

The Digital Core in Direct Material Procurement: *Standard Software, Clean Core and AI as Value Levers*



Executive Summary

Direct material procurement finds itself at a structural inflection point. Global trends such as electrification, software-driven product architectures, volatile commodity markets and increasing geopolitical uncertainty are putting pressure on procurement organizations across all industries. At the same time, new regulatory requirements, in particular around sustainability, are fundamentally reshaping value chains. Companies that continue to rely on fragmented systems, manual processes and historically grown IT landscapes quickly hit efficiency and transparency limits - with adverse effects on cost, responsiveness and speed of innovation.

While mature standard solutions for indirect procurement processes have existed for many years, a comparable technological standard for direct material sourcing has long been absent. Companies were therefore forced to build their own complex custom solutions whose maintenance and further development generate high costs and whose flexibility is limited. Considering rising Total Cost of Ownership (TCO) demands and the need to enable faster data-driven decisions, these proprietary developments are increasingly losing their future-readiness.

But the market has reached a technological turning point: with SAP Direct Material Sourcing on S/4HANA, a fully integrated standard for direct procurement is available for the first time, enabling a scalable, standardized and extensible End-to-End procurement platform. The foundation of this new platform is a modern "Digital Core" that harmonizes data and processes across the entire procurement cycle. It forms the transactional backbone that consistently links product data, demand requirements, quotes, contracts and operational purchase orders. Standardized processes create clarity, traceability and a robust central database.

A multi-pillar architecture approach simultaneously enables a rigorous Clean Core, by implementing company-specific requirements through a flexible, modular process and orchestration layer - for example using Low-Code/No-Code technologies. This creates agility and high usability without compromising the stability or upgrading capability of the core system.

A best-of-breed strategy further complements the platform for specialized processes such as Contract and Change Management. Modern AI-native CLM systems improve compliance, reduce manual effort and create transparent, digitally traceable contract structures. Additional AI capabilities - from automated quote evaluation and dynamic price analysis to scenario simulation - support procurement in identifying risks early, making informed decisions and capturing significant cost savings potential.

The result is a future-ready system landscape that fundamentally transforms value creation in direct material procurement: from fragmented workarounds to end-to-end, integrated and intelligently orchestrated processes. Companies benefit from higher speed, improved data quality, reduced complexity and the ability to respond quickly and resiliently to external changes. Procurement thus evolves from an administrative process owner to a strategic business enabler that actively drives innovation, transparency and competitiveness.

Organizations that establish this Digital Core today are not only creating the foundation for efficient processes, but they are also laying the groundwork for the next evolutionary stage: AI-powered, agent-based procurement processes that autonomously analyze, prioritize and generate decision proposals. Now is the time to actively shape this transformation and secure long-term competitive advantages.

“With Capgemini’s expertise in both procurement processes and relevant technologies, we were able to jointly develop and implement our procurement platform of the future. Through their strong collaboration and flexibility, we were able to respond to new requirements fast and scale our project team efficiently.

- Head of SAP Procurement Transformation, Premium OEM

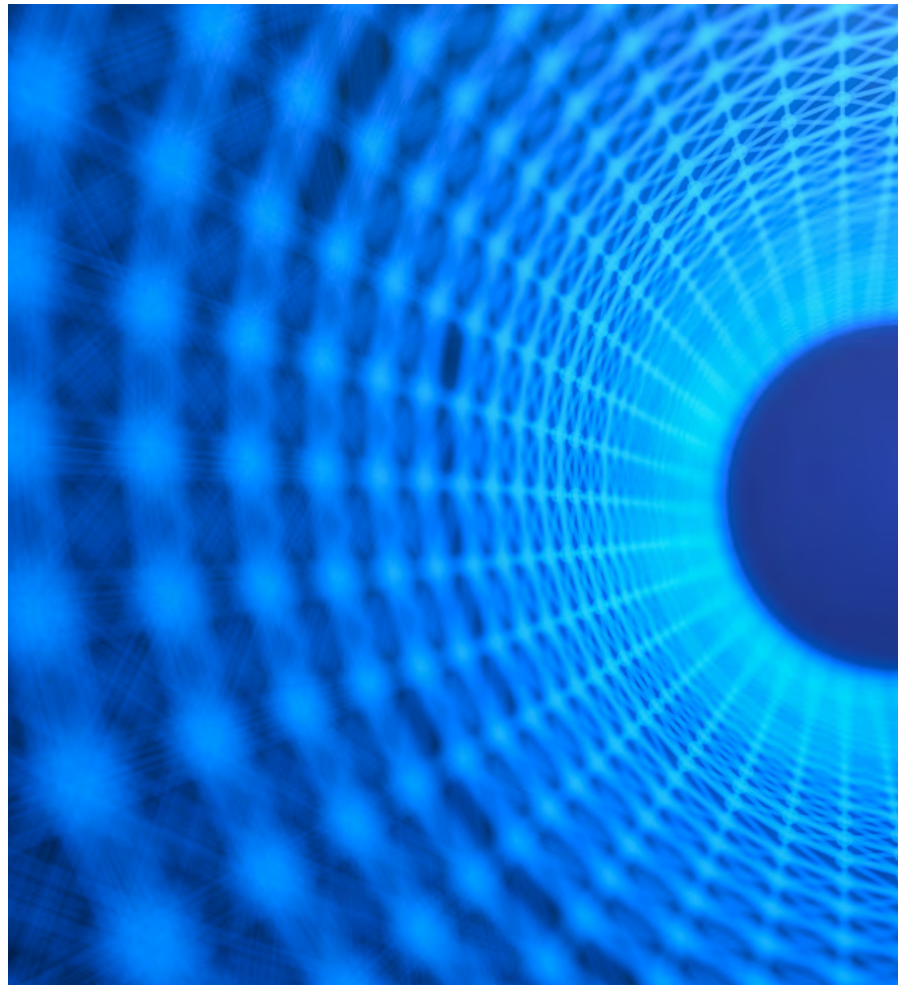




01 Introduction

Direct material procurement is at a structural inflection point. Global uncertainties, rising ESG requirements and technological disruptions are intensifying the pressure on procurement organizations. Historically grown IT landscapes and manual processes are no longer sufficient to ensure efficiency, transparency and resilience. A modular, scalable platform strategy built around a state-of-the-art “Digital Core,” complemented by Low-Code orchestration and specialized solutions, enables end-to-end, automated and future-proof procurement processes for the first time. Companies that act now will secure lasting competitive advantages and lay the foundation for AI-powered innovations in procurement.

