

Telekinesis

move physical
objects at will



Challenge

Moving agri-food products is a complex and arduous process. Planners face a magnitude of variables when making decisions, including maximum driving times, carrier regulations and preferences, bridge height restrictions, perishability, inventory size, receiving schedules, and deadlines; the list goes on. The decision to send a truck has so many contributing factors that all too often there are missed opportunities to save costs. For most customers, empty space in trucks means lost

profits. Decisions are getting harder too, because there's a whole range of new criteria related to sustainability. Questions like "Which carrier has the lowest carbon footprint?" and "Which farm uses water methods that meet our ESG metrics?" Add in disruptions such as a sudden surge in demand, a packing machine failure, or a port closure, and it becomes even more difficult to optimize journeys. It takes a superpower like telekinesis to get things moving in the right – and most profitable – direction.





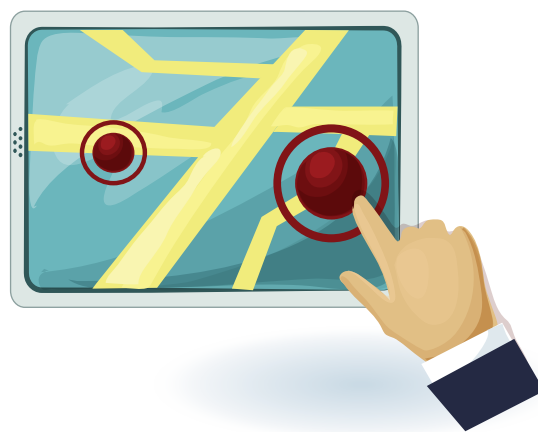
Typical Approach

Most supply chain planners rely on spreadsheets, tribal knowledge, and a Transport Management System (TMS) or ERP to make complicated decisions about logistics. The methods they use to track and collate changing customer requirements, product information, carrier requirements, and internal demands are often insufficient for the level of complexity.

A planner might have a spreadsheet for carrier lanes, one for pricing and another for customer delivery schedules, and this makes their job extremely time-consuming. To simplify the task, data is filtered or grouped into similar patterns, which makes planning a little easier but the end result can be significantly less efficient than the optimal solution.

Keeping track of all the moving parts, making decisions, and sharing plans with carriers and clients can waste valuable time that could be spent on negotiating lower rates or finding new carriers.

What's worse is that those organizations that spend several hours a day planning loads and journeys can still see trucks driving away nearly half-empty resulting in a massive 30% to 50% overspend.



SWARM Solution

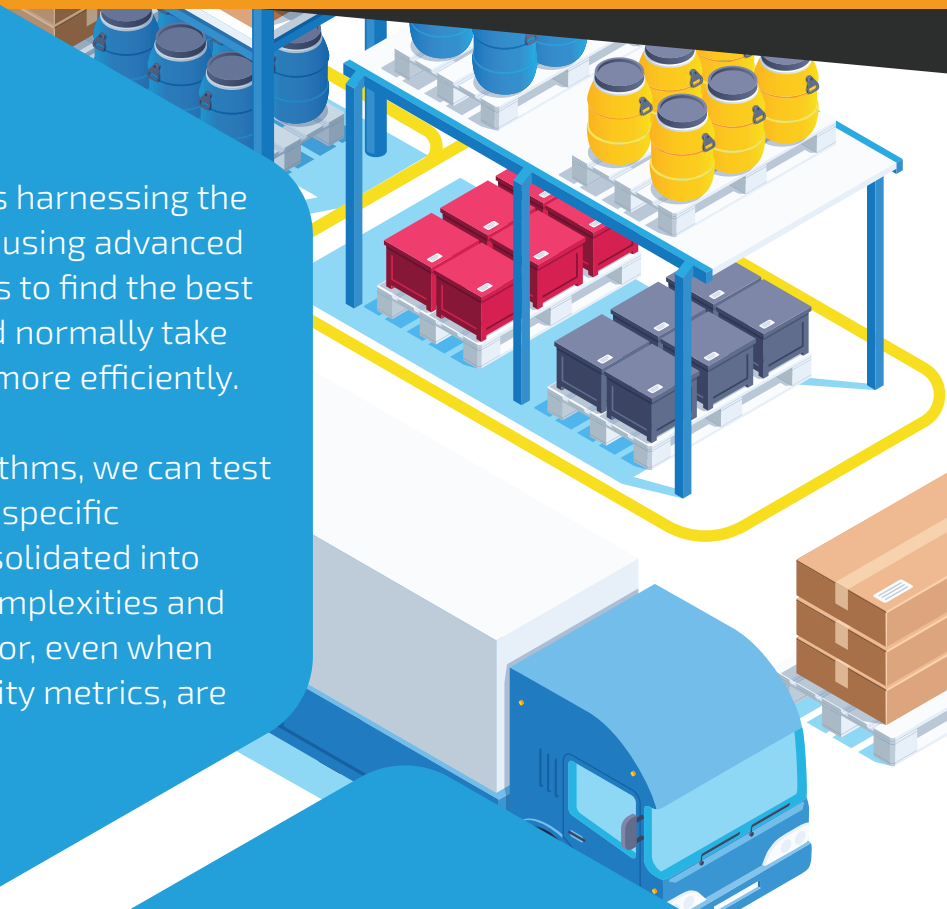
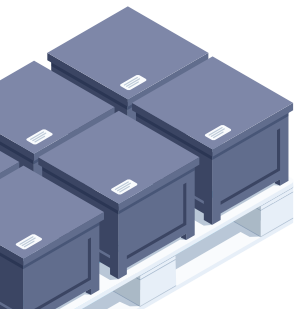


