



# Supply Chain Resilience 2011

An international survey of more than 550 organizations from over 60 countries, which considers the causes and consequences of disruption, the techniques and approaches to identify key supply chains, and methods to gain assurance of resilience capability



3rd Annual Survey  
Published November 2011



# Contents

---

03	Executive summary
04	Introduction
05	Part 1: Sources and levels of disruption with their short and longer term consequences
14	Part 2: Identifying and assuring key supply chains
23	Part 3: Winning business with Business Continuity Management
26	Conclusions & recommendations
27	Respondent profiles
30	About the survey, the BCI, CIPS and the report's sponsors
35	Appendix A: Written comments by survey respondents

# Executive Summary

---

## Introduction

This survey is the third in a series, starting in 200, that set out to consider the challenge of developing resilient supply chains.

The survey in 2011 considers the sources and consequences of disruption along with their origin within the supply chain system. It majors on the methods used to understand supply chain vulnerability and measures taken to ensure continuity.

## Key Findings

- 85% of survey respondents experienced at least one disruption.
- 40% of analysed disruptions originated below the immediate tier one supplier.
- Adverse weather was the main cause of disruption at 51%, with unplanned IT and telecommunication outages in second place at 41%. Sources of disruption can, however, vary significantly by sector and geography.
- Cyber attack rose to become a top three source of disruption in the Financial Services sector.
- Supply chain incidents led to a loss of productivity for almost half of businesses along with increased cost of working (38%) and loss of revenue (32%).
- The longer term consequences of disruption in the supply chain included shareholder concern (19%), damage to reputation (17%), and expected increases in regulatory scrutiny (11%).
- The earthquakes and tsunami experienced in Japan and New Zealand this year, affected 20% of responding organizations, headquartered in 18 different countries and across 12 different industry sectors.
- For 17% of respondents the financial costs of the largest single incident totalled a million or more Euros. For those with weaker supply chains, the number experiencing higher financial costs almost doubled to 32%.
- Only 8% of respondents could confirm that all of their key suppliers had Business Continuity (BCM) programmes in place to deal with disruption. Less than half of businesses check that BCM programmes

are likely to be effective in practice.

- The ability to demonstrate resilience is starting to become a factor in purchasing decisions with 28% of respondents stating that they always or often have to provide assurance to prospective clients.

## Conclusions & Recommendations

Effectively managing supply chain continuity is critical not just because of the immediate costs of disruption but as a result of the longer term consequences to stakeholder confidence and reputation that arise from failure.

Fortunately, supply chain and BCM management techniques are being brought together to better under the risk and provide methods for managing continuity of key supply chains.

Notwithstanding the level of risk mitigation that can be achieved through these actions, responsibility for resilience cannot be outsourced, so organizations still need their own BCM programmes to consider and deal with the consequences of supply chain failure.

# Introduction

## 85% of responding organizations stated they experienced at least one supply chain incident that caused disruption to their organization

This report is the third in a series that started in 2009 to consider the challenge of developing resilient supply chains.

The drivers of vulnerability in supply chains have been well documented<sup>1</sup>. Whether product or supply chain complexity, ICT dependency, lean/Just-In-Time methods, single sourcing, outsourcing or the broader globalisation of sourcing and supply chains. Supply chains are now multi-tiered and multi-layered; an interactive system, whose operational efficiency allows risks to propagate fast and efficiently.

The survey in 2011 considers the sources of disruption along with their origin within the supply chain system. The survey majors on the methods used to understand the vulnerability and measures taken to ensure supply chain continuity.

By identifying key supply chains and evaluating their likely resilience, better informed decisions on supply chain strategy

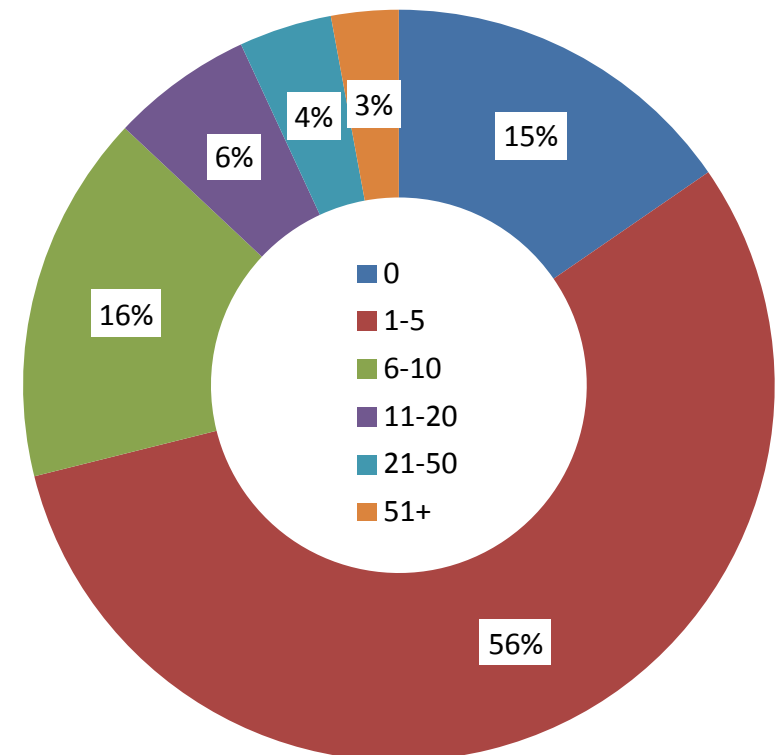
can be made, requiring Business Continuity Management (BCM) programmes to be reviewed in light of likely supply chain behaviour when faced with disruption.

So, what do we mean by supply chain? Here's one definition that we like (Christopher 2005):

*“The network of organizations that are involved, through upstream and downstream relationships, in the different processes and activities that produce value in the form of products and services in the hands of the ultimate consumer”.*

Levels of supply chain disruption remain undiminished with 85% of survey respondents experiencing at least one disruptive incident. Among those who didn't experience disruption, they commented that the disruption was very modest or that the business continuity measures that had in place meant that there was no substantive disruption.

Number of supply chain incidents in the past 12 months that caused disruption to the organization (Base: 377)



1. "The Drivers of Supply Chain Vulnerability: An Integrated Framework", Dr Helen Peck, International Journal of Physical Distribution and Logistics Management, Vol. 35, No4, 2005. pp210-232 ISSN 0960 0035

# Part 1: Sources and levels of disruption with their short and longer term consequences

# Major sources of disruption on supply chains

Only 15% of the overall sample could firmly state they did not suffer from a disruptive supply chain incident. 85% reported at least one incident, while almost a third reported more than six.