The following chapters describe the challenges that functional departments are confronted with. These challenges are examined in each phase of the procurement process and specific areas requiring action are highlighted. Building on this foundation, the solution components of a modular system architecture are explained, enabling procurement to implement future-proof, intuitive and integrated processes. Finally, the opportunities for automation



and agent-based solutions are explored, with their potential applications based on the procurement platform presented.



Challenges in Direct Material Procurement

The procurement process for direct materials frequently spans multiple years. Considerable time passes before the first purchase orders are triggered, the first components arrive at the target plants and the first vehicle rolls off the production line. This phase of the value chain is characterized by extensive planning, consolidation of relevant data and multiple rounds of alignment. All aimed at providing well-founded decision proposals for management and procurement decision makers.

Awards frequently result in long-term business relationships and partial dependencies that must be decided upon with foresight. To better understand the challenges within this complex environment, the individual process phases are examined in detail below.

1. Planning Phase

- Lack of synchronization between procurement, development, and engineering
- Bills of materials and specifications are not consistently available across systems
- Inefficiencies due to manual data requests and redundant processes

2. Scenario Planning

- Isolated applications without central system access
- Outdated IT structures hinder strategic functions
- Modern best-practice approaches not feasible (e.g., integrated risk assessment or end-to-end supplier scorecards)

3. RFX-Phase

- Media discontinuities between email, web forms, and Excel
- Manual consolidation of quotation data
- Lack of digital coordination with suppliers

4. Award Phase

- Decentralized evaluation logic and scattered data sources
- No consolidated view of price, risk, and CO₂ metrics
- Limited transparency in versioning and approvals

5. Contract and Change Management

- Fragmented contract processes with manual approvals
- Informal coordination and lack of change history
- Compliance and audit requirements cannot be consistently met



Planning

Substantial risk arises during the planning of new vehicle projects. Lack of synchronization between buyers and engineers means that bills of materials (BOMs) and technical specifications are not simultaneously available in all award-relevant systems. Data exchange between the departments critical to this phase is siloed, manual and error prone. This results in long processing and decision-making times, as information must be entered, requested, or corrected multiple times. Constructive changes often occur between the start of the planning process and the invitation to potential bidders. Those must be distributed manually to downstream systems without direct synchronization. Consolidating the scope of tenders also plays an important role in this phase. However, planning decisions are often driven by intuition and local data silos instead of fact-based, system-supported analyses. The consequences are significantly elevated rework rates, redundant data requests and missed bundling effects.

Sourcing

Following the planning phase, fragmented data sets and an unclear, complex distribution of tasks put procurement organizations under pressure. The root cause is the lack of end-to-end data continuity caused by historically grown, monolithic system landscapes in which outdated ERP modules, decentralized Excel tools and proprietary legacy systems coexist. These IT architectures, originally designed for transactional purposes, were rarely conceived to meet today's strategic and role-based requirements. Such architectures are unable to support modern

best-practice approaches such as integrated risk assessment or automated quote comparisons. Established process structures are therefore inevitably shaped by the limitations of the prevailing IT infrastructure. Instead of seamless workflows, system breaks, manual interfaces and workarounds emerge, typically conceived as temporary fixes but entrenched over years. This results in scattered information, unclear responsibilities and difficulty controlling timelines and deadlines. Many administrative tasks, such as capturing quote data or submitting documents, remain with the procurement team. Suppliers are inadequately integrated into the digital process chain, leaving the bulk of data capture and maintenance as an internal task. In the automotive industry, this manifests as suboptimal costly preparation phases, uncoordinated sourcing strategies and significant cost inefficiencies, as IT systems are unable to provide real-time visibility or strategic decision support.

Evaluation and Negotiation

During the analysis and negotiation of supplier quotes, the manual effort is enormous. Quote documents are submitted via email, phone, or various web interfaces. Responses arrive in different formats and must first be manually consolidated and transferred into Excel calculations. There is also a lack of standards in price requests across different procurement departments, leading to system breaks: email inboxes, automated response forms and unstructured file attachments impede information flow, render the overall process opaque and significantly increase the workload for all stakeholders. Consistent digital collaboration with suppliers is also frequently absent. The result is not only delays and inefficient workflows but also limited traceability of quote variants and price developments. At the same time, the full cost savings potential remains untapped, as quotes cannot be made automatically comparable and strategically evaluated over the course of the negotiation period.



Award

During the award phase, incoming quotes must be evaluated in a structured manner and decisions made on a reliable data basis. However, decentralized evaluation schemes, scattered negotiation notes and isolated IT applications prevent a consolidated view of risks, price structures, CO₂ metrics and historically grown success factors such as a supplier's digital maturity level. The result is manual consolidation with limited data traceability, inconsistent evaluation logic across departments and a lack of versioning and approval transparency. This prolongs decision-making cycles, increases the risk of quality shortfalls and weakens auditability for internal audit and governance purposes.

