Corden Pharma

The Hidden Value of Pharma Serialization

From Compliance to Competitive Advantage

White Paper

Executive Summary

In the pharmaceutical industry, serialization has often been treated as a compliance obligation to apply unique identifiers to drug units and enable traceability throughout the supply chain, with regulatory requirements such as track-and-trace driving investments in packaging lines, IT systems, and reporting capabilities.

However in today's pharma landscape, innovators have shifted perspective on serialization to be seen as more than just a duty. Properly managed, serialized data has become a source of real competitive advantage that improves supply chain visibility, optimizes operations, protects patients, and enables innovative digital solutions in the healthcare sector. Industry experts highlight that companies leveraging serialization data intelligently are able to reduce costs and increase resilience (Pharma Manufacturing, 2023).

CordenPharma's Drug Product sites are equipped with state-of-the-art packaging, serialization and aggregation technologies, ensuring compliance and creating value for tomorrow.

The Author of this White Paper

Sébastien Gonzalez
Senior Manager, Small Molecules & Highly Potent Drug Product

CordenPharma International

Integrated serialization and packaging operations at CordenPharma,
delivering end-to-end supply chain visibility, enhanced efficiency, and full regulatory confidence.

From Compliance Burden to Strategic Asset

For many pharmaceutical companies, serialization has traditionally been considered as a costly necessity that added operational complexity, created bottlenecks in production, and generated high costs of implementation and maintenance without benefits. Studies have shown that productivity losses can reach up to 20% when serialization is implemented solely as a regulatory requirement (Taylor & Francis, 2023).

However, when the same data is used effectively, serialization can be transformed into a strategic asset. It provides supply chain transparency that supports better forecasting and inventory management. It strengthens risk mitigation by reducing the impact of diversion, counterfeiting, and recalls. It also supports sustainability initiatives by enabling reverse logistics and traceability. Finally, it opens the door to patient engagement opportunities through QR codes and digital interfaces, which can connect patients to product information and adherence tools (PharmaTrax, 2023).

Where Companies Struggle

Despite these possibilities, many companies still face recurring obstacles:

- **Exception handling:** duplicate codes, broken aggregations, or incomplete data often delay batch release.
- **Data silos:** serialization information is disconnected from ERP or MES systems, limiting cross-functional insights.
- **Regulatory divergence:** managing compliance across multiple geographies creates complexity and cost.
- **Unclear ROI:** leadership teams often see serialization as a cost center rather than a source of value.

Industry surveys confirm that more than half of pharmaceutical leaders still view serialization primarily as a compliance cost (Pharma Manufacturing, 2023).

How CordenPharma Unlocks Value

At CordenPharma, serialization is not an isolated service but an integral part of our Drug Product site network offering. With more than 40 years of pharmaceutical manufacturing expertise and a global infrastructure that includes 5 cGMP facilities, we provide the technical know-how and expertise to ensure compliance while creating value.

Our approach is built on three pillars:

- **Integration:** serialization is fully embedded in packaging and distribution, removing bottlenecks and accelerating market entry.
- **Connectivity:** our systems are interoperable with ERP, allowing secure data exchange and end-to-end visibility.
- **Expertise:** A dedicated Centre of Excellence and local Subject Matter Experts provide technical guidance, troubleshooting, and continuous improvement to support our partners, ensuring efficient implementation and long-term reliability across market.

Looking Ahead: Serialization 2.0

Serialization is evolving beyond regulatory reporting into a platform for innovation. Emerging technologies are pushing the boundaries:

- **Blockchain** for immutable end-to-end traceability.
- **IoT** sensors to enrich serialization data with temperature, shock, or humidity conditions.
- **AI-driven analytics** to detect anomalies and predict supply chain disruptions.
- **Patient engagement tools** linking packaging directly to digital health services.

The global serialization and traceability market is projected to grow by more than 8% annually over the coming years (MarketsandMarkets, 2024). At CordenPharma, we are already preparing to incorporate these next-generation technologies into our serialization offering, ensuring our clients remain compliant today and competitive tomorrow.

Advanced serialization control system enabling real-time data capture, verification, and exception management to support efficient batch release and operational reliability.

Conclusion: Partnering is Key

Serialization should no longer be seen only as a regulatory burden. When approached strategically, it becomes a driver of transparency, efficiency, and patient trust.

