

TRANSFORMING YOUR
CHEMICAL BUSINESS

BECOME MORE EFFECTIVE
WITH
BEAS MANUFACTURING



Supporting **Key Initiatives** for the **Chemicals** Industry

For many years the global chemicals industry has been facing declining margins, product commoditization, rapidly expanding competition in developing countries, and customers demanding more at lower prices. These trends are forcing the industry to undergo rapid change that will continue into the next decade. As such, chemical companies must adapt quickly to maintain a competitive edge, overcome challenges, and embrace new market opportunities.

One of the trends is rapid globalization, which is generating new market entrants from emerging countries and other areas of the industry with innovative business models, concepts, and processes. This progress is in turn shrinking lifecycles and the rapid commoditization of products.

Scarcity of raw materials and an increase in regulations are realities that chemical companies must factor into their strategic thinking. Amid a drive to reduce material, energy, resource consumption and waste, regulatory requirements are rapidly expanding their reach at global, regional, and local levels.

A critical part of the foundations of these innovations are digital platforms that allow the rapid development of

new products and services in a way that minimizes their impact on people and the environment. These platforms must also embed safety and compliance requirements in their lifecycles and monitor the impact of changes in regulatory requirements on products and services in real time, to enable chemical companies to respond accordingly.

All three of these trends converge to challenge the chemicals industry and influence the strategic decisions of leading global chemical producers. A company's inability to respond within an acceptable timeframe to the pace of change of external factors will begin to add risk exponentially.

At Boyum IT we understand your industry and the fact that selecting the right business solution and technology partner is key to your future success. Beas Manufacturing provides manufacturers with a scalable platform to enhance cross-company collaboration and process execution to improve operational performance, increase asset reliability, maintain quality enforcement, provide consumer traceability and enhance recipe agility.





COMPLETE INTEGRATED SOLUTION FOR SAP BUSINESS ONE

BEAS MANUFACTURING HAS OVER 16+ YEARS OF INDUSTRY EXPERIENCE

BUILT ON INDUSTRY BEST PRACTICE AND MARKET KNOWLEDGE

LARGEST MANUFACTURING CUSTOMER BASE OF 900+ CUSTOMERS WITH 100+ OF THEM IN CHEMICAL

BEAS MANUFACTURING RECEIVED 20 SAP BUSINESS ONE AWARDS

WORK WITH 620+ PARTNERS WORLDWIDE

SUPPORT OFFICES IN 9 GLOBAL LOCATIONS

WIDEST GEOGRAPHIC REACH OF 100+ COUNTRIES



Easily understand **product margins**

Compared with other industries, chemical companies are among the least confident in their pricing decisions and the least likely to raise prices regularly.

The complexity of recipes or formulas makes cost tracking a challenge for process manufacturers. Ideally, the cost of every ingredient should be tracked, based on the quantity used and its chemical characteristics (e.g. potency). Furthermore, the cost of wasted raw materials and ingredients also needs to be tracked as

accurately as possible. Without all of these details, process manufacturers cannot estimate their total actual costs per unit or compare this with the sales price to determine profit margins.

Beas is able to capture, assign and compare actual and standard costs for all finished products. The ability to capture true costs at batch level provides granular cost visibility, which is of paramount importance in the industry. This includes not only material costs, but labor, machine and overhead costs as well, and it covers

the additional need to include the cost of co-products, by-products and the impact of waste.

