How to Connect Inventory With Research Procurement:

A Global Pharmaceutical Company's Journey

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JAGGAER

Abstract

Numerous industries are critically dependent on inputs that aren't neatly wrapped and packaged in cardboard boxes. From ingredients, chemicals, powdered metals, and slurries to other bulk materials, many industries have unique purchasing challenges.

Even amidst this diversity, the research lab is a special breed. Its inputs are acquired spontaneously and from diverse suppliers and information sources, have to be available quickly, and often come with special handling and exposure compliance rules. From extreme outliers like radioactive materials to day-to-day compounds, all chemicals need to have clear handling guidelines—even the fairly innocuous ones.

Researchers, who are often prized for their independent thinking, are key decision makers. Gaining their adoption requires processes that are simple, effective, and add value.

See how one global pharmaceutical research leader drives procurement success.

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What is it like to work in procurement for a leading research lab?

Imagine being responsible for ensuring that a steady stream of commercial reagents and proprietary chemicals are spontaneously acquired, moved to the right facilities, and tracked as they are consumed. Many of these materials are expensive and have long lead times. Different labs might be ordering the exact same materials for different projects—not knowing what the other has on its shelves—resulting in expired stock, expensive disposal, and excess capital tied up in inventory. Accurate and timely information regarding the materials already on-hand in inventory is critical to the innovative capabilities of research and development (R&D) scientists and other stakeholders with high executive visibility and accountability for results. Innovation is the primary success driver for most companies, especially for pharmaceutical firms, given their short window of opportunity. Managing lead times for chemical synthesis is also critical to eliminate delays in R&D. Typical synthesis can take six weeks or more. In-house and commercially available building blocks and intermediates can shave many steps and weeks or months off of a complex, multistep synthesis reaction. However, too often the synthesis team is either unaware of these alternatives or searching for and acquiring them is too difficult and time-consuming to be practical, and valuable time is lost.

Another complication is that the commonly used chemicals and supplies are also managed to stock, acquired in bulk, and distributed in

units. These supplies may be managed by in-house staff or by third parties under consignment, using their own disparate systems. Many research organizations don't think of connecting those two groups together, even though they share common requirements, including financial reporting and regulatory compliance associated with humans handling reportable quantities of potentially deadly chemicals. As a result, support staff use manual procedures and record keeping to harmonize reporting across these different systems and groups.

Lastly, researchers need to use specialized information sources to identify potential substances of interest, especially searching by chemical structure. That being said, these sources may come back with results showing 90% of the items are not available in stock. They may require custom synthesis or be theoretical and not commercially available at all. This lack of reliable content and pricing leads to excessive reviews and delays in procurement.

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What is required for success?

With these research procurement challenges behind us, let's look at what really drives success. Procurement can be demanding in most industries, especially when there are numerous stakeholders to please and little leverage for procurement to drive its own vision. Furthermore, stringent compliance rules for handling research materials make it even more difficult.

The chemicals and compounds described earlier drive R&D and fuel the next wave of competitive products. Whether chemicals are made internally or acquired from third parties for production purposes or for R&D, clearly procurement needs to be better prepared.

Spend Matters, the well-known procurement gurus, have compiled this list of needs:

- Clear view of what sits in inventory and where—primarily to manage commercial chemicals, but also to gain visibility into proprietary compounds
- Ready pool of qualified and competitive suppliers that can meet needs
- Reliable information about actual availability and pricing
- Transactional support systems that scale well and are broadly adopted
- Iron-clad compliance with company policies and regulations

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Background: A need to modernize

This is where our global pharmaceutical company found itself as it developed gap analysis and devised ways to modernize its solution infrastructure. Before discussing how the firm pulled this off, let's put the facts into perspective to understand the company's scope, needs and requirements:

- Global pharmaceutical manufacturer with operations in Europe, China and the United States
- Number of potential internal users: 2,000+
- Preferred supplier relationships: 30+
- Approximately 10 suppliers comprise 80% of spend
- Integration needs:
  - **Ariba ERP —** Used for purchasing and receiving
  - **Internal compound inventory —** Used for tracking inventory and requesting of internally synthesized chemical building blocks
  - **Cheminformatics —** Data and tools used to store, query and view information relating to chemicals in three structured databases
  - **Automation —** Used for storage and retrieval of chemicals in the storeroom
  - **eMolecules —** A reseller representing 150 suppliers of chemical building blocks whose key role is to simplify sourcing. Its commercial building block database covers approximately 600,000 entries. This research organization's version includes special order custom chemistry molecules bringing that number up to 6 million.

