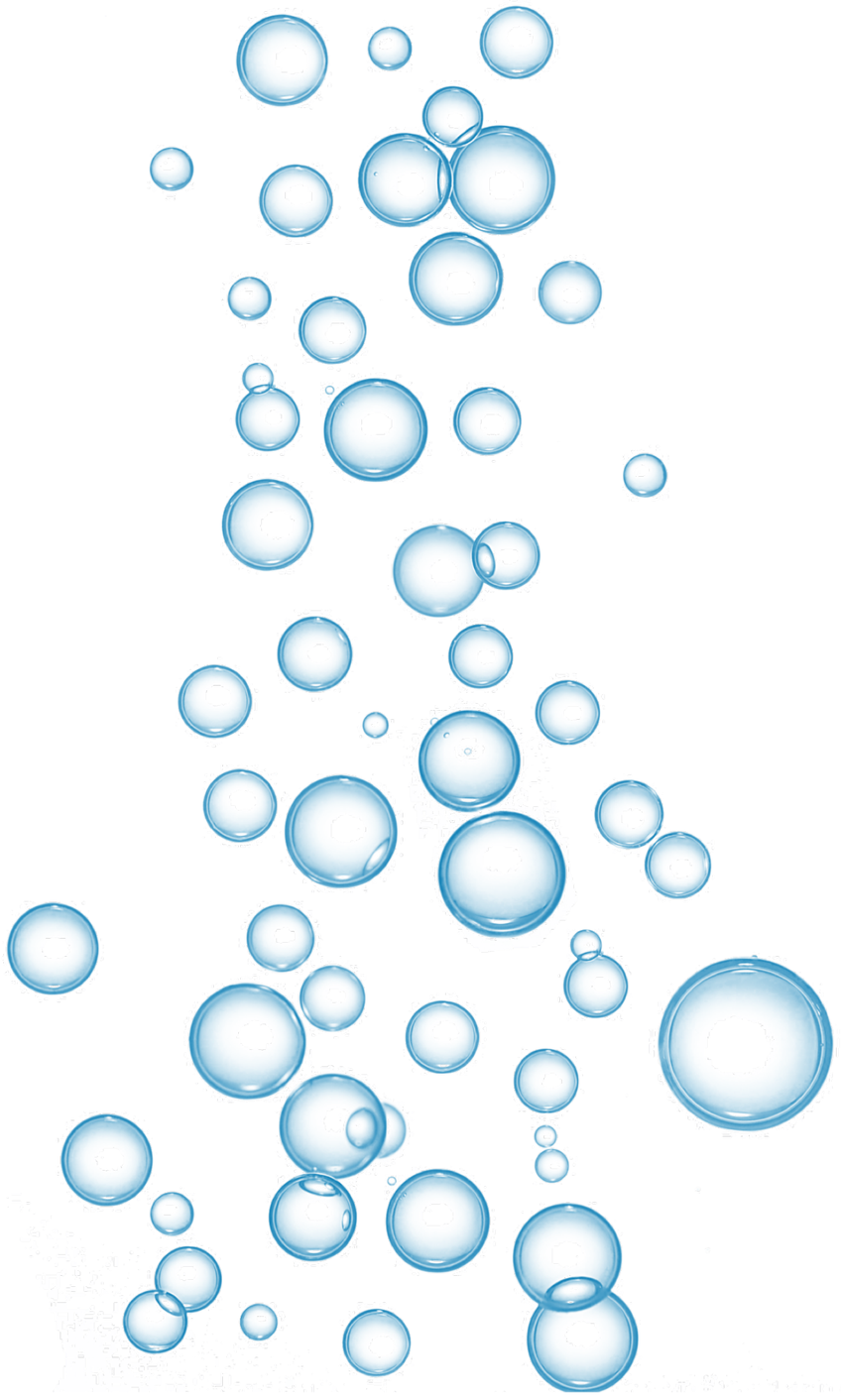
Join us at **pnptc.com**

PROTON H2

ISHG™

In-situ Hydrogen Generation

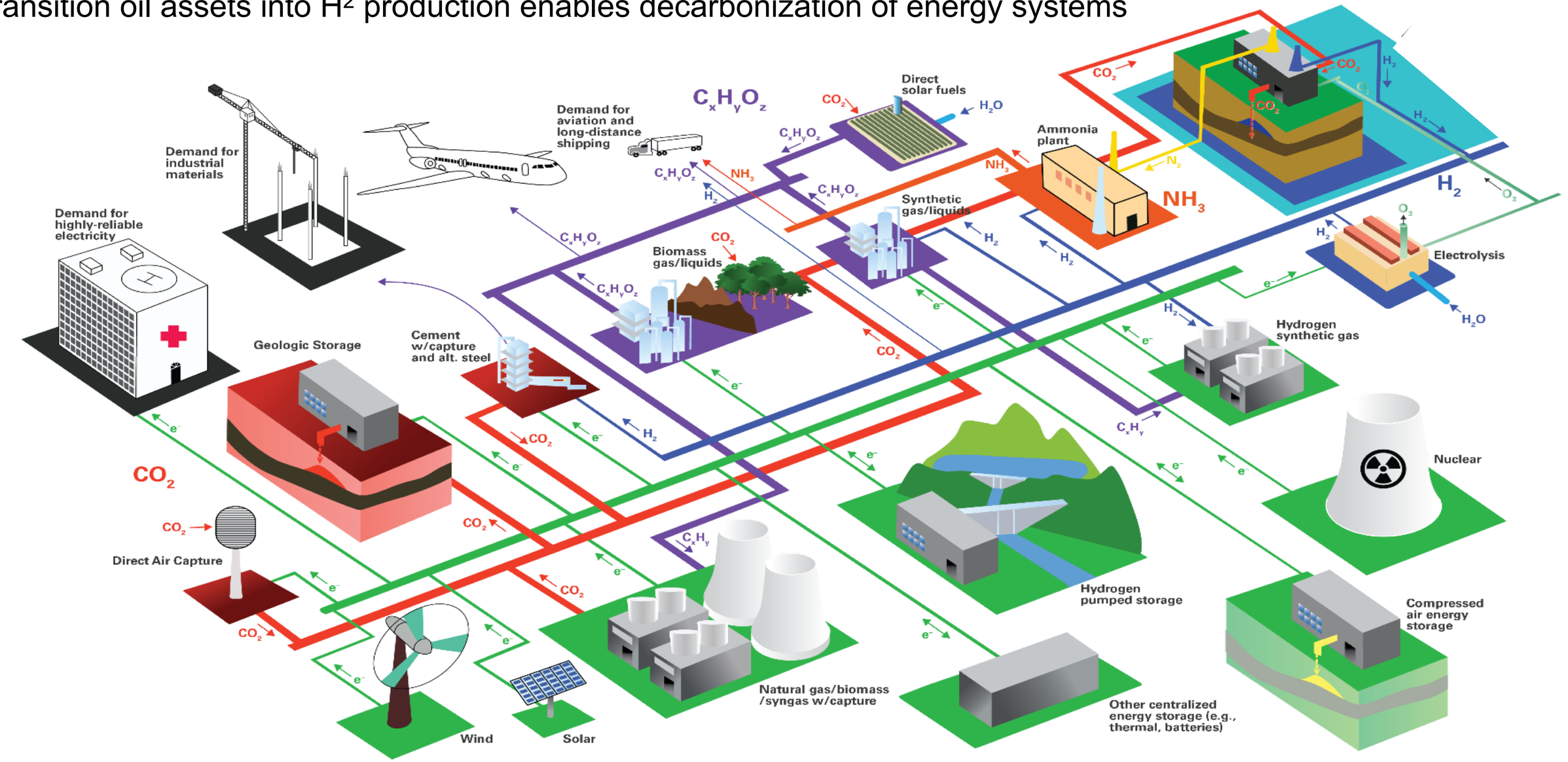
<$1/kg H^2
CCS Integrated
Best In Class C.I. Power



Decarbonize Energy Systems

PROTON H2

Transition oil assets into H^2 production enables decarbonization of energy systems



In-Situ Hydrogen Generation (ISHG™)