When comparing quotes, buyers also define procurement scenarios, from single to multi-sourcing and from onshoring to nearshoring. A centralized system access is often lacking and buyers, engineers, controllers and other critical departments operate in separate, isolated applications.

Contract and Change Management

Once a supplier has been selected, the downstream contract and change management processes also prove to be riddled with system breaks and inefficiencies. A fragmented contract lifecycle is frequently evident. Contracts are drafted in Word or PDF documents and pass through manual approval cycles in which various stakeholders annotate and return their own versions.

In the process, significant system breaks arise between email systems, folders and local drives. Leading to extensive rework, limited traceability and uncertainty.

Both during the award phase and in serial production, engineering and commercial changes, ranging from

new control units and material substitutions to price or quantity corrections, are often only implemented after informal alignment. These changes are documented in decentralized Excel files or other data sources. Since suppliers have not yet been sufficiently integrated into digital Contract and Change Management processes, the responsibility for creating transparency remains almost entirely with procurement. A traceable history of all pricing and change statuses is consequently lost and deadlines for contract renewals or terminations are missed. Compliance and audit requirements, particularly in relation to global ESG and CO₂ regulations, cannot be fully satisfied, as relevant information and adjustments must be maintained exclusively internally. Incorrect or delayed adjustments in turn lead to increased contractual penalties, unforeseen costs and delays in the supply chain. Without end-to-end, integrated processes and the active involvement of suppliers, traceability remains limited, increasing both the workload and the responsibility for transparency that falls on procurement.

Would you like to learn more about the current challenges in procurement?

Take a look at the following perspective:

[The Future of Automotive Procurement - Capgemini](#)

Did you know?

72% of procurement leaders (CPOs) report being held back by siloed data, manual processes and inflexible systems. These factors are considered the greatest barriers to digital transformation and efficiency improvements.

Source: Forrester, 2025



The Modular Procurement Platform as the Foundation for Efficiency and End-to-End Data Continuity

Despite the strategic importance of direct material procurement, many companies continue to operate with monolithic IT architectures based on outdated technology stacks. These legacy systems are unable to manage the increasing complexity of global supply chains, volatile market requirements and the integration of new technologies such as AI or Advanced Analytics. The resulting need for modernization is uncontested. Yet procurement organizations remain hesitant to undertake comprehensive transformation projects.

This hesitancy is understandable. Long running ERP transformations of the past, in particular classic SAP implementations spanning three to five years, have led to project delays, budget overruns and limited business value at many companies. The negative experiences with such resource-intensive large-scale projects continue to inhibit the investments required for digital transformation in procurement.

The technological reality has fundamentally changed. Cloud-native architectures, modular best-of-breed solutions and agile implementation methodologies now enable transformations in significantly shorter timeframes. Minimum Viable Products (MVPs) and Proof of Concepts (PoCs) substantially reduce

time-to-market. They incorporate continuous customer feedback into design and development processes and progressively prepare procurement organizations for future requirements.

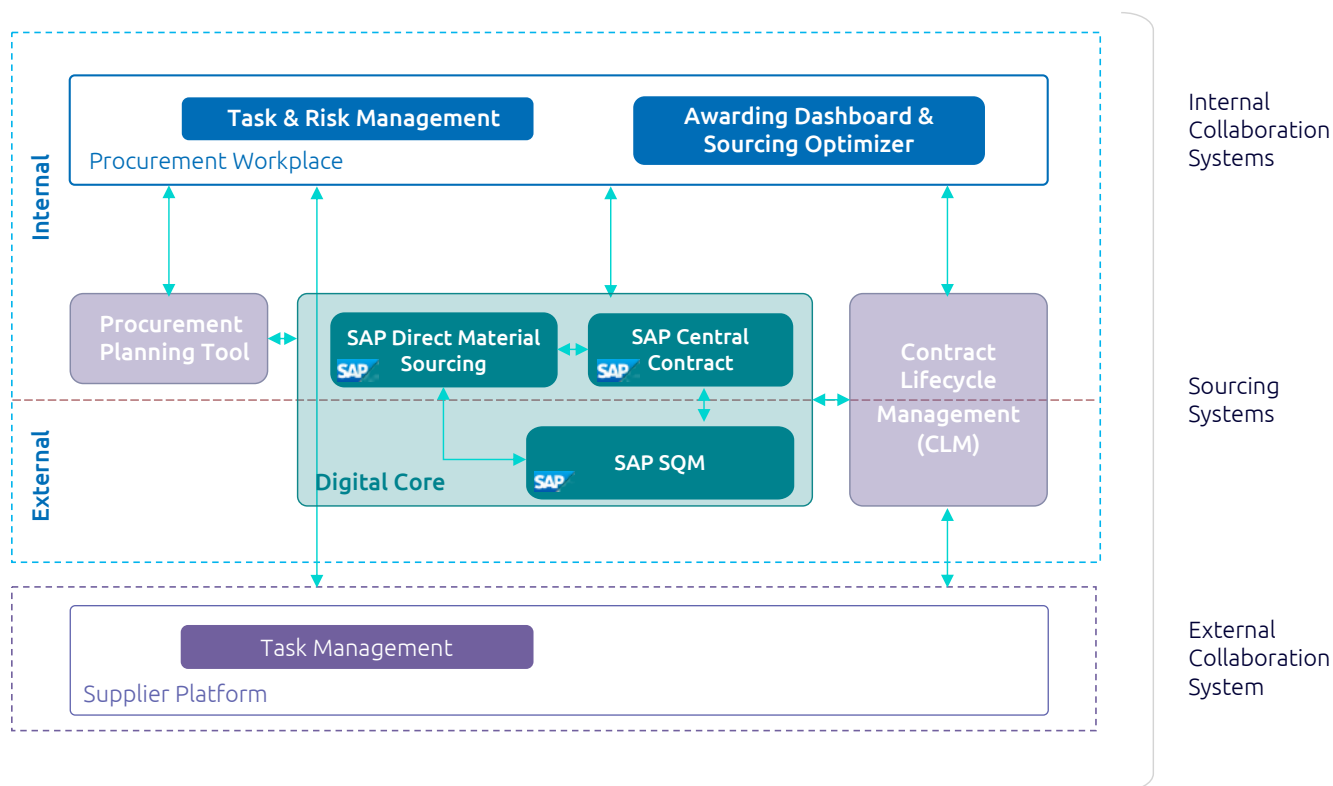
The target architecture for a scalable, technology-agnostic and robust procurement platform is based on a multi-layered approach that combines SAP standard processes with best-of-breed solutions. This structure enables a phased transformation without a disruptive big-bang migration while simultaneously ensuring complete end-to-end data continuity across all procurement processes.

