Locanix
Heavy Equipment Experts

Equipment Management Platform

Anything you measure improves

• • • • •

sales@Locanix.com

Contact us
+91-99040-38880

8 WAYS TO EFFICIENT MINING

swipe
to learn

HIGH PRECISION IN-MINE LOCATION MONITORING

Locanix Platform goes beyond traditional GPS and levelrages modern Location technologies GLONASS and GALILIEO that offers high precision location information every second.

High-precision location leads to extremely accurate location tracking at all types of altitude.

OEM AGNOSTIC CAN-BUS GATEWAY

CANBUS in mining equipment is a communication system that allows electronic devices to communicate with each other, facilitating the monitoring and control of various systems of the equipment and provide diagnostic information.

Challanges is, each OEM has its own proprietory implementation making it difficult to couple them together, as a result companies end up having multiple system for each OEM and have to pay exorbitent pricing to get the equipment data.
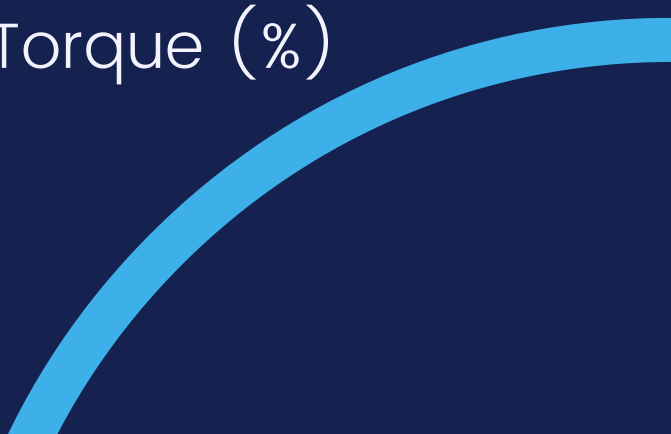
OEM AGNOSTIC CAN-BUS GATEWAY

Locanix FMS Gateway is an electronic device that is installed in mining equipment and unifies all proprietary OEM parameters into a common system, enabling seamless data capturing of all performance parameters of the the equipment regardless of the OEM. So you no longer have to use multiple expensive systems from OEMs and have man-power to use them.

OEM AGNOSTIC CAN-BUS GATEWAY

We capture a large number of parameters without violating warranty of the equipment. In fact, there is no physical connection with the actual ECU and data systems of the equipment. Some of the parameters we collect are...

- Total Fuel consumed
- Engine Hours
- Idle Hours
- EngineRPM
- Odometer
- Engine Temperature
- Engine Load (%)

- Hydraulic Oil Pressure
- Throttle Position
- Brake and Clutch
- Engine Oil Pressure
- PTO-State
- Fuel Injection
- Engine Torque (%)

PTO BASED TRIP COUNTING

Going beyond the conventional Geofence-based unloading detection, Locanix platform determines number of trips completed by a dump truck based on actual unloading event via PTO-gear sensor.

This provides accurate lead-distance and precice unloading location in the dumping yard.
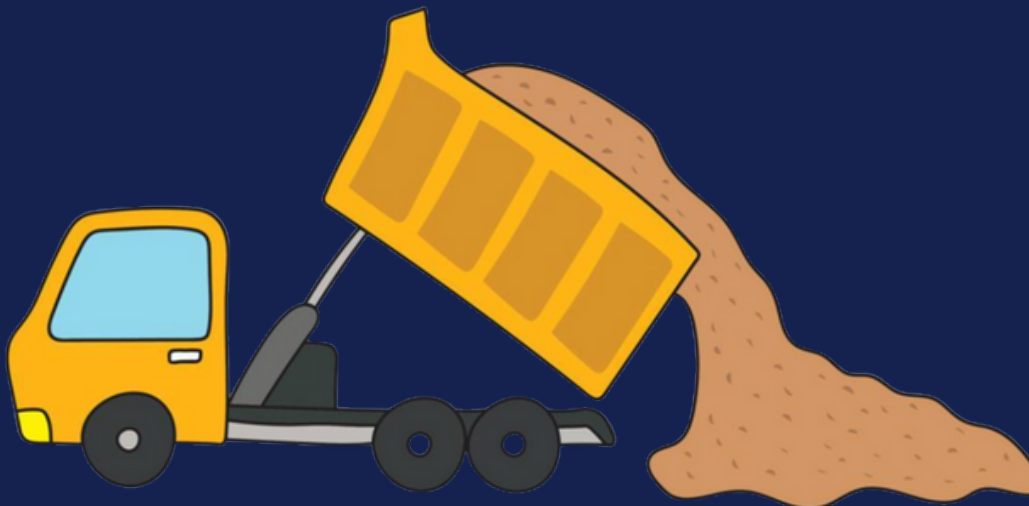
EXCAVATOR ARM MOVEMENT TRACKING

