

Cutting Through Complexity in the Global Healthcare Supply Chain

Predictive analytics drive productivity and create end-to-end visibility



Table of contents

Global health security demands resilient supply chains	3
Ensure availability of critical drugs and devices	4
Drive predictable and cost-effective operations	5
CUSTOMER STORY Henkel	6
Enable collaboration and communication with stakeholders and customers	7
CUSTOMER STORY Intellipharm	8
Gain end-to-end visibility and plan ahead with predictive analytics	9
CUSTOMER STORY Flex	10
Cut through complexity to create resilience	11
Next steps with Tableau	12



Global health security demands resilient supply chains

While most industries focus on finding efficiencies to make their supply chains as lean as possible, the unique demands of healthcare mandate that efficiency be balanced with resilience.

Because the ramifications are life-impacting—people’s well-being depends on access to critical medications, vaccines, and medical devices—healthcare operations simply can’t afford interruptions due to changing conditions. Driving the resilience you need to maintain healthcare continuity hinges on informed scenario planning and supply chain evolution.

Reevaluating operations

Countries around the world are looking at the origins and dependencies of active pharmaceutical ingredients (APIs) to evaluate risks and ensure access to critical drugs and devices. Since 2000, the global market share of API drug master files (DMFs) manufactured in China and India has more than tripled, while manufacturing in Europe and the United States has slowed dramatically.*

Adding macro factors to this mix like regionalization and labor shortages, coupled with shifts toward large molecules and biologics, creates pressure on companies to reevaluate their operations.

Although globalization has created supply chain complexities, investment in digitization opened exciting opportunities for forward-thinking companies. Today, organizations that have ramped up their analytics are realizing a clear competitive advantage through their ability to maintain continuity of patient care, despite chronic disruptions.

In a 2022 survey, life-sciences and medical-device companies detailed how analytics have impacted key metrics:



Cost reduction

“The descriptive platform is enough for us and has also been effective in avoiding unnecessary costs by 25%.”



Productivity

“Total productivity of the supply chain has moved up by nearly 40% since.”



Output accuracy

“Our speed of analyzing data is up by almost 10% and output accuracy has moved up by nearly 40%.”



Turn-around time (TAT)

“Committing to the use of predictive analytics has made things easier for us. The TAT for the planning team has been reduced by 50%.”**

Healthcare companies that harness the power of Tableau to analyze and visualize their data gain the insights they need to build resilience and security into their supply chains.

*USP Quality Matters, Geographic concentration of pharmaceutical manufacturing: USP Medicine Supply Map analysis, May 18, 2022

**Tableau, 2022 Survey Findings: Pharma & MedTech Supply Chain Analytics



Ensure availability of critical drugs and devices

COVID brought severe fluctuations in the supply and demand of essential medicines and medical devices—and while the pandemic appears to be abating, these disruptions have not gone away. Here's where Tableau's analytics and artificial intelligence (AI) capabilities give you an edge that translates to better continuity and prescriptive delivery of care for your patients.

Leveraging historic data and predictive analytics, you can foresee potential disruptions due to factors like poor coverage shortages, among others. Preempting such disruptions allows for a proactive rather than reactive shift in strategy.

Tableau helps with:



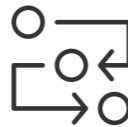
Logistics planning

Identify primary and secondary choke points and diversify suppliers as necessary.



Sourcing strategy

Explore reshoring, nearshoring, and friendshoring as solutions to mitigate supply chain and sourcing risks.



Scenario planning

Model different scenarios to design the optimal change management plan.



Analytics

Minimize the impact to fulfillment requirements, exit strategies, and timing of government incentives.



Care delivery modeling

Improve sourcing-to-delivery cycle times using real-time analytics to model the end-to-end supply chain.

450%

Companies that embedded analytics in their operations experienced 450% improvement in their order-to-delivery cycle times.*

*Tableau, 2022 Survey Findings: Pharma & MedTech Supply Chain Analytics



Drive predictable and cost-effective operations

They're top priorities for pharma operations: smooth-running plant operations and outputs that meet compliance and quality standards. Health safety relies on them. But how do you achieve optimal productivity and efficiency in a chronically unpredictable environment?

