# ARBI

## Automatic Railway Bridge Inspection

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**CEO**

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https://virakavir.com/en

# ViraKavir Team

**Azam Karami**
**CEO**
Associate Professor
PhD. Electrical Engineering
15 Years Experience
(Machine Learning,
Remote Sensing)

**Mitra Peiro Hosseini**
**CTO**
MS.c. Photonics
8 Years Experience
(Machine Learning,
Dataset Management)

**Sharzad Faladat**
**Head of Image Processing Team**
Ph.D. student Optics and Laser
10 Years Experience
(Design Optical Equipment,
Machine Learning)

**Zahra Attari**
**Head of Robotics**
MS.c. of AI
7 Years Experience
(UAV Firmware developer,
Machine Learning)

**Elnaz Sharifi**
**Head Of AI**
MS.c. AI
8 Years Experience
(Deep Learning,
Big Data Analysis)

# Awards & Honors

- Received the first Rank in “Artificial Intelligence”, BRICS Best Women’s Startup Competition, 2024
- Received the first Rank in “Electronics & Robotics” Field ,3rd KANS Scientific Competition, 2023
- Selected as the Best Startup in ”Artificial Intelligence”, GITEX Global, Dubai, 2022
- Selected as the top researcher, Ministry of Science, Research and Technology (Iran) March 2020 & 2022Technology Readiness Levels (TRLs) certificate (8)
- Published 6 journal & 20 conference papers

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SBER GENERAL PARTNER | GAZPROMBANK STRATEGIC PARTNER | BRICS WBA | BRICS 2024 RUSSIA

CERTIFICATE OF ACHIEVEMENT

IS AWARDED TO

Azam Karami

for a victory in the nomination "Artificial Intelligence" of the BRICS Women's Startups Contest, organized by the BRICS Women's Business Alliance in June-October 2024.

Having become one of the key events of the BRICS WBA during Russia's BRICS Chairship in 2024, the Contest received more than 1000 applications from 30 countries.

The general partner of the BRICS Women's Startups Contest is Sberbank PJSC, Russia's largest bank and a leading global financial institution.

The strategic partner of the Contest is another leader of Russia's banking industry Gazprombank (Joint Stock Company).

Congratulations on your incredible success. We wish you further achievements.

Global Chairperson of the BRICS Women's Business Alliance — Anna Nesterova

PHARM | TATLIFT | SMF ANIMATION | EPOTOS

# Problem

Manual and Visual Railway and Bridge Inspection:

- **Very Slow**
- **Very Expensive**
- **Dangerous**

Reviewing UAV Inspection Images by Experts:

