PROVIDING SAFER & EFFICIENT INSPECTION SOLUTIONS USING ROBOTICS AND AI



EyeROV™

Johns T Mathai

CEO & Co-Founder,
EyeROV (IROV Technologies Pvt. Ltd)

Company Snapshot

- **Marine Robotics and AI Company building unmanned robotics solutions for Defense, O&G and Marine sector**
- Incorporated in **2017** by IIT Alumni, Ex-Samsung & Ex-NIOT
- Executed **70+ projects** and **40+ Clients**
- Investments by **GAIL and V-Guard, Wonderla** founder
- Winners of
  - Dare to Dream 3.0, DRDO
  - National Startup Award 2022, Startup India
  - IDEX Defense Startup Challenge, Ministry of Defense
- Team of **35+ Members**
- Supported by **KSUM** and **Maker Village**



Receiving **National Startup Award 2022** from the Hon'ble Minister of Commerce & Industry



Winner of Dare to Dream 3.0 , receiving the award from the Hon'ble Minister of Defence

Inspection and Surveillance of our $1 Trillion worth infrastructure

EyeROV™







10,000+
Offshore Assets

40 Lakhs
Bridges

60,000+
Dams

60,000+
Ships





Limitation of Current Methods

- **Manual** Methods employed
- Safety - **Hostile** Conditions
- **Costly and Time** Consuming
- Consistency and **Quality** of Data

Data Reporting

- No Digitalization
- No historic comparison
- No predictive analytics

#Indigenously developed

Products

ROV

TUNA
Remotely Operated Vehicle (ROV)



TROUT
Remotely Operated Vehicle (ROV)



USV

i-BOAT ALPHA
Unmanned Surface Vehicle (USV)



AUV

VAJRA (Coming Soon)
Autonomous Underwater Vehicle









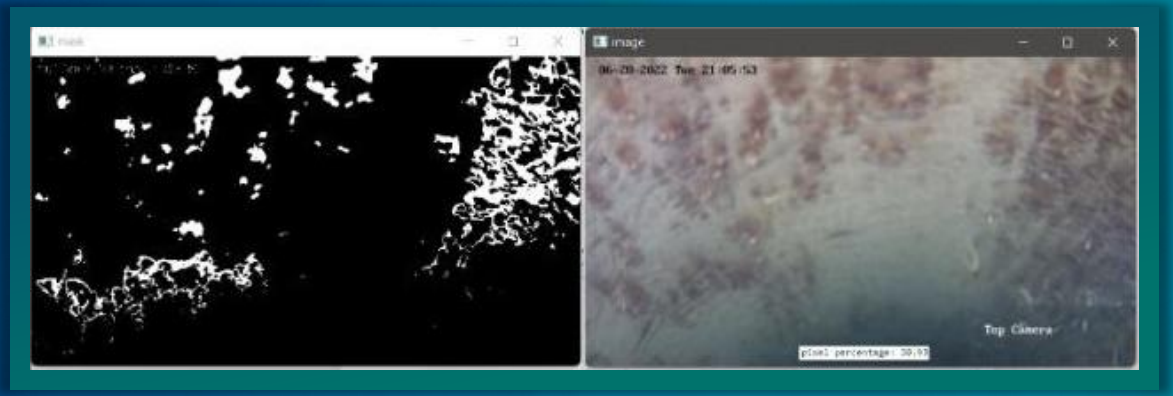
5+ Patents



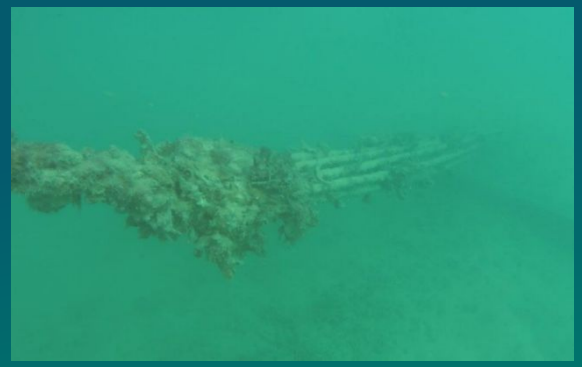
Data Processing & Reporting : EVAP - EyeROV

Visualization & Analytics Platform

- Digital Reporting
- Analytics Report based on criticality
- Automatic Detection of defects powered by AI/ML
- Enhancement of hazy/turbid waters

