



# ROADVISION AI

**BUSINESS DECK**

**March 2024**



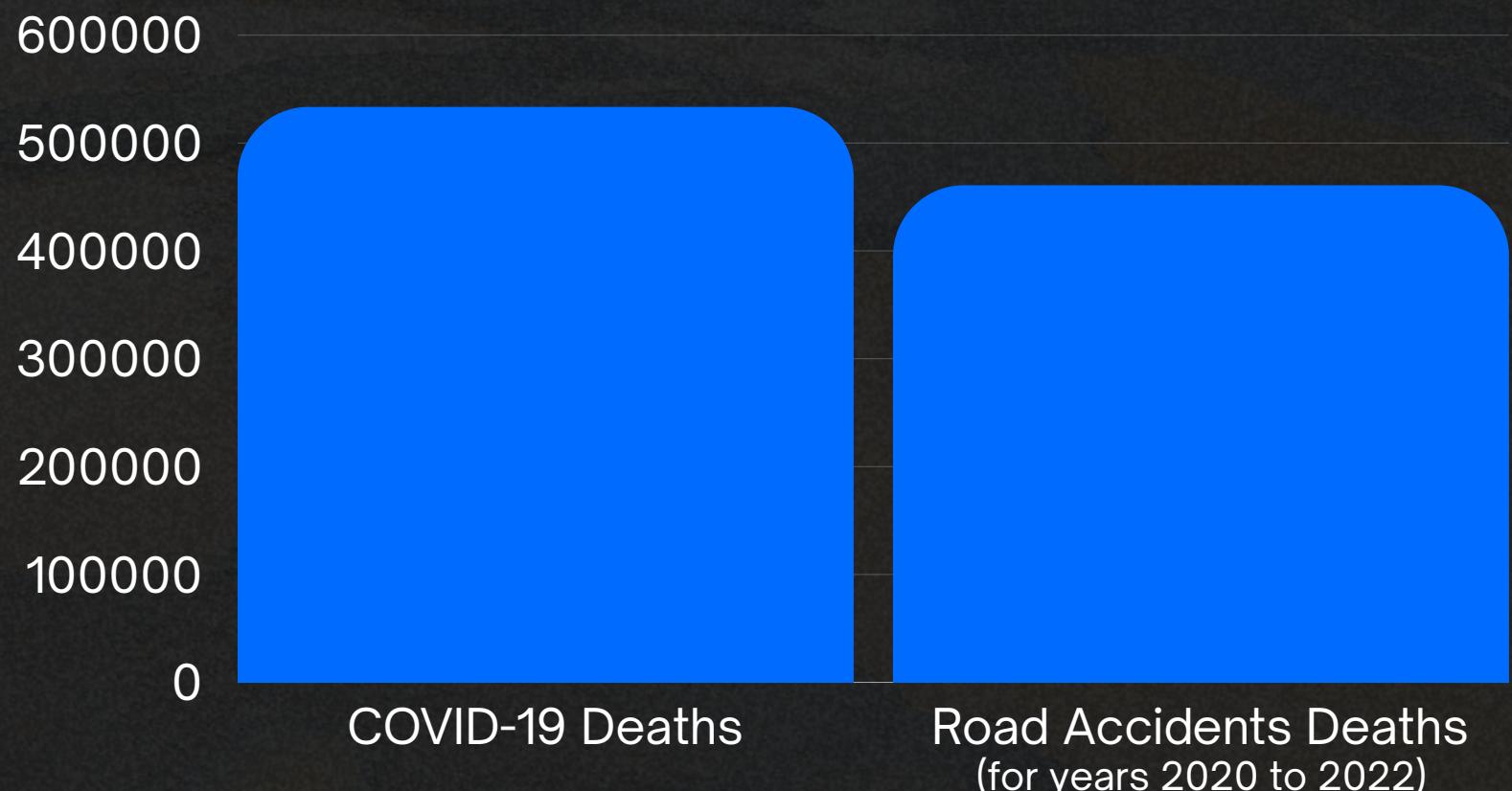


Rank	All ages	Ages 5-29 years
1	Ischaemic heart disease	Road Injury
2	Stroke	Tuberculosis
3	Chronic obstructive pulmonary disease	Diarrhoeal diseases
4	Lower respiratory infections	Interpersonal violence
5	Neonatal conditions	Self-harm
6	Trachea, bronchus, lung cancers	HIV/AIDS
7	Alzheimer's disease and other dementias	Lower respiratory infections
8	Diarrhoeal diseases	Maternal conditions
9	Diabetes mellitus	Drowning
10	Kidney diseases	Cirrhosis of the liver
11	Cirrhosis of the liver	Malaria

**"ROAD TRAFFIC INJURIES ARE THE LEADING CAUSE OF DEATH  
FOR CHILDREN AND YOUNG ADULTS AGED 5-29 YEARS"**  
- WHO GLOBAL STATUS REPORT ON ROAD SAFETY 2023

**"INDIA WITNESSES 53 ACCIDENTS AND 19 DEATHS  
EVERY HOUR, MOST OF WHICH ARE YOUNG  
PEOPLE WHICH IS NOT ACCEPTABLE..."**  
- SHRI NITIN GADKARI (JANUARY 2024)