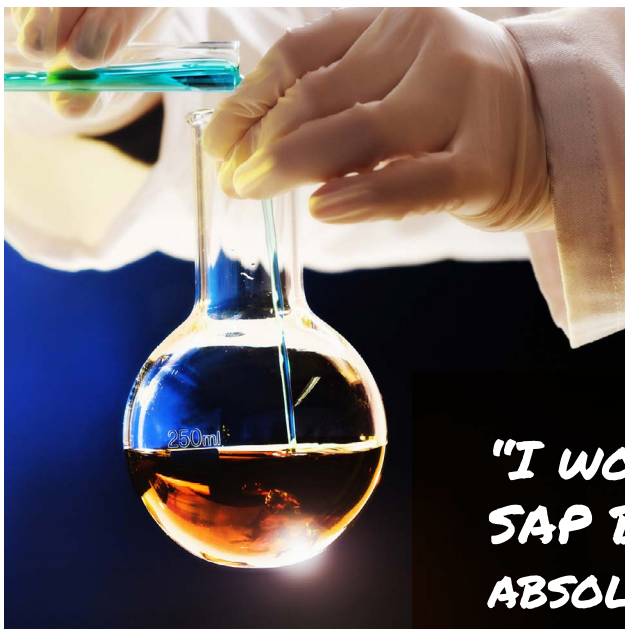
However, in order to achieve that, all that information must be integrated into one system, which is a challenge that most companies face.

Using the Beas Manufacturing Data Integration Hub, it's possible to automate the complex and time-consuming process of entering BOM data and calculating its accurate cost. With this integration in place, a process that would usually take your highest-paid engineering staff a week to complete only takes a few minutes, allowing them to focus on other things and adding real value to the business.

Optimize your production resources

Accurate monitoring of manufacturing to maximize throughput enables manufacturers to respond proactively to problems and reduce downtime in the plant. With increasing complexity of bills of material and multi-constraint production resources, such as machines and labor skills, your ability to provide accurate customer delivery dates is getting to be a complex task. In some cases, production staff record data on paper, creating a lack of production visibility, especially when trying to manually plan multiple resource types simultaneously.

These resources need to be optimized to maximize production output, and reduce changeover and cleanups, while meeting customer demand. With Beas Manufacturing capacity planning, initial delivery dates can be calculated via finite forward or backward scheduling, combining both material and production resources' availability for the effective planning of a large number of short-run production orders. Maintenance orders for corrective and preventive maintenance can be considered by the production scheduling functions to help you overcome planned or unplanned downtimes, by automatically moving production to the next available resources.



"I WOULD RECOMMEND USING SAP BI WITH BEAS WITH ABSOLUTE CERTAINTY. IT WILL BRING GAINS TO THE COMPANY THAT IMPLEMENTS IT"

SAP Business One

Flower Extract Corporation

Comprehensive formulation with co-products and wastage

Recipes and formulas in process manufacturing are not only complex - they also don't leave much room for error. A minor change in quantity of one ingredient can lead to quality management issues, or could compromise an entire batch. While defective production batches can be adjusted to improve their quality, this process can be very complex, since manufacturers need to consider all possible chemical reactions caused by adding ingredients that were not part of the original recipe.

Since the creation of perfect recipes or formulas is almost impossible in process manufacturing, there will always be a percentage of the final output that's comprised of waste. While it's very difficult to eliminate waste, process manufacturers can use ERP systems to calculate an estimated level of waste, track the actual waste and compare the two to improve efficiency in production operations.

As Chemical manufacturers, BOM change management should be approached as a strategic initiative, creating a systematic and automated approach to update BOMs, and effectively communicating the changes to all departments that require this information. With Beas Manufacturing revision management, you can effectively

manage several active BOMs at the same time for the same item, and administer its complete lifecycle through status and authorization controls for each revision. With powerful costing evaluation tools you can easily track the impact of the revisions over the item's cost and, if you need to perform a change impact analysis, our Project Management module will provide you with an assortment of functions. Revisions are integrated into all the documents that generate demands for the MRP, ensuring that the correct products will be available to meet customer demand.





Control your production as it happens

Real-time data access in production is vital whether it's related to products, processes, or machines operating in the factory. In the past, when production fell short of established goals, manufacturers traditionally added more machines and operators to the workforce. While this may temporarily address the problem by raising output to accomplish production goals, it also raises overhead costs by increasing capital expenses, utilities, facilities requirements, parts usage and more. This also increases the need for more supervisors and administrative personnel, adding to indirect labor costs.

