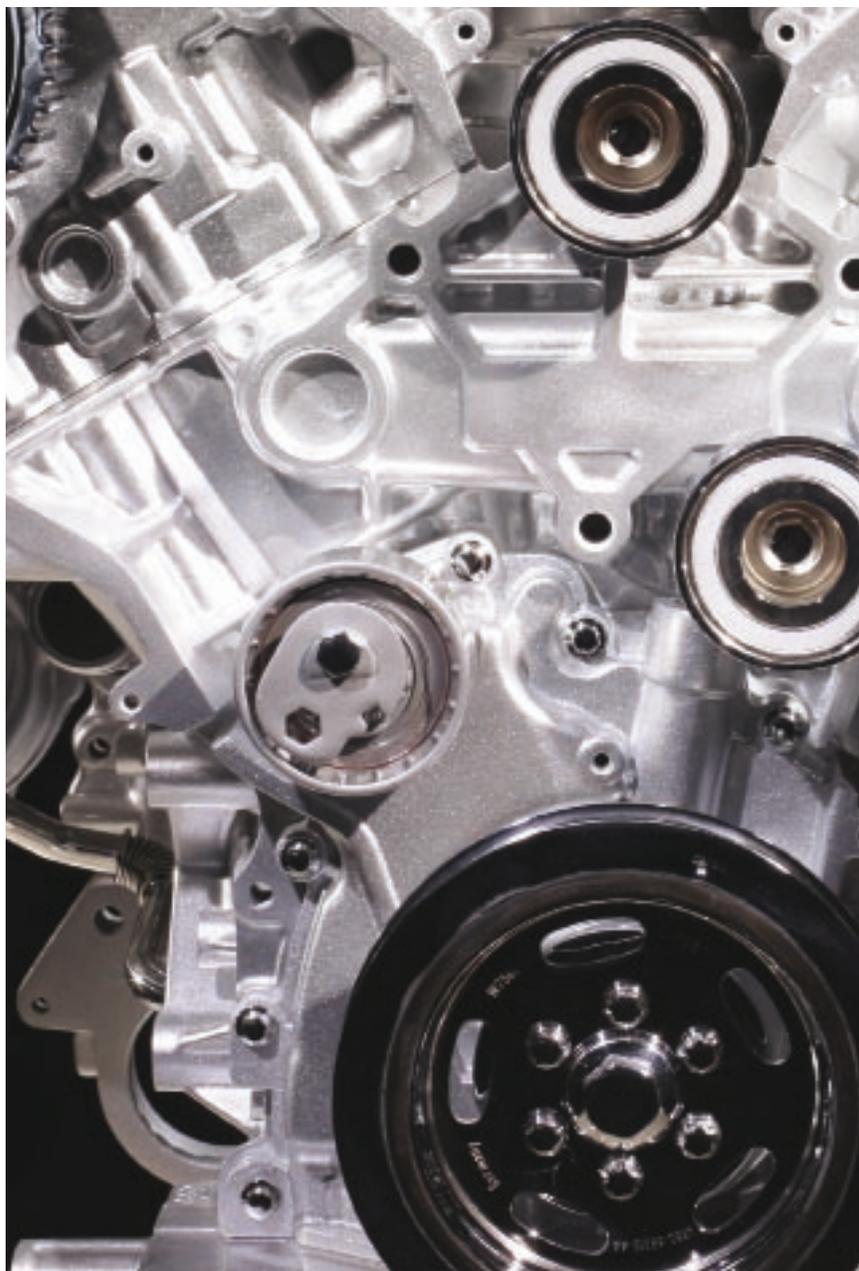


Time to tune the IT engine and rev it up?

Are chemical companies gaining maximum benefits from their Enterprise Resource Planning (ERP) systems and associated applications? A recent ICIS/J&M survey set out to establish the answer



JOHN BAKER LONDON

Enterprise Resource Planning (ERP) systems form the backbone of information technology (IT) systems in chemical companies, with many having used their ERP systems for five to 10 years now. However, a high proportion of businesses have yet to exploit the full potential of their ERP systems investment.

Most systems were initially implemented around the turn of the century as a result of the Year 2000 computer problem, and within Europe the introduction of the euro. The requirement was simply to map existing company structures and processes one-to-one into the ERP system.

