
AI in Procurement

Solving real life problems in 2025

AI solutions we are genuinely excited about:
Meet the AI Purchase Order Creation Agent

By Lars J. Andersson

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About This Series

For over 15 years, I've worked on complex, multi-year Procure-to-Pay (P2P) programs. Despite advances in technology, the same fundamental execution challenges keep resurfacing - especially when it comes to turning negotiated contracts into operational results. What's most striking is that the core P2P process has evolved little since 2010. We're still relying heavily on manual intervention, retroactive corrections, and ad hoc workarounds to make things function.

Fixing P2P is hard work. It requires commitment and close collaboration across Procurement, Operations, and Finance. There are no shortcuts - and no AI tool will solve the problem alone. But used wisely, AI offers entirely new ways to tackle long-standing obstacles. It doesn't replace the need for transformation, but it accelerates it by automating compliance, identifying root causes, and relieving teams from low-value, administrative work.

This article series, *AI in Procurement: Solving real life problems in 2025*, introduces specific AI agents that target these persistent issues. We begin where many of the downstream problems start: the creation of the purchase order.

The PO Challenge in Contract Compliance

Despite significant investment in systems and processes, the same core issues persist - especially around contract rate compliance. What's most surprising is how little the operational Procure-to-Pay (P2P) process has evolved since 2010.

Many organizations still struggle to translate negotiated contracts into accurate operational execution. The tools may be newer, but the disconnect between commercial terms and transactional behavior remains. And at the heart of this disconnect lies the purchase order.

The symptoms are familiar:

Late PO creation:

Services are performed before a PO is raised, undermining control.

Volume uncertainty:

Buying teams lack clear forecasts or real-time data to estimate service volumes in advance.

Lack of embedded workflows:

Operational systems surprisingly often still lack the workflow logic to handle nuances like tiered pricing, service thresholds, or bundled terms—forcing manual input and increasing the risk of error.

Contract knowledge remains tribal:

Key pricing details or supplier-specific rules are stored in spreadsheets, PDFs, or tribal knowledge—making it difficult to enforce compliance without manual checks.

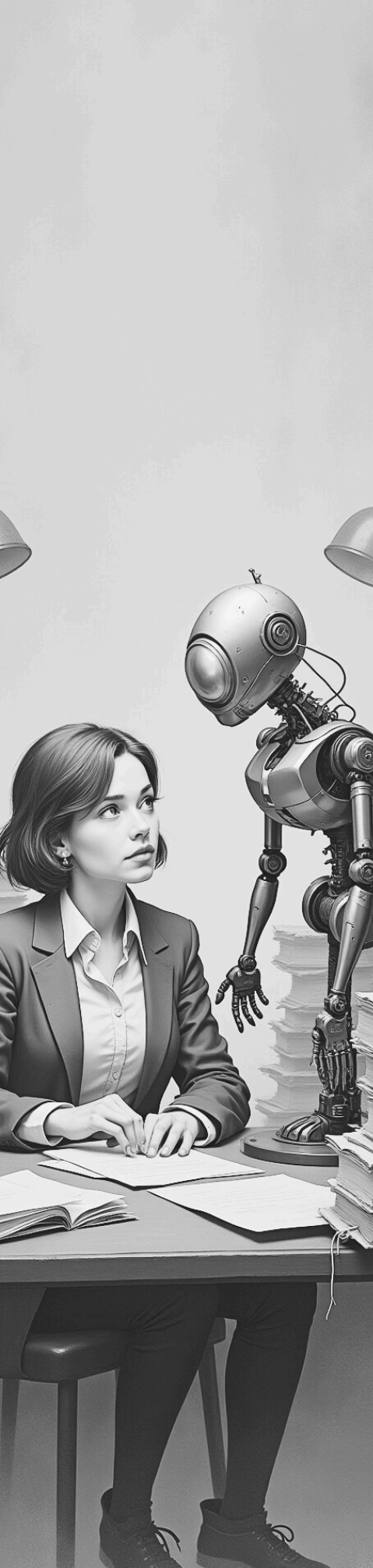
Lack of operationalization of buying channels:

Without clear buying channel rules in systems, teams don't know when to use catalogs or custom POs—causing inconsistency and compliance issues.