Identifying Excavator working-hours based on Engine status is not sufficient to understand actual loading activity.

Each excavator is fitted with an indigenous Excavator Arm-Movement sensor that continously monitors the bucket activity of the excavator and provides accurate information on how much time does it take to load one Dumper.
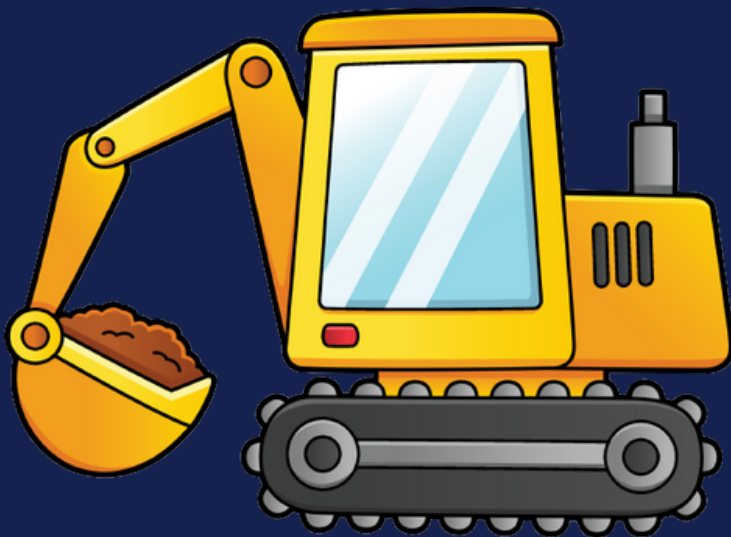
DRIVER IDENTIFICATION

The key differentiator in performance of the mining equipment is the Driver/Operator. The skills and expertise of the opeator determines how well the equipment is utilised.

Each equipment is fitted with RFID based Driver Identification system to all performance parameters of the equipment are linked with the Driver which can be evaluated and compared for finding efficiency leakges.

PROXIMITY DETECTION

Identification of wihch dumper is loading with which excavator and how much time it is taking for loading is accomplished by modern proximity detection system (RF-based).

System detects the proximity and duration of the proximity between the two equipment and provides detailed analysis on how much time a dumper is spending for loading.

HYDRAULICS AND ELECTRICAL SIGNALS

For purpose-built equipment like Drill-machine, Hammer and etc, the system can interface with the existing Hydralics and/or Electric systems to determine the status of specific activities carried out by the equipment.

For ex: For hammer with hydraulic systems, system can determine the status of Hammer running or not as well as # of hours the Hammer was functional during a shift or a day.