However, several years later, many companies are barely ticking over as far as their ERP systems are concerned. The potential remains just that: only one-quarter of those companies that have implemented an ERP system also use an Advanced Planning System (APS).

"Here, organizations are missing a great opportunity," says Helmut Andree, manager at Germany-based J&M Management Consulting, who focuses on IT effectiveness in the chemicals industry. "An ERP system is a sound basis with which to map the basic functions and core processes of a value chain. The potential of a full-blown ERP system is enormous if all integrative functionalities are in use. Nevertheless, if it comes to heuristic planning and optimizing, ERP systems on their own reach a limit. ERP systems' real power becomes effective only with the integration of modern planning tools such as APS systems – like turbo-charging an engine."

WHEN AND WHY?

With ERP systems, a one-off implementation effort is usually not sufficient. If the system was introduced more than five years ago, as is the case with most of the companies surveyed, then an update is already overdue. One-half of respondents with ERP systems said that they had implemented them for enhanced process support, and one-quarter to replace old systems.

Moreover, more than one-half of respond-

ents said that they had switched to a new release of their ERP system within the past two years. One-third have completed a system update within the last 12 months and taken the opportunity to extend its functionality.

One advantage of a newer implementation is that new or changed processes can be mapped in the system, and existing in-house developments become partly superfluous. Weighed against this is that a new release often means changed hardware requirements and programing interfaces.

LEVELS OF INVESTMENT

Of the survey respondents, 15% said that they had invested more than \$50m (€35m) and 23% between \$10m–50m, with the remaining 62% spending less than \$10m. Savings ranged from more than \$50m (22%) to \$10m–50m (18%) and less than \$10m (61%). There were a couple of schools of thought on the benefits achieved and what was measured. Most companies said that they had easily recovered their initial ERP investment through improved end-to-end lifecycle IT efficiencies, with cost savings in both capital and operational expenditure over two to three years.

“What is important... is that a business case is established ... too often, we observe ERP systems are implemented as an end in themselves”

JAMES BLACK

Partner at J&M leading the global chemicals sector team

In fact, some went out of their way to not try to justify the ERP investment with any improved business performance business cases. As one executive team put it: “We decided if we wanted to get business buy-in and ownership, then we needed to encourage the business to use the new systems and let them claim the business benefits – so we focused initially on the IT investment case.

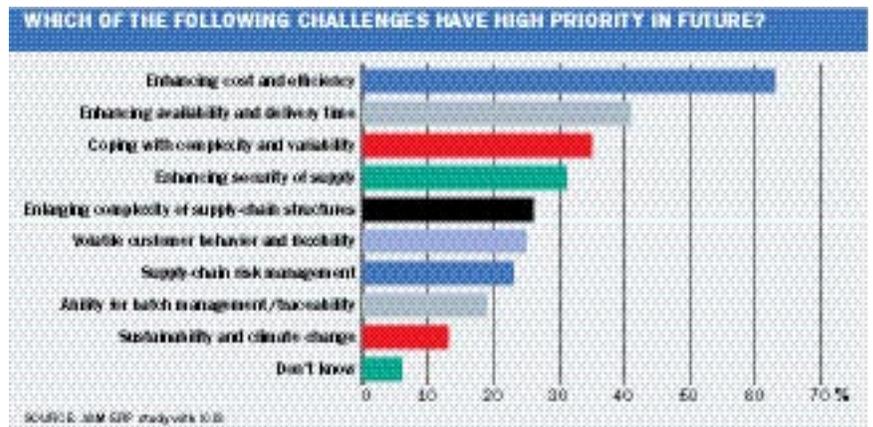
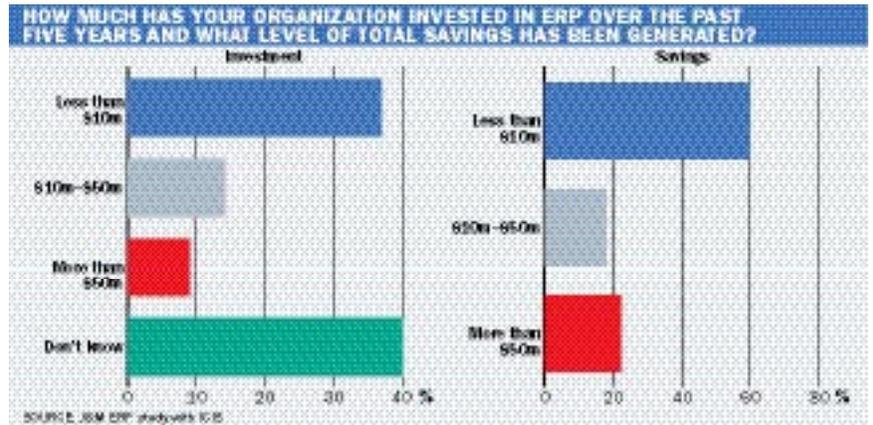
“You can spend a lot of time fighting about who and how we created business benefits. We found it acceptable to allow double counting as long as, in the end, both our IT costs [capital expenses and operational expenses] and our business performance [transactional, delivered cost, working capital and ultimately margin, etc] improved. The real problem starts when this doesn’t happen, or when an unplanned event like the downturn happens – then if you are not careful a witch hunt can start.”

