

dataloop



Digitization in Mining

End-to-end data management using Microsoft Azure

A Practical Approach to digitization in mining



AGENDA

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- 1.What is Digitization in mining
- 1.Why should you aim to digitize
- 1.What does a digital solution look like
- 1.How have we assisted clients to achieved this - examples



DATA MANAGEMENT SYSTEM

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Input
Sources

Data
Ingestion

Data
Management

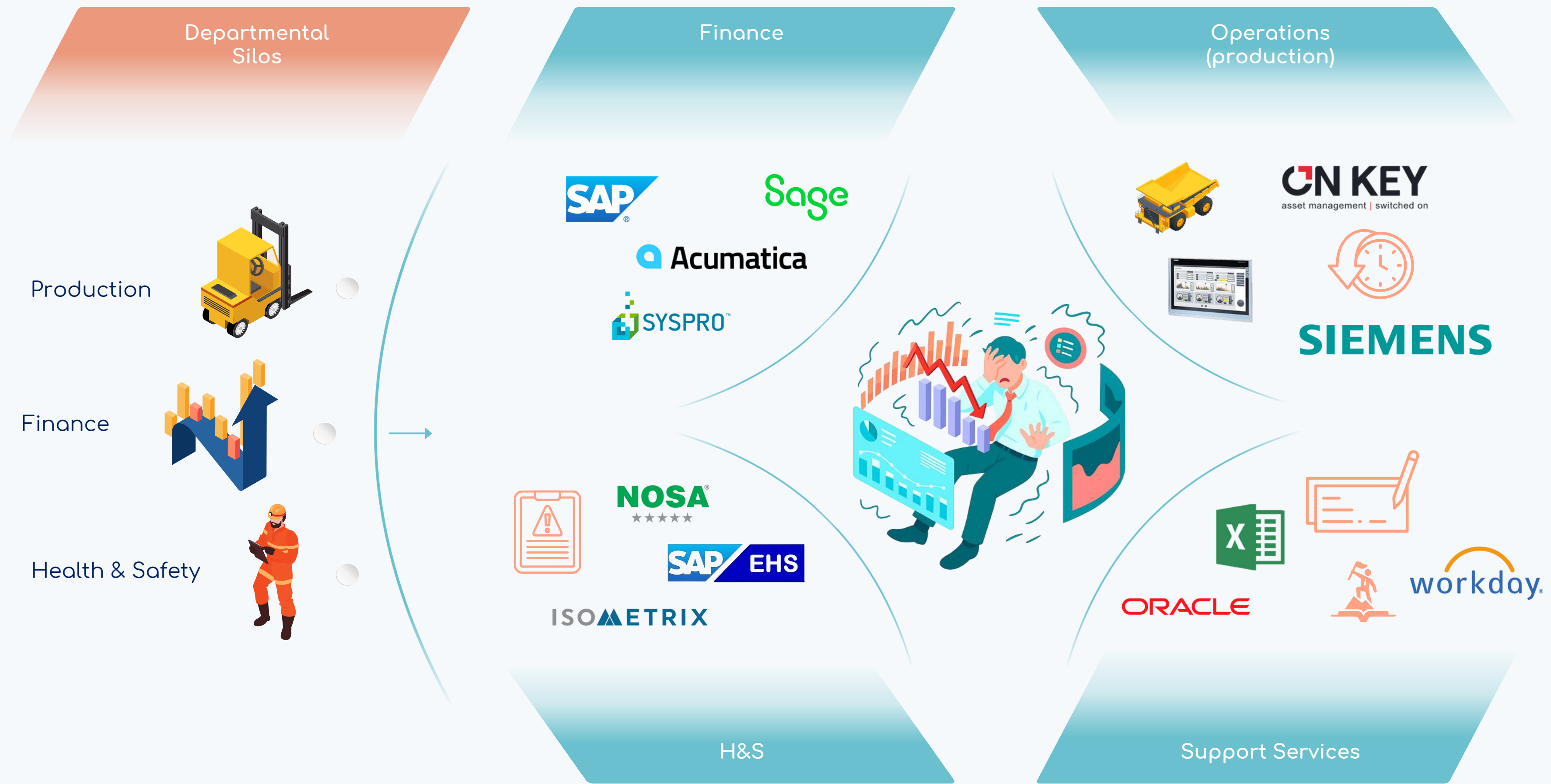
DataHub

Business & Report
Automation

Advanced Analytics &
Real Time intelligence



INPUT SOURCES



DATA INGESTION

Input
Sources



ORACLE



Sage

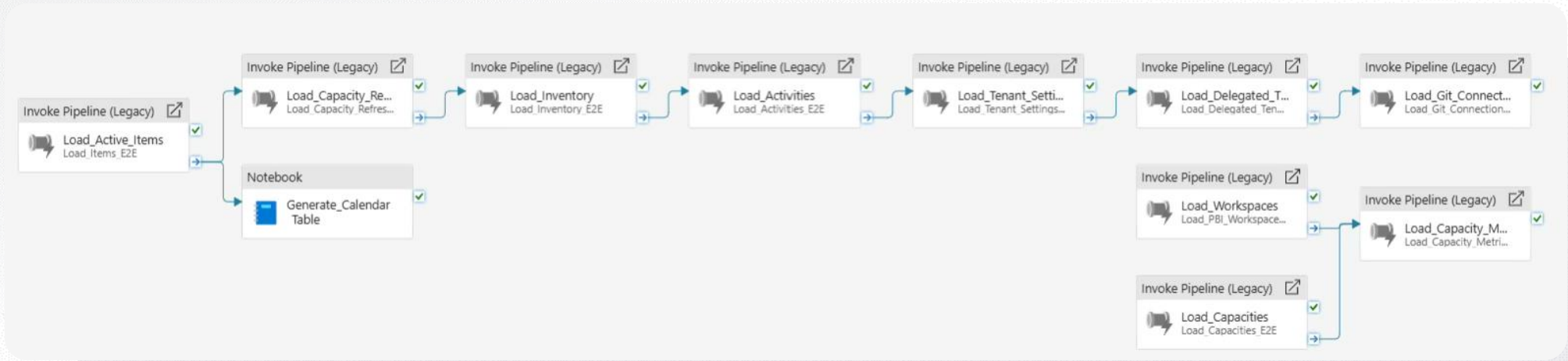
PRONTO



Data
