

MIS

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Integration:

return on existing
investment

Contents

Page 4
Editor's page

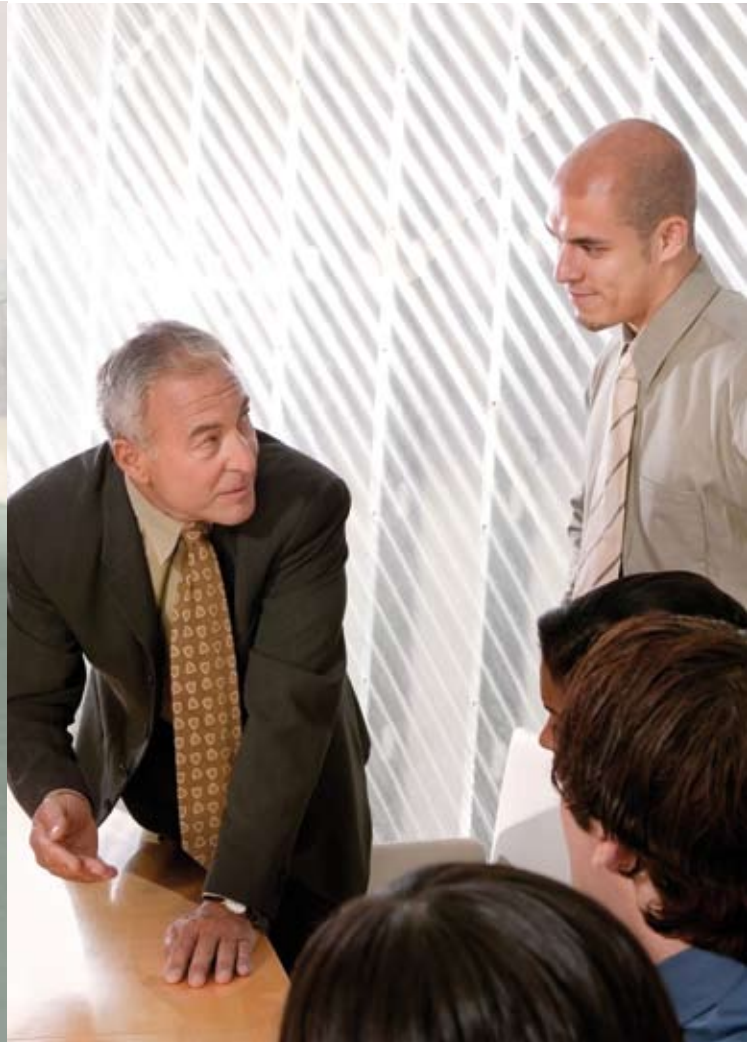
Page 6-9
Unlock existing assets

Rising IT costs are causing many companies to search for ways of capitalising on current infrastructure to boost their return on existing investment

Page 10-13
Stand and be counted

Recent research shows that, for the majority of CIOs, enhancements to existing systems are still the main focus of software development within the company





Page 14-17

Top of the SOA parade

Software that has been specifically designed to integrate legacy data with new applications comes under the label of service oriented architecture. And it is proving a major hit on the IT hype parade

Page 18

Sorting core data

Many areas of the NHS are using Ensemble to sort, clean and collate data from multiple sources and formats in order to integrate them with the new core NHS programmes. Not only does this save money, but it also allows medical staff to access statistics and reports much faster



Making the legacy pay

Talk to the CIO of any major financial services institution about his or her investment priorities and you expect to hear about new investment products or flexible mortgage offers. Well yes, but these guys will then tell you that bringing such things to market - absolutely the number one priority of their organisations - is a challenge because of the weight of legacy systems.

In the words of Christine Barry, an analyst at banking tech watchers Aite: "The core banking systems are now 50-60 years old, something highlighted by the Y2K. Banks are constantly asking themselves how they can add new functionality to this picture without further complicating it?"

In an ideal world every project could start afresh with new tools and technologies in that IT director dream landscape, the greenfield site, but no organisation is totally greenfield.