Missing translation from strategy to execution:

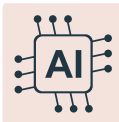
Procurement may craft solid strategies and contracts but often fails to turn them into actionable, system-based rules. Without clear guidance on applying pricing, terms, and supplier choices, automation doesn't deliver.

The result? Discrepancies, inefficiencies, and avoidable disputes. More importantly, contract value is lost when negotiated rates aren't properly enforced due to poor PO execution.

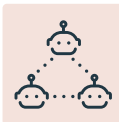


Why Gen AI and Multi-Agent Systems Matter

AI now offers a smarter way to bridge operational activity and commercial terms. With Gen AI and MAS, procurement can shift from passive PO creation to proactive, intelligent orchestration.



Gen AI can understand and interpret service confirmation documents, past usage patterns, and rate logic from contract language.



MAS enables distributed agents to act independently within workflows—searching for volumes, pulling rate data, and generating draft POs.

Together, these technologies can vastly improve PO accuracy and reduce cycle time, while maintaining control and compliance.

Introducing the Purchase Order Creation Agent

A key solution to the compliance challenge is the introduction of an AI-driven Purchase Order Creation Agent, built on a Multi-Agent System (MAS) architecture and leveraging Gen AI. Its purpose is simple but powerful: ensure that accurate POs are created before services are delivered—aligned with real contract terms and operational realities.

Despite investments in ERP and procurement tools, many organizations still struggle with getting purchase orders right—especially in complex service categories. Traditional automation often breaks down because it lacks the ability to interpret nuanced contract structures and align them with real-time operational activity. This is where the Purchase Order Creation Agent offers a step change.



Volume Validation from Operational Systems: The agent actively searches operations data (e.g., hours delivered, usage reports) to verify volumes before initiating PO creation.



Estimation from History: When real-time data is incomplete, it uses historical purchasing patterns and seasonal trends to estimate likely volumes.



Rate Lookup Across Sources: It accesses rate repositories or contract attachments—even from PDFs or supplier websites—ensuring the PO reflects the latest and correct terms.



Document Intelligence: Gen AI reads and interprets service confirmations (e.g., scanned documents, emails) to confirm what was actually delivered.