ISHG™ process utilizes **existing oil infrastructure** produce H_2 rich gas

---

Step 1
O_2 injection process in existing or new wells

Step 2
Downhole reactions oxidize residual hydrocarbons to generate H_2 rich gas

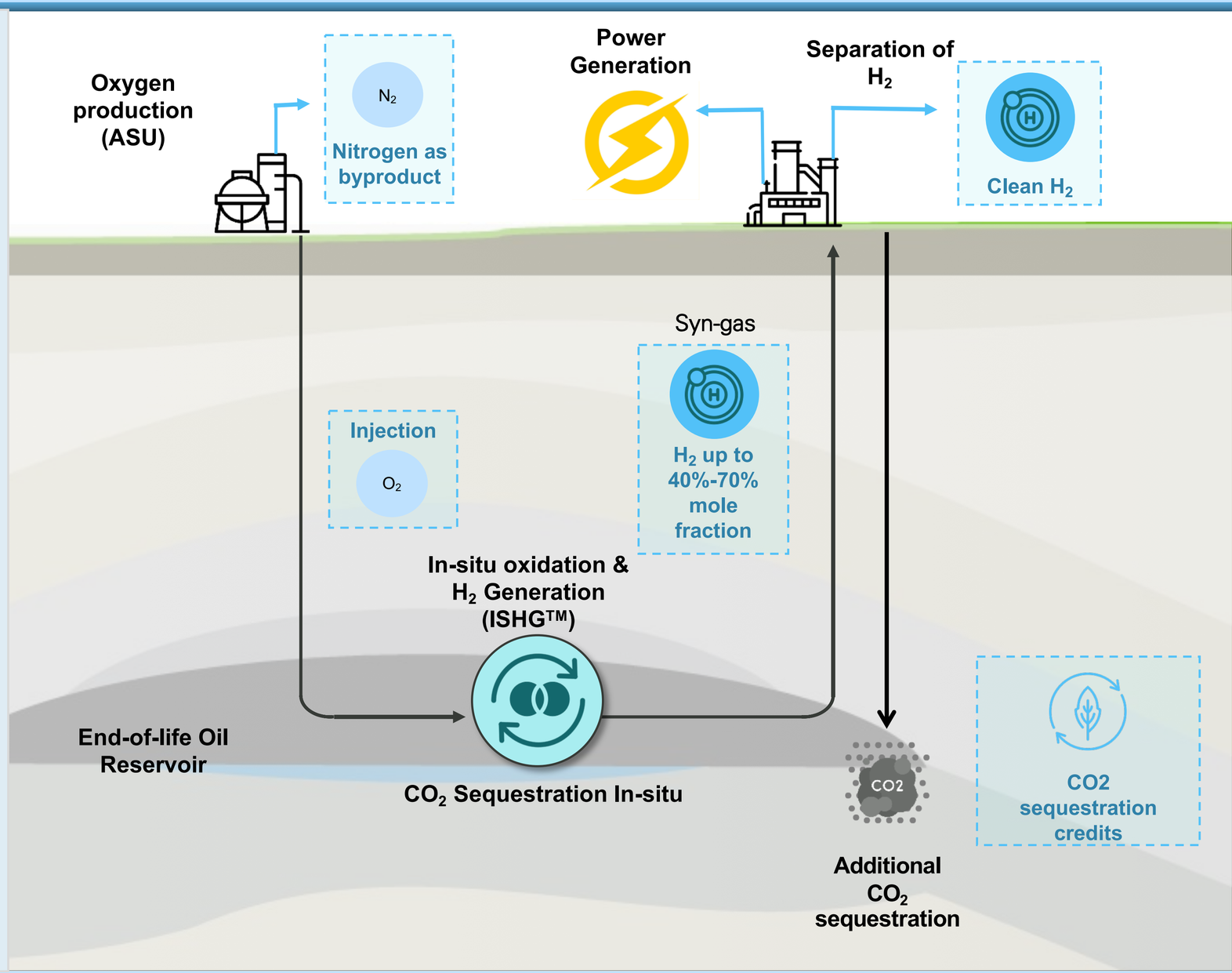
Step 3
Convert to power generation

Step 4

Separate H_2 molecules at surface

Step 5

Sequester produced CO_2 using



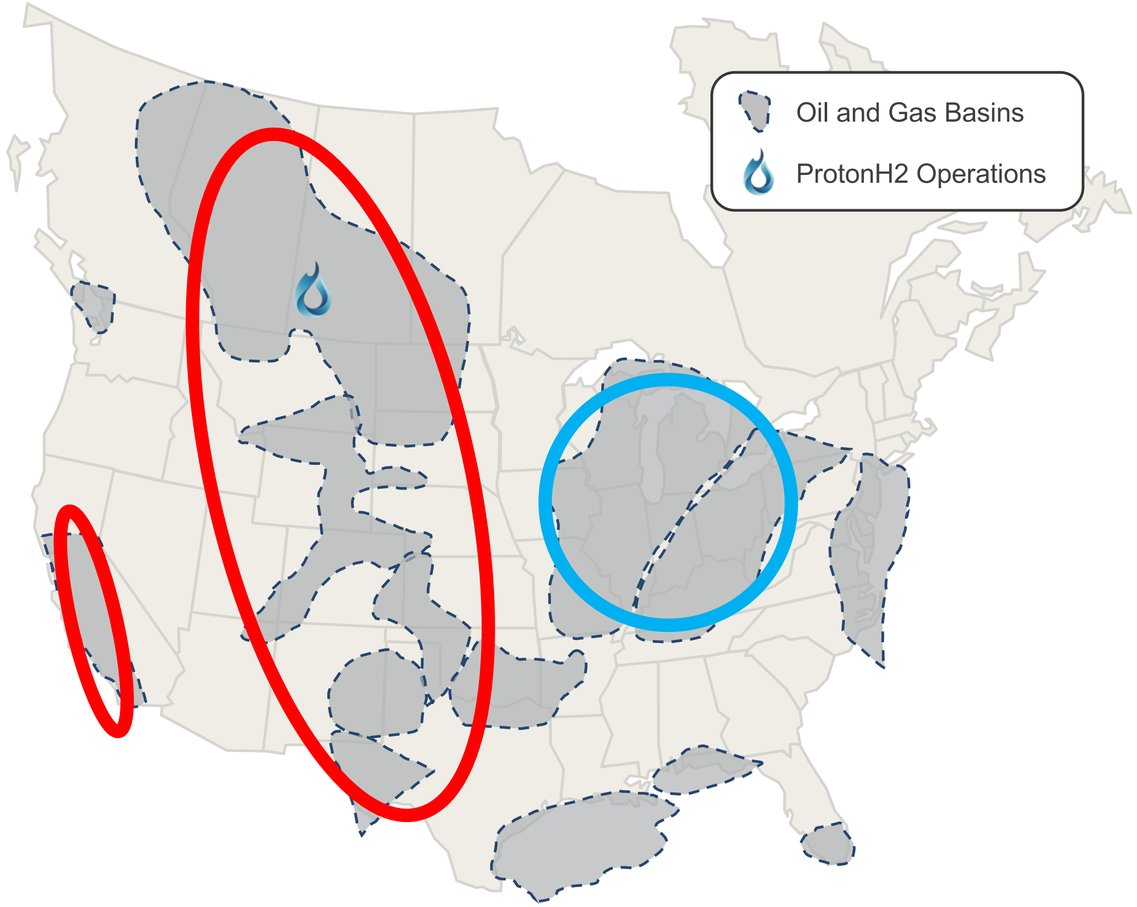
Source: ProtonH2

North American Industrial

