

**ISMR SAYS:**

"When considering an ERP system for a manufacturing organisation, the core competences and historical pedigree of the system must match your business"

# MRP VS ERP

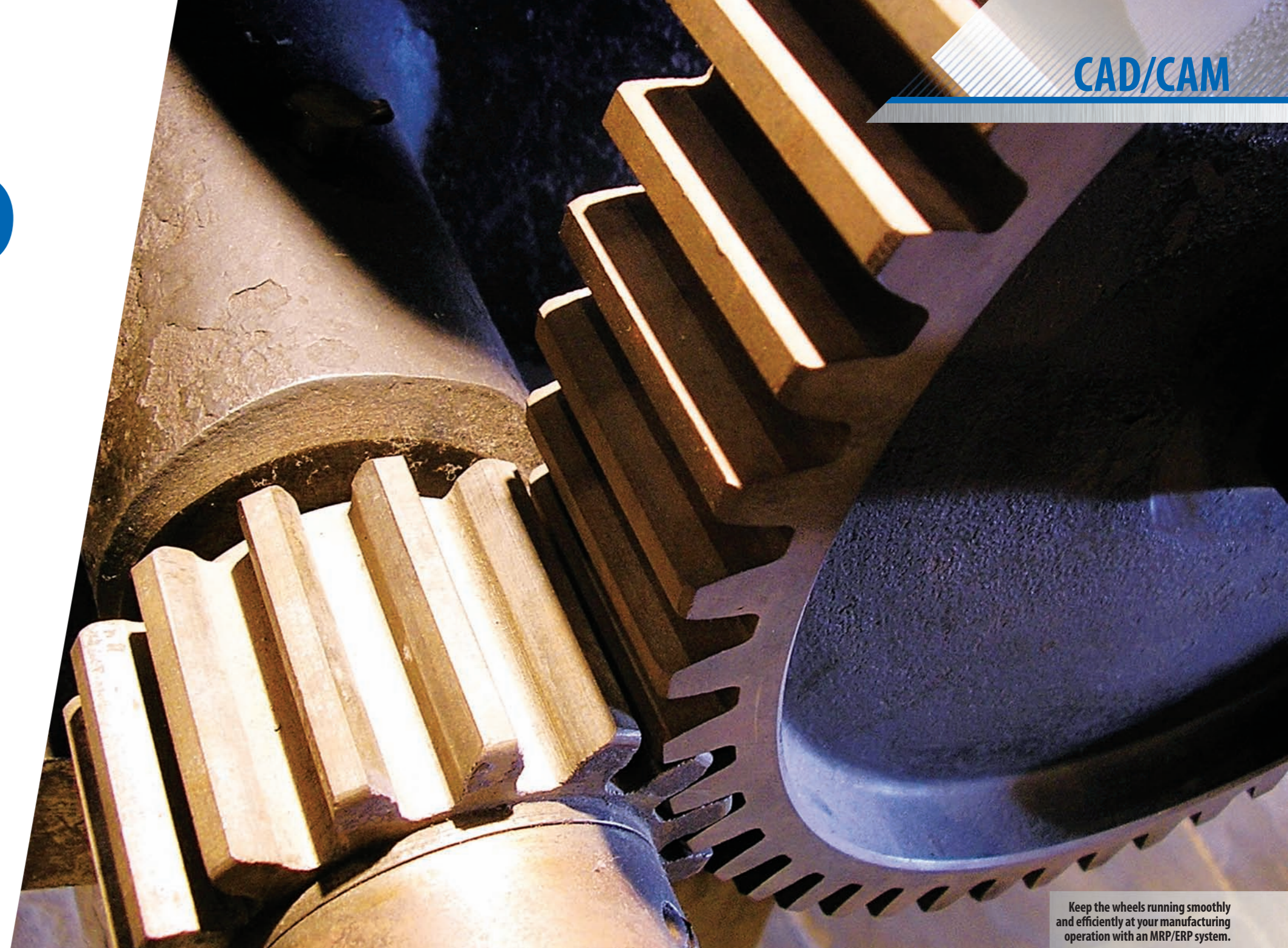
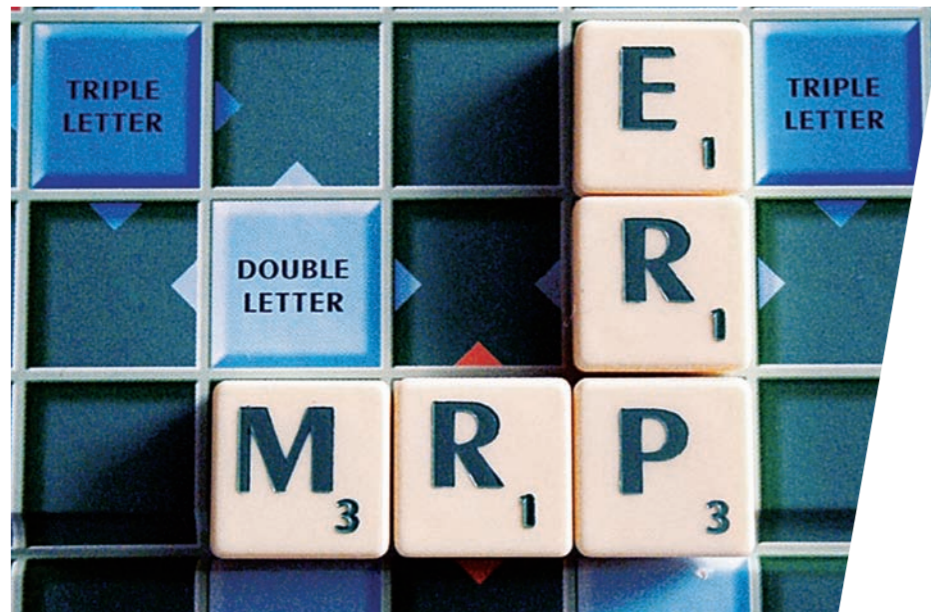
Keep an eye on cost when it comes to the systems that run your business...

