

# Application Management: Challenges in the Insurance Industry

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In association with IBM Application Services



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## Background

The insurance industry is intensely competitive. In addition to the pressures of competition, insurers must comply with a growing, and often overlapping, body of regulations – some of which complicate their ability to respond to market changes. Leading companies are challenged to manage costs, bring new products to market, deliver better customer service and manage underwriting risk and fraud. These business imperatives and relentless market pressures have led insurers to focus their efforts on differentiation and innovation. Extending the functionality of existing systems and implementing an effective strategy around application management can help leading insurers to overcome many of their business and regulatory hurdles.

Application management provides a framework for the effective integration of business and technology and a focus on continual improvement in service delivery that has already resulted in significant returns for many insurers. Effective application management can improve profitability by reducing costs, supporting innovation and improving customer satisfaction.

This paper draws on the results of an independent survey of over 600 decision-makers across seven geographies and six industries, commissioned by IBM and undertaken by The Bathwick Group. The findings in this report focus on the responses of the insurance industry organizations surveyed exclusively.

## Executive Summary

### Insurance – Managing change and innovation

Innovation isn't just a buzzword in the insurance industry – it's a business imperative. In our survey, 47% of insurance executives reported that they need to deliver significant innovation regularly in order to remain competitive.

*47% of insurance respondents report that innovation and the ability to adapt are key factors in determining competitive advantage*

Not surprisingly, the ongoing need for innovation puts pressure on insurers' existing application portfolios. They include the challenge of legacy modernization and enhancement and the delivery of timely and actionable management information.

Insurers that lead the market in growth, profitability and reach will be those that create the internal framework, processes and culture to respond rapidly to new opportunities, threats and regulations. The approach that insurers take to their application portfolios and the processes they adopt to govern the way in which applications and business processes are enhanced are key factors in supporting innovation.

There are four key drivers that determine the need to support constant innovation in the insurance space; customers, competition, cost, and risk.

*53% of insurance respondents report that their existing application landscape is not flexible enough to cope with changing business demands*

### Customers

Insurance customers have more choice than ever before. As a consequence, they're becoming more demanding in how they interact with their insurers, the products they want and the premiums they are willing to pay. The only way to deliver efficiently the new products and services customers demand is through an integrated applications strategy.

The growing complexity of underwriting and risk management requires insurers develop a deep and timely understanding of their customers and prospects. This cannot be done efficiently without a consistent, up-to-date, single view of the customer across all of the insurance products that customer buys. This is not only essential to deliver new products and services to market quickly, but also a key measure in improving fraud detection.

### **Competition**

Insurers across the globe face an array of challenges in a market that is ever more competitive and increasingly subject to regulation. This results in a relentless demand for service and product innovation, as witnessed by the dramatic growth in niche or targeted insurance products. These business imperatives create an unprecedented need for adaptability and flexibility on the part of applications and the insurers that employ them.

### **Cost**

While there is strong evidence that companies are prepared to invest new money in projects that will bring business value, cost remains as one of the biggest issues for insurers. The first consideration is the bottom line cost of doing business, which is under constant pressure as margins are squeezed. The second, equally compelling, factor is the cost of change. While streamlining existing processes and introducing new processes and products can and do yield significant benefits, the short-term costs of such undertakings dissuade some from beginning the journey toward greater efficiency.

In all industries, a significant element of the cost of products and services is 'scrap and rework' – not doing something right the first time. In application management, that issue can be addressed by proper testing and management across the entire application lifecycle. With current manual testing resulting in too many post-launch defects and delays, the introduction of automated testing could improve the overall return on application investment.

Lowering the cost of application maintenance and enhancement isn't just a short-term budgetary matter – it's also one of the best ways to fund the future transformation upon which long-term survival often depends.

### **Risk**

Insurers are no strangers to assessing risk. The ability of underwriters to access and evaluate the information they need in order to quantify risk is key. But insurance risks take many shapes; in addition to the risks associated with adverse natural occurrences, there is the ever-present risk of fraud. With general insurance fraud costing the industry billions of dollars a year, the ability to identify and track fraudulent claims efficiently can make a big difference to the bottom line.

In order to properly manage risk, applications must support insurers' need for accurate, relevant and timely information. Without actionable insight, insurance carriers risk being overtaken by better informed and more nimble competitors, or possibly by better informed and more nimble fraudsters.

## **Application management is a key requirement of business adaptability**

Application management describes the processes involved in delivering a portfolio of application services that support the organization's business processes. The way organizations manage their application portfolios, and the processes that govern how they are enhanced and modified determine the extent to which the organization's key applications enable or inhibit change. It is essential, therefore, that insurers examine, benchmark and adapt their application management processes to ensure their application portfolios are managed in a way that maximizes their competitive edge.

Application management covers a range of activities, including:

- Application portfolio management -- The management of applications as a portfolio of business assets
- Change management -- The processes that govern how change is initiated and managed
- Legacy application modernization -- The management of legacy assets so that they do not hinder change

In order to better understand how insurance companies are managing their applications and which areas need the most improvement, IBM commissioned The Bathwick Group to conduct a cross-industry survey of 600 decision-makers across seven countries and six industries. More than 100 insurance executives participated in the study, which concentrated on five focus areas that examined their ability to manage applications. They include:

- Business alignment of applications and responsiveness
- Application management innovation and time to value
- Application development and management of portfolio including performance
- Information integration and knowledge management
- Application modernization and risk management

All of these activities, which are essential to ensure that application assets are in a position to support change and deliver enhanced business value, were assessed in the application management research study, concluded in December 2007.

## Summary findings

### Inflexible applications result in higher costs and lack of responsiveness

IT and business respondents agree that the complexity of the existing applications landscape creates many problems. Both groups understand that most existing application portfolios not only have higher maintenance costs, but more critically, reduce insurers' ability to respond to competitive market changes.

### Legacy and redundant applications represent a growing challenge

*45% of respondents report that legacy applications are difficult to modernize*

While the insurance industry fares a little better than others, 52% of insurance respondents still report that legacy applications cause problems. And 62% of all insurance industry respondents acknowledge redundant applications have resulted in an increase in inflexibility and cost. Over half admit redundant applications are adversely impacting their ability to cope with changing business demands.

### Applications do not provide leadership with the information they need

More than half of all insurance industry respondents reported that a significant proportion of management information requests require manual reworking in order to get them into the right format to be used. The speed with which business leaders have to make decisions means that it's essential that they get the information they need, without having to expend time reworking and reformatting it.

*A majority of respondents report more than one in three management reports have to be reworked manually*

### There are significant differences between IT and business decision-makers' understanding of applications strategy

Of all the groups surveyed, the insurance industry was second only to banking in the variance between IT decision-makers' and business decision-makers' responses. The results indicate a significant lack of clarity and agreement on the roles and responsibilities of business and IT decision-makers with respect to enhancing insurers' application portfolios. This mismatch in perceptions isn't necessarily the fault of one side or the other, but it does present a significant challenge, and one that will require IT and the business decision-makers to resolve together.

### How do you stack up?

The findings provide a benchmark that can be used to understand where the market and potentially your company stand today.

It is only through a detailed view of your own organization that you can understand the next steps required to shore up your application management strategy.