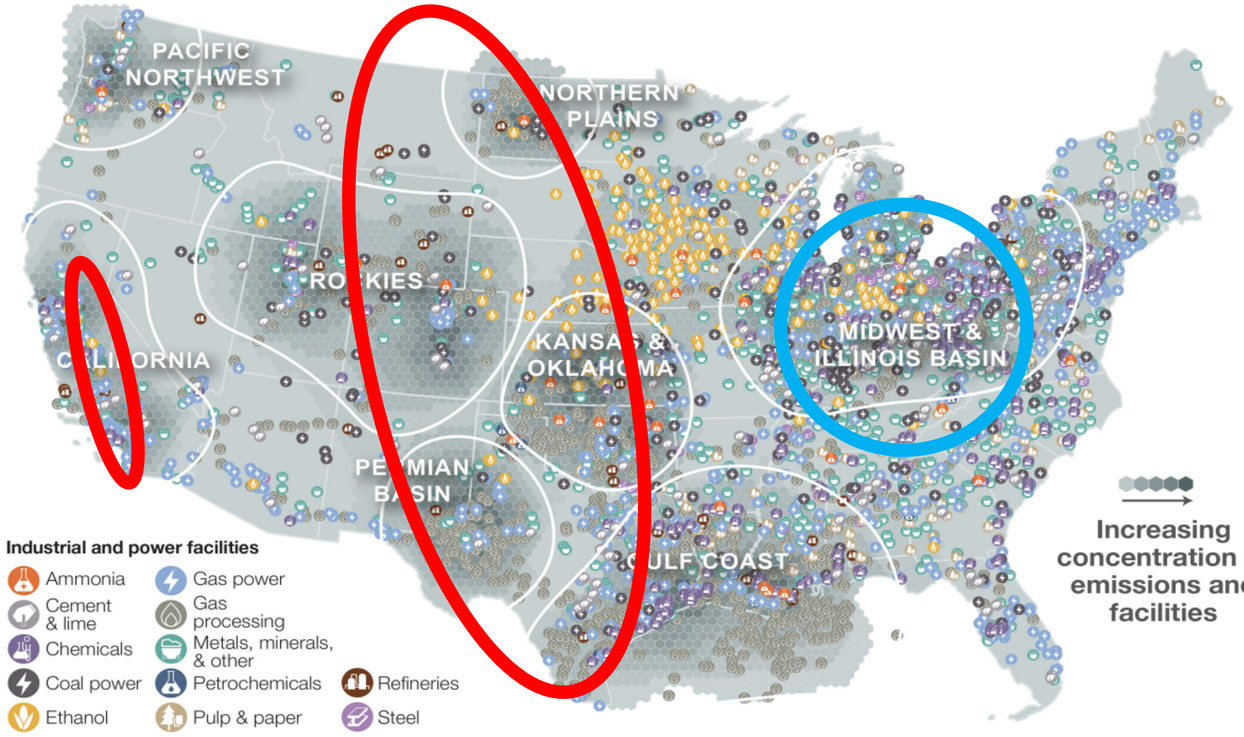
PROTON H2

Substantial development potential in North America with projects underway

Select North American Oil and Gas Basins



U.S. Industrial Clusters (1)



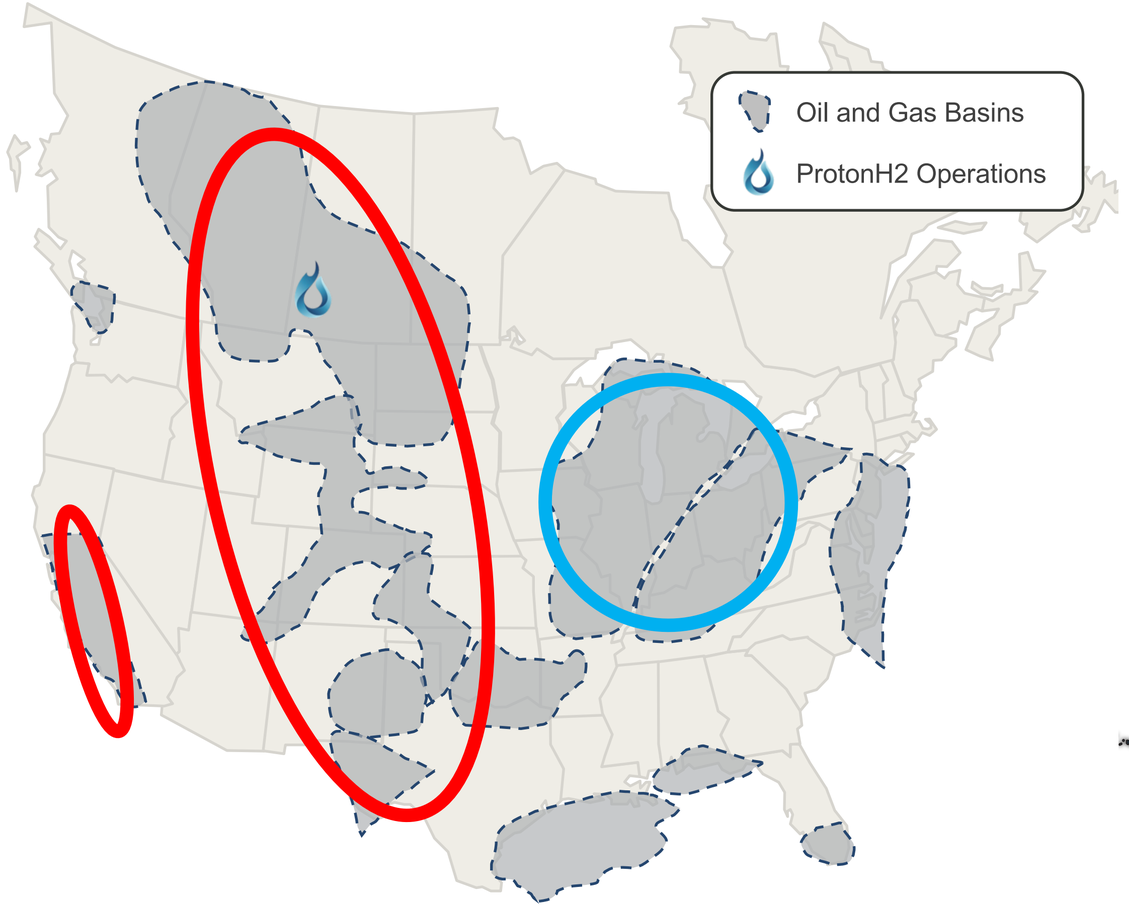
Source: NREL

North American Data Centers

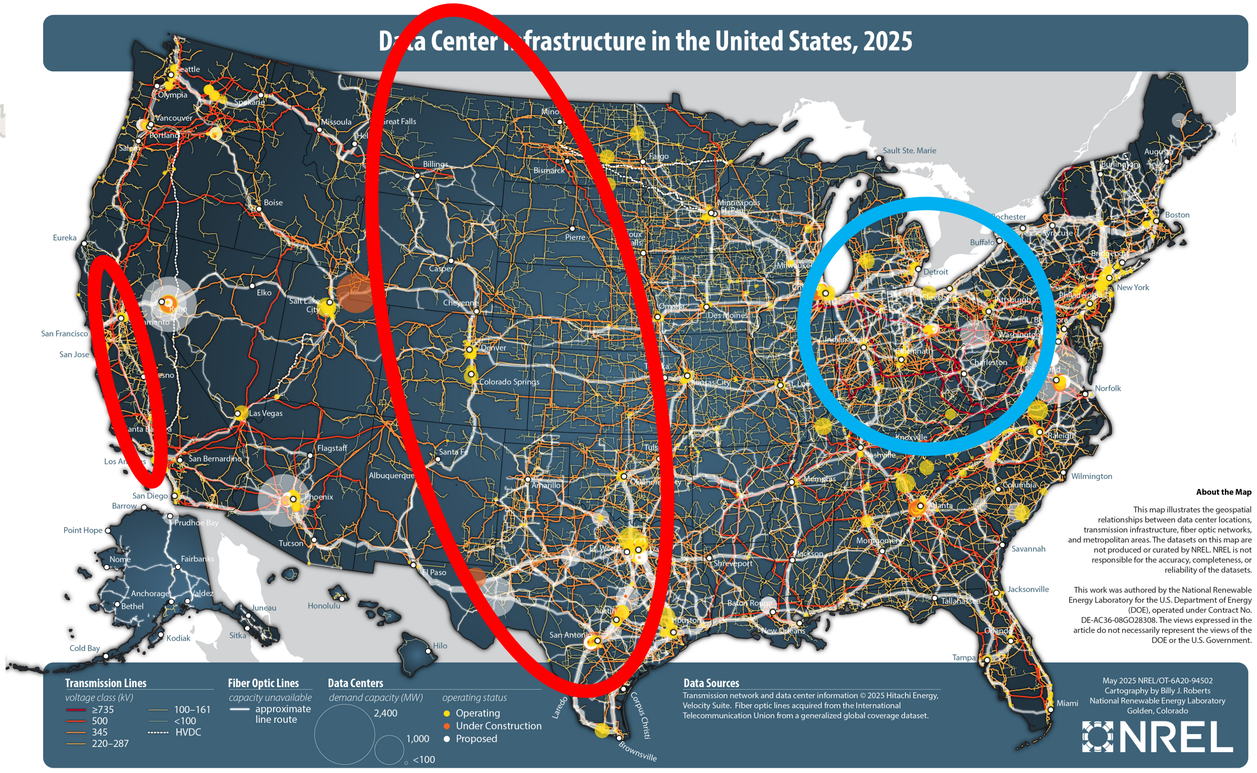
PROTON H2

Substantial development potential in North America with projects underway

Select North American Oil and Gas Basins



U.S. Data Center Infrastructure (1)



