



EXECUTIVE INSIGHTS

Contract Packaging Organisations: Navigating Growth and Differentiation

Key Takeaways

- **Market challenges:** Contract packaging organisations (CPOs) are facing increased pressure from biopharma customers to lower costs and enhance sustainability. Rising raw material and energy costs, coupled with global logistical disruptions due to geopolitical tensions, further complicate the market environment.
- **Differentiation:** Distinguishing their services from competitors' is crucial. CPOs aim to deliver excellence in core offerings while providing innovative solutions through integrated and adjacent services.
- **Growth strategies:** To thrive, CPOs are exploring three primary strategies; (1) optimising manufacturing of core products, (2) integrating services along the pharma manufacturing value chain, and (3) expanding offering into new adjacent services.
- **Strategic choices:** When venturing into new areas, CPOs must decide between buy & build and collaboration. This decision will significantly impact their future growth and differentiation. Balancing new opportunities without overextending is essential.

CPOs are under increasing pressure from biopharma customers to reduce costs, enhance the sustainability of their processes, and support Pharmacos in creating additional value for their products. To address these demands and differentiate their service offerings, CPOs have focused on three main growth avenues:

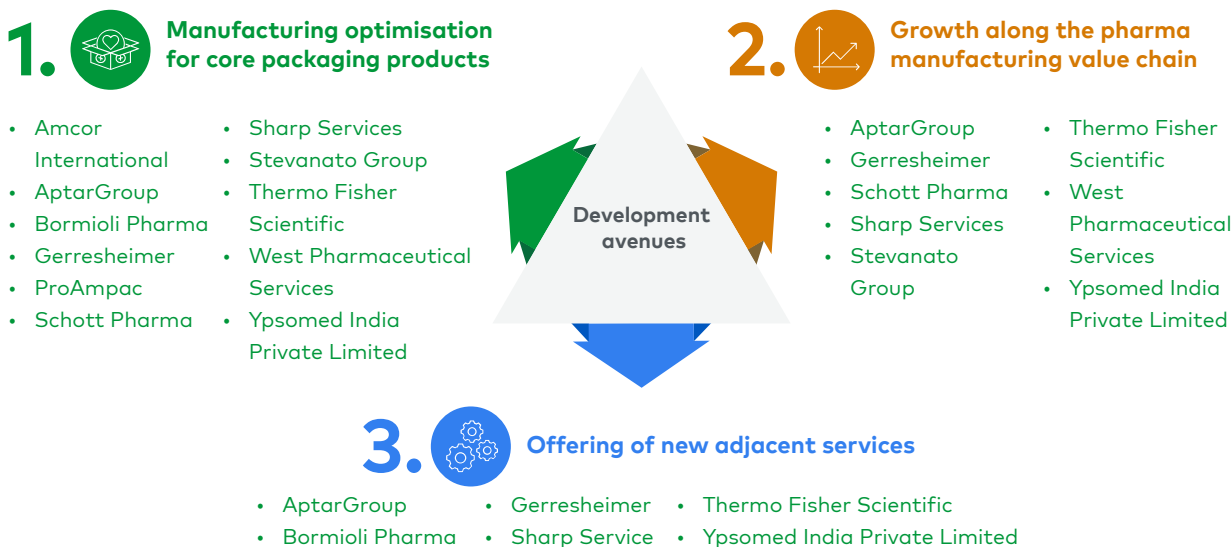
1. **Optimising manufacturing of core products.** CPOs are focusing on efficiency and sustainability in their primary services to reduce costs and meet client demands.

- 2. **Integrating services along the pharma manufacturing value chain.** Covering a broader set of services to consolidate buying points and interfaces along the value chain for the client.
- 3. **Expanding offerings into new adjacent services outside manufacturing.** CPOs are looking beyond traditional boundaries to find new opportunities for growth and differentiation.