It starts with creating a single source of truth. Organizations often have the data but not the intelligence derived from connected data sources that results in end-to-end visibility of their supply chain. In a recent survey, 84% of organizations said they use internet-of-things (IoT) technology for visibility into their supply chain, but 76% of these admitted that analyzing big data is still a challenge.*

Tableau helps companies build resilience into their operations by gathering and integrating data for a single source of truth. When an input or variable changes in risk profile, Tableau illustrates the probable impact downstream and upstream so you can take steps to prepare for it.

*Tableau, 2022 Survey Findings: Pharma & MedTech Supply Chain Analytics



When integrating autonomous shop-floor programs, you need to consider a continuum that starts with looking at data retroactively and continues through real-time analytics and data from a predictive-modeling and AI standpoint.

Henkel saves millions annually with its award-winning digital supply chain

Henkel AG & Co. KGaA, commonly known as Henkel, is a German multinational chemical and consumer-goods company headquartered in Düsseldorf, Germany. Henkel is active in both the consumer and industrial sectors.



Business challenge

Data visibility and transparency are critical to Henkel's global operations. But the company lacked the sophisticated, comprehensive, and centralized analytics tool essential for its overall business success and agility.

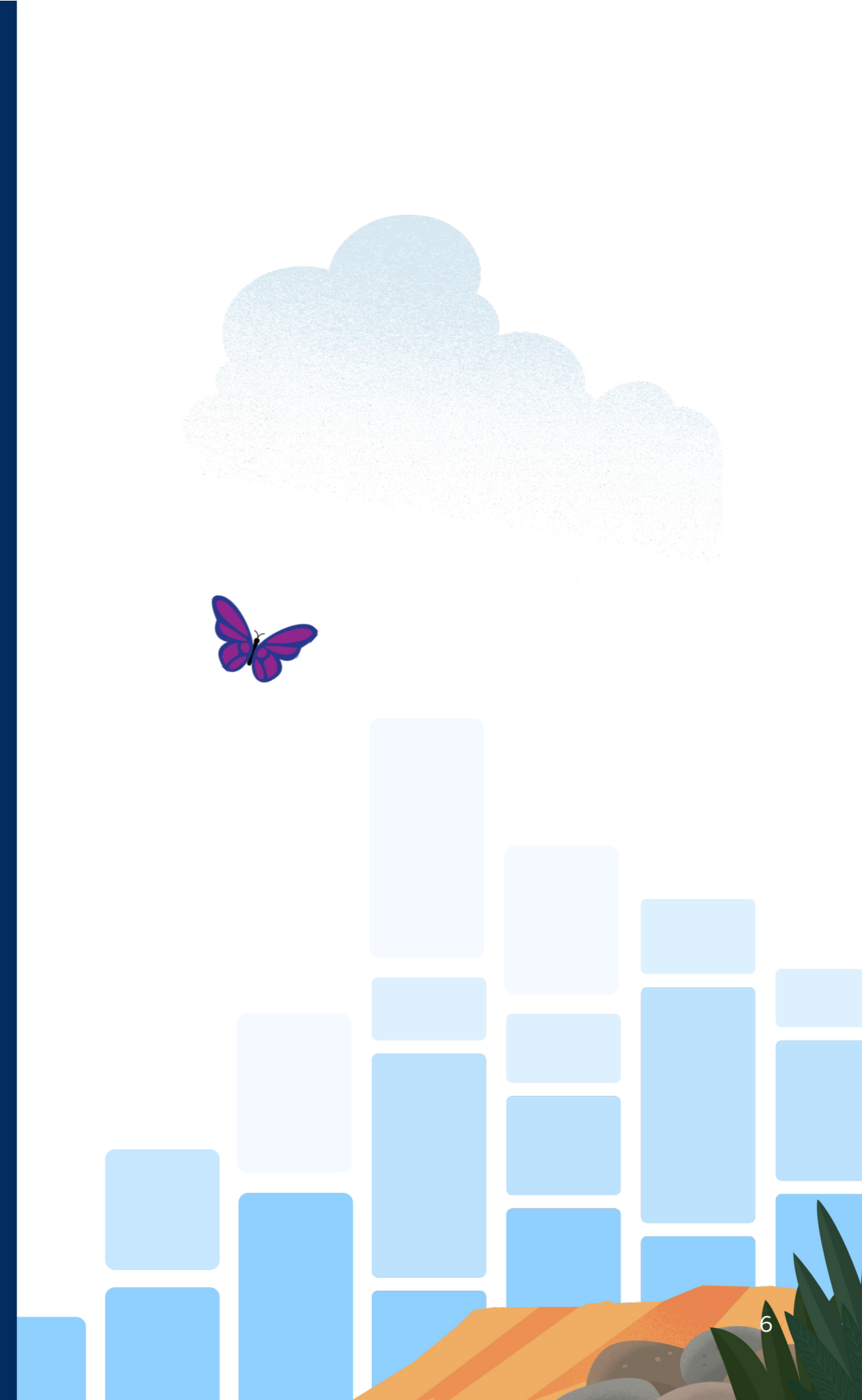
Tableau + Salesforce solution

Before adopting Tableau, Henkel centralized all its data in a single hub. But it was only after migrating to Tableau in 2016 that the company began to realize increased efficiency and was able to identify cost savings.

Results with Tableau

The solution enables all business units to automate accurate data sharing and reporting, saving Henkel €4 million per year in energy costs and cutting energy consumption by 20%. The company could monitor global stocks of PPE and operations throughout the COVID-19 pandemic.

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Enable the right kind of collaboration and communication with stakeholders and customers

Pharmaceutical and life-sciences rely heavily on outsourcing and specialty manufacturing facilities. When you factor in the global complexity of these operations, coordination with stakeholders to share information becomes both critical and exponentially more complicated.

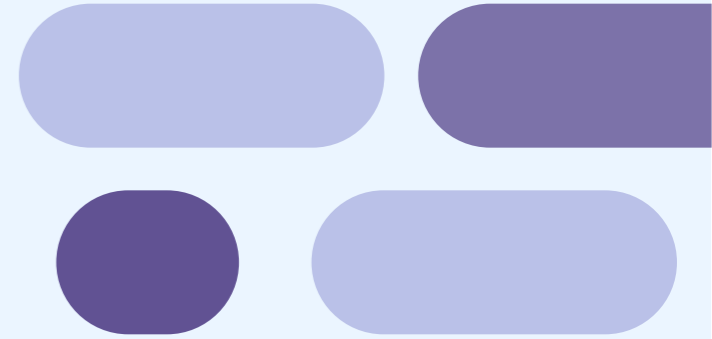