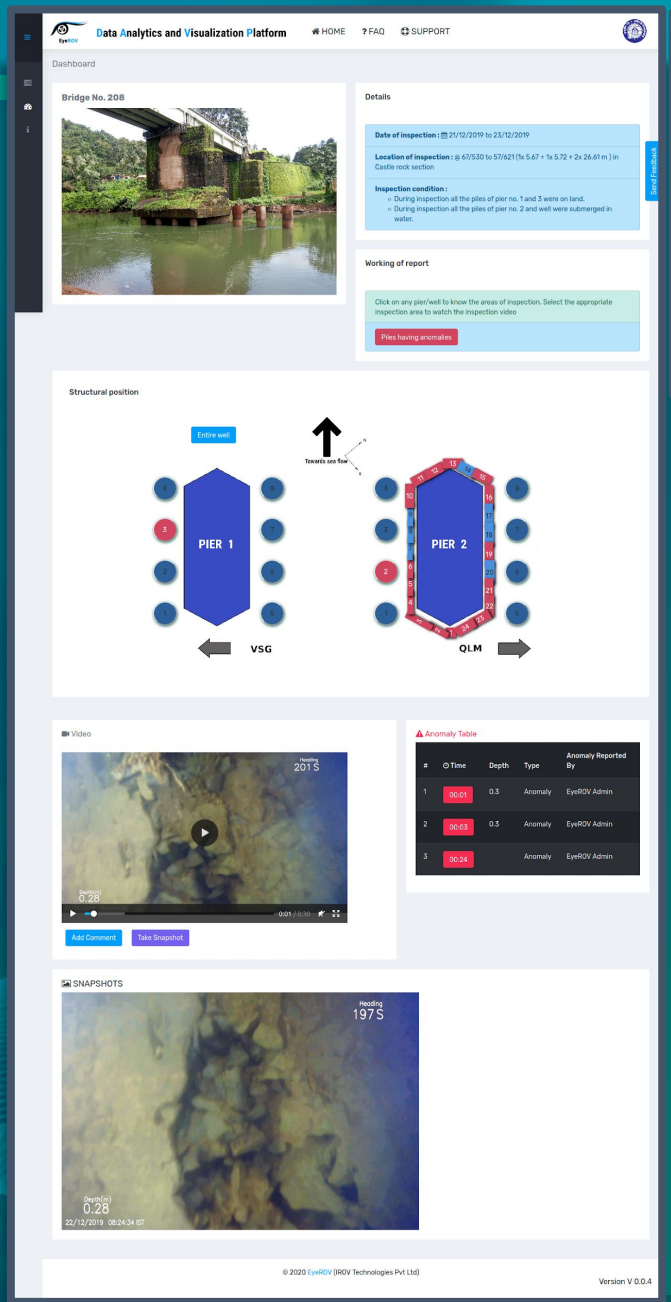


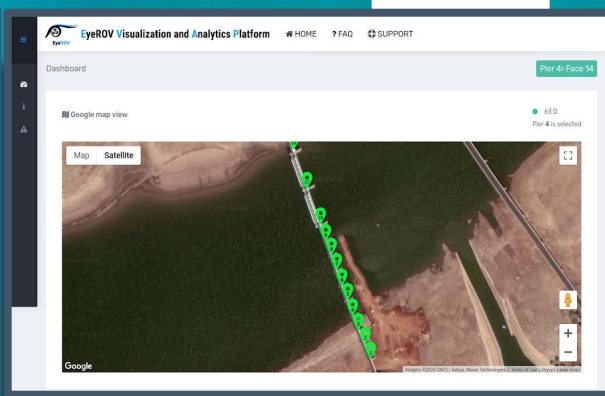
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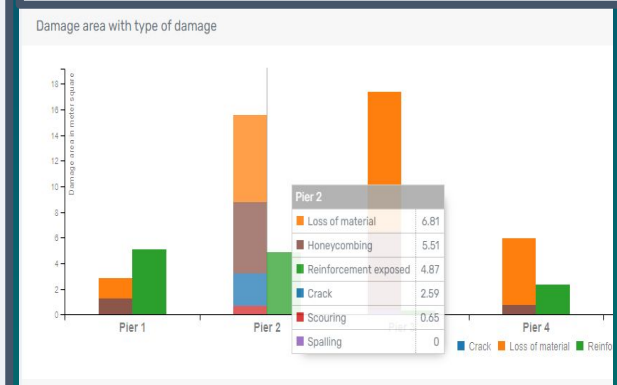