**As worse as a pandemic in India, but  
continuing since years**





# WHO IS AT FAULT?

**54%**

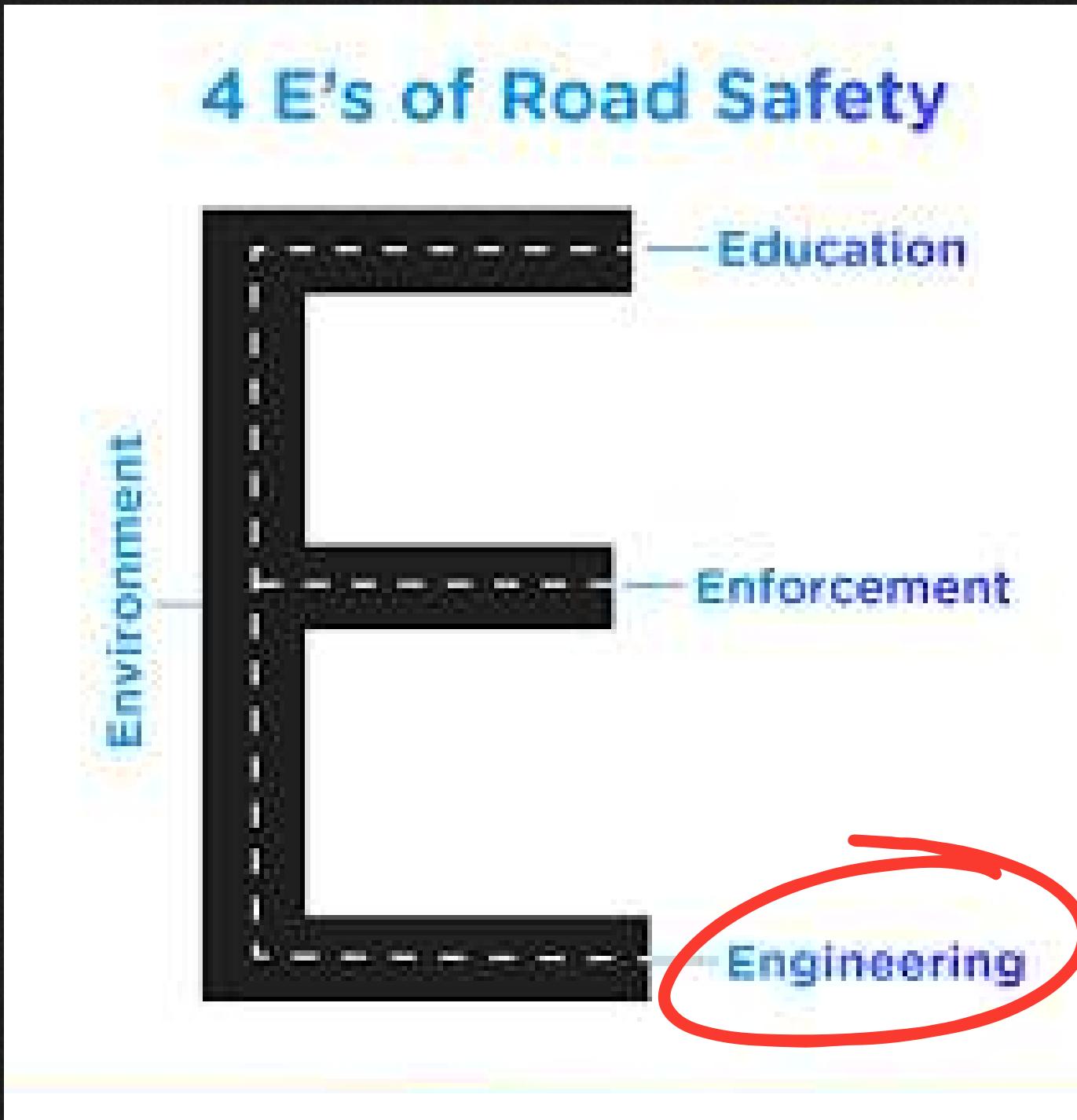
people feel that poor condition of roads and faulty road design is contributing to road crashes in their city.

**81%**

people felt that the quality of roads in their city/town is poor and unsafe.

**74%**

people stated that road contractors and engineers should be held responsible for deaths and injuries of people due to faulty road.



*Source: SaveLIFE Foundation – Road Safety in India Public Perception Survey*



To understand the puzzle, we talked to over 100 road experts – →  
contractors, engineers, and government officials – and the  
discussions revealed that Inefficient road infrastructure management  
leads to:

- Escalating costs
- Subpar user experience
- Heightened safety risks

# KEY FACTORS

1

## Lack of Tools

Lack of road inventory and asset management software; reliance on physical files and spreadsheets.

2

## Limited Data Insights

Maintenance strategy and budget crafted manually without critical data insights.

3

## Human Judgment

Manual road surveys conducted sporadically with reports based on human judgments.

4

## No Tracking & Collaboration

Maintenance activities lack systematic tracking and collaboration mechanisms to fix accountability.



