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The information journey

An investigation of UK public sector information management practice

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1 Summary

In light of recent government focus on the use of technology to gain efficiency savings, Kable has been exploring the potential and reality of employing modern information management (IM) principles to aid in the achievement of improved public services. In this white paper, we report our findings.

We find that public sector technology-enabled transformation projects have experienced mixed results when compared to their potential for achieving efficiency gains. Yet we also find that when good IM principles drive projects, their design and ultimate performance improves.

We interviewed a sample of people in government organisations across the public sector to investigate to what extent they are following these principles. We found that:

- Half of projects undertaken by the public sector are not believed by people within those organisations to render the benefits they set out to deliver;
- While a majority of those surveyed believe that ICT is critical to operations, many face a myriad of business pressures and, therefore, few are actually putting it at the centre of their strategy, supporting it personally, or having it represented at senior management levels;
- The successes seem to be attributable to the admirable efforts of staff who take ownership of these projects and IM generally;
- Unfortunately, less than a quarter understand the processes for successful IM. This undermines their efforts;
- Critically, almost a third is not aware that information management principles are government policy.

Insufficient knowledge of IM principles appears to be at the heart of the mixed results experienced by the public sector. Those organisations that do not apply IM principles to projects from beginning to end tend not realise the benefits that they hoped for.

Moreover, our research finds that those less well acquainted with IM principles only tend to change attitudes and behaviour once the policy or the system fails. When the outcomes can have such severe repercussions for public services and the excellent reputation of the UK public sector, either the skills of those involved in IM have to be advanced, skills brought or bought in, or responsibility for IM outsourced to those more experienced with tried and tested information management techniques.

2 Background

More information is being created, stored and technology deployed to process it in order to improve public services than ever before. This is particularly true in the UK, which is a world leader in the field. The UK invests approximately £16 billion pounds a year on hardware, software, communications, ICT services and staff to support it.¹ That is equivalent to over £265 per year, per man, woman and child in the country.

Are these sums rendering value for money to the tax payer?

If only the answer were as simple as ensuring that the lowest bidder was chosen in every instance, and that there was a demonstrable purpose for every purchase. For it is not the ICT that determines value, it is the effectiveness with which it manages the information that is collected, processed and disseminated that determines value. As IM researchers Picot, Reichwald and Wigand recently stated in their book 'Information, Organization and Management' (Springer, 2008),

“New information and communication technologies (ICT) harbour novel potentials for our way of life, the development of society, for the future of the industrial democracy, and for new and innovative organisation structures. Nevertheless, assessments of such technical potentials and predictions of technology utilisation are rarely confirmed by subsequent development, and often they are just plain wrong.”

Certainly, well-publicised criticisms of UK public sector ICT exist. The Ministry of Defence with its massive Defence Infrastructure Initiative (DII) has been publicly criticised:

MoD concealed the truth on £7bn DII project costs.
– ComputerWeekly.com 9 January 2009

The Ministry of Justice hallmark National Offender Management System has strayed well away from plan:

'Spectacular IT failure' costs taxpayer millions.
– TimesOnline, 12 March 2009

The NHS IT project in the UK public sector has also been subject to this regularly:

Fresh trouble for NHS IT system.
– Guardian.co.uk 5 June 2008

Each of these represents quite a substantial project, and things do not always go as planned or as originally promoted in any grand endeavour. To call them failures, as a result, may be an overstatement. But certainly things have not gone as hoped.

“We lost a lot of people in our recent census, which was a real eye opener for our CEO. Obtaining quality data is now a real high priority for us.

Most of the information we collect now is electronic but we still have no integration between our back-office systems.

We are presently comparing all of our company records so that we can build a single view of our customers, so that everyone in the authority is accounted for and has a unique identifier.

We have also set up a task group that brings together all of the data owners.”

Local government organisation (mid-size)

¹ Source: Kable, a part of Guardian News and Media.

3 In an ideal world...

The UK government's vision for IM was set out in its hallmark November 2008 report, 'Information Matters: building government's capability in managing knowledge and information'.²

"To deliver world-class public services and guarantee public accountability, government departments must ensure they capture and effectively manage information created and received. It is essential that information held by the government is kept securely. But this must also be balanced with the need to share information and knowledge in order to provide consistent and joined-up services to the public."