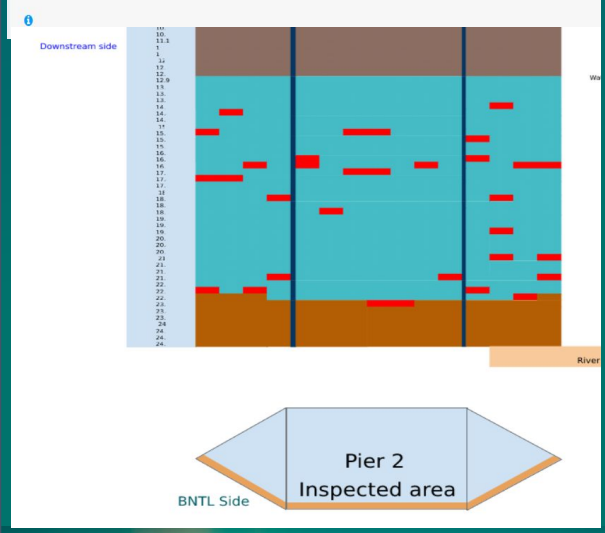
Enhanced











Value Proposition

Manual Inspection to **Unmanned Robotics Solutions**









Paper Reporting to **Digital Reporting**





Value Proposition

- **Faster** (50%) completion of inspection - Autonomous - work 24x7 (3x)
- **Accurate date for decision making** **10x** More and Accurate Data Collected
- Unmanned hence **Safer and Cost Effective**
- **Sustainable** - replacing Diesel Boats with - Electric Mini Boats
- **Digitalization and Predictive Analytics** of Data Collected

Business Model

Product Sales

- **Sell and charge AMC**



Target Industry

- Disaster Management (NDRF, SDRF)
- Defense (Coast Guard, Navy)
- Research Organizations (CMFRI, DRDO)

Robotics as a Service (Raas)

- Our Team uses ROV and USV to collect Data and generate reports



Target Industry

- Dams (NHPC, THDC)
- Bridges (Railways, NHAI)
- Oil & Gas (Aramco, Adnoc Reliance, BPCL)
- Shipping (Maersk)
- Ports (DP World, Mumbai)

