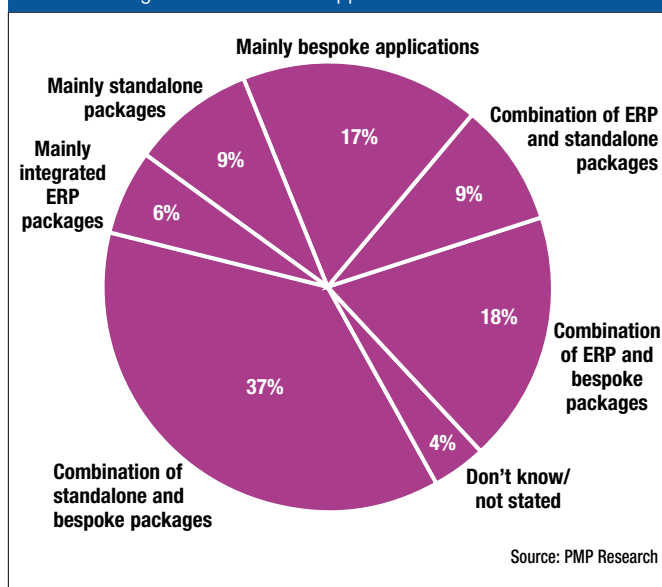


WEB SERVICES CRASHES THE PARTY

Web services technology is coming to the fore as UK companies struggle to integrate and develop their IT systems. Pat Sweet sums up our latest research findings.

Rather like families who regularly pledge to get on with each other at Christmas – and then fall out – so businesses have made many attempts to tackle their software integration and development problems in recent times. But while most companies recognise the need to create a more harmonious IT environment, very few seem able to get it right in practice.

FIGURE 1: Organisation's mix of applications



As this year's PMP Research survey underlines, organisations have collected a complex mix of applications over the years as they have introduced, enhanced and reworked their key systems. Indeed, the number of companies who are committed to an architecture built solely on one platform is very small – just 6% of our sample report an environment based on integrated ERP packages alone (see Figure 1).

In contrast, the largest group (37%) depend on a mixture of standalone and bespoke packages, which have been bought from different vendors or developed inhouse and all of which need to be tied together to work to maximum effect.

And while companies often view an ERP package as the foundation stone for their systems, many end up adding to their original purchase in different ways. Our findings show that 18% have supplemented their ERP

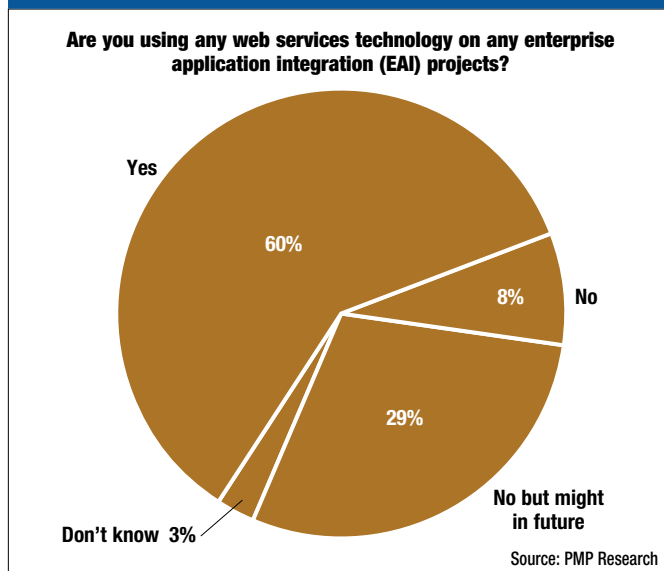
systems with specially developed software of their own, while 9% rely on a combination of an ERP backbone and other standalone packages. Meanwhile, 17% of those polled are working in an environment which is largely home-grown as they are using bespoke applications, and a further 9% have opted to buy standalone packages and knit them together.

Given this background, it is refreshing to see that over half our respondents (55%) reckon their older, legacy systems are either 'very well' (17%) or 'adequately' (38%) integrated with their newer applications such as e-business or CRM. This comfortably outweighs the third (32%) who maintain that levels of integration are 'not adequate', while 7% claim not to have any requirements in this area. The remaining 6% hold differing views on this topic, of which the most interesting is that expressed by the respondent who says: "We do not think of them as 'legacy' applications. As long as they continue to meet business needs, we'll use them. All are integrated." Certainly, getting their mix of systems to work together more effectively heads the list of reasons why companies are embarking on enterprise application integration (EAI) projects, and is cited by the majority (87%).