The Information Matters paper goes on to define the principles guiding how this will be achieved. It states that the public sector will:

3.1 Improve the value of the information and knowledge held

- Ensure the information held is used appropriately, with maximum added value.

3.2 Build a knowledge management and knowledge-sharing culture

- Create and promote the capability to manage and share expertise and knowledge appropriately across government.

3.3 Use common standards and secure processes

- Ensure that the whole of government is consistently using best practice and common frameworks for information management standards; and
- Ensure that all civil servants understand their responsibilities for good record keeping and information management.

3.4 Build capability

- Create a strong infrastructure to support and lead information management professionals across government; and
- Develop a professional programme to support knowledge and information management as a key corporate function of government.

² Source: <http://www.nationalarchives.gov.uk/services/publications/information-matters-strategy.pdf>

3.5 Strengthen leadership across government and within departments

- Ensure that departments have the capability and professional leadership to support their ambitions and requirements in this sphere; and
- Strengthen the role of the Knowledge Council to support capability building.

3.6 Improve technology

- Ensure that we understand the implications of new technology for information management, and best address these challenges in a joined-up way, wherever appropriate; and
- Continue work to protect government's digital information assets for the future.

Optimally, public sector organisations would:

- Value highly the information and knowledge they held;
- Nurture a culture that managed and shared knowledge well;
- Employ common standards and ensure security;
- Ensure sufficient capability is in place to achieve their objectives;
- Dedicate leadership at both the departmental and organisational level to ICT; and
- Understand the potential of new technology and use it effectively.

But how well is this drive working?

4 The real world...

The question is, to what extent has the public sector adopted these principles in its acquisition of new technology?

Kable conducted research to better understand the state of public sector organisations with respect to familiarity with and implementation of good IM practice. A total of 50 individuals were interviewed using a telephone survey during February 2009. This was supplemented with in-depth conversations with representatives of another five organisations. Respondents represented a cross section of different-sized organisations, delivering a wide variety of services across virtually all sectors of government.

Our aim was to assess the extent to which Information Matters' guiding principles about information management were embedded in the public sector, and to what extent this was affecting performance. The following describes what we found.

Case study

"We are undertaking a top-down, bottom-up approach – we have developed a framework based on the lifecycle of information and have applied this to three business areas. We analysed the current information flow and applied the framework to identify some quick wins.

From this short project we have learned that communication of the vision and policy is fundamental; there needs to be a change in mindset, and finally there needs to be funds to implement solutions and initiatives. We have a lot of support from IT and the business, but all of our efforts will lose traction if the business cannot find ways to fund projects.

We have silos of information that are not too bad at sharing data across the organisation – but this only leads to a proliferation of information and there is no single view of the truth. Creating 'data guardians' will make someone responsible for data ownership, but I have yet to see an example of an organisation that has successfully done this.

The information management framework links in all of the department's other existing strategies and is overarching to give a more holistic approach to information management."

National government organisation (large)

4.1 The value of the information and knowledge held

The people surveyed clearly found information management essential to their organisations' success. 94% of respondents considered this to be either extremely important or very important.

We also found through correlation analysis (those with correlation factors greater than 0.5) that those who employed information management systems to improve business processes, inform business performance management and improve customer services had more compatible information systems across their organisations.

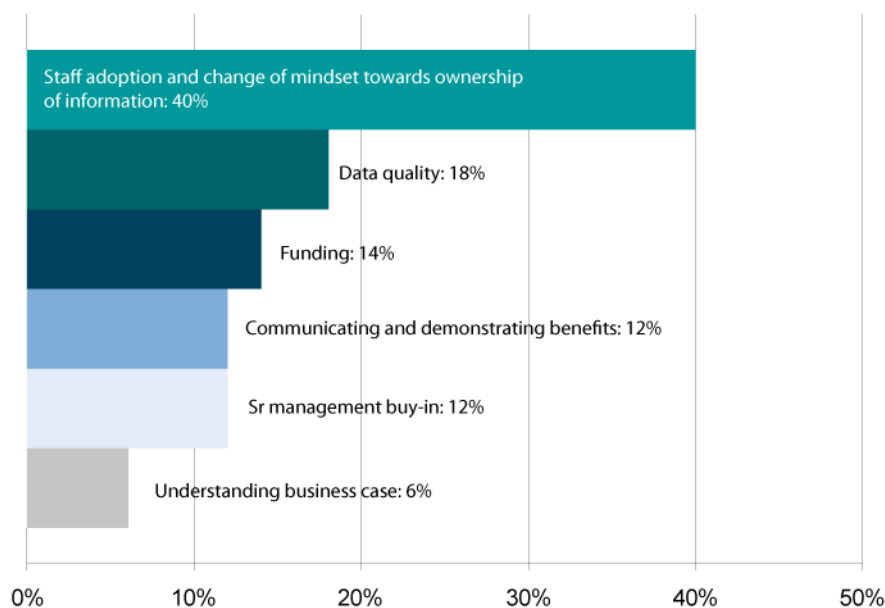
4.2 Knowledge management and knowledge-sharing culture