In this *Executive Insights*, L.E.K. Consulting outlines the rationale supporting these growth avenues and reviews some of the key areas that major players have explored in recent years (See Figure 1). This research was recently presented as part of L.E.K.'s panel discussion at [PharmaPack 2024](#).

Figure 1

Pharma packaging players have recently explored three transformative growth avenues



Source: L.E.K. research and analysis

1. Optimising manufacturing of core products

CPOs are focusing on efficiency and sustainability in their primary services to reduce costs and meet client demands. They are implementing new product lines or adjusting current ones to better align with end customers' needs by addressing sustainability challenges. At the same time, they are reducing raw materials costs and increasing production scalability to maintain or improve margins. Specific initiatives include:

- **Monomaterial packaging:** Packaging composed of a single type of material can be more easily recycled, scaled from small lots to high volumes for fully automated packaging, and offers lower per-piece packaging costs.

- **Lighter packaging:** Although lighter packaging options tend to be less durable and offer lower resistance to physical and environmental stress (e.g., light, temperature), they deliver numerous benefits. Assuming the requirements for the specific applications can still be met with downgauged packaging, its benefits include lower raw materials costs, improved efficiency, reduced emissions, and minimised resource consumption and waste generation.
- **Small batch production:** This approach empowers CPOs to reduce changeover time, gain more flexibility, and thus optimise efficiency and profitability during production.
- **Recycle-ready packaging:** Packaging designed and produced to enable recycling, including separated collection and sorting, results in high-quality secondary raw materials. Note that European Union regulations require all packaging to be fully recyclable starting in 2038.
- **Self-administered drugs:** Containers allowing for drug self-administration—mostly single-use, subcutaneous (SC), spring-loaded, and prefilled syringes—are user-friendly and easy to handle, contributing to their rise in popularity.
- **Ready-to-use solutions:** Ready-to-use (RTU) solutions significantly reduce the time required for drug filling and packaging. They often support a range of container formats on a single production line, reducing labour costs and the need for cleanroom spaces.

With CPOs focusing on new product lines, most of these initiatives have had a relatively minor impact on overall volumes. However, the transition to self-administered drugs has been boosted in recent years in part by originators' attempts to differentiate their products before loss of exclusivity - for instance, by launching an SC formulation or auto-injector version of their blockbuster products. Future strong growth of GLP-1 agonists (e.g. Wegovy) will further increase biopharma demand for self-administered drug packaging.

2. Integrating services along the pharma manufacturing value chain

Some large CPO players have expanded their service offerings along the pharma manufacturing chain to provide a more comprehensive suite of services (see Figure 2). Providing primary packaging in combination with contract development and manufacturing organisation (CDMO) services is a common example, with most players focusing on fill-finish, other packaging solutions and/or project management services, looking for specific high-value niches to avoid margin dilution. This can involve:

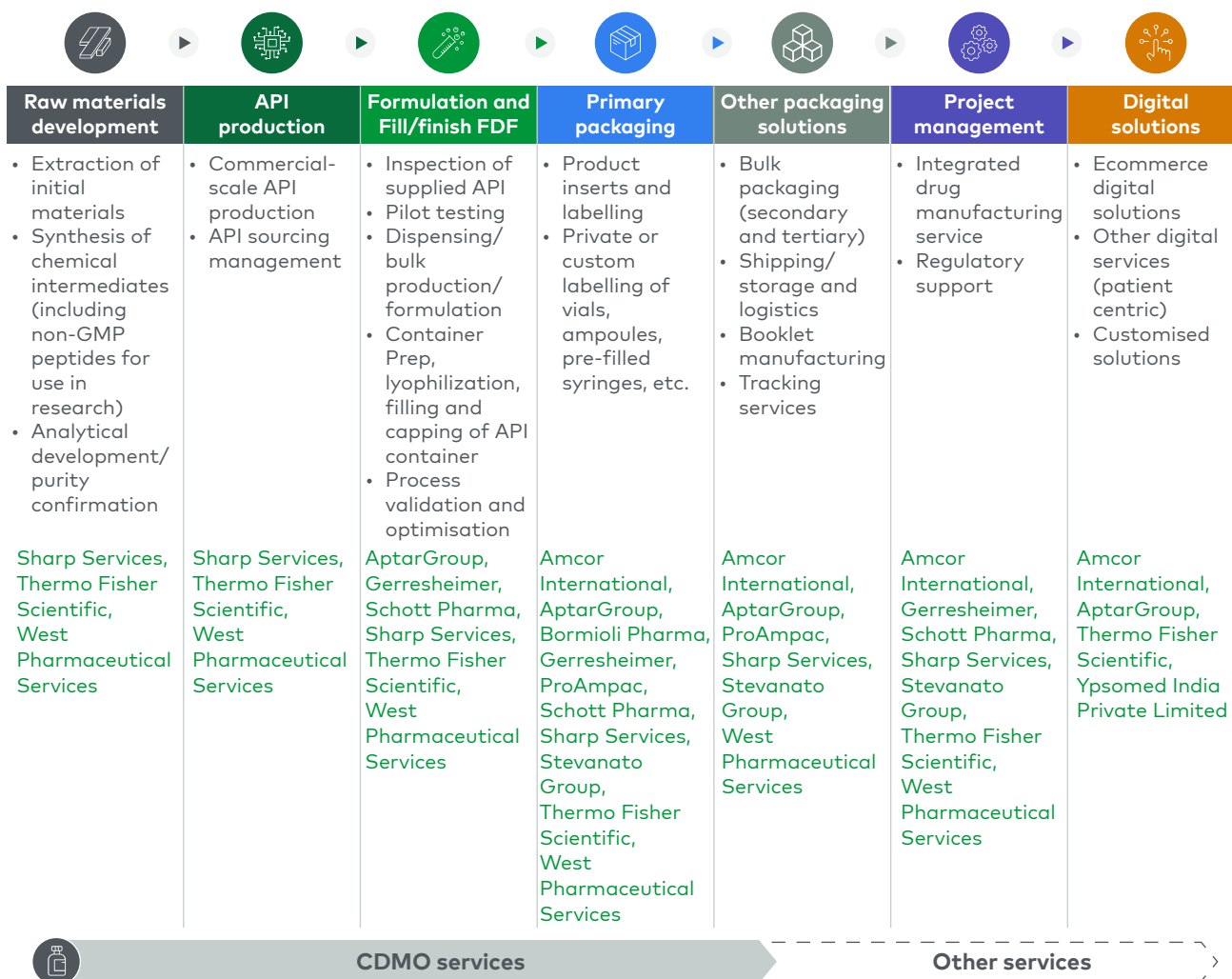
- **Fill-finish services** are directly linked to packaging services and easily integrated operationally at the same manufacturing site. A customer preference for a specific formulation or container (e.g. vial, satchel, syringe) can strongly influence the preferred primary and secondary packaging. The ability to oversee both processes provides a lot of strategic and operational synergies for CPO and CDMO players (e.g. Sharp sterile services via Berkshire Sterile Manufacturing, West Fill-Finish support services, etc.).
- **Active pharmaceutical ingredient (API) production** requires robust capabilities in the areas of chemistry, biology and waste management that are notably different from those required for fill-finish and packaging services. Biopharma customers and service providers are accustomed to API production being separate from fill-finish services, and a substantial share of API production is currently managed by Asia-Pacific providers, with fill-finish operated in the US or Europe. CPOs expand into API production only in combination with fill-finish services, to cover the full value chain of pharma manufacturing.
- **Raw materials development** is sometimes combined with API production, especially for high-value drugs and biological products that require containment (e.g. highly toxic products) or bioprocess (e.g. cell therapy). For common small-molecule drugs, however, raw materials production typically remains separate from API production and subsequent steps, with API CDMOs using multiple providers to mitigate risks of shortages. Synergies for CPOs are limited at this stage, and it is uncommon also for pure-play CDMOs to have raw-material development capabilities, with the exception of advance therapies and biologics.