Another key driver is the need to create end-to-end processes (61%), so there is seamless interaction between the different applications which are needed to support a particular activity or provide a customer response. Indeed, half our sample (52%) mention increased interaction with customers as one of the main reasons for trying to integrate systems more closely. The growing volume of compliance requirements is another factor (37%), while individual replies point to issues such as the need to reduce manpower, the desire to enter information only once, and the aim of creating re-usable components and applications.

The most commonly used platforms for integration projects are .NET, adopted by three-quarters of our sample (73%), J2EE (67%) and COM/COM+ (59%). All three look likely to retain their popularity in the future, although support for COM/COM+ is slightly weaker than for the other two options.

FIGURE 2: Use of web services in EAI



Similarly, when it comes to integrating distributed applications, enthusiasm for COM+ is on the wane. While 9% report using COM+ previously, with 61% doing so currently, none report plans to adopt this technology in the future. In contrast, nearly half the sample (48%) are currently using .NET Remoting, and 16% say they have plans to do so in the future. Similar proportions are already using CORBA (40%) and RMI (36%). But the real success story when it comes to integrating distributed applications is the rise of web services, with three-quarters of our sample (73%) already signed up for this technology and a further 10% planning to do so.

We went on to ask our respondents about their use of web services in general, not just within a distributed environment, and found that 60% are currently using this technology while 29% say they might in the years

ahead (see Figure 2). Only 8% rule this choice out completely. The key benefit of using web services is the ease with which companies can send information to other organisations or partners with different computer systems (79%). The fact that this is a technology-independent standard is also seen as attractive (55%). One respondent describes web services as “ideal for quick, cheap development”, while another calls the technology “an integration enabler, good for ease of deployment and maintainability”.

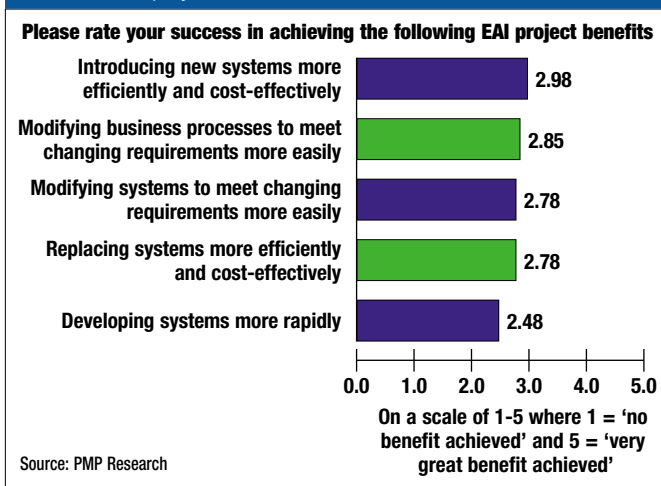
On the downside, security worries emerge as the main drawback to using web services (65%), along with concerns about possible performance issues for corporate networks (35%) and the lack of good development tools for this platform (31%). Individual comments highlight the question of whether web services standards are sufficiently mature for widespread use, and at least one respondent reports difficulties in recruiting staff with sufficient experience to be effective in this area. Despite this, 45% of our sample are already using web services to publish to other organisations, and a third (33%) say they may do so in future. Of the remainder, 14% are not planning to go down this route and 8% are undecided.

We asked our respondents to outline the benefits they are seeking from any EAI projects they currently have in hand or are planning. The results suggest that the twin goals are to be able to introduce new systems more efficiently and cost-effectively (67%) and to make it easier to modify business processes in response to changing requirements (67%). Being able to modify systems in response to new requirements, rather than the underlying processes, is viewed as less important (61%), as is the facility to replace systems more easily (57%). The capability to develop systems more rapidly comes bottom of the list (42%).