Developing a culture that encourages knowledge to be managed and shared is still problematic in the public sector. Staff adoption and change of mindset was considered a major challenge (40%) to information management by our respondents. Another 12%, who realised benefits exist, believed that those benefits were not being communicated or demonstrated sufficiently well.

"Internally, we still have a culture of people not wanting to share their data, which needs to change, and back-end systems that are not joined-up."

Local government organisation (large)

What are the key challenges and pain points relevant to information management?



The weak culture for using technology to promote knowledge sharing seems at least partially to originate from the top – 12% considered 'management buy-in' a 'pain point' in information management.

4.3 Common standards and secure processes

The majority of respondents indicated that their organisations had adopted at least one standard. However, there was little consistency to which they adhered.

Which (if any) standards has your organisation adopted for the management of information?

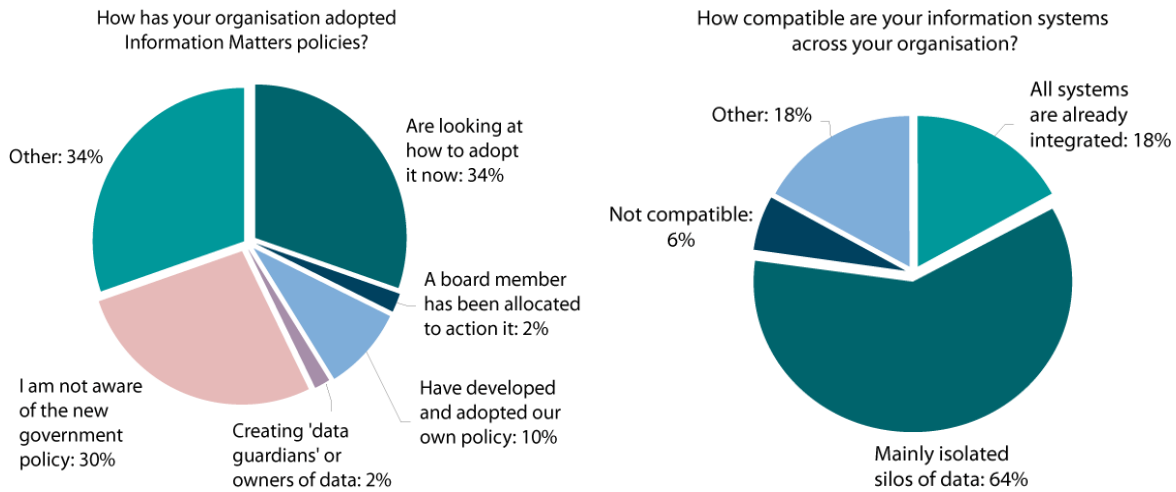


"We have had projects in the past that have glued the silos of data together, but this is a costly solution and still does not address how information is created, stored and disseminated.

An information management policy should not be owned by IT or the CIO; there are so many other elements that are not IT-related – if IT are involved then there are potential barriers."

National government organisation (large)

Moreover, approximately a third (34%) was only looking at how to adopt the Information Matters policy, while another third (30%) were not aware of the policy.

