



Raising a toast to £2m profit margin increase



£2M
Profit margin
increase



5%
Increase in
throughput





Customer Overview

On a mission to transform the beverage industry with agile, bespoke solutions, this customer provides myriad market-leading services that help its customers bring innovative drinks products to market fast and deliver reliably, all the way from grape to glass.

The customer combines speed, excellence and lean principles to package over a million units a day in various pack sizes, using its three high-speed bottling lines, three bag-in-box lines, a canning line and pouch filler, across a variety of standard shapes, sizes, colour and even bespoke bottles. This manufacturing excellence strives for a stock accuracy of 99.9% in the warehouse, and a 99.7% vehicle dispatch on-time and in-full.

In their quest for agility, efficiency and sustainability, they routinely grapple with several operational questions such as:

- How to improve overall equipment effectiveness (OEE) across various stages of manufacturing, warehousing and distribution?

- How to better align planning and operations teams to deliver exceptional customer service and maintain efficient production with minimal costs.
- How to create a consistent plan from S&OP to S&OE and into scheduling that delivers better plan visibility, stability and eliminates manual effort?
- How to identify risks and opportunities in a timely manner, and lay out plans to mitigate or capitalize on them?
- How to tie production planning decisions to key decision forums like S&OP?

Their Excel spreadsheets were unable to give them the required planning insights. They urgently needed a solution that could cope with the complexity of their business.

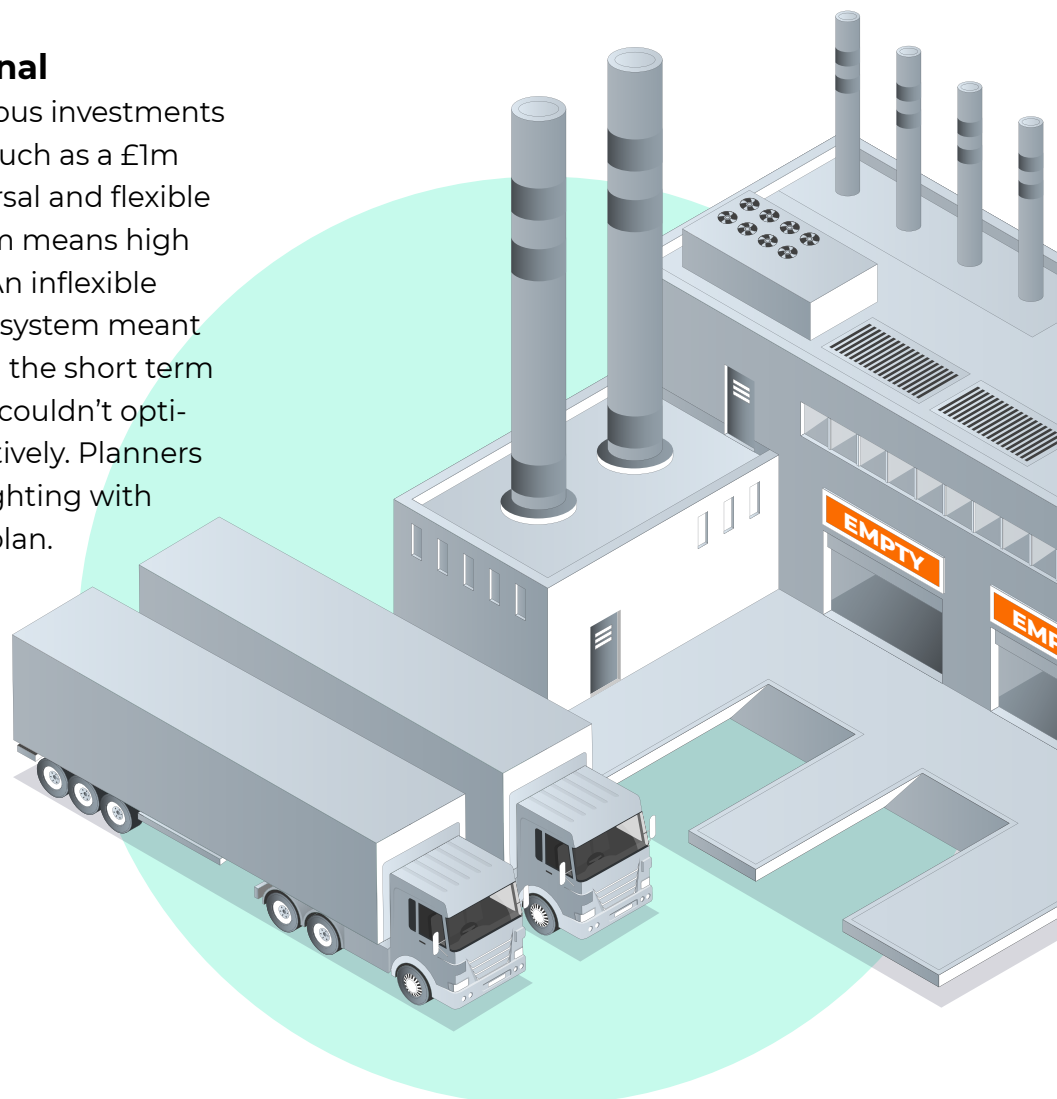
Challenges

The customer's route to agility and lean excellence is characterized by several imperatives to be respected, and hurdles to be overcome:

1 Format diversity: Consider this. 22 bottle variants, 5 bag-in-a-box and pouch variants, and 3 can variants across size, shape, volume, material and colour, totalling over a thousand variants. With seemingly endless variety in handles and print embellishments creating more than a million different combinations of changeovers. Not to mention the 5 pack-sizes, and bespoke bottles to enable a customer's brand and product to stand apart from the competition. This is difficult, if not impossible, to manually plan efficiently using Excel spreadsheets.