To help you navigate this environment, Tableau is ecosystem agnostic: Connect to your data wherever it is and bring analytics to your users' everyday workflow. Give your organization actionable analytics with a single source of truth, from the shop floor to your stakeholders. The result? Seamless collaboration with your business partners to ensure everyone can anticipate disruptions, quickly formulate action plans, and maintain continuity of operations.

Progressive companies are leading a trend in this direction: In 2022, Salesforce surveyed 100 supply chain and logistics leaders in pharmaceutical and medical devices. 42% said they are already sharing analytics and insights with end customers, vendors, and stakeholders to improve transparency and planning, and they want to do more of it. 25% said they aren't currently data sharing, but plan to begin over the next two years.*

*Tableau, 2022 Survey Findings: Pharma & MedTech Supply Chain Analytics

Pharma executives say supply chain risk is a significant reason for their companies' susceptibility to disruption. Nearly 50% cite sole sourcing of inputs as a critical vulnerability, and 25% point to lack of visibility into supplier risks.*

*McKinsey, Four ways pharma companies can make their supply chains more resilient, September 23, 2021



Intellipharm visualizes 2 billion rows of data from 4,000+ stores

Intellipharm has provided analytics and data services to retail pharmacies and manufacturers for more than a decade.



Business challenge

Intellipharm's clients capture large amounts of data daily but had to wait weeks to get the data analyzed. Web technology such as PHP wasn't a feasible option for enabling users to gather multiple data formats and find actionable insights. Intellipharm wanted to show its clients how every facet of their data could reveal the cause and effect of business operations.

Tableau + Salesforce solution

Using Tableau Server, Intellipharm embedded dashboards into its suite of web-based business-intelligence products. Leveraging the vast trove of data accessible to them, team members created a central platform and a self-service program.

The company now provides 30-40 data models to empower its customers to analyze and understand their businesses. Data sets can speak to other data sets to form new understandings, giving Intellipharm's clients a single source of truth.

Results with Tableau

In just two weeks Tableau was fully implemented and functional, with Intellipharm customers consuming their own data through Tableau-powered dashboards. Dashboards that used to take three weeks to create are now created in two to three days and delivered in easy-to-understand visualizations.



