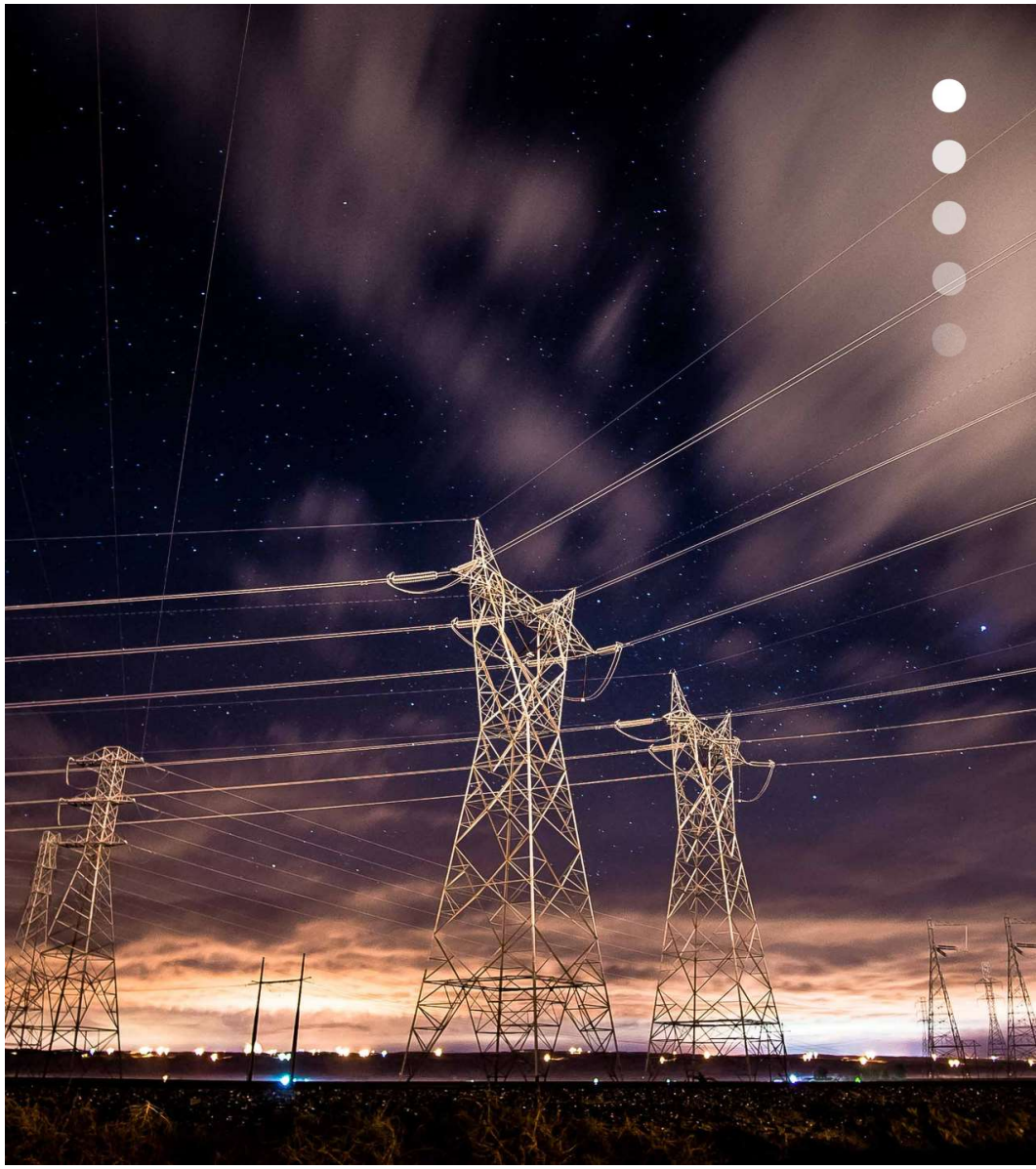
GRIDsentry
Powergrid Cybersecurity

A Powergrid Cybersecurity startup

Author: Dr. Devika Jay, CEO

20th October 2022



www.grid-sentry.com



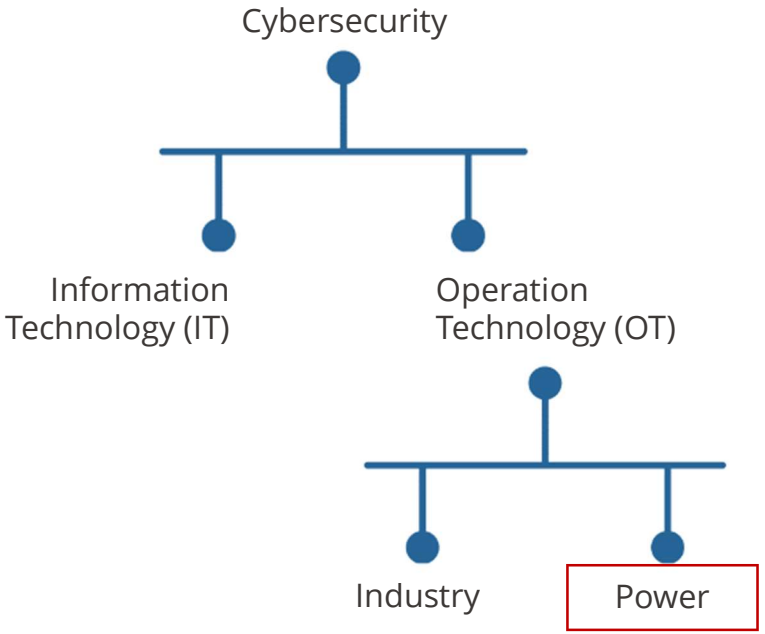
Introduction

GRIDsentry will cover power substations and associated electrical network used in critical infrastructure for power Transmission and Distribution.

GRIDsentry
Powergrid Cybersecurity



Cybersecurity



Problem Statement

- Cyberattacks on **critical power transmission and distribution infrastructure** can cause severe disruption and financial losses
