Solutions & Supplier Landscape – Object Detection

Case Study



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# **Solutions & Supplier Landscape**

Client	A leading supplier of mining equipment
Industry	Mining
Products	Drilling Rigs, Rock Drilling Tools, Trucks & Loaders, Rock Excavation Equipment

## **Engagement Scope**



## Solution Landscape

- Identification of key approaches and solutions for object detection and classification
  - Vehicles
  - Drills
- Identifying solutions, approaches, sensors, and other components in in mining and similar applications
- Use cases and adoption scenario

#### Context

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- The client was interested to understand various solutions and key suppliers for object detection and classification for mining environment
- Further, client was interested in comparative assessment of identified solutions with respect to the objective parameters, and other KPIs

## **Key Business Questions**

- Which suppliers can provide a turnkey object detection system for different equipment having specific requirements – Drills and Vehicles (Trucks)
- What type of hardware (sensors, compute) and software is used? How do these system perform with respect to defined KPIs?
- What additional advantages and features can be provided by these system? Are there any potential challenges?

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## **Solution Benchmarking**

- Comparative assessment of available solutions against given KPIs/System requirements
  - Working, description, advantages & limitations
  - Maturity of technology, use cases and adoption scenario, etc.
  - Performance against defined parameters/ requirement like functional, environmental, certifications, etc.

#### Supplier Identification

- Identification of the key suppliers and assessment of their capability
  - Supplier Profiling: Basic details like size, location, relevant individuals, etc.
  - Capability Analysis: Relevant offering portfolio, similar experience, etc.

# Solutions & Supplier Landscape

## **Research Methodology**

#### Secondary Research

- Conducted desk research to understand the overall solutions used for object detection and classification in mining and similar applications
- Supplier correspondence to get validated information against desired parameters

#### **Primary Research**

 20+ Telephonic interview with suppliers, solution developers, industry experts, etc. focusing on available solutions and viability of new alternative solutions

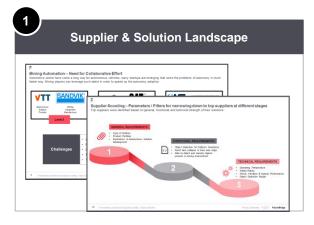
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## Benefits to Client

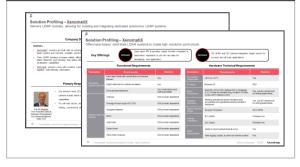
- Client was able to understand long list of suppliers and solutions for object detection, perception and classification in mining environment
- Detailed analysis and recommendation of suppliers and solutions helped the Client to implement novel object detection solutions to better augment their CAS systems

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## **Sample Analysis**



## Solution Benchmarking



## Key Findings & Recommendation



## Thank you

#### North America

55 Madison Ave, Suite 400 Morristown, NJ 07960 USA T: +1 212 835 1590

#### Europe

Stadsplateau 7 3521 AZ Utrecht The Netherlands T: +31 30 298 2108

#### **United Kingdom**

5 Chancery Lane London EC4A 1BL United Kingdom T: +44 207 406 7548

#### Asia Pacific

Millennium Business Park Sector 3, Building # 4, Mahape Navi Mumbai 400 710 India T: +91 22 6772 5700

# **FutureBridge**