

## **SDI Point of View**

*The Facts about MRO Integrated Supply  
and Business Process Outsourcing.  
What is Integrated Supply?*

**SDI**



**POV**

***Integrated supply for MRO is not a new concept. It has been around for over 40 years, and in those four decades, the definition has changed considerably—along with the services being provided.***

In the simplest terms, Integrated Supply for Maintenance, Repair and Operating materials (MRO) was born as a form of supply chain management originally intended to simplify the purchasing and inventory practices in order to save time and money for companies by consolidating its many vendors into one. This cost-effective alternative to traditional, segmented supply chain management provided a mechanism for a client to focus on its core competencies, rather than be distracted by the complicated demands of MRO.

Unlike direct materials, which involve a finite number of skus purchased from a limited pool of suppliers (allowing for highly leveraged pricing, timely delivery and exemplary customer service), the MRO supply chain often

involves tens of thousands of skus and thousands of suppliers with varying pricing practices, delivery methods and customer service. The problem is compounded by the reality that MRO lacks transparency and is typically underfunded, undermanaged and supported by inadequate technology. As more companies looked for cost savings outside of direct materials, the simplistic, traditional definition of Integrated Supply was morphed to fit the individual needs of companies.

**The Evolution of MRO Integrated Supply**

The concept of Integrated Supply began to evolve in the 1970s and was first seen in 1980, when on-site MRO supply chain programs were first introduced. In the early years of Integrated Supply, corporate America was

slow to embrace the concept of outsourcing and continued to use a complicated and inefficient process to procure MRO supplies. This was due in a large part to a corporate mindset that viewed the procurement and management of indirect materials as a “cost of doing business.”

In the 1990’s, Enterprise Resource Planning (ERP) systems for direct materials organized and provided significant insight into the day to day operations for planning and production using good, accurate data. With access to data, companies began to examine their indirect spend and found that 60% - 80% of a typical company’s purchasing transactions went to procure indirect materials yet the MRO spend dollars accounted for less than 10% of the company’s total purchasing dollars. It became clear that better management

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of this relatively low value, highly transactional portion of spend was an opportunity for significant cost reduction.

The growing awareness of opportunities for cost improvement coupled with emerging technology created a variety of MRO programs targeted at specific aspects of the MRO supply chain. The challenge

remained that companies continued to use ERP systems like SAP, meant for direct materials, or CMMS systems like Maximo for their MRO using the 'shoe-horn' approach to squeeze the MRO processes into the existing system platform. The result was siloed programs with specific, but limited benefits.

Some programs focused on procurement costs, others on inventory management. Figure 1 is an illustration of many of those individual programs and the benefits achieved through their individual offerings up through Pure Integrated Supply Chain Management, at which point the solution becomes unbiased and integrated – a true end-to-end MRO service offering.

