

MODERNA'S MOONSHOT

INDUSTRY-FIRST CUSTOMER EXCELLENCE
POWERED BY CCT

A CASE STUDY



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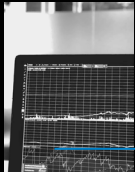
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EXECUTIVE SUMMARY



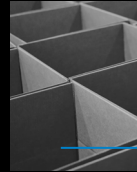
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LOOKING AHEAD

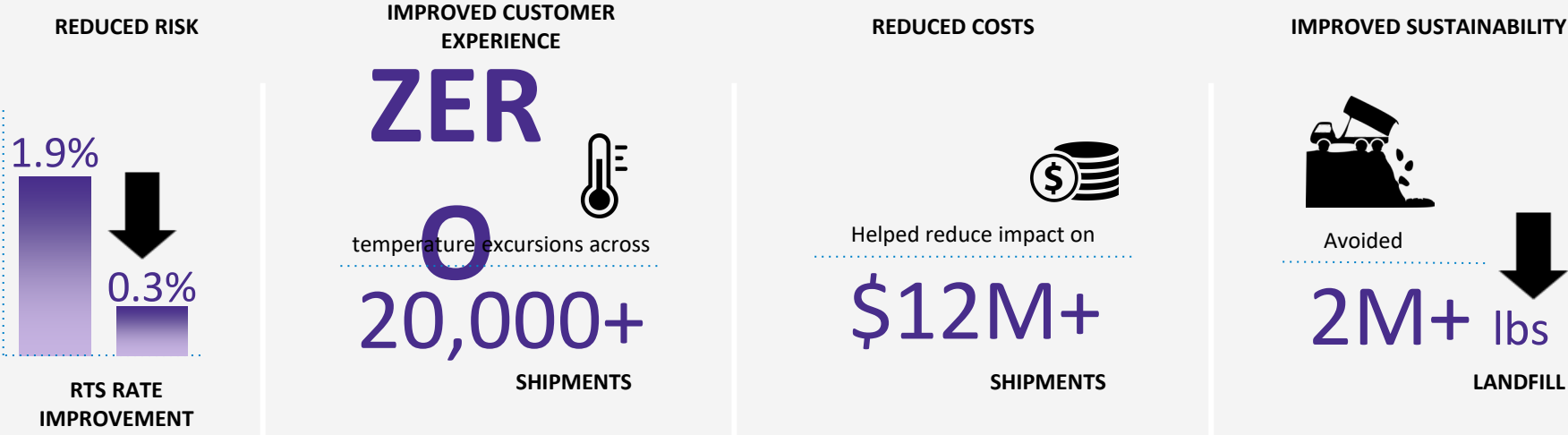
Efficiency, reliability, and exceptional customer experience

When Moderna needed to distribute millions of COVID-19 vaccine doses globally, they weren't just looking for a cold chain solution – they needed a partner obsessed with getting every detail right.

The stakes couldn't have been higher: each shipment represented thousands of potentially life-saving doses that required precise temperature control and real-time monitoring.

Moderna wasn't just looking for a cold chain solution – they needed a partner who would not only lower risks and improve costs, but do it in the most sustainable way, providing an industry-first, best-in-class customer experience.

The team that refused to lose a single dose



The need for an integrated cold chain solution

COMPREHENSIVE COLD CHAIN REQUIREMENTS

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Moderna required a fully integrated cold chain solution to ensure seamless management of their temperature-sensitive vaccine distribution.

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OPERATIONAL EFFICIENCY & COST OPTIMIZATION

.....

A 1.9% reship rate led to wasted doses, increased costs, and disrupted care, undermining the promise made to patients and healthcare providers.

.....

ENHANCED CUSTOMER EXPERIENCE

.....

A strong focus was placed on providing an excellent experience for pharmacies receiving shipments, ensuring reliability and satisfaction at the final touchpoint.

.....

A fully integrated cold chain ecosystem

Exceptional Customer Experience

Proactive system to reduce risks and drive exceptional customer experience.



Digital Innovation

Predictive analytics, real-time monitoring, and custom risk algorithms. Seamless connectivity and visibility.



Smart Physical Infrastructure

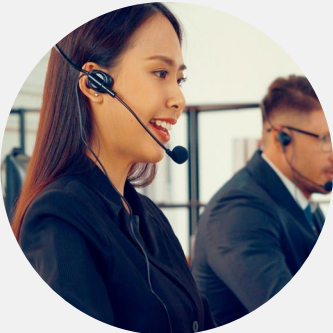
CCT EcoFlex™ reusable containers with integrated data loggers.



Commitment to customer experience

C.A.R.E. TEAM

Proactive system to reduce risks and drive exceptional customer experience.



REDEFINING CUSTOMER EXPERIENCE

The Customer Assurance & Resource Excellence (CARE) center was created to reduce risk and cost, and deliver exceptional customer experience.