- Frequency of attacks increasing
- No potential solution in sight



Countdown is on...



China tried to hack Power Grid systems in Ladakh thrice.

April 08, 2022
R.K Singh, MoS Power



Every substation, every power plant, every pipeline can be attacked and can be a possible target

Oct 10, 2022
General Breuer, Commander Armed force, Germany



DoE (US) invests $12 Million in cybersecurity research for energy grid

Sept 21, 2022 (USA)

An eye opener

2015 Ukraine Powergrid Cyberattack



50 substations were affected



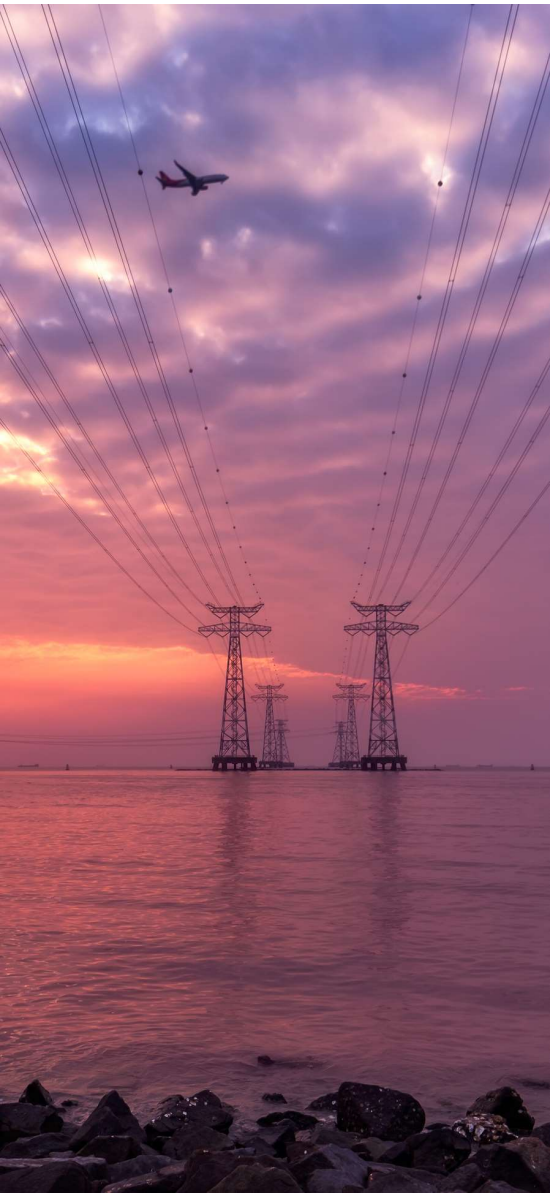
Servers, workstations and field devices damaged