Written by MARTIN BAILEY

**M**any companies mistakenly believe or are steered into the decision by consultants that they need ERP over an MRP system. But what is the difference and where do you draw the line between those that need it and those that don't?

ERP stands for Enterprise Resource Planning and is an information system designed to coordinate the resources, information and processes within an organisation. It comprises a common database that

provides interfaces and information to every department within the business. Depending on which definition of MRP you follow, there are different interpretations – Materials Requirement Planning (MRP) and Manufacturing Resource Planning (MRP II), which then evolved into ERP. As ERP systems have developed, some have moved away from their manufacturing roots. This has resulted in failed implementations as the chosen ERP system's processes do not match business requirements.



Keep the wheels running smoothly and efficiently at your manufacturing operation with an MRP/ERP system.

#### ERP covers areas such as:

- Accounting (nominal ledger, fixed assets, accounts sales/purchase ledger etc.)
- Human resources (payroll, time sheets, training etc.)
- Manufacturing (bill of materials, QC, managing the manufacturing process etc.)
- Supply chain (stock control, purchasing, scheduling)
- CRM (sales and marketing, support and customer service)
- Project management (managing costs, time and activities)
- Data warehousing (document management).

Most of these areas are already covered either partially or completely by MRP. The perceived benefit of ERP is to have a single solution to manage an entire company's information structure and processes. There is generally a reduction of data duplication as information is entered only once, and users often benefit from a common interface, thereby reducing training. A single solution only requires a single vendor, potentially ironing out data conflicts between different applications. Or at least this is the idea.

Any system – MRP or ERP – also needs to provide security at user level to ensure that the right employees have access to the right information. Every section mentioned here needs the ability to either block access or provide read-only access.

#### SO WHERE DOES MRP STOP AND ERP START?

MRP systems focus on the processes from quote, sales, raising works orders, stock control, purchasing and all stages of manufacturing through to invoicing, but traditionally tend to exclude processes such as CRM and accounting. These lines have been increasingly blurred in recent years as systems rely on similar database structures.

Previously an MRP, CRM and accounting system may have each relied on their own bespoke databases, requiring significant customisation and consultancy from the relevant vendors to get the systems communicating together. With some systems today running on platforms such as SQL Server, it is now much easier to set up permanent, stable data links between systems. In fact, many companies offer seamless >>

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» interfaces between key applications such as MRP and accounts.

