



## MRO: INFOSYS DELIVERS SAVINGS IN AN INFLATIONARY MARKET

### Abstract

The manufacturing industry faces challenges in all areas. As they try to recover and push ahead with upgrades or new development, they must overcome obstacles such as soaring energy prices and food shortages. To achieve savings, working with strategic suppliers and using integrators can help manufacturers save up to 10% while also reducing downtime and improving maintenance regimes. Additionally, converting to OEM parts from phased-out products can result in additional savings of up to 30%.

## Introduction

The manufacturing industry is facing significant delays from global equipment manufacturers, unable to obtain the relevant parts. This is further leading to longer lead times, in some cases over 12 months, thereby impacting the project timelines and bottom line. Manufacturers face an uphill challenge if they do not carry the correct maintenance parts and insurance stock and rely on distributors holding stock or refurbished/reworked items. Additionally, limitations of distributors' licensing arrangements with certain global part manufacturing also prevent them from selling parts outside a defined region or country. This has forced manufacturers to face the ultimate brunt as they must be on their toes to identify new sources to run their production facilities, search for new suppliers to manage their network, and deliver products to fulfil the soaring demands of consumers.

Experts have found that Maintenance, Repair, and Operations (MRO) can help manufacturers tackle challenges. Instead of only using manufactured replacement

parts, they now consider all factors that affect the total cost of MRO, including labor, parts, quantity, delivery, stock, downtime, energy, consumables, PPE, and preventative maintenance to reduce reactive maintenance.

These components are often delivered by MRO distributors to the market. The prime role of MRO distributors is to act as an intermediary third party, representing many part manufacturers. In the given scenario, dependence on MRO distributors is not only causing a delay in deliveries but also an increase in the overall prices due to the above-mentioned constraints.

Manufacturers are shifting from MRO distributors to MRO integrators, who act as a single point of contact from planning to procurement, inventory management and optimization. They help enhance plant uptime and allow companies to focus on their main objectives. They also have access to multiple partners, global part manufacturers and internal engineering expertise, which increases their efficiencies

and delivers cost savings. Shifting to integrators can improve services like inventory, distribution, purchasing and logistics management and bring savings to the overall procurement and sourcing function.

In Southeast Asia, a fast-growing manufacturing region with a fragmented supply base, suppliers can only serve a few categories, leading to limited consolidation of MRO spend with local players. The region also faces challenges such as:

- Low Standardizations of Spare parts
- High volumes of Free Text Spot Buys & Low catalogue usage
- Excessive Inventory holding cost, which increases the level of obsolescence parts
- High lead time for spares from OEMs
- Significant increase in costs of parts (triggered by rising costs of raw material, transportation, labor, etc.)

Thus, the region creates lucrative opportunities for large MRO integrators/distributors.



## MRO savings levers

Below are the various savings levers for MRO which can all support the reduction in TCO. Organizations looking to reduce their overall cost of maintenance could carry out the various initiatives internally, with the support of the business, but often the organization is not set up in a way to support this activity, each lever would be a project; it can be very time consuming, which is a reason to turn to an integrator, which can cover all the levers.

**1. Benched Savings:** Any reduction due to distributor/integrator engagement when compared to previously incurred prices by the buyer

**2. Inventory Savings:** Inventory cost reduction achieved on account of

customized inventory management and replenishment systems installed by integrator, efficient inventory planning, inventory reduction, inventory disposition, storeroom space reduction, etc.

**3. Freight Savings:** Freight costs are saved considerably by integrators/distributors owing to better inventory and order planning, negotiations with 3PL providers based on integrators' overall strength, fewer stock-outs leading to less maverick ordering, economies of scale, etc.

**4. Consumption Reduction:** Material wasted through excessive ordering by employees and inefficient use. Such wastage and actual consumption of MRO products can be reduced by on-site

facilities such as dispensing machines, scanners, storeroom inventory levels check, central internal order processing

**5. Project Based Savings:** Savings from vendor consolidation, OEM to generic conversion, part substitution, product innovation, and technical consulting by distributors/integrators

**6. Resource & Headcount costs:** Human resource cost saved by client due to labor deployment by integrator on its own.

**7. Productivity & Other Soft Savings:** These savings can be classified as improved productivity of employees due to reduction in their time spent on activities other than production. Energy savings is an example of other soft savings.