3.5 hours of power outage



135MW load impact affecting 2,25,000 customers



Powergrid Cybersecurity Challenges

Unique network topology

Different network protocols

Complicated Embedded systems

Legacy utility environment

Encryption not allowed

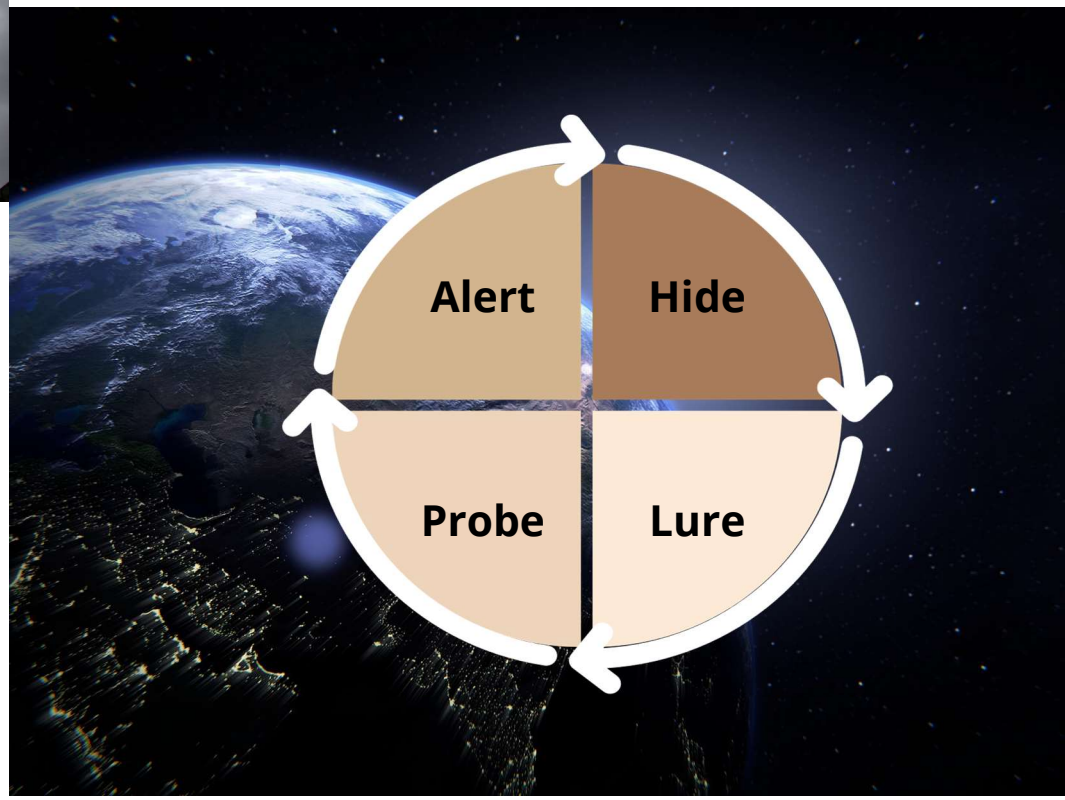




GRIDsentry
Powergrid Cybersecurity

Our Solution

- **Real-time In-network Watch Guard**
- **Defensive Deception with AI Technologies**





Super specialized CS for power

Smart Grid Cyber Security Market, by Solution type

- Risk & Compliance management
- Encryption and decryption
- Firewall, antivirus & Malware
- **Intrusion detection/ prevention system**

Smart Grid Cyber Security Market, by Function

- **SCADA/ICS**
- Advanced metering infrastructure
- Demand response
- Home Energy Management

Smart Grid Cyber Security Market, by Security type

- **Network security**
- Endpoint security
- Application security
- Database security

Smart Grid Cyber Security Market, by Deployment

- **On-premise**
- Cloud

* https://www.techsciresearch.com/report/global-smart-grid-cyber-security-market/2332.html