Source: NREL

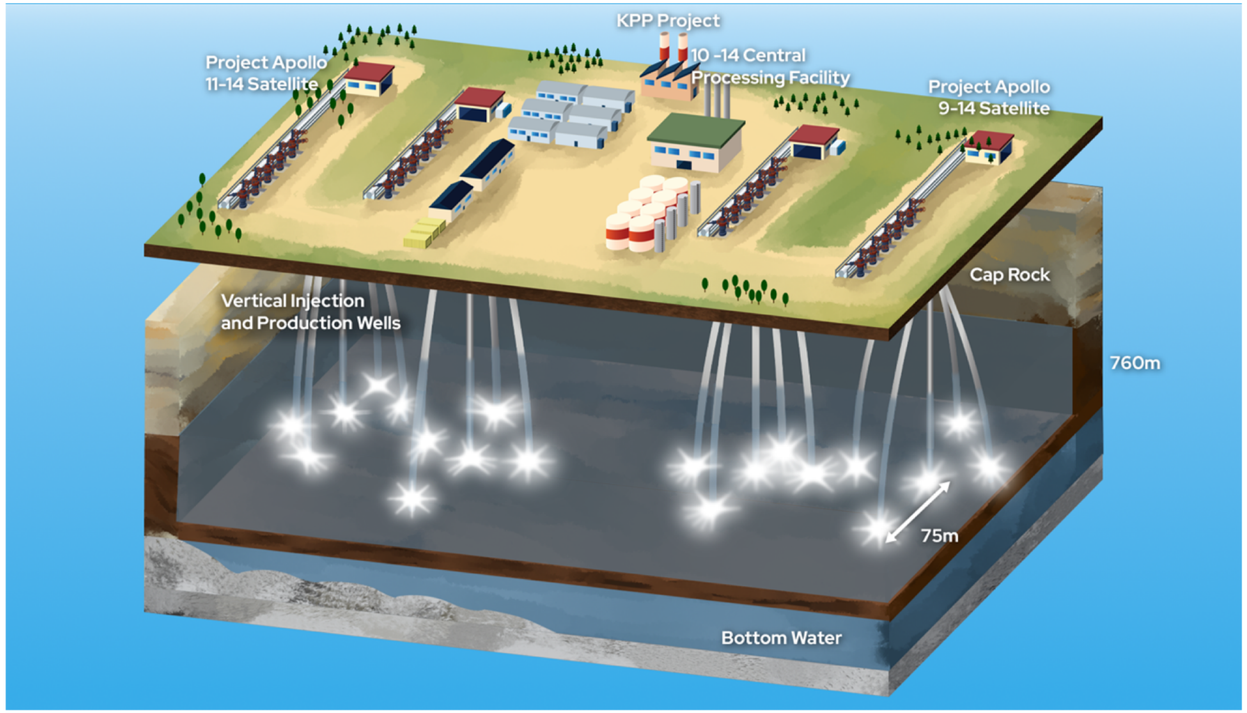
Apollo Project – Saskatchewan, Canada



- Asset originally built in 2009
- ProtonH2 acquired the asset in 2024 including Central Processing Facility
- Electric and gas interconnected

Production Cell

- Group of 5-7 wells geometrically spaced
- Minimize ground disturbances & maximize H2 production
- Surface facilities are modular & scalable



Source: ProtonH2

Partners & Pipeline

PROTON H2

Commercial Pipeline

Power Gen	Horizon Fuel Cell Technologies; COMING SOON
Technical Partners	GEN H2 DISCOVER HYDROGEN; VERNE; STEEL REEF
Offtake	American Cloud; COMING SOON; SaskPower Powering our future®

Offtake volumes sufficient to match Apollo Phases 2-4 and allow for expansion into Alberta and the United States

Vendors & Stakeholders

Vendors and Stakeholders

Safety

PMO

CALVIN CONSULTING SERVICES

Pre-FEED / Early Engineering / Scaling

PROPAK

Enerflex

CORNERSTONE ENGINEERING LTD.

EPFC CORP

Acero ENGINEERING

Stakeholders

Canada

Saskatchewan

Alberta

Interconnections

SaskTel

TransGas A SaskEnergy Company

SaskPower Powering our future®

Vendor Engineering

PROPAK

Enerflex

JENBACHER

COLLICUTT Energy

Technical

UNIVERSITY OF CALGARY

CMG

Source: ProtonH2

Commercial Ready Molecules & Power Production Pathways

Commercial Operation	Commercial operations – Saskatchewan, Canada Project Apollo
Scalable Production	LCOH <$1/kg | < 2 kg CO2e/ kg H_2
Diversified Revenue Streams	Ammonia, Methanol, eNG, CCS incentives & credits
Strong IP	Patents in Canada, U.S., Europe, and the Middle East
Large Resource Potential	ISHG™ transitions O&G liabilities into clean H_2 assets

100+ Years of Energy & Infrastructure Experience

Commercial



Paul Sandhu
Chief Executive Officer



Calvin Johnson
Chief Development Officer



John Simkiss
Strategic Advisor



Dylan Carbone
Director Commercial Development

Technical/Operations/Safety



Ben Frickel
Head of Assets & Operations



Dr. Ian Gates
Technical Team Lead



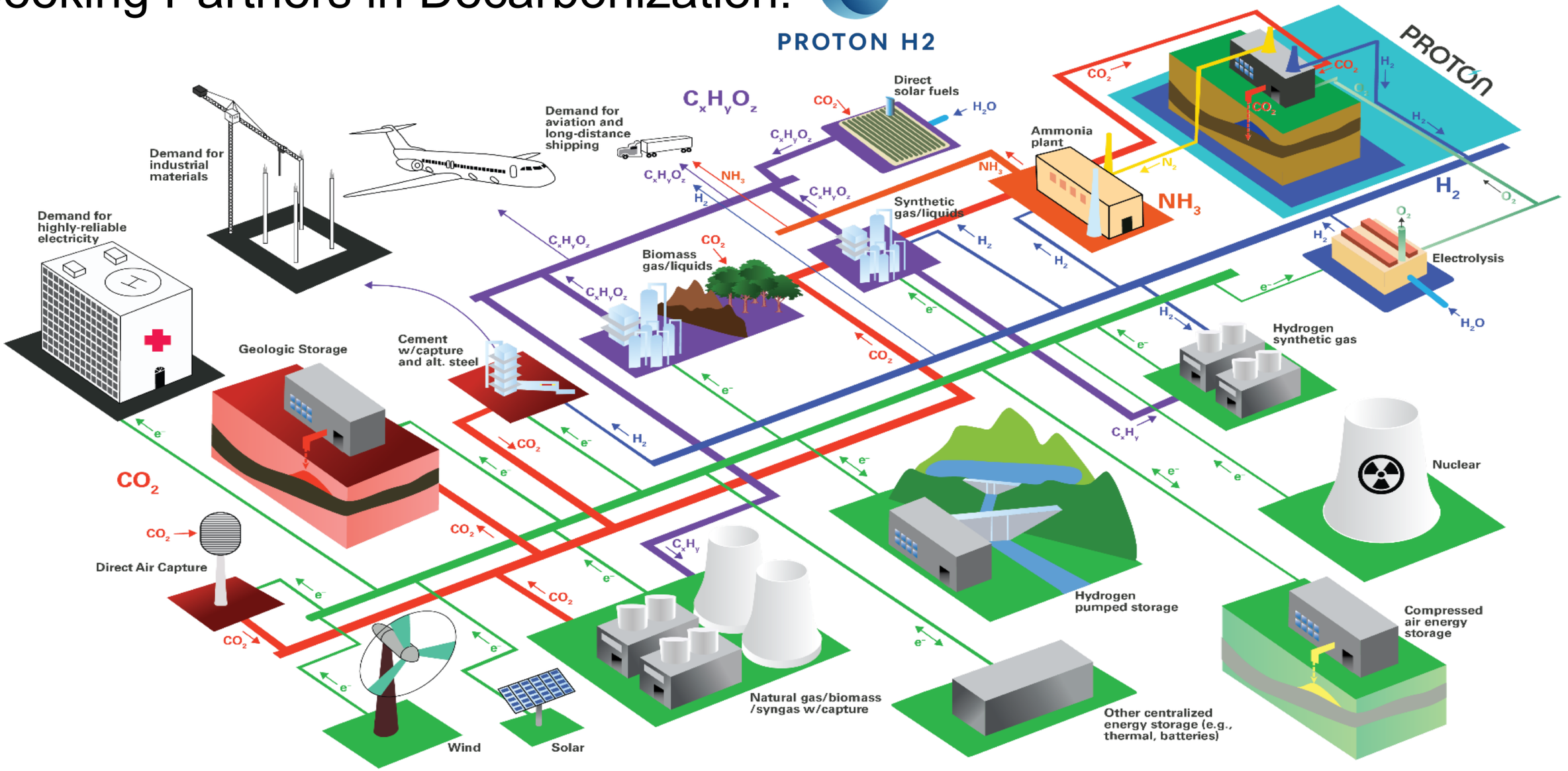
Garry Visser
Director, Compliance & HSE



Dr. Jacky Wang
Senior Technical Advisor

Seeking Partners in Decarbonization.

