



Advanced Analytics

Visualisation of key performance indicators (KPIs)

 **KRONES**

Analytics

Scalable, integrated and flexible



Advanced Analytics

Expandable

Integrated Analytics

Energy and Media Analytics

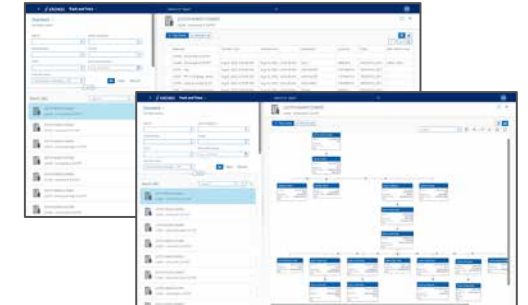
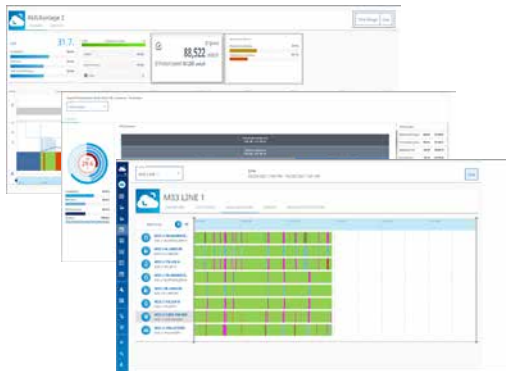
Track and Trace Analytics

- Data analysis in real time
- Analysis of the causes
- Line output reports/ performance and KPIs

- Customised reports also at corporate level
- Historical analysis of the line output/performance
- Contextualisation of the information (e.g. type comparison)
- Integration of external data (e.g. laboratory, warehouse)

- Reports on energy and media consumption
- Contextualisation of the information (e.g. type comparison)
- Integration of external data (e.g. processing and operating materials)

- Product tracking
- Material tracking
- Integration of external systems (e.g. warehouse)



Complete functionality

Customisation

Transparency in the entire line



An incomplete or non-transparent data record is now a thing of the past thanks to Advanced Analytics. This service provides you with a live overview of the current status of your machine and also visualises the most important KPIs of your production process. Thus, you can find out exactly which areas have the untapped potential to continue increasing your line productivity.

At a glance

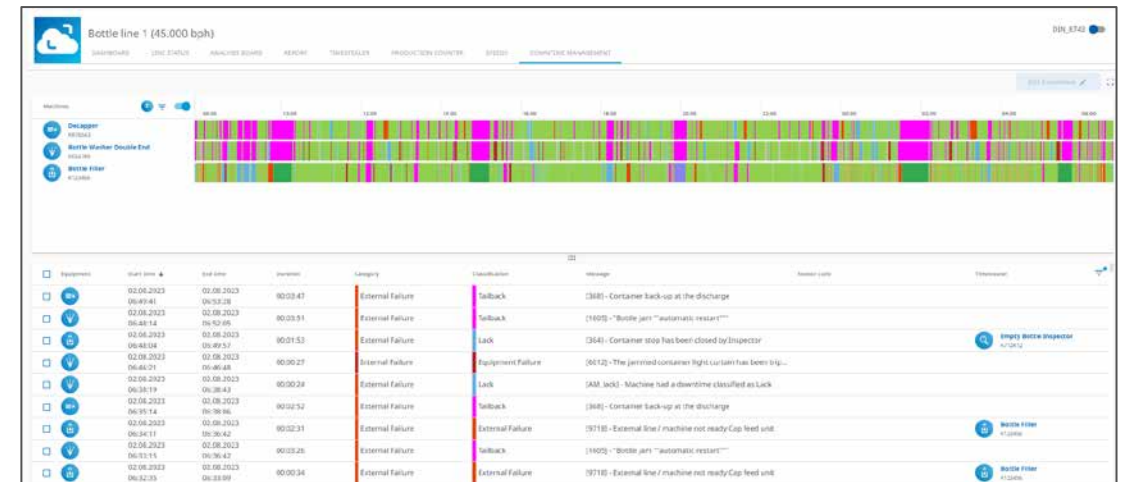
- Live overview of the current status of your machine
- Visualisation of the most important KPIs of your production process
- Identification of areas with untapped potential to further increase your productivity