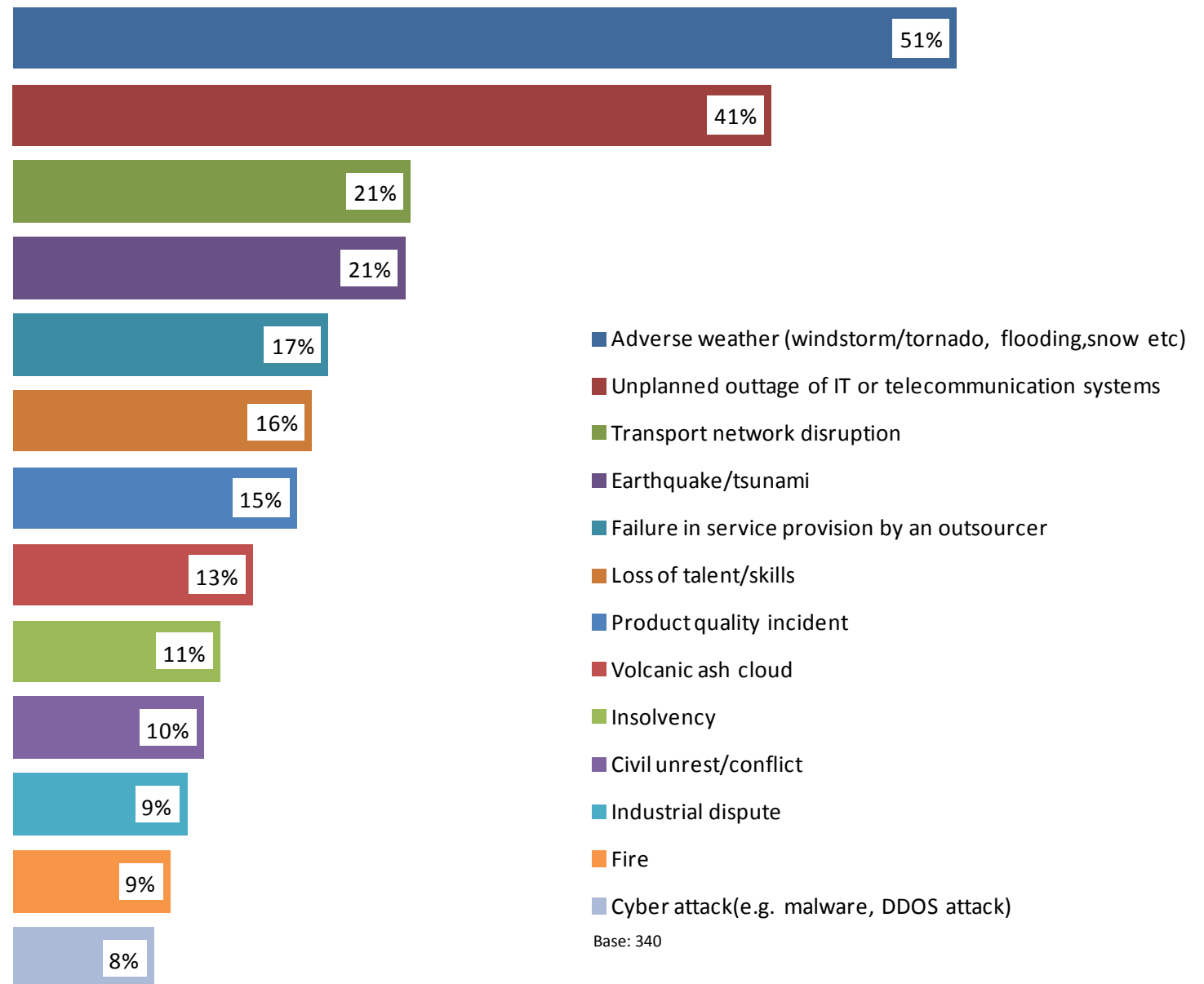
Adverse weather is the source of most disruption over the past 12 months, as it was in 2010, with 51%.

Unplanned IT or telecom outages follow in second place at 41%.

Transport network disruption rises to third place in this year's survey.

The new entrant is earthquake/tsunami given the events in Japan in March 2011 but also in New Zealand. At 21% this is a significant result given the wide representation of sectors and countries involved in the survey and it underlines the sensitivity of globalised supply chains to disruption.

With the continued difficult economic environment disruption through supplier insolvency remains prominent in the list of causes of disruption.



# 'Watch list' sources of disruption

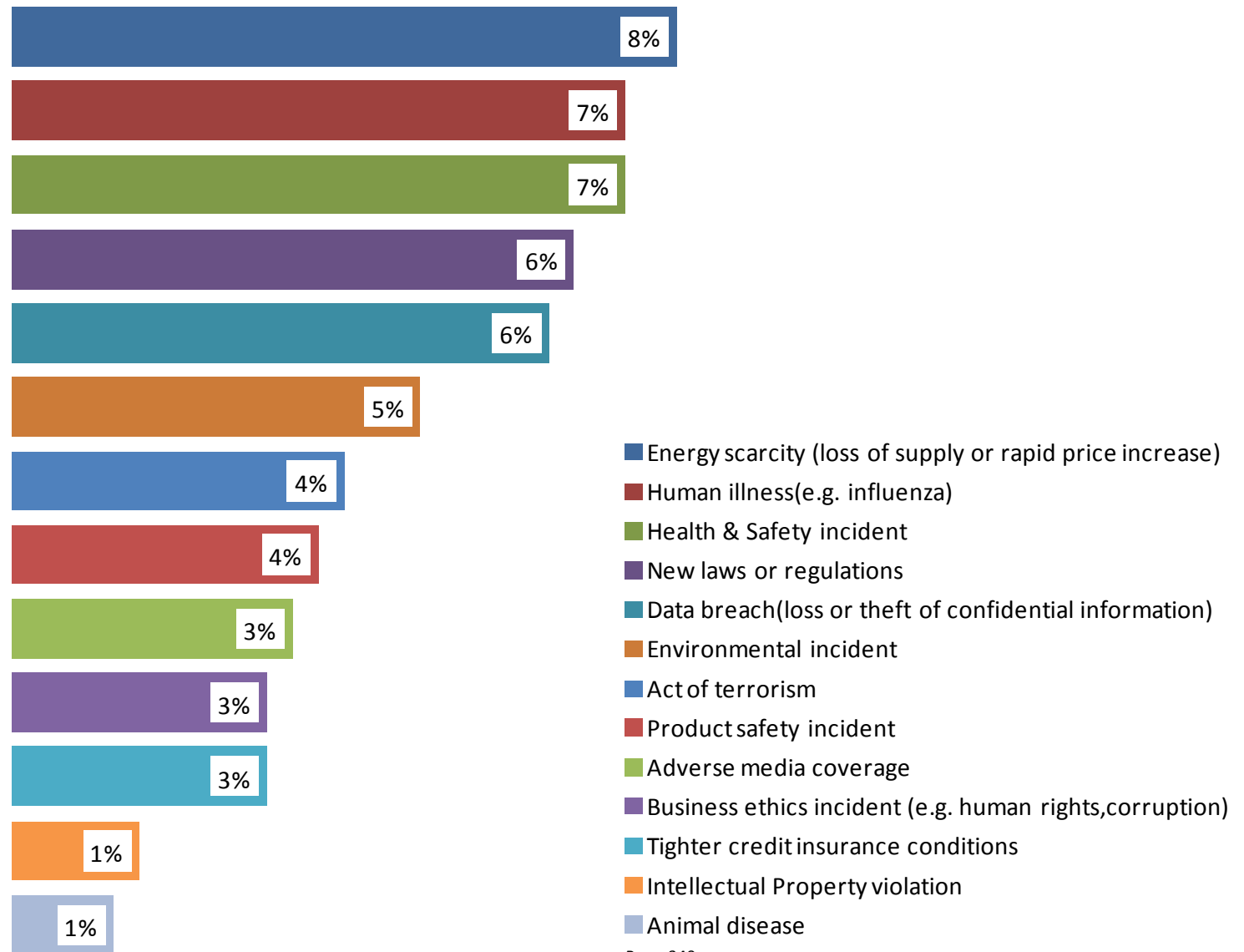
Looking at some of the movers from 2010, the loss of talent and skills has risen up the list.