One chief information officer put it simply: “We invested over \$100m and easily returned this in IT cost improvements over 3 years. The business savings were the icing on the cake and probably of a similar magnitude. I was

pleased to see the business take them and leverage the systems.”

One insight was that the majority of the savings came from teams that had added additional functionality (APS, business intelligence [BI], customer relationship management [CRM], etc) to a basic ERP platform and exploited simple standard frameworks/vanilla process/templates for their ERP implementa-

tions. For industry insiders, there were no surprises in the preferred ERP solutions and APS solutions being deployed. More than 50% of ERP solutions were provided by German software company SAP, while 29% of APS solutions were SAP’s SCM product (formerly APO), followed closely by Oracle (24%) and then others. When chemical companies implement an ERP system, they are primarily for improved



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METHODOLOGY

ICIS and J&M Management Consulting surveyed readers online in March/April 2011, with 260 people responding to the questionnaire. Senior managers and industry leaders made up 34% of respondents (typically at CEO, chairman, executive vice president and vice president/president level) with another 33% in general manager, director/management leadership roles.

The majority of respondents (65%) had in excess of 10 years’ experience in the indus-

try. One-third of respondents came from companies with global revenues above \$500m; 24% of respondents were working for publicly listed companies, while 42% were privately owned and 29% family owned.

Sector coverage was 20% from polymers, 19% petrochemicals and 19% specialty, with the remainder split equally across pharma/fine chemicals, agrichemicals and inorganics.

The survey results were com-

plemented with eight face-to-face executive interviews carried out by J&M with CEO/CFO/CIOs of global chemicals companies, to explore their personal feelings and beliefs and to enable a number of issues to be examined in more depth.

The survey and face-to-face interviews were undertaken under a confidentiality agreement and all comments are therefore non-attributable. ICIS and J&M thank all those who took part in the survey and interviews. ■

» support for their processes (efficiency, effectiveness and reliability). Almost half the firms surveyed said improved support was the reason for implementing an ERP system. Only one in six said anticipated “business” cost savings were the motivating factor.

HIGHER QUALITY

“The drivers of ERP implementations may be numerous and varied, but the effects cannot be viewed in isolation,” explains Andree. “Process support and the harmonization of processes and systems mean not only higher quality but ideally also cost reductions.”

“The benefit that an ERP system can bring to a chemical company depends on many different factors – principally on the size of the company, the capability of the IT system being replaced, the in-house ERP experience and, of course, on the quality of the implementation,” says James Black, the partner leading J&M’s global chemicals sector team.

“What is important, however, is that a business case is established, because, all too often, we observe that ERP systems are implemented as an end in themselves. In fact, the potential gains are quite significant – with, as mentioned above, two schools of thought. First, to justify it on IT cost savings alone, and second, to encourage the businesses to reap the benefits and claim them themselves. Of course, this means that some companies might have missed, or given up, after the IT focus and missed the chance to tune or turbocharge the engine.”

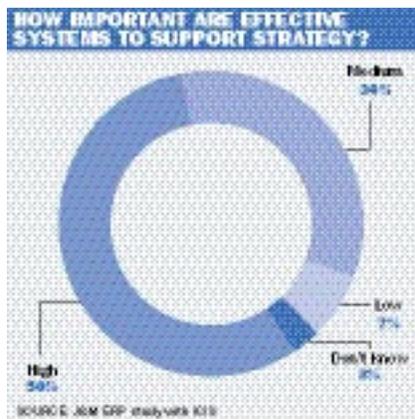
TOO EXPENSIVE, TOO INFLEXIBLE?