OUR TEAM



Business Development



Mr. Kiran Krishna
Sales and Marketing

- **Key SME Founder**
- Substation Automation expert



Ms. Amulya
Power CS expert

PhD - IITM
(Power systems)



Mr. Prasan Kaikini
Networks Expert

- **B. Tech - IITM**
- MS -CS, University of Wisconsin
- Experience: Philips, Siemens, and AT&T



Mr. Steve Mustard
CS SME

- **Ex President - ISA (International Society of Automation)**
- Member of ISA99 (OT CS) committee

Subject Matter Experts



Dr. Devika Jay
Chief Executive Officer

- **Key SME Founder**
- **PhD - IITM**
- 7 years experience POWERGRID



Prof. Sarasij Das
SME

- **Professor Electrical Engineering, IISc, Bangalore**
- Power System Analysis, Protection & Monitoring



Prof. Faruk Kazi
SME

- **Dean - R&D, HoD - EE, VJTI Mumbai**
- Nationally recognized Power CS expert

Development



Mr. Himanshu Goyel

Power CS expert

MS (IITM)



Dr. Tanusree B

Power CS expert

PhD (JMU)



Dr. Gaurav Khare

Power CS expert

PhD (IITK)

Business Management



Mr. Rajesh Rathi
Chairman Managing Director

- **Key SME Founder**
- **B. Tech. EE – IIT Madras**
- MS Comp Engg, UoH
- Serial entrepreneur



Mr. Sharad Heda
Chief Business Strategist

- **Ex-President Microland**
- **MBA – JBIMS**
- B.Tech (EE) – VRCE Nagpur

Team Accomplishments



First Prize: IIT Kanpur-HCL Cybersecurity Hackathon



SID- IISc Incubation, VJTI-TBI Incubation



Winners of ELEVATE 2021 with Rs.40L Grant



Thought leadership and publications



Defensive deception patent WIP

Target Market



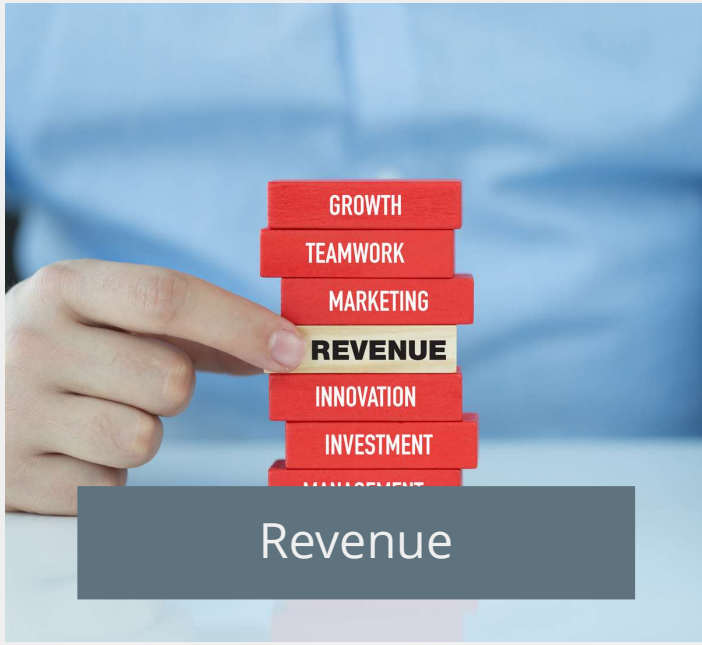
Sectors

- Traction Power Grid
- Urban Utility Grid
- Captive Industrial Grid
- Microgrid



Geography

- USA (Privatized power)
- India (Vicinity to development)