Human illness/influenza has fallen from its high in the 2010 survey, which reflected the swine flu epidemic.

Sustainability issues such as environmental incidents and business ethics incidents are still there.

Intellectual property violation also records a relatively high level of incidence and it is one to watch for the future.

We are always interested to see the extent to which disruption has strategic reputational consequences on organizations, and the levels of adverse media coverage provide an indicator of this threat—especially as the fault may well lie with the supplier, but it is the buying organization that suffers.



Base: 340

# Leading sources of disruption vary by sector

Considering the following six industry sectors some important distinctions emerge:

**Financial Services:** It is not a surprise that this sector is most sensitive to unplanned IT or telecommunication outages, given the high reliance on technology and outsourcing. However looking down the list, what this clearly enables is a vulnerability to cyber attack,

whether through malware such as a virus or a distributed denial of service attack. While the cyber threat has been a “hot topic” through much of 2011, only in the financial services sector does it reach a top three position with 13%, almost double the survey average.

**Retail/Wholesale sector:** No surprises in terms of the disruptions that affect supply chains in this sector although the prominence of fires is not found in other sectors.

**Manufacturing:** Sources of disruption among

	Financial Services	Retail & Wholesale	Manufacturing	IT & Communications	Transport & Storage	Government
<b>1</b>	Unplanned outage of IT or telecom systems	Adverse weather (windstorm, flooding, snow, etc)	Product quality incident	Adverse weather (windstorm, flooding, snow, etc)	Adverse weather (windstorm, flooding, snow, etc)	Adverse weather (windstorm, flooding, snow, etc)
<b>2</b>	Adverse weather (windstorm, flooding, snow, etc)	Transport network disruption	Earthquake/ Tsunami	Unplanned outage of IT or telecom systems	Unplanned outage of IT or telecom systems	Unplanned outage of IT or telecom systems
<b>3</b>	Cyber attack (malware, DDOS)	Fire	Adverse weather (windstorm, flooding, snow, etc)	Earthquake/Tsunami	Industrial dispute	Failure in service provision by an outsourcer

manufacturing respondents are dominated by product quality incidents. 92% reported at least one disruptive incident. The earthquake and tsunami had a particular impact on this sector with high levels of force majeure invocations (44%).

**IT & Communications:** This sector reported the lowest levels of disruption with 29% stating their organization had not suffered any disruptions.

**Transport & Storage:** Respondents in this sector reported more heavily on adverse

weather (82%) than other sectors and 55% reported industrial disputes causing disruption. The earthquake/tsunami was in a close fourth position (46%)

**Government:** Failure in service provision by an outsourcer reaches a top three position in this sector. This likely reflects not only the long standing trend to outsourcing and shared services in the public sector but also the impact of price pressures within these contracts and reduction in capacity to deal with disruptions.



## And by geography...

The top three causes of disruption are given for each country or geographical cluster in the adjacent table.

Given the high proportion of UK based respondents in the survey population, it is no surprise to see that the top three in the UK is very close to the overall survey results.

Respondents in Asia and the Middle East and Africa are notable in that adverse weather does not feature in their top three. And while unplanned outages of IT or telecom systems are common to both regions, they are unique in having product quality incidents featuring so prominently. Social unrest in the Middle East & North Africa did register in the survey response for this cluster with 22% citing this cause. In this region, 92% of respondents reported at least one disruptive incident.

The severity of the 2011 earthquakes and Japanese tsunami made these events the

	UK	Continental Europe	Asia	Middle East & Africa	Australia & New Zealand	USA
<b>1</b>	Adverse weather (windstorm, flooding, snow, etc)	Unplanned outage of IT or telecom systems	Earthquake/ tsunami	Unplanned outage of IT or telecom systems	Adverse weather (windstorm, flooding, snow, etc)	Adverse weather (windstorm, flooding, snow, etc)
<b>2</b>	Unplanned outage of IT or telecom systems	Adverse weather (windstorm, flooding, snow, etc)	Unplanned outage of IT or telecom systems	Transport network disruption	Earthquake/ tsunami	Unplanned outage of IT or telecom systems
<b>3</b>	Transport network disruption	Loss of talent/skills	Product quality incident	Product quality incident	Unplanned outage of IT or telecom systems	Earthquake/ tsunami

main causes of supply chain disruption in Asia but their effects registered prominently in the USA as well.

The USA response is noticeable by the strength of response to adverse weather at 76%, far higher than other regions while 36% were affected by the earthquake/tsunami.

Continental Europe was the only geography to give prominence to “loss of talent/skills” as a leading source of supply chain disruption although this featured in fourth place in the Middle East cluster.

Beyond the countries and regions listed, some other countries had interesting variations although it should be noted that the sample size is small.