Most companies expect and achieve improved process support from an ERP system. Some 68% of those questioned expressed satisfaction at the level of support provided by their ERP system for their processes. When it comes to functionality, the results are even better. Some 77% were happy with the technical capabilities their systems offered.

The interfaces between the ERP and other IT systems do not seem to present obstacles for respondents. Users, however, criticize the costs, flexibility and customizing of the IT systems. The increasingly dynamic nature of the chemical industry, the necessity to constantly optimize processes and an active mergers and acquisition scenario demand that ERP systems, in particular, be capable of rapid changes in set-up and process flow.

“Whenever companies relocate, make acquisitions, restructure business areas or expand their portfolio of products and services, the ERP system must keep up,” explains Black. On top of this, external influences such as changes in environment protection regulations also exert constant pressure on the system.

What are those who have effectively implemented their ERP solutions, extracted the value and exploited other high-value applications



thinking? We saw some themes emerging:

- “We need to encourage ongoing continuous improvement – but owned by the businesses.”
- “We are focusing now more on our IT resources creating business partnerships with the businesses and identifying opportunities for increased business value to our customers – in being part of the business teams as peers.”
- “We are looking at how to exploit the whole ‘mobile’ environment – what does that mean across our value chain and how to support our people through this technology.”
- “How do we leverage the growing experience and expectations, particularly from our young-

er employees, to use social networking-type solutions to enhance innovation, rapid knowledge sharing in the business environment...”

■ “It is self-evident to most now, that growth without technology ‘enablement’ is difficult if not impossible. We have to figure out how to become business partners in creating the business visions of the future and also innovations of the future – it is a total team game and IT or technology is a no-brainer component.”

“For companies that have invested in industry-standard ERP solutions, the payback has been very good”, concludes Andree. “The lessons learned for implementation effectiveness aren’t new – it’s a case of applying them wisely and not re-inventing the wheel.”

Black adds that: “Much has been talked about business cases and benefits cases in the past, but think carefully about how to create business ownership in your company culture. It would appear that many companies still have the opportunity to tune the engine even further and extract additional business value – make it hum or rev it up – but do they have the appetite just now?” ■

J&M Management optimizes companies’ entire value chains and turns them into Value Chain Champions. The global consultancy combines management consulting and IT competence and has a strong foothold in the chemicals sector. Go to www.jnm.com for more details.

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TYPICAL LESSONS LEARNED

From our one-to-one interviews we gleaned some common insights and reflections:

- “Don’t underestimate the amount of change management required in terms of changing people’s behaviors and attitudes – it’s probably two or three times the effort required technically.”
- “We’ve now done this a couple of times, have experience in house and know that implementing vanilla/industry standard processes is a critical success factor. Holding the businesses’ feet to the fire for any requested changes is a real imperative, while also watching out for valid business cases that substantiate a valid change – these tend to be two out of every 10 requests.”
- “Figuring out how to involve business owners in project steering, change requests, leading business process ownership and leading the charge must be

done before starting anything else – if they can’t get involved, don’t start till they can.”

- “The psychology of benefits cases and what to track and who to make accountable for benefits needs to be thought out early – this probably has more to do with the culture of a specific company. For us, it made sense to focus on the IT savings and let the businesses own the business benefits they can extract. The key is to make sure you are somehow tracking both and even allow some double counting.”
- “Business process ownership and establishing the correct process teams and communities are critical to fostering continuous improvement behavior after the initial project implementation is complete.”
- “Plan early for what happens as the project hiatus and project environment winds

down – how to leverage the skills and experience internally (export to another division?), and how to focus on the new role of IT (as a business partner) and focus more on business value add?”

- “Make sure you have some kind of ‘value extraction’ process that you can go back to the businesses afterwards to help them check that they are leveraging the most business value out of the tools we have put in place – not so much an audit as helping them identify opportunities for further value.”
- “I can now see that if we hadn’t made the emotional leap to sort out our ERP and APS systems we would be significantly disadvantaged as a company – probably it is ‘table stakes’ now to have a fully functioning and effective ERP system. I wish I had known this three years ago when it all looked rather daunting.” ■