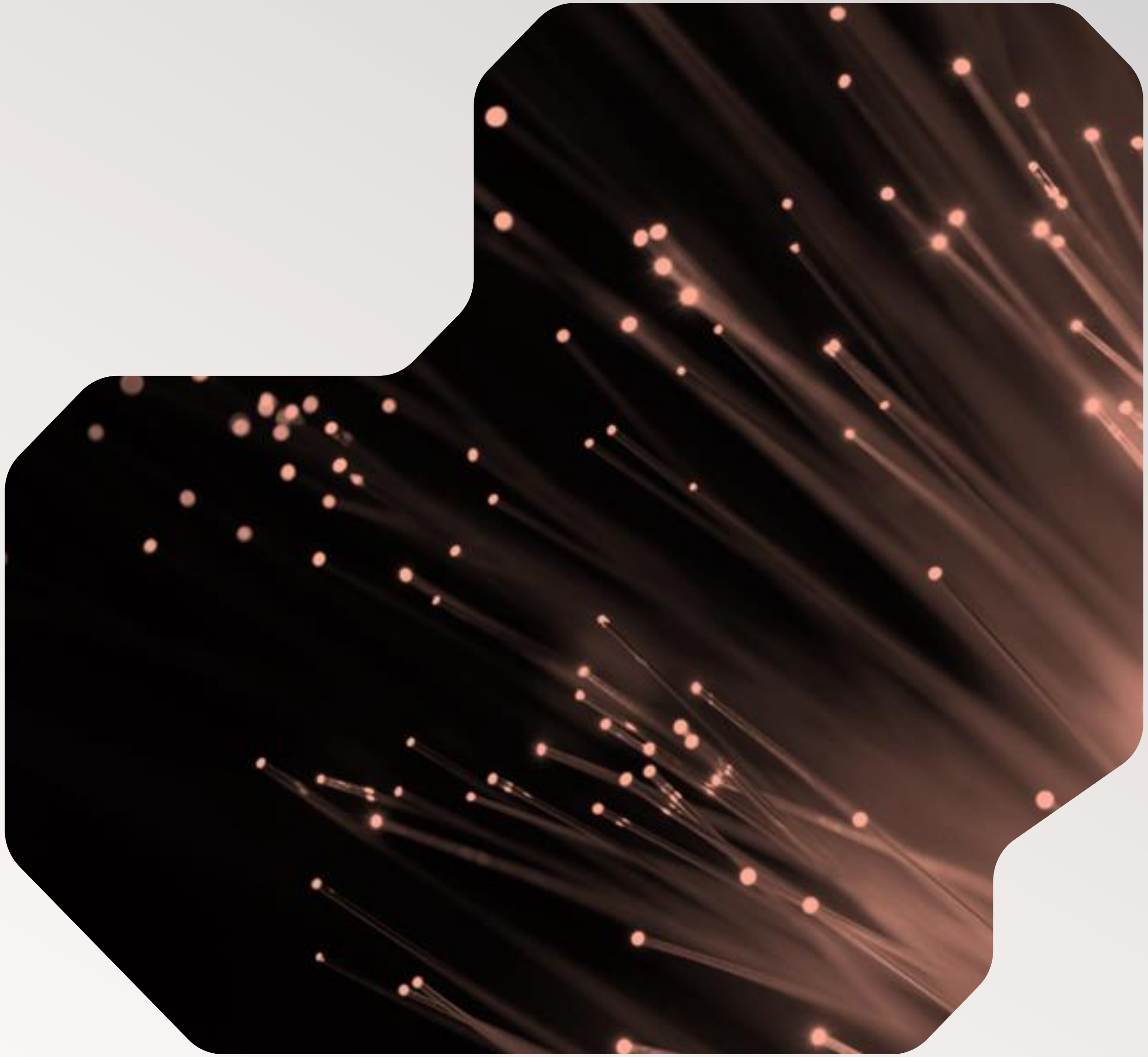
AETHER
TRANSMISSION SYSTEMS

Superconducting Fabrics for the Power Infrastructure

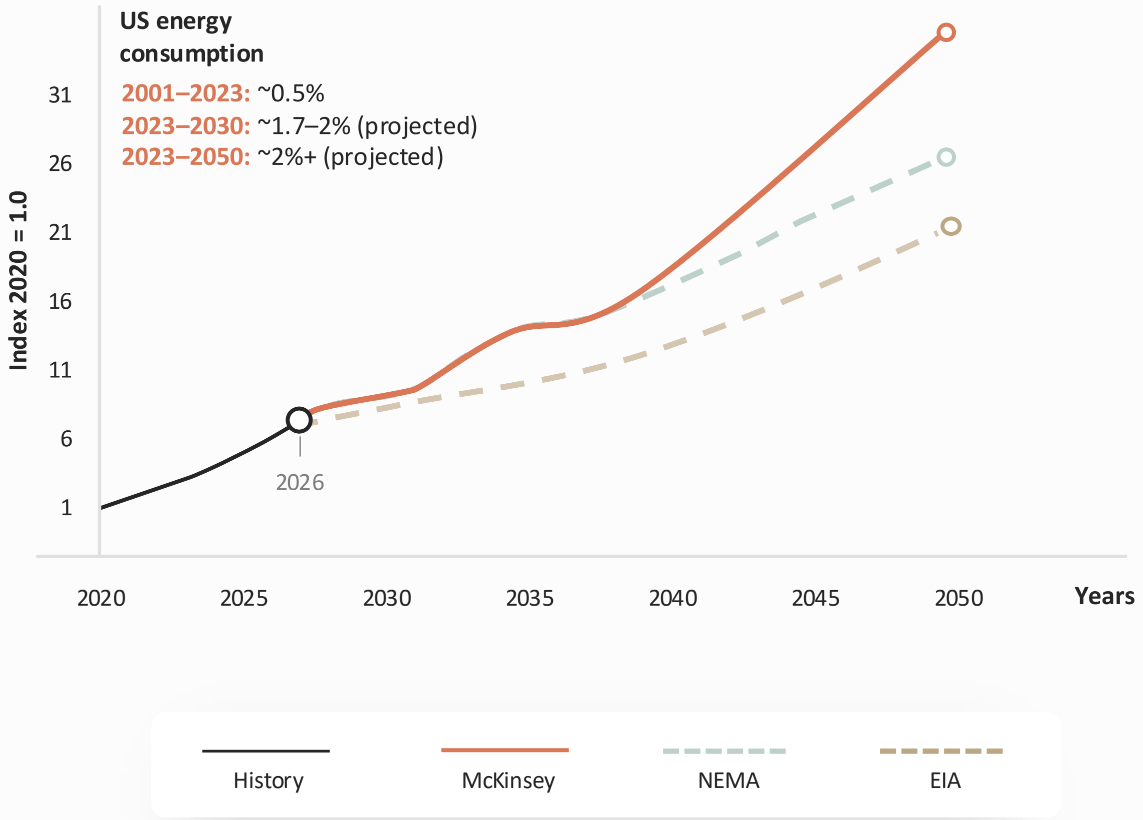