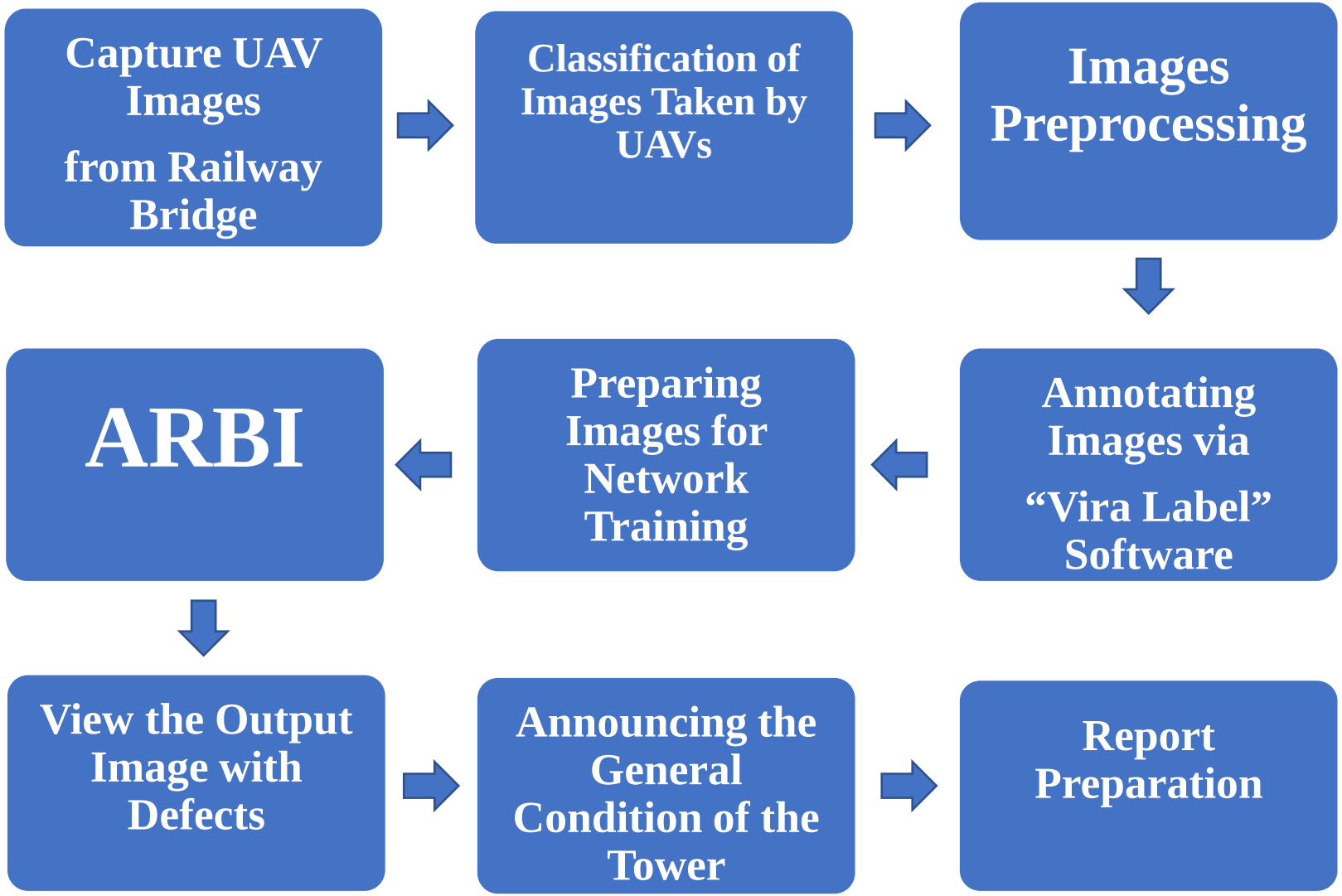
- **Slow**
- **Expensive**

https://www.virakavir.com/en/arbi-software-automatic-railway-and-bridges-inspection/

# Solution

**ARBI** a web platform:

- More than 3 years research and coding
- More than 2 years Capturing photos
- More than 1 million images