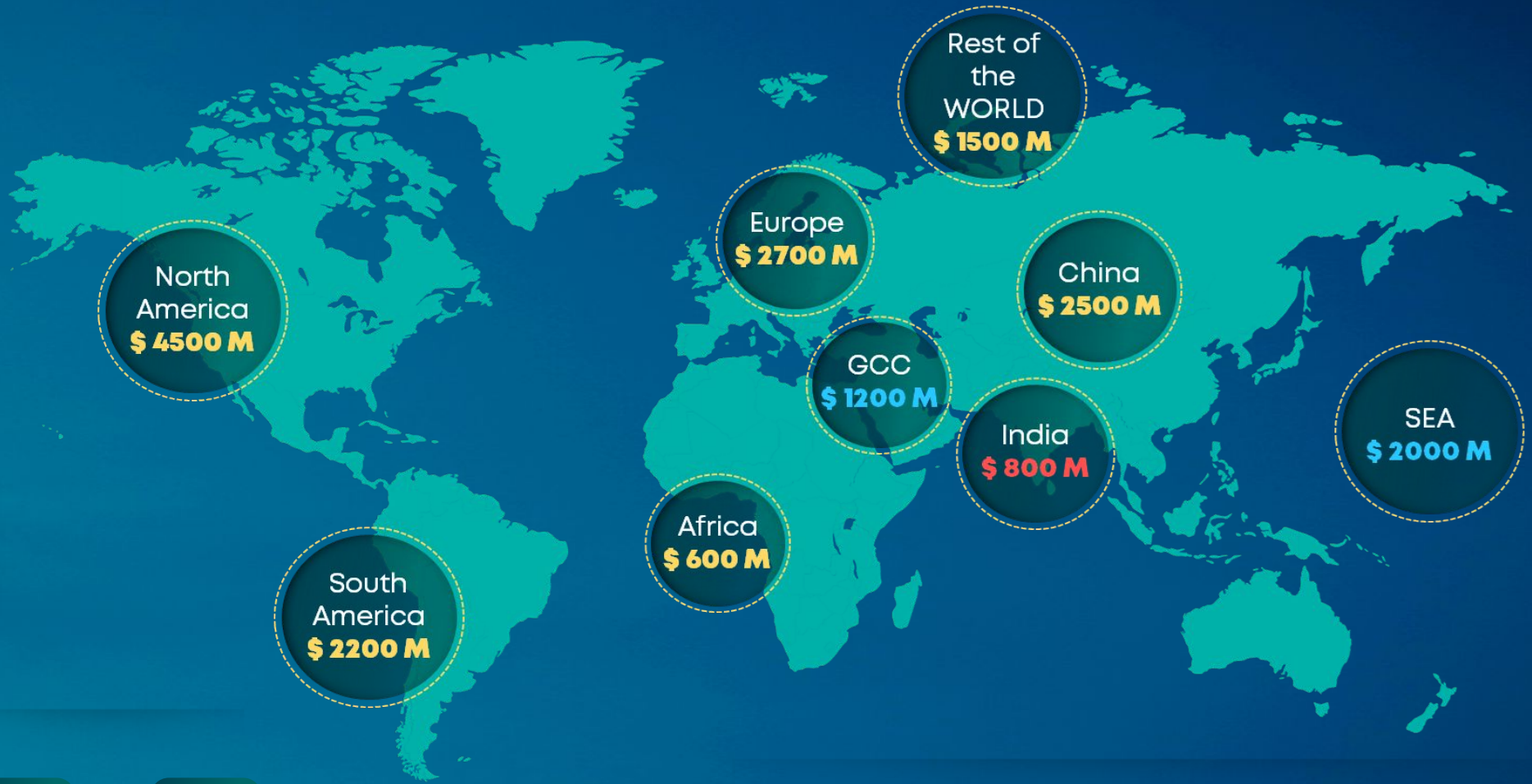
Market Opportunity - RaaS/Services

	Dams	Bridges	Shipping & Ports	Energy & Oil & Gas
				
Applications	• Upstream Wall • Sluice gates and Intake Gates • Trash Racks, Penstock	• Pile/Piers Integrity • Scour Profiling • Bathymetry • Decommissioning	• UWILD • Survey post incident • Port Structure Inspections	• Pipeline Inspection • SPM & Offshore Structure • Storage Tank Inspections • Offshore Wind Farms
Opportunities	• 57000+ Dams • 3000+ for Rehabilitation	• 4 lakh+ River Crossing Bridges	• 800 Major Ports • 60,000+ Vessels	• 30000+ O&G Assets • 1.2 Million Km+ Subsea Pipelines

Market Opportunity - Product Sales

	Defense	Disaster	Research
			
Applications	• UW Mine Detection • UW SAR • Navy Ship Hull Survey	• Search and Rescue (SAR) • Murky Water Survey • Rapid Search	• UW Target Study • UW Payload Developments
Opportunities	• 2800+ Naval Ships	• 3,20,000 annual drowning • 3rd leading cause of unintentional injury death worldwide	• 1200+ Research Organizations

Market Opportunity - TAM ~ $ 18 B+



Remotely Operated Vehicle (ROV)

- Maritime Industry
- Oil & Gas
- Ports
- Bridges
- Dams
- Defense
- Research Organizations
- Search & Rescue

Unmanned Surface Vehicle (USV)

- Bathymetry Survey
- Security & Surveillance
- Hydrographic Surveys
- Water quality monitoring
- Ports & Wharfs
- Offshore oil Spillage monitoring

Traction & Clients



Inspection of Single point Mooring platform, Kochi



Mulshi Dam - Dawadi Tunnel Inspection



Inspection of Port Berth structures, DP World



Inspection of Bridge Structures, Railways



Inspection of container ship hull, ICTT

Key Metrics

- **40+** Clients
- **70+** Project Completed
- Operating in **3 Countries India, UAE and KSA**

Team



Johns T. Mathai

CEO, Co-founder

Master's in Electrical Engineering



Kannappa Palaniappan P.

