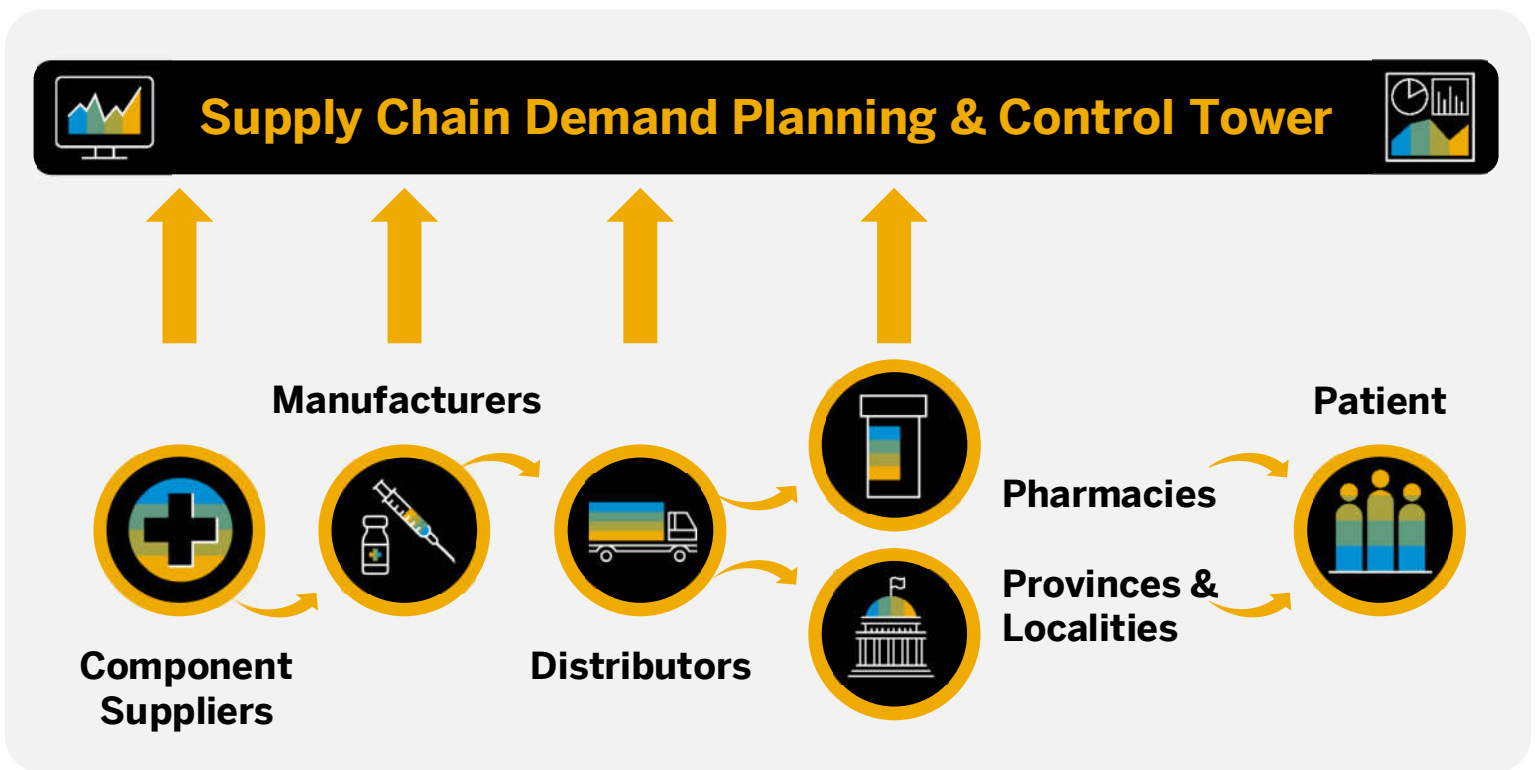# Solving the COVID-19 Pandemic Together
The Value of a Supply Chain Demand Planning & Control Tower

The COVID-19 vaccine distribution is a task that is unprecedented in size and urgency to deliver our nation from the worst pandemic of the last century. We believe that SAP can play an important role in providing a critical intelligence and logistics network to inform governmental policy and make data-driven decisions. The technology is ready; there is no time to waste.

Supply Chain Demand Planning & Control Tower

Component Suppliers → Manufacturers → Distributors → Pharmacies / Provinces & Localities → Patient

Operations Planning

Integrate financial and operational planning, break down planning silos, and align operational and strategic plans

Forecasting and Demand Management

Automate the statistical forecasting process and apply machine learning algorithms to predict demand

Inventory Planning and Optimization

Establish optimal inventory targets that enable you to maximize vaccine administration

Response and Supply Planning

Generate and compare multiple supply plan versions to select an optimal plan that meets demand efficiently & effectively

Demand-Driven Replenishment

Use strategic decoupling points and inventory buffers to control the flow of material through the supply chain

Supply Chain Monitoring

Gain end-to-end visibility of your supply chain to proactively address potential disruptions

Capabilities needed to successfully manage vaccine distribution	Expected challenges using siloed B2B connections	Capabilities a centralized Control Tower would provide
Visibility of end-to-end inventory & estimated delivery dates	Visibility not established with new participants in the supply chain. This would require manual intervention, unless automated.	Ability to visualize the supply chain network and quickly gain insights into inventory drivers
Ability to make informed reallocation decisions (allocation vs. need quantity comparison) to avoid hoarding	Manual (ppt/excel) – pulls from multiple systems & suppliers – would require sophisticated labor intensive data harmonization	Ability to run simulations of demand or supply changes for what-if analysis and scenario comparison for fast, informed decision-making
Plan for supply at the right locations for follow on doses based on initial dose	No ability for dependent demand calculations for secondary dosing supply planning	Ability to combine multiple demand signals with statistical forecasts and collaborate to ensure accurate demand plans
Ability to see exception alerts and supply chain interruptions (spoilage rates, misdeliveries, inbound deliveries greater than storage capacity, etc.)	Dependent on each silo in the supply chain to alert leadership. Unable to seamlessly assess downstream impacts of exception alerts	Predictive exception alerts; Actionable insights from across the supply chain to understand impacts and execute adjustments in a timely way
Predict re-allocation needs, re-plan funding allocations, and buffer against forecast errors	Connecting multiple, disparate data systems creates data latency concerns	Real-Time end-to-end supply chain visibility and machine-learning algorithms to understand and predict outcomes