To overcome application-related barriers that inhibit achievement of your company's business goals, we recommend you:

- Implement the business processes and technologies that enable your organization to innovate by better integrating people, processes, and information
- Leverage your existing assets and unlock your application potential with an assessment of internal and external applications

- Implement changes to your applications environment in an incremental, non-disruptive manner to meet business requirements

## The Survey

In November 2007, The Bathwick Group surveyed 600 IT and business decision-makers in seven geographies and across six industries. This report looks specifically at the insurance industry findings and highlights the challenges and opportunities faced by IT and business decision-makers in delivering application and business services that are able to keep pace with the evolving requirements in the insurance industry.

The survey looked at five specific issues:

1. Business alignment and responsiveness
2. Innovation and time to value
3. Application development management portfolio and performance
4. Information integration and knowledge management
5. Modernization and risk management

### 1. Business alignment and responsiveness findings

These questions were designed to measure the extent to which the application portfolio is able to deliver business requirements. Insurance respondents face a number of challenges, particularly the extent to which redundant and overlapping business applications combined with inflexible business processes make it harder to respond to change.

#### Project performance

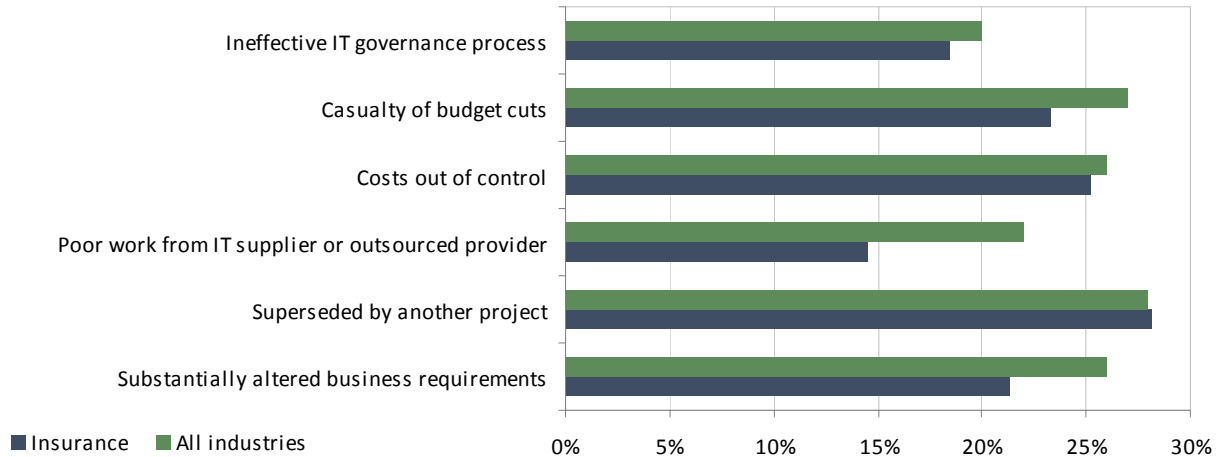
We asked respondents to state the percentage of their major IT projects that met the criteria below (the percentages denote the percentage of respondents who stated that 50% or more of their major IT projects had these attributes).

<b>Criterion</b>	<b>Insurance</b>	<b>All industries</b>
Met all business requirements	39%	45%
Delivered on time	46%	52%
Delivered on budget	37%	49%
Significantly redefined during development	37%	40%
Been canceled after development	14%	18%

Respondents reported significantly lower than average scores in meeting business requirements and delivery on time and budget, which would indicate a lack of specification and control in IT projects. The insurance industry also reports a lower incidence of projects being canceled after development, and/or having been redefined significantly during development. The lack of cancellation could mean that poor projects are bringing down the on-time and on-budget delivery statistics.

We also asked respondents to rank factors contributing to project failure. Insurance industry responses were in line with the overall average, except for a somewhat lower incidence of financially-related project casualties, and a much lower incidence of poor work from a supplier.

Figure 1 Factors leading to project cancellation



Where projects failed to meet all of the business requirements, the following reasons were ranked in the top three:

- Business requirements had changed by the time the project was delivered.
- Business requirements were not sufficiently understood by those implementing the project.
- Business requirements were never properly specified.

All of these factors point to a need for a more complete approach to application management – one that ensures that business and IT stakeholders are fully engaged throughout the process.

### Challenges faced in project delivery

As with other mature industries, insurance companies face a real and growing problem from legacy systems and inflexible existing processes getting in the way of much-needed change.

Figure 2 Extent to which legacy systems represent a challenge

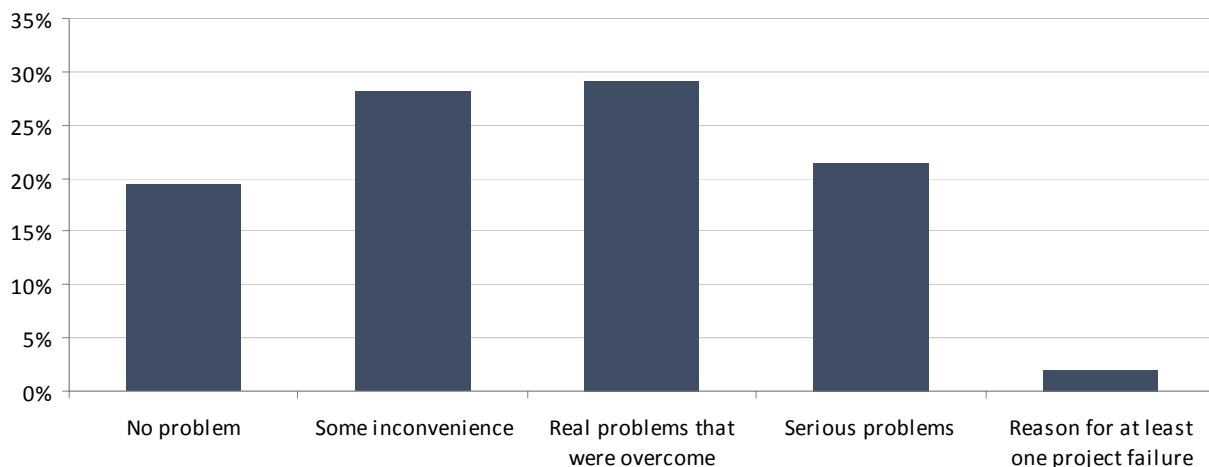
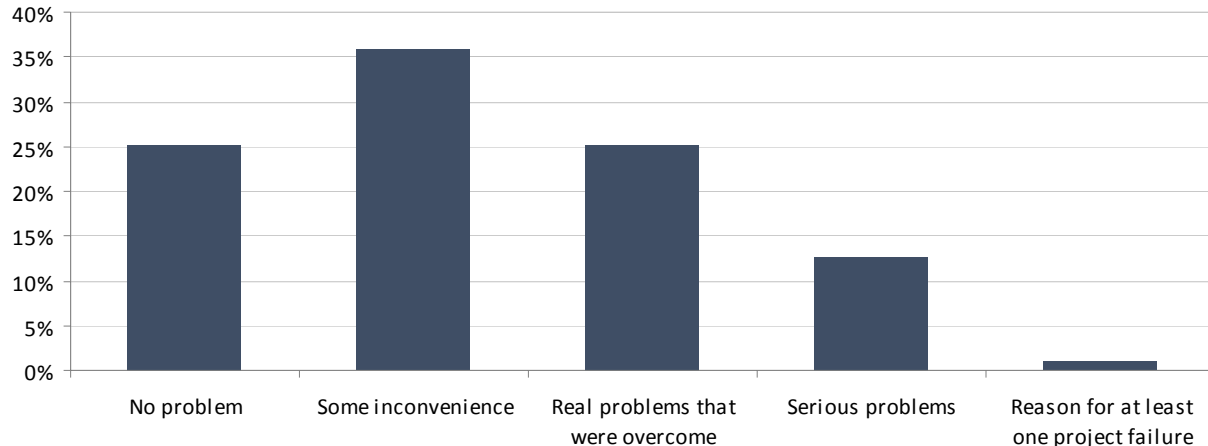