Traditionally, real time information access for processes has not been available at shop floor level. In case of changes in processes or actions, workers or machines must wait until instructions are manually transferred or data is loaded in the production system. With Beas Shop Floor Data Collection, production operators can receive all required information to ensure that the right operations are performed and the right components and quantities are in the warehouse at the right time. It also provides tools for easy online data capturing using barcodes. Data can be collected from machines, automating the process of delivering information from the shop floor into SAP Business One, and increasing the speed at which you can obtain insights to enhance process control, optimize, and reduce overhead costs.

Reduce the time required to meet Industry Quality Standards

Quality management is critical for process manufacturers needing to comply with a plethora of laws and regulations, which can vary depending on where the products are made and sold.

Poor product quality can lead to health hazards such as bacterial contamination, or environmental issues such as pollution caused by dangerous chemicals. Apart from the impact on the company's revenue and fines that may be incurred, these issues also impact the manufacturer's brand. It usually takes years and a lot of effort for companies to regain the trust of consumers, which is why manufacturers prefer to prevent these problems from happening in the first place.

Beas Manufacturing Quality Control allows enterprises to define what, when and how products are tested, providing a full audit and electronic documentation trail of the quality control procedures and processes, thus increasing overall product quality and levels of traceability. Beas Manufacturing provides a complete backward and forward traceability tool, allowing you to view all the components employed in the manufacturing process of an item and its subassemblies, including their lots or serial numbers, and to easily get a list of all the items manufactured from a single component. This tool also displays the transactions linked to all items, lots, or serial numbers in the report, providing you with immediate information. For example: which supplier provided a specific material, which quality tests were done to it or which finished products were created from a particular lot of raw material, amongst other valuable information.



"... YOU HAVE THE PROCESS
IN YOUR HAND... WITH THAT
THE PROFITS ARE INCREASING
AND YOU ARE SURE YOU ARE
DOING A GOOD JOB WITH
MORE PEACE OF MIND AND
SPEED"

Flower Extract Corporation



Plan your production based on time and maintenance constraints

Maintenance in the manufacturing environment is one of the most complicated types of maintenance in comparison to construction, transportation and service business. When an unplanned downtime event occurs in a chemical plant during off-hours, labor costs increase because of overtime, expedited materials and equipment needed for repairs, and production loss for significant periods of time.

In the past, maintenance work was typically reactive. Schedules, usually established manually, lacked consideration for the capacity and availability of resources. As a result, these schedules were followed loosely, if at all. Now, scheduling assesses the availability of skills and parts and includes analytics for optimization.

From the maintenance management perspective, strong asset intelligence information provides an opportunity

to identify trends and shift maintenance activities from reactive, unplanned downtime events to proactive preventive maintenance. For example, looking at the collective work order history of a particular motor, it may become evident that the motor fails after 5,000 hours of use. With this data, Preventive Maintenance can be used to deliver scheduled work orders based on equipment usage.

With Beas Manufacturing, equipment maintenance is planned, parts can be made available, labor scheduled, and maintenance performed in a more efficient manner. Production downtime can also be avoided, meaning operations can potentially build product inventory levels in a way that customer shipments are still made, and production revenue losses do not occur.



Beas Manufacturing **scales** as your business **grows**

As your business grows and changes, you need a solution that can scale and adapt with you. Beas Manufacturing is modular in its design and offers flexibility in deployment, as modules can be purchased and activated during appropriate phases of implementation.

The key vehicle that transforms Beas Manufacturing for Chemicals into a successful business solution is our embracing of SAP AIM (Accelerated Implementation Methodology). We are working with more than 550 partners worldwide and provide them with global support from more than 9 global locations.