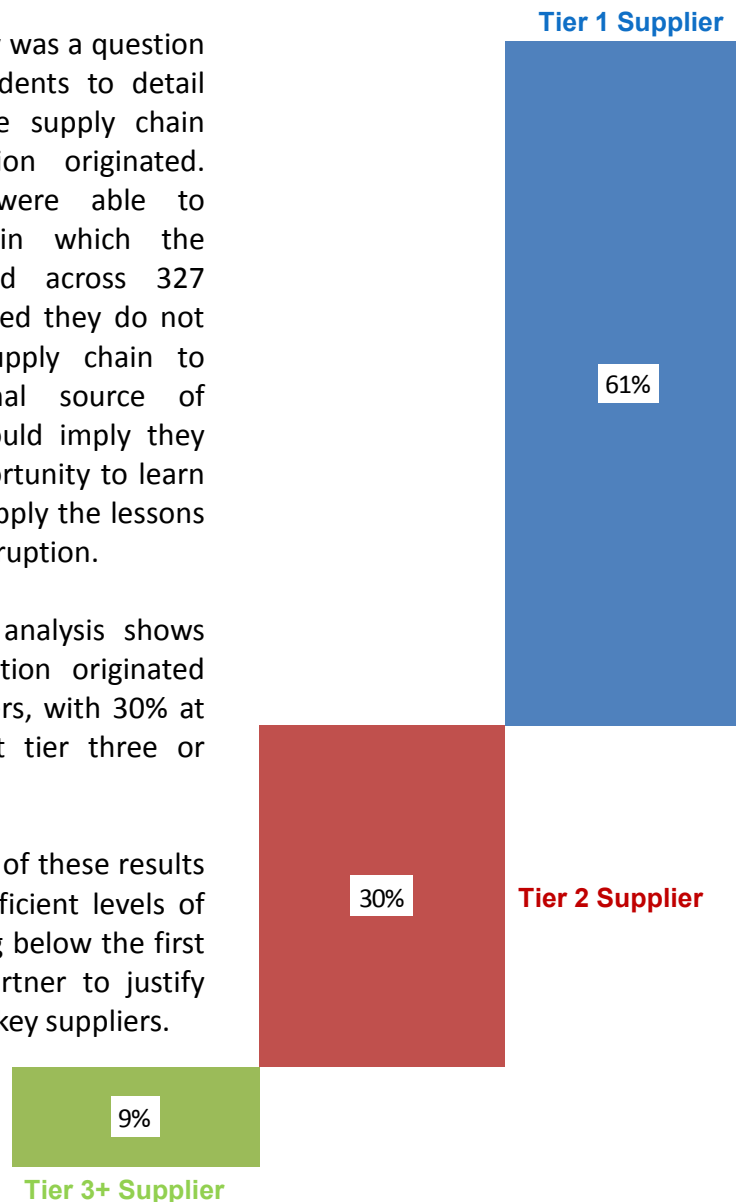
- Respondents in Canada had “industrial disputes” as the second source of supply chain disruption behind IT.
- Respondents in the Central & Latin America cluster registered the failure of service provision by an outsourcer as the lead cause of disruption followed by product quality incidents and transport.

# Disruption can originate deep in the supply chain

New to 2011's survey was a question which asked respondents to detail the level within the supply chain where the disruption originated. 265 respondents were able to identify the tier in which the disruption originated across 327 incidents. 81 reported they do not analyse the full supply chain to identify the original source of disruption, which could imply they are missing the opportunity to learn from incidents and apply the lessons to mitigate future disruption.

The results of this analysis shows that 61% of disruption originated with tier one suppliers, with 30% at tier two and 9% at tier three or lower.

The clear implication of these results is that there are sufficient levels of disruption originating below the first tier supply chain partner to justify further analysis with key suppliers.



### Earthquakes & Tsunami

72 responding organizations cited that they were affected by an earthquake or tsunami in 2011, this covers the earthquake in New Zealand and the tsunami-earthquake in Japan. Manufacturing sector respondents numbered the largest affected group (17%), however, financial services (14%) and professional services (14%) sector were not far behind. Affected organizations were *headquartered* in 18 different countries including Australia, Barbados, Belgium, Bulgaria, Bahrain, China, Germany, France, Japan, Mexico, New Zealand, Philippines, Pakistan, Singapore, Switzerland, Taiwan and the USA. 40% of these organizations reported a force majeure invocation by a supplier.

“The earthquake in Japan caused many problems in the primary supply chains, and the downstream impacts to other supply chains had a tremendous ripple effect.”

*Survey respondent.*

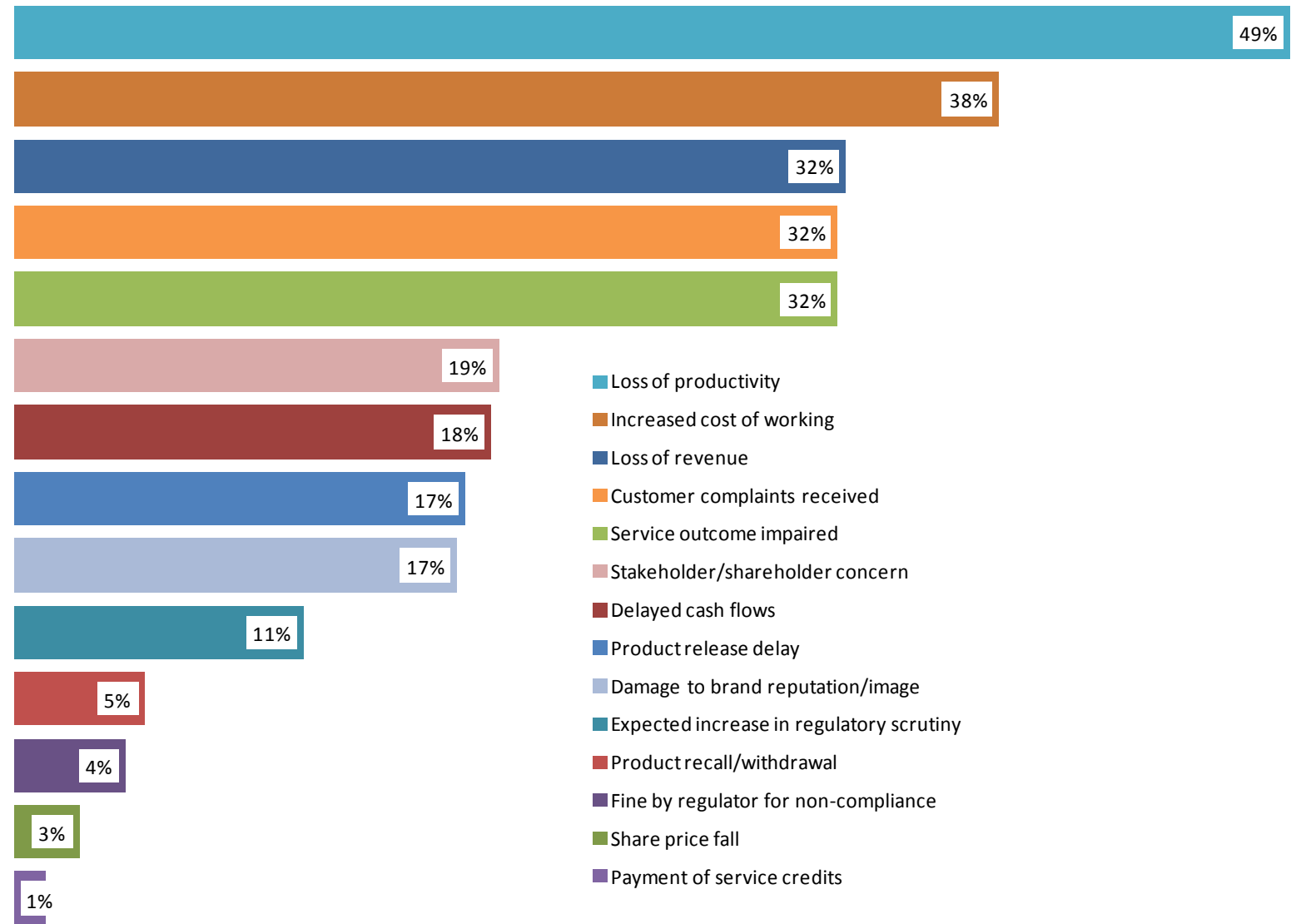
# Short and longer term consequences of disruption

Loss of productivity remains in pole position when it comes to the primary consequences of supply chain disruption. Increased cost of working, loss of revenue and customer complaints follow close behind.

