



# Getting an ROI from a CMMS

## Introduction

If there are assets to be maintained there needs to be a system in place to ensure the maintenance work is controlled and managed. However, more importantly, there needs to be detailed information about all of the actions (and non actions) taken by the maintenance department – a system of record or an audit. The CMMS must have the ability to show what maintenance works have been done, by whom, when, which spare parts were used etc.

These are companies and sectors, for example continuous process plants, where maintenance is pre-eminent and people's lives depend on the quality of the maintenance work carried out. Here the Return On Investment (ROI) is measured in lives saved and accident prevented not just cash.

But in other industries where maintenance is a secondary function, the purchase of a CMMS will need to be justified. The purchase will need to generate a positive ROI.

This paper looks at some of the key issues that need to be addressed when implementing a CMMS for an ROI.

## 1 Know Thyself

Most companies think they know how they operate. The management believe they have an understanding of how things work and how things get done on a day-to-day basis. The employees have been trained, processes are in place and procedures are being followed. So clearly when looking for a CMMS all that needs to be done is to find the system that matches the current procedures and ways of working!

However the truth can be somewhat different. Management may have a mental picture or even written documentation of processes and procedures, but these may not be reflected in everyday practice.

Before starting the selection of a CMMS ensure that you know what you are actually looking for from a system. This review may also highlight some areas that need to be changed (or changed back) irrespective of whether a CMMS is implemented.

Measures and metrics will need to be established so that at the end of the project the ROI can be calculated. The metrics could be equipment biased such as OEE (Overall Equipment Efficiency), work order orientated; measuring the amount of overdue work or outstanding Preventive Maintenance inspections. The ROI calculation could also take into account inventory metrics including stock turns, stock valuation etc.

If you do not know where you started from and where you are going, you cannot measure your success. The cynic might argue that it's better not to know where you started from, so you cannot see just how badly conceived the whole project has been.

## 2 How do you eat an elephant?

The answer is of course, one bite at a time. Implementing a CMMS can also be a massive undertaking and will impact most areas of the business. It is all too easy for the project to spiral out of control and become all-consuming, absorbing all of the company's resources as different aspects of the system affect different departments.



Preventive Maintenance lists and routines are the cornerstone of the maintenance department and will affect the maintenance engineers. Work Orders tell the engineers what needs to be done and also record feedback, information that can also be used by operations. The inventory system provides the right spare parts and tools and is driven by the CMMS.

Production will need to use the new maintenance request system. The corporate purchasing system will receive requests and requisitions from the new CMMS. The financial ledgers need to be updated using the new CMMS transaction formats.

Planning is one of the keys to a successful implementation; step by step and department by department. Many CMMS implementations fail, surveys suggest this number could be above 50 percent. Generally the failure is not due to the software, it is due to planning and project control, or to be more accurate the lack of planning and lack of project control.

### 3 There is no "I" in Team

One of the biggest challenges facing any CMMS implementation are people problems. The success of the project is tightly bound together with the support and commitment of the people who will use the system. These people will also be expected to keep doing the 'day job' while the new system is being implemented.

If the new CMMS is seen as this month's or this quarter's 'management initiative' then it will fail. And if it is just a 'management initiative' it does not really matter because there will be a new initiative next month such as TPM (Total Productive Maintenance) or six sigma or another TLA.

From the very start of the project there needs to be open and continuous communication between all of the different people involved: senior management, maintenance, production, finance and finally the IT department.

The time spent by senior management helping all of the other employees to understand the significance and importance of the project can be the difference between success and failure.

There will be issues where individuals do not wish to change from the old system or in many cases change from the spreadsheets they have developed. The new system will not work in the same way and will not be as intuitive as their spreadsheet solution.

An experienced project manager or implementation consultant can help mediate, explain and show the advantages that the system will bring for the company as a whole, even if there needs to be sacrifices made by some individuals.

Everyone needs to understand that implementation of a new system means extra work, over and above the normal every day work. And the only way the project will be successful is if all of the employees pull together as a team.

### 4 Garbage in – Garbage out

For the first few weeks the most hated thing about the new software will be the new user interface, which is never as friendly as the old system. But when everyone gets used to it, the new interface will be seen as being far better than the old system.

Probably the second thing people hate most about any new system is when the information or data is wrong. Inaccurate data in the old system would have been



acceptable, after all it was the old system, but in the new system it is totally unacceptable. This thought may not be logical but it is a reality.

Bad data can affect the integrity of the new CMMS system. If the technical information about a spare part is wrong, then the users will assume that probably the stock balance information is also wrong and faith in the new system can be totally undermined. The new CMMS will be seen as being difficult to use and full of garbage.

But over time all computer systems gather and retain old and inaccurate data. So as part of the implementation the data from the old system needs to be extracted, checked and cleansed before it is transferred to the new database. This is not a task that can be left until a later date; it is critical to acceptance of the new system.

The new system and its data must be accurate and up to date, if the data cleansing task is left until a later date that date will never arrive and the task will remain firmly rooted at the bottom of the to-do list.

## 5 To quote Dante ...

Or to slightly misquote Dante: 'Happy is the manager that can connect the end of the project with the beginning.' The company has completed the long and arduous journey that is the implementation, travelling through the highs and the lows of milestones with the quick sprint at the end to make sure everything was finished on time.

The project is complete, all of the activities have been signed off; even the customised user manuals have been praised by the users. The outside consultant has moved on to the next project, the supplier's training people have left and life is returning to normal, albeit with a new more efficient and better CMMS.

However the project is not complete and will not be really complete for the next few months ie until the metrics and measures defined at the start of the project are checked and the ROI calculated. It could be argued that at the end of the project the ROI is largely irrelevant as the money has been spent and the new system is in place and will not be thrown out, especially as the users seem to be happy and seem to be working more efficiently. But it is important for the people who worked on the project to know what their efforts have achieved; the company shareholders and executive management will also have an interest in the ROI.

Open and continuous communication should not end when the CMMS project ends; not if you want the employees to commit to the next project which could be; TPM, six sigma, Reliability Centred Maintenance, Condition Based Maintenance, Mobile Technologies etc. in the future there may also be CMMS Phases 2 and 3 to consider.

## Summary

A CMMS can be implemented successfully and will generate an ROI providing you know where you are starting from, where you are going to, and you follow some basic guidelines and focus on the end users.

## About the author

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***The original quote from Dante: 'Happy is the man that can connect the evening of his life with the beginning.'***