# Evolution of MRO Supply Chain Services

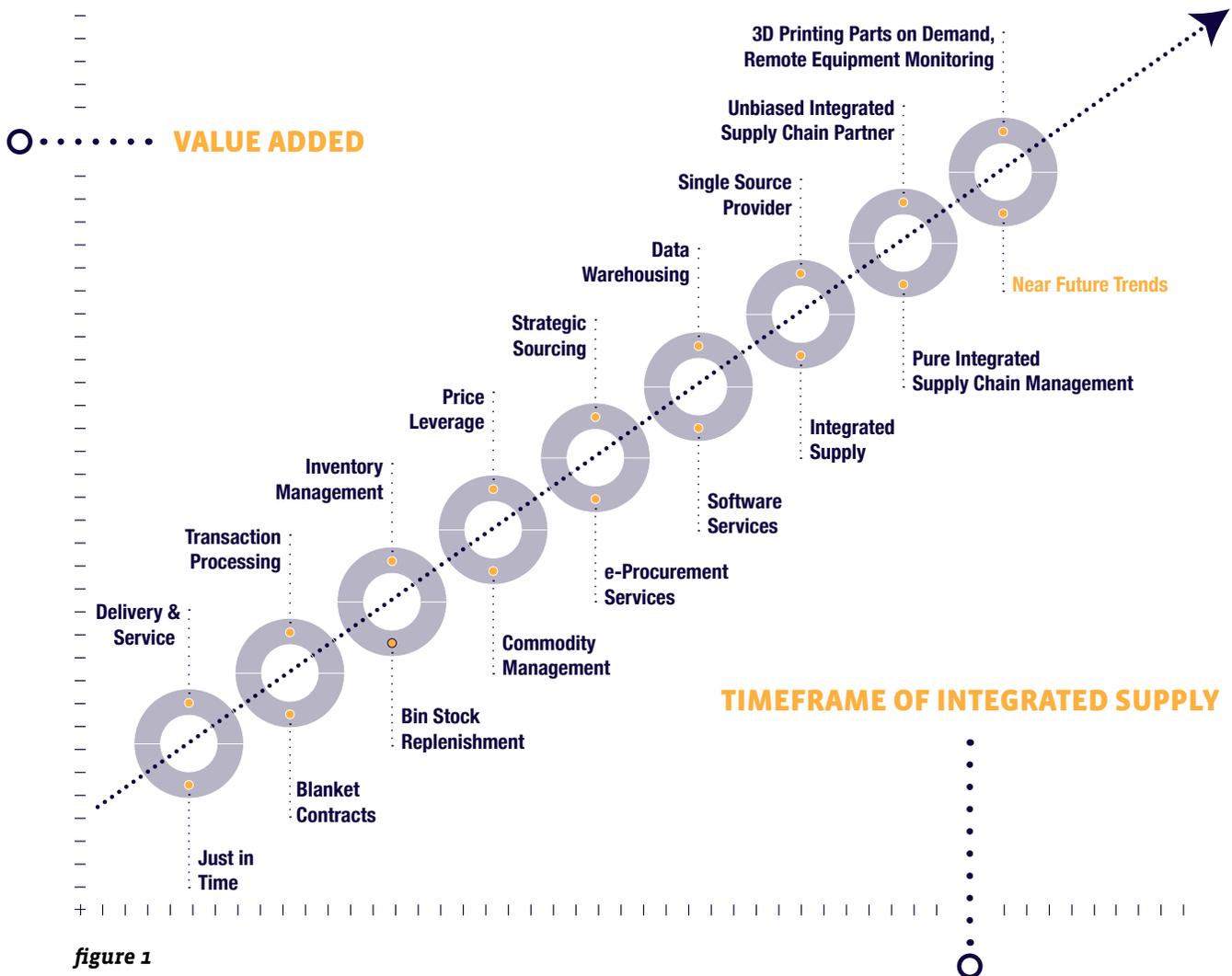


figure 1

## Economic Factors

Despite the efficiencies in purchasing and inventory management that were made possible by new developments in information technology, most of American industry continues to use a complicated and inefficient process to procure MRO supplies and MRO continues to be an under-managed aspect of the business.

Today's changing economic climate, pricing & margin pressure, disruptive innovation, the gap in skilled labor, and the increased focus on operational excellence and Lean or Six Sigma programs (all designed to drive waste from the manufacturing processes) are the new driving forces behind manufacturing companies looking for ways to better manage this low value, highly transactional spend, known as the 'Tail Spend'. Analyzing the MRO supply chain as a whole has become increasingly important when striving to remain competitive in this global market. These economic factors have resulted in companies realizing that the MRO supply chain function should be outsourced, similar to payroll, security, cafeteria and other peripheral support functions.

## Integrated Supply Components

MRO Integrated Supply, in its purest form, is an end to end, holistic solution that incorporates several key components that enable large-scale industrial companies, as well as targeted institutional marketplaces, to overcome inefficiencies that have become ingrained in the process.

The first of these components is data. As was the case with the introduction and adoption of ERP systems for direct materials, complete and accurate data for MRO is also the foundation for MRO integrated supply to be effective. Maintaining the integrity of data that is highly transactional involving tens of thousands of skus, thousands of suppliers and variable units of measure, is not an easy task. Therefore, the data platform and on-going governance of the data is vital to MRO data integrity.

The second component is to simplify the Source to Pay process for MRO supplies. As previously pointed out, the vast majority of a company's purchasing transactions are to source and procure indirect materials which, in turn, accounts for a fraction of the company's total purchasing dollars. When the entire process is analyzed, MRO purchase order processing, from an end to end

basis, crosses many departmental lines and is generally much more expensive than firms think; validating that the value of simplifying the process. Redundant tasks need to be eliminated and technology must be introduced to replace manual, labor intensive tasks.

The third component is to streamline inventory practices that have long resulted in skewed min/max levels, inaccurate lead times, slippage/shrinkage, stock outs, downtime and both excess inventory and obsolescence growth. Antiquated inventory practices including the standard practice of adding all of the manufacturers recommended spare parts list to inventory or buying in bulk for price discounts with no regard for freight or inventory carrying costs are well-intended, but short sighted and very costly. Simplifying the inventory control processes used in the typical storeroom are critical core elements of MRO Integrated Supply.

The last component of an MRO integrated supply program revolves around the general acceptance that opportunities to reduce costs through process efficiencies, new product applications and other initiatives related to MRO exist within the walls of the

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facilities, however, the truth is that the internal resources to cultivate the opportunities do not. MRO does not typically get the investment of skilled, knowledgeable, employees or technology – those resources are reserved for projects and careers that are perceived to have a more direct impact on revenue. This realization, and the need for specialized resources to uncover and capitalize on the hidden opportunities for cost reductions, is a key component of the MRO integrated supply value proposition.

These elements, when presented as integral, integrated components of the MRO supply chain constitute an end to end MRO Integrated

Supply program—a supply chain transformation. This integration of the entire supply chain in support of Asset Care Management, Reliability Centered Maintenance and all functions related to improved equipment uptime and overall productivity is the holistic application of MRO Integrated Supply Chain Management.