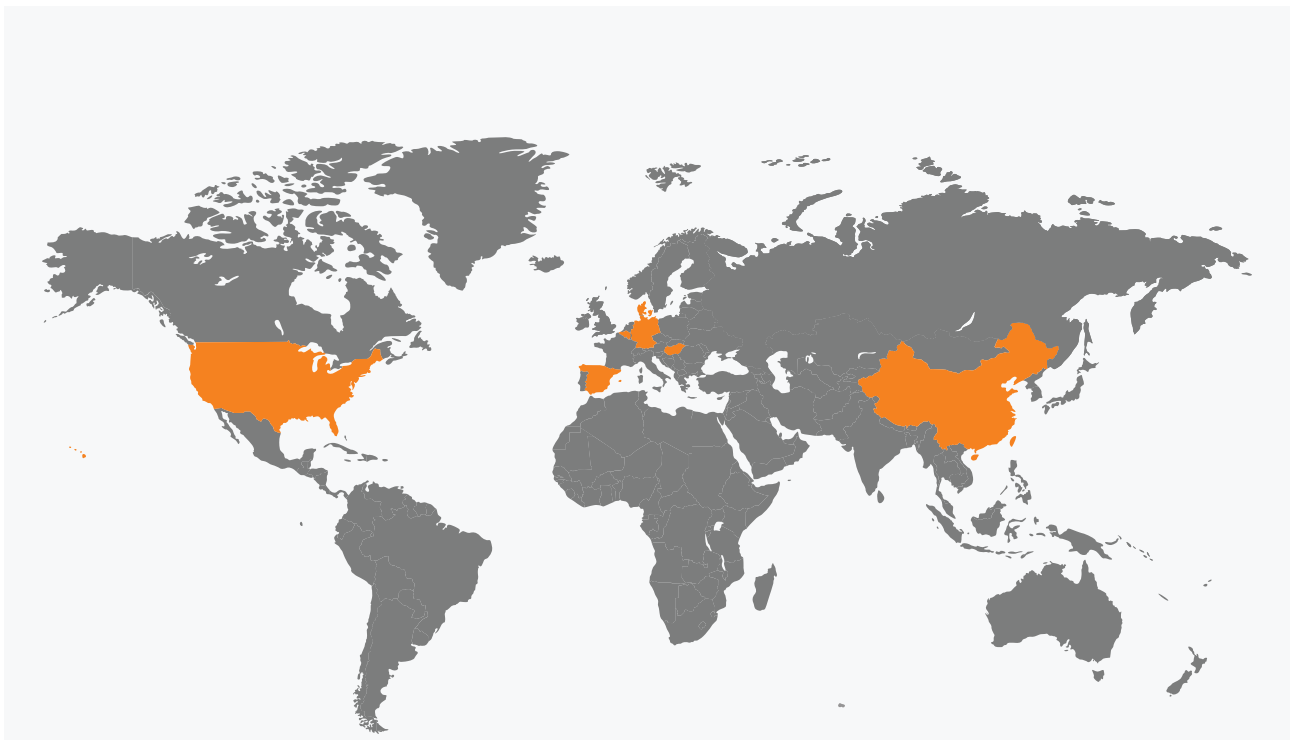
Our partners have access to our Beas Manufacturing specialists for any questions they have around project quality assurance or functional support, ensuring that you, the customer, are getting the best service.

We provide our partners and customers with onsite training workshops, eLearning courses and implementation tools, which are founded in over 16 years of manufacturing experience. Beas Manufacturing is a long-term investment and we provide a flexible solution which you can, at any point in time, extend and enhance as your business requirements change.



Boyum IT - Industry leading solution provider

Boyum IT is the largest and best-known global software solution partner for SAP Business One. We are a member of the SAP Partner Solution Council and have been honored to have received 20 SAP awards. Among these are the SAP Global Solution of the Year Award and People's Choice Award, which we received the last 3 years in a row. We have the largest partner and customer ecosystems, with a presence in more than 100 countries and over 7,000 customers and 160,000 users.



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