Figure 3 Extent to which the misalignment of core applications with business processes presents a challenge



Nearly a quarter of insurer respondents report serious or catastrophic project problems with legacy systems, and 14% that core applications are misaligned with current business processes. A significant number of companies would seem to be experiencing substantial difficulties in executing the main business efficiently as a direct result of poor application portfolios.

Two other areas were reported as causing significant problems. The first was misestimating the effort and resources required to complete projects. Nearly a quarter of respondents reported serious problems, and 7% cited this as the reason for at least one project failure. The second cause for concern among insurance respondents was a failure to communicate and manage expectations, with one in five reporting serious problems in this regard and 4% citing it as the reason for at least one project failure.

### Project initiation

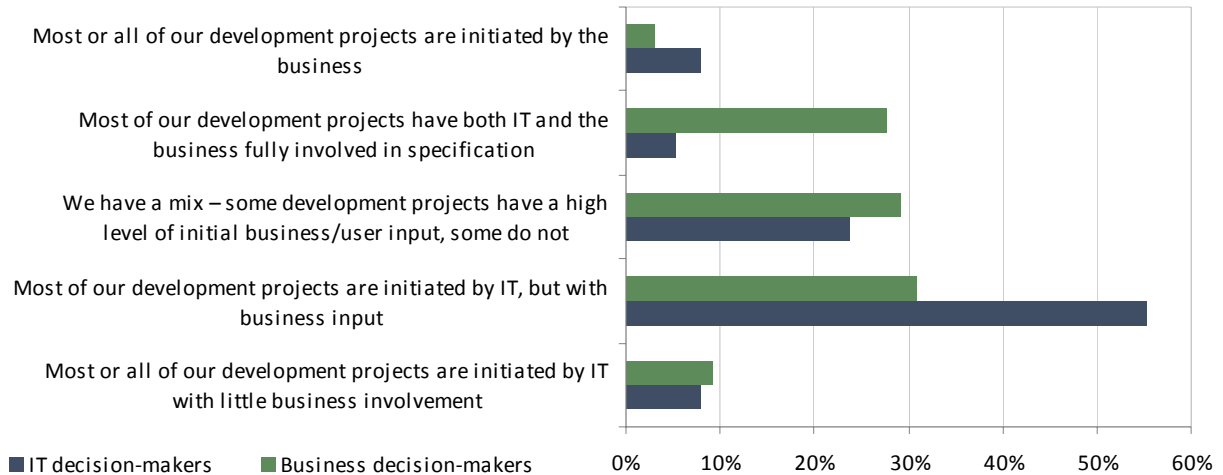
When we asked insurance respondents about the relative roles of business and IT in project initiation, we saw a very marked difference between the two.

IT respondents clearly saw IT as taking the lead in project initiation while business decision-makers were more balanced, but saw themselves taking more of a lead. This divergence in perceptions was by no means confined to the insurance industry, but the insurance industry was second only to banking in exhibiting the biggest perceptual difference between business and IT respondents.

This difference is extraordinary and clear evidence that there is a misunderstanding about lines of control and management in major IT projects. Little wonder then that so many projects fail to come in on time or within budget.

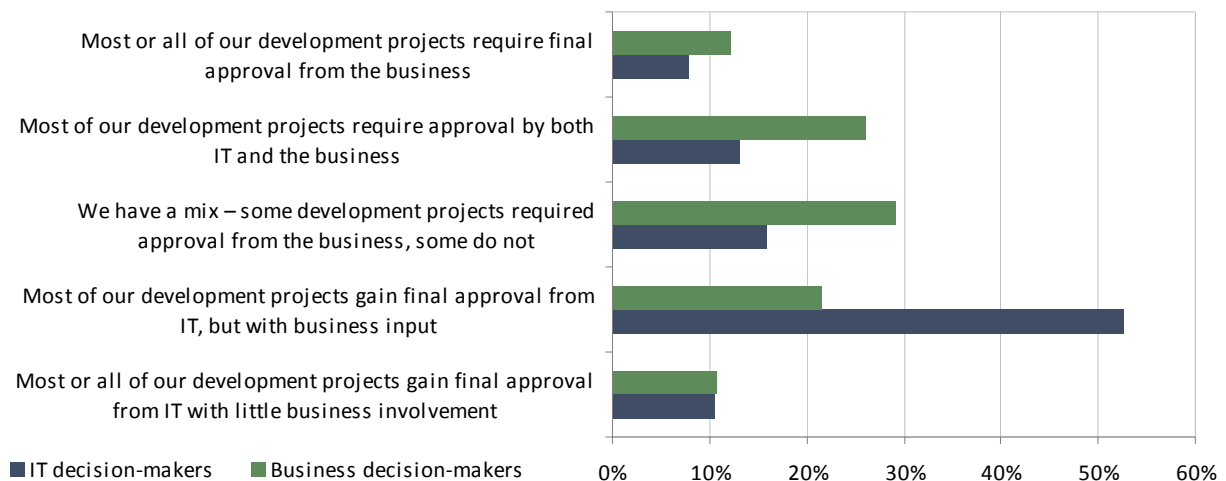
Application Management Research Study - Insurance - 2008

Figure 4 Project initiation



When respondents were asked about project approval, the same mismatch was evident. IT respondents assume IT has a far greater role in project approval than business respondents thought they had. IT respondents were more than twice as likely to report IT application development projects got final approval (with business input) from IT executives than did business respondents.

Figure 5 Application development project approval



## 2. Innovation and time to value

The ability to deliver new business processes, products and services is a key factor in determining an organization's competitiveness.