January 2026



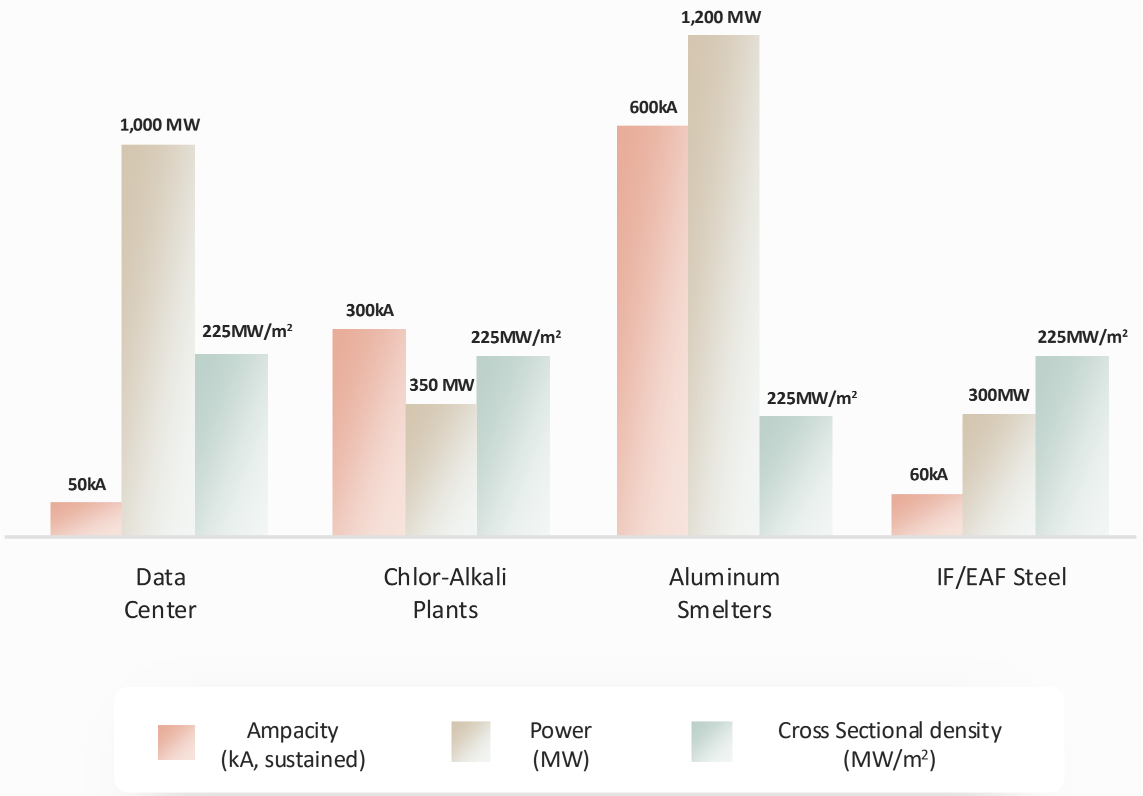
Pitch Deck - Confidential

Emerging loads require current densities that are not achievable with copper at scale

