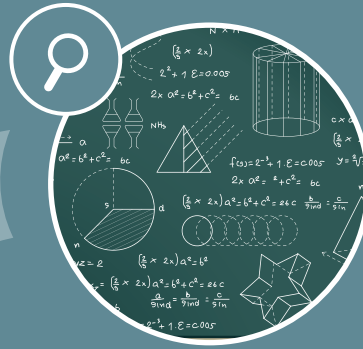
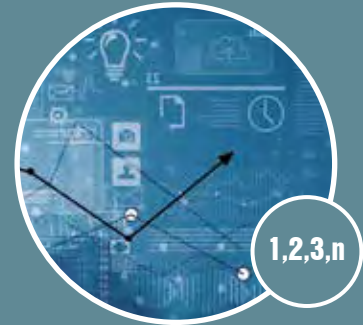


Analyse  
& learn



Unlimited options



1,2,3,n

Tracking  
& logging



Optimise



Simulate  
& evaluate



## Complex analysis made easy



**Tracking and logging:** With the tracking and logging of compressed air consumption and system switching activities, a predictive approach is possible. **Be proactive – not reactive.**



**Analyse and learn:** The simulation-based optimisation process produces a fully objective analysis of events in the compressed air system. Over time, the system learns the key factors influencing the behaviour of the station and its components. **Apply knowledge, don't waste it.**



**Unlimited options:** With the scope for action and the learned technical and system behaviour, it is possible to predict future system behaviour and events. **Think first, then act.**



**Simulate and evaluate:** Through the potentially unlimited number of future simulations, future energy needs are evaluated. This supports well-informed decision making based on the true costs of various options. Compressors are no longer operated under a fixed set of rules. The advantage: System switching operations are geared to the application at hand and the customer's needs. **Progress through innovation.**



**Optimise the system:** The simulation-based optimisation process individually adjusts compressed air system operation in real-time, based on specific power. This ensures maximum energy efficiency while adapting the system to all requirements. **Know what needs to be done.**



Efficiency has a name:

## SIGMA AIR MANAGER 4.0 from KAESER

Centralised controllers are now expected to do more than just optimise compressor operation in line with current demand. Efficiency is playing an ever-increasing role. The days of rigid rules are over. With clear and basic switching sequences, it is no longer possible to optimise energy efficiency while responding to constant fluctuations in compressed air demand. Any rule encoded in an algorithm limits the flexibility of the system controller and reduces the scope for action.

The tracking and logging of past compressed air consumption patterns makes it possible to forecast future demand. Based on these demand projections, the set-up of the components themselves, and the accumulated knowledge on the equipment and system behaviour, the patented, simulation-based optimisation process can predictively identify the most efficient switching sequences.

Be proactive – not reactive. Decisions are no longer dictated by a narrow pressure range. Now the decisive factor is how to achieve the lowest costs for the required compressed air output – while maintaining the required pressure level and staying within the maximum pressure setting (pressure margin). True to the motto: “More compressed air for less energy”.