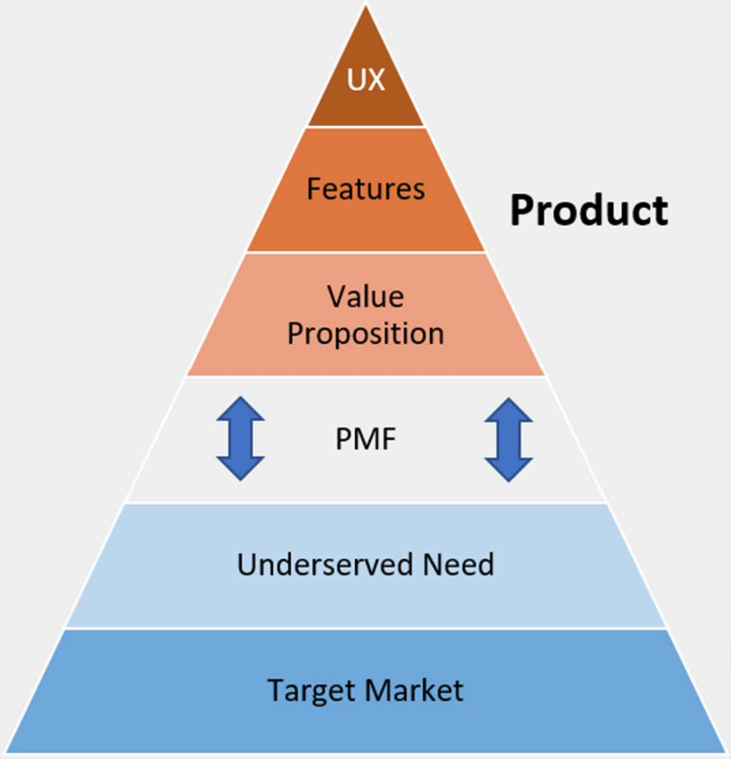
Revenue

- 20 million $ by 2025
- Products and services



Market Validation

Product Market Fit



Product

- On-Premise
- Supported by Emergency Response Team (ERT)

- Intrusion Protection and Detection
- Defensive Deception

- Prevent potential attack / Early behavioral detection
- Emergency attack response by experts

Market

- Powergrid specific 24X7 Cybersecurity watch guard
- Standard ICS Cybersecurity systems are insufficient

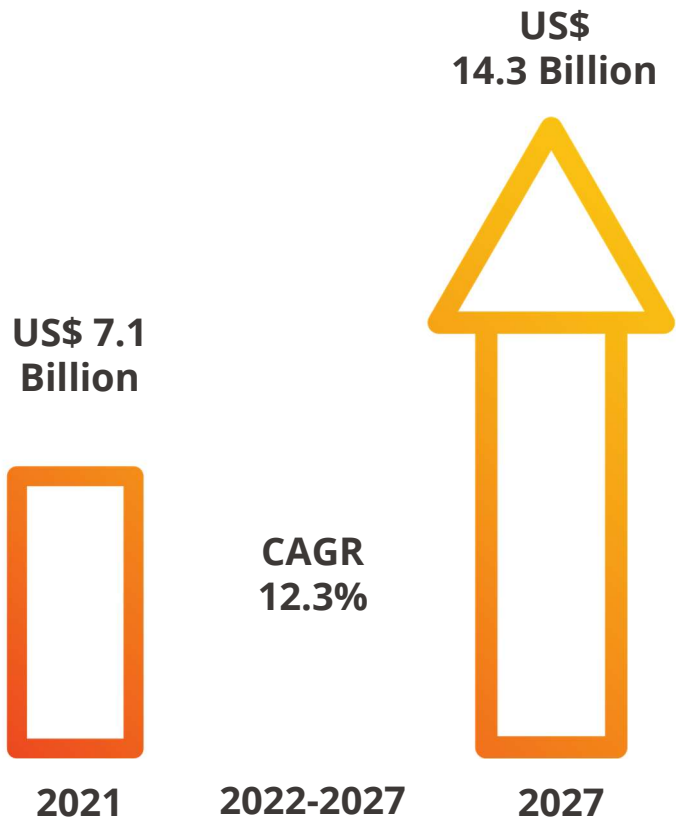
- Traction Power / Utilities
- Industries / Microgrids

Market Validation

- 2400+ entities have downloaded the Powergrid Cybersecurity maturity model C2M2 from DOE.
- Metro man **R Sreedharan** firmly confirms the need for Traction Power Cybersecurity
- Valuation of similar companies ranges from **$1.7 B (Dragos), $1 B (Claroty), $500 m (Nozomi), $250 m (txOne)**
- Extensive interviewing the **Urban transportation customers** in the US and confirm urgent need for a reliable cybersecurity solution comprising of **Products and Services**.
- New stringent Cybersecurity guidelines already announced by **Ministry of Power** in India.