Every significant IT user struggles with the issue of balancing new business imperatives against ongoing organisational needs and this is often manifested in the conflict between glittering new project X and boring old installed base Y.

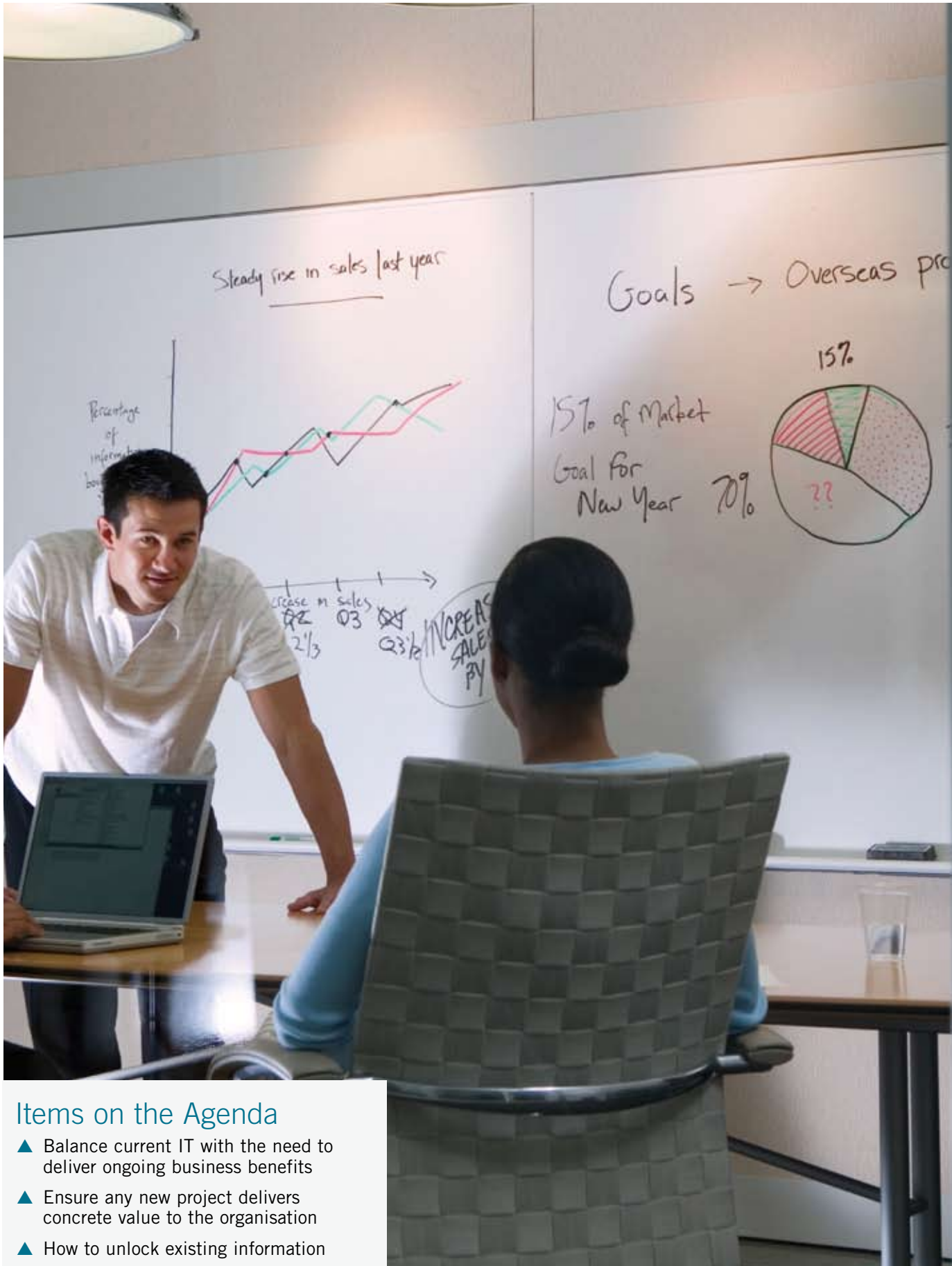
Wouldn't it be great if the two could be made to work better together? If that new development could enhance and extend the return on existing investment (ROIE), a huge proportion of the IT budget? In this special supplement to *MIS UK* we don't pretend to have The Answer but we look at some of the technologies and processes that would allow the right parts of the organisation to hook up with existing applications and databases in new configurations to maximise ROIE.