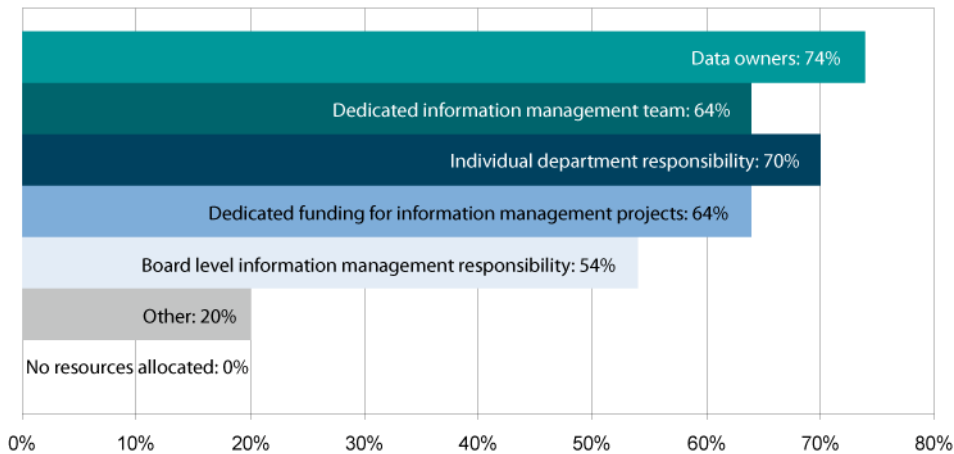


This lack of standards is reinforced by the fact that about two-thirds (64%) of respondents consider their information systems to consist of 'silos of data'. Rationalising this data will be difficult since it will have been created according to different standards.

4.4 Capability

The key to building information management capabilities is to ensure that sufficient resources are allocated to suitably senior people dedicated to supporting and leading professionals in the field. On this measure, the UK public sector is doing quite well. Well over 50% of our respondents indicated that their organisations have dedicated responsibility for information management and satisfactory funding to develop it.

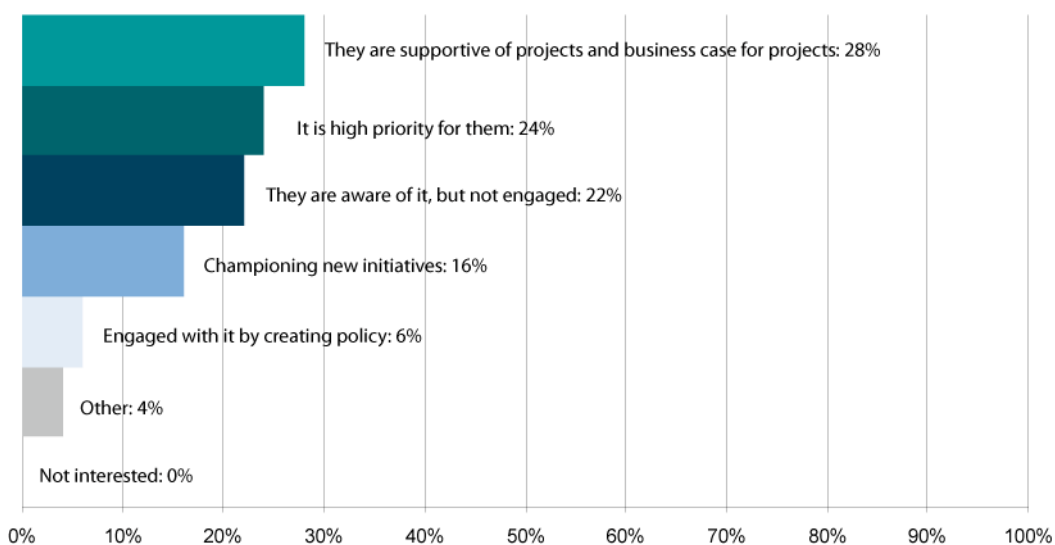
What resources are available in your organisation to ensure effective information management?



4.5 Leadership across government and within departments

Critically, only 28% of respondents said that senior management was supportive of projects, and only 16% said that senior management were championing new initiatives. Some were going through the motions; 36% said IM was discussed regularly at board meetings. But again, only 26% said they had appointed a board member to report on IM. These results are in stark contrast to the finding that 62% stated that IM is extremely important to the success of their organisation. So, while IM is important to the public sector, senior leadership is not mobilising to support it.