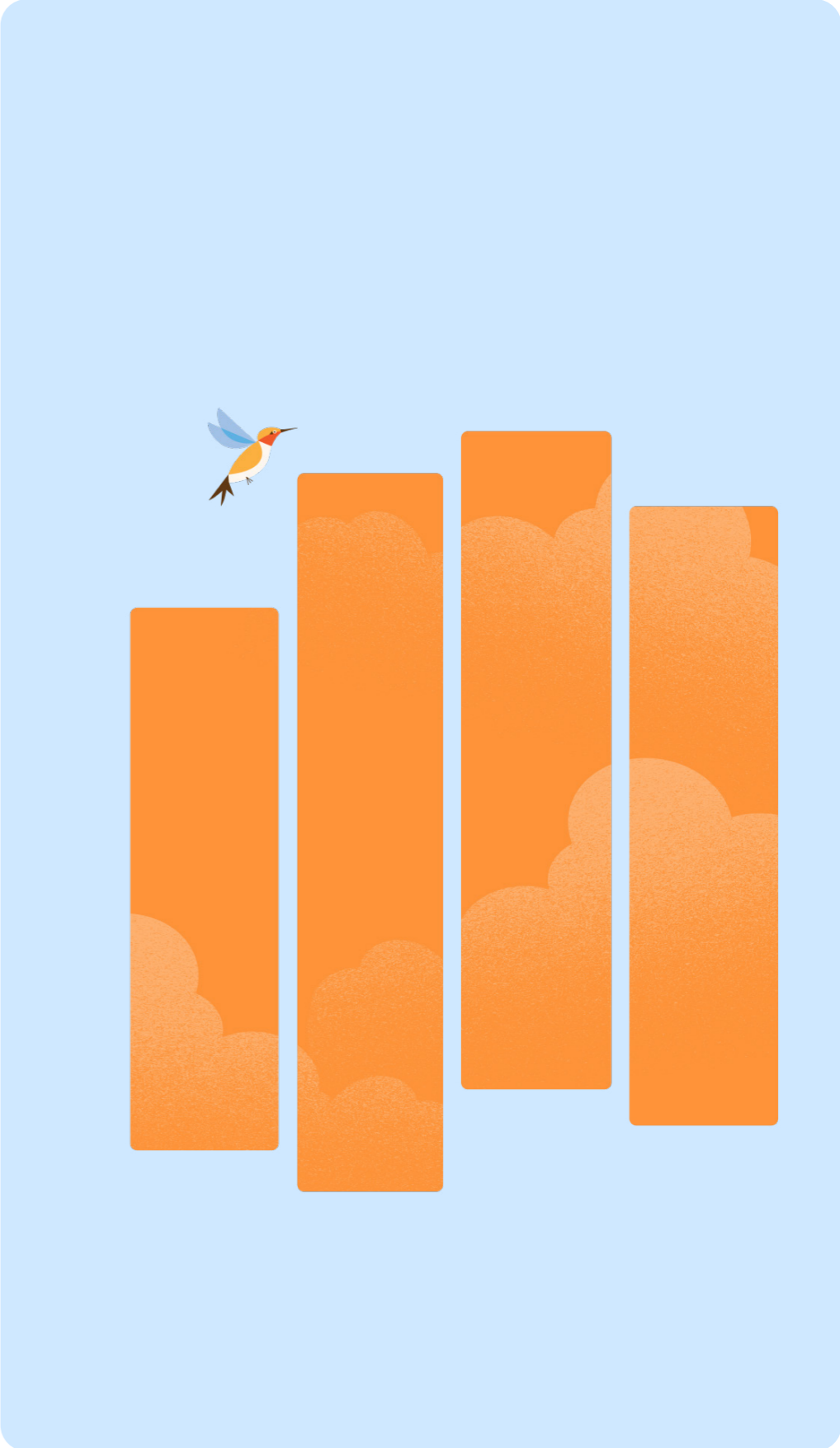
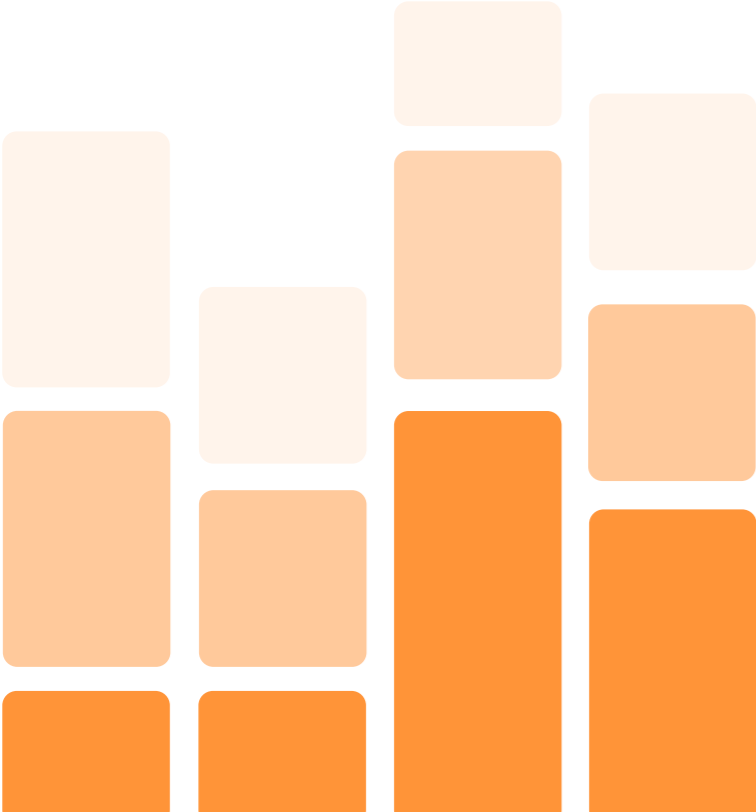
Gain end-to-end visibility and plan ahead with predictive analytics