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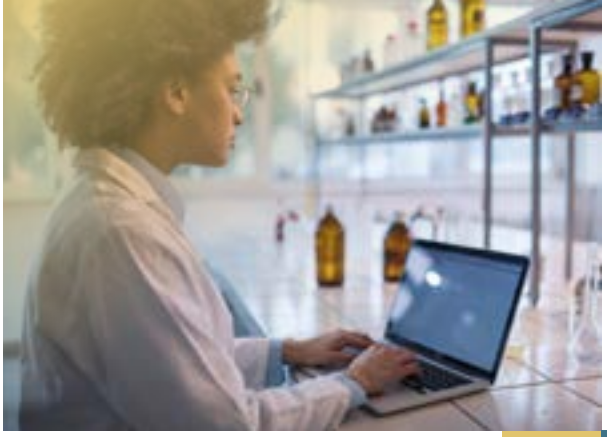
Starting point: Evaluating the old system

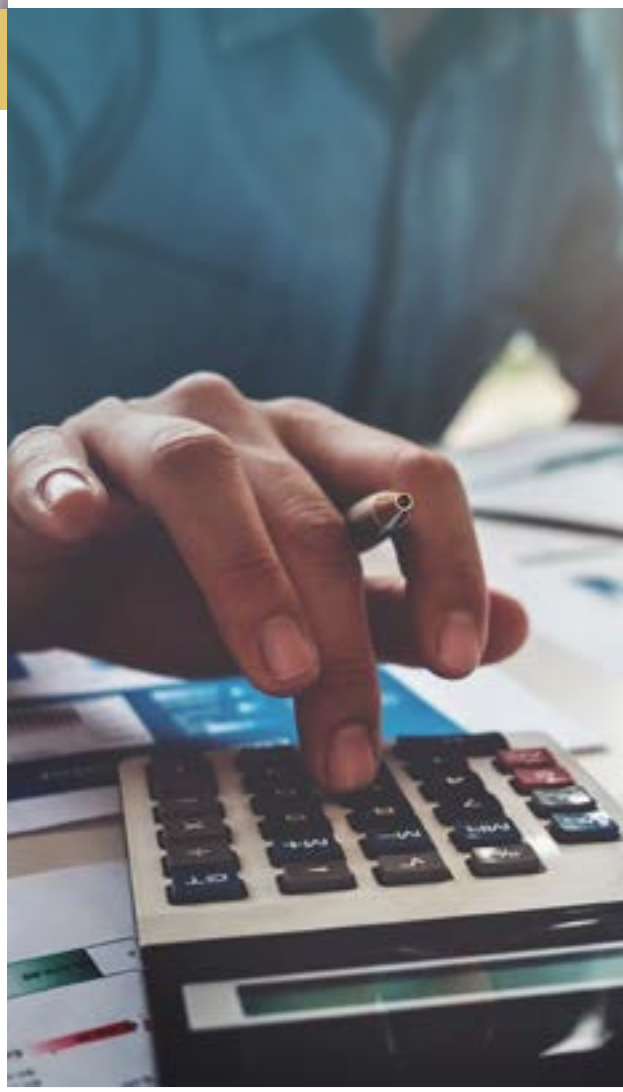
Spend Matters points out that all too few procurement organizations do a good job of defining their needs in terms of business success goals, and instead focus on lengthy laundry lists of “must-have” features.

That’s why it’s always important to assess what is working well and what needs to be improved. A gap analysis can level set where you are and where you want to be in the future.

In this global pharmaceutical company’s case, the ancient (over a decade old) custom-built legacy system was based on MDL CIMS. The company’s migration from the Cheminformatics system on which CIMS was based to the Accelrys platform (since acquired and now known as Biovia) became a key driver for the initiative. Nearly all of the company’s research systems interacted with this infrastructure—many were closely coupled to it. Transitioning from this infrastructure meant either upgrading or replacing nearly all research applications. A solution with an open architecture became critical in enabling this change.

The pharmaceutical company’s legacy system also had several custom integrations (with Ariba for receiving and with the stockroom’s automated sample storage system) as well as company-specific processes. Additional integrations such as search and request from eMolecules and from their internal building block library were not supported by the legacy application. This shortcoming led to stakeholders ordering excess inventory and losing time waiting for chemicals that were already on hand. It was clear that the way forward was through a fresh solution.





