

Success story in the
life sciences industry
Reducing global lead
times to improve
customer experience at
Becton Dickinson




4flow collaborates with BD to reduce delivery lead times at a global scale

BD (Becton Dickinson and Company) is one of the largest global medical technology companies in the world and is advancing the world of health by improving medical discovery, diagnostics and the delivery of care. The company supports heroes on the frontlines of healthcare by developing innovative technology, services and solutions that help advance both clinical therapy for patients and clinical processes for healthcare providers. BD has a presence in virtually every country and partners with organizations around the world to address some of the most challenging global health issues.

The BD Biosciences business unit manufactures and markets reagent products, which are sold worldwide for both clinical and research applications. Product lead time is crucial in the life sciences industry and represents a key consideration for customers' purchasing decisions. For this reason, BD Biosciences aimed to optimize its global supply and distribution network to reduce delivery lead time to customers and optimize its global inventory. The scope of the project included BD Bioscience's distribution network in the Americas, Europe, and Asia-Pacific regions and was carried out by an international team comprised of both BD and 4flow.

Global availability with optimized safety stock

Clinical and research reagents with 30,000+ stock-keeping units and hard-to-predict demand patterns with a long tail are very challenging to distribute across a global network. Product- and customer-specific shelf-life requirements, batch consistency and temperature requirements prevent leveraging economies of scale that are normally applied in other industries.



As a first step, 4flow supported BD Biosciences with network design. In this phase of the project, the optimal network setup was evaluated considering the trade-offs between lead time, inventory and costs. The centralized BD Biosciences production footprint and worldwide distribution with a multi-stage distribution warehouse structure was simulated with 4flow's network simulation tools to determine the target setup regarding product flow, frequency and inventory level.

By applying different allocation scenarios and changing the transportation service level, the project team found that doubling the frequency of global replenishments into the regional DCs would improve regional product availability without any cost increase.

Reducing lead time and increasing service level

In addition to the instant availability of materials at regional DCs, another lever for improved lead time is a short turnaround time for processing customer orders. Together with BD Biosciences, 4flow defined several measures to increase operational excellence. For example, these levers included optimized systemic order processing, improved cut-off times and a change in transportation modes. These measures, implemented by BD Biosciences within less than a year, impacted processes, systems and the organization. As a result, the lead times in the core markets of the US and Europe were reduced by 30% to 50%. In the overseas markets, lead time decreased by as much as 60%. The improved service level helped BD Biosciences differentiate itself from the competition and increase its market share in the reagent segment.

What we valued most when collaborating with 4flow were the detailed data insights that ensured the information was accurate. Using such insights, we were able to create realistic targets through each phase of the project.

Erin Templeton
Senior Program Manager, Business Process Excellence, BD Biosciences

Customer

- > BD
- > A leading multinational medical technology business
- > Headquartered in New Jersey, USA
- > Three business segments: BD Medical, BD Biosciences, BD Interventional
- > More than 70,000 employees

Project scope

- > 4flow worked with BD Biosciences to reduce delivery times and increase customer service level for the reagent business

Results

- > Reduced global distribution lead times between 30% and 60%
- > Increased agility to prioritize urgent and ad-hoc customer requests
- > Increased global stock availability with reduced safety stock
- > Enablement of same- and next-day delivery

1200+

team members
globally

200+

projects annually
around the world

300+

customers globally

20

offices in North America,
South America, Europe
and Asia

100%

management-owned

2000

year of foundation



North America

Atlanta, Detroit

South America

Campinas, São Paulo

Germany

Berlin, Düsseldorf,
Frankfurt, Hamburg,
Munich, Stuttgart

Europe

Antwerp, Budapest,
Paris, Pilsen, Saragossa,
Vienna

Asia

Beijing, Changzhou,
Hong Kong, Shanghai

About 4flow

4flow provides supply chain consulting, software and managed services that transform and optimize networks from end to end. We help businesses become more agile, digitized, profitable and prepared for the future with services for digital transformation, supply chain planning, network design and transportation optimization. Operating worldwide, 4flow has more than 1200 team members with offices located in North America, Europe, South America and Asia.

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