**The Future of MRO Supply Chain Management**

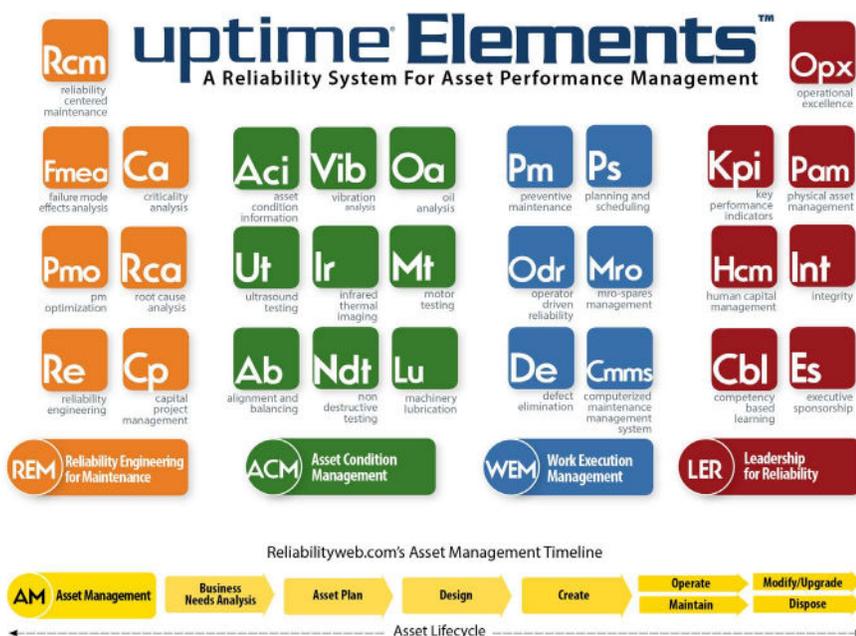
With a focus on supply chain transformation, the future of MRO Supply Chain Management will likely continue to migrate away from (at an accelerated pace) individual departmental improvements and toward the management and outsourcing of

the entire MRO supply chain. This means that the emphasis of MRO product prices will continue to diminish and the focus will be more about the MRO Total Cost.

So what will be important in the future of MRO Supply Chain Management? According to “Driving Unconventional Growth through the Internet of Things”, an article by Accenture, the answer is creating value in unconventional ways – specifically, information and innovation. “Being the most valuable information provider—the source of external information that customers rely on the most to run their business—is so critical.” Successful MRO Supply Chain Management service organizations will be those that provide proactive, meaningful information to their customers. Complete and accurate data is the foundation but translating that data into relevant information is what creates value.

The same article points out that “The Industrial Internet of Things (IIoT) is a major trend with significant implications for the global economy” and “...operational efficiency is one of the key attractions to the Internet of Things”. As seen in Figure 2 from reliabilityweb.com, MRO spares management

figure 2



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is an essential element in the Work Execution phase of Asset Performance Management. Organizations that are making the move (or interested in making the move) from Reactive Maintenance to Planned, Improved Precision and ultimately to Reliability Centered Maintenance in support of equipment uptime and operational efficiency, will require an end to end MRO supply chain solution that incorporates Reliability Centered MRO as part of their strategy. The providers that embrace innovation and bring new technology, new service offerings and new ideas to their customers will be viewed as partners, critical to the overall operation.

### Summary

For over four decades companies have been looking to reduce the cost of their MRO supply chain. This segment of the business is a small portion of the company's total spend yet, due to its innate complexities, requires a significant amount of resources to transact and maintain. In most companies today, MRO remains underfunded and undermanaged.

For companies looking for straight product price reductions or incremental improvements to their current MRO processes, variations of integrated supply will fit the bill. But for

companies who are looking for vast improvements with sustained, measurable value, outsourcing the entire process to an integrated supply provider that will customize an end to end integrated MRO supply chain program is the right solution.

### About the author

[Missy Decker](#) is the Vice President of Solution Design for SDI, Inc. She started her career at SDI 30+ years ago, working side by side with the founders of MRO integrated supply chain management. Throughout her career, she has worked with many of SDI's clients, across the supply chain spectrum and across many industry verticals, giving her a uniquely holistic understanding of the needs of any organization – from individual departments or isolated sites to the enterprise as a whole.

Missy leads the solution design process beyond traditional expectations, driving continuous improvement.

### About SDI

By helping organizations understand how each link in their MRO supply chain impacts the entire enterprise, SDI helps them achieve year-over-year savings, enterprise-wide efficiencies and newfound control.

Using a custom suite of products, services and tools, SDI's platform coordinates, aligns and optimizes every step of the MRO indirect process.

Lower costs, smarter inventories and increased performance are all natural results from a more connected MRO supply chain.

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