### The insurance industry places a higher emphasis on innovation than others

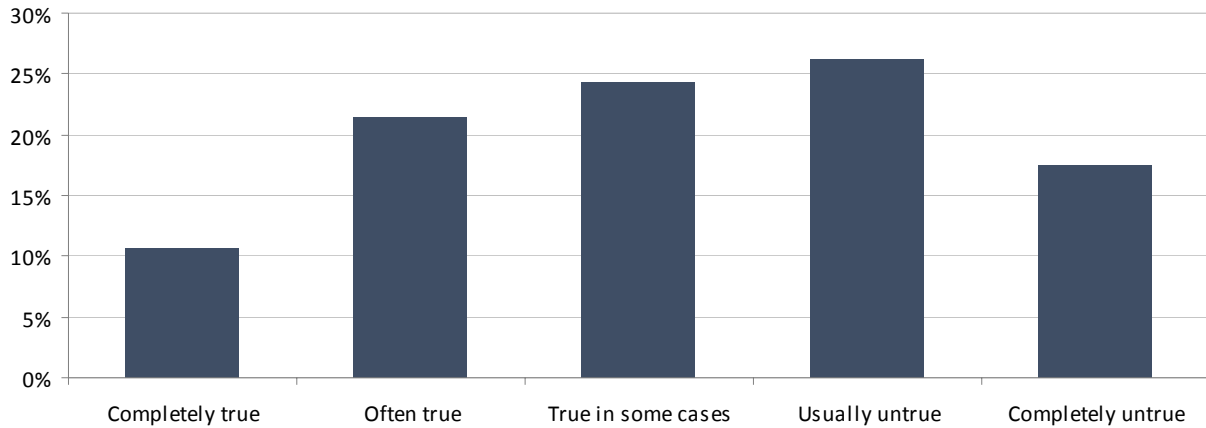
Contrary to what is assumed of most mature industries, the insurance industry demonstrates a wide general focus on innovation. Thirteen percent of insurance respondents regard innovation as an essential competitive tool while more than one third reports they need to deliver significant innovation on a regular basis in order to remain competitive. While a greater proportion of banking respondents regard innovation as core to their business (17%), the overall number of banking respondents to whom innovation is a constant or regular priority is 40% compared with 47% for insurance.

### Innovation is a priority in insurance

	Insurance	Banking	All
Innovation is core to our business; we see this as a unique advantage and tend to introduce innovations faster than the competition	13%	17%	14%
We need to make significant changes/innovations fairly regularly to keep pace with competitors	34%	23%	30%
We occasionally make significant changes or introduce new innovations; but this is the exception	36%	43%	40%
Continuous improvement is enough; we do not tend to make radical changes to the way we do things	17%	16%	16%

Although 63% of insurance respondents believe their ability to implement new applications is either at (50%) or above (13%) the industry average, nearly a third state that organizations often fail to achieve the return on investment they expected from new systems. This is a significant number, but actually in line with the all-industry average.

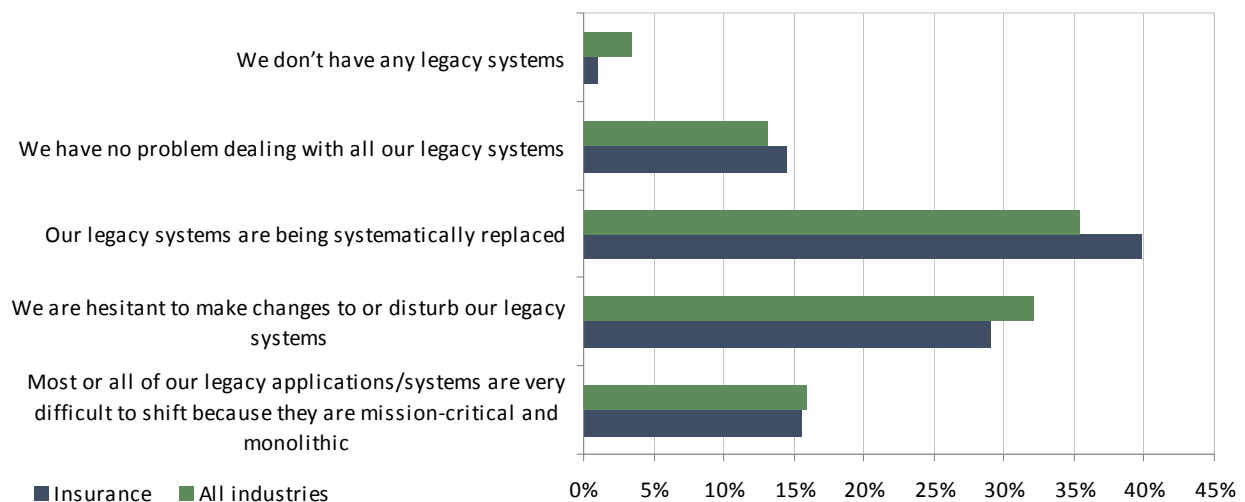
Figure 6 Inability to achieve return on investment on new systems



### Legacy systems and their impact on innovation

While legacy systems have already been highlighted as an endemic challenge to business, the insurance industry is in a slightly better position than the average of all industries surveyed. A higher-than-average number of insurance respondents reported having no problems with their legacy systems, perhaps because insurance companies are more likely to report that their legacy systems are being systematically replaced.

Figure 7 Impact of legacy systems on innovation

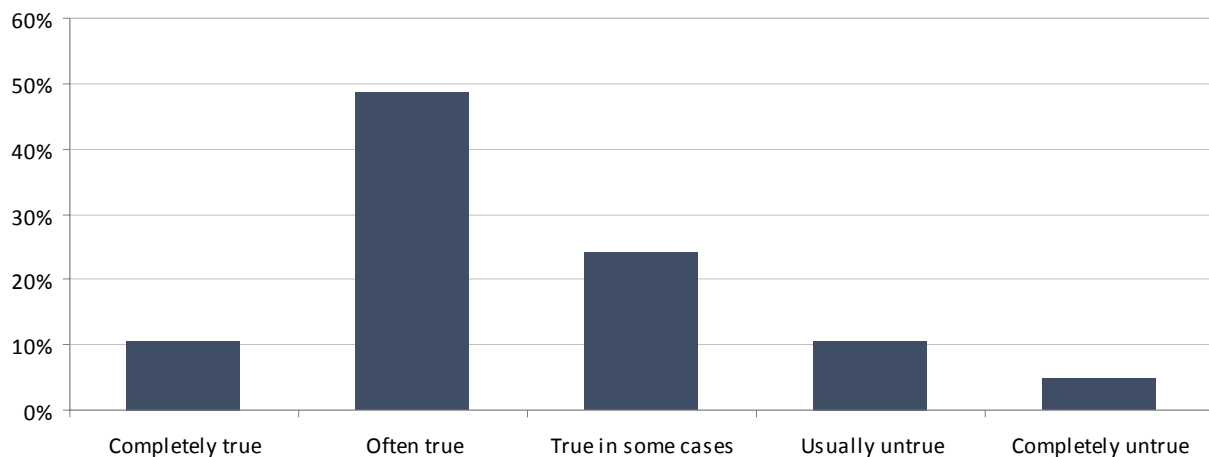


### Attitudes toward innovation

Nearly eight out of ten insurance respondents report there are central processes to manage innovation. Cultural attitudes to risk-taking are also positive. Half of industry respondents report people who make mistakes share their experiences openly, so that others can learn, but one-third acknowledge that people can be hesitant to take on new challenges because project failure is seen as a career-limiting event.

The importance of investment in the application space to support innovation is widely recognized with well over half of all insurance respondents stating that this is “completely true” or “often true.”

**Figure 8 Investment in the application space as an enabler for innovation across the business**



The insurance industry gives high marks to senior management’s attitude toward innovation. Seventy-six percent of respondents report senior management understands the potential impact of new technologies on the business and 74% say senior management encourages new ways of thinking.