New entrants this year were “share price fall” and “expected increase in regulatory scrutiny”, which scored at 2.5% and 11% respectively.

Damage to brand and reputation recorded 17%. Respondents who marked this consequence had supply chains with much weaker levels of BCM adoption than the average. They also reported higher levels of force majeure invocations (30%).

The overall message is that ignoring supply chain resilience issues can cause longer term consequences to reputation and stakeholder action.



What were the consequences of the disruptions experienced of the last 12 months. Base:323

# The financial cost

17% of organizations stated that the cost of the most significant single disruption was more than €1million

Looking at the most significant incident of the 12 month period covered by the survey, 83% of respondents stated that the financial cost was less than €1 million. However, for 14% the cost was between €1M and €10M, while for 2% the cost was between €51M and €100M and 1% reported costs in excess of €100M.

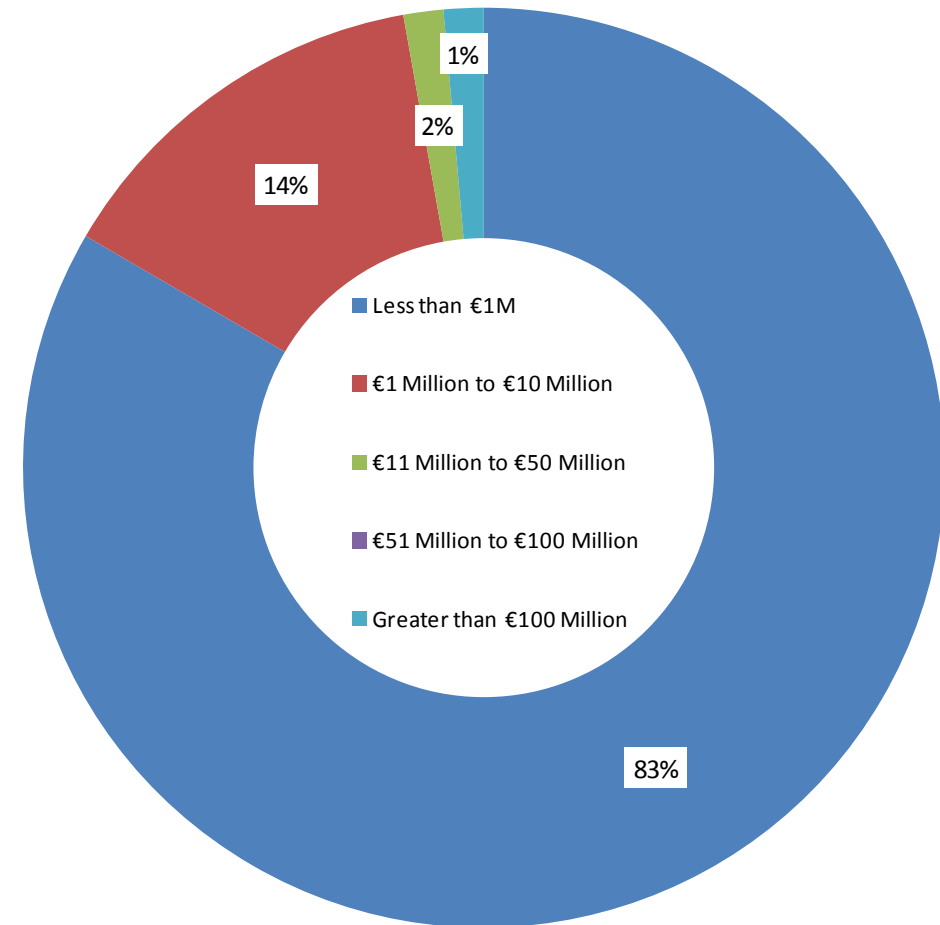
Those reporting reputational damage as a consequence of disruption also reported much higher levels of financial cost, with 32% reporting costs greater than €1 million— almost double the survey average.

**We lost over a billion in inventory and lost opportunity plus new model delays.**

*Survey respondent.*

**Primarily continued employment expenses relating to persons not working due to office shutdown.**

*Survey respondent*



Question: Considering the single most significant incident in the last 12 months, what was the approximate financial cost (loss of revenue, increased cost of working). Base 276

# Balancing supply chain continuity risk with corporate cost saving initiatives

The widespread supply chain disruption in many sectors arising from the tragic earthquake and tsunami in Japan in March 2011 ignited the debate about the pursuit of “just in time” supply chains.

The survey response supports the assertion that decisions made within organizations can create vulnerabilities that are exposed by any number of events listed earlier in the report.

JIT/lean and outsourcing in particular are seen to increase vulnerability with 74% of respondents, who hold an opinion, either strongly agreeing or somewhat agreeing with the proposition (see adjacent chart).

However, comments by respondents did highlight advantages of supplier consolidation such as fewer suppliers making engagement on BCM more substantive and that outsourcing can provide additional options for BCM strategies.

So, in addition to being “lean” and “six sigma”, “green” and “sustainable”, key supply chains also need to be designed for resilience objectives, if the cost gains are not to be lost through disruptions.