That was the starting point of a new solution with needs defined in terms of business success goals, including:

- **Increased user adoption —** To drive spend under management and streamline material acquisition for researchers
- **Lower IT operating expenses —** To retire the heavily customized legacy system, which was a development dead-end and expensive to maintain
- **Enable global research —** An architecture transition to integrate operations across facilities in Europe and Asia
- **Visibility to pricing and availability —** The prior system had neither; users could see and attempt to order products with no idea of competitive prices or any understanding of actual availability

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Finding the right solution

As the project continued forward, the company evaluated several solution providers. After an extensive evaluation process, they awarded their major business critical transformation to JAGGAER's Research Material Management (RMM) solution. The new system had to adhere to stakeholder needs while maintaining compliance.

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New solutions bring new capabilities

The RMM solution's core features enabled the inventory control and ordering capabilities and additionally embedded critical information:

- An on-premise installation was a specific requirement. (Not all clients require on-premise installations; some prefer a cloud/SaaS solution instead.) JAGGAER offers both approaches to integrate with existing infrastructure, promote compliance and manage risk
- Orders are automatically routed for review, approval and transmitted to suppliers
- Catalogue integration available for simple access to JAGGAER and eMolecules catalogues

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Unexpected change requires flexibility

As with any project of this size, the scope was modified along the way. The company's rollout of a new system for managing internal building blocks (a replacement of a legacy system, and a key integration point for the new reagent management system) fell behind schedule, and this particular integration point was shifted to post go-live. All other integrations were delivered in scope and on time. As plans progressed, the company decided to shutter a major U.S. research facility, originally in-scope for implementation. As a consequence, the go-live included an additional site in Europe when the closing of the US facility was announced.

Spend Matters reported that the pharmaceutical company complimented JAGGAER for remaining flexible and committed to work through these changes for a complete revamp of its entire research informatics architecture.

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Achieve strong results

Negotiations with JAGGAER concluded in Q1 of the deployment year. The solution still went live in Q4, an exceedingly short implementation process given the highly customized legacy system, the number of suppliers and the integrations involved. Currently, RMM is delivering the capabilities that the company had in its previous solution and additional ones not previously possible.

Additionally, the China site added its own RMM installation, sharing most of the same integrations with the original.

The solution integrates RMM with the 3E Ariel Data Manager, a subscription database of regional regulatory lists from industry leader 3E Company. RMM uses Ariel lists in identifying and reporting on regulated and hazardous materials. The pharmaceutical company also investigated the ability to provide users with Safety Data Sheets (SDS) via the 3E Online offering, addressing compliance as to how sensitive chemicals are handled. At time of writing, the company had not implemented this solution.

Adoption has increased according to expectations and change management has not been an issue. Thirty suppliers are onboarded with catalogs active inside the solution. Out of those, three are among the top five giant suppliers (e.g., Sigma-Aldrich) and the others are smaller. More than 1,200 users are currently active in the solution. This is a substantial installation, but not JAGGAER's largest RMM installation — the provider has at least two other research organizations with larger user bases.

More recently, the pharmaceutical company helped shape the JAGGAER RMM Stockroom module. Additional areas for future consideration are a new proprietary compound view and increased interaction with Ariba in the invoicing area.

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Takeaways

- **Bigger picture view —** The global company assessed its bigger vision and didn't isolate the compliance aspects from the transactional searches, inventory visibility, and tracking. It stepped back, assessed all of its needs, and decided on a solution that pulled together all of the features required to deliver clearly defined business value.
- **High adoption —** The company made sure that all internal users would jump onboard, and this has ensured that transactions are compliant, inventory is managed, and waste is kept at a minimum. Critically, with high adoption comes visibility into actual spend, which is the most important factor. Compliance can be improved over time, but without visibility there is no way to measure and track performance.
- **Content —** Technology alone doesn't effectively address source-to-pay needs. The company has brought its critical suppliers and catalogs into the solutions, as well as important compliance information via JAGGAER partners 3E Company and eMolecules.
- **Integration was easy —** at least far easier than expected. The pharmaceutical company rolled out across the globe, in locations with quite different languages and cultures, tying together multiple systems and user groups through one solution: RMM from JAGGAER.

Global Spend Management Solutions

JAGGAER is the world‘s largest independent spend management company, connecting customers to a network of 5 million suppliers in 70 countries, served by offices located in the Americas, APAC, Asia and EMEA. JAGGAER offers end-to-end SaaS-based procurement solutions, including advanced Spend Analytics, Category Management, Supplier Management, Sourcing, Contracts, eProcurement, Invoicing, Supply Chain Management and Inventory Management. These all reside on a single platform, JAGGAER ONE. JAGGAER has pioneered spend solutions for more than two decades and continues to lead the innovation curve by listening to customers and stakeholders in all industry sectors, public services and academia. JAGGAER holds 37 patents - more than any other spend management company.

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