Breaking with tradition, some CPOs players have acquired capabilities across the full value chain (e.g. ThermoFisher acquisition of Patheon), aiming to offer a "one-stop-shop" solution to biopharma customers. Having control over the full manufacturing value chain enables notable synergies, especially for high-volume products. The CDMO service market is highly fragmented, and only a handful of very large players can provide end-to-end services. Integrating services along the pharma value chain requires an extraordinary investment, and most CPO players acquire capabilities via M&A instead, whereby they obtain the customer portfolio associated with the acquired target.

Figure 2

Overview (non-exhaustive) of the pharma manufacturing value chain and players' offerings

Pharma manufacturing value chain and CPOs' service offering



*Via Patheon Pharma, a subsidiary CDMO player; GMP = Good Manufacturing Practice; API=active pharmaceutical ingredient; FDF=finished dosage forms; CDMO=contract development and manufacturing organisation
 - Source: L.E.K. research and analysis

3. Expanding offerings into new adjacent services

A few players have expanded by adding new services to their offerings (see Figure 3), focusing on solutions that are adjacent to pharma manufacturing and packaging, such as the following:

- Digital health platform:** Some CPOs enhance patients' experience throughout their treatment journey monitoring adherence to therapy, dosing, and allowing HCPs, payers and other healthcare providers to review product usage (e.g. Aptar acquisition of COHERO and Voluntis).

- **Connected diagnostic solution:** CPOs and diagnostic solutions providers are developing wearable diagnostic devices to allow customers to accurately dose their medication, improving the overall experience and effectiveness (e.g. Stevanato wearable devices Vertiva, West SmartDose on-body systems).
- **Active packaging:** By incorporating active materials that interact with the product, CPOs can control exogen factors such as light, oxygen and moisture, to improve product preservation, impacting quality and shelf life (e.g. Aptar InvisiShield, Bormioli Pharma ActiveRec, Amcor Modified Atmosphere Packaging).
- **Intelligent packaging:** CPOs can add indicators and sensors inside or outside the packaging to provide information on product status (e.g. Bormioli Pharma OptiMist connected device).
- **Connected packaging:** Use of technologies such as QR codes or RFID tags to enable interaction with the product, implement anti-counterfeiting measures and enhance the consumer experience (e.g. Gerresheimer and RxCap partnership, Amcor MaXQ packaging).

Figure 3

CPOs have expanded into new additional services

New/additional activities	Provider examples
 Digital health platform	Amcor International, AptarGroup, Thermo Fisher Scientific, Ypsomed India Private Limited
 Connected diagnostic solutions	Stevanato Group, West Pharmaceutical Services
 Active packaging	Amcor International, AptarGroup, Bormioli Pharma
 Intelligent packaging	Bormioli Pharma
 Connected packaging	Amcor International, Bormioli Pharma, Schott Pharma, Sharp Services, Gerresheimer

Source: L.E.K. research and analysis

Strategic choices: buy & build vs. collaboration

When expanding into new areas, CPOs face a critical strategic choice between buy & build and collaboration – a decision that will profoundly impact how they grow and differentiate in the future. Buy & build involves consolidating multiple services under one roof, providing a one-stop-shop for clients. This approach can lead to greater control over the supply chain and improved efficiencies. However, it also requires significant investment and can increase operational complexity and is typically available to larger players.

On the other hand, collaboration involves partnering with other organisations to offer complementary services. This approach allows mid-to large CPOs to leverage the expertise and capabilities of their partners, reducing the need for internal investment. However, it also requires careful management of partnerships to ensure alignment and integration.

Finding the right balance between these approaches will be critical for CPOs.

How can L.E.K. help?

With over 25 years of experience, L.E.K. has a proven track record of advising industry leaders across the packaging value chain, leveraging expertise from our Healthcare, Consumer and Industrials practices.

Reach out to discover how we can support your business in navigating market uncertainties and fostering growth.

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