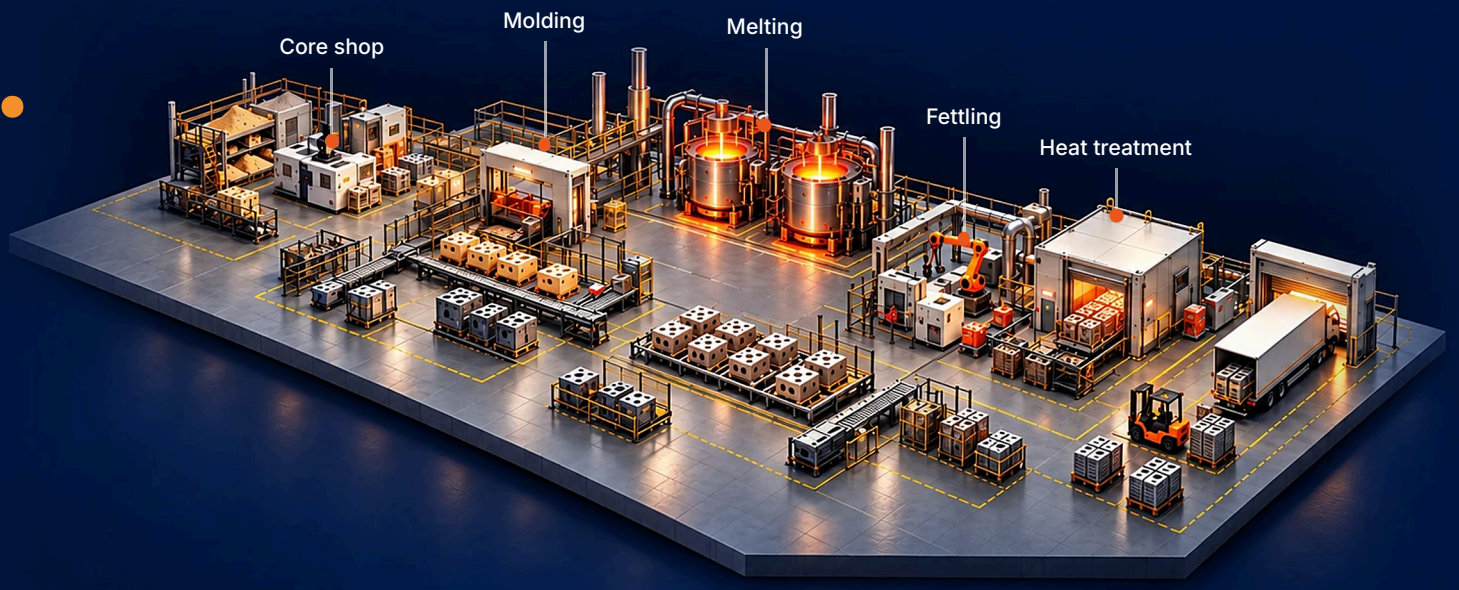
CASCULATE

SOFTWARE AND CONSULTING FOR FOUNDRIES

Orchestrate your foundry.

CASCULATE combines foundry expertise, consulting and integrated software solutions to plan, connect and optimize your production, from individual departments to the entire foundry.



01 **Plan**
A plan your shop floor can run

02 **React**
A machine goes down. The plan adapts.

03 **See ahead**
Know where it gets tight

SOUND FAMILIAR?

The plan is in Excel.
The shop floor runs another one.

- **One plan instead.**
  CASCULATE plans from core shop to heat treatment — and every shift gets its work plan to print.

When the planner is on holiday,
so is the plan.

- **Rules, not memory.**
  Your planning rules live in CASCULATE. Every change to the plan is checked against them.

“When will it ship?”
Three people, three answers.

- **One date per order.**
  Every order shows its estimated delivery date — and the process that limits it.

WITH CASCULATE **One plan, from the ERP order to the shift work plan**

WHAT WE DO

Foundry experience, consulting and software. From one source.

We combine our experience in the foundry industry with consulting and our own software to digitize, connect and continuously improve your production processes.

Foundry expertise

We know foundries, their processes and the challenges of day-to-day operations.

Consulting

Process analysis, concept, implementation and long-term support: every project starts with your processes.

Software

Our own software for planning, production feedback and replanning, building on your existing ERP system.

