



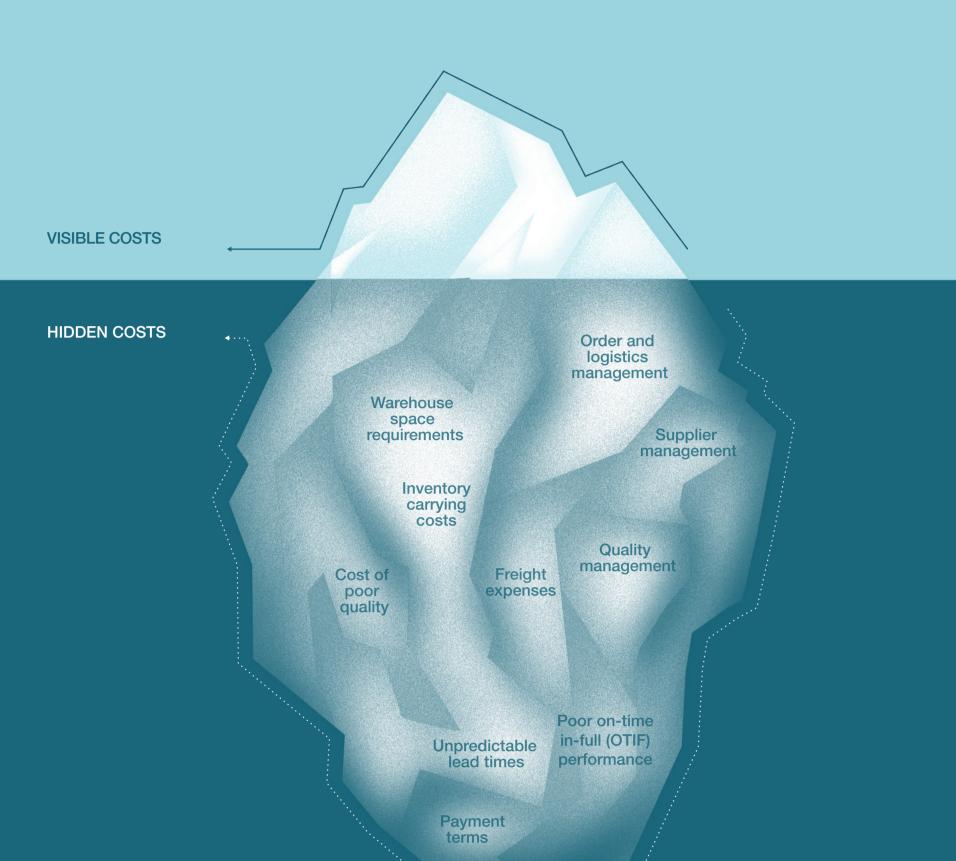
## Let's talk total cost of ownership

The fancy sports car came at a great price—but that was just the tip of the iceberg.

After revving the motor and driving off the dealer lot, the buyer discovered that hidden costs accumulate fast: maintenance, repairs, insurance, gas, hard-to-source parts, and so on. The cost of ownership slowly reveals itself, often exceeding the price paid at the point of sale.

It's no different with cGMP chemicals used in bioproduction. It's easy to assume the costs stop at the order sheet. But the total cost of ownership (TCO) of these key products can run significantly higher. Hidden, ancillary costs from seemingly simple supply chain decisions can end up impacting your ability to mitigate risk and operate efficiently.

Hidden costs add up quickly and include a wide range of items



Managing your supply chain and mitigating risk for materials used directly in bioproduction is complex

Many details must be considered for effective material management, including the TCO, which can be considerably higher than the actual product price. TCO has implications within the supply chain journey, from supplier management to quality assurance (QA)-released material for production and beyond.

# The risks of hidden costs:

### Non-compliant deliveries Production delays can cost anywhere from

\$150,000-\$530,000\* of lost daily revenue, require quarantining and replacing non-compliant products, and increase inventory carrying costs with unfavorable implications on warehouse capacity.

### Direct ordering requires managing multiple supplier relationships individually, and coordinating inbound material receipt and

validation logisitics.

Resource-intensive preproduction activities

#### production staff and overtime) are required to stock materials properly. If not managed well, this increase in resources could lead to health and

Material complexity and diversity

Increased resources (including non-

safety risks.

Large costs for raw material handling

safety stock.

Cash and assets tied up in warehouse space

and activities associated with safety stock can

add up. This includes quarantining products while testing and keeping excess QA-released



# \* Data supplied by Thermo Fisher Scientific. Estimated cost of production delay can vary based on manufacturer type (e.g., CDMO vs. innovator), and includes consideration for idle manufacturing assets, depressed supply of finished goods, potential penalties for missed supply deadlines, and potential revenue loss of finished product sales. Actual cost of production delay is customer- and site-specific.

Questions to consider

How do you currently measure your

TCO for cGMP chemicals?

What are your biggest TCO drivers?

What strategies do you have to

address drivers of TCO?

How has managing your cGMP

chemical supply chain impacted your core

manufacturing processes and costs?

Thermo Fisher Scientific helps customers

resolve oncoming challenges

"Our operational expenses and sampling costs were really taking a toll on our budget. Not only that, we were struggling with the responsiveness from our current suppliers on critical updates regarding supply availability and lead times. Thermo Scientific<sup>TM</sup> Production Chemicals and Services collaborated with us to understand our critical processes and assess areas that were resource-intensive, and worked with us to

develop strategies that improved our orde<mark>r man</mark>agement and resource planning, and to outsource raw

material sampling, which ultimately helped us avoid production delays."

Director of Operations | CDMO for pharma and biotech Specialty: Manufacturing liquid and lyophilized products

In biotherapeutics and vaccines, speed to clinic and market are of paramount importance

Collaborating with Thermo Scientific Production Chemicals and Services gives you more than 30 years of experience in delivering cGMP chemicals and direct material supply chain solutions. We can help you streamline processes, improve operational efficiencies, and reduce cost of ownership.

Find out how TCO impacts your supply chain activities at thermofisher.com/tco