

DATA DRIVE YOUR DECISIONS

The knowledge and clarity
to make useful decisions



**Service Subscription
Intelligent Reports**

WEEKLY INTELLIGENT REPORT CONTENT

The Panorama View

The panorama view allows for efficient navigation of what is up and what is down in last week's operation of the equipment.

The display of main indicators are selected in cooperation with the client to reflect the main priorities in production.

A one stop overview of performance is presented with the Excellence factor. The percentage is related to the week with the best performance as defined by client priorities.

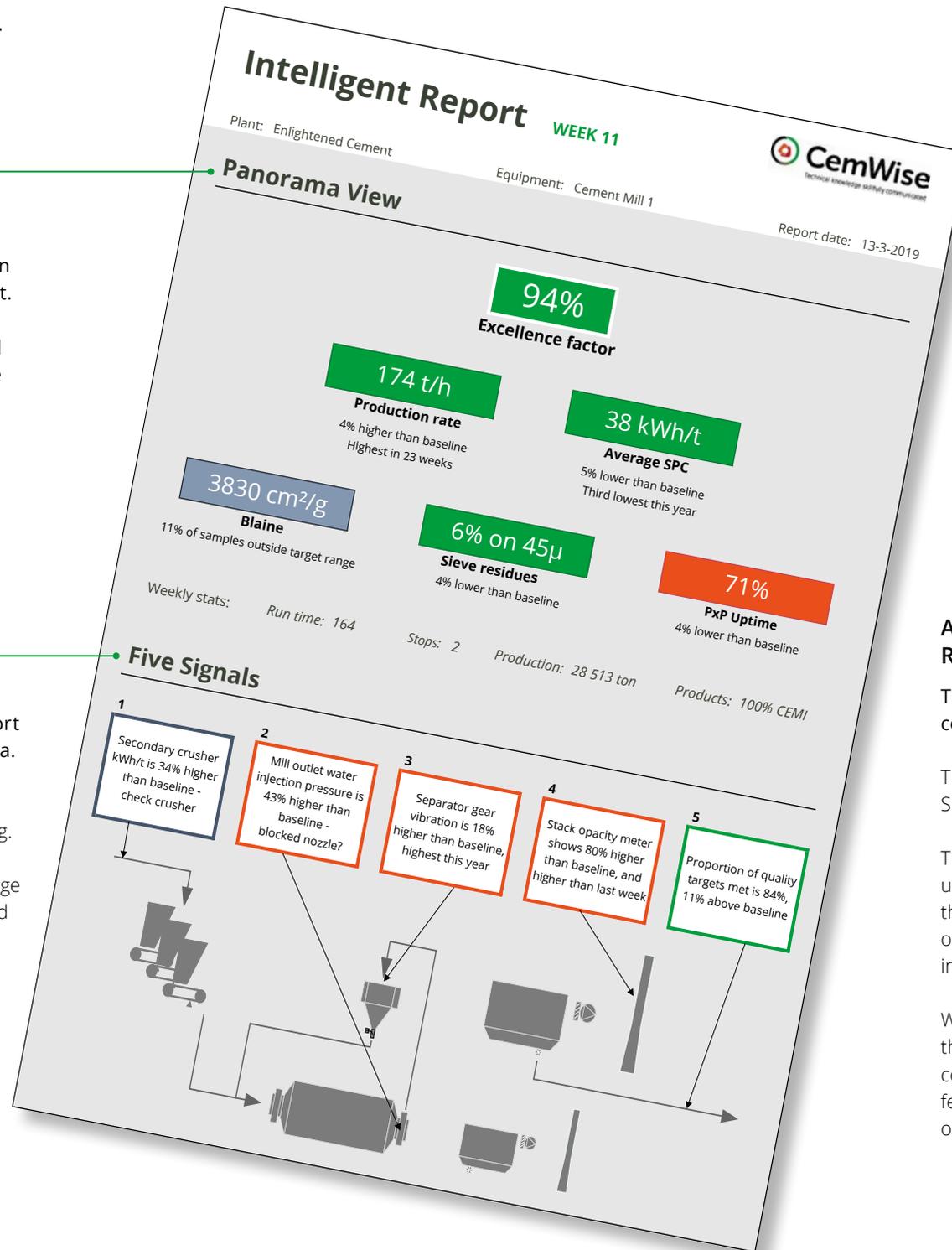
The Five Signals

With the Five Signals, the Intelligent Report zooms in on the details in last week's data.