## MRO Levers - to be applied, in an inflationary market to deliver savings

Savings Category	Savings opportunity areas & levers used during RFx	**Estimated cost savings as % of Impactable spend		Initiatives/projects Description
		Hard Savings	Soft Savings	
<b>Benched Savings(BS)</b>	1. LPP 2. Inflationary	1% - 3%	2% - 50%	<ul style="list-style-type: none"> <li>Short term impact, typically 1-2 Yrs.</li> <li>Difficult to achieve in high inflationary markets, may end up paying more for product.</li> <li>Vendor agrees to fix prices for period of time, market dependant (3, 6, 12 Mths)</li> </ul>
<b>Inventory Savings(IS)</b>	3. Cost recovery Unlock cash (CMI) 4. Align Min/Max level. 5. Remove obsolete stock,	0.2% - 5%	10% Inventory value	<ul style="list-style-type: none"> <li>Increase space</li> <li>Reduce time for stock counts</li> <li>CMI savings methodology - typically 10% saving from stock value</li> </ul>
<b>Consumption Reduction(CS)</b>	6. Improved management of Stock	2% - 5%	5% - 45%	<ul style="list-style-type: none"> <li>Some commodities, achieve significant savings through vending/CMI e.g. PPE</li> <li>Improve control of silo stores, reduce squirrel stock</li> </ul>
<b>Project Based Savings(PS)</b>	7. OEM Part Conversion	3% - 4%		<ul style="list-style-type: none"> <li>OEM Part conversion, substitution - (this will increase over time as Integrator learns business)</li> </ul>
	8. Increase uptime, reduce downtime		3% - 15%	<ul style="list-style-type: none"> <li>CI - Through continuous improvement initiatives improve uptime/reduce downtime.</li> <li>LMTBF Extended product life/more energy efficient</li> <li>Repair vs new / Reduced maintenance hours</li> </ul>
<b>Resource &amp; Headcount costs (RS)</b>	9. Remove headcount reduction	2% - 10%		<ul style="list-style-type: none"> <li>Improve efficiencies</li> <li>Remove internal head count</li> <li>Outsource to 3rd party, integrators may offer rebate the cost of resources after meeting certain thresholds,</li> </ul>
<b>Freight Savings(FS)</b>	10. Prices quoted DDP 11. Source locally within country		1% - 3%	<ul style="list-style-type: none"> <li>Ensure prices include Delivery and Duty, source in country to reduce cost of export/import duties and transportation costs</li> <li>Consolidate</li> </ul>
<b>Productivity &amp; Other Soft Savings (SS)</b>	12. Efficiencies		0.5% to 1% 0.2% to 0.45% 1% - 10%	<ul style="list-style-type: none"> <li>Process - Reduce non-core activity/ site walks fast POU delivery of material, vending machines, Kanban systems etc</li> <li>Supplier consolidation/ reduction in Invoices, receive only 1 invoice</li> <li>Energy savings</li> </ul>
<b>Financial Incentives (FI)</b>	13. Rebates 14. Project business case Gain Share	0.5% - 10%		<ul style="list-style-type: none"> <li>Rebates, renegotiation resulting from a detailed spend knowledge, increased discounts due to volumes leverage, or based on supplier spend.</li> <li>Can be rebate on all spend, or a growth rebate</li> <li>An incentive, % of savings paid to vendor once project approved</li> </ul>

\*\* Typically a supplier offering TCO guaranteed savings ranging from 3% - 10%, combination of all from the above levers

Developing a consignment managed inventory (CMI) can be difficult as storing excess stock requires resources and space. Implementing a vendor managed

inventory (VMI) program can help suppliers identify needs and manage excess offsite, but stock remains on client's account. Adopting CMI is more effective, putting

stock costs on suppliers' accounts and only paying for used parts, freeing up cash and eliminating excess stock.

## Saving levers for manufacturers

The capabilities of original equipment manufacturers (OEMs) and part manufacturers, particularly global names, are often overlooked. With technology advancing quickly, having a strong relationship with these manufacturers can help sites reduce costs, downtime, and ensure proper servicing and inventory. They can also help with risk assessments, identifying obsolete parts and potential phase-outs, LMTBF (lower cost/longer mean time before failure), and more energy-efficient options. OEMs can reduce the total cost of ownership (TCO) by streamlining inventory management and bulk procurement, resulting in savings, improved lead times, and increased productivity. Strategies for this include:

### **Streamlining supply chain network:**

Having a diverse supplier base no longer guarantees cost savings. The pandemic has led industries to rely on local vendors for all products, resulting in a more consolidated supply chain network. OEMs can secure procurement and save on time, transportation costs, and workforce by using local vendors.

