

# Always-On Industrial Connectivity

Resolving the Industry 4.0 IoT Paradox

# Industry 4.0 Promised Autonomy



## The Problem

## Connectivity never delivered



**Single points of failure**

**Cloud & internet dependence**

**Fragile hub-based architectures**

**Mission-critical systems go offline**

**Enterprises are actively searching for alternatives**



# \$84M per facility. Per year.

Cost of downtime for Oil & Gas operators

Directly related to connectivity failures\*

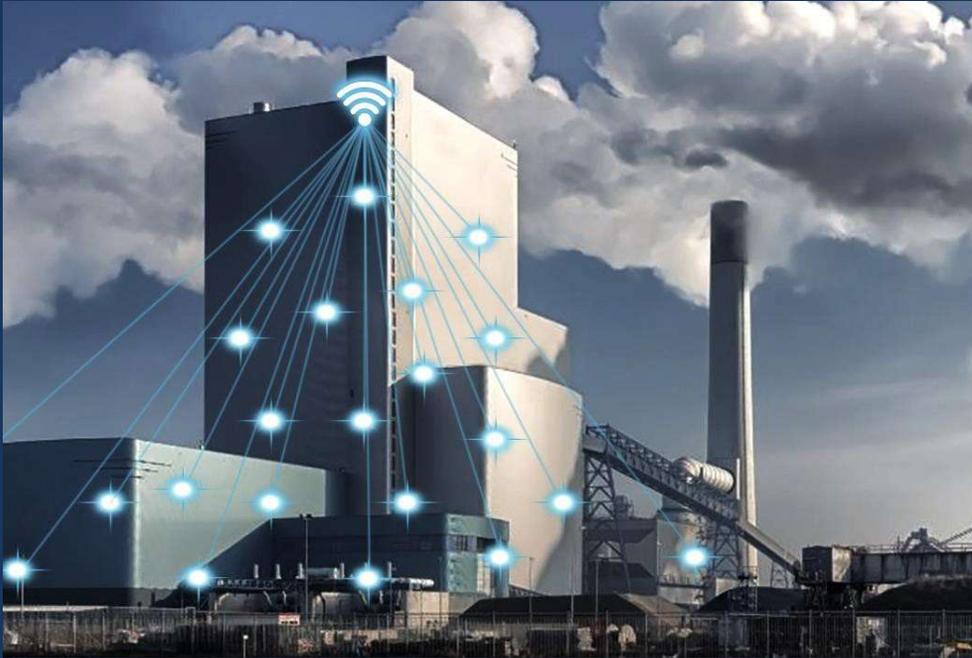
\* <https://assets.new.siemens.com/siemens/assets/api/uuid:3d606495-dbe0-43e4-80b1-d04e27ada920/dics-b10153-00-7600truecostofdowntime2022-144.pdf>

# Our Solution - Always-On. No Single Point of Failure.

Our platform, built on a new, open wireless mesh standard

- Software & firmware for distributed wireless networks
  - Operating at the edge, optimizing bandwidth & reliability
  - 100% uptime architecture, self-routing, self-healing
  - Vendor-agnostic by design, no proprietary hardware issues
- 

## How it works - Traditional IoT vs. Distributed Mesh Networks



Additional nodes degrade performance  
Hub - single point of failure and cyber target



Additional nodes improve performance/reach  
Self-routing/self-healing means 100% uptime

# Traditional IoT vs. Distributed Mesh

Chevron's challenges led to a POC



Summer '25  
Demo



Nov '25  
Installed

3 months live  
No interruptions

Hub = failure + cyber target

Single point of failure

More nodes → worse performance

"LoRa does not work in my refinery"