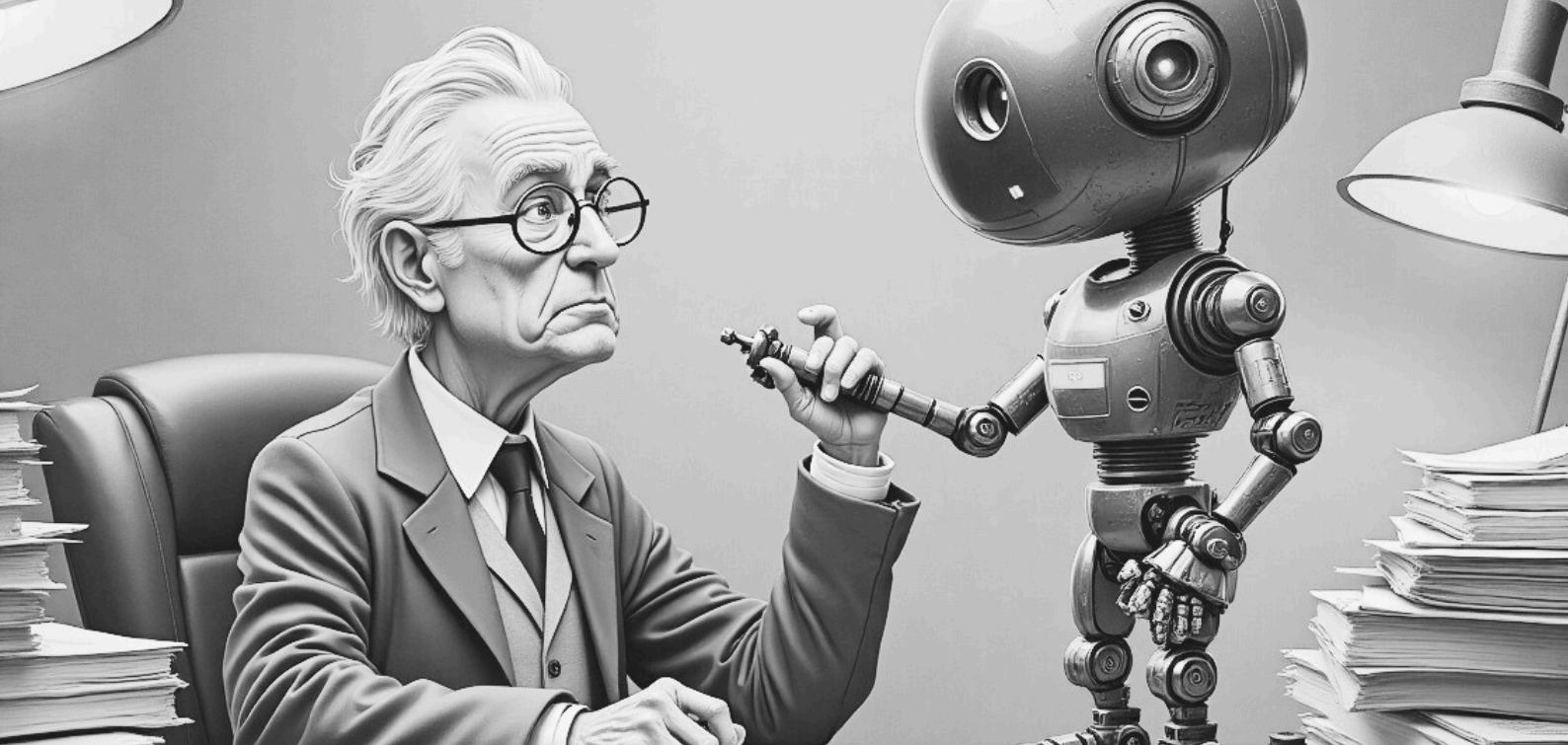
Cross-Referencing & Alignment: The agent checks whether the order details align with negotiated pricing, bundled terms, and SLA thresholds.



Human-in-the-Loop Checkpoint: For high-value or sensitive orders, the draft PO is routed to a procurement professional for manual validation before finalization.



End-to-End System Integration: The agent integrates with ERP and procurement platforms, automatically updating internal orders and ensuring full traceability. This blend of intelligence and automation helps teams issue POs at the right time, with the right data, and to the right supplier—avoiding downstream issues.



Business Impact

The adoption of AI in procurement can drastically improve efficiency, compliance, and cost savings. Key benefits include:

Reduced manual workload

AI eliminates tedious data reconciliation and PO processing.

Improved contract adherence

ensures accurate rates are applied at the time of order creation.

Fewer invoice discrepancies

POs generated upfront and with validated volumes align better with supplier expectations.

Higher compliance

AI supports consistent application of buying channel logic and pricing terms.

Faster PO cycles

real-time data validation accelerates PO creation and reduces delays.

With the Purchase Order Creation Agent, procurement teams can focus more on value creation and supplier collaboration, and less on administrative firefighting.



Call to action

AI can help organizations fix one of the oldest problems in P2P: getting the PO right, upfront.

The Purchase Order Creation Agent brings together data, documents, and contracts to create accurate, timely POs that drive compliance and value.

Are you ready to get started on AI in procurement?

Contact Carve to learn how AI-powered procurement solutions can transform your business.



Lars J. Andersson
(+45) 6120 4734
lja@carve.dk