### **Replacing special parts with parts lower cost/Longer Mean Time Before Failure**

**(LMTBF):** Special parts and made-to-order items are more expensive and have longer lead times, leading to production downtime and increased inventory costs. OEMs should replace these with low-cost, longer LMTBF parts for long-term savings. Although this may require initial

investment, it can have a significant impact on TCO.

**Working with MRO integrators:** MRO integrators can save on warehouse costs by buying products directly from OEMs. Advanced analytics and digitization also help them identify savings opportunities, such as standardization and replacement parts. Integrators can manage the relationship on site, align priorities with site directors, and identify potential savings opportunities. They can support continuous projects by providing internal specialist technical services or utilizing trading partners (OEMs). Having the right governance in place, involving all parties, is key to driving these initiatives.



	PROJECT	DESCRIPTION
<b>Reduced Acquisition Costs</b>	Vendor Reduction	Reducing the number of vendors reduces system maintenance costs and increases commercial leverage
	Order Consolidation	Fewer orders, less reconciliation and reduced processing costs
	OEM Conversion	Spares are often bought from Original Equipment Manufactures at a premium. Identify opportunities to convert to standard, generally available parts
	Consolidated Invoicing	Reducing the virtual or hard paper chain reduces transactional costs
	Carriage Reduction/Consolidation	Uncovering hidden logistics cost and seeking to consolidate, taking advantage of fewer deliveries
	Product Substitution	Identifying products that can be substituted for more cost-effective alternatives either in terms of life or price
	Digitalization	The use of online portals to control ad hoc purchasing or full integration of systems. Defining scope and budgets thereby reducing consumption and overall spend; can host bespoke and strictly controlled online catalogues to add further end user control; controlled by the customer
	Connexium	Automated order receipt, recognition, and processing from PDF
	Exclusive Brands	Utilizing Integrators Exclusive Brand portfolio to cost effectively substitute - Cutting Tools, chain, PPE, Belts, sprockets, pulleys, couplings, consumables, Motors, etc.
	Glove and Footwear Consolidation	Can present, manage, and supply a core range to control maverick buying - combine with digital above
PPE Site Audits/Trials	Not only does this ensure that every person is equipped properly for every activity, but it also means you can standardize your range, consolidate suppliers and manage costs more effectively. Increasingly customers are looking at sustainability projects as well.	
<b>Improved Production Efficiency</b>	Air Efficiency Audit	Audit of all air equipment and processes on site, identification of lost energy, quantification of cost benefit and detailed remedial recommendations including work & spares required
	Compressor Control	Our In house modular compressed air control packages can cater for the individual requirements of any site - loss correction, enhanced feedback, reduce pressure swings, stabilize systems and reduced energy
	Heat Recovery	Over 80% of the input energy to a compressor is lost as waste heat. We design retrofit heat recovery packages for air compressors. There are multitude of use for the heat all offering very quick pay back periods.
	Linear and Pneumatic system design	In house design and manufacture of automated production applications along with aluminum extrusion solutions
	Cutting Tools Audit	Best in class tool selection for your component material proposition and Product Proving for new tools? Extended life and reduced waste
	Drive Train Efficiency Audit	Audit to identify drives which can be converted to a higher level of efficiency through the retrofitting of more efficient couplings, belts, motors or VSD's. Full Cost Benefit justification
	Hydraulic Hose Audit	Full audit of hose demand, types and recommendations on model/type consolidation and stocking strategy.