What is clear is that integration is the watchword of every IT leader as they seek to meld the old and the new into the what's needed for future growth.



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Items on the Agenda

- ▲ Balance current IT with the need to deliver ongoing business benefits
- ▲ Ensure any new project delivers concrete value to the organisation
- ▲ How to unlock existing information



Unlock existing assets

Rising IT costs have caused many companies to search for ways of capitalising on current infrastructure to boost their return on existing investment

Information technology is all about the new. We live in a wired world where broadband is being used by 60 per cent of UK internet connections according to analyst group Datamonitor and popular TV programmes like *Little Britain* are aired on the internet first.

Meanwhile IT expenditure by businesses continues to rocket; research carried out in 2005 by the London Business School puts the UK networking equipment market at £2.1 billion and the server market at £1.9bn, with compound annual growth in the next two years of six per cent and four per cent respectively.

Bug fixing

And at the same time information technology is all about the old. The US is estimated to have spent £57bn on fixing the so-called 'Y2K' millennium bug, chasing down outdated date references in millions of lines of Cobol, PL/I and other enterprise software code mountains. The UK itself spent £20bn in the three years leading up to the turn of the century. Yet despite all the fresh investment in ERP systems at that time,

little of this old computer code was actually ripped out and replaced.

No wonder – those ones and zeros add up to a considerable amount of capital investment. In 2001, market watchers IDC said that the world had spent some \$1 trillion on IT since the end of the Second World War; in a 2004 survey by Accenture a higher figure of \$2.8 trillion was suggested for global IT and communications spending, or seven per cent of the entire world economy.

Outdated applications

Many organisations – public and private sector, enterprise to small to medium business – have databases, applications and packages that have been core to their business and been running for years, but which are not exactly state of the art.

A major case in point: the banking and financial services industry. Jacob Jegher, a senior analyst in the banking group of financial IT analyst organisation Celent, argues: “Something like 80 per cent of all IT spending is on maintenance costs and only 20 per cent on new development.” Another researcher in a similar organisation, Christine Barry, research director for wholesale banking at Aite Group, notes: “Core banking systems are in many cases some 50 to 60 years old. Y2K just highlighted the problem. How can banks add new functionality to this picture without further complicating it?”

Balancing the books

Substitute the word ‘bank’ for any type of organisation reliant on IT – perhaps yours – and a picture of enormous complexity emerges. Companies must balance ongoing delivery of IT service, something that can eat up endless resource and budget, with the need to address ongoing business challenges. These can be in the form of compliance – meeting not just external accounting and regulatory strictures but sector-wide initiatives, like integrating with the systems starting to come on-stream through the National Health Service’s £6bn National Programme for IT (NPfIT); or other external circumstances beyond the control of the agent organisation (satisfying a market demand for a new type

of mobile service or financial services product).

Expensive failures

How much happier we would all be if all the IT spend generated was successful. Yet the reality is, of course, sadly different. No less than 55 per cent of all UK IT projects are unsuccessful, with each failure costing on average £5.8m, claimed the KPMG Survey of Project Management in 2002-03, while in September analyst firm Butler Group published research claiming that 92 per cent of all IT spending “fails to deliver concrete value to the organisation paying for it”.

Then there is the issue of coping with organisational dynamics. User A buys SAP and thinks all its system problems are at an end. Then the firm merges with a company that was a Peoplesoft shop, with some branches running Baan.

Vendor consolidation in the business software space does not actually solve this problem as the suppliers themselves (Oracle, for example) have not as yet unified their product stack; many companies are having to live with multiple

accounting, CRM, ERP or finance systems.