CTO, Co-founder

Master's in Ocean Engineering



Balagopal Chandrasekhar

Chairman Board of Directors,
Federal Bank



Rajeev Krishnan

VP, Matific
Advisor Sales &
Marketing



KB Gopalakrishnan

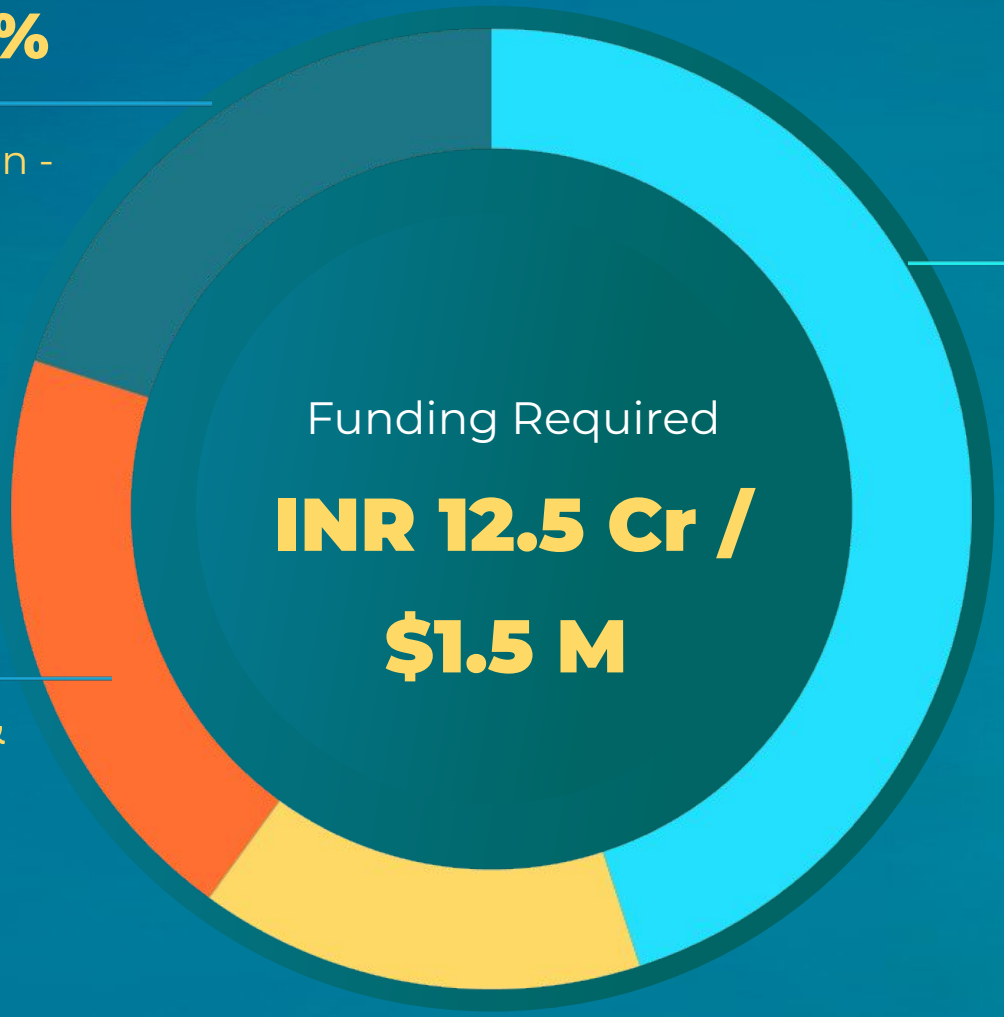
Financial Advisor
Founder,
KB Gopal Associates
Ex CFO - SFO, Ex-GM SBI

- **Working in Robotics field for the last 14+ Years**
- **Working in the domain for 7+ Years**

- **Domain experience for 10+ Years**
- **Worked on marine systems with NIOT and DRDO**

- **Team**
  - **IIT, NIT and prestigious institutes**
  - **Seniore Team having 10+ years of experience**

Ask



20.0%

Market Expansion - GCC

45%

New Applications, Payloads and R&D

20.0%

Certifications & Compliances

15.0%

Strengthening Sales & Marketing

Vision

World No.1 in Robotics and AI Solutions for the Ocean, Energy and Marine Industry

- World Class Deeptech Solutions backed by **Patents and Intellectual Property**
- **High entry barrier** Industry where EyeROV has been working for 6+ years
- Building more **safer, efficient** and **sustainable** solutions
- Expanding to **GCC -> SEA -> North America** in coming years
- **“Make in India and Sell to the World”**