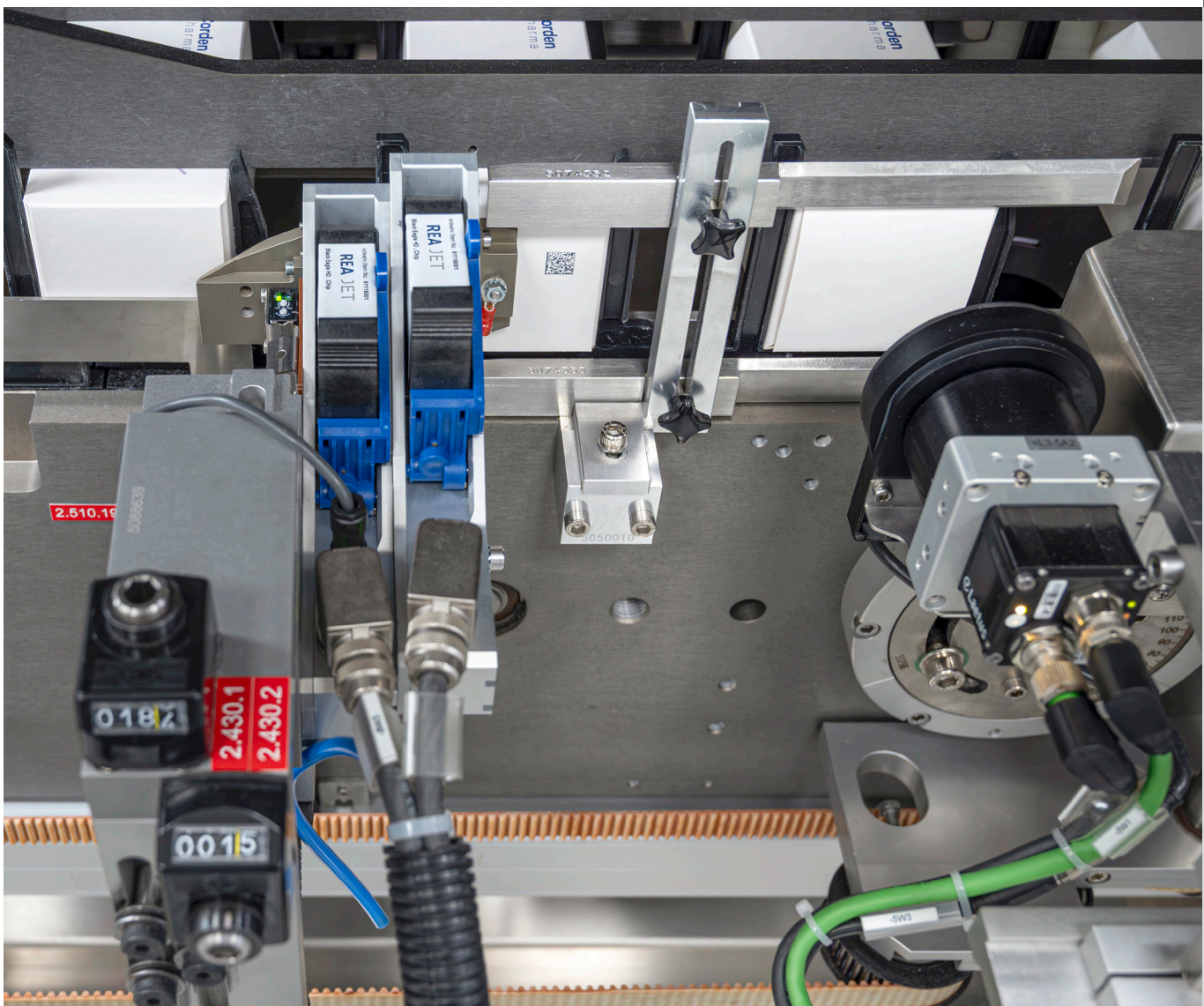
CordenPharma provides the global access, integrated infrastructure, and technical expertise needed to unlock this potential. With serialization fully embedded in our Drug Product sites, we help innovator partners reduce risk, accelerate market entry, and transform compliance into a competitive advantage.

Partner with CordenPharma to move beyond compliance and make serialization a cornerstone of your pharma drug product strategy.

References

- **Pharma Manufacturing (2023).** An Intelligent Approach to Managing Serialized Product Data.
- **Taylor & Francis (2023)**. Impact of Serialization on Pharmaceutical Productivity.
- **PharmaTrax (2023).** Leveraging Serialization Beyond Counterfeits.
- **MarketsandMarkets (2024).** Pharmaceutical Traceability Market Forecast.
- **CordenPharma.** Facilities Network.

High-precision serialization and coding equipment ensuring accurate unit-level identification and seamless integration with digital traceability systems.



CordenPharma
International

Corden Pharma International Switzerland LLC
Aeschenvorstadt 71
4051 Basel, Switzerland

cms.compliance@cordenpharma.com
cordenpharma.com

Peptides

Oligonucleotides

Lipids & LNPs

Injectables

Highly Potent & Oncology

Small Molecules

Version 07/26