# DRIVE TO AUTOMATE MINING VEHICLES

Annotating thousands of images for a machine learning model, at rapid scale.

The client is a global leading mining and resources company.



### **CHALLENGES**

The client wanted to deploy autonomous trucks in its mines. Towards this end, they needed to create a training dataset for their machine learning model, but faced the following challenges:



Requirement of high resolution Image processing platform

> Limited in-house expertise and personnel to perform data annotation activities at scale

Crunched project timelines and image annotation imperative for a high level of quality

Vast mining area coverage



# **SOLUTIONS**

Infosys BPM deployed a geographic information system (GIS) team consisting of experienced and expert annotators who:

- Collaborated with a data annotation platform partner using a hybrid model for streamlined execution
- Designed and developed annotation guideline to accommodate client customization
- Followed an implement > learn > refine process methodology
- Identified and extracted multiple scenario and key features
- Performed annotations using client-defined class categories and specifications
- Utilized the partner's automation platform to significantly enhance the efficiency and guality of the annotations
- Validated completeness and correctness of annotated images
- Leveraged a 2-tier quality approach to ensure final deliverables to highest quality

## **BENEFITS**

The Infosys BPM team's **GIS domain expertise** enabled several successful outcomes for the client that included:

- specifications, quality targets







20%

#### For more information, contact infosysbpm@infosys.com

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► A machine learning approach for image classification

• An enhanced machine learning model for autonomous trucks to detect objects and constructions in real time

> 10000 **Aerial Images annotated**

>99.5% **Quality Labeling of mine objects** 

100% Adherence to delivery timelines

Savings due to in-house QC