POWERFUL BI AND ANALYTICS

All of these data is stored on a secure cloud date warehouse as a structure time-series information.
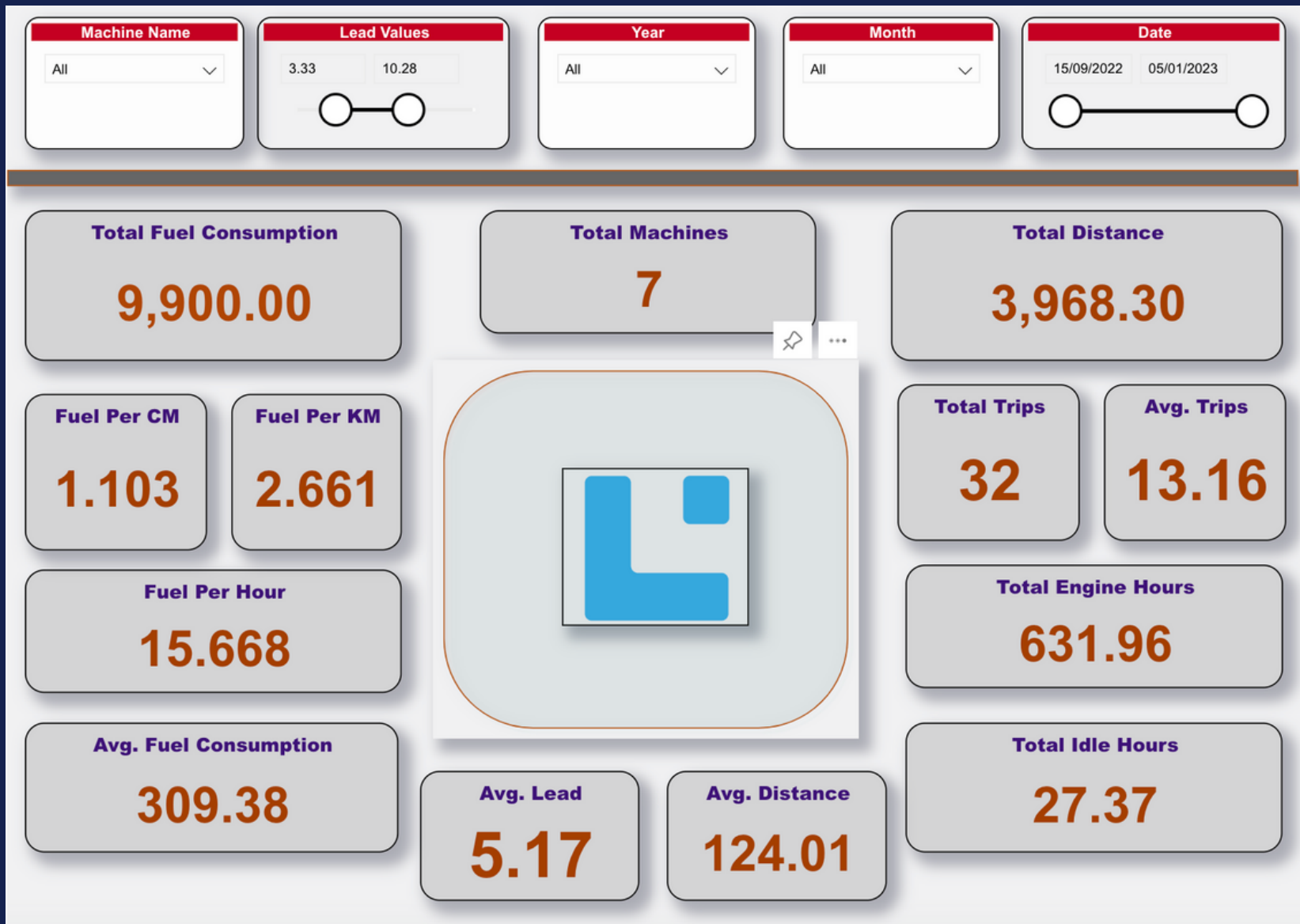
And this is where the magic happens..

All your equipment fleet performance parameters across all OEMs spanned over multiple shifts/days/weeks available for analysis on a click of a button.