**Chevron: Zero Failures in Live Operation**

Autonomous, resilient network

No central hub

More nodes → better performance

**Proof: Chevron Use Case**

Mission-critical sensor connectivity

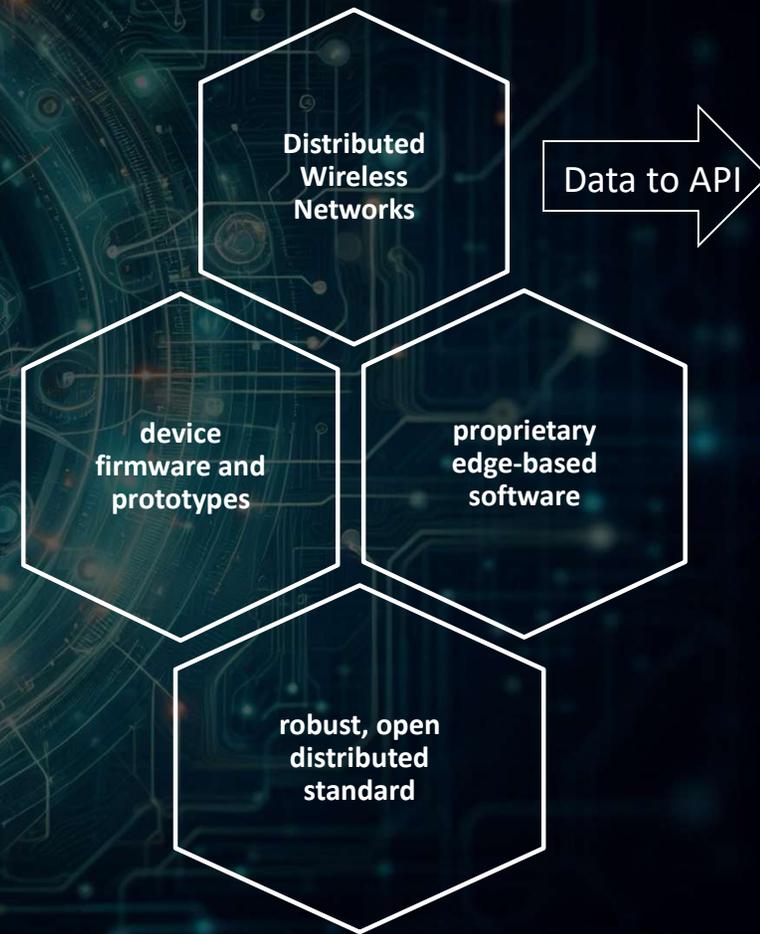
Distributed mesh = always-on

Next Steps: Field trials → scale | Catalyst / CVC participation | Syndication across peers

# The Platform Foundational Network Infrastructure – software first

Edge-based SaaS + network intelligence = our IP

- Operates on open, industrial grade Mesh standard
- Deployable anywhere, any environment
- Secure, low power, autonomous routing
- Vendor-agnostic, kits & prototypes accelerate GTM
- 100% uptime for controls and data collection (AI)