Hydraulic Performance Improvement	Identify hydraulic leakage, hydraulic health checks, oil analysis & contamination control within the hydraulic power units, setting the ISO cleanliness levels in line with 7 step approach
Fan Solution Program	Fan audit to make recommendations on optimum control, mechanical drive design, sealing and reduced MTBM...particular focus on correct bearings which are often mis specified by Fan OEM's
Solid Oil Bearings Survey	Identifying opportunities to retrofit solid oil bearings...particularly suited to applications demanding frequent lubrication or subject to contamination/ingress
Training	Product orientated training workshops on best practice - commonly, Mechanical Drives (Belts, Couplings, Chain), Bearing Fitting/ Removal, Basic Condition Monitoring, Lubrication, etc....
Red Power Belts /Problem belt drives	Replacing existing Drive belts to Optibelt Red Power belts, the requirement to regularly re-tension the belts is removed saving labor cost, there is also the added benefit of the improved efficiency of the belts resulting in reduced energy costs
Steam System Improvement	Identify steam leakage and potential issues with steam traps and associated equipment, each leak and failing steam trap to be costed
Process Valve Enhancement	Introduction of a range of high integrity ball valves which come with a unique 5-year warranty. We envisage that these could reduce maintenance levels, reduce inventory, and total cost of ownership
Pump Optimization & Efficiency checks	Repair, redesign, and re-specification. Enhanced control optimization through pressure, flow, or temperature. Risk assessment and reduced energy consumption/CO2. Extended MTBF
Gearbox/Pumps/Motor Repair v's New	In house engineering centers provide a professional repair service which is often more cost effective than buying new. Repaired over 50,000 gearboxes
Action Sealtite dry link coupling / general coupling projects	Used where drips or leaks would impact the environment i.e., Fluid handling of sludges/contaminated water. Plus, other coupling-based projects, e.g. split couplings, flexible couplings, large gap couplings, "disconnected" couplings (Magan link)
Bearing Process Mapping	A survey which identifies opportunities to improve bearing performance in critical machine applications - design, sealing, maintenance. This then allows an engineered solution to be implemented in order to improve efficiency and performance. This can lead to genuine TCO cost savings.
Condition Monitoring	Development of regular Condition Monitoring cycles to prevent unplanned downtime and extend the MTBF for critical assets. Can be achieved through informal or formal monitoring using remote or on application methods - Vibration, thermography, oil analysis, air
Product Failure Analysis	Persistent and TCO critical failures - Root cause identification and solution
Lubrication Audits	Plant surveys to recommend type and brand consolidation and best fit recommendation. Full Inventory support with maximum consideration to TCO and contamination
Motor/Management Projects	Rewind v new decision making and control. Energy Efficiency projects & Asset Management tracking
Others	Customer to specify
Hydraulic Hose Audit (production)	Audit of hose demand, types and recommendations on model/type consolidation and stocking strategy.

<b>Reduced Working Capital</b>	Gasket Kitting	Brammer to survey and make recommendations as to the supply and kitting of gasket packs including gasket and necessary fasteners
	Tool Kitting and Workshops	Build and Design modular Tool kits to take full advantage of innovation and prevent inventory creep through brand consolidation
	Spares Kitting	Our component kitting solution works for both regular and planned interventions, delivering all the parts in one box under one purchase order.
	Electronic Equipment disposal/resell	Through a partner we can arrange for the purchase/disposal of redundant electronic equipment
	Motors	Identification of OLD motors and specification of more efficient units plus the consolidation of types and sizes within the inventory
	Flat Belt Survey	Identification, rationalisation and registration via a on line portal
	Consignment Stocks	Supply of agreed stock profiles at supplier cost to help reduce customers capital expenditure. Movement criteria apply and formal agreement
	Point of Use (Kanban)	Bar Coded Kanban point of use access for medium / fast moving consumables, providing automated replenishment, H&S compliance, reduced walk and wait, and consolidated invoicing.
	Min/Max Review - Slimstock™	Utilizing our own in-house software review replenishment settings in stores systems which lead to a tangible reduction in inventory levels and enhanced end user service
	Lead Time Reduction Projects	
	Stores Redesign	Reconfiguring stores to offer maximum end user service. May require capital investment depending on scope of project
	Automated Vending	Point of use control for fast moving consumables, providing product automated delivery, consumption reduction, H&S compliance, reduced walk and wait, detailed reporting by employee/cost center/job no. etc., product restrictions, several access methods, consignment stock and consolidated invoicing.

## MRO – TCO approach spend saving areas

With costs of parts, inflation, raw materials, and logistics all increasing, organizations struggle to reduce their costs of MRO.

Engineers are expected to reduce costs while dealing with downtime, rising costs, and a reduction in resources. However, organizations often lack the necessary expertise or information to unlock the true cost of ownership and see where they can reduce costs. MRO integrators can provide targeted savings over a five-year period and offer a guaranteed benefit of 5% year-over-year. These savings can come from price savings, TCO savings, and inventory savings.