The key to optimizing logistics is harnessing the data from multiple sources and using advanced multi-vehicle routing algorithms to find the best options, so decisions that would normally take hours are made in seconds and more efficiently.

Using SWARM's library of algorithms, we can test the best model for a company's specific workload. Partial loads are consolidated into single trucks, while the extra complexities and constraints are still accounted for, even when new criteria such as sustainability metrics, are added into the mix.

Cost Savings

SWARM gives users the ideal load planning configuration based on all available data. Users can review the plans easily, make changes, accept or reject certain loads, and iterate through a sequence of orders until they have a plan they are delighted with. Trucks carry optimum loads, improving efficiency and productivity. SWARM can push information back into the TMS or electronically send to carriers, creating a constant flow of up-to-date information and keeps the business moving, even in times of disruption. Moving products becomes as easy as a thought – delivering telekinesis superpowers to logistics planners.



Which AI superpower do you need?

Precognition

see the future

Telekinesis

move physical objects at will

Mastery

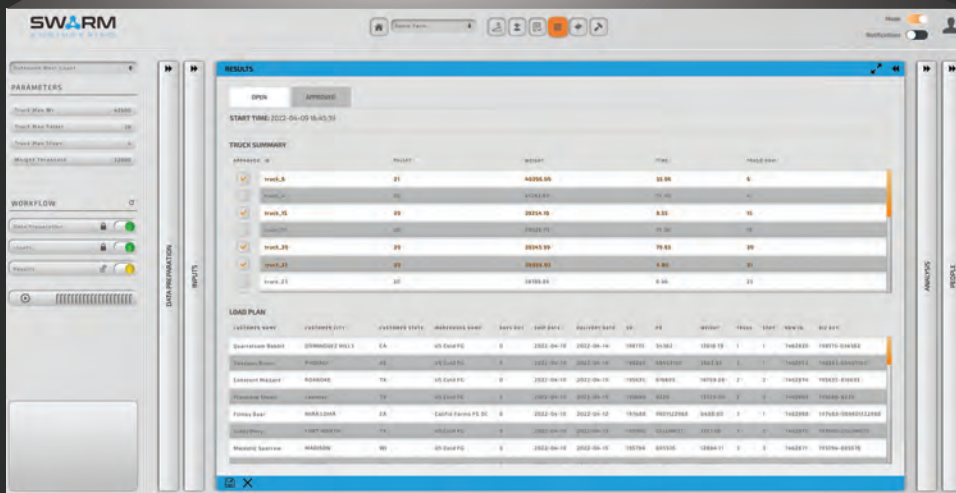
become an expert on a topic instantly

Telepathy

understand what others are thinking

Adaptability

cope with any disruption



With the SWARM Ops Dashboard, users can review and refine input data, set parameters like the maximum number of truck stops, or change key variables that feed the decision process. SWARM then automatically delivers a plan the user can subsequently adjust to their precise requirements before publishing for execution. The human and the AI work together to solve challenges.

See how SWARM can help your organization
swarm.engineering/start

SWARM is a solution engine for the agri-food supply chain that saves costs, reduces waste, and delivers environmental benefits. SWARM is structured around a curated market of algorithms for key supply chain processes. We provide an easy way for business users to define problems, and rapidly match them to advanced solutions without the users needing to do any software coding, or have any knowledge of advanced AI, or machine learning. SWARM is democratizing AI for the agri-food supply chain.