Ingestion



Azure Data Factory



DATA MANAGEMENT

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DATA HUB

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Data
Ingestion

Data Management

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Input Sources



Microsoft Excel
ORACLE
Sage
PRONTO
SAP
SYSPRO



Azure
Data Lake



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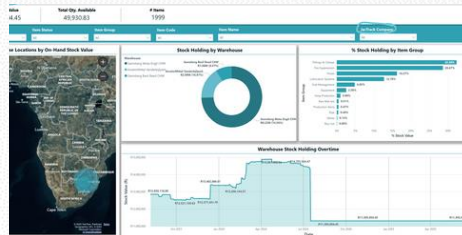
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USE CASES

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Use Case 1: Full Organization Reporting for a Tin Mine

Use Case 1

Exploration & Geology

Mining

Production

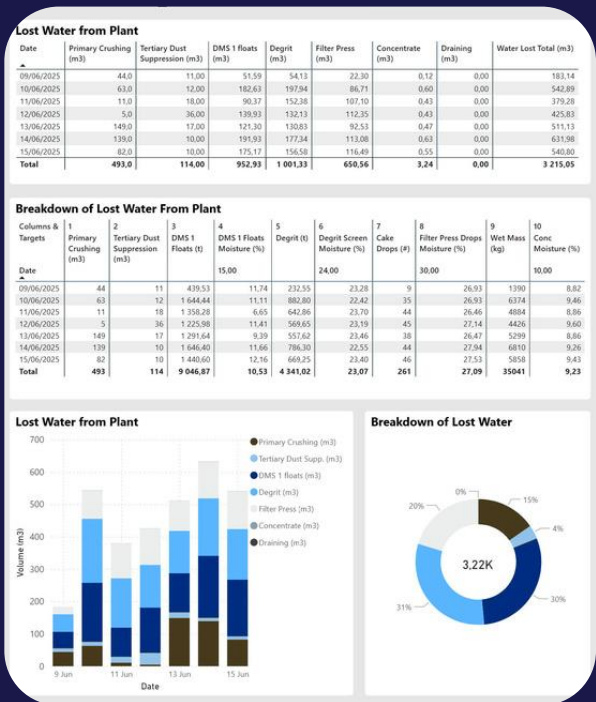
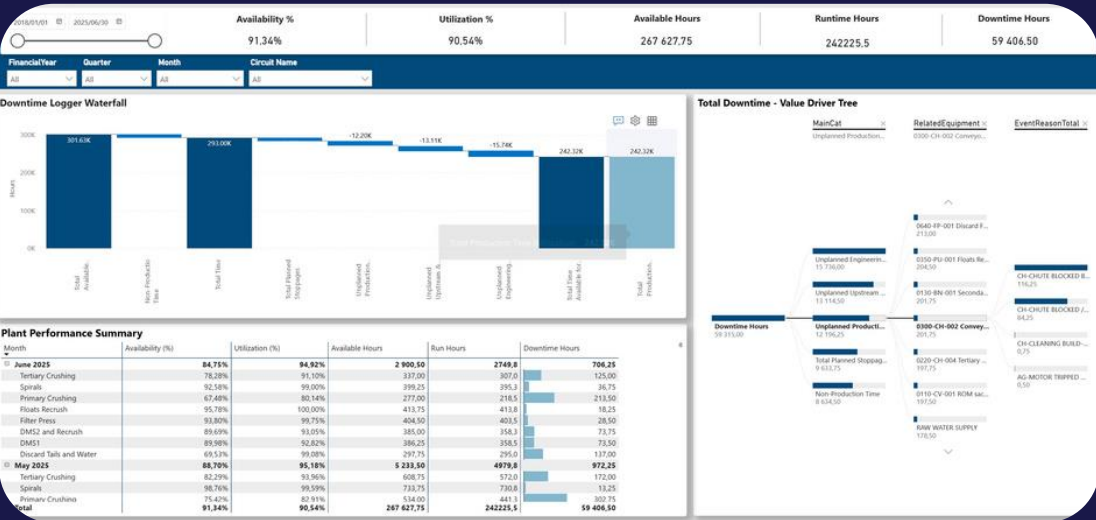
Environmental