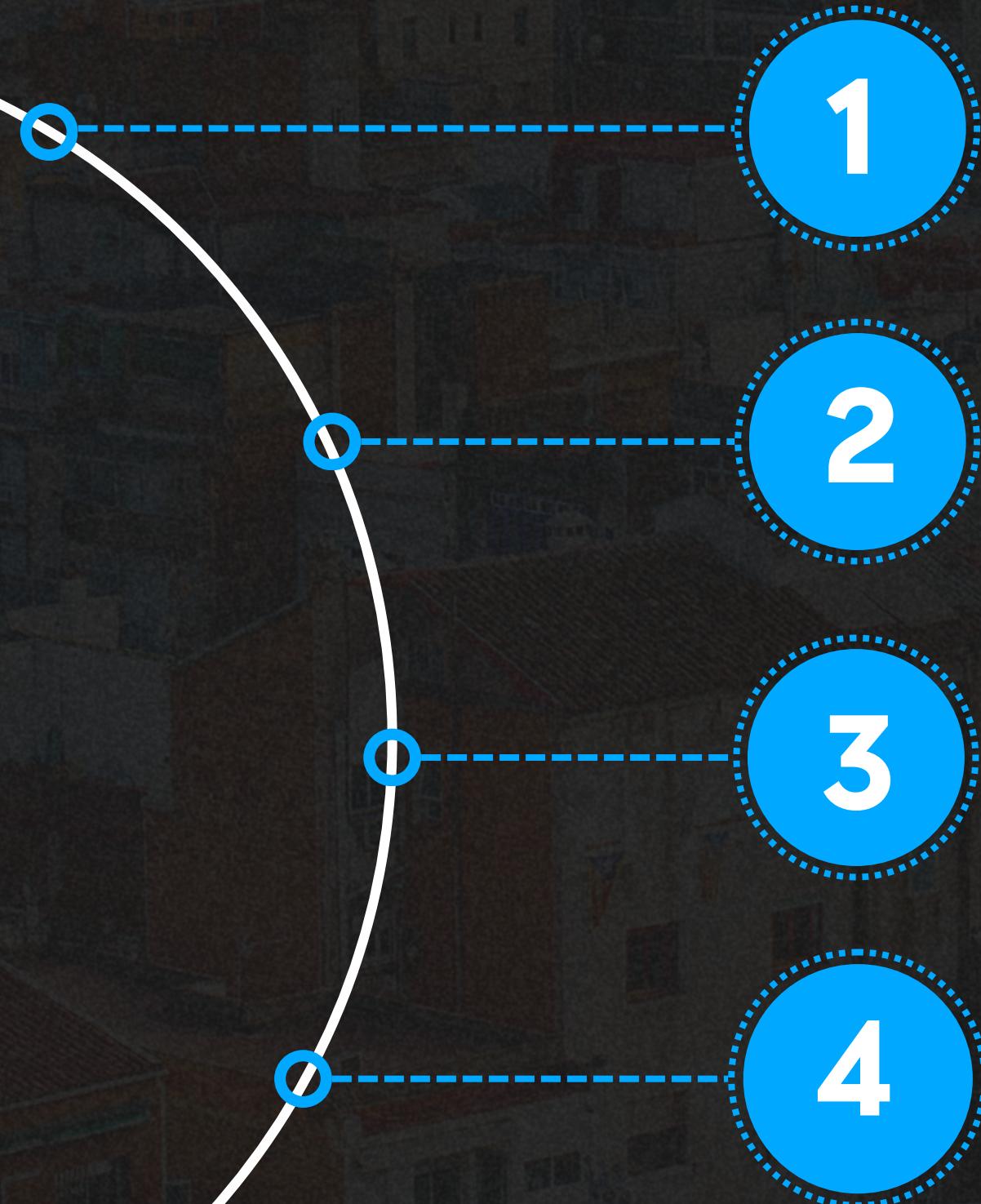
# THE PROBLEM IS HUGE BECAUSE

- India ranks second globally in road network size, **spanning 64 Lakh KM and 30 KM of new roads constructed every day.**
- Road traffic injuries are the **leading cause of death** for children and young adults aged 5-29 years
- **Lack of data-driven insights and effective collaboration** among stakeholders causes delayed & costly maintenance.
- **Indian roads require frequent maintenance** due to environmental factors and massive population density (~11.5 times more than the US) resulting in higher wear and tear





# WHY NOW?



## 1 Infrastructure Demand:

Growing urbanization necessitates efficient road network management.

## 2 Policy Support:

Favourable government policies towards road infra modernization and increased private participation encourages the adoption of innovative solutions like RoadVision AI.

## 3 UN SDG

United Nations Sustainable Development Goal 3.6 aims to reduce road deaths and serious injuries by 2030; requiring a timely action plan for governments to act upon.

## 4 AI Advancements:

Recent AI and data analytics progress enable data-driven insights for effective infrastructure management.



RoadVision AI is an **Infra-Tech AI Startup building enterprise SaaS for efficient road infrastructure management with Artificial Intelligence and Digital Twins** with our vision for safer and sustainable roads in line with UNSDG.

RoadVision AI is a proud PanScience Innovations (PSI) portfolio company. PSI serves as a venture studio and ecosystem bringing together experienced founders, seasoned industry leaders, professionals, lighthouse partners, and investors to build world-class companies in deep-tech innovation.