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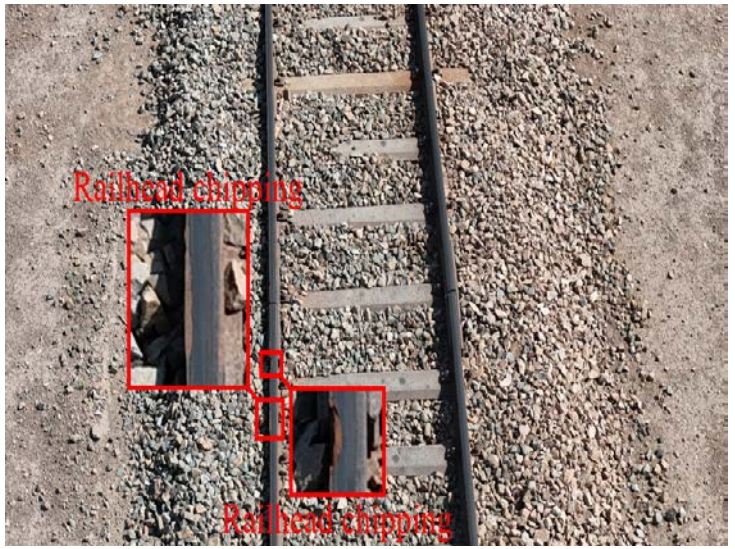
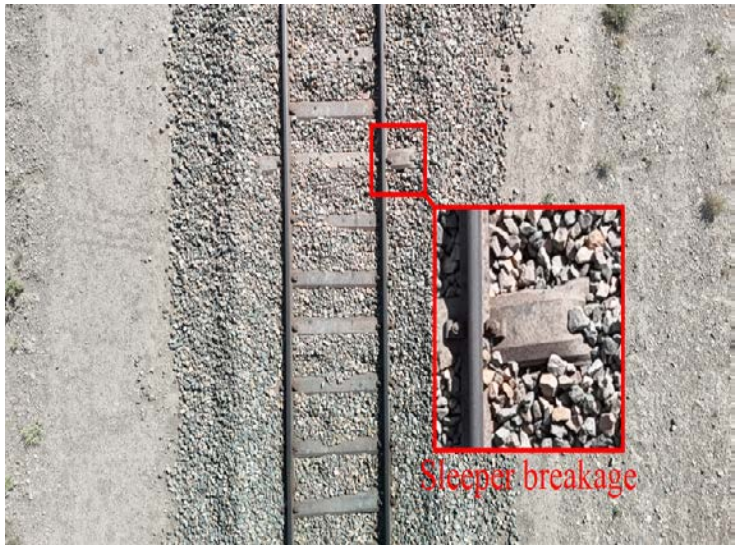
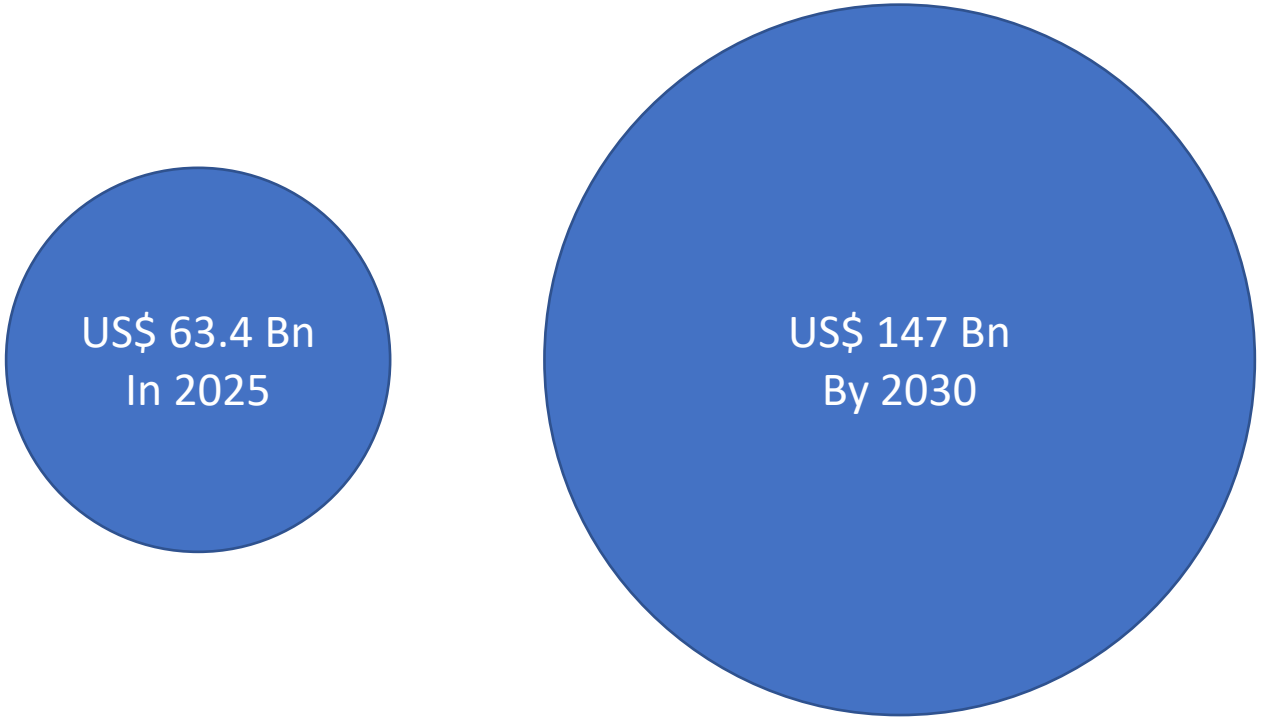
# Sample of Defects



# Market Size




The Market Size for Railway Drone Inspection

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# Business Model

**Capturing UAV Images (Per Kilometer)**

**$ 50**

**AI Fault Detection**

- **Free Trial Version (Up to 100 Images)**
- **Limited Plan (Per Tower, up to 200 Images)** — **$10**
- **Unlimited Plan**
  - **1 Month License** — **$ 10,000**
  - **3 Months License** — **$ 25,000**
  - **1 Year License (Discount: Up to 15 %)** — **$ 98,000**
  - **White Labeling 1 Year License (Discount: Up to 15 %)** — **$ 170,000**

