

Fleet Management System



Client: Severstal, Karelsky Okatysh



Project

Fleet Management System - Data Quality improvement

Business Need

Data Quality (DQ) defines the level of trust to the captured information in Fleet Management System (FMS), i.e. if spotting or dumping time in a cycle is registered less than 10 seconds, this cycle cannot be defined as 'good' one and numbers should be excluded from averaging of quality metrics.

The minimum DQ target is 80 %, with a recommended level of 90 %. Both real-time and historical decisions fully rely on the data accuracy.

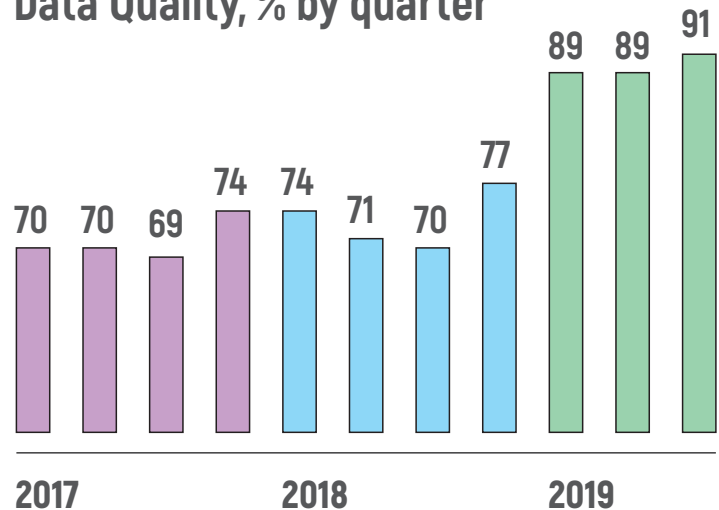
Solution

- ▶ One of the identified issues was the high level of exceptions for the incorrect operator cycle actions that dispatcher receives in FMS. Dispatch system was re-configured and enhanced to automatically handle such cases. This lowered the number of incoming exceptions in 1.5 times;
- ▶ The biggest portion of cycles (20-25%) was qualified as "bad" because of low spotting time - less than 10 seconds. To improve real-time feedback to operators regarding DQ there was a new functionality developed to inform truck and shovel operators about the actual spotting time after the start of each load;
- ▶ Training of dispatchers and equipment operators;
- ▶ Introduction of dispatcher personal KPI assessment program linked to the salary bonus;
- ▶ Radio wireless network improvement.

Results

FMS Data Quality at the mine site has improved gradually from 65-70 % to 85-90 %.

Data Quality, % by quarter



Alexander Plustyi,

Dispatch Superintendent at Severstal, Karelsky Okatysh

– We did not analyze Data Quality of Dispatch system before Mining Art project. Now we understand its importance and control it on a shift level. I think that the key success factor that allowed to improve DQ is the development of dispatcher KPI program that objectively assesses the performance of the individual dispatcher and gives us real-time feedback to correct and eliminate our mistakes.

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