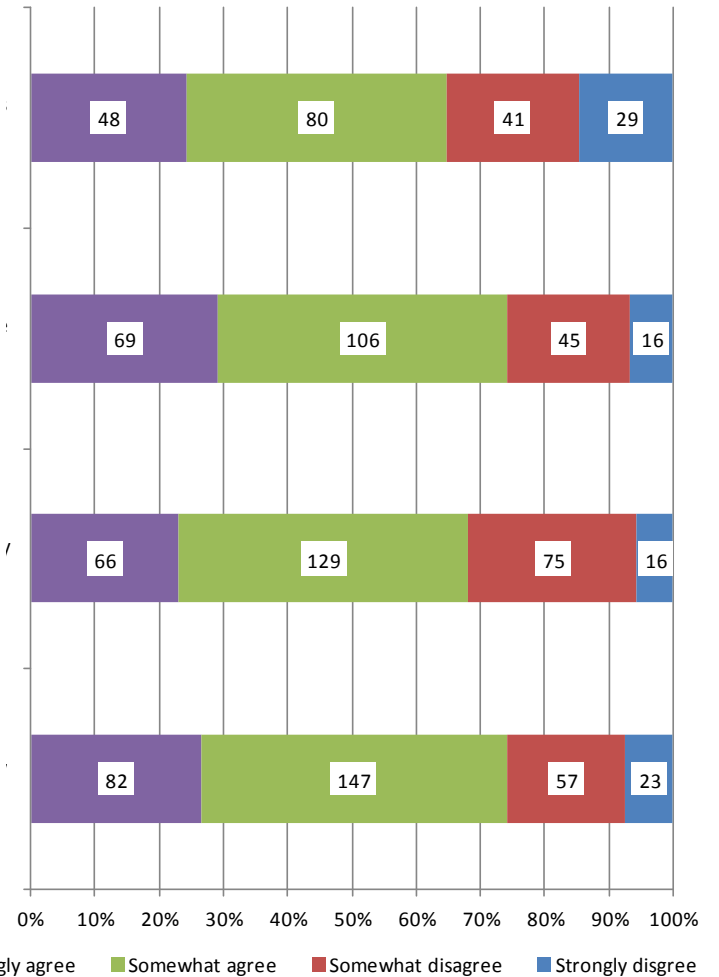
**Low cost options are always considered with business continuity in mind.**  
*Survey respondent.*

A shift to low cost suppliers (e.g. Manufacturing to China) has increased our vulnerability to supply chain disruption

Our approach to Just-In-Time / lean production techniques has made us more vulnerable to supply chain disruption.

Our supplier consolidation strategies have increased our vulnerability to supply chain disruption.

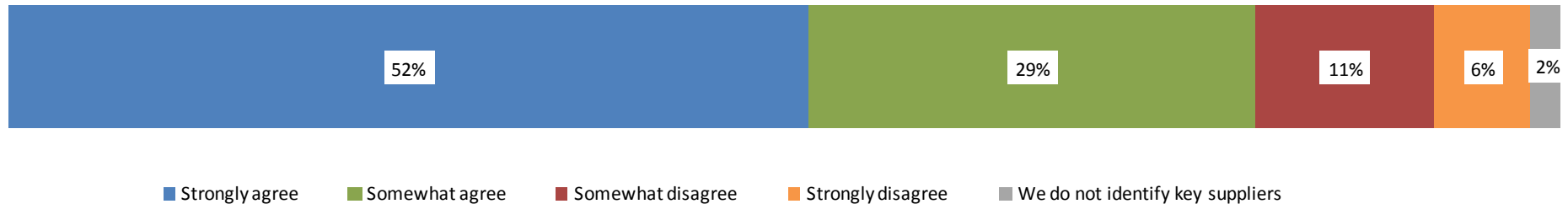
Our outsourcing strategies have increased our vulnerability to supply chain disruption.



# Part 2: Identifying and assuring key supply chains

# Key supplier identification

We have identified all of our key suppliers (Base: 325)



This next section of the survey considers questions about key suppliers and how they are identified. The working assumption is that not all suppliers and supply chains need the same level of analysis and attention, i.e. where they are quickly and easily replaced and the consequences of non-availability of their product or service can be managed with no impact on the buying organization, then

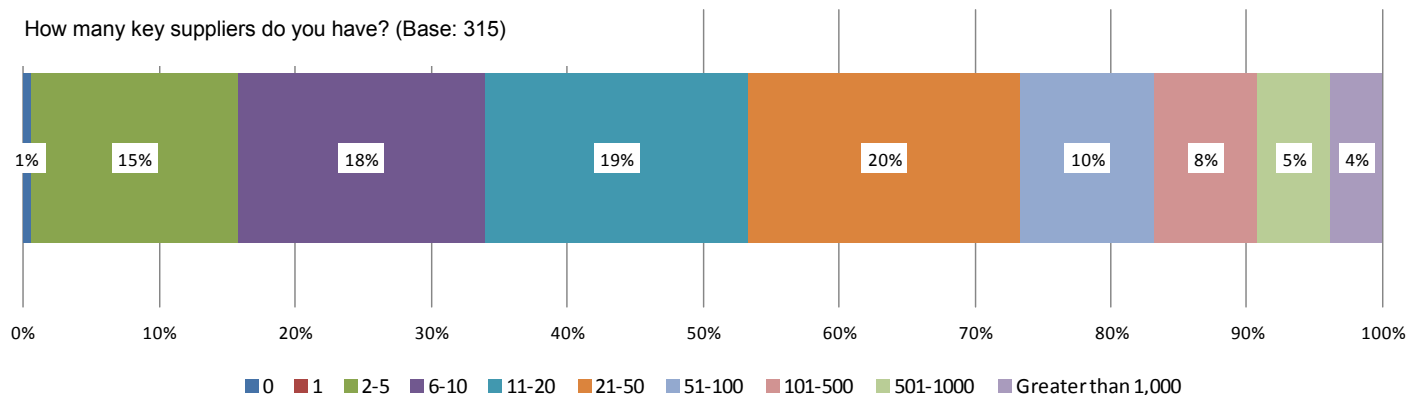
nominal attention is required. Key suppliers or supply chains can therefore be defined as those that support or provide key resources, processes, activities or products and services as identified in BCM's Business Impact Analysis or those identified in supply chain management techniques as strategic or bottleneck suppliers.

Respondents to the survey seem to have a

good grasp of who their key suppliers are with 52% fully confident and a further 29% not far behind in confidence terms. Techniques used to identify key suppliers and supply chains included BCM's Business Impact Analysis, which 28% of respondents favoured; while 22% used supply chain evaluation techniques such as identifying bottle neck and strategic suppliers. 36% used a combination of these techniques.

When asked in a follow up question how many key suppliers their organization had, there was a very wide range, however it is noteworthy that very few have zero key suppliers and the majority of organizations are choosing in the 6-50 range (refer to pp.27-28 for respondent profiles).