IN THE SOFTWARE TODAY

- Production planning and detailed scheduling, for single departments or the whole foundry
- Replanning when a machine fails or an operation moves, with a preview
- Bottleneck forecast and resource utilization
- Planning proposals based on your rules and real capacity
- Production feedback and transparency on orders, resources and progress
- Departments connected along one route

WITH YOU IN THE PROJECT

- Integration into your ERP and IT systems
- Further areas such as machining, quality and shipping
- A consistent data basis for reports and key figures

FOUNDRY PROCESSES

One route through the whole foundry.

Every order gets its route from your master data. Each step lands on the right resource — and the next one starts when the previous one is done.

Core shop
Cores on your core machines

Molding
Pattern plates to flasks · line and hand molding

Melting
Melt charges per furnace

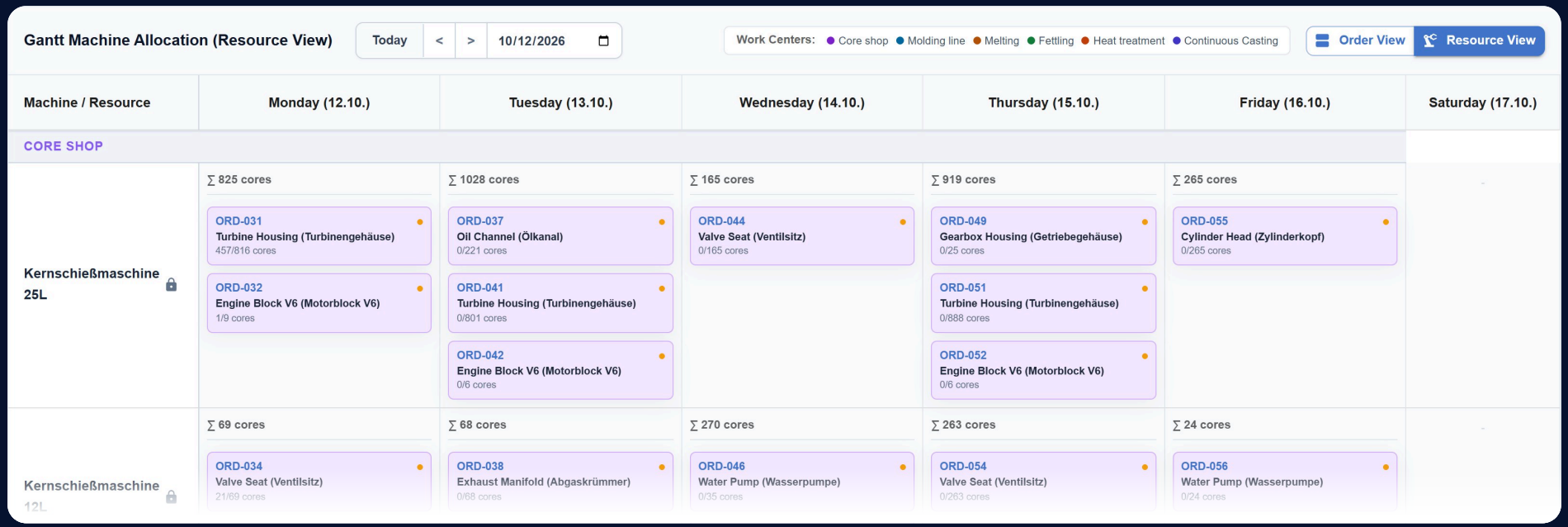
Fettling
Station shifts and work in progress

Heat treatment
Furnace batches and cycles

Machining
Built per project

Quality
Built per project

Shipping
Built per project



Order planning, resource view: every machine with its orders, day by day.