Electrification Trend: 50% total increase by 2050

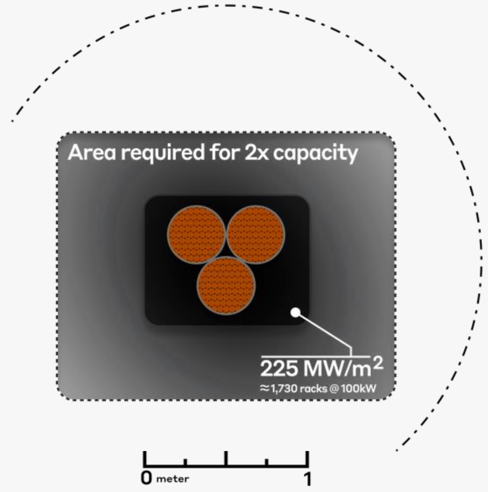


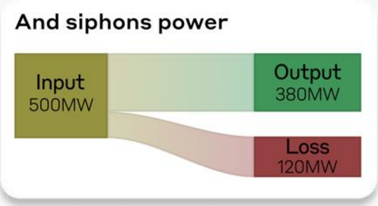
Electrification Frontiers



Shifting the governing physics and binding constraint in power delivery

Copper limits capacity

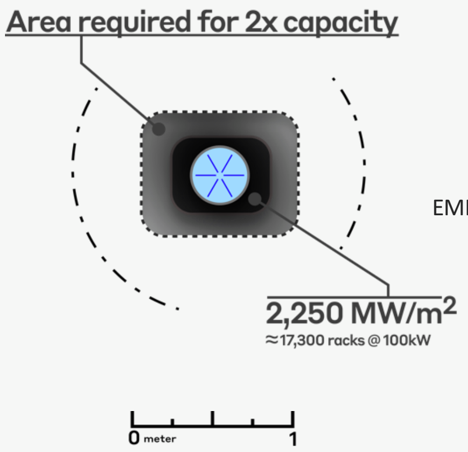


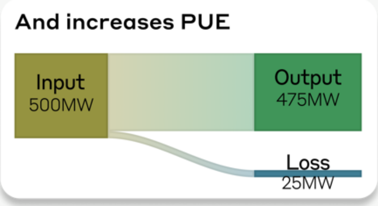


EMI minimum safe distance

X	Power Density
25%	Power Loss
1.3	PUE

Aether creates capacity





EMI minimum safe distance

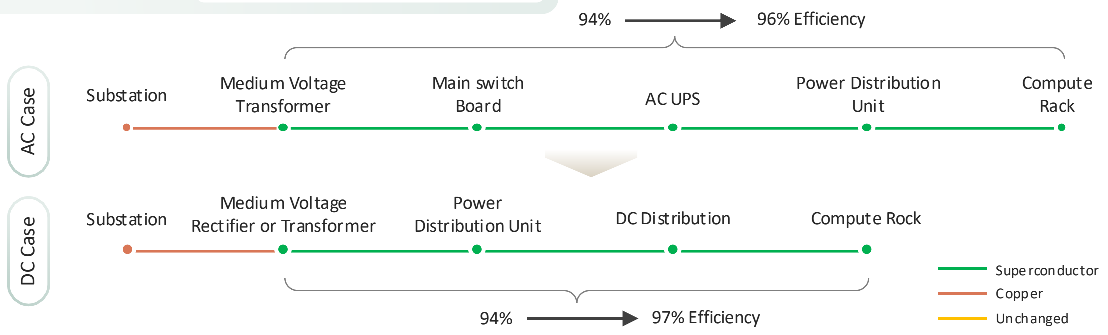
10x↑	Power Density
$5\%^{5x}$	Power Loss
$1.05^{-0.25}$	PUE

Copper		Aether
$I\uparrow \Rightarrow P_{loss}\uparrow\uparrow \Rightarrow A_{Cu}\uparrow\uparrow$	**Scaling Feasibility** Copper scales by bulk, Aether scales by geometry	$I\uparrow \Rightarrow \eta$ tape$\uparrow \Rightarrow A_{HTS}\uparrow$= geometry controlled scale
$I\uparrow \Rightarrow P_{loss}\uparrow\uparrow$	**Efficiency & Loss Ceiling** Copper losses scale quadratically, Aether's efficiency is stable at scale	$R_{HTS} = 0 \Rightarrow P_{system} = P_{cryo}$
$I\uparrow \Rightarrow A_{Cu}\uparrow\uparrow \Rightarrow$ Civil rework$\uparrow\uparrow$	**Deployability** Copper scaling propagates into infrastructure, Aether scaling terminates at the cable	$I\uparrow \Rightarrow \eta$ tape$\uparrow$, $I\uparrow \Rightarrow A_{Termination}\uparrow\uparrow$
$I\uparrow \Rightarrow$ EMI$\uparrow \Rightarrow$ Clearance$\uparrow$	**Spatial Flexibility** Aether can route cables closer to critical components	$I\uparrow \Rightarrow$ EMI = 0

Aether Integrates at the power delivery decision point in system design

Data Centres

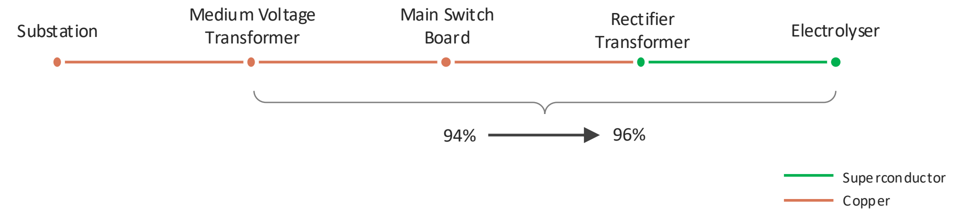
Quasi-Continuous Process



Greenfield:	Brownfield:	Time to Deployment:
~T-36 months	Every ~4 Years, ~T-12 months	~12-48 months

Chlor-Alkali Plants

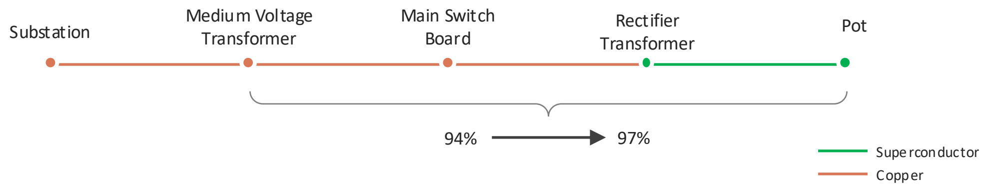
Continuous Process



Greenfield:	Brownfield:	Time to Deployment:
~T-30 months	Every ~5 Years, T-18 months	~9-18 months