# Founding Team



**Hardik Dave**  
Chief Executive Officer



Hardik, a **CA** & **CS**, began his journey at **Ernst & Young** before **founding Indika AI**, a successful AI & Data Consulting Company. With over 40 experts, he made a notable impact in the industry. Now leading RoadVision AI, Hardik pioneers product-focused entrepreneurship, driving innovation in infrastructure with impactful solutions.



**Dr. Anshul Pandey**  
Chief Strategy Officer



Dr. Anshul, a **Ph.D.** holder in Computer Science from New York University and a **Forbes 30 under 30 CTO**, is a **serial entrepreneur** known for founding Accern, a Series B Stage Company. With his extensive experience and entrepreneurial acumen, Dr. Anshul brings invaluable expertise to RoadVision AI.



**Dheerendra Pandey**  
Chief Engineer



Dheerendra, an **IIT BHU** graduate, brings a wealth of engineering expertise to RoadVision AI. With a strong foundation gained from working with prestigious firms like **Goldman Sachs and BNY Mellon**, he offers invaluable experience in the development and implementation of cutting-edge technologies.



**Rushabh Mamania**  
Chief Business Officer



Rushabh, a **CA** with a family background in infrastructure, has worked with **Deloitte** to consult several large infra companies. With a background in business planning, structuring, management, and entrepreneurship, he brings a unique perspective and strategic acumen to his role as Chief Business Officer at RoadVision AI.



**Shubham Kanojia**  
Chief Technology Officer



Shubham, a **postgraduate in AI** & Data Science from **IIT Palakkad**, honed his expertise in AI stack development during his tenure at **Indika AI** before joining RoadVision AI. With a strong foundation in artificial intelligence and hands-on experience in developing advanced AI solutions, Shubham drives innovation and technical excellence within our team.

**Bringing  
experiences from :**





# Our Solution





# OUR SOLUTION

Our comprehensive solution comprises of three components each capable of functioning independently and able to integrate at any stage of Road Maintenance & Operation Lifecycle



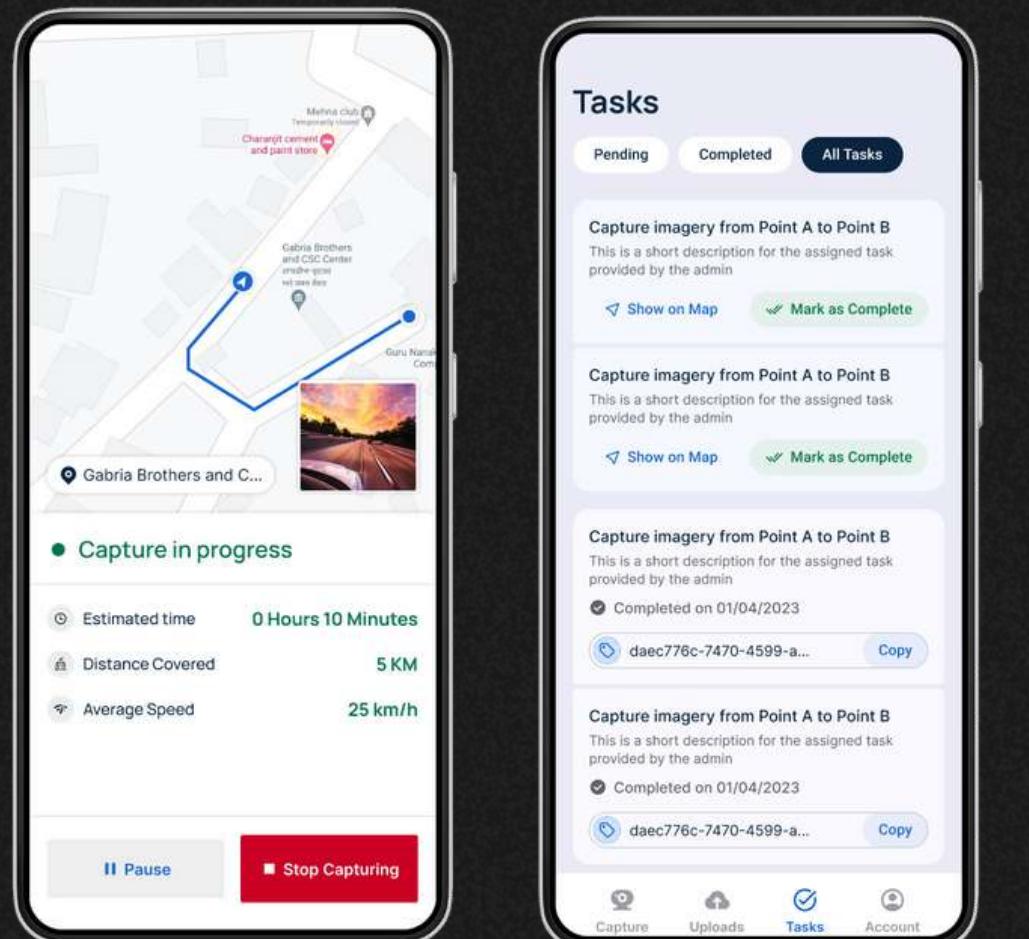
**RV SmartApp** - Smartphone based application for efficient road surveys and safety audits.