Scaling  
market  
validation

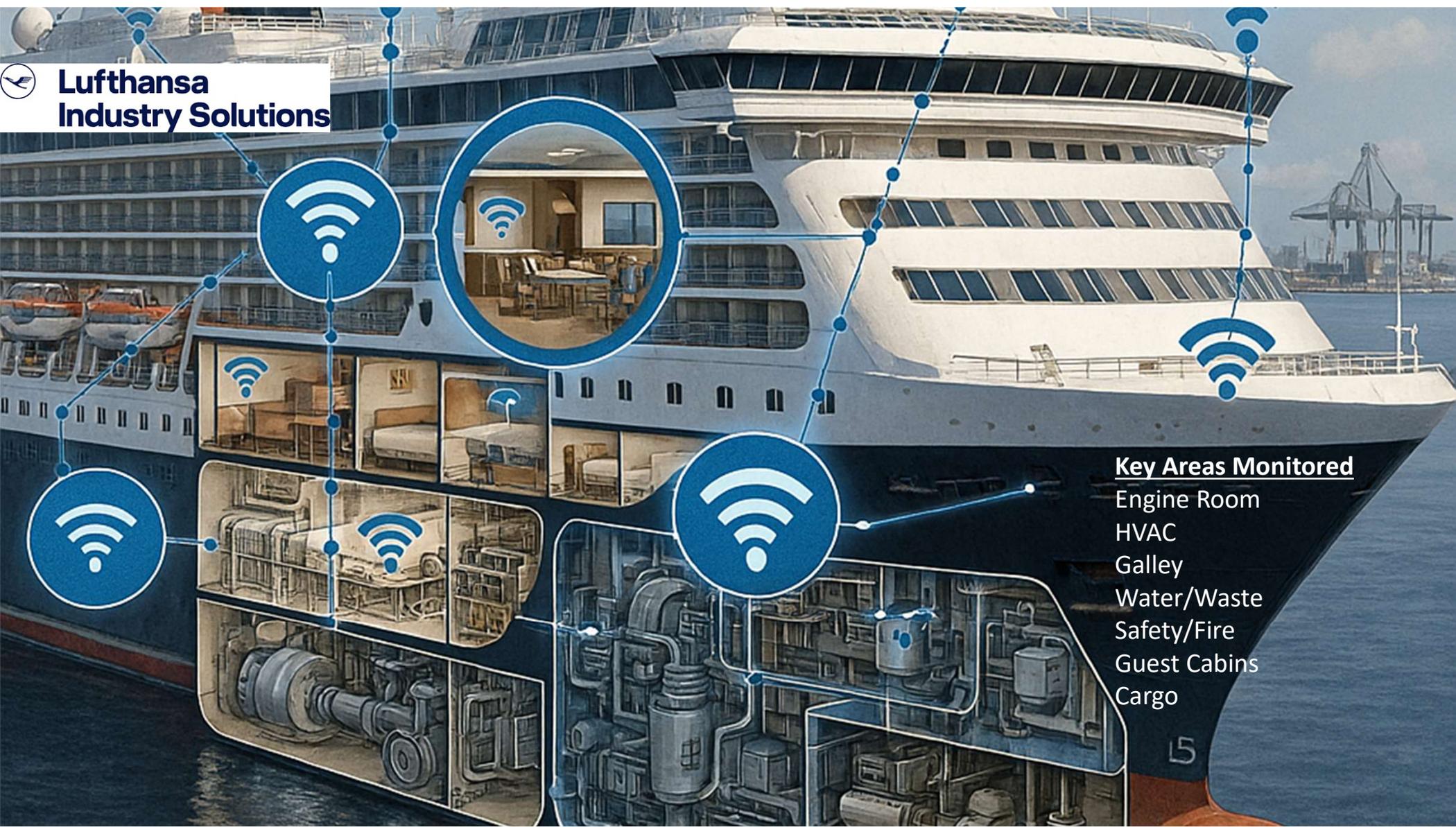
active  
paid pilots



same  
foundational,  
network  
infrastructure



**Lufthansa  
Industry Solutions**



**Key Areas Monitored**

- Engine Room
- HVAC
- Galley
- Water/Waste
- Safety/Fire
- Guest Cabins
- Cargo



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Klaus V. – LIS, “I know exactly how the ship is functioning, freezer temperatures, and other conditions...until the guests arrive”

# eliminating “black spots” and single points of failure (SPOF), for the connected maritime ecosystem in 2026

 Lufthansa  
Industry Solutions



- ❑ **visibility and safety – no “dead” zones**
  - track staff, guests, assets, inventory and conditions
- ❑ **real-time views, efficiency and logistics**
  - PM sensors, traffic, cleaning, and maintenance routes
- ❑ **dependable environmental & regulatory monitoring**
  - real-time compliance monitoring and audit data collection
- ❑ **enhanced and informed guest experience**
  - smart, automated, safe, on demand, and personalized
- ❑ **reduced deployment costs and complexity**
  - untethered, portable, plug-play sensor networks

**"ALWAYS ON", DISTRIBUTED MESH NETWORKS, SOLVING OLD PROBLEMS AND CREATING NEW USE CASES**



**AVIATION - MRO**



**inventory and logistics**

**PUBLIC UTILITIES**



**remote energy telemetry**

**EXPO & EVENTS**



**event insights & management**

**OIL & GAS**



**reliable sensor connectivity**

**SMART CITIES**



**environmental monitoring**

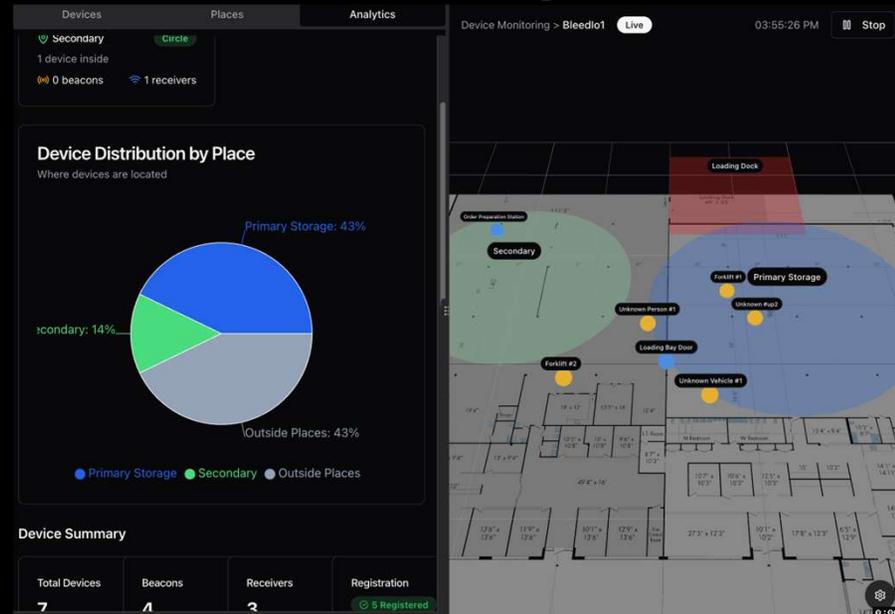
**FARMS & RANCH**



**conditions & livestock location**

# FIRE, EMS, POLICE

## portable personnel tracking



### Case summary

Teams have zero visibility of individuals' locations when on the rescue scene.