01 Plan

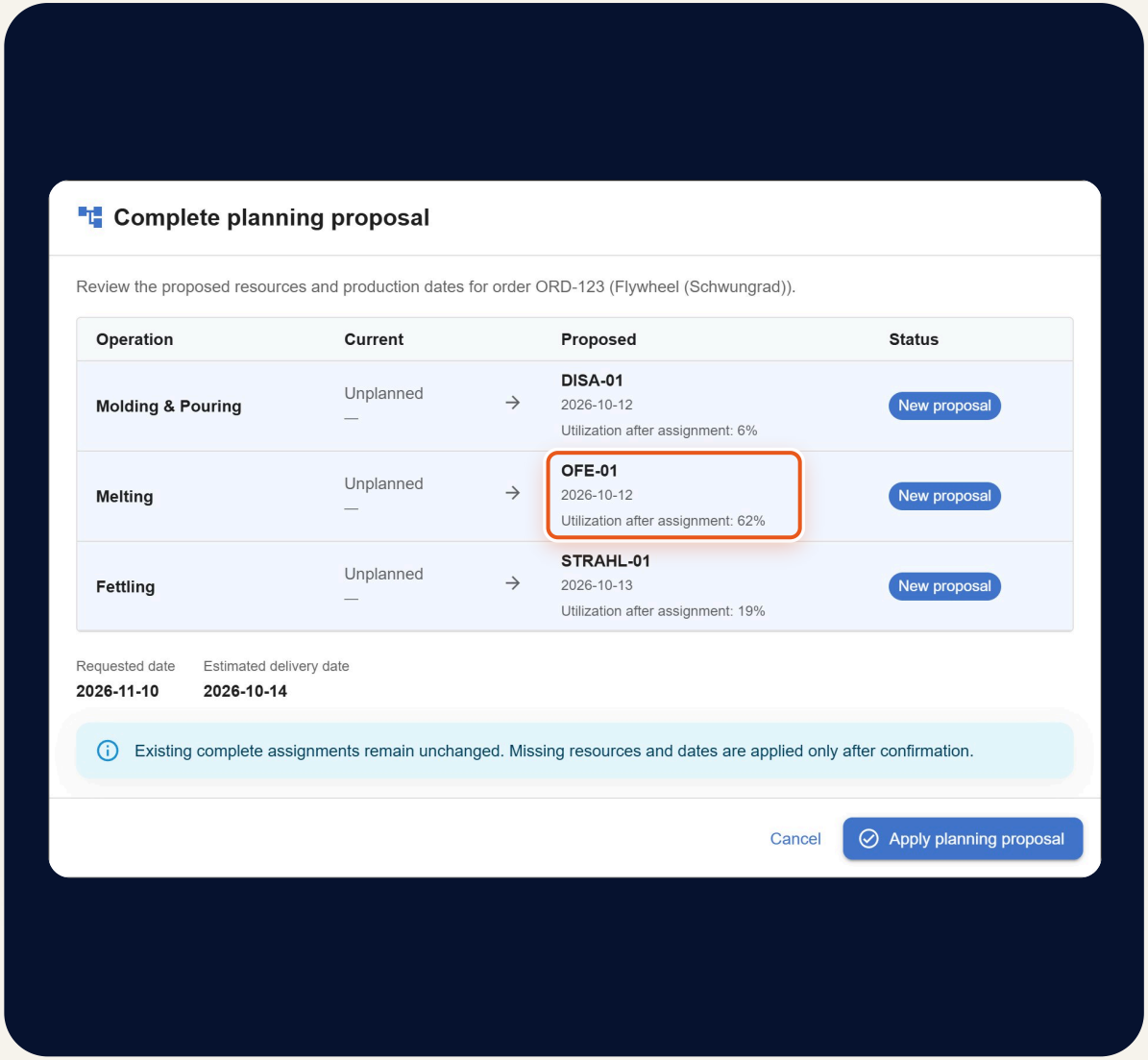
A plan your shop floor can run

CASCULATE proposes machines and dates for every open operation — based on your routes, shifts and capacities — and shows the load before anything is applied.