The pandemic pushed proactive risk management to the top of nearly every corporate agenda, making supply chain visibility the most prioritized use case for analytics leaders in life sciences and medical devices. But you can't monitor what you can't see, and survey results showed that significant blind spots remain in most companies' risk-management setups.*

From logistics and sourcing through to the shop floor and customer delivery, Tableau brings all data sources together for end-to-end visibility of your supply chain—empowering you to identify risks and take appropriate action.

The solution transforms the complexity of today's global supply chains into a cohesive story to empower your business with real-time, actionable insights. And the story doesn't end with you—Tableau makes it easy to share insights with internal and external users alike. New efficiencies evolve into collaborative and autonomous supply chain capabilities.

*McKinsey, How COVID-19 is reshaping supply chains, November 23, 2021



Flex leverages Tableau to deliver insights that monitor supply chain health and performance

Flex is a global supply-chain and manufacturing solutions provider.

Business challenge

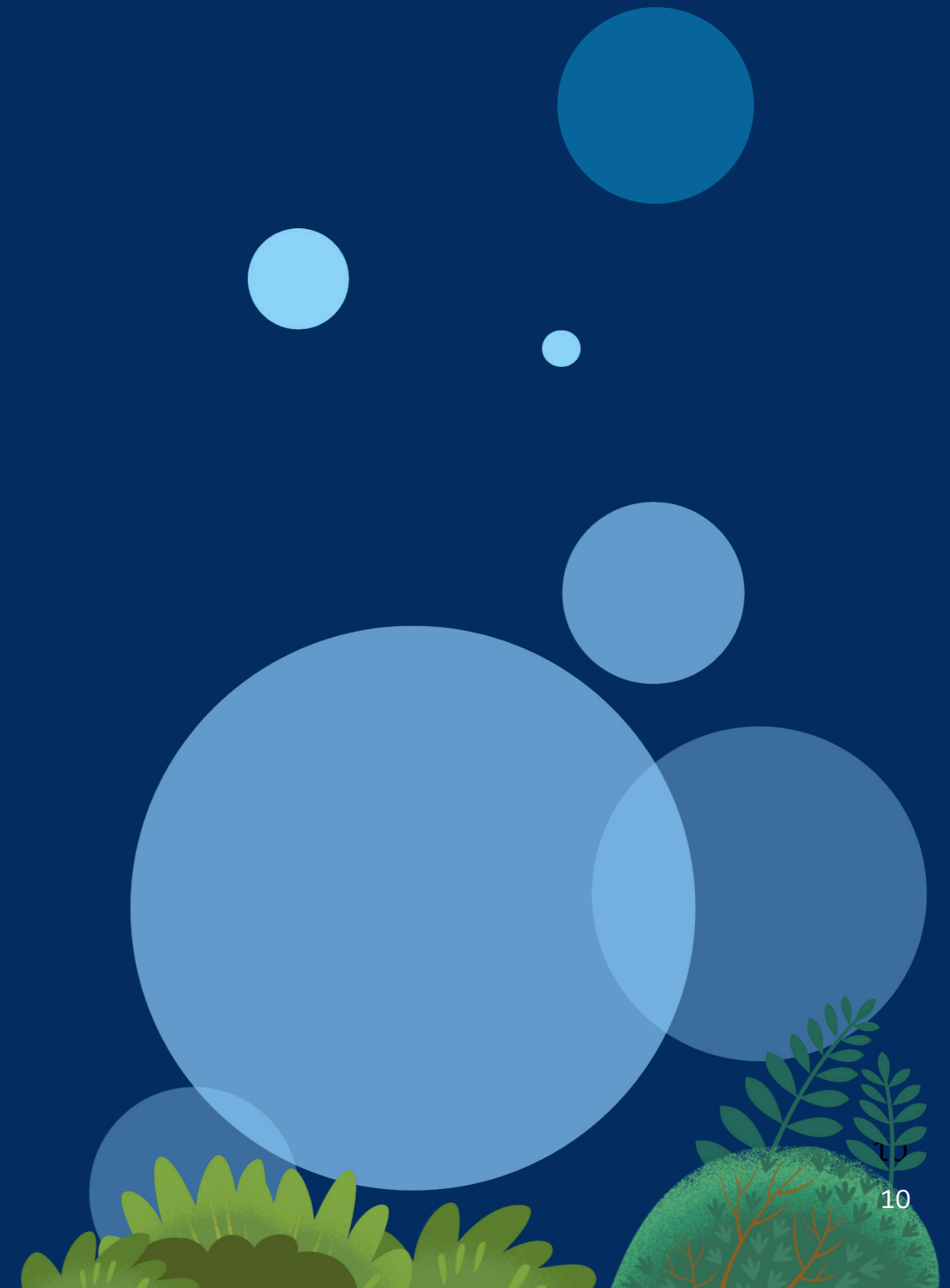
Supply chain data was highly fragmented and siloed; homegrown analytics could not provide effective visualizations. Flex lacked real-time insights into operational data and the ability to make data-driven decisions. The company needed a holistic view of information from its supply chain operational systems.

Tableau + Salesforce solution

Flex rolled out the Tableau supply chain analytics solution—first in the U.S. and then globally to production sites and employees. Tableau scalability and data-source variety, proven over a thousand customers and more than a thousand different supply chains, enabled Flex SMEs and end users to create their own analyses and visualizations. The result was focused collaboration around key Tableau-identified metrics, closing the loop.

Results with Tableau

The solution enabled Flex to reduce time to visualize and analyze supply chain operational data from seven days to less than five minutes. Within a short time, cutting back several days of inventory freed up \$200 million in working capital.