**RV AI** - Large Vision Model for automated data processing and report generation for surveys and audits

**RV GIS** - Web-based Platform for efficient road management

# ROADVISION MOBILE APP FOR DATA COLLECTION

Instrumental for field surveys and task tracking, our solution enables junior engineers and inspectors to :



Note: Road surveys via the app aren't mandatory to use RAMS; clients can choose alternative methods."

<b>1</b>	<b>Web App Assignments:</b> Receive inspections and routes via the Web App.
<b>2</b>	<b>Efficient Road Surveys:</b> Use smartphones for on-the-go road surveys and collecting visual and GIS data.
<b>3</b>	<b>Task Management:</b> Mark tasks as done or request rescheduling in-app.
<b>4</b>	<b>Seamless Data Handling:</b> Effortlessly upload survey data to RoadVision Cloud.
<b>5</b>	<b>Enhanced Capabilities:</b> Future updates include assigning and completing repair/maintenance tasks.



# PROPRIETARY LARGE VISION MODEL FOR ROADS



Proprietary Large Vision Model (Patent Pending) trained on Indian Roads Dataset to infer:

- Road defects/ conditions;
- Signages & marking (for Road Safety)
- Road Assets, and Inventories

as per the **Indian Road Congress (IRC) standard** with 95%+ Accuracy, providing objective data-driven insights for road planning.



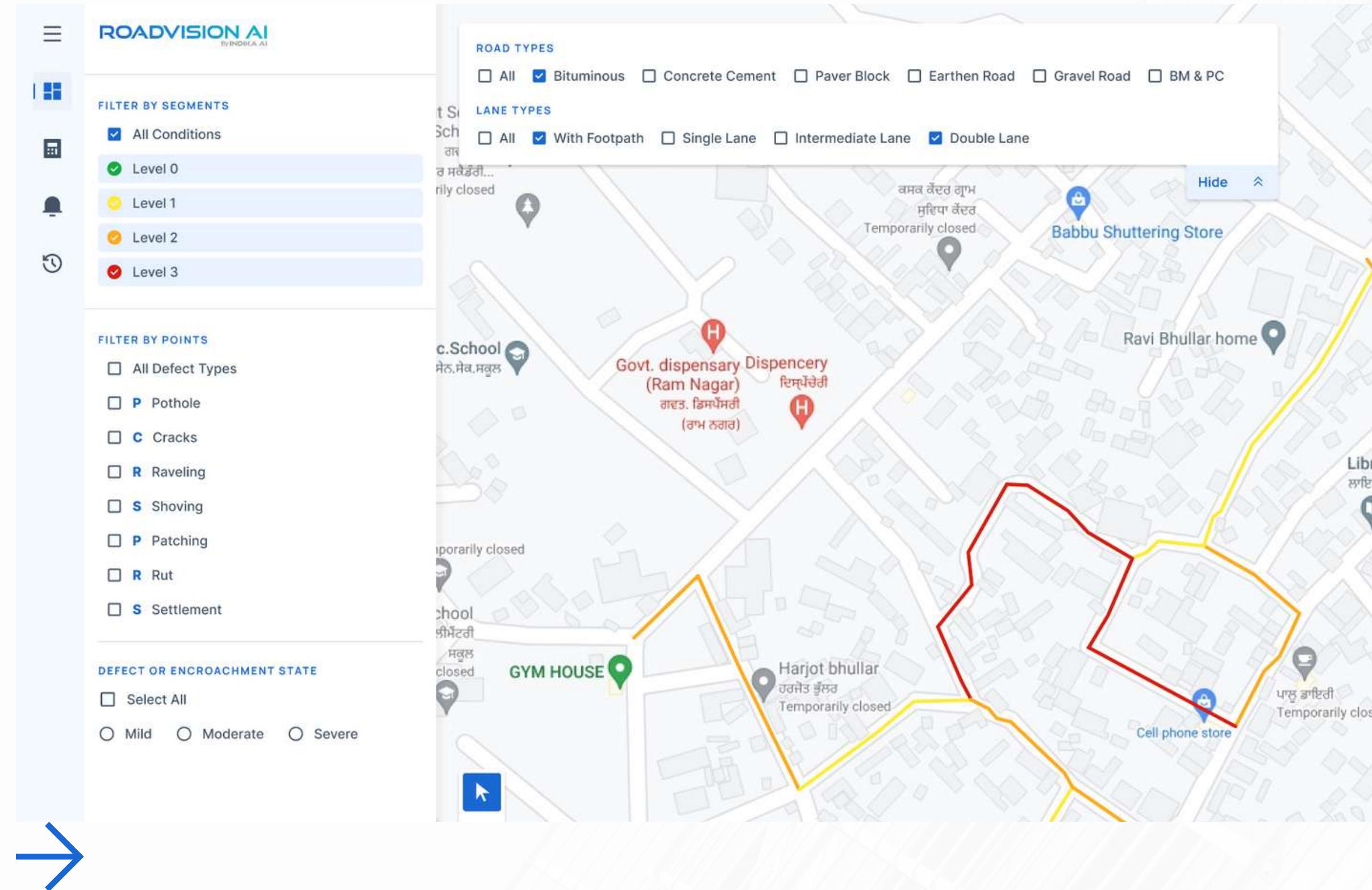
**AI Advantage :** ● 90%+ Saving Time in time taken from data collection to report generation;

● More objective and free from human biases and error.