The following section first provides a high-level description of the system landscape of a modern procurement organization, before elaborating the implications for the future procurement process.

Did you know?

Capgemini has been recognized as a Leader in the Forrester Wave™ SAP Services in Europe Q2 2025.

Source: Forrester, 2025



The SAP Digital Core as the Foundation of a Digitalized Procurement Function

SAP forms the central nervous system of the procurement platform and ensures end-to-end data integrity across the entire procurement process. In this target architecture, the Digital Core is defined by the functional combination of the S/4HANA components Ariba Direct Material Sourcing (DMS) and Central Contracts, together with Supplier Quotation Management on the SAP BTP (Business Technology Platform). Integration between SQM (Supplier Quotation Management) and S/4HANA is achieved via standardized interfaces, enabling relevant data and information to be integrated quickly and easily.

With SAP Ariba Direct Material Sourcing based on S/4HANA technology, SAP has strategically expanded its procurement product portfolio, delivering a unique solution for direct material sourcing that was previously unavailable in this form on the market.

A decisive advantage is the seamless integration of required master data, as well as the native embedding into downstream processes that are essential for the complex workflows of direct procurement.

Furthermore, there is the option to integrate planning tools such as SAP Procurement Planning or other solutions into the Digital Core, creating a unified process framework for recurring procurement activities.

The Digital Core forms the basis for end-to-end, standardized processes. From strategic sourcing to operational order fulfillment, while ensuring a process flow free of system breaks. The SAP components mentioned above are referred to as the Digital Core throughout the following sections.



Process Orchestration Through Low-Code/No-Code Platforms

Throughout the core sourcing process, companies typically have their own established and often highly specialized processes. These include customized workflows for task, document and deadline management, company-specific compliance and sustainability requirements and tailored evaluation criteria for suppliers. This diversity of requirements cannot be fully mapped within the standard capabilities of a Digital Core. Especially when processes need to be customized, expanded, or flexibly orchestrated to meet a company's specific needs.

Low-Code/No-Code platforms address precisely this challenge. As an integrated extension layer of the Digital Core, they enable flexible and agile embedding of individual process logic without compromising the stability or upgrade capability of the core system. They allow rapid modeling of workflows that follow the strategic and operational procurement process, from planning through tendering and evaluation to contract and change management processes.

Connectivity to the Digital Core is achieved through an API-based integration approach that offers fundamental architectural advantages over traditional point-to-point interfaces. APIs decouple individual system components from one another and enable the modular replacement or extension of individual platform elements without requiring adjustments to adjacent systems. Event-driven data exchange extends

the API logic with asynchronous communication between systems. Instead of polling data at regular intervals, systems are automatically notified of relevant changes and can retrieve updated data on demand. This reduces system load, enables real-time responses and allows processes such as re-sourcing in the event of supplier risks to be triggered automatically. Asynchronous notifications ensure that relevant changes are immediately visible, increasing transparency and improving process responsiveness.

The value of this approach lies in the flexible mapping of diverse use cases. Whether dynamic task management, integrated risk assessments, automated provision of supplementary data, or rule-based integration of external systems – Low-Code/No-Code platforms extend the Digital Core with a powerful and future-proof orchestration layer. In addition, these platforms enable a reduced time-to-market for company-specific requirements. The result is a modular process architecture that, on the one hand, preserves the advantages of a Clean Core and, on the other, provides the agility necessary to implement company-specific requirements efficiently.

This gives companies the foundation for scalable, end-to-end and intelligently managed sourcing-processes that can adapt flexibly to new market conditions, regulatory requirements and internal changes.