Aluminium Smelters

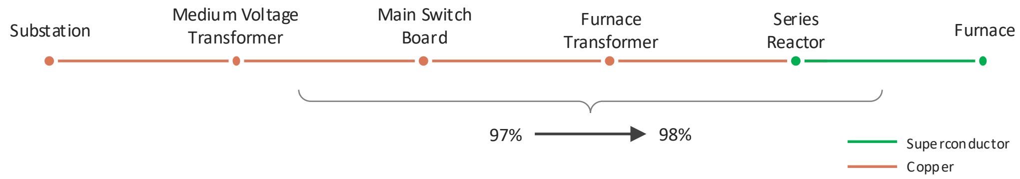
Continuous Process



Greenfield:	Brownfield:	Time to Deployment:
~T-48 months	Every ~5Years, ~T-24 months	~9-18 months

EAF/IF Steel

Cyclic Process

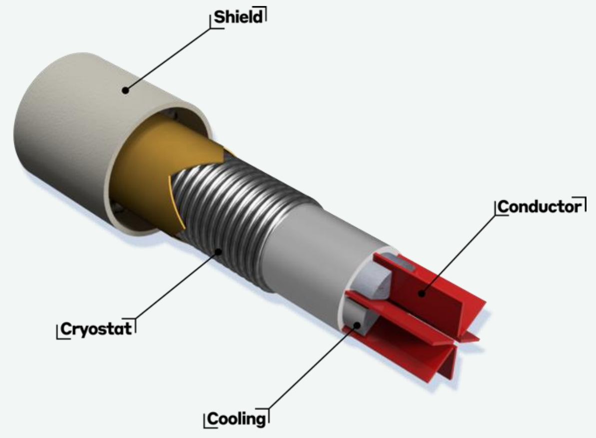


Greenfield:	Brownfield:	Time to Deployment:
~T-36 months	Every ~ 4Years, ~T-24 months	~12-24 months

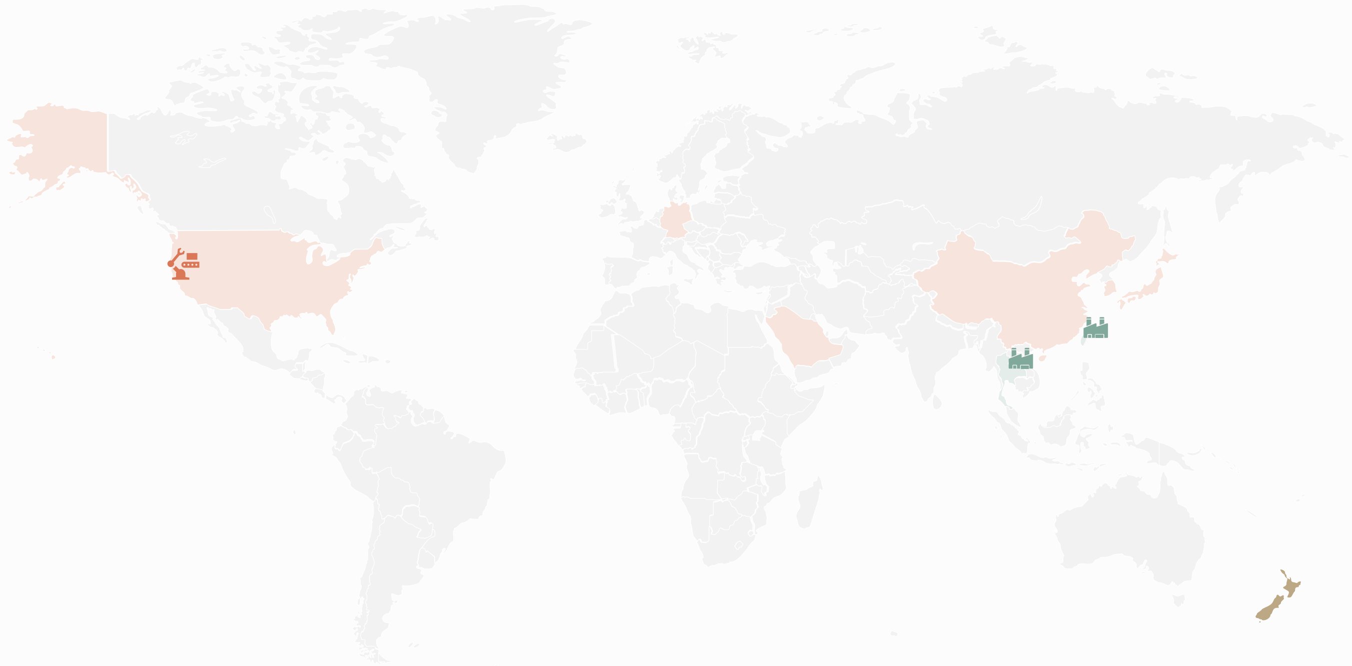
Engagement timing aligns with deterministic power delivery, outage planning, and refresh cycles.

Fully integrated power delivery stack: Hardware, Control, & Software Intelligence

Our Technology



Cryostat	A proprietary cryostat with best-in-class efficiency
Shield	Zero external EMI built into every cable
Conductor	Our patent-pending superconducting geometry
Cooling	Optimized to reduce HVAC and overhead



Manufacturing	Assembly	HTS	HTS-110
Thailand, Taiwan	Santa Barbara, California	Japan, South Korea, Germany, China, USA	Wellington, New Zealand

End-to-end supply chain validated with scalable, multi-vendor sourcing.