The Signals are often early indicators of equipment failures or process shortcoming.

Dealing with these issues at their initial stage will save money, minimize costly unplanned downtime, make effective overhauls possible and optimize operation.

But the Signals may also indicate beneficial operating conditions, where a better understanding of the underlying connections can improve operational stability.



Analysis and Recommended Follow-ups

The Intelligent Report is a tool to support continuous improvement on the plant.

The analyses on page 2 closes in on the Five Signals and their significance.

This leads to a list of Recommended Follow-ups on page 3. Such Follow-ups may be in the shape of an action to rectify the issue, or they may be a next step for further investigation.

Whenever there is doubt about something, the CemWise experts are there to be consulted. Cemwise also keeps track of the feedback from the Follow-ups, to make use of this information in future analyses.

INTELLIGENT REPORT SERVICE SUBSCRIPTION

Huge amounts of data are collected from the operation of cement plants. Digging into the hidden patterns of this data can produce valuable insights to improve operational efficiency and equipment reliability.

With a service subscription for weekly Intelligent Reports the available operating data is put to good use. The combination of advanced data analytics, cement process expertise and equipment knowledge provides you with a refined tool to:

- **understand current limitations**
- **optimize operation**
 - reduce energy costs and maximize production
 - reduce crucial parameters like CO2 and other emissions
 - operate in the sweet spot of the profitable
- **plan and coordinate well in advance**
 - reduce costly unplanned shutdowns
 - reduce expensive urgencies

Clear prioritization

In CemWise, it is our trademark competence to always explain with great care why something is important and how it can be handled most practically.

A clear prioritization among the many possible issues in daily operation arises from a clear mind about their importance.

Doing first things first and with no doubts about what to do next will get more things done in an efficient way.

Continuous Improvement

The Intelligent Report Service champions the good habits of a proactive mindset.

The weekly zoom into Five Signals is a stepwise approach to gradually sort out issues and raise performance to new levels.

With a common understanding of causes and consequences, people are encouraged to align their efforts and pull in the same direction, and the steady support from CemWise experts serves to push determination, also when initial results are not as expected.

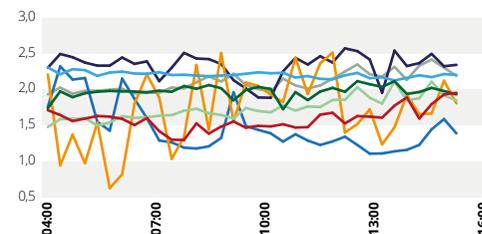
DATA DRIVE YOUR DECISIONS

What changes in your data should you act on?

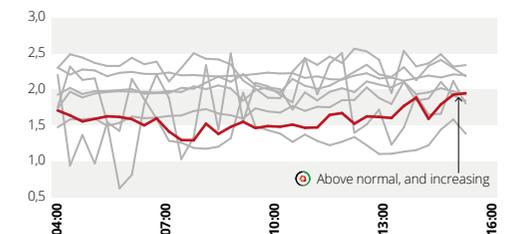
CemWise identifies the patterns and outliers in the data that are significant and matter for production now and in the future. We navigate your operating data combining advanced data analytics, cement expertise and a profound understanding of the specific equipment gained from the initial audit of the equipment.

Weekly Intelligent Reports thus provide a solid foundation for the clear decision-making that drives operational excellence.

Plant view



CemWise view



SUBSCRIPTION PACKAGE

- Initial onsite Audit
- Weekly Reports
- Quarterly Status Reports
- Yearly Review

Main Equipment range

CemWise offers the Intelligent Report Service Subscription for individual main equipment:
Raw mill • Pyrosystem • Coal mill • Cement mill

The Intelligent Report Service can also be bundled for a complete production line.