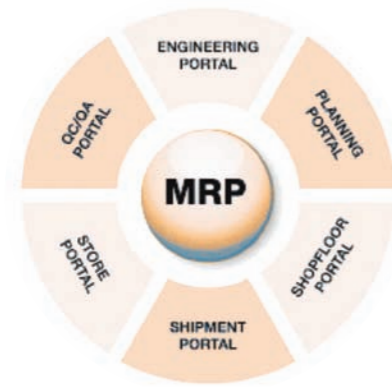
There are caveats to the above. The statement often given that 'we are the authors and can provide a single source solution' may not always be true. Many systems have evolved through acquisition of companies that produce one element (such as CRM), attempting to integrate it to the core system, rebranding it in the process to disguise its origins. More often than not, the result is a mixture of two or more systems which may not be very stable, have a different user interface to the rest of the system and do not provide a completely seamless solution.

## IMPLEMENTATION

Due to its breadth of coverage across an organisation, the problems associated with implementing ERP over MRP will be greater by default, potentially increasing the risk of failure. More departments are affected and legacy data for each area of the business needs to be manipulated into a format where it can be migrated, assuming that this is possible at all.

The scale of the task can also be too daunting for some, with many failed installations occurring due to incorrect or lack of use of the system. The set-up of the system is also important. Many make the mistake of mirroring the set-up of their legacy systems, which may require considerable customisation of the new system and runs the risk of carrying on the mistakes of yesteryear. Of course, at this point, you have already parted with your cash, spending tens or even hundreds of thousands of pounds, so many companies feel compelled to shoe-horn their company to fit the system.

While many implementers successfully adopt the approach of switching all applications over to a new single system, for others this can prove too much in one hit. A more flexible system would allow companies to implement at their own pace rather than forcing them to go live across all departments from day one. Many start with concepts that are simple to understand such as stock control or purchasing before implementing complex routings or full MRP part ordering.



Manufacturing Resource Management (MRP)

## AFTER GO-LIVE

Companies often fail to take into account the ongoing costs associated with traditional MRP/ERP software. You cannot compare it to off-the-shelf products like MS Office which, once paid for, you just use. As staff leave, their replacements require training, perhaps off-site. Many systems require days of training per module, so if a staff member covers more than one department you may have to consider several days out of their schedule as well as the daily training rate.

Furthermore, you will invariably want to customise elements of the system or generate bespoke reports, which often requires consultancy services from the vendor. Every time you need to store or analyse data differently, there may be a costly invoice tied to it. Many vendors are service-led in the fact that they cannot survive on the initial sale

value alone – they have to generate revenue through ongoing annual 'value-added services', training and consultancy. The industry standard for calculating maintenance renewal cost is generally anywhere from around 15 – 22 per cent of the initial software cost – the more enterprise-wide the software, the higher the initial cost, the higher the ongoing maintenance contracts.

## SUMMARY

When considering an ERP system for a manufacturing organisation, the core competences and historical pedigree of the system must match your business – manufacturing. Getting your hands on the software in a meaningful way prior to purchase is the best (and only) way to ensure the product's suitability to your needs. If that is not an option, then speak to as many customers of the existing system as you can. Learn its strengths and its weaknesses. Maybe the weaknesses will not affect your business, but at least you will be aware of them.

The best practice should be to select the 'best in class' product for the task at hand. If, for example, an ERP's accounts facility is lacking or less suited to your business then maybe a better solution is a separate MRP and account system that can interface to each other. Cost also plays an important factor – E may have the lesser value than M in a game of Scrabble, but the exchange of the letters at the front of your chosen information system can have a major impact on your balance sheet without relational improvements to your business. ■

“ As ERP systems have developed, some have moved away from their manufacturing roots. ”



Mantec Engineering recently adopted the 123insight CRM option and plans to use it company-wide.

## ABOUT THE AUTHOR

Martin Bailey is the marketing manager for 123insight Ltd ([www.123insight.com](http://www.123insight.com)), developers and distributors of the award-winning 123insight Manufacturing Enterprise Management solution. He is also the author of several marketing and IT-related books.