Market Potential

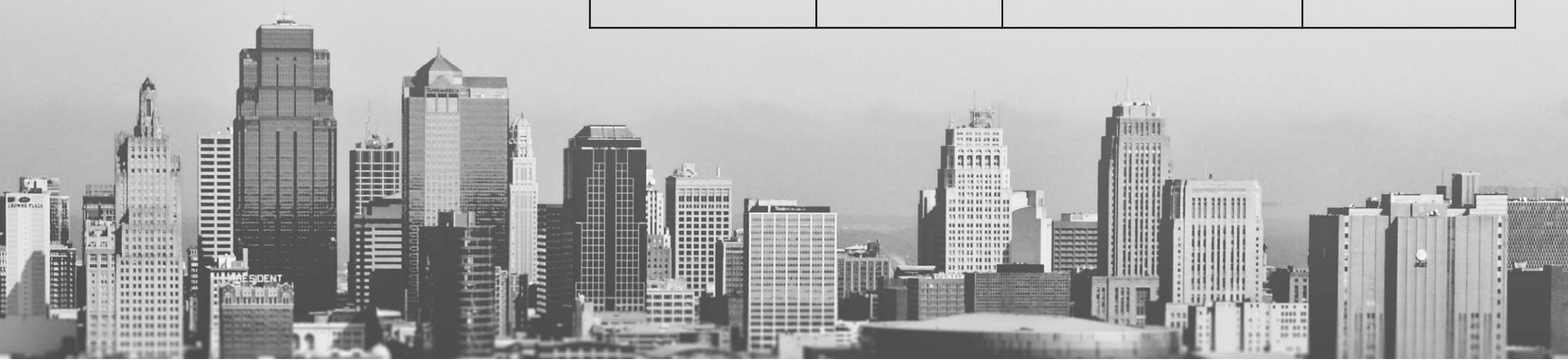




Defensive Deception

Key Differentiator

Name	Domain	Technology	Solution
Dragos	(IT assets)	Network monitoring	Alert, Probe
Claroty	OT	Network segmentation	Alert, Probe
Nozomi networks	OT	Deep packet inspection	Alert, Probe
Omicron	**Power**	Deep packet inspection	Alert, Probe
GRIDsentry Powergrid Cybersecurity	**Power**	**Defensive deception + Deep packet inspection**	**Hide, Lure, Alert and Probe**