PROTON H2



PLUG AND PLAY

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STARTUP PRESENTATION

Ampcera™

Ampcera

Empowering lives with material solutions for next-generation energy storage

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Join us at **pnptc.com**

MARCH 2026

Ampcera®

Ampcera: All-Climate, Fast-Charging Solid-State Battery Technology

--Powering the Extreme



Hui Du, Ph.D.

Co-Founder, CEO/CTO Ampcera Inc.

hdu@ampcera.com

Ampcera Value Propositions:
Safe, All-Climate, Fast-Charging, Real Solid-State Battery



Ampcera All Solid-State Battery Technology

Unique Internal Heating Technology



Safety
No Flammable Liquid

2 X Service Time
400 Wh/Kg

Fast Charging
< 15 Min

Climate Adaptability
-40℃ to 80℃

Ampcera Vertically Integrated Platform

Key Material Pilot-line
Commercialized

Material Production



Cell Integration
Prototype Validated

Design & Process



Scalable Manufacturing
Cell Pilot-line

Scale & Commercialize



$9.6M+

A round funding + $8M Government funding including ARPA-E grant

Pending for

$20M

ARPA-E SCALEUP program (among small group of finalists)
And $6M Pending USABC Fund

Ford validated Ampcera all-climate fast-charging performance on ARPA-E project

$3M+

Revenue generating material production from >200 Battery/OEM customers

50+/100+

Patents/Trade Secrets, 15 Granted

Why Ampcera: The Only All-Climate Solution

VS.

Quantum Scape ($6B):

- Not real solid-state battery
- Brittle materials
- Low-yield manufacturing method
- Costly

VS.

Solid Power ($0.7B):

- Costly manufacturing method
- Limited operation temperature

Why Ampcera?

- Wide temperature range
- Low-cost, High-yield manufacturing method
- High upside multiples:

  10X in 3 years

Ampcera® Advantage:



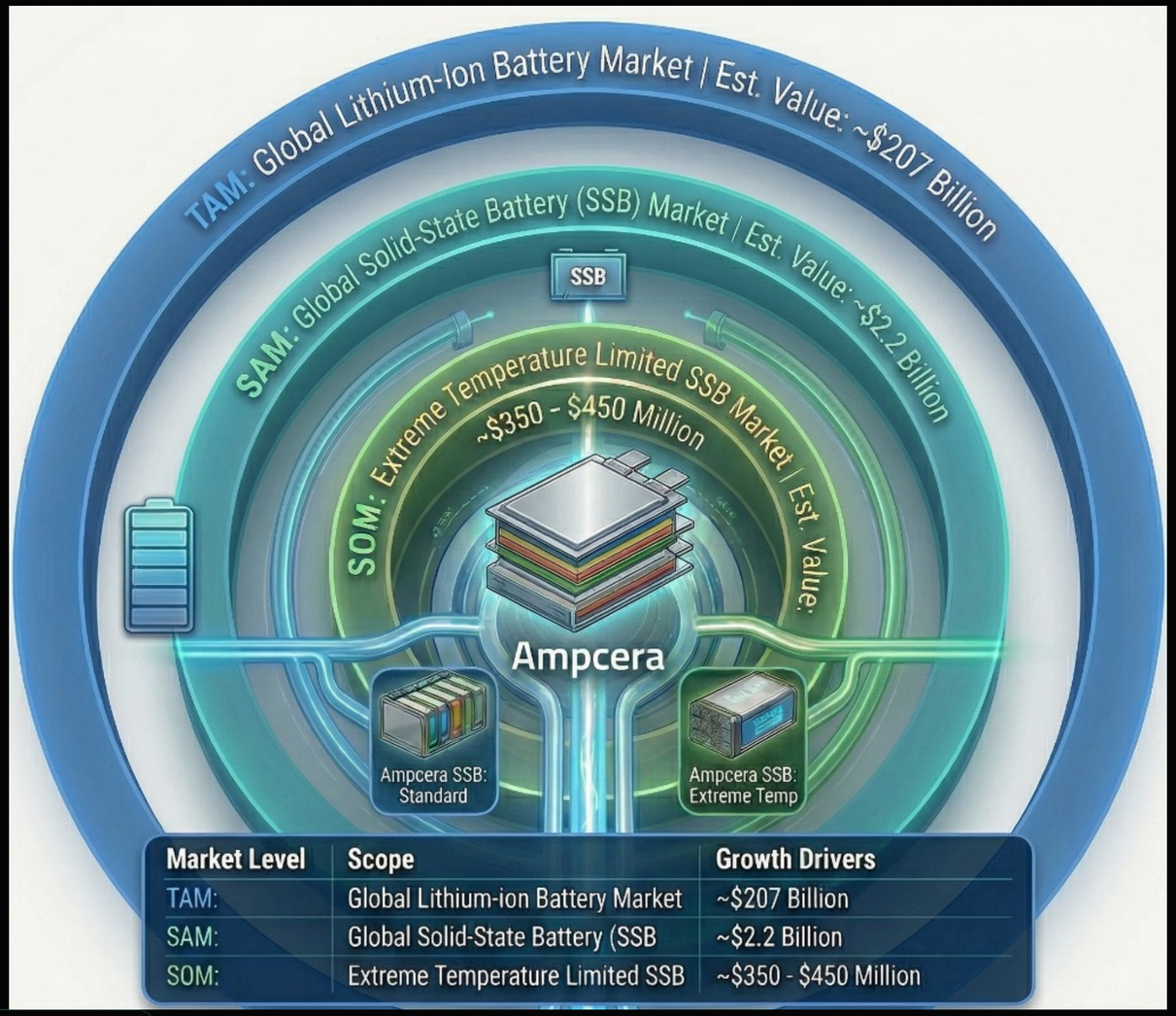
The only solid-state battery operating at temperature in

-40°C to +80°C

range

Beachhead Applications (Extreme Temperatures)

TAM/SAM/SOM



Beachhead Applications

Semiconductor Industry

- High Temp.

Arctic/Desert Deployment

NASA Moon Condition

- Ultra-low Temp.

Space Applications

- Orbital Deployment

Underground Mining

- Safety
- High Temp.

Team:

Serial Entrepreneurs and Field Experts



Hui Du
Ph.D. Co-founder, CEO/CTO

NREL · Carnegie Mellon University · Sion Power · Veeco

2x founder, 1x exit



Eongyu Yi
Ph.D. Dir. Battery Tech

University of Michigan · Berkeley Lab

R&D100 Award



Jaewon Kim
Ph.D. Dir. Mat'l Production

Glidewell · himed · NYU

Ceramics Expert



Jungki Kim
Board Dir.

Hanwha Solutions · LG Energy Solution

Series A, Lead Investor



Mei Cai
Ph.D. Indep. Board Dir.

GM · Wayne State · Fluence (A Siemens and AES Company)

25 years OEM



Sungrok Bang
Ph.D. Advisor

LG Energy Solution · UC Irvine · Samsung

LIB Expert

Key Advantage: Serial entrepreneurs with industry backgrounds with $100M exit - not academic founders.

Ask $20M for scaleup & commercialization

$20M Series A+ to Reach Commercial Milestones

2022	2025	2026	2028	2030+
Series A ($10M)	Hanwha Solutions	Series A+ ($20M) + $20M Gov. Fund		M&A or IPO

24-Month Milestones

- Build solid state battery pilot-line.
- Secure first battery purchase order.
- Secure $20M ARPA-E SCALEUP & USABC grants.
- Secure technology licensing agreement.



Pilot-Line (Revenue Generating)



Prototype(TRL5) to Commercialization

Solid Electrolyte Materials	10 kg/batch 1 ton/year	100-200 kg/batch 10-20 ton/year	Continuous Production/Scaling