- Engaging an MRO integrator can help

reduce costs by focusing on specific areas, such as product prices, inventory, and technical benefits. These cost savings are calculated as a percentage of the overall spending on MRO products.

- The savings from using third-party providers are calculated as a percentage of other expenses, and savings from reducing inventory are calculated as a percentage of the total inventory reduction from the previous year.

- MRO integrators help companies save costs by purchasing products at lower prices and using their expertise to find other cost-saving options.

- The Technical Benefits savings can

be achieved by utilizing the vendor's IT infrastructure, which reduces the management complexity for the buyer with respect to invoicing and managing personnel.

However, when it comes to savings engineers often focus on Last Price Paid (LPP) which assures them a savings of 3-5%. The integrator maturity curve below showcases the yearly savings projected through core items. You will see, LPP makes up a very small % of savings opportunities, whereas the technical benefits increase over time as the integrator gets to know your business.

## TCO Integrator Natural Maturity Curve Cost Benefit Analysis

Yr 1 €3m  
Subsequent year growth €250k YoY



Guaranteed savings by integrator, on Avg 3% - 7%  
Achieved 10% in 2023 + Volume Rebate + Resource Rebates



There are different pricing modals to engage such suppliers, such as cost plus, management fee, and guaranteed savings. The preference seems to be towards the TCO guaranteed savings approach, which

addresses all areas of the business. What we have been able to deliver recently adopting this approach, post negotiating on a core basket of parts, is guaranteed

savings up to 10%, volume rebates and resource rebates, when hitting a certain threshold of spend, in some cases giving us a net benefit of 20%.

## The way forward

The only way to deliver savings in a high inflationary market and reduce maintenance is to form strong partnerships with your strategic OEMs, distributors, and integrators; have the right governance in place to support the site; and let the experts look at reducing the TCO for their area of expertise.

Many organizations are not set up to manage many different suppliers; another way is to look at an integrator, who can not only bring that same expertise on the equipment/parts but influence the complete supplier chain as well and see where the opportunities are to reduce

costs, from reducing down time increasing uptime, OEM part conversion, identifying phase out/obsolete products and consider those parts which have a longer mean time before failure (MTBF) or more energy efficient.

The preference seems to be towards the TCO guaranteed savings approach, extracting the added value from the supplier. If we look at the typical maturity curve of an integrator, with a guaranteed savings modal, you expect to see savings on LPP for a basket of goods, relying on them to have better buying power, special relations with trading partners. However,

if you expect to see a discount of every item and this is crucial to your business, then this is not right solution for your organization. The integrator is still out to make money.

A typical integrator will agree to a guaranteed savings modal, derived on spend going through them, the size of the potential opportunity, then look to other areas such as rebates and free resources.

When tendering, consider suppliers capability, whether it is an integrator, distributor, or OEM, ensure you include commitment from the supplier to reduce TCO.



If you unbundle the savings potential, you will find there will be savings across all the levers reduction on LPP for a core basket, inventory reduction and technical benefits, such as brand conversion, mean time to failure, equipment downtime and system

availability analysis to identify and quantify equipment and system failures that prevent the achievement of its objectives. Followed by root cause analysis, with specialist to determine a solution to reduce or prevent from happening.

Favored pricing model is guaranteed savings to make supplier accountable, once negotiated on price of core basket, look to other areas such as free resource (resource rebates), volume/growth rebates to achieved further net savings.

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## Conclusion

In an inflationary market there are some unique drivers beyond the time-tested strategies in procurement to generate value. The success lies in carefully choosing

a right approach which suits the category and the market. A deeper supplier relationship often comes as an anchoring point in driving the new models for the

win-win approach in such challenging situations.

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\*For organisations on the digital transformation journey, agility is key in responding to a rapidly changing technology and business landscape. Now more than ever, it is crucial to deliver and exceed organisational expectations with a robust digital mindset backed by innovation. Enabling businesses to sense, learn, respond, and evolve like living organisms will be imperative for business excellence. A comprehensive yet modular suite of services is doing precisely that. Equipping organisations with intuitive decision-making automatically at scale, actionable insights based on real-time solutions, anytime/anywhere experience, and in-depth data visibility across functions leading to hyper-productivity, [Live Enterprise](#) is building connected organisations that are innovating collaboratively for the future.

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