"Joining forces with B&C, Eisenbau Krämer aims to achieve performance optimization in production as well as increase efficiency and speed of administrative processes from initial customer request to production planning."

Dr. Boris Wernig, Managing Director at Eisenbau Krämer GmbH

"B&C and thyssenkrupp Steel Europe are working together to realign Supply Chain Steering, intending to increase delivery performance while at the same time decrease throughput time of customer orders."

Carsten Rokitt, Head of Supply Chain Steering at thyssenKrupp Steel Europe AG

Enabling agile crisis management with "Operational Planning light"

Like many other markets, the steel industry is currently being hit hard by the Covid-19 pandemic. Aid packages from the German government, such as short-time work and the temporary exemption from bankruptcy filing are intended to avert a far-reaching wave of bankruptcies on the market — but these are only short-term measures.

The European steel industry, which has been under pressure for some time now, must fundamentally review its position for the future, as it is uncertain whether and when the pre-crisis level will be reached again.
Even before the crisis occurred, the market was characterized by enormous overcapacities and the pandemic is further exacerbating this situation. For the best possible crisis management, it is thus of particular importance to adjust the production network to an appropriate level and to prepare it for the uncertain period afterwards.

Therefore, the following questions should be addressed:

- How to set up the production network in the best possible way to fulfill all remaining customer demands?
- Which plants or even production sites can be shut down?
- What is best sequence to ramp up capacities again?
- How to use alternative routings to set up the production network in the most cost-efficient way?
- How rigid is the production network and how flexible can it react to future changes in customer requirements?

Our approach Operational Planning light (OP light) provides fast and reliable answers to these questions. This enables the best possible crisis management and allows being prepared (e.g. by testing new planning processes) for the time after the crisis.

EXPECTATIONS

- **Transparency** regarding the current setting and future possibilities of the production network (available capacity)
- **Quick simulation** of possible scenarios evaluated on the basis of standard KPIs (compare capacity supply & demand)
- **Testing** new planning processes and developing further requirements for a future OP tool ("integrated solution")

RESULTS

- **Calibrating the production network**
  - Switching capacities/ plants on/off
  - Selecting production routes
  - Pre-production/catching up on production
- **"Coarsely granular"** master plan with monthly granularity for the next 12-18 months (production volumes, inventory projection & capacities)

The capacity model forms the basis for Operational Planning (OP): Sales forecasts are translated into capacity requirements which are in turn compared against available capacities. Capacity availabilities are derived from planned production time and resource productivity.

The level of detail (number of products and resources) used in OP light is reduced to a granularity which is detailed enough to make reliable statements about the setting of the production network, but simple enough to keep it manageable within a short period of time.

This is exactly the difference to OP in the classical sense: Our claim is not to establish a fully integrated solution with automated processes and integrated systems, but to achieve fast results with the help of a stand-alone solution. To this end, we from Bronk & Company have brought our experience in building capacity models from many projects into the OP light tool.

The model can easily be customized to the needs and circumstances of our customers within a small project. Using standard analyses and predefined KPIs, the current planning quality can be evaluated in short time and informed decisions can be made.

The standard process for working with OP light is not different from the classic OP process (see image).

As OP light tool is a flexible stand-alone solution, additional requirements can be easily integrated to answer further questions. For example, the sales forecast can be subdivided into additional product groups or additional plants which are relevant for scenario analysis can be integrated into the capacity model. These additional requirements do not have to be defined in advance but rather can be developed during the process implementation. Once validated, the respective requirements can be transferred to an integrated OP solution if required.

Conclusion

Many companies are currently facing the challenge of adjusting their network to a lower production level in the best possible way. Our approach OP light offers the possibility to make fast and reliable decisions. Thus, it enables an agile and profound crisis management. In addition, today's efforts do not have to be purely crisis-oriented but can also serve as a basis for an integrated solution in the future.

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