Despite the stress on changing the process, rather than the application, it is clear that companies are not especially enthusiastic about the potential value of workflow or business process management (BPM) software to their integration projects. There is an equally muted assessment of how successful companies are in achieving the desired benefits from integration projects. We asked our sample to rate their performance here on a scale of 1 to 5, where 1 represents ‘no benefit achieved’ and 5 stands for ‘very great benefit achieved’.

The aggregate scores (see Figure 3, next page) show that organisations feel they have been most successful at introducing new systems more cost-effectively and efficiently (2.98), but their second ambition – being able to modify business processes more easily – has proved a harder nut to crack (2.85). Efforts to replace systems more efficiently and cost-effectively (2.78), and to be able to alter systems to meet new needs (2.78), have borne fruit as expected. At the bottom of the list, in line with their earlier assessments, companies concede that their integration projects are less likely to help them develop systems more rapidly (2.48).

FIGURE 3: EAI project achievements



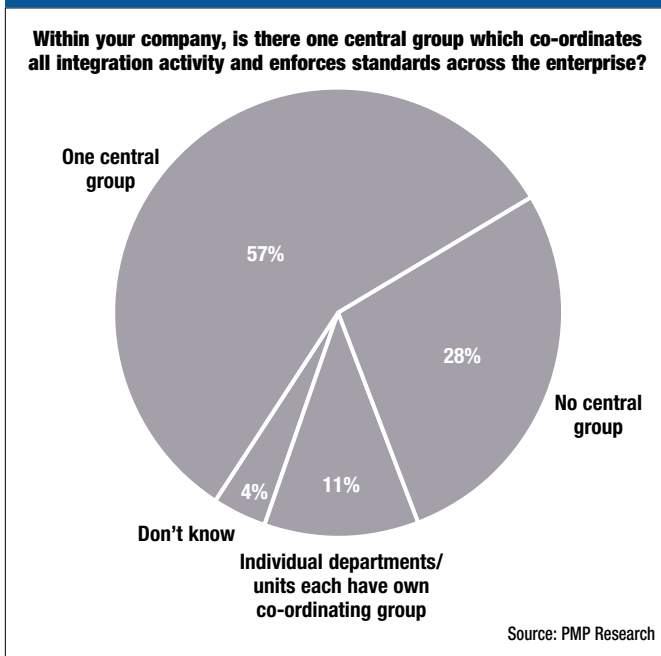
These findings suggest there is some way to go before companies can utilise their investment in integration technology to produce the truly agile organisation most seek to create.

Yet this year's survey uncovers some encouraging signs that companies are starting down the right path. For example, as Figure 4 shows, the majority (57%) now have one central group which co-ordinates all integration activity and enforces standards across the enterprise; and 11% have a central body co-ordinating integration efforts within individual departments or units.

However, there are still some obstacles along the way. For a start, spending on integration activities remains fairly depressed. Asked to calculate the percentage of their overall IT spend which goes on integration activities (including hardware, software, consultancy and support costs), the biggest group of companies (43%) put the figure at less than 10%.

Those investing more money into integration are in the minority. One in five (20%) estimate they spend 10-20% of their overall IT budget on this area, while 17% reckon they plough 20-30% of their IT spend into integration. And when asked to describe their current integration activities, the largest slice (43%) still concede that integration happens on a case-by-case basis according to development needs – although the proportion who report a large enterprise-wide integration programme currently in place or planned is catching up (39%).

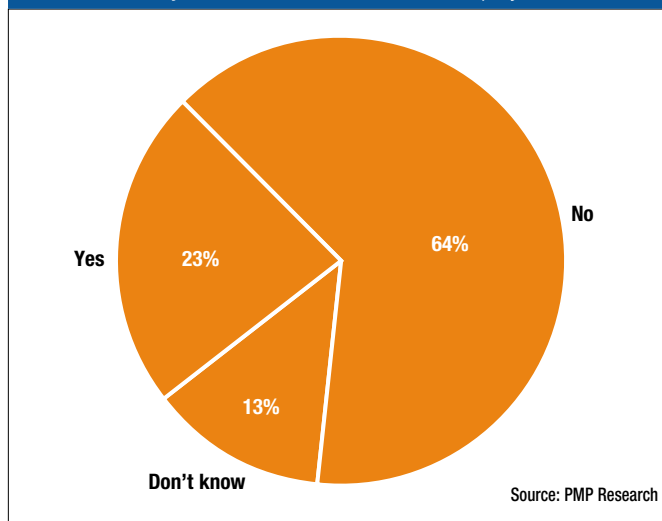
FIGURE 4: Integration activity management



