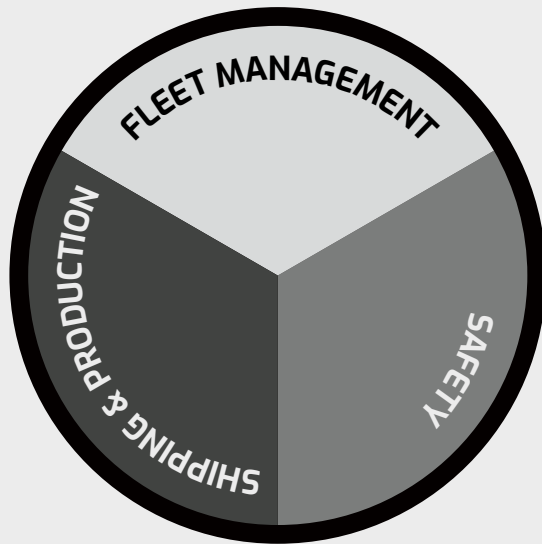


Three Key Functions



Fleet Management

- > 24/7 real-time monitoring
- > sensor data analysis & diagnostics
- > proactive support

Shipment & Production

- > automatic recognition of truck's specification
- > measuring payload by loader weighing
- > truck's guide to the location
- > GSP displayed equipment's location
- > production/operation status monitoring
- > inventory management

Safety

- > time and location notification
- > mark of all the routes
- > speed limit alarm COVER

Powered by **Innovation**

Quarry-X Overview

- 1 Unmanned Access Control System**
 - > Recognition of Entering/Exiting vehicle using surveillance camera
 - > Managing the Entry/Exit of the vehicle that has been already registered or recognized
- 2 Truck Driver's Mobile App**
 - > Provide loading information(Location/Route)
 - > Weighing information and Work History
 - > Safety Precaution Alarm (Blast Plans/Location)
- 3 Wheel Loader Operator's Mobile App**
 - > Provide loading information(Location/Route)
 - > Information on Start/End of the Loading Procedures
 - > Weighing information and Work History
 - > Safety Precaution Alarm (Blast Plans/Location)
- 4 Field Manager's Mobile App**
 - > Safety Management
 - > Integration with Order/Shipping system
- 5 Integrated Control Center**
 - > Map Information(Hazardous Zone/Blast Location)
 - > Work Plan Information (Loading/Excavation/Blast)
 - > Fleet Management (Indicator/Faults/Operation/Loading)
 - > Real time footage and the location of surveillance camera
 - > Shipment/Production/Inventory Status
- 6 Excavator Operator's Mobile App**
 - > Excavation Orders (Excavation Area/Plans)
 - > Information on Start/End of the Excavating Procedures
 - > Safety Precaution Alarm (Blast Plans/Location)
- 7 Drone Scanning**

Real time viewing and analysis of changes in topographical features due to blasting and excavation by using Drones

DEVELON

Quarry-X



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DEVELON Quarry-X

Quarry-X refers to a solution that integrates all business processes from order taking to sales using ICT technology to manage the site and increase productivity with minimal cost and time.



> **Cloud Platform** manufacturing, computer integrated manufacturing CIM, supply chain management, safety).



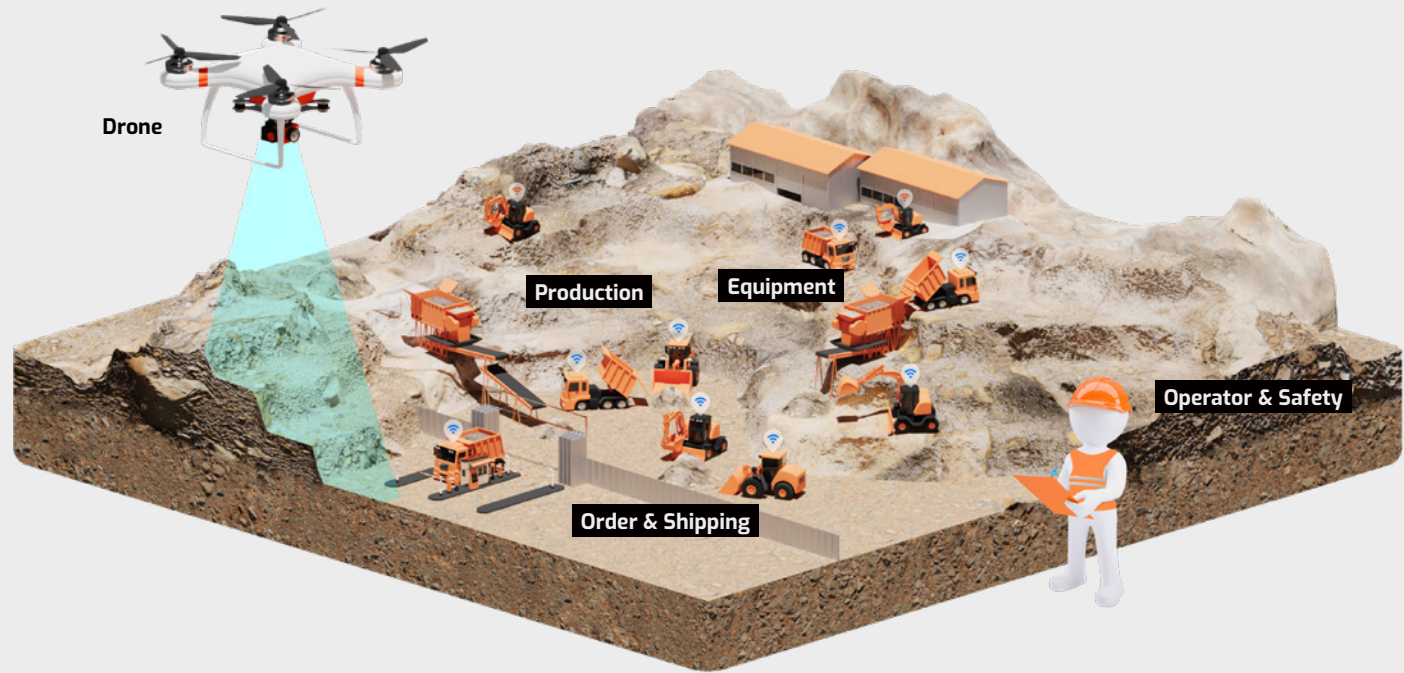
> **Cyber Physical** programmable logic controller (PLC), Interface (HMI), Sensor, Remote Control, IP camera.



> **AI** drone automation, truck automation, wheel loader automation, excavator automation.

Develon Quarry-X aims to address various customer needs through providing services that supports the Shipment, Production, Safety, and Fleet management of Quarry sites using Smart CE features.

- > **Reduce machine downtime**
- > **Efficient load work management**
- > **Prevent unexpected accidents**



Shipment

> Management service that connects equipment and field offices.

Production

> Intelligent production forecasting and inventory management service.

Equipment

> Predictive maintenance service through 24hour diagnosis.

Operator

> Operator's safety, health, and working time management service.

Safety

> Hazard warning service based on real time location.