How many key suppliers do you have? (Base: 315)



# Criteria for identifying key supply chains

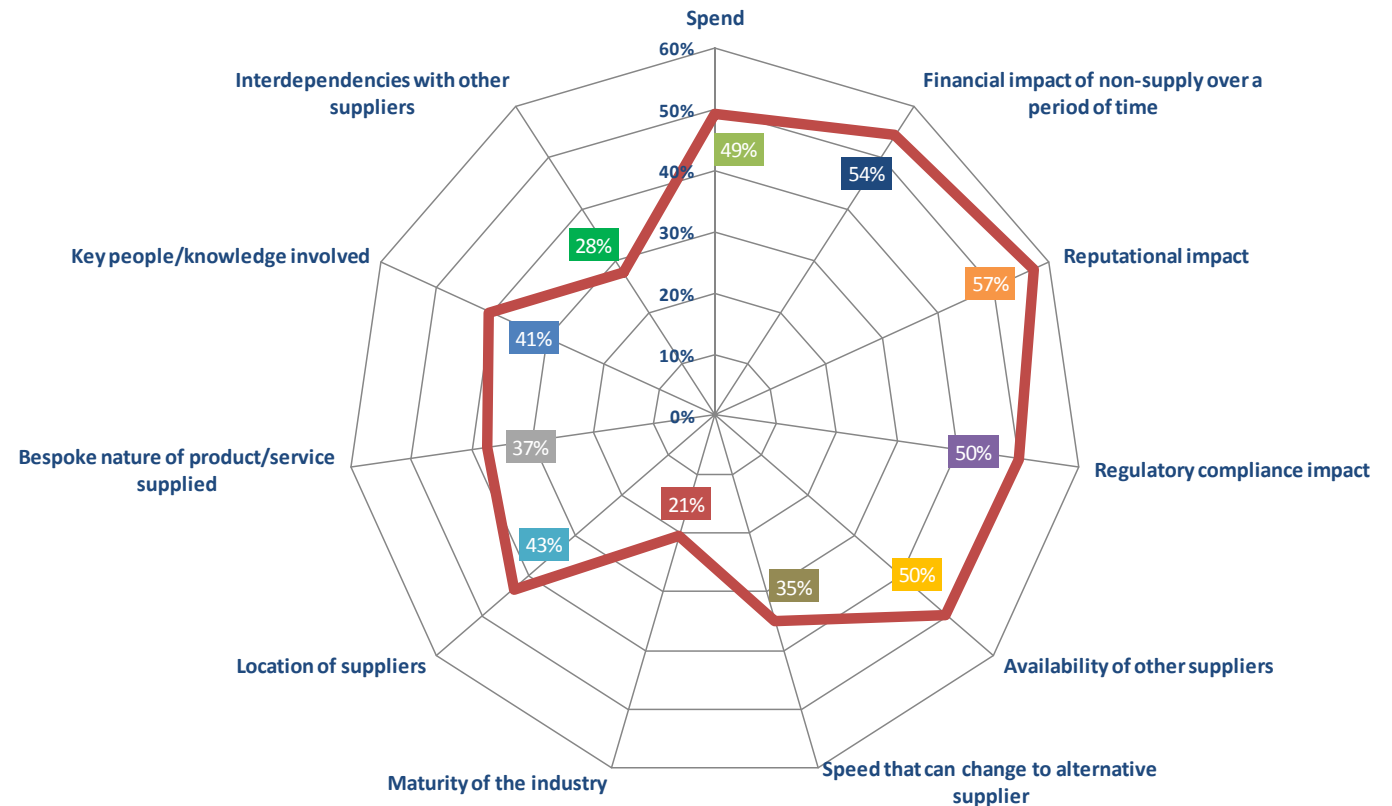
Going into more detail, the survey sought to understand the criteria that are used in supplier criticality assessment.

The chart opposite shows the relative prominence of criteria. “Reputational impact” was the leading indicator with 57% of respondents choosing this, followed by “financial impact of non-supply over a period of time”.

Of the emerging criteria, perhaps the key ones not on many radars are “interdependencies with other suppliers” (28%) and the “maturity of the industry” (22%).

Additional comments received included mention of “single points of failure”, “Corporate Social Responsibility” and “data security”.

Please indicate whether any of the following criteria are applied to identify key suppliers (Base: 326)



Primarily by spend and criticality, but not in a structured auditable manner or using BCM techniques. *Survey respondent.*

Never considered but interesting: Speed that can change to an alternative supplier. *Survey respondent.*



# How many key suppliers have BCM in place for their own needs?

Having identified key suppliers and supply chains, the survey asked how many of these suppliers already had business continuity management (BCM) programmes in place.

84% of respondents were able to feed in their analysis to this question, while 16% confessed to not knowing, primarily due to not having started down this road yet.

Only 7% could confidently state that all of their key suppliers have business continuity arrangements in place.

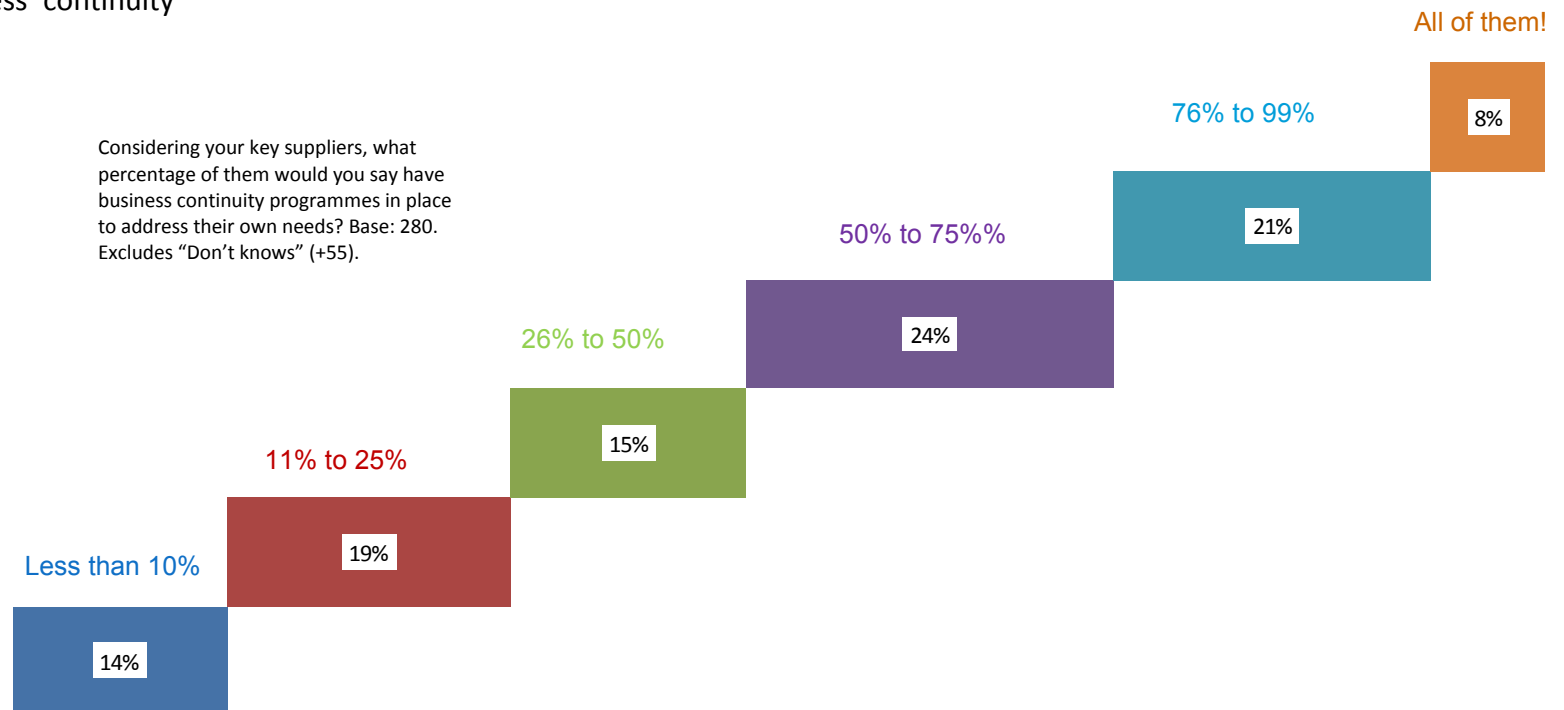
48% of respondents stated that less than half of their key suppliers had BCM with 52% stating that more than 50% had BCM in place.