This gap between expectation and reality may be one reason why nearly a quarter (23%) of our sample admit to having abandoned an integration project at some point (Figure 5, next page). And while 64% have always seen projects through to the bitter end, 13% are not sure about their performance in this respect. At first glance, this statistic does not make good reading for vendors. However, the failure of the selected EAI tools to meet requirements comes bottom of the list of reasons for failure, and is cited by only 6%, along with a shortage of appropriate skills (6%). In contrast, integration projects are more likely to hit the buffers because the scope of the project changes (11%) or because other business priorities take hold (7%). Some respondents also point to a perennial problem facing any IT project, namely substantial cost overruns.

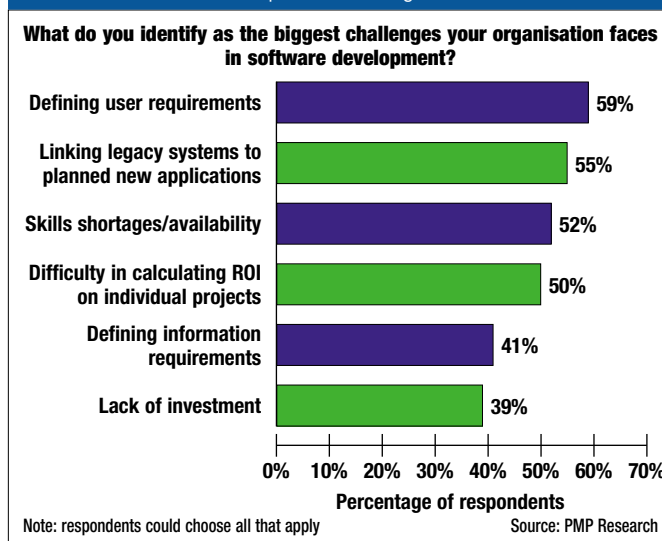
Keeping software development costs under control is one reason why companies embark on integration projects in the first place. The majority (78%) view being able to re-use software components as a key factor in this, and 64% believe re-use is more important now than at any time previously. A quarter (24%) say there has been no change in their views of its importance.

FIGURE 5: Have you ever had to abandon an EAI project?



The majority of those polled (68%) maintain that technologies such as J2EE and .NET make re-use of software components a more achievable goal now than in the past, suggesting that they may at last be on their way to finding a solution to this particular difficulty. However, some other well-worn issues remain to be tackled. Asked to identify the biggest challenges their organisation faces in software development, over half (59%) cite problems in defining user requirements (see Figure 6). Linking legacy systems to planned new applications is also a worry (55%), along with skills shortages (52%) and problems calculating ROI on individual projects (50%). Compared to these, lack of cash emerges as a more minor consideration (39%).

FIGURE 6: Software development challenges



Overall, this year's survey suggests organisations may be edging closer to creating a 'culture of integration'. Many have reported success with existing projects and have established the right kind of infrastructure to go on reaping the rewards into the future. It has not been an easy journey, but companies are now starting to turn the corner.

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● *If you would like more information about this article or any of the products or companies mentioned in the article, please contact us at info@evaluationcentre.com.*

SURVEY STATISTICS

We interviewed a broad range of organisations for this year's survey of key trends in the enterprise integration and development market. The companies who took part vary considerably in size – at the lower end, 6% have an annual turnover of between £5 million and £10 million, while at the top of the range 9% report a turnover in excess of £5 billion. In between, 14% of organisations come into the £10 million to £50 million bracket, 6% in the £50 million to £100 million range and 9% have a turnover of £100 million to £150 million. Further up the list, a third (33%) post annual turnovers of £150 million to £1 billion, and a further 13% fall into the £1 billion to £5 billion slot.

The industry background of our interviewees is equally varied. One in five (20%) are from the public sector, where there are high-profile programmes to promote greater integration between applications in areas such as healthcare and local government. We also spoke to companies in the manufacturing (11%), distribution & logistics (9%) and financial services (7%) sectors, along with representatives from the construction, education, energy & utilities and telecoms industries.