These Data is securely stored and can be made available over APIs for enabling various applications.
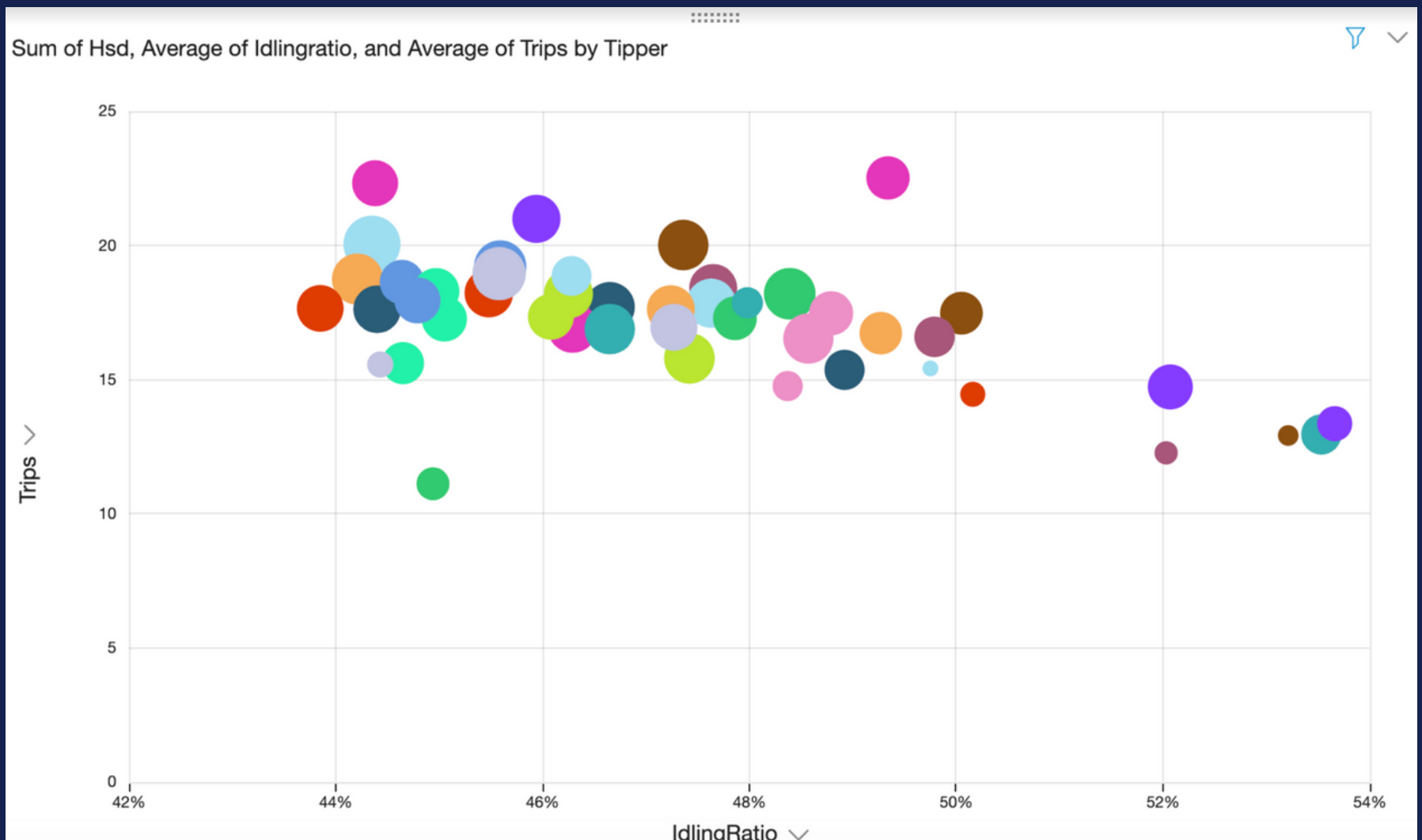
POWERFUL BI AND ANALYTICS
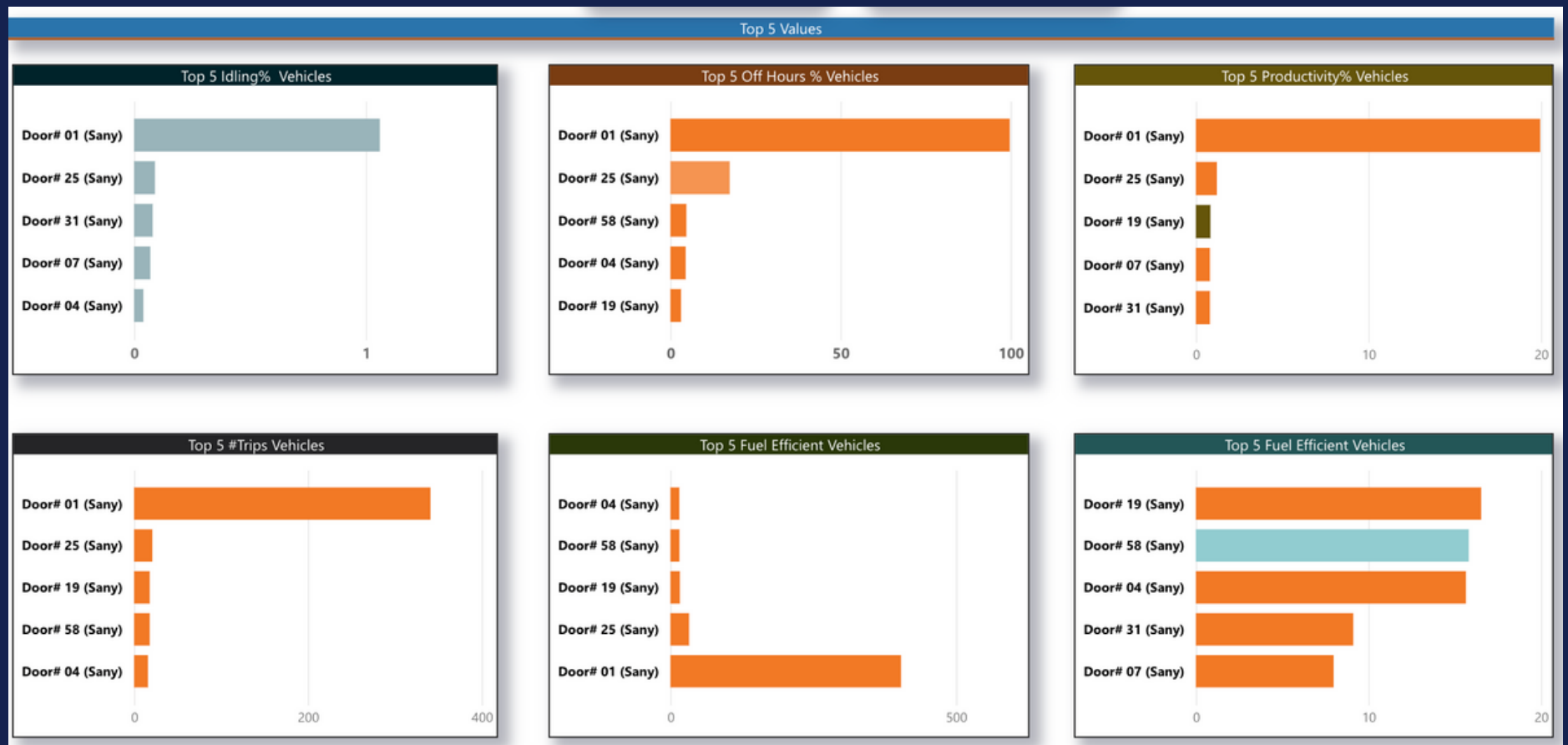