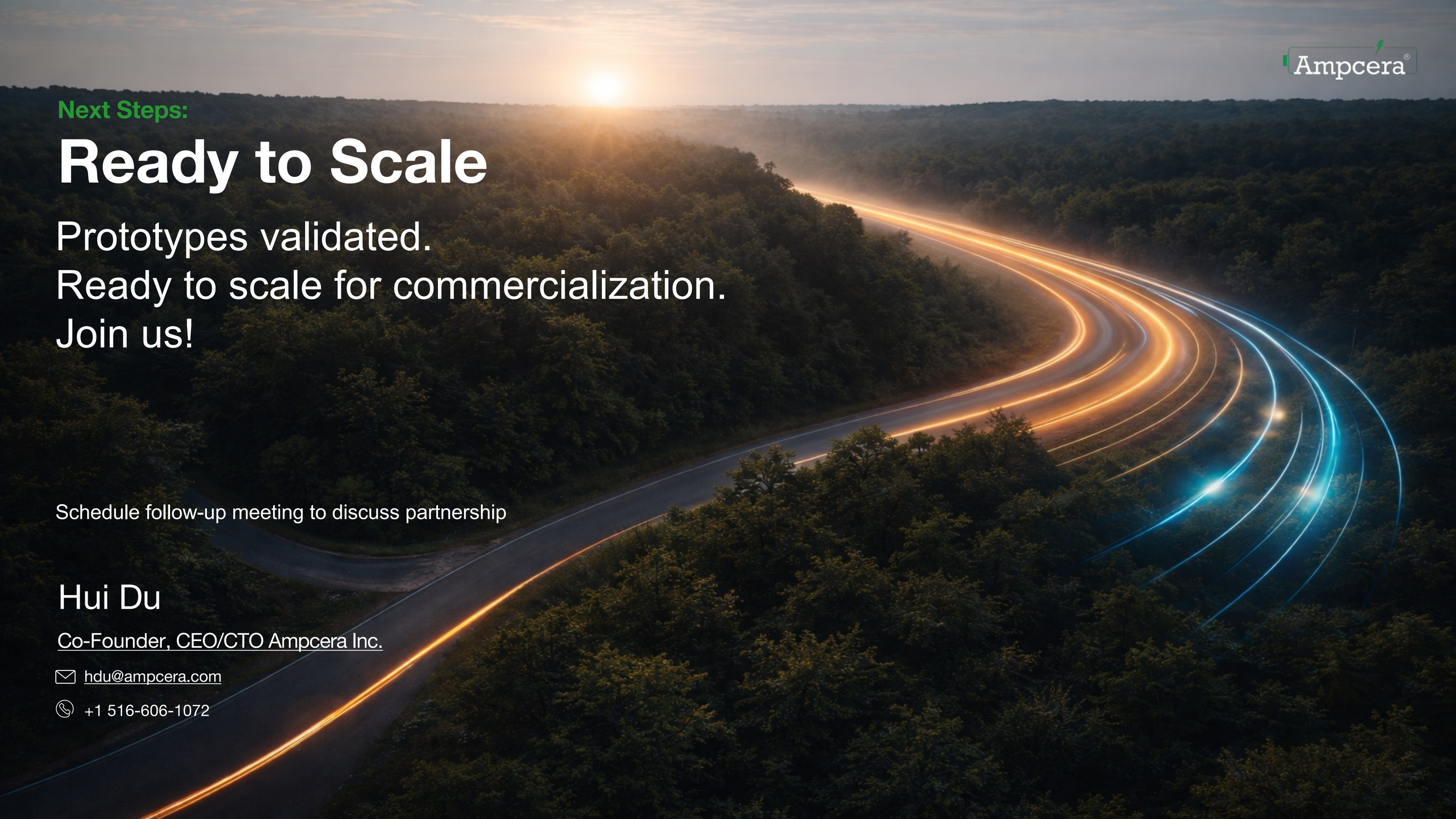
Solid-State Battery Prototypes



5Ah -- 20Ah
SSB cells



Secure battery purchase orders



Next Steps:

Ready to Scale

Prototypes validated.
Ready to scale for commercialization.
Join us!

Schedule follow-up meeting to discuss partnership

Hui Du

Co-Founder, CEO/CTO Ampcera Inc.

hdu@ampcera.com

+1 516-606-1072

PLUG AND PLAY

SILICON VALLEY SUMMIT

STARTUP PRESENTATION

PADO AI

Orchestrating the Physics of the Data Center to Maximize Compute Per Megawatt

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Join us at **pnptc.com**

LG | LG NOVA

PADO





Maximum Yield and Utilization Without Sacrificing Performance

AI

Convert every available watt and square foot into predictable compute

Increase facility efficiency while lowering PUE

Optimize workloads across premise, cloud, and facility & energy constraints

Optimizing New and Existing Data Center Loads

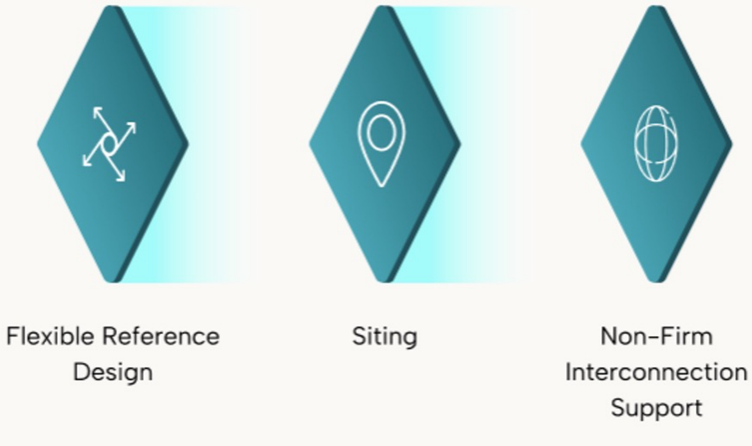
Existing Data Centers



Deferred Upgrades, Faster Revenue Realization

- Digital Twin for Compute, Thermal & Power
- Forecast & Coordinate workloads with cooling and electrical limits to achieve higher utilization
- Shape net load, manage peaks, and absorb volatility without interrupting tenant SLAs
- +20–40% productive output — with no new capex

New Data Centers



Site faster, contract earlier, and scale without waiting for perfect grid conditions

- Operate within variable, non firm, or phased power
- De-risk and accelerate Interconnection via aligned, predictable, and bounded compute loads
- Convert and Bridge constrained or conditional interconnections into viable AI capacity
- Grid-Aware Compute as a Developer Advantage

Outcomes: Maximum Yield and Utilization

Yield

Convert every available watt and square foot into compute. Recovers "stranded" power to deploy additional compute, maximizing compute power per square-foot/hour and driving immediate revenue growth within your existing footprint.

Utilization

Increase the efficiency of your facility and lower your PUE by matching cooling and power delivery to real-time demand.

Sustainability

Reduced carbon footprint, lower water consumption, and extended facility lifespan to increase overall sustainability.

Empowering the Data Center Ecosystem

- **Data Centers: Faster Interconnection, Higher revenue per MW through optimized workload execution**
- **Tenants: Lower effective $/GPU-hour through better utilization—not degraded performance**
- **Utilities: Predictable large-load behavior without constraining data center output**
- **Technology Partners: Higher-fidelity operational signals drive better system-level optimization**
- **End Users: Higher throughput with no latency or performance tradeoffs**

Deployment is No Risk & Easy with PADO

1. **Connect & Observe**
   Ingest & Synthesize disparate datasets (rates, power systems, DCIM, +)
   Build digital twin of an existing DC campus
1. **Simulate Optimization**
   Forecast and simulate load flexibility
   Find Manual or Automatic Synthetic Capacity Optimization
1. **Flexible Expansion**
   Orchestrate IT, Power & Cooling loads, with BESS and auxiliary assets
   Collaborate with utility and systems operator on grid-response
   Offered as Enterprise and Managed Service Solution