Contract Intelligence Through AI-Native Contract Lifecycle Management

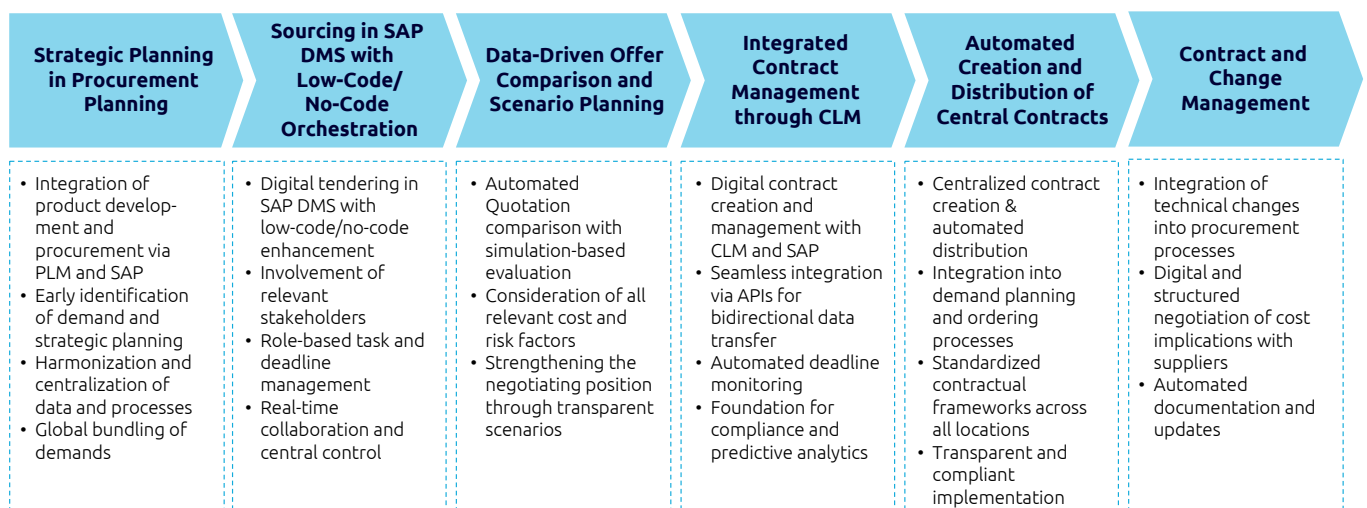
In addition to process flexibility, the intelligent management of contract data plays a central role. Contract Lifecycle Management (CLM) adds precisely this dimension to the architecture. It enriches the Digital Core with contract-specific terms while ensuring that buyers exchange important documents, such as non-disclosure agreements or liability limitations, digitally with suppliers. While SAP manages transactional procurement activities, the CLM system governs the overarching contractual relationships.

The bidirectional integration between CLM and SAP ensures that currently valid contract terms are automatically applied to every purchase order. In addition, the capabilities of modern CLM systems deliver significant added value to companies. Through AI-powered analysis functions, risks such as missing mandatory clauses or critical deadlines can be

automatically detected and proactively addressed. This not only reduces compliance violations but also minimizes financial risks. AI-powered reviews reduce manual effort and enable teams to focus on high-risk cases. A further advantage lies in automated obligation fulfillment: contractual obligations are monitored at the system level and any deviations are immediately flagged. This enables the avoidance of contract penalties and ensures compliance with regulatory requirements.

Combined with SAP data, a holistic view of the value chain emerges, from strategic sourcing to operational execution. CLM thereby becomes not merely an administrative tool, but a central driver of efficiency, transparency and risk management across the entire Source-to-Pay process.





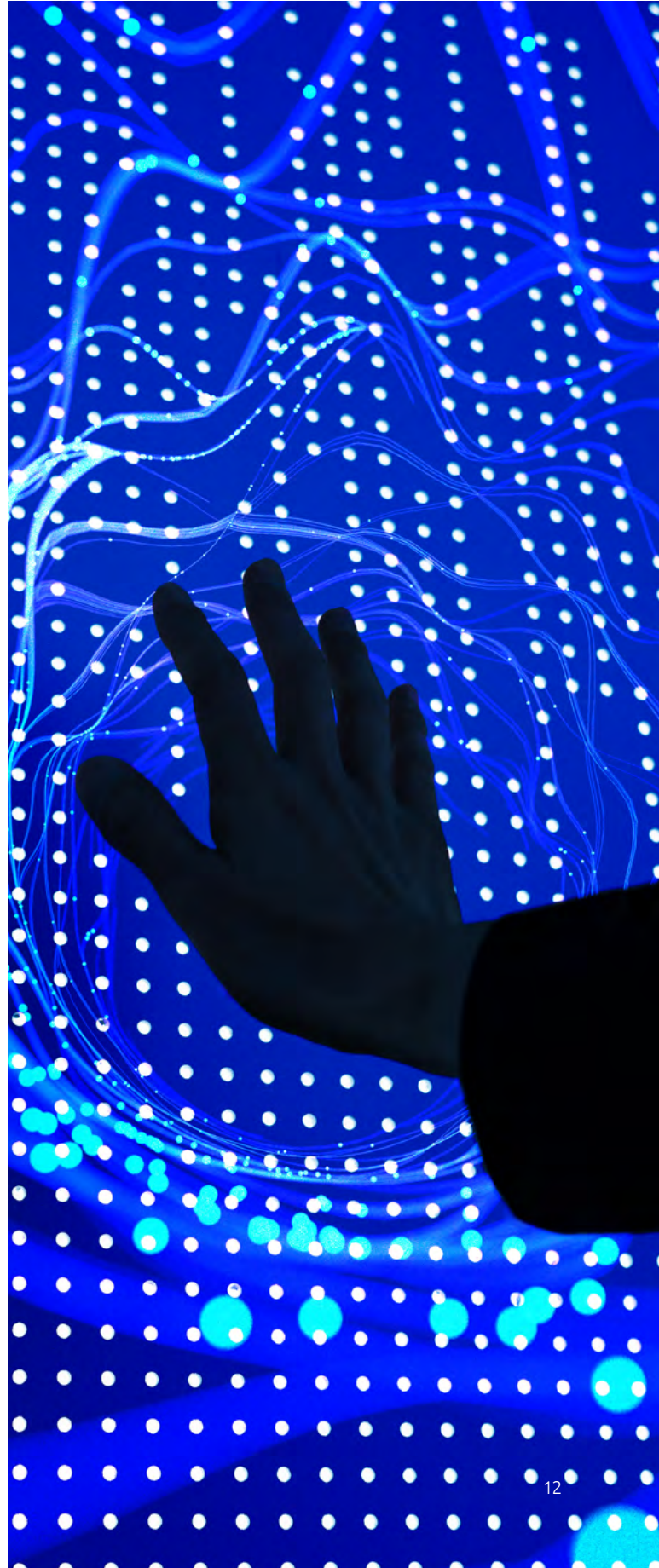
The following section focuses specifically on the future procurement process, from strategic planning through to the final contract. It addresses in detail the aspects

that are indispensable for a future-ready procurement organization and supports it in addressing the diverse challenges described at the outset.