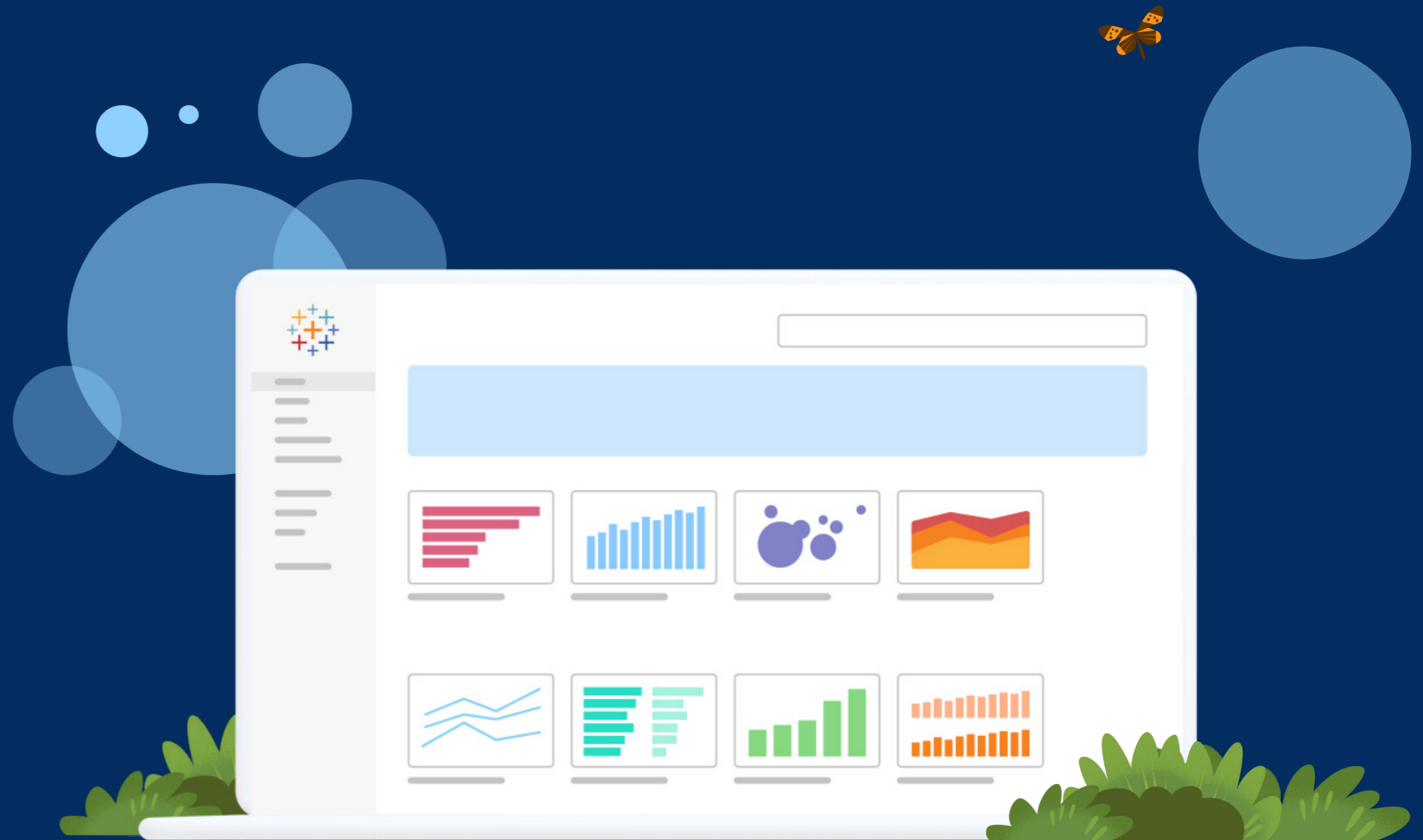


Cut through complexity to create resilience

No two supply chains are exactly alike. But because healthcare demands the resilience necessary to maintain continuity of patient care, it stands uniquely apart. Your HLS organization's data holds the key to unlocking that resilience through end-to-end visibility and predictive analytics—so you can provide patients with the medications, vaccines, and medical devices they need.

But if you think data analytics and visualizations are outside your swim lane, that they're only tools for analysts or pulling reports, think again. Tableau delivers a powerful, interactive, and approachable platform for users of all technical capabilities. Tableau empowers users to unify disparate data, track the entire manufacturing and distribution process, analyze risk, and identify opportunities for efficiency and quality improvements.

Business leaders, LOB personnel, and data teams can all leverage the simple-to-understand visualizations that lead to actionable insights and informed decisions. In an environment characterized by uncertainty, it's a win-win proposition.





DOTA



Next steps with Tableau



With Tableau’s powerful analytics platform, you’ll be able to equip your agency with the right tools and data to support caseworkers and deliver better care to citizens and communities.

Ready to learn more about how Tableau can help you make data-driven decisions and overcome some of your toughest challenges? Here are some resources to get you started:

Looking to learn more about HLS analytics?

[Explore Tableau solutions and customer stories](#)

Want to explore Tableau for yourself?

[Download a free trial](#)

Ready to jumpstart your analytics with best-in-class dashboards?

[Check out Tableau Accelerators](#)



Tableau helps people see and understand data. Tableau offers visual analytics with powerful AI, data management and collaboration. From individuals to organizations of all sizes, customers around the world love using Tableau's advanced analytics to fuel impactful, data-driven decisions.

Tableau also integrates with Salesforce Customer 360—a customer relationship management (CRM) platform that connects the business with a shared view of customer data—giving every department access to the most powerful, comprehensive, and intuitive analytics features embedded directly into workflows. By bringing your customer data to the center of your work, you can grow your relationships with your customers and employees.