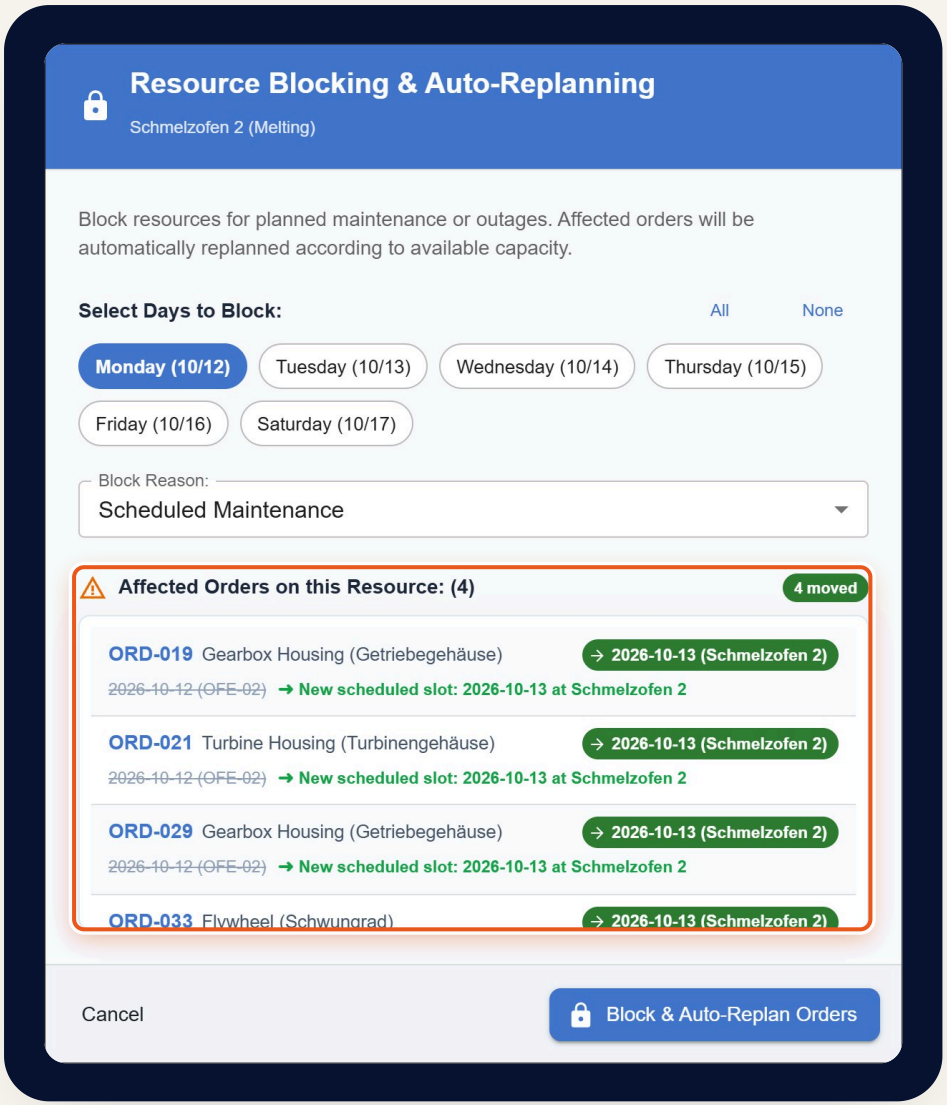
- A machine and a date for each open operation
- Utilization of the machine after the assignment
- Nothing changes until you confirm

62%

Load of the melting furnace after the assignment (marked in the picture).



BENEFIT **A plan built on your routes, shifts and real capacity, not on estimates.**



02 React

A machine goes down. The plan adapts.

Block a furnace for maintenance. The affected orders move to the next feasible slot — and you see every new date before you confirm.

- Choose the resource and the days
- Every affected order with its new date
- One click blocks the resource and replans the orders