2 Need for operational efficiency: Continuous investments in large CapEx items such as a £1m investment in a universal and flexible bottle handling system means high expectation for OEE. An inflexible Excel-based planning system meant excess changeovers in the short term horizon because they couldn't optimise sequences effectively. Planners were constantly firefighting with little time to actually plan.

3 Need to evaluate scenarios and trade-offs quickly: Significant decisions such as which products to produce in which site, how much labour to plan for or the volume of bottles to obtain all required a more effective S&OP process. This, in turn, required a more accurate capacity and labour model and the ability to plan for multiple business conditions and situations. Existing Excel spreadsheets were incapable of providing the flexibility and agility planners needed.



Solution

It was time to equip planners with a planning solution that was as state-of-the-art as the manufacturing lines.

Planners needed a solution that could find hidden capacity, optimise production sequences, run multiple scenarios and evaluate trade-offs quickly. The customer picked Replan due to its ability to plan using complex changeover constraints in the tactical planning horizon, configure planning objectives and run multiple scenarios quickly.

Replan models the complex realities and planning situations of F&B production facilities: individual pieces of equipment and their capacities, multi-level production processes, detailed changeover rules,

allergens and segregation rules, positive release requirements, demand satisfaction rules, inventory policies and more.

Intelligent algorithms can be configured to optimise business objectives around demand, inventory and capacity. Numerous scenarios across the entire planning horizon - from near-term planning to long-term strategy - can be run, analysed and compared to gain insights into the business.

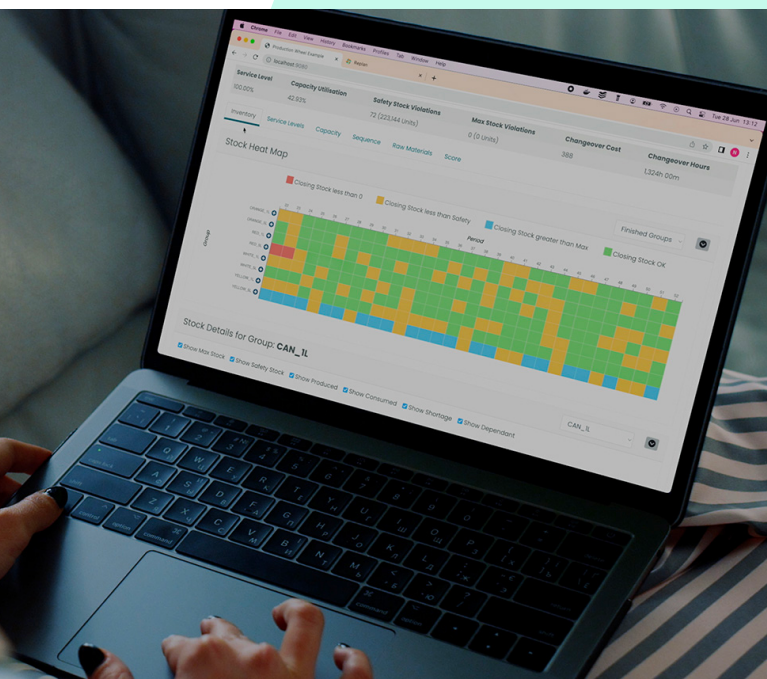
Replan's solution connects to the resident ERP, and feeds the S&OP process.

Process

Replan deployed its solution across the customer's 3 most complex, high-volume bottling lines and demonstrated results within 8 weeks.

Executed using Replan's standard deployment methodology and requiring only 1 FTE day per week from the customer, the process included such key tasks as:

- Review of current SAP APO inputs and planning process.
- Establish baseline metrics for Service, Capacity and Inventory (SCI).
- For numerous planning cycles, run and analyse two key scenarios:
 - Prioritise service, to mimic the intent to the existing planning and scheduling process.
 - Balance objectives of service, cost and inventory, to reflect the art of the possible.
 - Identify and quantify trade-offs to enable greater throughput.
- Educate end-users and decision makers.



Results

The project team demonstrated the power of Replan's intelligent algorithms and fast, repeatable scenario planning.

- **5% increase** in throughput per week, with just 2% preproduction
- **Improved batching** opportunities through more accurate capacity planning for the 5–12 week time horizon
- Production planning time cut from **3 days** to **30 minutes**
- **Improved production plan** stability resulting in more reliable procurement and logistics plans
- **Improved** S&OP

All told, the customer now sees a path to adding **£2m** annually to their margin



Want to learn more? Email us to speak with one of our planning experts.



replan.tech



hello@replan.tech