Start with Visibility,
Prove Value on safe workloads,
then Scale Optimization



Product & Tech

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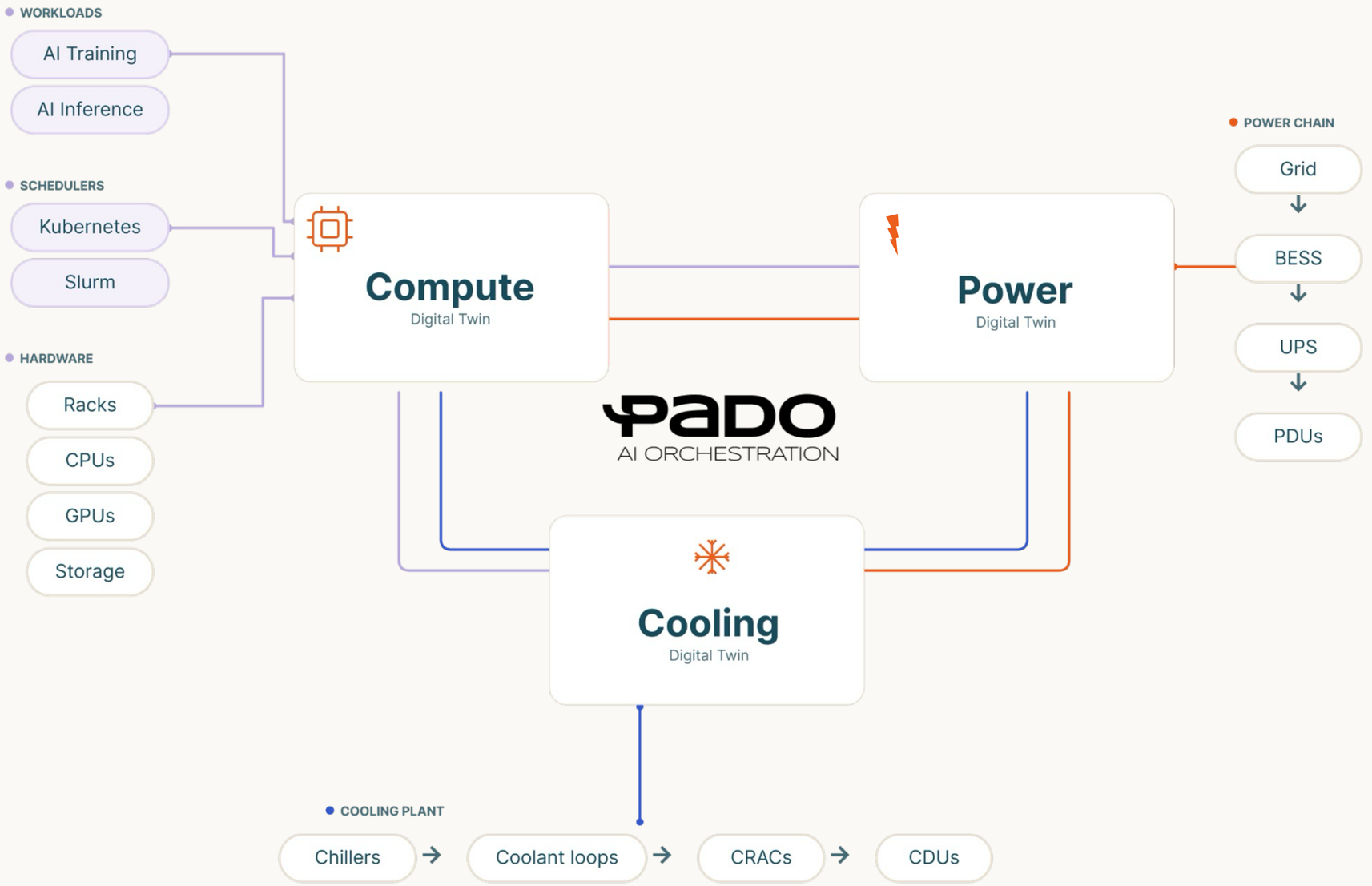
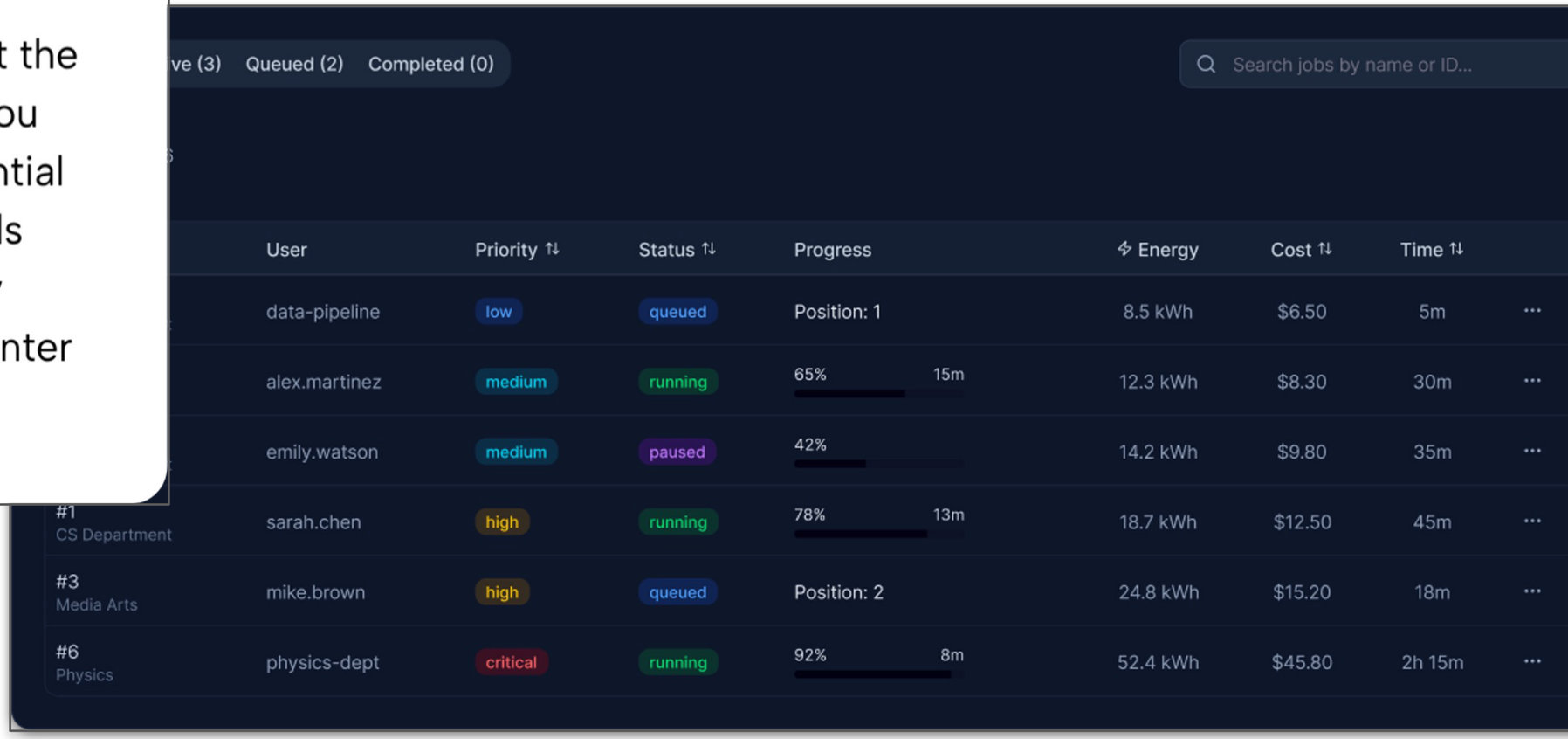
Foundational AI Platform



WHITE SPACE

Grid-Aware AI Workload Orchestration

As workloads shift throughout the day, PADO identifies where you can pause or delay non-essential compute, rebalance workloads across racks, or automatically move jobs to another data center or the cloud.