● Costs 20% of the costs of manual or NSV based surveys for roads;

● Unparallel success in estimating depth and area of road distress from 2D images.

# WEB-BASED RAMS (1)



**ROADVISION AI**

**FILTER BY SEGMENTS**

- All Conditions
- Level 0
- Level 1
- Level 2
- Level 3

**FILTER BY POINTS**

- All Defect Types
- Pothole
- Cracks
- Raveling
- Shoving
- Patching
- Rut
- Settlement

**DEFECT OR ENCROACHMENT STATE**

- Select All
- Mild
- Moderate
- Severe

Display road conditions on the map using color-coded segments and advanced filters that categorize road conditions, defect severity, asset types, and more.

# WEB-BASED RAMS (2)

ROADVISION AI  
by INDIKA AI

- All Conditions
- Level 0
- Level 1
- Level 2
- Level 3

All Defect Types

P Pothole

C Cracks

R Raveling

S Shoving

P Patching

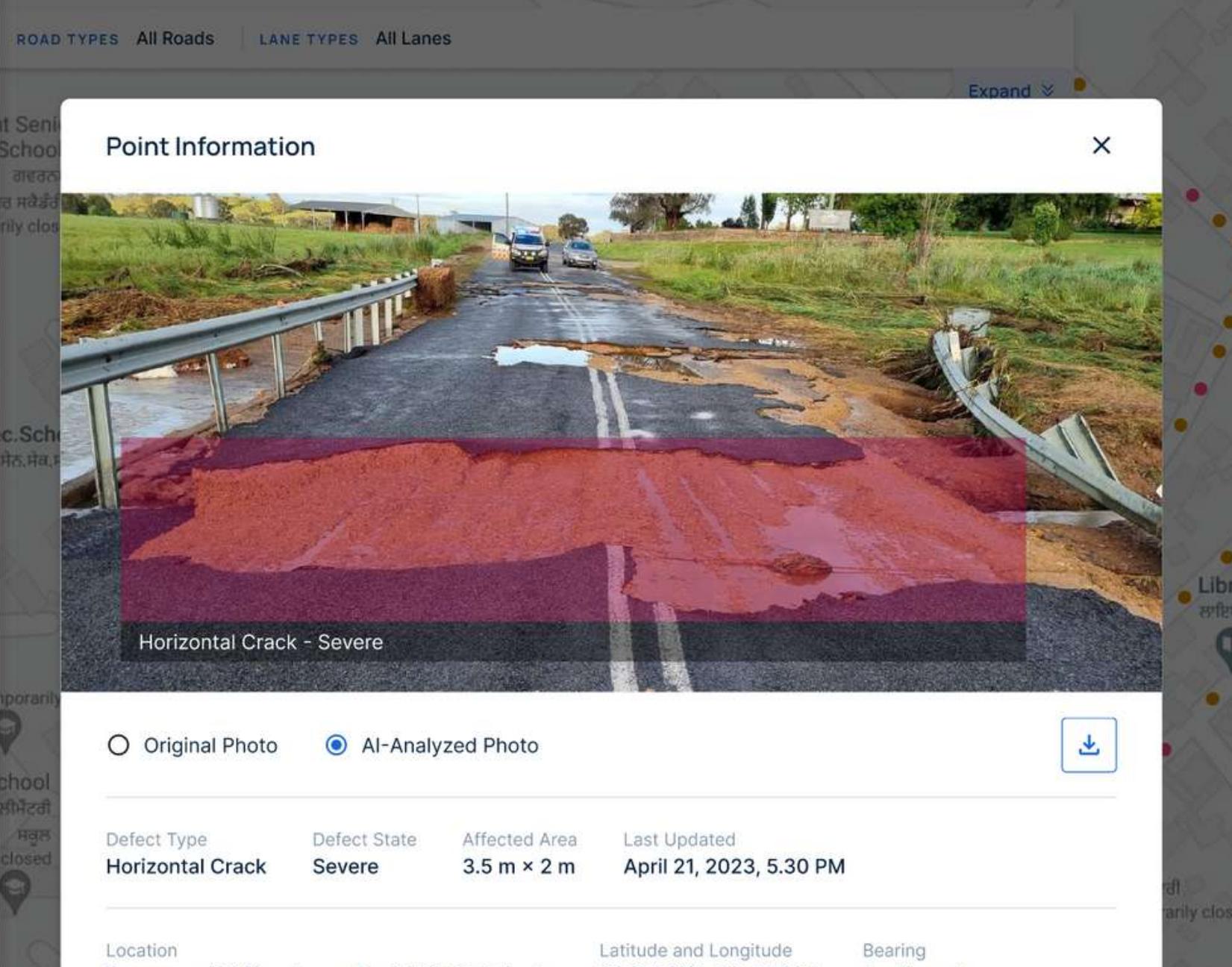
R Rut

S Settlement

Select All

Mild    Moderate    Severe

ROAD TYPES All Roads | LANE TYPES All Lanes

Expand 

Point Information



Original Photo   AI-Analyzed Photo 

Defect Type	Defect State	Affected Area	Last Updated
Horizontal Crack	Severe	3.5 m x 2 m	April 21, 2023, 5.30 PM