### Managing change

The engagement of senior management and the effective communication of strategy are both essential in effectively managing change. Unless there are processes in place to ensure that business goals are well understood by everyone, there is little chance those requirements will be fulfilled.

When asked “to what extent does senior management always convey information about performance and strategy to the internal audience,” 67% said this was true in most cases (compared with 61% in banking).

There is work to do in ensuring that business requirements are consistently and effectively communicated across the organization however. Forty-two percent of respondents report that business requirements tend to change so often that it is sometimes hard to keep up. This is reinforced by the fact that 37% of respondents report that business requirements are significantly redefined during more than half of major IT projects.

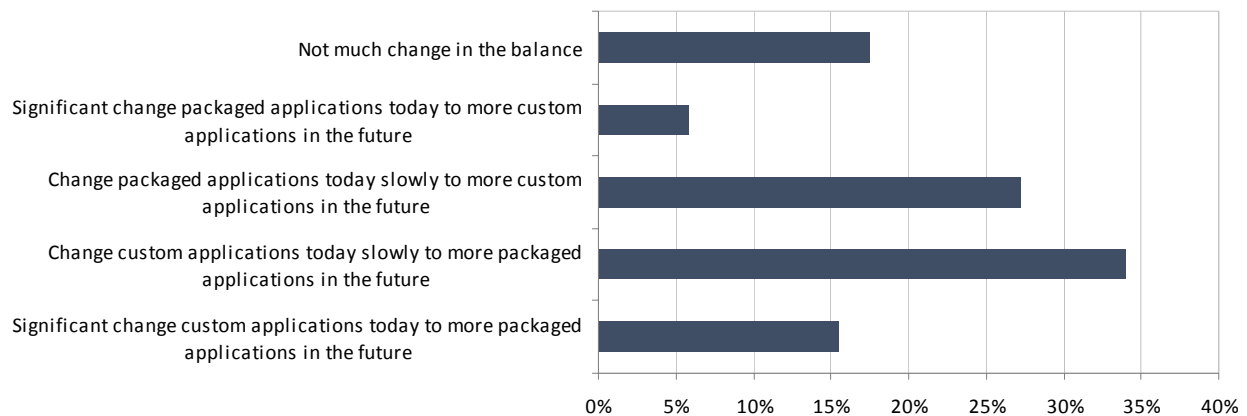
### 3. Application development management (ADM) portfolio and performance

This next section examines the current status of the application portfolios within the surveyed organizations, and the mechanisms they have in place to monitor and measure performance.

#### The trend towards packaged applications is continuing

Half of all insurance respondents report there has been a shift away from custom to packaged applications over the past three years. The same number predicts this shift will continue. This is a lower proportion than the all-industry average, but still significant for an industry that has traditionally features monolithic custom core systems.

Figure 9 Application portfolio change from custom to packaged, next two years



That tradition, coupled with two decades of M&A activity means that there is a strong focus on eliminating redundancy within the application portfolio. Nearly two-thirds of respondents report that there will be some emphasis on reducing the total number of applications in use. Thirty-one percent report there will be significant effort invested in application consolidation. Application replacement remains significant to 29% of respondents.

#### The role of application management in competitiveness and innovation

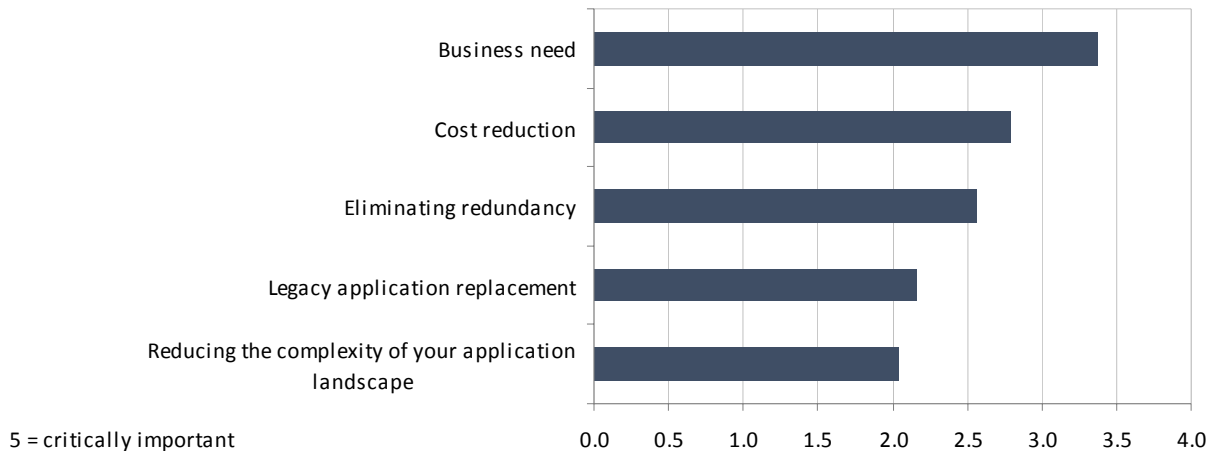
Fifty-nine percent of respondents report the complexity of their application landscape is having some impact on their organization’s responsiveness to market change and its ability to change. One-fifth report that the impact is significant.

Not surprisingly, this impacts an organization’s ability to innovate. Nearly one-quarter of respondents report the complexity of their application landscape is having a significant impact on innovation. One consequence of this is that 46% of respondents report having to develop temporary solutions to meet business needs. Temporary solutions have a habit of becoming more permanent than originally designed; this is a major source of hard-to-shift legacy down the line.

### Application roadmap and business process standardization

In planning the organization’s application roadmap, priorities are set very much in business terms although cost reduction and eliminating redundancy still have important roles to play.

Figure 10 Scoring of application roadmap priorities

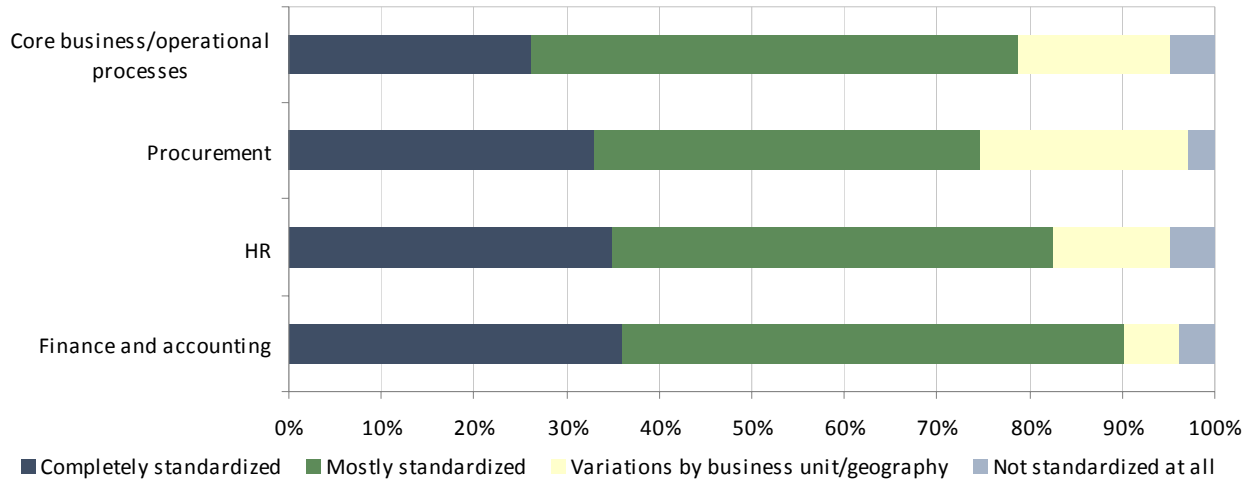


While business has made progress in adopting standard applications for key business processes, the insurance industry responses were slightly less positive than the all-industries average. In terms of finance and administration, for example, only 36% of insurance respondents reported that their processes were completely standardized, compared with 50% of the total survey base.