Analysing downtimes



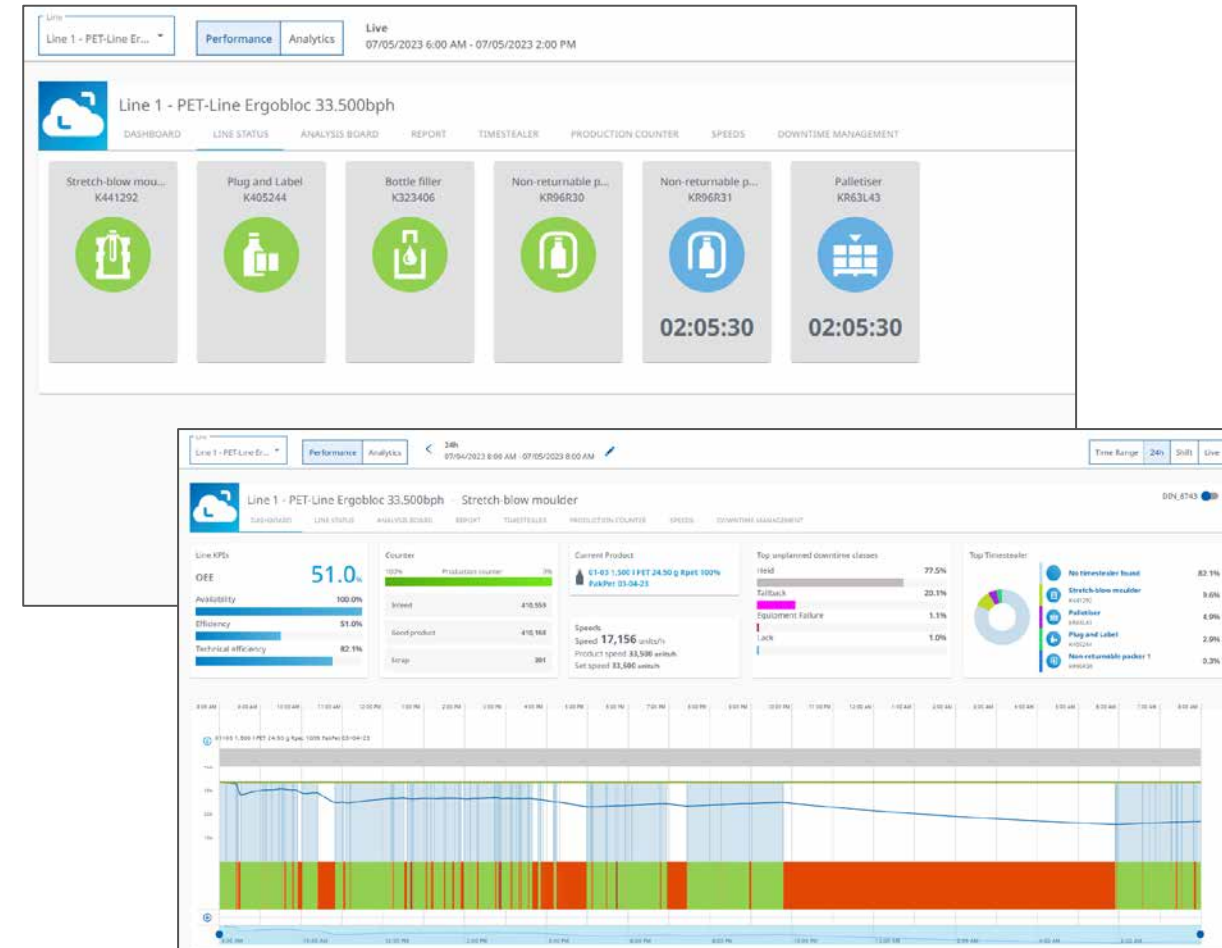
- Automatic classification of downtimes based on the machine status
- Automatic identification of downtimes, fault-causing machines and fault causes
- Data enrichment through additional information entered by the operator (manual reclassification, supplementary notes, reason codes)