Another typical set of drivers is that a company has a tip-top mainframe application that they want to become visible to external suppliers. Many larger firms find themselves with umpteen different ways of holding customer data and want to open up an online self-service channel.

The key to these issues is that the solution in nearly all cases revolves around unlocking the information assets contained in the existing systems.

In very few cases would it be appropriate or useful to purchase an additional new system – commonly this would only add another layer, as the new system would in turn need to be fed by data and business logic from already-present IT applications.

The cost of customisation

In any case, in addition to buying software, most companies develop their own customised applications to support business needs.

This is almost never a cheap process. A recent report by consulting giant McKinsey said: “Developing,

“Core banking systems are in many cases some 50 to 60 years old. Y2K just highlighted the problem. How can banks add new functionality to this picture without further complicating it?”

– Christine Barry, research director, Aite Group

deploying, and managing customised applications is ever more expensive, and revising them to meet evolving business needs can be time consuming... Companies in many sectors spend well over half their applications budgets on custom software, used largely to enhance, support, and operate such systems. For large companies in competitive, fast-moving industries such as telecommunications, financial services, high tech, pharmaceuticals and media, those outlays can run into hundreds of millions of dollars.”

Outsourcing the problem seems attractive but can be a ‘false friend’ too. Handing off the need to develop new integrated systems that rely on tight coupling with in-house code that may well have suffered from many years of what Oracle gently terms ‘intrusive customisation’ can be a management nightmare.

Seller’s market

An April 2005 report from Deloitte Consulting suggested that a backlash against IT outsourcing had begun in some large organisations because contracts have failed to meet expectations. And a depression in the IT jobs market has led to the perverse situation that, as budgets begin to rise again and the need for IT talent re-emerges, it is suddenly a seller’s market, as evinced by recent reports of the ‘£1,000 a day’ City IT freelance project manager (a figure from recent research from the Association of Technology Staffing Companies).

It is a puzzle. Organisations need to spend a large part of their IT budget on maintenance and control of yesterday’s IT purchase, while keeping an eye not only on today’s problem but also tomorrow’s opportunity. IT staffing levels have been under strict control for a long time, meaning resource to lead vital new projects may be scarce or expensive. And the less that is wasted, the better for everyone, of course.