Strategic Procurement Planning

The foundation of a future-ready procurement strategy is the seamless integration of product development and procurement. Through direct connection of Product Lifecycle Management (PLM) to the Digital Core, all product data, material master records and bills of materials (BOMs) are made centrally and consistently available. This eliminates system breaks and ensures an end-to-end database across all phases - from the initial product idea through to serial production. Synchronized BOMs reduce back-and-forth queries and rework, significantly increasing efficiency already in the early procurement phase. An integrated process between engineering and procurement ensures that a consistent data status across all departments is established during award planning and that any changes are seamlessly incorporated.

Demand requirements can be identified early and planned strategically. Technical specifications, sustainability targets and innovation requirements feed directly into the procurement strategy. Especially in the parallel development and sourcing of new products, companies benefit from a significantly shorter time-to-market and increased flexibility. The harmonization of processes and the centralization of all relevant information enable award planning and procurement to bundle demand requirements globally and steer them in a targeted manner. Through the consolidation capabilities of procurement planning solutions, volume effects can be captured early in planning processes and sourcing projects can be strategically bundled. The result is greater transparency, improved controllability of the value chain and a solid basis for subsequent negotiations and supplier relationships.





Sourcing in SAP Direct Material Sourcing with Intuitive Orchestration

Upon completion of procurement planning, the actual sourcing-process is digitally and comprehensively mapped in Direct Material Sourcing. The platform offers comprehensive functions for tendering, quote evaluation and the execution of multi-stage negotiation rounds, as well as commodity pricing models essential for direct procurement and the integration of regulatory sustainability criteria.

The key differentiator: through intuitive process guidance on the Low-Code/No-Code platform, all relevant stakeholders - from category buyers and logistics planners to quality managers and external partners - can be flexibly integrated into the processes. Workflows, approval steps and interfaces can be individually configured without extensive programming. For example, quality requirements can be automatically incorporated into tenders, or logistical constraints can be directly accounted for. When suppliers capture their quotes in a structured manner, the time-consuming rework for procurement is eliminated and a sustained reduction in error rates is enabled.

A particularly significant efficiency gain lies in the orchestration of task and deadline management. Due to the many stakeholders involved, the responsible category buyers are frequently under high organizational pressure and can barely attend to their

core activities. Thanks to the intuitive extension of the Digital Core, role-based time and task plans can be created that serve as a central hub into connected systems, providing transparency over schedules and risks. In addition to task and time planning, process-critical data from quality, logistics and sustainability department systems is enriched in the connected platform and used to complement the data available in SAP. This creates a comprehensive picture across all critical evaluation dimensions. Management receives real-time visibility into procurement volumes, contract utilization and price changes based on current, consistent data. The Digital Core acts as a Single Source of Truth for transactional data, eliminating data silos between individual systems that typically lead to inconsistencies in fragmented IT landscapes.

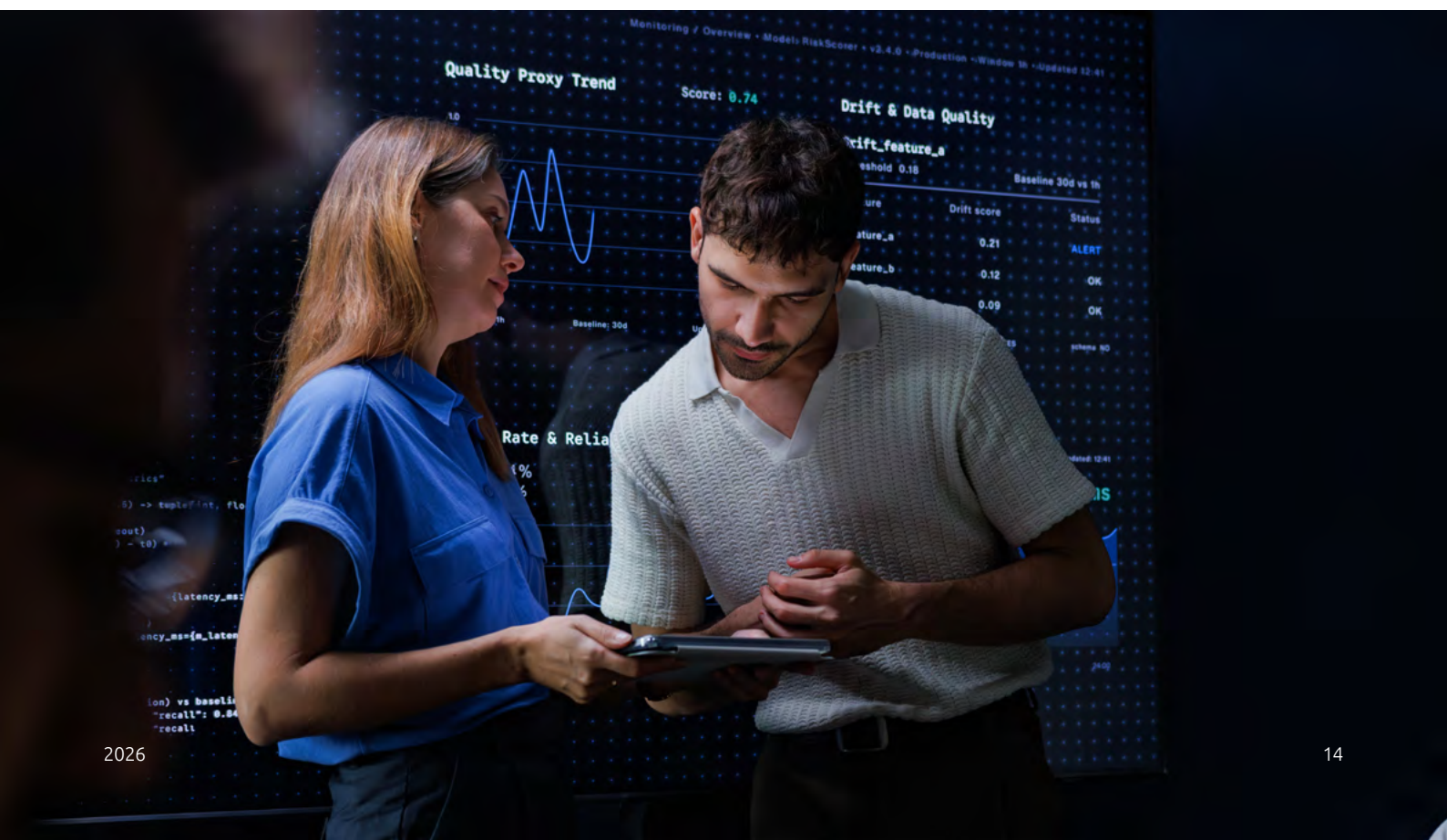
The SAP Business Technology Platform ensures an end-to-end digital information flow and enables real-time collaboration of all participants. Processes are thereby harmonized, manual activities and sources of error drastically reduced and workflows significantly accelerated. Furthermore, the centralization of tendering provides procurement with a decisive lever: by bundling volumes and uniformly managing all sourcing activities, better terms and conditions with suppliers can be negotiated.