Designed to Integrate within Existing Electrical and Facility Envelopes

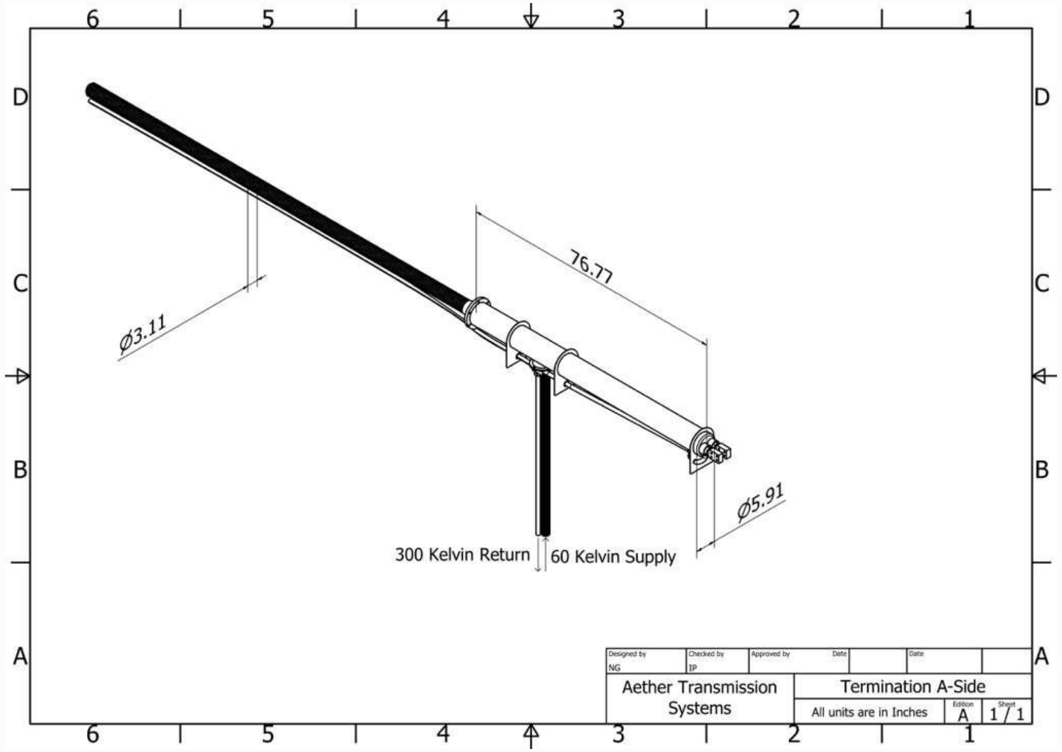


Figure 1: Cryoplant A-Side termination with return and supply lines modeled.

Fits existing trays and connects directly to busbars or switchgear without civil rework.

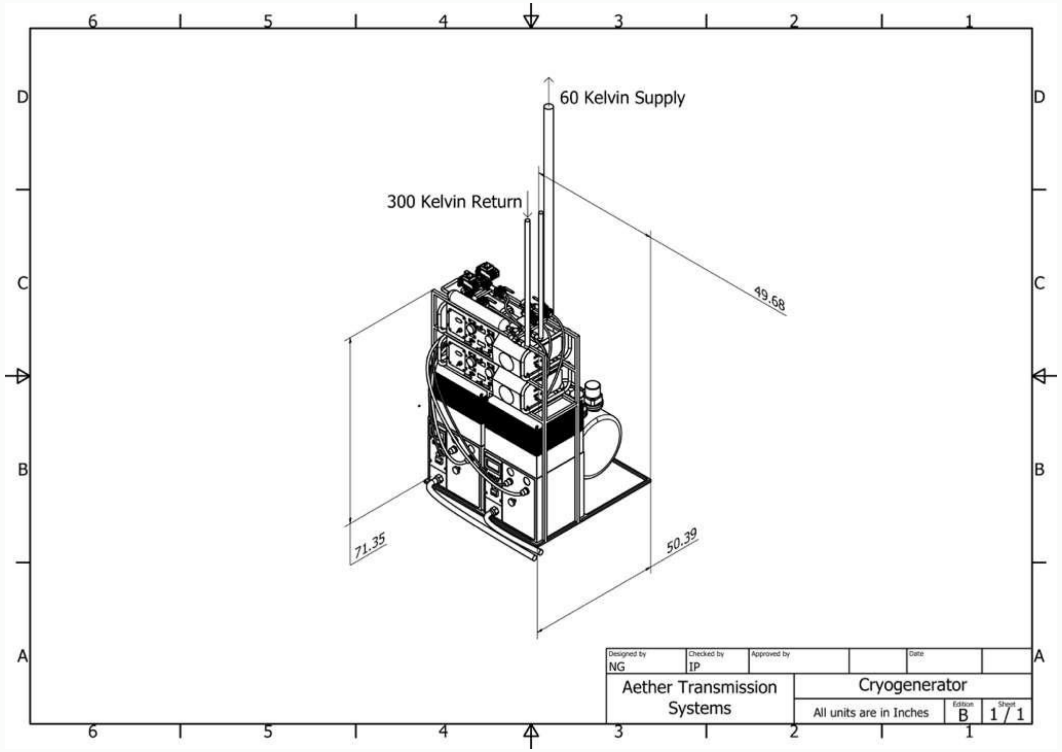


Figure 2: Primary Cryoplant with protective cover removed.