The challenge ahead

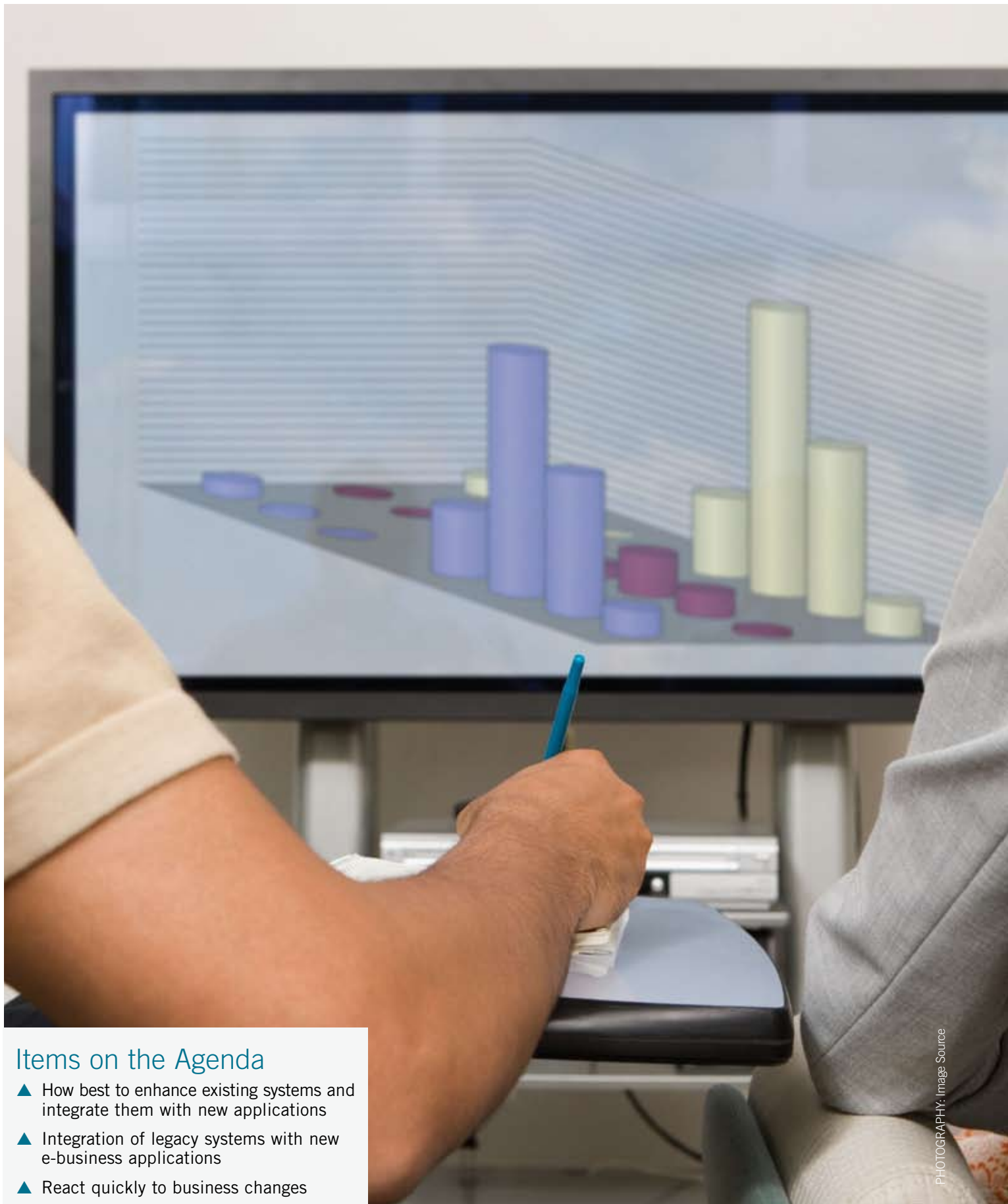
It is at this juncture that users start to wonder if there is a way to craft the new applications out of their existing infrastructure while not needlessly reinventing the wheel. They also, with a view to both the bottom and top lines, want to maximise productivity and control outlay on development. The market is beginning to dub the first issue the integration problem and the second the return on existing investment challenge.

The bulk of this supplement is devoted to exploring responses to both these issues and what technology assistance may – or may not – be available. ●



“Something like 80 per cent of all IT spending is on maintenance costs and only 20 per cent on new development”

– Jacob Jegher, senior analyst, Celent



Items on the Agenda

- ▲ How best to enhance existing systems and integrate them with new applications
- ▲ Integration of legacy systems with new e-business applications
- ▲ React quickly to business changes

PHOTOGRAPHY: Image Source



Stand and be counted

A recent InterSystems survey reveals that, for the majority of CIOs, enhancements to existing systems are still the main focus of software development

For the past few years IT software supplier InterSystems, a specialist provider of post-relational database and application development technology, has been carrying out a continuous evaluation of CIO attitudes and experiences around the twin issues of integration and return on existing investment (ROEI).

Its 2006 survey of 100 UK IT executives provides some revealing insights. A huge proportion – 76 per cent – said enhancements to existing systems was the major focus of software development. Nonetheless, working with existing codebases was not just a matter of keeping them ticking over. Integration of these legacy systems with modern e-business applications is also a big push, at 53 per cent. And integration of legacy applications for other internal business purposes came in at almost the same ratio, 49 per cent.

When asked by the independent third party carrying out the study what these IT leaders saw as the biggest challenges they and their teams faced in software development, the largest single answer, at 63 per cent, came in as “linking legacy systems to new applications”.