Location: Ramnagar Urf Kasaiwara, Punjab 151509, India   Latitude and Longitude: 30.105463, 75.227463   Bearing: Southeast

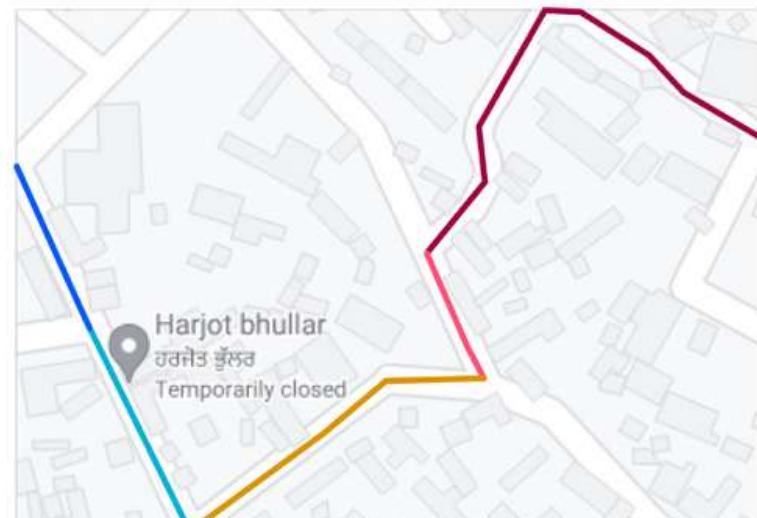
Click on any point on the map to see the actual road along with AI inference and metadata;

# WEB-BASED RAMS (3)

**ROADVISION AI**  
By INDIKA AI

Generated on April 21, 2023, 5:30 PM | Generated by Singh | [Download Report](#)

RoadVision Analysis Report: Ramnagar Urf Kasaiwara to Ramnagar Urf Kasaiwara

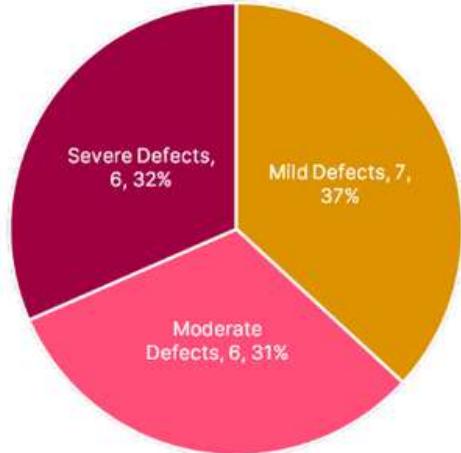


**TOTAL LENGTH 6 km**

**CHART 1 Segments Breakdown**

Level	Count
Level 1	2.5
Level 2	0.5
Level 3	2.0
Level 4	0.5
Level 5	0.5
Level 6	0

**CHART 2 Defect Analysis**



Defect Type	Count	Percentage
Mild Defects	7	37%
Severe Defects	6	32%
Moderate Defects	6	31%

**Starting Point**: Ramnagar Urf Kasaiwara | **Ending Point**: Ramnagar Urf Kasaiwara | **Median Left Side**

CHAINAGE	ROAD TYPE	DEFECTS	ROAD WIDTH	FOOTPATH	MEDIAN	REMARKS
0 m - 250 m	Concrete Cement	No defects	7.5 m	Not available	Exists	No remarks.

Detailed report conforming to the prescribed IRC proforma reports;



# WEB-BASED RAMS (4)

**ROADVISION AI**  
by INDICA AI

## Tasks Management

Manage user maintenance and user survey request tasks

+ Add User Survey Task

Sorted by task status							Maintenance and Survey Tasks	All Tasks	Pending	In Progress	Completed	Overdue	Closed	100 Tasks
<input type="checkbox"/>	TASK TITLE	TASK TYPE	ASSIGNED TO	CREATED ON	DUEDATE	STATUS	ACTIONS							
<input type="checkbox"/>	Update Road Length Information	Maintenance	Kavya Jain	Feb 13, 2024	Feb 18, 2024	Overdue								
<input type="checkbox"/>	Capture Imagery from Point A to Point B	Survey	Vikram Joshi	Feb 13, 2024	Feb 18, 2024	Overdue								
<input type="checkbox"/>	Update Road Length Information	Maintenance	Kavya Jain	Feb 13, 2024	Feb 18, 2024	Completed								
<input type="checkbox"/>	Capture Imagery from Point A to Point B	Survey	Vikram Joshi	Feb 13, 2024	Feb 18, 2024	Completed								
<input type="checkbox"/>	Update Road Length Information	Maintenance	Kavya Jain	Feb 13, 2024	Feb 18, 2024	In Progress								
<input type="checkbox"/>	Capture Imagery from Point A to Point B	Survey	Vikram Joshi	Feb 13, 2024	Feb 18, 2024	In Progress								
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Previous Next

Collaboration, Ticket Assignment, Escalations & Version Control, Budget Estimator and other features for efficient management



# PRODUCT VALIDATION



B2B



B2G



Research/  
Non-profit



International Road Federation  
अंतरराष्ट्रीय सड़क संघ



And many more...