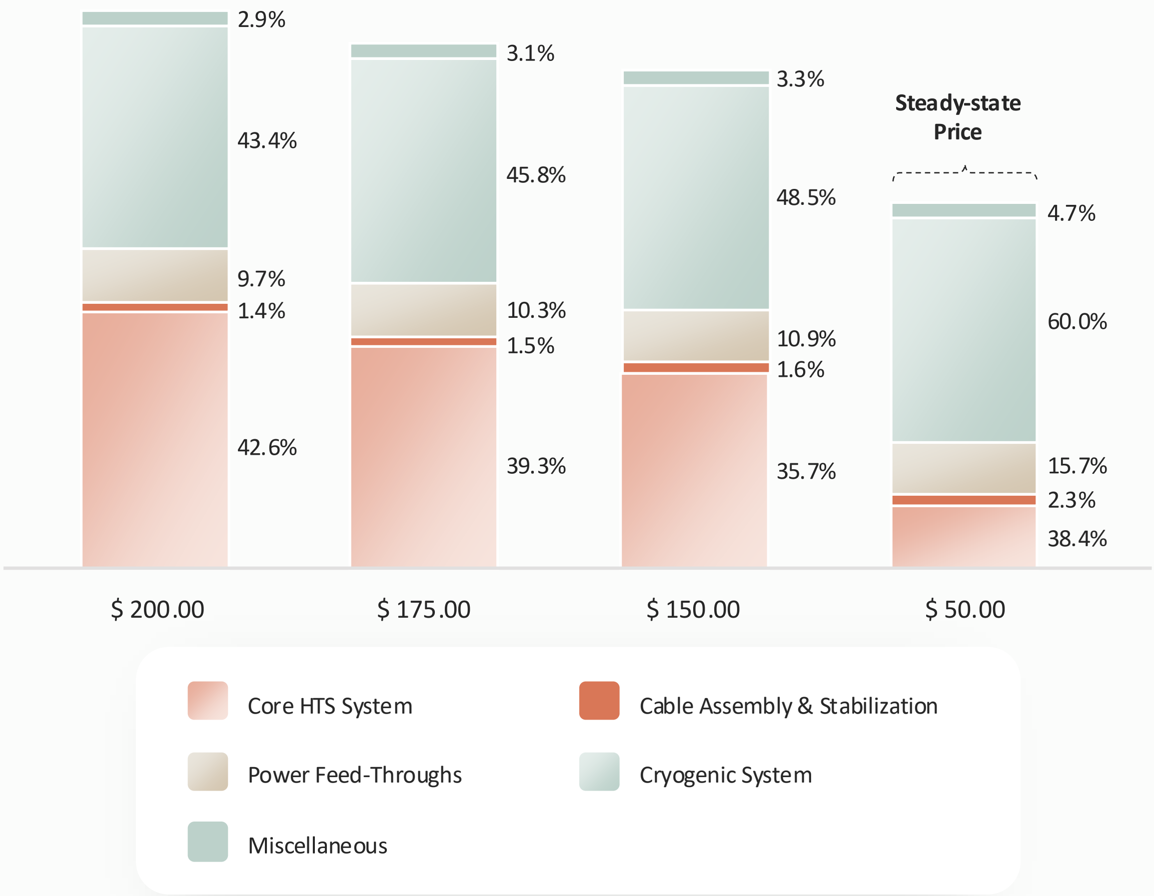
Standalone skid placed in utility space with N+1 redundancy and no impact on electrical routing.

Active Thermal Control Delivers Structurally Superior Power Density and Cost

Dimension	Aether (Closed Loop)	Competitor (Open Loop)
Thermal control philosophy	Actively controlled, closed-loop→ tunable operating temperature	Passive / boil-off-based cooling→ operating temperature set by environment and duty cycle
Capacity per ReBCO tape	Operates further below critical temperature→ larger intrinsic safety margin	Operates just below critical temperature→ smaller safety margin
Temperature & ONW control	Operating temperature and transient management predicted/controlled	Thermal buffering defines an allowable band; limited transient management
Design margin, mass, & cost	Lower operating temperature and larger intrinsic safety margin→ 2x power density→ lower material cost	Higher operating temperature and smaller intrinsic safety margin→ base power density→ base material cost

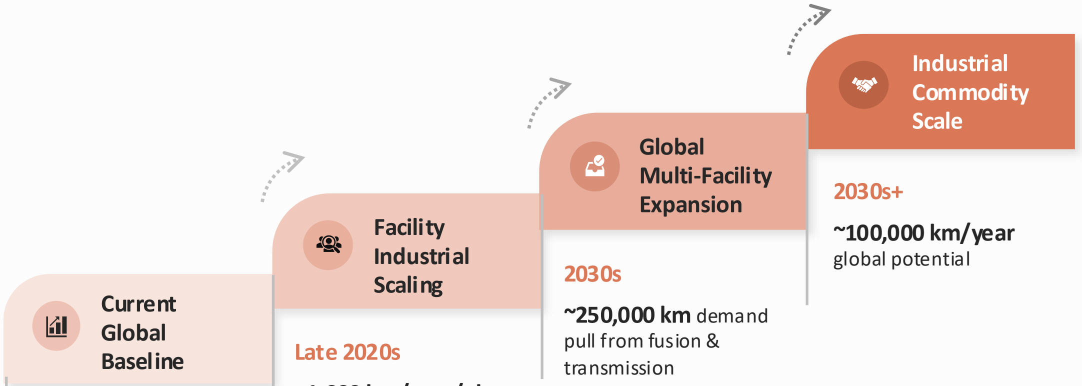
Cable Economics Scale Linearly from Facility to Campus

HTS: $200/kA-m -> $50/kA-m
(Industry + ARPA-E / DOE Outlook)



- Cryocoolers are technically mature and dropping in price.
- Current pricing reflects low-volume, lab and specialty deployments.
- Standardization and volume manufacturing are expected to drive cost normalization over time.