“Integration is a daily agenda item for the modern IT shop”

This pipped “reacting quickly to business changes” at 62 per cent and even that other CIO bugbear, working with budget constraints (58 per cent). Almost as high was the next ticket item, defining or implementing new business processes at 44 per cent. Clearly the problem of working with existing apps is a day-to-day problem for these CIOs, as much as delivering the new stuff demanded by their peers in the business.

Industry sectors surveyed

The population that provided these perspectives was composed of a cross-section of the higher end of the UK industrial and service base. Some 16 per cent of organisations surveyed recognise turnover of £10 billion plus, while at the other extreme five per cent see sales of £50 million to £100m. In terms of industry sectors, 17 per cent came from banking and financial organisations, 10 per cent were public sector, 13 per cent were healthcare and 12 per cent manufacturing.

Yet it did not matter which sector the respondents were from when it came to confirming that the consolidation and integration of information systems is a primary business challenge. Public sector, banking and finance, distribution and logistics, and energy and utilities respondents all met the same high-water mark of seriousness – 4.4 out of 5 (where 1 is ‘no importance’ and 5 ‘very important’) – when asked this question. The lowest propriety given to this question was still 4 out of 5, from manufacturing CIOs contacted.

A daily concern

Integration, it turns out, is a daily agenda item for the modern IT shop. Only nine per cent of organisations say less than a tenth of all their IT projects involve some aspect of integration.

At the other end of the scale 11 per cent say “90 to 100 per cent”. In the middle the research team found that at least a fifth of all IT projects being undertaken by this group involve significant integration aspects.

Indeed that proportion could soon change dramatically. The majority – 65 per cent – of those surveyed say the demand for integration projects in their environment is increasing, while 29 per cent of them say a “large, enterprise-wide integration programme is currently in place or planned”; no less than 23 per cent confirm “small, individual integration projects [are] currently in place or planned”. A fair chunk – 45 per cent – say integration takes place on a case-by-case basis, admittedly, but clearly the larger portion of users

are doing integration in some form or another on an ongoing basis.

To what end? Users say they are mainly (77 per cent) integrating to provide their organisations with a “single, consistent view of information”, while 57 per cent see consolidation of access to multiple systems to a single point as the driver. But no less than 52 per cent are on the integration path to enable new business processes and 36 per cent want or need to enhance legacy systems with new functionality.

Lack of flexibility

The teams not doing integration, or still facing integration challenges, adds the study, are having to combat a “lack of flexibility in reacting to business changes” (76 per cent), poor availability of vital management information (73 per cent), lack of visibility of information between departments (68 per cent), and worse, lost productivity (58 per cent), inefficient decision making (47 per cent) and even loss of revenue – at no less than a quarter (24 per cent) of the companies employing the CIOs in the survey. If that is the integration project, what are companies using technology wise? Mainly, they seek to use such solutions out of a desire to improve business processes in the organisation (4 out of 5, where 5, again, is ‘very important’), followed by a wish to improve the strategic and operational agility of the organisation as it needs to react to ongoing business change (3.9 out of 5).

Compliance also scores high (3.6), as does a drive to gain competitive edge (also 3.6) and work better with partner and suppliers IT (3.1).

Counting the cost

When it comes to how much they are spending, perhaps worryingly, a quarter say they cannot confirm a figure.

But 14 per cent are committing between 41 per cent to over 51 per cent, and one in five report that they devote between 10 to 20 per cent of their precious IT budget to this end.

Perhaps unsurprisingly 34 per cent see their outlay for integration software going up this year and 41 per cent will keep it stable at last year’s ratio. And someone is clearly going to lead the charge here. Many

companies now have a specialist group that co-ordinates all integration activity and enforces standards across the enterprise (44 per cent). In healthcare this rises to 70 per cent, is still 64 per cent in telecoms, half of all distribution and logistics firms have such bodies and it is, possibly surprisingly, banking and finance that has the least representation, at 26 per cent.

Perhaps they should be conferring with their colleagues in other sectors – they might tell them why and how integration software projects can help.