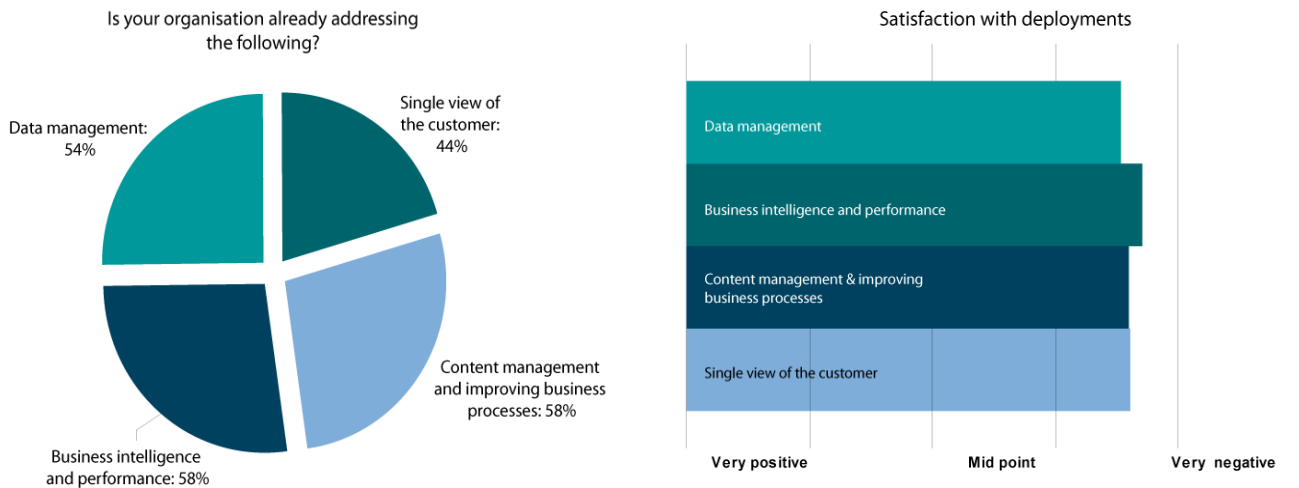
What is the attitude of Senior Management towards information management?



4.6 Understanding and use of technology

We relied on four indicators of how well new technology was being used. These were:

- The evolution toward a single view of the customer;
- Employing content management and improving business processes;
- Adoption of business intelligence and performance management solutions; and
- Application of data management principles.



While approximately half had implemented any one of the indicative technologies, their experience of it was not very positive. They were, on balance, largely dissatisfied with the deployments.

5 The drivers behind good practice

Our study reveals that some do better than others when it comes to good IM practices. Correlation analysis established that a person's understanding of the Information Matters policy, and the broader concepts of IM that extend beyond simply data management, adopted these principles as a matter of policy, had higher level responsibility for information systems, were more prone to adhere to government policy and aimed to improve more than just cost/revenue benefits. They aimed to improve customer services and a myriad of other objectives too. They were also more positive about the benefits their systems delivered across the board.

It is probably no coincidence that those with the more positive experience of their systems also reported that they had more compatible systems across their organisations.

Case Study

Take-up of solutions and policies has been a major problem and people in the organisation need to recognise they have to work differently – it has also been difficult to convince those with funding to see the benefits of information management solutions. We need some quick wins and to pick the right battles.

Compliance has been a good driver of change within the organisation and we are constantly faced with challenges from freedom of information, data protection and information-sharing regulations.

We are presently finding it difficult to find funding to implement an EDRM [Electronic Document and Records Management] and are still looking for the business drivers and finance to implement across the organisation.

We are looking at improving how quickly we get information and how we share that with other organisations in a timely manner.

National government organisation (medium)

Unfortunately, we also found that organisations do not pursue good IM unless ‘pushed’ to do so. Data-loss events (24%), regulations and internal policy (18%), and the need for more efficient business processes (16%) are the factors that most influence the adoption of effective IM policies. Once adopted, reports of poor performance fall off rapidly.

This strongly suggests that public sector technology-enabled transformations that do not fully adhere to IM principles fall into three categories:

- Those that have not yet suffered disappointment but have a 50:50 chance of doing so;
- Those that have been disappointed but the consequences are not noticed by the press; and
- Those whose disappointment was accompanied by media attention.

As the government’s new policy clearly states – IM should be formally recognised as a function of government, in the same way as finance, IT and communications are. However, if the public sector is unaware of these policies, uptake will never happen.

For many, IM will address data security and management issues, business processes and collaborative working. Once you can ensure the integrity of your data, and share data freely within your organisation and outside, it is only then that you will seize the value of information for your citizens.