Linear: HTS cable length, terminations, installation labor
Sub-linear: Cryogenics, controls, monitoring, commissioning



Aether requires 0.25km HTS/MW; → 1000km= 4GW of deployment

Commercial Engagement & Market Validation with power-constrained operators

Path to First Deployments

Problem Validation
Current

- Initial & repeat discussions with operators facing current-density and loss constraints
- Cross-sector engagement: aluminum, data centers, heavy industry

Technical Scoping
Near-Term

- Site-specific power mapping and constraint analysis
- Preliminary system sizing vs copper infrastructure
- Demo / pilot configuration discussions

Pilot Deployment
Future

- Single-site demonstration system
- Jointly defined technical success criteria
- Commercial contract follows validation

Selected Operators Engaged

Data Centers
- Adani Group
- Black & Veatch
- Patmos

Aluminum
- Vedanta Group
- HINDALCO

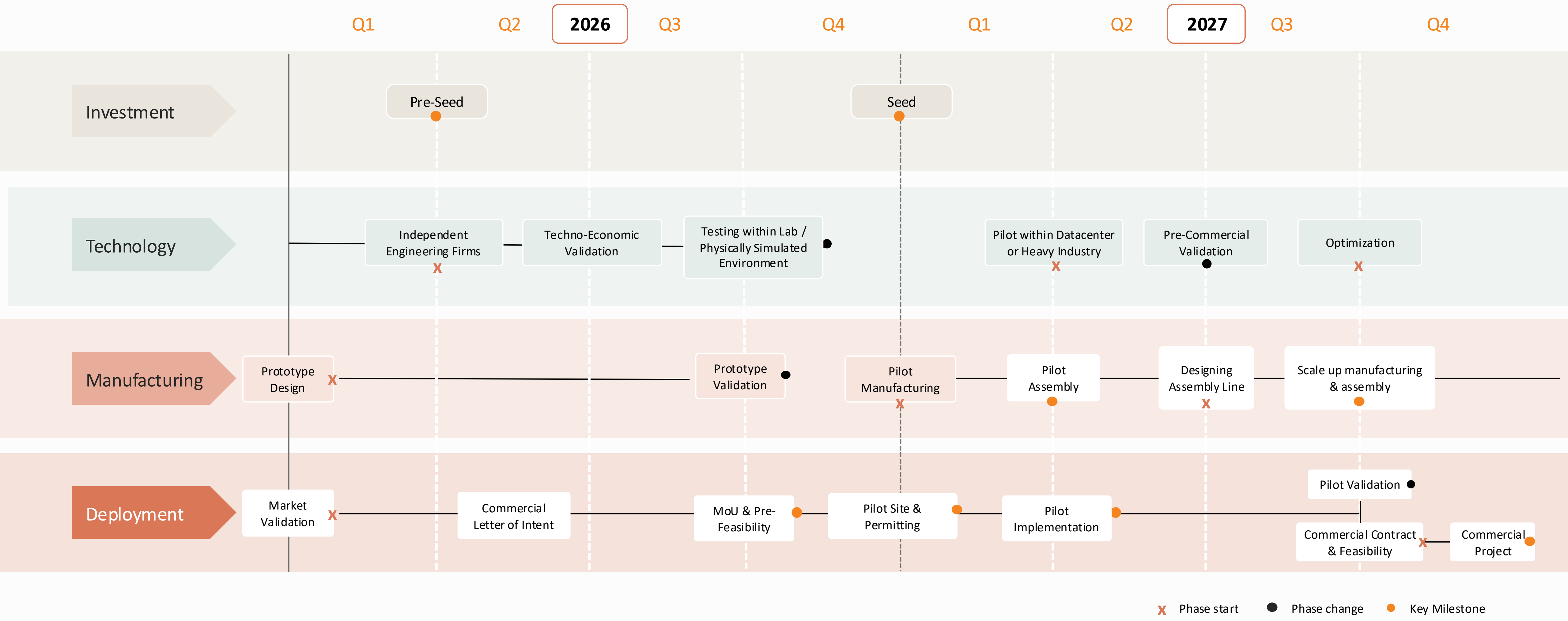
Chlor-Alkali
- Tata Chemicals

Steel
- Tata Steel - UK
- Tenova

Utility/IPP
- Tata Power

Engagements represent preliminary technical and commercial discussions; no commercial commitments to date.