Business Model

01

Revenue

- Products licenses (50%)
- Services (50%)
  - VAPT
  - Implementation
  - ERT

02

Sales

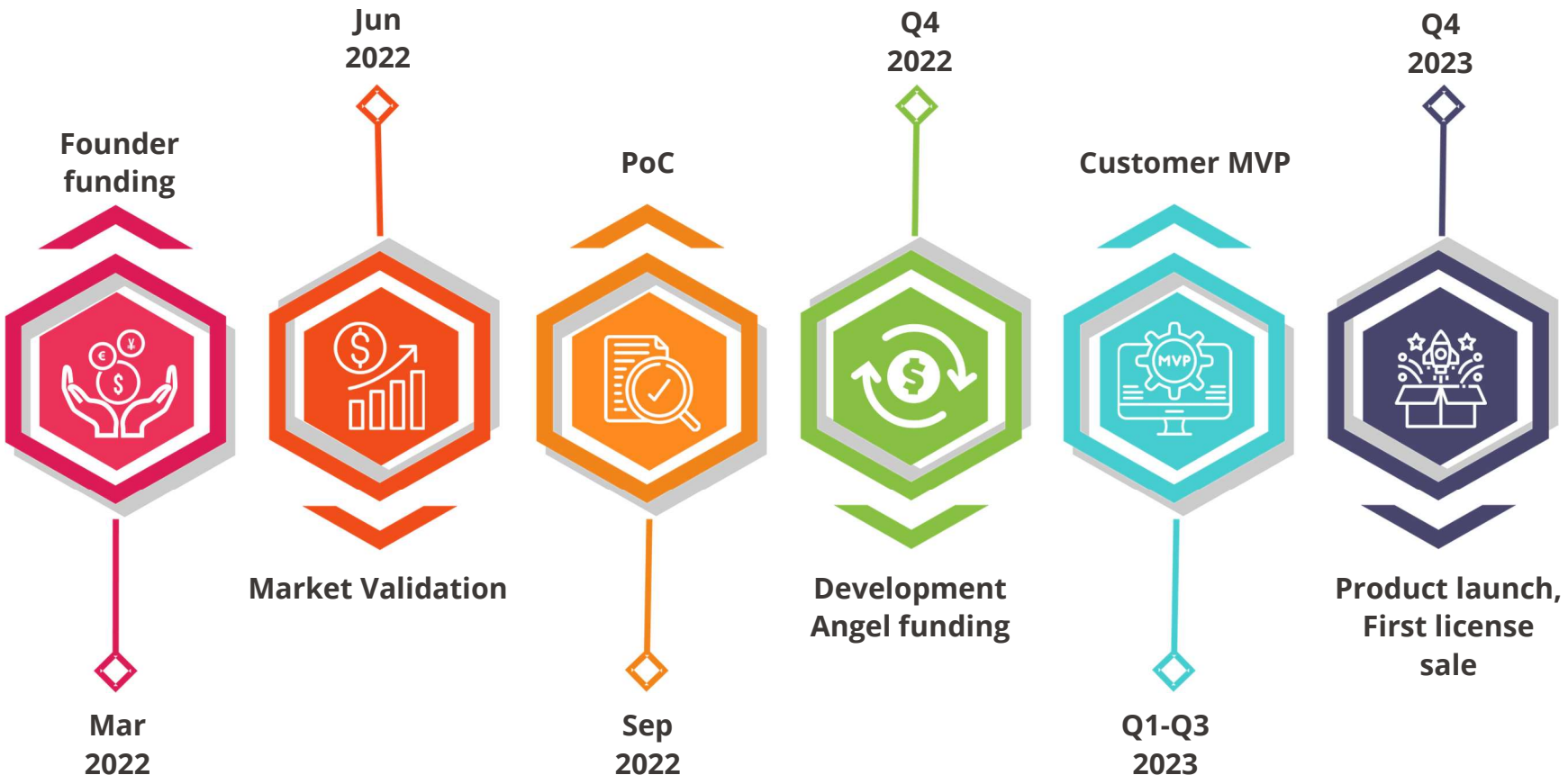
- Channel partners
- Back-end- Presales and solution team

03

Delivery

- On-premise deployment
- Emergency Response Team (ERT)

Traction


Mar
2022
Founder
funding
Jun
2022
Market Validation
Sep
2022
PoC
Q4
2022
Development
Angel funding
Q1-Q3
2023
Customer MVP
MVP
Q4
2023
Product launch,
First license
sale

Financials (k$)

	2022	2023	2024
Total Revenue	-	100	400
EBITDA	(72,500)	(590)	(821)
PAT	(76)	(622)	(862)
Total Funding	125	**1,500**	0
Closing balance	46	944	110



Financials (k$)



		2022	2023	2024
Revenue	Product	0	0	200
	Services	0	100	200
Total Revenue		0	100	400
Expenses	CapEx	6	50	50
	Development	70	338	619
	Marketing	3	315	415
	Delivery	0	38	188
Total Expenses		73	690	1,221
EBITDA		(72,500)	(590)	(821)
Depreciation		4	32	41
Interest		0	0	0
PBT		(76)	(622)	(862)
Tax		0	0	0
PAT		(76)	(622)	(862)
Funding	Promoters	100		
	Grants	50	0	0
	Investors	0	1,500	
	Debt	0	0	0
Total funding		**125**	**1,500**	**0**
Opening balance		0	46	944
Cash in		125	1,600	400
Cash out		79	740	1,271
Closing Balance		46	944	110

Ask

1.5 Million $
for
2023 and 2024





Take aways

Challenging sector with no potential solution in sight.

Proven urgent requirement in the market.

Strong balanced team to develop/sell the ambitious offering.

Defensive Deception POC ready at IISc.

Technology ready for patenting.



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Get in Touch

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