“Information management is the life blood of what we do. The recent large data losses were a big wake-up call for us. We now have a focus on data security, but the concept of information management underpins all of it. There is no point looking at data security if data is not being managed in an efficient way – an information management policy minimises risk.

National government organisation (large)

6 Why should we care?

We live in a democracy where funding and the operation of the public sector are ultimately dependent on the public's confidence and consent. When projects are not executed to plan, and costs spiral as a result, extensive media attention usually follows. Those swayed by headlines can hinder progress and may even stop it in its tracks, whether a good project or bad.

Should the UK drive to use modern technology and modern processes to improve public services be slowed?

Of course not!

The majority of initiatives involving IM have focused on reengineering business processes and creating data centres. The benefits have been streamlined processes, better business intelligence and easier adoption of shared services.

Our survey revealed that many have undertaken data management and content management projects to improve business processes. While not universal, many had a satisfactory experience of this and it has resulted in a more functional and organised way of working.

Organisations that have addressed business intelligence have had a very positive experience with many stating that it provided a high standard of knowledge sharing combined with a more functional way of working.

The potential benefits are clear to see. It would be a tragedy if the ability of others to benefit from these advances were undermined by the ill-informed actions of a few.

The challenge therefore is to engender good IM practice in an organisation without having the system fail first. Besides avoiding potential public embarrassment, the survey clearly shows that good IM practice is associated with improved benefits ranging from better organisation management to improved service delivery.

The government, having recognised this predicament, has instigated policy to remedy current failings. There are many government initiatives already underway that address specific aspects of IM and information security. The importance placed on IM has been highlighted by the recently launched Information Matters policy. This strategy, published by the Civil Service, will help government seize the opportunities and meet the challenges of managing information in a digital era.

Hence, IM is not just a matter of good practice for the public sector; it is a government-imposed obligation.

"The resources we dedicate towards information management have changed significantly – in the past, this was a function of IT who always had funding issues and did not give it importance. We have now created two very senior posts that are tasked with making information available to be shared internally and externally.

Local government organisation (mid-size)



7 Improving the state of IM

As one respondent stated,

“There is no doubt that IM is extremely important to every organisation today, whether in the public or private sector.”

Yet despite the high level of importance placed on IM, in some organisations IM tools are only being used by those who are willing to share certain information with others. Building an IM and information-sharing culture is key and this starts at the board level and with senior management.

Once leadership is in place, an information agenda must:

- Identify data and content that are vital to the organisation;
- Identify how, when and where information should be made available;
- Determine data management processes and governance practices;
- Identify and prioritise the information projects that deliver the most return;
- Align the use of information to match the organisation’s business strategy; and
- Create and deploy an information infrastructure that meets both immediate and future needs.

“The IT department has tried in the past to find solutions to better manage information with a mindset that was technology-focused, such as implementing large data centres, but it has not succeeded.”

Local government organisation (mid/small size)

Like ‘Transformational Government’, the changes needed are inherently about culture and processes, not just about technology. Many see successful IM as changing business processes and the way people work; however, the take-up of solutions and policies has been hindered, as shown by our research, by people not recognising that they have to work differently.

8 Conclusion

From this research we have learned that communication of the vision and policy is fundamental; there needs to be a change in mindset, and finally there needs to be leadership to implement solutions and initiatives.

The research portrays a picture where enthusiastic, well-intentioned public sector employees are driving the information management projects. They are generally not experts in the field. This appears to lead to the mixed results that the UK public sector has experienced with regards to its technology-enabled transformation agenda.

However, can we expect a greater level of expertise and experience from public sector organisations when they may only undertake a handful of IM projects while also trying to deliver their core service responsibilities, which they rightfully prioritise higher than an ICT project? That would perhaps be unfair.

If it is not practical or possible to imbue all public sector organisations with the necessary expertise or experience, the options are clear: either you:

- Have the skills in-house;
- Hire or contract in the expertise; or
- Outsource the responsibility for information management projects to an organisation that has the requisite skills.

Certainly the value of adhering to principles of information management is clear. When followed, they

- Help avoid failures and the potential media attention they attract;
- Improve the potential for projects to achieve their goals;
- Improve the cost effectiveness with which projects are executed; and
- Ultimately improve the value of the information system to the organisation.

9 Report auspices

This report results from research independently conducted by Kable. Although it has been sponsored by IBM, the client has in no way influenced or interfered with the facts, implications or conclusions presented herein.