The greatest variation is found in procurement processes. Over 25% of respondents report either no standardization (3%) or variations by geography (22%). This is to be expected when insurers are compared with supply-chain dependent industries such as retail.

When looking at the standardization of application assets across the organization, there is frequently tension between the desire to deploy and use a single solution and the (often passionate) argument of exceptionalism, (“My geography is different” or “Our division is different”). There are cases in which local/divisional differences can and should be justified. But there has to be a rigorous exception management process to ensure that differences can be justified in terms of their value to the organization as a whole.

Figure 11 Extent to which standard applications have been adopted for key business processes



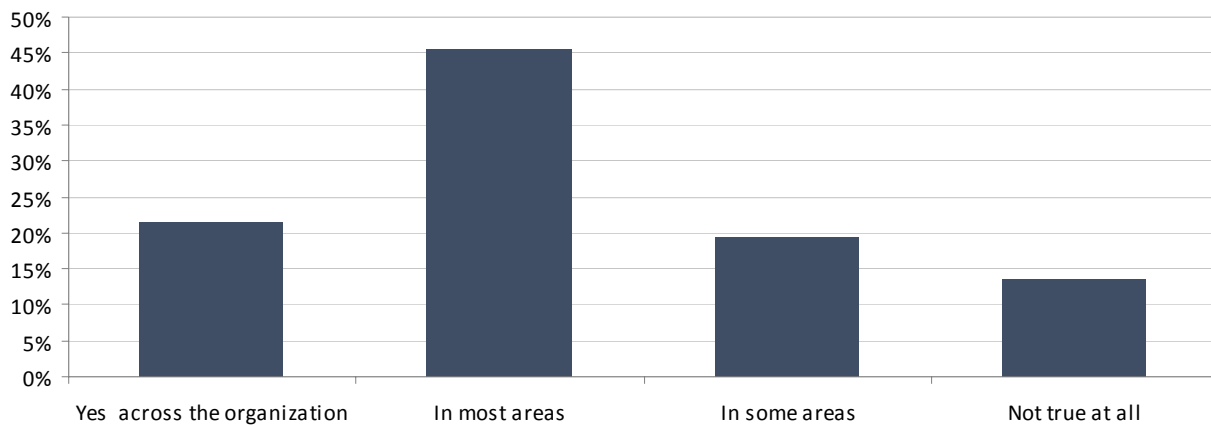
#### 4. Information integration and knowledge management

The effective management and use of information is fundamental to the insurance industry. Management needs up-to-date information to make critical decisions about risk and the growth of competition. Customer insight is equally important in determining which products to offer, and to whom.

##### Management use of information

When asked whether managers get access to the information they need in a timely and accurate manner, only 21% of respondents said either “yes, in some areas” or “not at all” – indicating a relatively high level of confidence. But the extent to which it is possible to see all of the data relating to a customer in a single unified view tells another story.

Figure 12 Ability to see all data relating to a customer in a single unified view



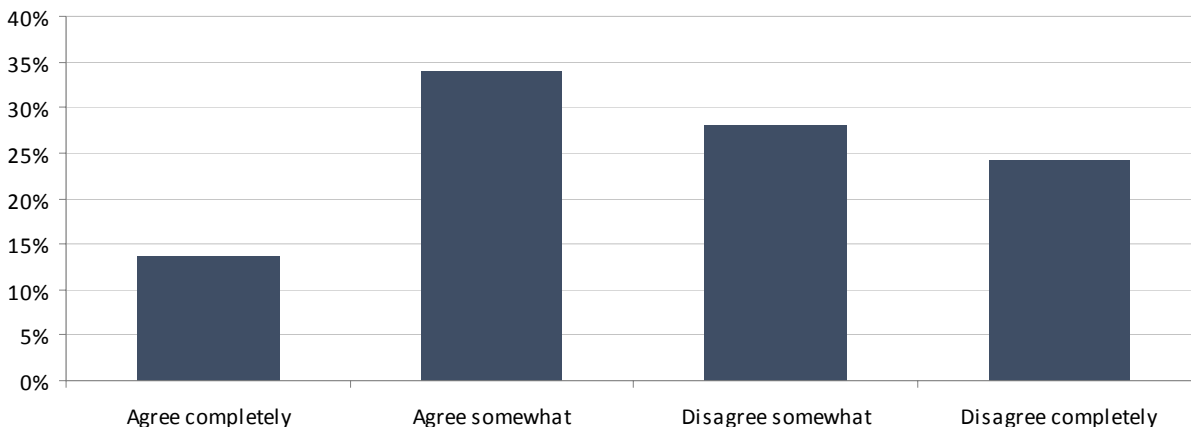
Only 21% of respondents report they can provide a single view of the customer across the organization. Forty-two percent of respondents report a single customer view has been implemented only in some areas or not at all. This is not a good result given the importance of both effective selling and customer risk management to insurers.

When asked about access to corporate data from operational systems such as SAP, 30% of respondents report they have to manually process corporate data in order to get actionable content or that they can't optimize the data that they have. Nearly a quarter of respondents state that a majority of the system generated reports they create have to be manually reworked using spreadsheets before presentation to the end-user.

This situation clearly presents some immediate challenges. First, it is harder to manage and make decisions responsively when relevant information is slow to obtain. Second, there is always the increased possibility of introducing errors into data when it is handled and prepared manually.

When it comes to getting business information out of core systems, the insurance industry seems to be performing better than the all-industry average. Only 39% of all respondents reported they disagreed with the statement "It takes too long to get business information out of our systems" compared with 52% of insurance respondents.

