

Thoughts on CMMS...

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Be aware of this

The startling increases in manufacturing performance in first world economies over recent years have been made possible by transformations in maintenance management thinking and practice. A key enabler has been CMMS.

However, some maintenance gurus claim the failure rate of CMMS implementations is between 50% and 80%. They've tracked down these failures to common deficiencies within the user organisations themselves – inadequacies in maintenance management knowledge, ineffective systems training and lack of senior management support. So,

when a CMMS implementation fails to deliver on expectations, the failure is generally self-inflicted - the result of adverse cultural factors within the organisation. Anyone implementing a CMMS is therefore well advised to study the lessons learned by those that have already been there and done it.

A CMMS is not a management silver bullet; it's an information tool. As with any tool, it's only as good as the individual using it – in unskilled hands it will not satisfy expectations.

When those who've implemented CMMS have been asked the question: "What would you have done differently?" the response is always: "Get more training and guidance". So - do get trained and do seek guidance. All independent research has shown that

when you don't, it can be a recipe for disaster.

No single system is perfect, but you can confidently expect to find one that offers you more than 90% satisfaction. The planning and commitment put into CMMS implementation is arguably more important than the package chosen - up to a point.

When compared feature by feature, different CMMS often seem to vary little in apparent functionality - but dig deeper and you'll find the disparities. Systems will certainly be differentiated by their price-performance, ease of use and the quality of support. Some packages, which appear good on the surface, have shallow functionality; many are frustrating to use and others will need a lot of costly, additional fettling to make them fit adequately with your needs. Many suppliers also cut corners on support, have dubious corporate stability or are pure IT companies with no professional maintenance practitioners on board. Maintenance management is an evolutionary process, so take care. As you get going on the journey, you need to be confident that you're not going to be hindered down the line with a CMMS supplier or dead-duck system you will regret choosing.

Don't use the available functionality of a CMMS just because it's there. If it's not going to add direct value to your business, leave it and use it later. Decide what you want to do with the system – and the targets you aim to achieve during the initial

months. Prioritise needs and go for a right-first-time implementation. And always seek the software supplier's advice to guide you through any uncertainties.

The scarcest resource in any enterprise is management time and attention and one of the most time-poor managers in any enterprise is the maintenance manager. It's this individual who truly holds the key to improved maintenance, operations and corporate performance. The greatest business opportunity for cost and risk reduction lies in the area of asset maintenance because maintenance effectiveness and efficiency ultimately determine product cost and quality, workplace health and safety, and environmental well-being. A CMMS is the maintenance manager's essential tool for discharging the considerable responsibilities of the job.

It's inescapable that some degree of business process reengineering has to take place to achieve better maintenance performance. CMMS implementation therefore requires some reform of internal processes. Strong leadership and tenacity is required to drive the required cultural change. It's a challenge, but a CMMS project follows a path well-trodden by others and just needs to be well planned and communicated.

Much has been written about justifying CMMS investment. The "What's the ROI?" question is a good one to answer for yourself. An ROI study is a good means of

ordering thoughts, planning and prioritising the implementation but, for an asset-intensive enterprise, the purchase of a CMMS is just plain common sense. The soft issues such as company culture, staff attitude and inertia are the real things to worry about – not system cost. However, if you're having difficulty in convincing your boss about CMMS investment, your supplier can help you put together some very convincing numbers.

The benefits of CMMS

The benefits of CMMS are well established and extolled in hundreds of articles and numerous books. It would take pages to list them all.

The advantages to be gained are huge: reduced costs, improved productivity, reduced risks, higher quality products, on-time delivery with all round faster cycle time throughout the supply chain. CMMS can help you do much more with the same resources - or operate with much fewer resources.

Regulatory compliance is arguably the main driver of CMMS uptake. If you're in a regulated industry, like food, pharma or hazardous material processing, a CMMS is a vital necessity. Without CMMS, you'll struggle to gain the degree of control expected by the authorities and be constrained in your ability to demonstrate compliance with good manufacturing practice and due diligence.

Paper systems can't cope effectively with the myriad of regulatory and quality assurance requirements. The advent of low cost PDA handheld computers, has resulted in explosive growth in their use for CMMS field data collection and task deployment, with asset identity barcodes and RFID tags being used extensively to save time and increase data accuracy. Management control on this scale is impractical using a paper-based system.



Using CMMS, the potential cost saving for most companies is massive. With determination, and facilitated by a CMMS, you can take a scythe to costs whilst increasing plant availability. If your present operation is predominately reactive, a tenfold reduction in breakdowns and halving of maintenance costs are perfectly achievable targets - it's been done by others.

When your workforce is geographically dispersed, you can deploy the CMMS on low cost handheld computers or smartphones – this means that workers don't have to return to the office to pick up jobs and drop off timesheets. The productivity gains are amazing. If you interface the CMMS to your SCADA or BMS, you can auto-generate corrective and PM work orders.

The consequences of not having CMMS

Maintenance management is 90% information management and 10% engineering. To carry out maintenance efficiently, a proper information system is essential. Common sense says it should be a CMMS; not paper; not a spreadsheet.

If your environment is equipment-intensive, with potential failures that can disrupt operations or jeopardise safety, not having a CMMS has serious implications. It means the organisation is definitely running with inflated operating costs and most probably risks which aren't properly mitigated. In today's world, whether an organisation is in the private or public sector, that really is an unacceptable state of affairs.

Where CMMS is going

Whilst maintenance management is in itself a mature process, economic, socio-political and technology drivers are continuing to

shape the features and functionality of CMMS.

Risk-based inspection and maintenance is becoming the norm across all sectors to deliver the required safety and service levels at an affordable cost. The increased intensity of inspection necessary for early detection and repair of defects, and the huge amount of control points, demand high productivity solutions deployed on mobile computers. Proof of presence identification devices, like RFID tags and contact buttons, will become widely used for due diligence inspections.

Total lifecycle management of assets is demanding new functionality. Systems will have to handle the economic calculations for repair, refurbish or replace decisions. Systems must also provide support for energy consumption measures, waste regulations, etc.

With Government's corporate manslaughter and corporate homicide provisions, on-going risk assessment of equipment and audit of completed maintenance tasks will be increasingly demanded by the senior managers newly energised to discharge their good governance and due diligence responsibilities.

Technology will drive better connectivity to other information systems, like the accounting system, CAD and vendors' parts lists and directories. Communications systems, particularly smartphones will transform the way the CMMS is used. ■