Meshed beacon location resolution is sub 1M, leaders now able to identify individuals' locations on X,Y, and X axis.

Sensors attached to location beacon include air quality, temperature accelerometer, etc. to manage staff safety and observe conditions.

# Business Model

## SaaS-First, Data, Firmware licensing



Monthly subscription of \$3 to \$5 per networked device, multi-year contracts

Each network install will be worth \$25K to \$60K, plus multiple installs per site

SaaS scales independently of hardware sources

Data, APIs, firmware licensing = upside

# Grow enterprises directly

Drive adoption/retention in beachhead multi-nationals, leverage direct management and Infrastructure-level stickiness



# Scale with channels

Solving widespread, stubborn problems, with recurring revenue and plug-and-play deployment, effortless “upkeep” (4 active partners, 100+ wait list)



2Q 26	3Q 26	2027	2028
Secure seed funding	Hire sales and implementation team	Execute direct & sales channel strategies Breakeven in 2027, complete Series A	SCALE
Launch full “edge” version	Onboard software engineers		
Onboard Advisors	Sell and develop with customer input		

# From Oil & Gas to Global Infrastructure

US industrials spend \$150B per year on smart wireless initiatives, and expect connectivity

manufacturing, warehousing, logistics representing 1.3M+ locations, \$48B IoT spend and urgent connectivity needs

at \$48B+ aggregate IoT spend (25% on Bluetooth) its adopters with big problems, looking for solutions

first mover, category creator, we want 30% of our SAM

forecasted average installation is \$25k to \$60K per year



market size

# Network Design Options – Competition or Collaboration?

Wireless Tech Considerations	locMESH™ netMESH™ by BleedIO	Wi-Fi	LoRa	5G Networks	Centralized network's challenges explained
<b>Network Design</b>	Decentralized BLE Mesh	Centralized	Centralized	Centralized	Central hubs are single points of failure
<b>Resilient</b>	YES – mesh is self healing/self routing	NO	NO	NO	Nodes require constant hub connectivity to function
<b>Interoperable</b>	YES – BleedIO is product agnostic	NO	NO	NO	Integrating disparate makes not possible
<b>Data Collection</b>	YES – mesh collects data with no interruption	NO	NO	NO	Inconsistent connectivity compromises data capture
<b>Scalable</b>	YES – improves as nodes are added	NO	NO	NO	Additional nodes slow network speeds
<b>Responsive</b>	YES – device to device(S) connect directly	SLOW	SLOW	SLOW	Hubs are “dispatchers” creating latency
<b>Implementation</b>	EASY - plug-and-play, auto-set up	HIGH	HIGH	HIGH	Complexity, low interoperability and expertise
<b>Secure</b>	YES – AES 256 military grade secure	POOR	POOR	POOR	AES 256 – military grade
<b>Streaming capability</b>	NONE	AVAILABLE	AVAILABLE	AVAILABLE	AVAILABLE – subject to “normal” interruptions and access issues

All Full Time, Execution-Focused, Capital-Efficient Team



BLE Mesh is an open standard — BleedIO is agnostic by design  
IP/Patent ownership, and prototyping support effective GTM motions



**Stan Podolski,**  
CEO/Cofounder  
IP owner, Masters in  
Radio Physics, industry  
thought leader, 25 years  
EY, IBM, Accenture,  
leading IoT projects,  
start-up leader with a  
successful exit.



**Leonardo Beup,**  
CMO/Cofounder  
30+ years leading  
marketing growth  
strategy for Fortune 500  
industrials (Airgas, Air  
Liquide) turn arounds,  
and start-ups with a  
successful exit.