Operations

Health & Safety

Governance

Corporate and
Investor Reporting



- System Admin
- Dashboards
- Reporting
- Mining
- Processing
- Plant Parameters
- Plant Performance
- Shipping
- Financial
- Environmental
- Health & Safety
- Governance
- Exploration
- User Management
- Human Resources
- Metal Accounting
- BSPF
- Policy & Procedures
- Water Management



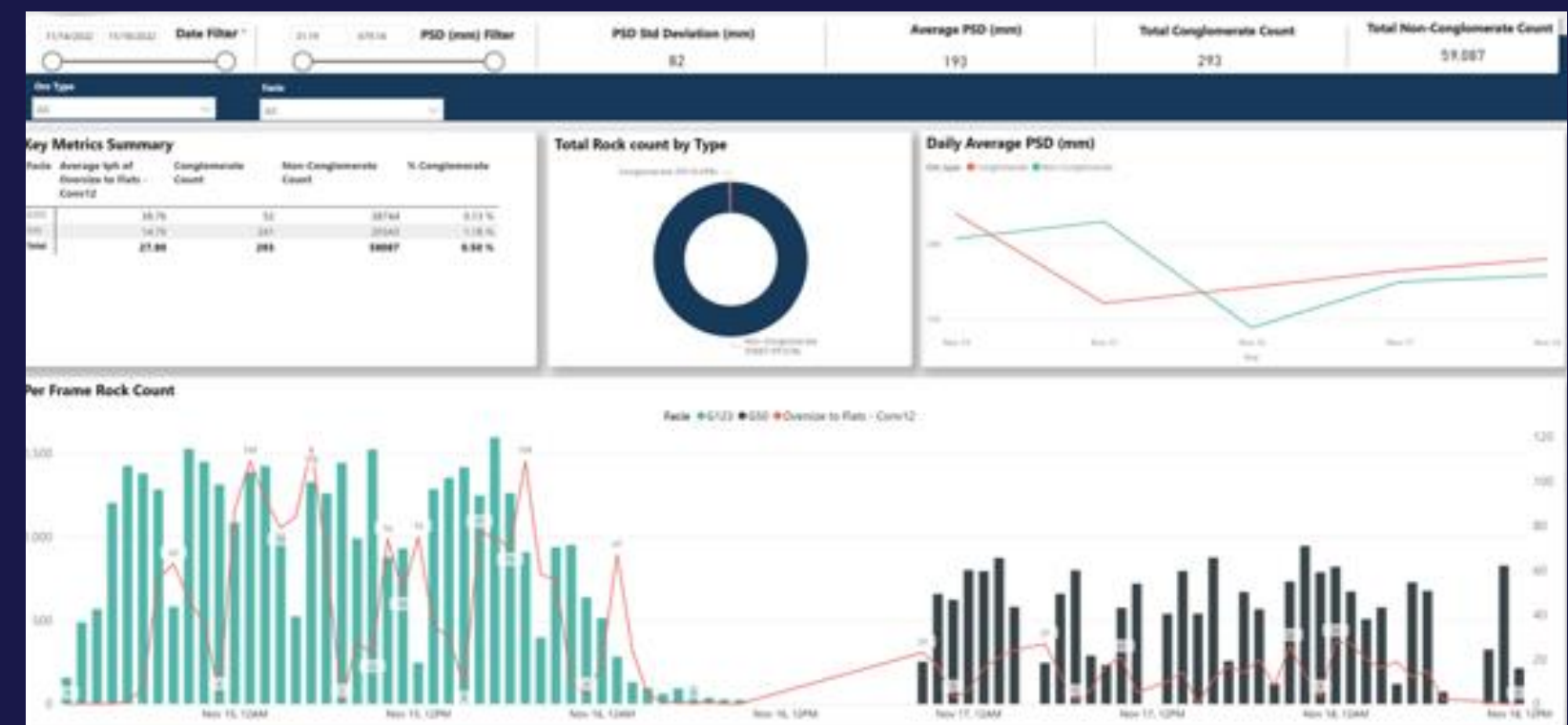
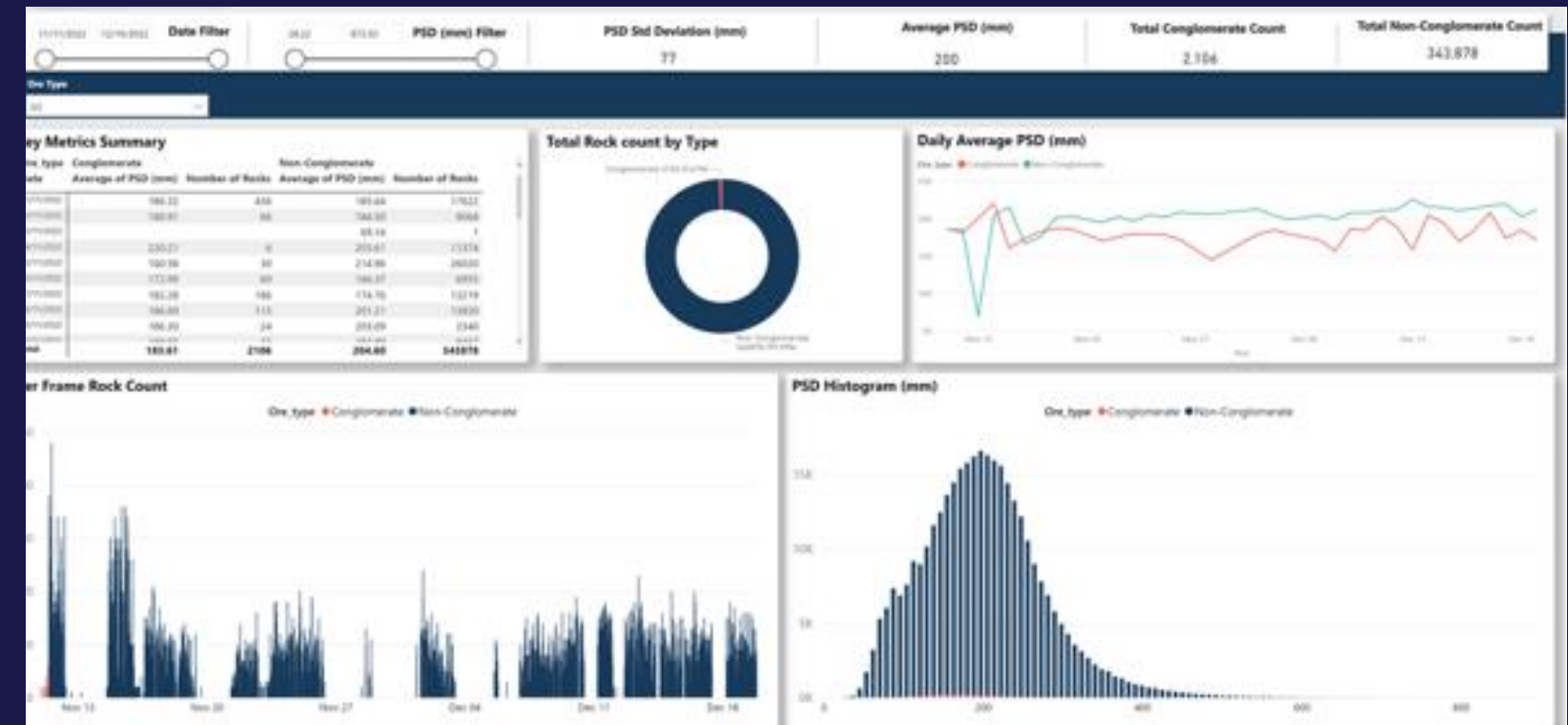
USE CASES