When asked if such programmes can provide real benefits to the organisation, again on the 1 to 5 metric, manufacturing (4.7), healthcare (4.6), and retail (4) among others all agreed strongly with the proposition.

Indeed, in the equivalent 2005 survey no less than 93 per cent of cases where integration software had been effectively implemented had provided real benefit, ranging from better control over business processes to more timely data sharing.

At the same time, a disturbing 42 per cent of legacy systems were not being successfully integrated.

“Users say they are mainly (77 per cent) integrating to provide their organisations with a ‘single consistent view of information’, while 57 per cent see consolidation of access to multiple systems to a single point as the driver”

Putting a price on integration

So what do these findings mean for CIOs and their companies? One rational approach is to acknowledge that there is huge integration need; users are facing this issue in what may be to some a surprisingly high proportion of their IT initiatives, especially at the larger (enterprise/major public sector body) end.

Integration covers far more than just stitching older systems together – it draws in the very latest e-business imperatives too. And organisations expect a significant payback for all this hard work – they place a high value on integration going a long way to fixing some of their core business-IT gaps.

A sensible development of the argument at this point may be to review what options users have out there. How are they dealing with integration? Is there such a thing as an integration ‘market’ to evaluate?

One thing is certain – this user base is doing something with real software on real projects and they do not think integration software is a commodity item yet. But what is out there? ●

Sorting core data

Today's software is helping the NHS to integrate existing data and maximise ROEI

What could return on existing investment (ROEI) look like? The key is to implement integration so businesses are aligned with IT systems and strategies. Providing a virtual view of all databases enables decision-makers to access the information they need without having to rip out their previous IT investments.

Take the example of Chris Carrigan, national co-ordinator for England at the National Cancer Action Team. "We are using Ensemble to implement new services to pull in new information but support old services," he says.

Collating vital information

Carrigan told *MIS UK* how three of the country's nine regional cancer registries, Thames Cancer Registry, Merseyside and Cheshire Cancer Registry, and North West Cancer Registry, have initiated a pilot programme to integrate, validate and manage information from literally hundreds of data sources.

The idea is to transform raw data on cancer trends, prevention and care into information so that it can be used by Primary Care Trusts (PCTs), GPs, hospices and charities, the Office for National Statistics, and the Department of Health. The system also needs to integrate with national services, especially around and in the NHS National Programme for IT (Connecting for Health programme).

Ensemble is being used to automatically sort, clean and collate data from multiple sources and formats (email, health industry format HL7, XML or CSV files).

By using Ensemble as the basis for the project, he adds, all three registries are able to give their data a quality and efficiency boost that is providing these organisations with more meaningful intelligence on cancer incidence, prevalence and



PHOTOGRAPHY: Image Source

survival. This provides a serious enhancement to this critically important public service.

"The project will ultimately benefit all aspects of cancer control by enabling the faster generation of reports and statistics using more contemporary data," he adds.

Healthy IT systems

Another UK health user of Ensemble is The London NHS Trust, which has chosen Ensemble for use at its three hospitals in East London and the City, The Royal London, St Bartholomew's and The London Chest Hospital. Ensemble is being used to address a range of projects across the three sites, as well as providing integration with the new (NpFIT again) NHS Care Records Service (NHS CRS).

Its head of software development Mike Eagles told *MIS UK*: "Our aim wasn't to produce new applications but use the system to allow existing apps to work with the new NpFIT structure. We are essentially chucking out some things but want to keep core lab, cardiac and cancer systems, for instance, and reintegrate them with the new core ones. Yes, you could do this other ways but Ensemble is good value and well supported by the vendor and is proving useful."

Can integration and ROEI come together and produce added value for customers? At least some organisations seem to be saying yes. What is key is to realise that in 2006 no realistic IT programme can function without accommodating not just recent software, but some of all the billions of dollars of existing IT investment we as advanced societies have already made.

That intellectual property can and should be used – and exploited. That, ultimately, is the definition of return on existing investment. ●

INTERSYSTEMS

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