4 orders

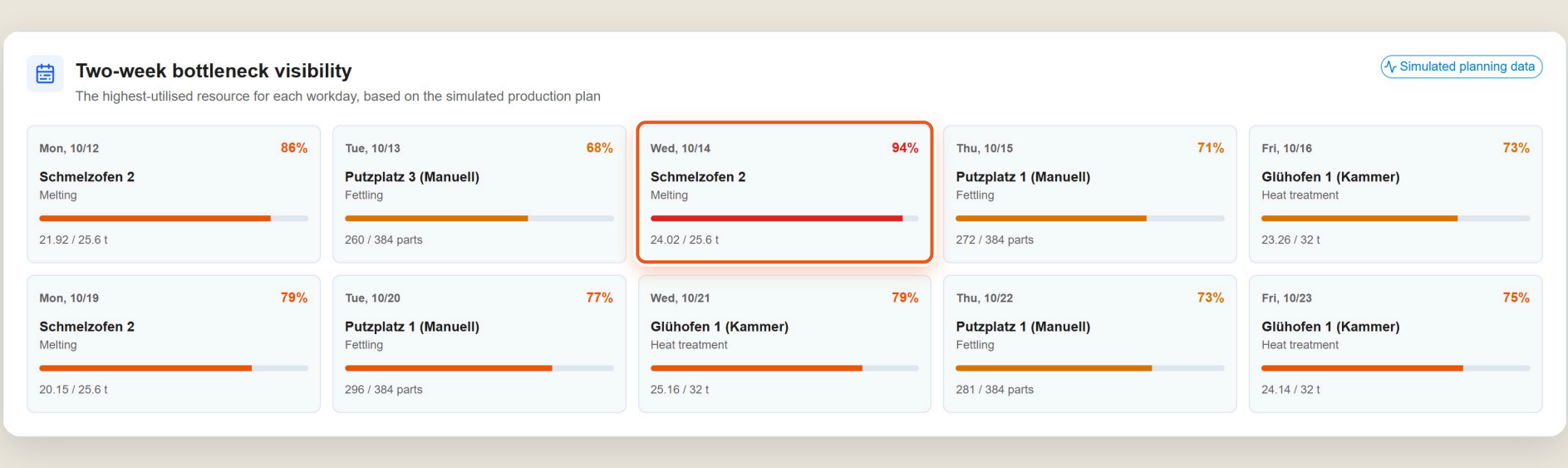
move to the next feasible slot. Every new date is shown before you confirm (marked in the picture).

BENEFIT You see what a change does before it reaches the shop floor.

03 See ahead

Know where it gets tight

For every workday in the next two weeks: the busiest resource across core shop, melting, fettling and heat treatment.



94% The tightest day of the two weeks: Schmelzofen 2 on Wednesday (marked in the picture).

- Every workday of the next two weeks
- The busiest resource and its department
- Utilization in percent, tons or parts

BENEFIT **You know early where capacity gets tight and can act before a delivery date is at risk.**

NEXT TO YOUR ERP

Your ERP stays.
The foundry gets a plan.

An ERP manages orders, customers and invoices. Planning, production feedback and replanning on the shop floor usually happen somewhere else. That is the layer CASCULATE adds, building on your existing ERP system.

Start without an integration.
Orders can be entered directly in CASCULATE — the route is created from your master data.

Connect when you're ready.
We build the connection to your ERP as part of the project — and, where needed, to crane scales, spectrometers and machines.

HOW WE WORK

One department or the whole foundry.

We start where it helps you most: in a single department or across several. Every project begins with a personal conversation.

01 Potential analysis

Together we look at your orders, routes and bottlenecks — and where a plan helps first.

02 Concept

Which departments are in scope, which data comes from your ERP, which rules the plan must respect.

03 Implementation

CASCULATE is configured for your foundry and goes live in the agreed scope. We stay at your side afterwards.

WHERE WE ARE HEADING

From production planning to the intelligent foundry.

Connecting people, machines, processes and data. We are developing CASCULATE into a central digital platform for running a modern foundry: planning, monitoring, steering and improving production in one place.

Quality and data analysis
Linking production, process and quality data: to understand why scrap occurs and how defects can be avoided.

Machines, plants and sensors
Integrating machines, plants and sensor data more closely into planning and monitoring.

Automation and robots
A foundry that plans and optimizes more and more of its processes by itself, in the long run together with robots in production.

These topics describe our direction. They are not part of the software today.

CASCULATE

Let's look at your foundry.

STEP 1

First conversation

Tell us how you plan today. We'll show you CASCULATE live — and where it would help first.

STEP 2

Potential analysis

Together we look at your orders, routes and bottlenecks — and where a plan helps first.

Book a meeting

Scan and choose a date

WHO YOU WORK WITH

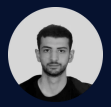
"As part of the fourth generation of the Eisenwerk Brühl foundry family, the future of our industry is close to my heart."

Niklas Eickworth
CEO · CASCULATE

Niklas Eickworth
CEO/CSO

Simon Hinz
CTIO

Emine Topcu
MARKETING & MANAGEMENT ASSISTANT



Batuhan Topcu
TURKEY OPERATIONS & TECHNICAL SUPPORT

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German Innovation Award 2023 · 1st place, IHK innovation competition
Both for CASCULATE Instant Pricing, built before our focus on production planning.