Use Case 2: Production Optimization

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Use Case 2

- Used computer vision to generate PSD for design purposes as feed from a crusher
- Enabled selective re-crushing (enabling crushing to be reduced by 80%) for additional diamond liberation

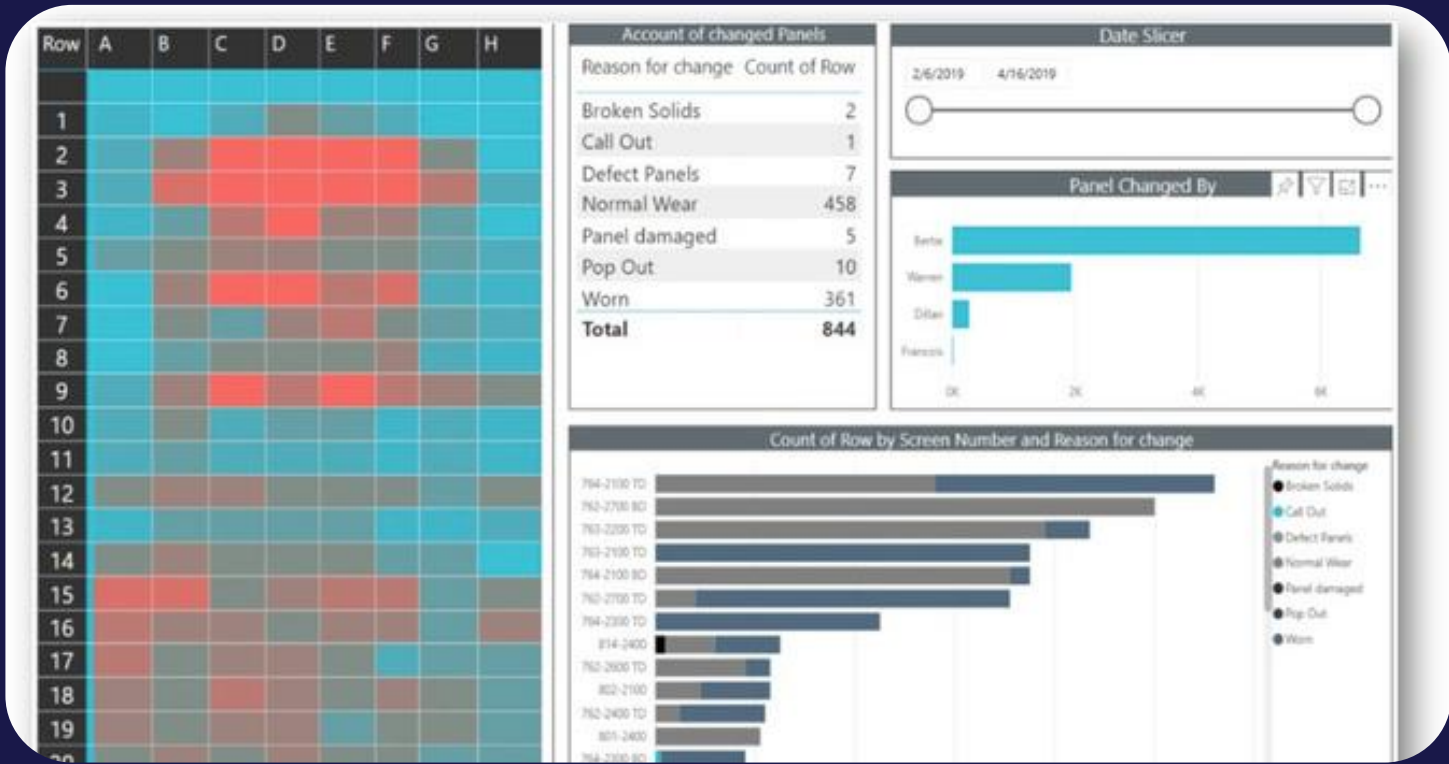


USE CASES

Use Case 3: Screen Panel Replacement Monitoring

Use Case 3 & 4

- Identified screen wear patterns
- Assisted in the maintenance of over 400 screens
- Reduced panel wastage by 17%



Use Case 4: Critical Mining Tool Downtime Monitoring

- Minimized unscheduled downtime
- Optimized machine maintenance
- Helped identify wear rates in different faces



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