Intricon
MICROMEDICAL TECHNOLOGY

The Evolution of Vertical Integration: Capabilities vs. Cost-Cutting

Trent Birkholz, Vice President, Product Development
Sam Puent, Product Development Engineering Manager

Vertical integration is an ongoing trend as medical OEMs shrink their approved vendor lists (AVLs) to consolidate and simplify supply chains. However, the very definition of vertical integration is evolving to address modern challenges.

The medical device industry is faced with unprecedented supply chain upheaval, rapid medtech innovation, and longer FDA approval processes in addition to rising costs in material, equipment, and labor —all against the burden of decreasing timelines.

Though there's no doubt vertical integration can help OEMs address cost pressures, the primary focus of vertical integration today is less about cost-cutting and more about capability-building, improving efficiency and quality, and accelerating time to market.

Expertise and Innovation

Vertically integrated partners add value via expertise, capacity, and quality. They don't necessarily need to house every part of the supply chain or own every aspect of production. Rather, they need to manage it, aligning the materials, expertise, and production to bring today's complex products to market. **A vertically integrated supplier has the right product, at the right place, at the right time to support OEMs.**

OEMs seek capable partners, but it's not enough to simply be vertically integrated. Vendors need expertise to solve critical problems.

For example, a leading medical manufacturer approached Intricon about an electromagnetic (EM) sensor for a novel surgical tracking device. Where some suppliers might simply produce the device exactly as represented, Intricon's engineers reviewed the mockups and identified inefficiencies that would drive up costs, delay production, and impact performance. In place of the original design, the Intricon team suggested a method of integrating the device with the sensor, and their expertise enabled the OEM to achieve greater reliability at lower cost.

Efficiency and Quality Control

A vertically integrated supplier has the capability to coordinate supply, subassembly, and assembly. In our surgical tracker example, the Intricon team also identified opportunities to improve molding and assembly processes with automation. By integrating advanced automation and visualization technologies, Intricon can achieve more reliable, efficient, and scalable production, all while maintaining high standards in safety and quality, as required in the medical device industry.

Again, expertise is critical. Instead of trying to get disparate vendors to construct devices piecemeal, a vertically integrated supplier can custom design components and processes for integration and compatibility.

When engaging a vertically integrated supplier, it's often best to start with the biggest problem or most complicated aspect of the device. Address that challenge or core technology first, then branch out to vertically integrate adjacent processes, components, and assemblies.

Even if everything isn't under one roof, a vertically integrated supplier coordinates all these moving parts to simulate a one-stop shop. They are ultimately responsible for production, resulting in greater overall efficiency and superior quality control.

Reduced Risk and Accelerated Time to Market

Choosing a vertically integrated supplier reduces risk and accelerates time to market, partly due to fewer processes as well as simplified shipping and receiving logistics.

In many cases, nearshoring can cut costs without jeopardizing quality. For example, Intricon's location in Costa Rica (opening in 2025), will grant our OEM partners access to low-cost manufacturing with processes developed by our in-house experts. OEMs can harness the expertise of stateside engineers yet minimize overall costs. Thus, even though modern vertical integration is more about building capabilities, a trickle-down effect is cost reduction.

When vertically integrated suppliers streamline and coordinate operations as described here, OEMs benefit by reducing risk and accelerating time to market.

The Value of Single Source Suppliers

A vertically integrated single source supplier can prove invaluable to OEMs. When evaluating suppliers, seek vendors who have proven and deep technical expertise for the components you need. Then, ask what else the vendor can offer, such as:

- Supply chain management
- Production coordination
- Design customization
- In-house automation
- Assembly
- Labeling, packaging, and sterilization

Evaluate their responses, then choose a vendor that:

- Seeks to support, not sell
- Identifies opportunities to improve efficiency and quality, not just cut costs
- Leverages win:win, long-term, creative partnerships
- Can manage the entire manufacturing process, from procurement to shipping packaged/finished devices

Remember, the true value of vertical integration lies in capability building. The more capable your supplier, the less you have to manage, and the more innovative you can be. Ultimately, vertical integration empowers medical OEMs to bring superior devices to market faster, more reliably and at lower costs.

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HEADQUARTERS
1265 Grey Fox Road
St. Paul, MN 55112
651-636-9770
info@intricon.com

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