Live visualisation



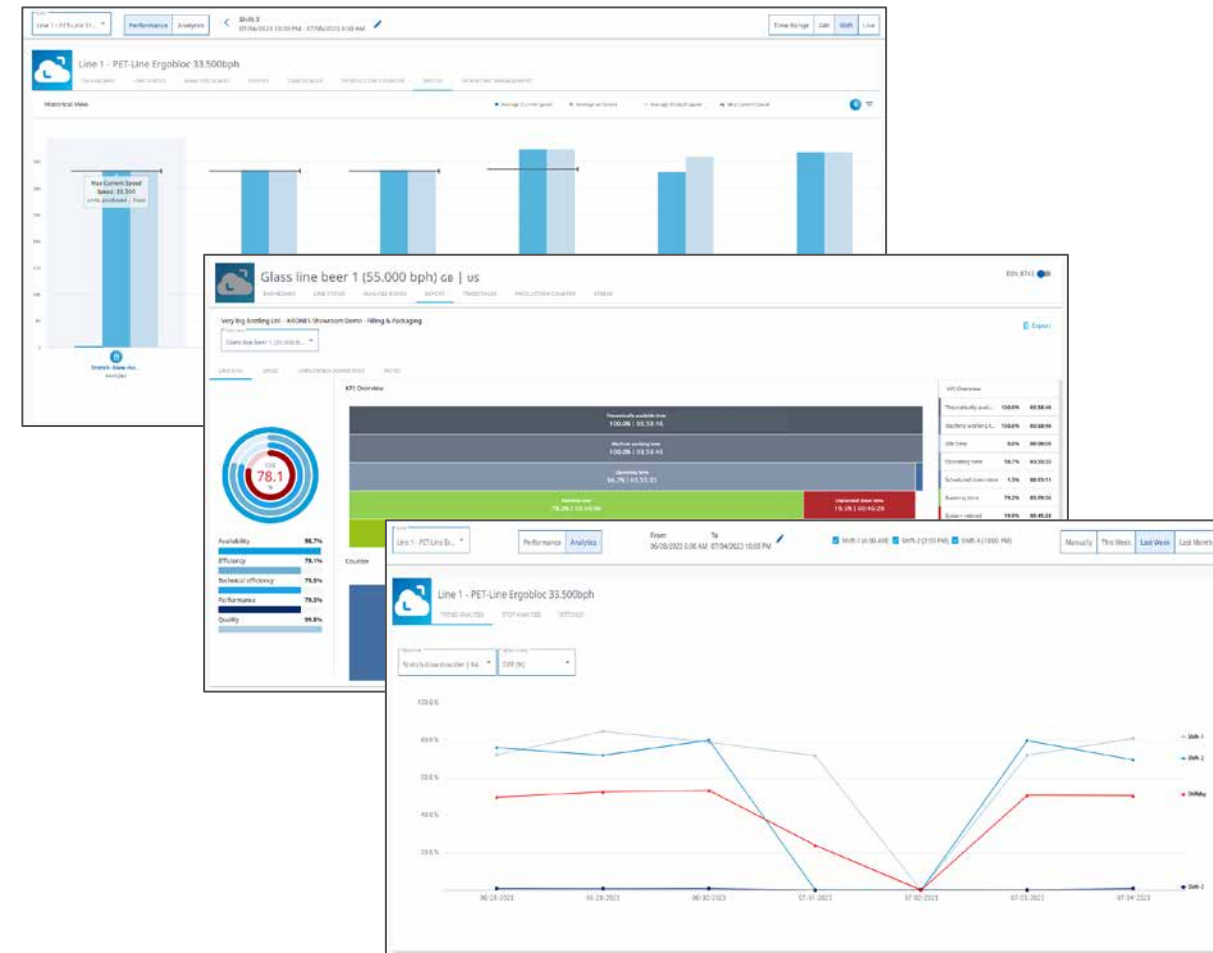
- Schematic overview of your line
- Machine status including downtime counter
- Gantt diagram (temporal illustration of status information of the lead machine)
- Speed diagram (based on the lead machine)
- Produced units



Reporting



- Illustration of loss categories in a waterfall diagram
- KPI calculations at line and machine level
- Reports on produced units and speed
- KPI trend analysis



Providing support in all areas of production



Operators

Transparency

- Quicker responses
- Reduced administration
- Easy to use and teach



Shift supervisor

Overview

- Remote access with mobile devices
- Free time for action
- Supports the regulation of priorities and preventive measures



Management

Benchmarking

- Clarity and comparability
- Real-time and historical analysis
- Tamper-proof flow of information
- Fact-based decision making

Downtimes reduced
by up to

 **10 %**

Efficiency increased
by up to

 **5 %**

Benefits to you



Cost-efficiency



Cost drivers for production downtimes are identified and continuously reduced.

Time savings



Optimise your time requirements thanks to the fast and comprehensive processing of all data.

Global availability



Use Advanced Analytics 24/7 – regardless of your location and selected end device.

Increase in the Overall Equipment Effectiveness



Obtain an overview of machine data and KPIs and thus create the foundations for increasing your Overall Equipment Effectiveness (OEE).

Transparency



Advanced Analytics records and logs all of the necessary status and process data of your production line.

Overview



The system translates a large amount of complex information about your line into informative key figures and thus makes it possible to develop sound actions.

Added value for our customers



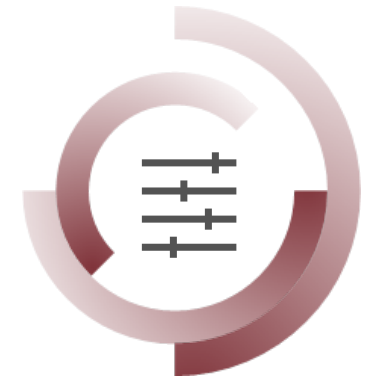
Downtimes



Waste



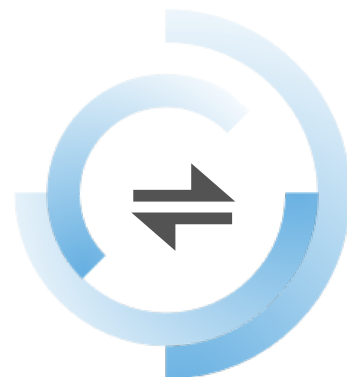
Maintenance planning



Production parameters



Employee training and
knowledge



Change-overs



Consumption



Material management

Our solutions

Making complexity manageable, reducing costs and maximising output through intelligent solutions



Shopfloor Guidance

Notification – prioritisation – instruction



Analytics

Advanced – Integrated – Energy and Media – Track and Trace Analytics



Line Control

Managing complex production – reducing manual interventions – scalability



MSA Performance

Krones Service supports customers – mutual transparency – causes – action plans



SAP-Based Solutions | SAP Integration

Standard solutions – development – engineering – implementation



Automated Parameter Optimisation

Services for "intelligent machine generation" – AI – machine learning



**SOLUTIONS
BEYOND
TOMORROW**