9 INDUSTRY, INNOVATION AND INFRASTRUCTURE

14 LIFE BELOW WATER





THANK YOU

CONTACT US

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https://www.linkedin.com/company/eyerov/

https://twitter.com/EyeROVTech

http://www.eyerov.com/

Roadmap

2018

Launched EyeROV TUNA Underwater Remotely Operated Vehicle



TUNA ROV

2019

Raised Seed Level Funding from GAIL

2021

- 40+ Underwater Projects
- Winner of National Startup Award TDB, DST

2022

ASV - Autonomous Surface Vehicle



- Autonomous Surface Vehicles (ASV)

2023



Naval Grad ROV - EyeROV TROUT



2024



AUV - Autonomous Underwater Vehicle



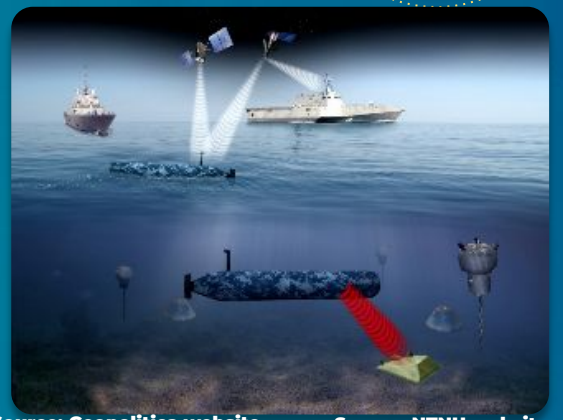
2025





IPO

2027



Source: Geopolitica website

Source: NTNU website

Partners and Go To Market

Channels

- Direct Sales
- Partners through
- Events and Conferences
- Tenders

India

Defense India
- IDEX Channel

iDEX Innovations for Defence Excellence
PM Awardee

Local Partners for Sales to Different Geography

STS

K.K. GEOSYSTEM PVT. LTD.

Global

GCC (UAE, KSA)

ALMANSOORI

Partnering with companies offering solutions with synergy

Aerial Drone Companies,

Turnkey Solution providers

Applus

BUREAU VERITAS

Working with Innovation team of corporates

هيئة كهرباء ومياه دبي
Dubai Electricity & Water Authority

MAERSK

Affordability

Competition

Affordable

Expensive

Low

High

Eyerov USP

- Integration of **advanced payloads/sensors**
- **Portable and hybrid** capable rov's
- Ability to work for **long range 2 km+**
- Advanced **data analytics & processing** softwares

Value to customers in terms of Data quality, Accuracy

SCUBADIVER

DEEP TREKKER

Acquired by Halma Group

SEABOTIX

SEABOTIX acquired by TELEDYNE

Eelume SUBSEA INTERVENTION

EELUME backed by KONSBERG AND EQUINOR

PLANYS TECHNOLOGIES

ABYSS

VideoRay

KRAKEN

KRAKEN ROBOTICS

~ $ 92.6 Mn MARKET CAP

Case Study 15 February,2023

MULSHI DAM - DAWADI TUNNEL ROV INSPECTION



Client

TATA POWER

Location

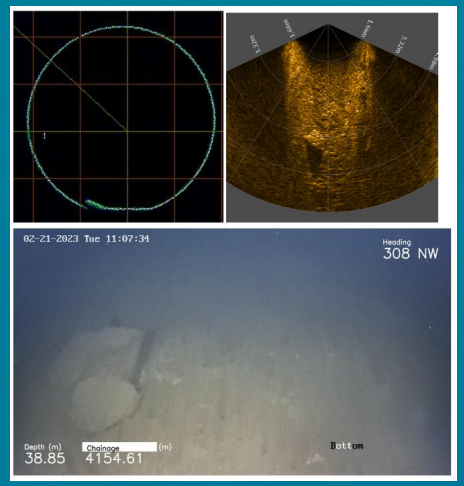
Pune, Maharashtra

No of Days

11 Days







Detailed Report: Link

Scope of work

- To conduct underwater survey of Tunnel interiors.
- Provide tunnel interior photography , profile of the entire tunnel and tunnel 3d model.

Equipment used

- ROV EyeROV Tuna with high definition camera and profiling sonar and imaging sonar.
- Special OFC cable for coverage of 2km

Result

- Profile of the entire tunnel was captured.
- Employed Image Processing tool such as EVAP (our Inhouse Enhancing Tool) for enhancing RAW Images.
- Consolidated findings in Hard and Soft Copy Reports were made