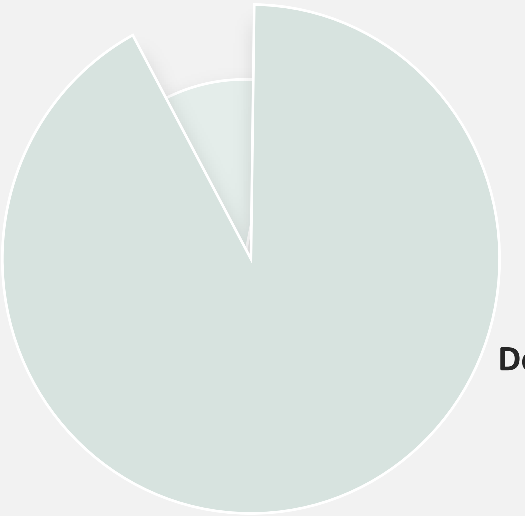
Structured execution path to pre-commercialization and first-deployment



Capital Is Concentrated to Fully De-Risk and Close Pre-Commercial Readiness

PRE-SEED Capital: $2Mn

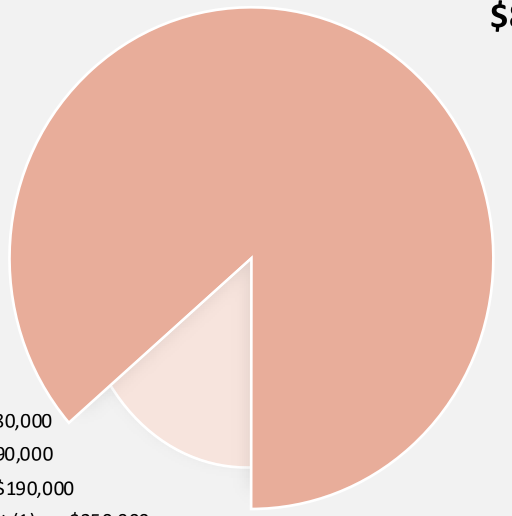
Founding Engineers (2)
$180K



Prototype Development & Testing
$1.82M

SEED Capital : $10M

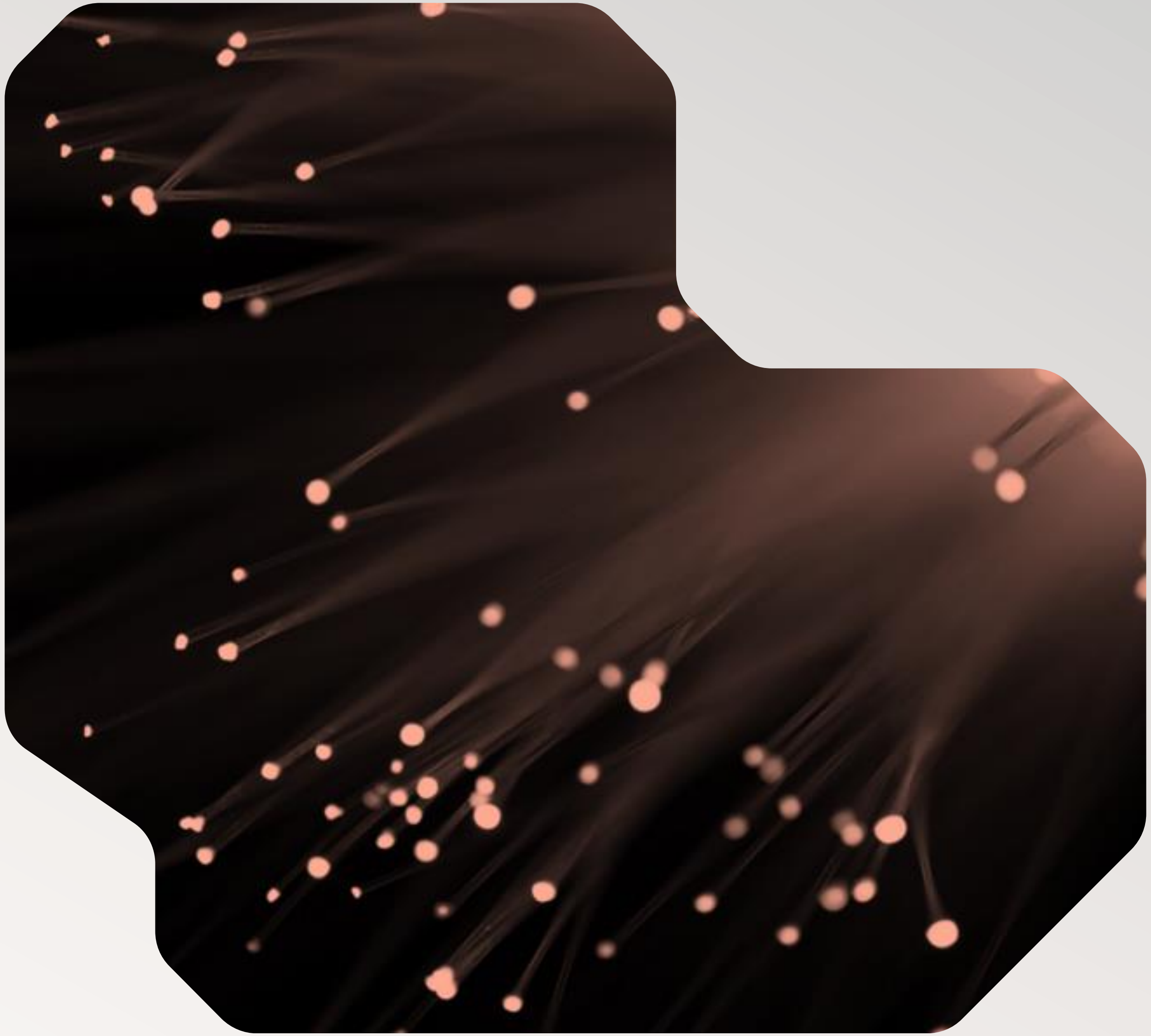
Pilot Deployment
$8.8M



Core Team
$1.2M

- Founders (2) — $200,000
- Software engineering (1) — $180,000
- Electrical engineering (1) — $190,000
- Mechanical engineering (1) — $190,000
- Systems / Program management (1) — $250,000
- Manufacturing engineering (1) — $190,000

Thank You



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