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# Competitive Advantages

2 Million Images Dataset

49 Types of Defects

High Compatibility Software

Free Trial

Low Cost

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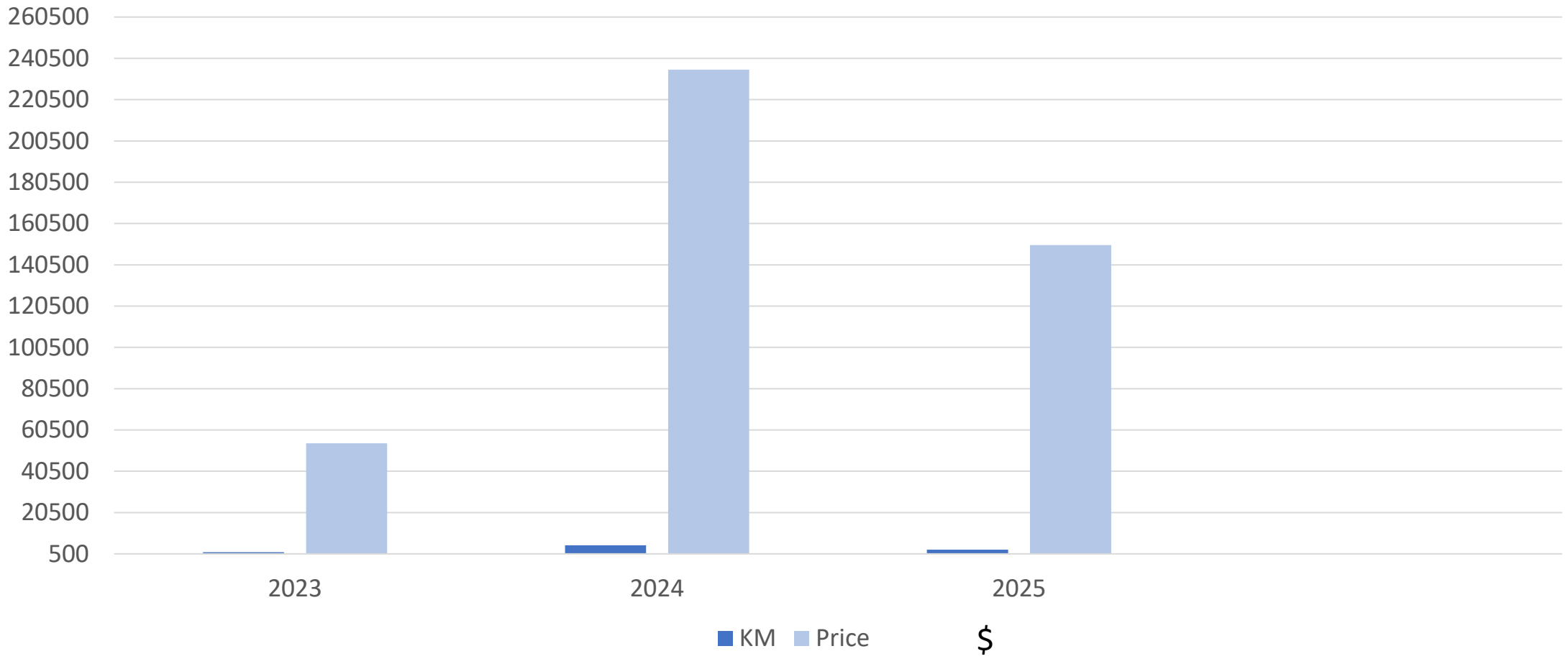
# Sales

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# Marketing Plan

## Goals

- Automatic Autonomous Capture UAV Images
- Develop to Automatic Fault Detection in Oil & Gas Pipelines, and Civil Engineering
- Develop National & International Projects 35% per Year

## Potential Partners

## How?

- Collecting An Appropriate Dataset
- Designing Novel and Accurate Fault Detection Algorithms
- Applying Semi and Self Supervised Approaches



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# Thank You

## Please contact us for more information

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