HOW IT WORKS

1 AUDIT AND DATA SET-UP

To gain thorough understanding of the equipment and establish good working relations with staff an initial on-site audit is made.

Once priorities and challenges to production are clear, CemWise will customize the algorithms and the set-up for the data model.

2 DATA TRANSFER

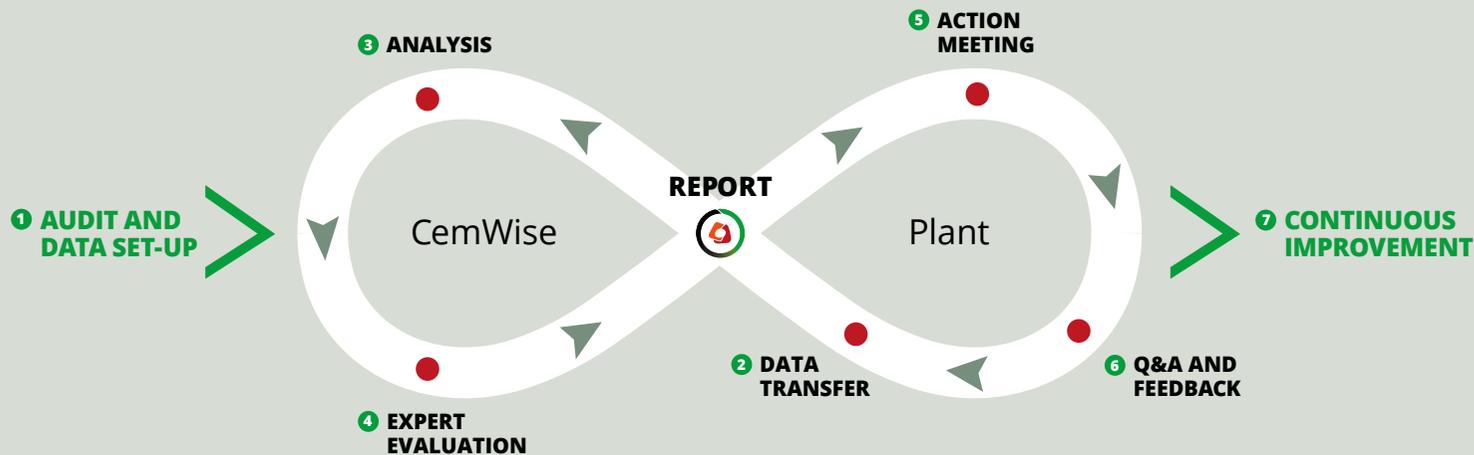
The Plant forwards all available operating data to CemWise once a week.

3 ANALYSIS

CemWise customized data modelling identifies significant developments in the weekly operating data.

4 EXPERT EVALUATION

The CemWise expert uses his knowledge and experience to select the five most relevant signals.



5 ACTION MEETING

The plant typically receives the Intelligent Report for last week in time for Tuesday's morning meeting

6 Q&A AND FEEDBACK

CemWise collects feedback on the recommended follow-ups and when additional questions arise, the CemWise expert is available for consultation.

7 CONTINUOUS IMPROVEMENT

CemWise makes quarterly status on all signals detected and a yearly review of the operating data to identify optimal conditions.

ABOUT US

CemWise is a consulting company with deep roots in the cement industry. The company was established in 2017 and specializes in technically founded support to cement plant staff, management and investors.

Our experts are profoundly knowledgeable in their respective fields. They have many years of experience from plant operation and equipment engineering in all kinds of conditions on cement plants around the world.

CemWise trademark competence is the ability to communicate skillfully. Our experts put themselves in the client's shoes to consider the options. They are dedicated to plainly stated useful recommendations that will support their implementation.

The CemWise spirit is to bring forth knowledge and clarity. We make sure that what we recommend are the best solutions, not just technically, but also considering the broader situation and client objectives.