Data-Driven Offer Comparison and Scenario Planning

Upon receiving supplier quotes, an automated quote comparison is deployed. All incoming quotes are analyzed and evaluated in detail using customer-specific logic. This functional component enables the simulation of various scenarios in which all cost components, from material and logistics costs to sustainability surcharges and foreign exchange risks, are considered.

Additional data from connected departmental systems is automatically aggregated within this quote comparison. The result is a holistic decision basis that goes far beyond a simple price comparison. The simulation-based evaluation ensures that the best possible supplier is nominated - objectively, traceably and in strategic alignment. Evaluation matrices are populated directly, enabling alignment discussions to focus on substantive questions and accelerating decision-making processes.

The benefits are manifold: transparency across all relevant decision parameters increases, risks are identified early and strategic objectives such as sustainability, cost optimization and supply continuity can be purposefully pursued. The centralized evaluation and the ability to run through various scenarios substantially strengthen procurement's negotiating position and enable optimal decisions even in complex markets. In particular, the previously time-consuming consolidation effort required of category buyers - transferring all relevant parameters into defined evaluation matrices and condensing them for decision-making bodies - can be eliminated, freeing up capacity for negotiating the best possible terms.





Integrated Contract Management Through CLM

Through the integration of CLM solutions, such as Sirion or Icertis, into direct material procurement, an end-to-end digital contract process is created: following supplier selection, contracts are created in the CLM system and synchronized bidirectionally with SAP via standardized APIs. Purchase orders automatically access current contract terms, while contract utilization and change requirements are fed back in real time. This eliminates system breaks, increases transparency and accelerates decision-making. Furthermore, significantly improved obligation management and enhanced efficiency also enable considerable cost savings.

Fundamentally, the CLM process comprises several phases that seamlessly interlock. Contract creation, which utilizes templates, clause libraries and approval workflows, is the first step in the process. After digital signature, the contract is stored in the central repository, which serves as the single source of truth. The CLM system then takes over the active management of the contracts, including monitoring deadlines, automated alerts for critical dates and ensuring compliance with contractual obligations.

Integration into the SAP Core is achieved via API-based connectors that ensure bidirectional data transfer. The contract terms from the central contract, such as prices, quantities and escalation rules, are authoritative for all subsequent call-offs. Close integration enables end-to-end control from strategic procurement through to operational order placement and creates the foundation for Predictive Analytics, Compliance-Monitoring and automated renegotiation processes.

Automated Creation and Distribution of Central Contracts Following Completed Award

Following the final supplier selection, a central contract is created in SAP based on the negotiated terms. The central contracts created are automatically distributed, in the form of scheduling agreements or contracts, to the respective plant systems, so that all locations and departments can access uniform contractual terms. The automated distribution of central contracts ensures that all relevant units can immediately work with current contract terms. This minimizes operational risks and increases implementation speed.

Operational execution is achieved through integration into Material Requirements Planning (MRP) and the automated generation of purchase orders and scheduling agreement releases. This ensures that agreed terms are consistently adhered to and that procurement runs efficiently, compliantly and transparently. Continuous monitoring of contract fulfillment, evaluation of supplier performance and early identification of risks are further central advantages of using SAP Central Contracts.

The combination of central control and local execution creates high transparency and agility. The harmonization of the contract landscape, digital end-to-end continuity and centralized management sustainably strengthen the position of procurement. Both vis-à-vis internal stakeholders and in dialogue with suppliers.

Continuous Update of Engineering and Commercial Changes

Direct material is subject to a high degree of development dynamics: engineering modifications, material changes, or quality improvements regularly lead to technical updates in the product development process. The target architecture ensures that these changes are seamlessly integrated into procurement processes, delivering maximum transparency, speed and controllability along the value chain.

With SAP Supplier Quotation Management, commercial changes such as labor cost increases or raw material changes are digitally documented in collaboration with suppliers. Changes to specifications and prices can be negotiated clearly and in a structured manner online, without cumbersome alignment processes or system breaks. The structured capture of changes directly with the supplier

increases traceability and relieves procurement of administrative tasks.