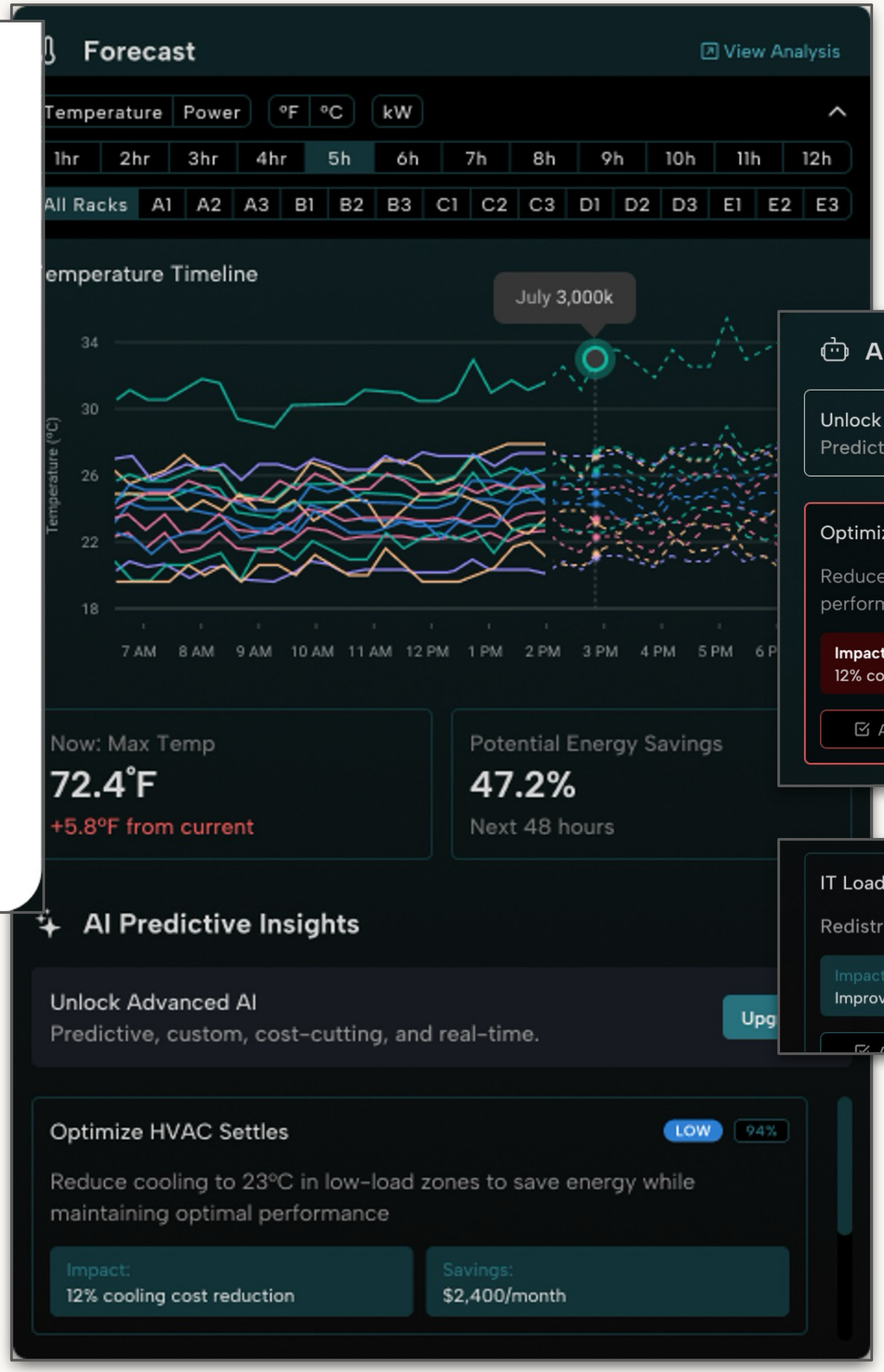


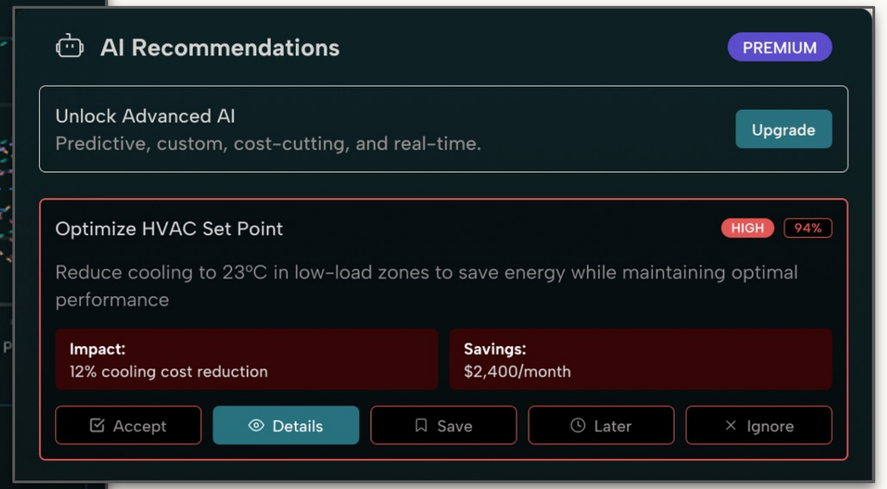
PADO

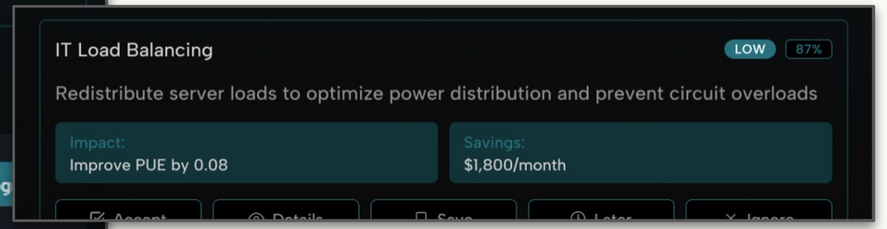
GREY SPACE

Proactive Cooling & PUE Optimization

PADO detects over-cooled areas, highlights opportunities to balance free ambient and cooled air and optimize liquid cooling, and safely adjust temperature set points.





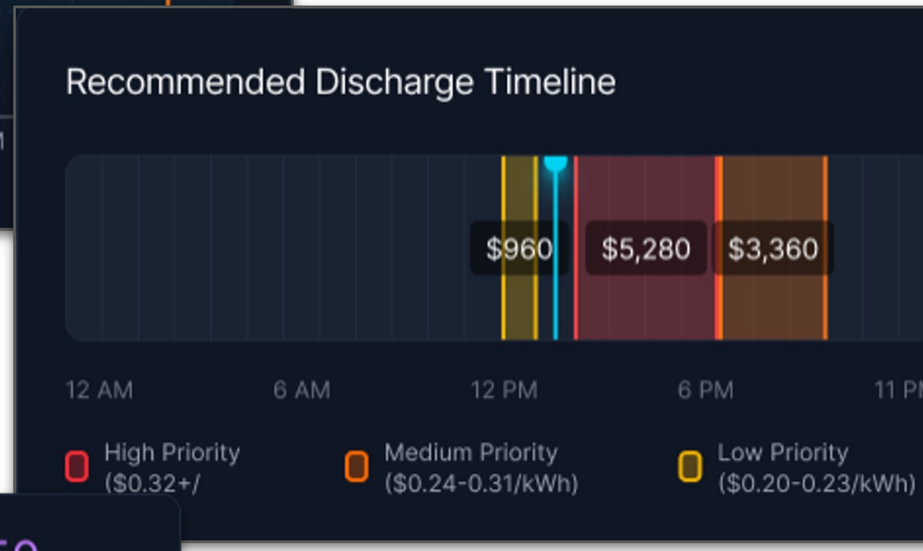


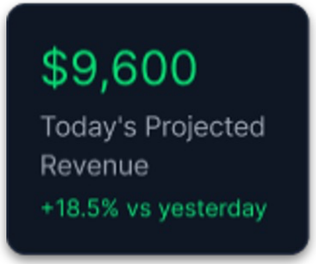
GRID SERVICES

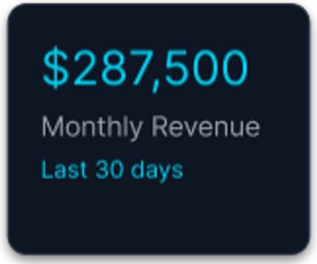
Automated Flexibility Monetization

When batteries or other distributed energy resources are onsite, PADO schedules charging and discharging at the right moments, opening the door to cost savings and new grid-service revenue.











PADO

People & Partnerships

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ONE LG



LG Electronics — 2025 Revenue ~$61B USD

LG Chem — 2025 Revenue ~$33B USD

LG Eco Solution

'25 Rev ~$7B USD

- High Efficiency Chillers
- Direct-to-Chip (D2C) Liquid Cooling Technology
- Coolant Distribution Units (CDUs)
- Computer Room Air Handlers (CRAHs)
- Building Energy Control (BECON) System
- Cold Plates

PADO

- AI+ML Powered Workload Orchestration Platform
- Real-time optimization & forecasting
- BTM Load Shaping (e.g. thermal storage & AI demand shifting)
- Agnostic integration with existing tech stack, onsite production & storage and power offtake DC

LG Energy Solution

'25 Rev ~$18B USD

- Grid-Scale Deployment
- Battery Energy Storage System (BESS)
- Integrated UPS Battery Systems
- Modular power-efficient Direct Current (DC) grid systems

Leadership



Wannie Park
CEO
wannie@pado.co

CEO, Zen Ecosystems
SVP Corp Dev, Bidgely
SVP Growth, Shell



Jun Shimada, PhD
CTO
jun@pado.co

CEO/Founder, ThinkEco
Tech Architect, Con Ed
R&D Lead, Vitae Pharma



Phil Flaherty
CRO
phil@pado.co

SVP Revenue, Bidgely
Sales, Ecova
Operations, Xcel



Maria Kretzing
VP, Product

VP/GM Analytics, Bidgely
Sr. Program Manager,
Oracle (Opower)



Jeff Wahl
VP, Partnerships

VP Customer, Luma
Head of Utilities, Sense
VP Strategy, Bidgely



Rajesh Menon
VP, Engineering

Software Engineer, Google
Engineering Director,
Sidewalk Labs


ƤADO

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CLOSING REMARKS

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PLUG AND PLAY

SILICON VALLEY SUMMIT

DAY 3 — MAY 21

Morning: **AgriFood Expo**
Afternoon: **Brand & Retail**

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PLUGANDPLAY

SILICON VALLEY SUMMIT

UPCOMING EVENTS

Topeka Pitch and Putt Tournament & Expo
May 27-28 | *Topeka*

Selection Day & Batch Kickoff
August 25-26 | *Minneapolis*

Mining Roundtable
September | *Phoenix*

INX Innovation Day
October 19 | *Chicago*

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SILICON VALLEY SUMMIT

UPCOMING EVENTS

WaterTech Roundtable
November | *Phoenix*

November Summit
November 3-5 | *Silicon Valley*

Energy and Data Center Roundtable
December | *Phoenix*

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SILICON VALLEY SUMMIT

THANK YOU FOR ATTENDING

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