# PRODUCT VALIDATION (CONTN)



With IRF President (E), Mr. KK Kapila



RoadVision AI Captured at Slush'D



With Hon'ble Minister for Roads, Transport and Highways, Shree Nitin Gadkari



RoadVision AI Booth at Nasscom Event in Jan 24

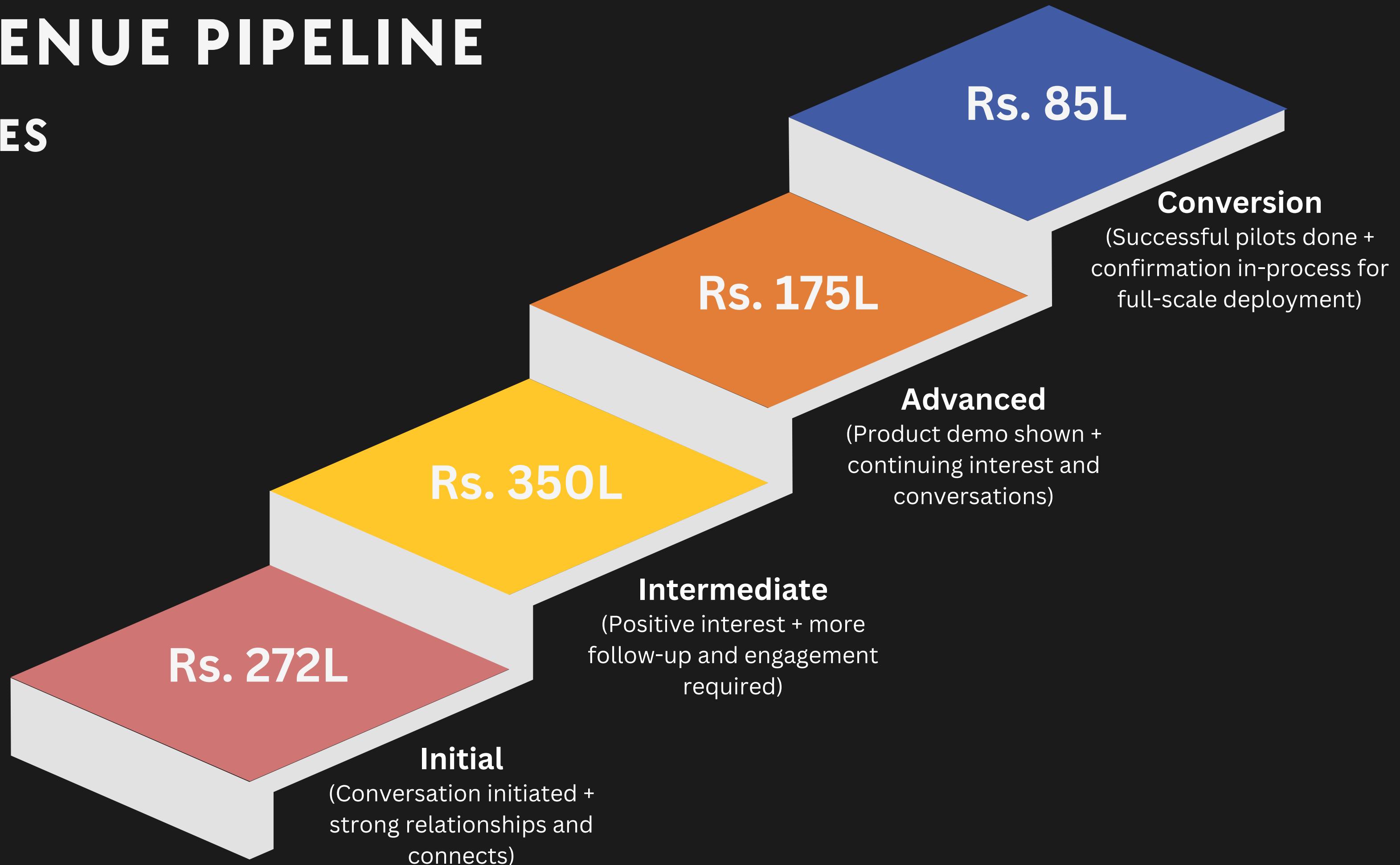


With Mr. Srinivas Reddy, MD - APRDC



# REVENUE PIPELINE

## STAGES





# POTENTIAL CLIENTS

## Mobility Companies:

Automobile companies building ADAS and Autonomous Vehicles for Indian Roads.

## Government Road Authorities:

NHAI, BRO, PMGSY, State PWDs, Smart Cities and Municipalities, etc.

## Private Road Companies :

Road Construction, Toll Road Operators, Surveyors and Safety Auditor, Engineering and Consultancy Companies etc.

## GIS Companies:

GIS and map provider companies looking to integrate real-time road conditions insights in their map.

## Non-profit organization:

Non profit and international organizations working towards road safety.



**Let's talk this further over a coffee ?**

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