Through direct connection to development systems, the change management process can be comprehensively mapped in the intuitive system landscape. Price changes resulting from engineering modifications are automatically documented and when condition details are adjusted, new contracts are created or existing contracts are updated in a system-supported manner. The automatic documentation and transfer of price changes create transparency and reduce the effort required for downstream corrections. This ensures that all scheduling agreement release systems are always supplied with the current pricing data for the respectively valid engineering status.





04

Strategic Outlook: The Next Evolutionary Stage in Direct Material Procurement

The platform architecture presented forms the technological foundation for the deployment of artificial intelligence in direct material procurement. All relevant information is available across systems in

a consistent, up-to-date and structured manner. High data quality is the fundamental prerequisite for the effective use of AI.

AI-Powered Project Planning and Strategic Bundling

Already in the early phase of award planning, AI can analyze historical demand data, technical specifications and global volume structures to identify strategic bundling potential. Through the integration of PLM data, it becomes possible to identify which components are used across multiple vehicle models,

where economies of scale are achievable and how engineering changes affect demand structures. The result is data-driven award plans that are not only more efficient but also strengthen the foundation for subsequent negotiations.



Intelligent Supplier and Risk Assessment

In the sourcing-process, AI supports the selection of suitable suppliers by analyzing internal performance data as well as external sources. Machine learning models can thereby identify patterns indicative of

potential risks or opportunities. Supplier evaluation thus becomes not only faster, but also more objective and strategically grounded.

Automated Quote Evaluation and Scenario Planning

Upon receipt of quotes, AI takes over the automated evaluation based on a defined logic. This covers not only prices, but also logistical constraints, sustainability surcharges, foreign exchange risks and technical requirements. AI simulates various award scenarios,

evaluates their impact on costs, supply continuity and sustainability targets and proposes the optimal award decision. Manually performed consolidation efforts are eliminated, enabling category buyers to focus more on strategic negotiation.

Contract Intelligence and Dynamic Renegotiation

Within CLM, AI analyzes contract utilization, deadlines and terms in real time. In the event of deviations, the system automatically identifies renegotiation requirements and proposes corresponding

adjustments. Through bidirectional integration with SAP, these changes are transferred directly into operational procurement, thereby avoiding system breaks and manual errors.



Adaptive Pricing for Engineering Changes

Engineering modifications initiated through PLM systems regularly result in price changes. AI can automatically evaluate these changes, take historical price developments into account and generate

proposals for new terms. This not only accelerates the change management process but also steers it strategically, with full transparency over the implications for costs and supplier relationships.

AI Agentization: From Tool to Autonomous Process Intelligence

A particularly forward-looking aspect is the AI agentization of procurement. This refers to specialized digital agents that not only analyze data but autonomously assume tasks, prepare decisions and interact with other systems or agents. These AI agents can, for example:

- Monitor external data sources and proactively issue recommendations for action in the event of critical developments
- Design simulation-based negotiation scenarios based on defined target parameters (e.g., price, sustainability, delivery time) and propose the optimal strategy
- Interpret technical modifications from PLM systems, assess their impact on existing contracts and prices and automatically generate new contract proposals

The combination of end-to-end data architecture, modular system landscape and AI agentization

opens entirely new possibilities in direct material procurement. Processes are not only automated but intelligently orchestrated. Decisions are based on real-time data, simulation-based scenarios and learning algorithms. Companies that establish this technological foundation today are laying out the groundwork for a resilient, agile and future-ready procurement organization. With AI as a strategic co-pilot along the entire value chain.

Did you know?

A recent [study](#) by Capgemini demonstrates how companies can increase efficiency and resilience through the use of intelligent technologies, how AI is transforming core business areas and how cost savings of 26–31 % in procurement can be realized.

Source: Capgemini, 2025

Are you also facing the challenge of a fragmented system landscape or searching for a future-ready architecture for your procurement organization? Discover how you can combine the strengths of the SAP Core with flexible process extensions and intelligent orchestration — for end-to-end, efficient and scalable procurement processes.

Contact us to design your individual roadmap together.

Contacts for further information



Fabian Becker

Intelligent Industry | Capgemini Invent
fabian.becker@capgemini.com

Fabian is a Senior Director at Capgemini Invent Germany, leading the SAP Strategy & Transformation team. Leveraging extensive expertise in Direct Material Sourcing, he has successfully driven complex S/4HANA transformations for global industry leaders. Together with his team, he enables organizations to unlock the full business value of S/4HANA by translating technology into tangible business impact.



Uwe Sandvoß

Package Based Services | Capgemini
uwe.sandvoss@capgemini.com

Uwe leads the Automotive Industry team within Capgemini's SAP Practice in Germany. Bringing more than 30 years of experience in SAP supply chain transformation, he has served for over 15 years as a trusted advisor for procurement processes in the automotive sector. As an early pioneer of SAP Ariba Direct Material Sourcing, he combines deep industry expertise with extensive hands-on transformation experience.

About the authors



Jan Breuninger

Intelligent Industry | Capgemini Invent
jan.breuninger@capgemini.com

Jan is a Senior Manager at Capgemini Invent with a focus on SAP Sourcing & Procurement. He helps organizations shape digital procurement and supply chain strategies that deliver measurable business impact. Leveraging deep industry and technology expertise, he drives S/4HANA and Direct Material Sourcing transformations to enhance scalability, operational excellence, and market differentiation.



Kai van de Zand

Intelligent Industry | Capgemini Invent
kai.van-de-zand@capgemini.com

With over four years of experience in digital transformation initiatives, Kai specializes in procurement transformation and digital direct material sourcing within the automotive industry. Combining deep SAP expertise with a strong focus on pragmatic execution, he helps organizations establish clear target operating models, enable data-driven decision-making, increase transparency, and build scalable, future-proof procurement processes.

Contributors: Caroline Vaessen, Pascal Haas, Philip Kossen, Thorben Riske

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