It integrated non-permissioned user notifications to enhance transparency and trust, mirroring the consumer-like experience that customers expect but rarely receive in pharma logistics.

THE CCT CARE TEAM ADVANTAGE



Proactive issue resolution



24/7 monitoring & support



Data-driven assurance



Enhanced customer experience



Seamless integration with the Smart Solutions™ portal

Real-world data driving real-world outcomes

CCT SMART SOLUTIONS™

Predictive analytics, real-time monitoring, and custom risk algorithms. Seamless connectivity and visibility.

Laboratory	CCT Ship Date	Order Receive Date	Ship Date	Status
Logistics NA	10/Nov/2022	11/Nov/2022	11/Nov/2022	On Track
all Diagnostics NA	10/Nov/2022	11/Nov/2022	11/Nov/2022	On Track
all Diagnostics NA	10/Nov/2022	10/Nov/2022	10/Nov/2022	Completed
Small Diagnostics NA	09/Nov/2022	10/Nov/2022	10/Nov/2022	Completed
Small Diagnostics NA	14/Nov/2022	15/Nov/2022	15/Nov/2022	On Track
Small Diagnostics NA	14/Nov/2022	15/Nov/2022	15/Nov/2022	On Track
Small Diagnostics NA	14/Nov/2022	15/Nov/2022	15/Nov/2022	Completed
Small Diagnostics NA	14/Nov/2022	15/Nov/2022	15/Nov/2022	Completed
Small Diagnostics NA	14/Nov/2022	15/Nov/2022	15/Nov/2022	On Track
Small Diagnostics NA	14/Nov/2022	15/Nov/2022	15/Nov/2022	Completed
Small Diagnostics NA	14/Nov/2022	15/Nov/2022	15/Nov/2022	Completed
Small Diagnostics NA	14/Nov/2022	15/Nov/2022	15/Nov/2022	On Track

LEVERAGING CCT SMART SOLUTIONS™

CCT harnessed predictive analytics to proactively address delays, triggering accelerations or intercepts to mitigate risks.

CCT validated real-world longevity beyond lab testing, ensuring confidence in every delivery.

THE CCT SMART SOLUTIONS™ ADVANTAGE

- Real-Time visibility
- Predictive analytics & risk management
- Seamless customer communication
- Cost optimization
- Data driven insights for continuous improvement

Certainty in delivering patient outcomes

CCT ECOFLEX™ PACKAGING

CCT EcoFlex™ reusable containers with integrated data loggers.



REVOLUTIONIZING PACKAGING

CCT deployed its reusable EcoFlex containers featuring cellular-based data loggers for real-time tracking and predictive analytics.

CCT enabled full traceability from origin to destination, ensuring every shipment carried its promise intact.

THE CCT ECOFLEX™ ADVANTAGE

-  Unmatched temperature control
-  Real-Time tracking
-  Sustainability & reusability
-  Cost efficiency
-  Enhanced customer experience

Dedicated to the Nth degree

Unmatched Reliability

Reship rates plummeted from 1.9% to 0.3%, reflecting an uncompromising focus on precision and quality.

Elevated Customer Confidence

Real-time tracking and proactive notifications redefined Moderna's relationship with its partners, creating a seamless experience from distribution hubs to point-of-care facilities.

Tangible Cost Savings

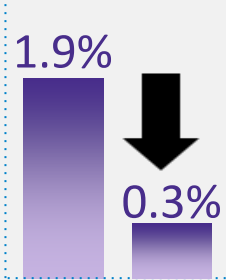
Logistics costs were slashed through smarter freight choices and advanced packaging. Further savings loom as ground and second-day air shipping are scaled.

Sustainability at Scale

Initiatives like lighter packaging and alternative shipping modes reduced carbon footprints, aligning with CCT's mission to protect both patients and the planet.

Measurable success across every metric

REDUCED RISK



RTS RATE
IMPROVEMENT

IMPROVED CUSTOMER EXPERIENCE

ZERO 

temperature excursions across

20,000+

SHIPMENTS

REDUCED COSTS



Helped reduce impact on

\$12M+

SHIPMENTS

IMPROVED SUSTAINABILITY



Avoided

2M+ lbs

LANDFILL

Every detail counts. Every shipment matters. Every dose delivered.

Protecting progress, driving purpose

Innovating Further

Integrating machine learning into our solutions for dynamic optimization



Enhancing Shipping

Transitioning select shipments to sea freight, a shift promising up to **80%** cost reductions and exponential environmental benefits.



Optimizing Every Link

Refining packaging configurations and shipping methods to strike the perfect balance between cost, safety, and sustainability.



Progressing Sustainability

CO₂ impact analysis to further sustainability goals.



Inspiring an Industry

As trailblazers in predictive logistics, CCT and Moderna set the standard for how life sciences organizations can align innovation with purpose.





Thank you



Learn more about how CCT can transform your supply chain at <https://www.coldchaintech.com/>