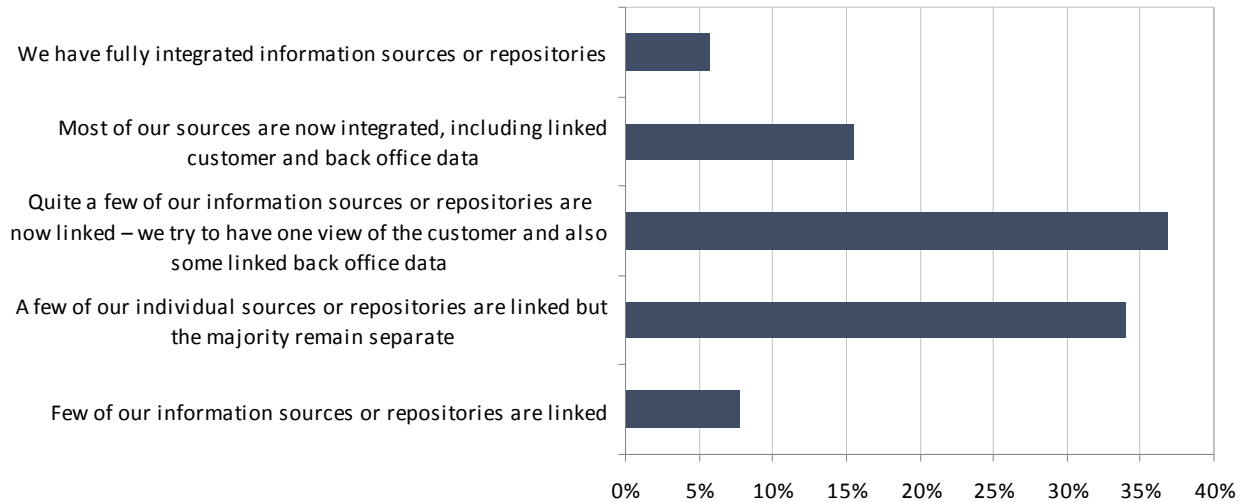
**Figure 13** Taking too long to get business information out of systems



### Data integration

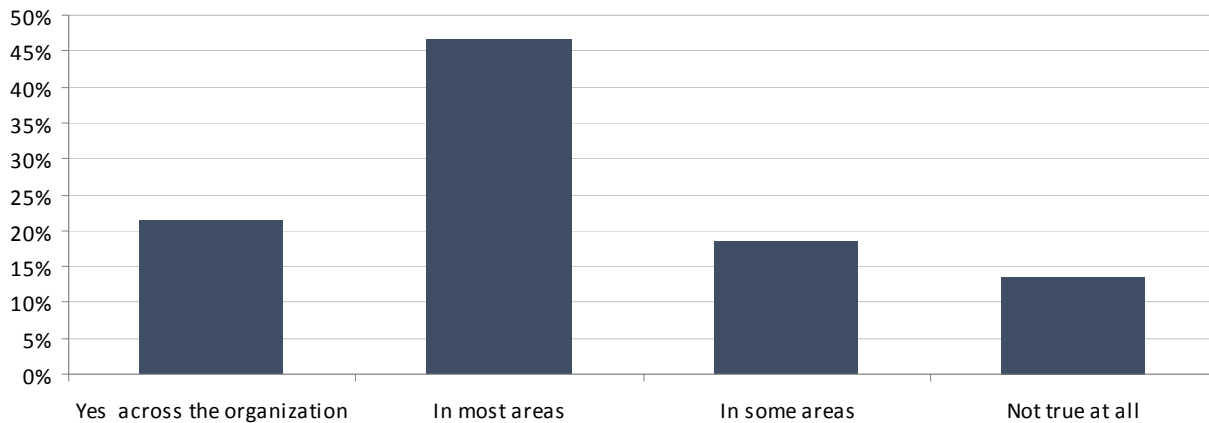
We asked respondents about the extent to which their different information repositories are integrated. The responses we received were in line with the earlier responses with regard to single customer view, and probably go some way to explaining that result.

Figure 14 How respondent companies manages information



We also asked about the existence of “feral data” – data outside the control of central IT. The responses were alarming. More than three-quarters of insurance respondents reported there is a lot of critical data out on individual desktops and laptops. This compares with 57% overall for all industries and 53% for banking industry respondents.

Figure 15 Extent to which critical data is on individual desktops and laptops



The presence of key data on desktop PCs and laptops creates a number of potential problems. To begin with there’s the obvious question of security (Is the data safe from loss or theft? Can the data be recovered?). There are compliance issues (Does the company know the formula used to calculate the risks associated with a given transaction if the spreadsheet files that were used to do the modeling exist only on an analyst’s laptop?). And finally, the question of integration; data that are scattered on personal desktop PCs can’t be integrated with the rest of the corporate data.

Despite all the progress made over the years in information handling, the continued existence of this level of ‘feral’ data outside centralized control still represents a significant risk to many companies.

## 5. Modernization and risk management

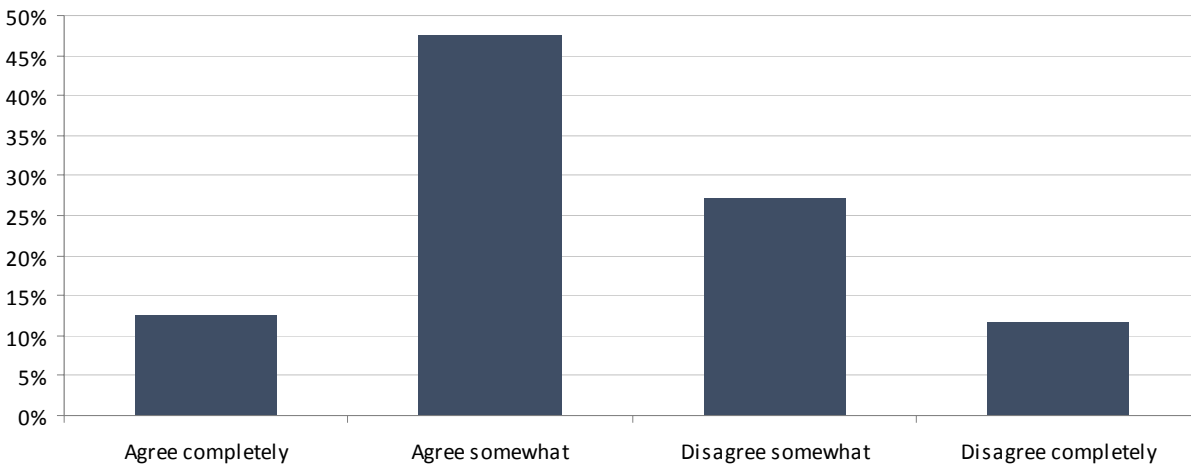
In this section we examine the organizations’ approach to modernization – and the extent to which their existing assets and processes support change.

### Application modernization is key to being able to deliver change

There is broad agreement among respondents that legacy applications coupled with inflexible business processes represent a significant barrier to change.

When asked to characterize the current state of applications modernization, only two-fifths of respondents were able to state that they modernize applications clearly and efficiently in line with changing business requirements.