Overall Performance Indicators

POWERFUL BI AND ANALYTICS

Sum of Hsd, Average of Idlingratio, and Average of Trips by Tipper

As the idling increases on X-axis, the avg trips per shift is also decreasing.
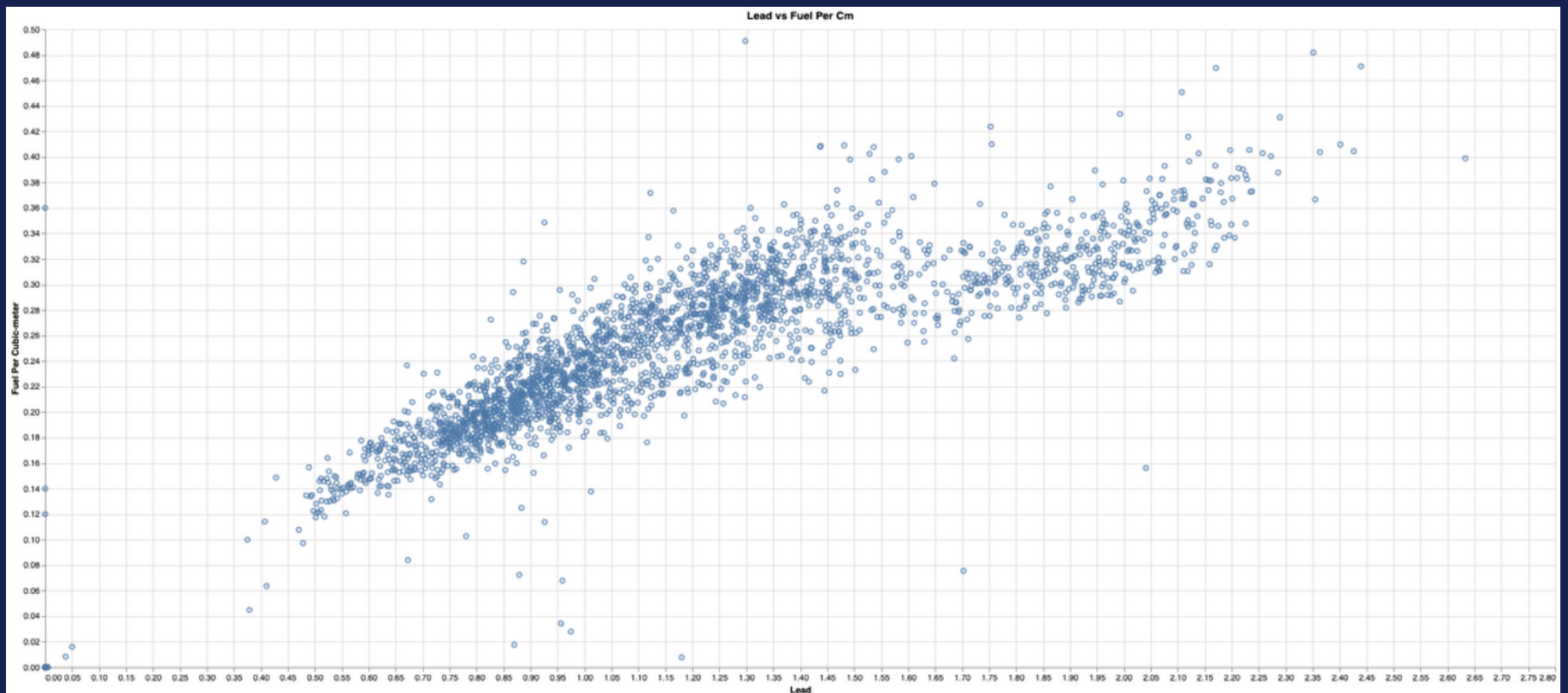
If we combine them together, it shows that vehicle is consuming diesel while it is idle but it is not performing trips as much as it should.

POWERFUL BI AND ANALYTICS

Top-N Equipment across all Major KPIs

POWERFUL BI AND ANALYTICS

Lead vs Fuel Per Cubic-meter
(Fuel per Cubic-meter increases as the lead increases)