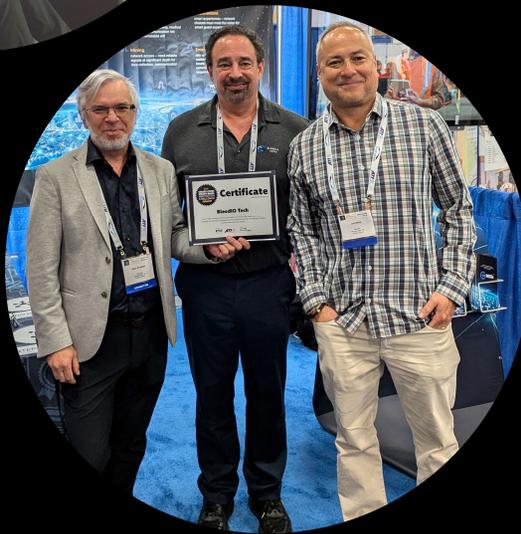


**Mike Koloboff,**  
Hardware  
manufacturing & rapid  
prototyping partner  
Participated in pre-seed  
round. Enables zero-  
CapEx hardware  
strategy. Supports GTM  
kits and customer-  
specific prototypes



**Brad Niems,**  
CRO/Cofounder  
recognized expertise in  
the networking space,  
30+ years leading large  
scale IoT programs with  
Amphenol, and the  
owner of several patents  
and awards.

# Recognized and Rewarded



- Phorum 2026 – Winner
- Winner of Lion Cage Tech Category
- CDL Alumni 2025-26
- NVIDIA Inception program acceptance
- 2X BIND Finalist
- Accepted into Founders Institute
- Accepted into Microsoft, CUNY & Batchery, accelerators
- PACT Tech-Startup of the Year Finalist
- AVF Philadelphia Finalist
- Featured presenters for ATI, PBEXPO, TechConnect
- TechConnect's Smart City Innovation finalist
- Finalist TechConnect World Innovation
- Awarded MOSA Innovation Finalist

# Financials

launch '26, breakeven '27, scale by '28



## Key assumptions

installation value grows to \$60k per

CAC drops by 25% in 2028

sales includes implementation FTEs

retention will be better than 95%

series A integrated in 2<sup>nd</sup> half of 2027

4X increase SALES & ENG FTEs in 2028

FTEs	'26	'27	'28-'29
SALES	3	5	45
ENGINEERING	3	3	25
G&A	1.5	3	5

	2026	2027	2028	2029
REVENUE	\$280,000	\$2,100,000	\$14,400,000	\$39,240,000
SOFTWARE REV	\$210,000	\$1,750,000	\$12,000,000	\$32,700,000
HARDWARE REV	\$70,000	\$350,000	\$2,400,000	\$6,540,000
AVG INSTALL VALUE	\$40,000	\$60,000	\$60,000	\$60,000
INSTALLS	7	35	240	654
CAC	\$70,000	\$350,000	\$1,800,000	\$4,905,000
DIR PROD COST	\$17,500	\$87,500	\$600,000	\$1,635,000
COGS %	31%	21%	17%	17%
\$GM	\$192,500	\$1,662,500	\$12,000,000	\$32,700,000
GM	68.8%	79.2%	83.3%	83.3%
SALES EXP	\$300,000	\$550,000	\$2,350,000	\$4,850,000
ENG EXP	\$300,000	\$500,000	\$2,300,000	\$5,300,000
G&A	\$300,000	\$550,000	\$1,050,000	\$1,350,000
TTL EXP	\$900,000	\$1,600,000	\$5,700,000	\$11,500,000
INCOME	(\$707,500)	\$62,500	\$6,300,000	\$21,200,000
INC %	-252.68%	2.98%	43.75%	54.03%
	seed (18 month)	series A	→	
INVESTMENT	\$900,000	\$6,000,000		

# Ask



We are raising a \$900K seed, to serve new/existing enterprise customers and accelerate software, firmware and prototype development

## Use of funds ('26 – '27)

\$300K engineering  
\$300K sales  
\$300k G&A

## Key outcomes

launch V2, secure beachhead manufacturing, warehouse customers, and \$2 million in ARR

## What's next

leverage success to target other large IoT segments, like shipping, or healthcare

BleedIO's seed round will get us to break even, positioned for growth capital

Our exit objective - acquired within 8 years, potential buyers cross industries



# The Networks Upon Which Industries Depend

BleedIO is building a foundational connectivity layer for the physical world, one that operates independently of hubs, clouds, or centralized infrastructure.

- Distributed, autonomous, and always on
- Built on open standards for long-term interoperability
- Designed to scale across industries and environments
- Becomes stronger, more resilient, and more valuable as it grows

**From isolated networks to shared infrastructure.**

[www.bleedio.com](http://www.bleedio.com)

[connect@bleedio.com](mailto:connect@bleedio.com)

[www.linkedin.com/company/bleedio](https://www.linkedin.com/company/bleedio)