**Figure 16 Internal resources tied up maintaining current applications**

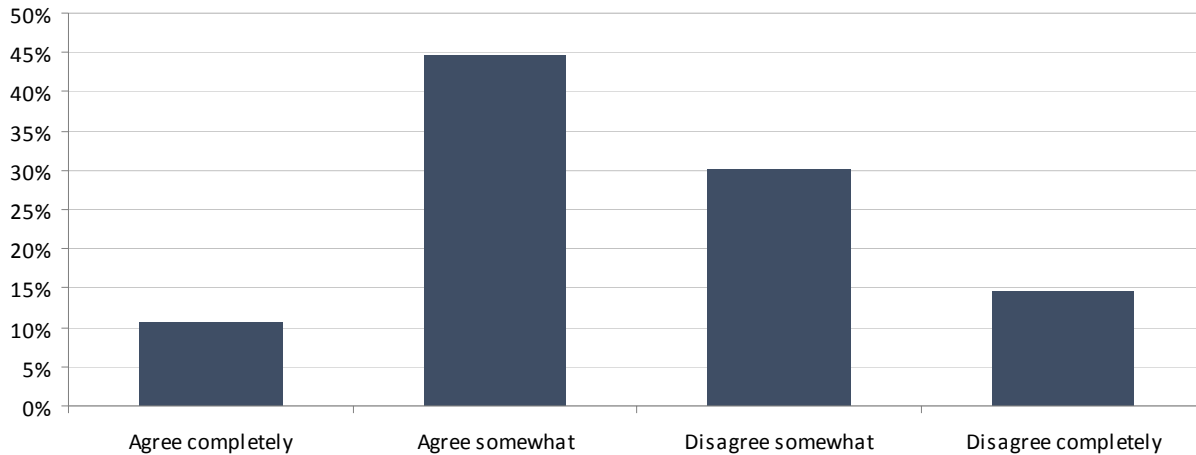


In terms of skills, half of respondents are concerned that they lack the necessary in-house skills in order to effectively maintain and enhance their existing applications.

And when asked about the extent to which the existing application portfolio reduces their ability to cope with changing business requirements, 53% regard this as an issue. One in ten cites it as a critical concern.

The result is that more than half of respondents report that their ability to address new business requirements in applications is affecting business performance.

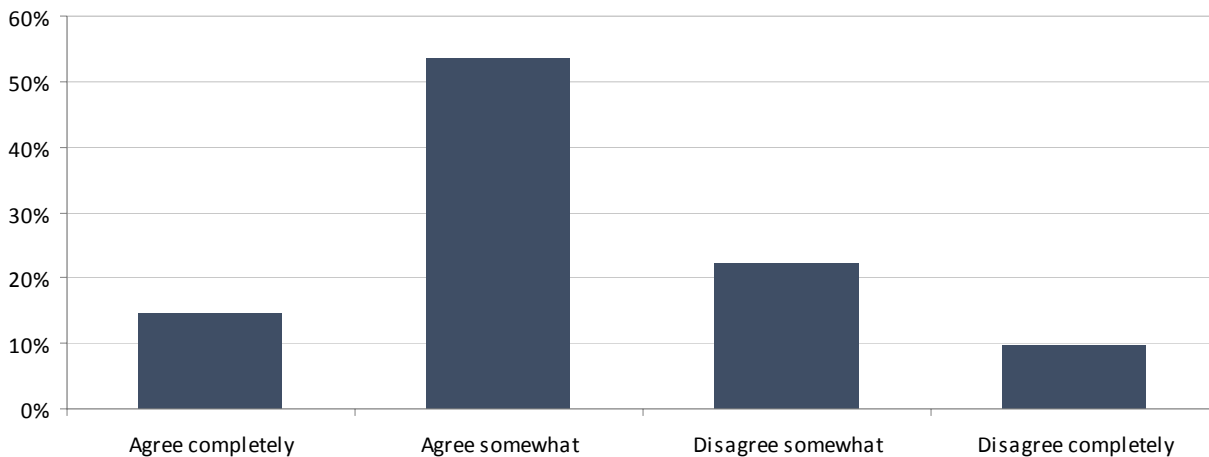
Figure 17 Falling behind new business requirements in applications – affect on business performance



### The growth of BPO in the insurance industry remains strong

The insurance industry was an early adopter of Business Process Outsourcing (BPO) for many of its processes and there is strong evidence that shift towards BPO will continue. Over 60% of all respondents state that there will be some move towards increased BPO.

Figure 18 Moving towards BPO



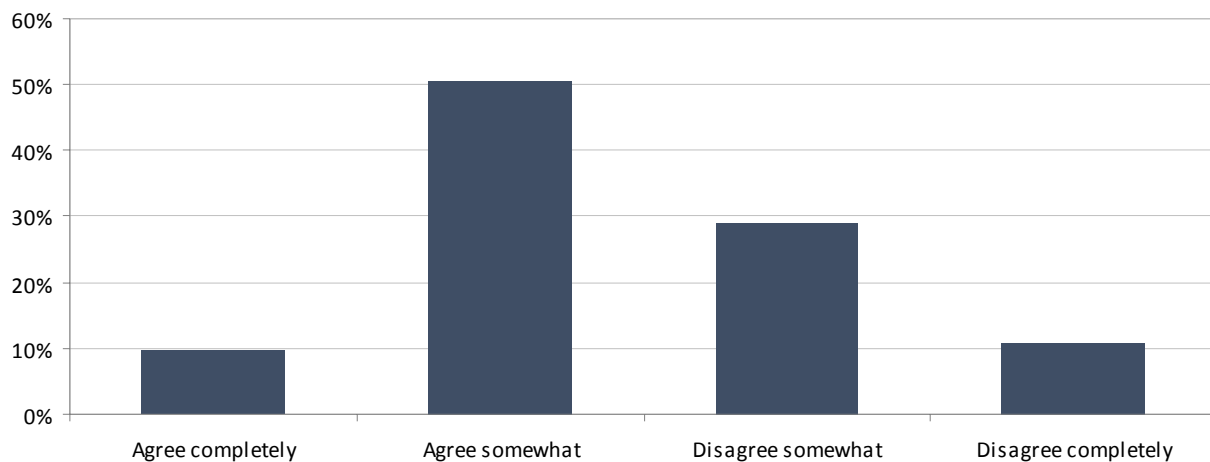
### Manual application testing causes a bottleneck in lifecycle management

Testing has an important role to play, not just in ensuring that development projects meet quality standards, but also as a means to identify improvements that can be made to the overall development process.

Fully 60% of insurance industry respondents report a significant proportion of their testing was done manually, and 48% acknowledge they experience too many-post launch defects.

It seems clear that greater automation in testing and the improvement of the processes that surround it would have a significant impact not just on application quality, but also on overall satisfaction with the application development process.

Figure 19 Extent to which application testing is done manually



## Conclusion

This survey has served to highlight many of the challenges faced by the insurance industry. It provides a basis, against which insurance organizations can benchmark themselves in order to determine how their responses to the issues they face map against the rest of the industry.

The Bathwick Group, in conjunction with IBM, will be conducting more research in this area. In addition, we have developed an interactive benchmark tool that enables organizations to conduct an initial “self-benchmark” against the results of this survey. To access this tool and learn more about IBM’s Application Services capabilities go to <http://www.ibm.com/services/applications>.

## About The Bathwick Group

*Bathwick researches how businesses actually buy and apply IT to their business, how they innovate using technology, and how IT is supporting changes in market and organizational models. Our research framework is split into four key domains, each focusing on a feature that client organizations aspire to be: Dynamic, Smart, Open, and Green.*

*Combining primary research with trend analysis in enterprise, mid-market and small business sectors, Bathwick provides research models, benchmarking tools, market analysis, and strategic consultancy services to a variety of IT, communications, government and media clients, and helps enterprise organizations plan for technology-driven change.*

*The Bathwick Group also includes:*

- **The ThinkAgain Partnership LLP**, a global collaborative research network, which brings together academics, writers, business and political leaders to generate new insights into business productivity and performance, geo-political and environmental issues.
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