When comparing sectors, some significant variations emerge. In financial services, many more firms have key suppliers with BCM in place, while for manufacturing, transport and storage and energy the figures are much lower.

More detailed sector research is required, but it might be fair to conclude that key suppliers in the financial services sector will often be larger IT services companies, which are likely to be required to have BCM programmes in place, whereas other sectors may have more smaller and medium sized organizations among their key suppliers, which are less likely to have BCM in place, according to BCI and third party research into BCM adoption.

The responses to these questions show that you shouldn't make assumptions that suppliers have BCM and that there is still a long way to go before we have widespread resilient supply chains.

The good news is that the required analysis has been completed in many organizations, so their own BCM strategies can be reviewed in the context of the underlying fragility, or otherwise, of their supply chain.



# Assessing and validating BCM in the supply chain

---

The next part of the survey considered the approaches being used to understand BCM capability among key supply chains. Detailed charts follow on the next four pages.

In terms of “questions to ask” and information that should be retrieved to help build a picture of capability, some eleven different techniques were identified in the survey. The most popular approach was to request copies of supplier documentation (48%), followed closely by sending a supplier a self-assessment questionnaire (44%).

The weaknesses of pursuing these approaches in isolation have been well documented in terms of the ability to secure access to what might be seen as confidential information (e.g. Business Impact Analysis) or interpreting information received through self-assessment questionnaire in a meaningful way.

Compared with the survey in 2010 some techniques have gained in prominence:

- Auditing suppliers has increased from 28% to 37% with independent audits up to 12% from under 4% in 2010.

- Checking that the BCM programme is relevant to the product/service purchased nudged up from 28% to 31%

**Our Supplier BCM evaluation process is progressive, and depends upon our dependency upon them...We check that we are far enough up their "Key Customer" list to be sure that we do figure as one to whom service must be maintained rather than one to be abandoned until their recovery has been completed.**

*Survey respondent.*

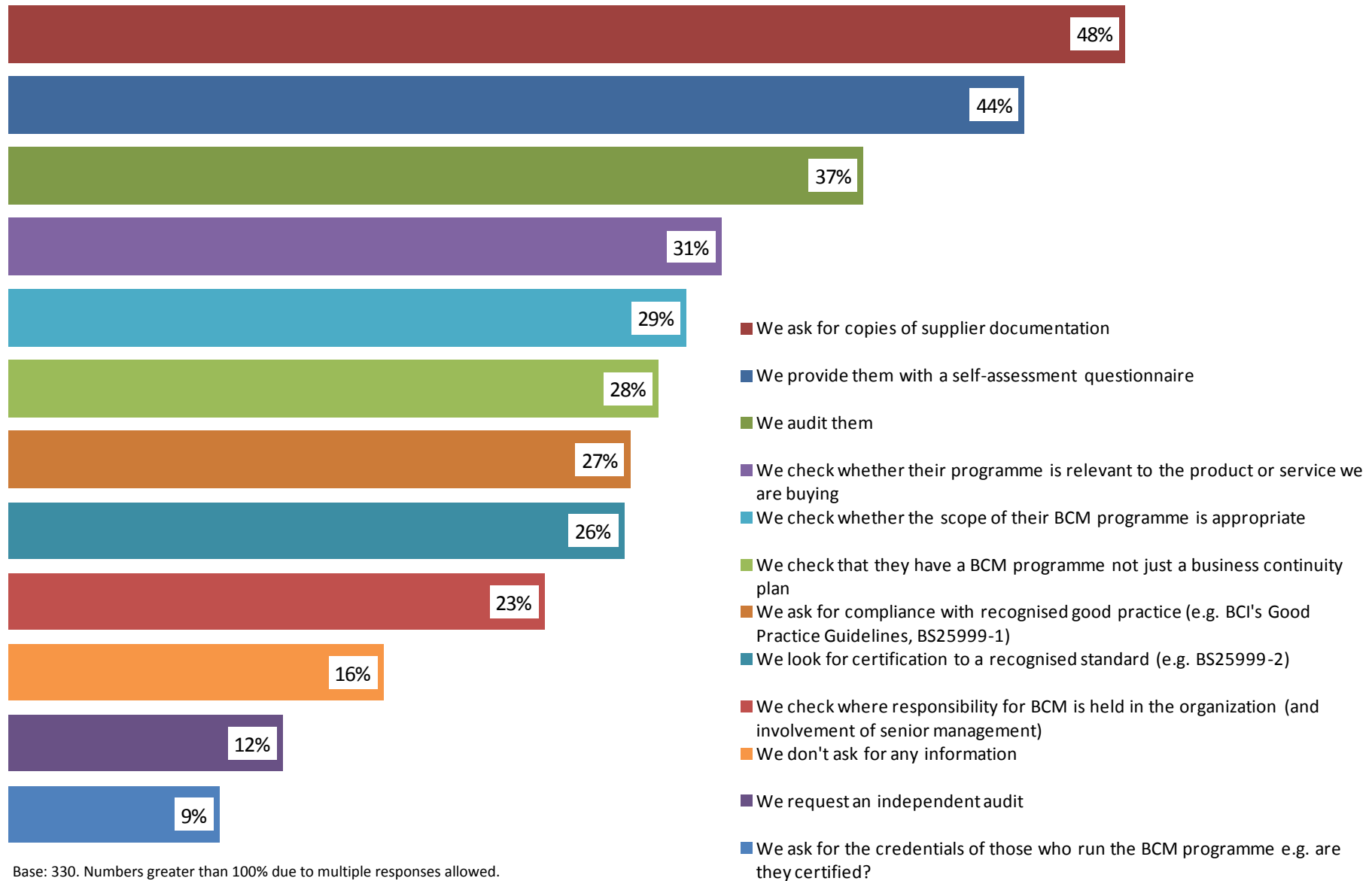
However, it is still rare that the buying organization will check the credentials of those who are actually running the BCM programme, e.g. professional certification, with just 9% doing this. This is a clear omission in assessing BCM capability.

Moving on to discuss approaches taken to understand how effective a key supplier’s BCM is likely to be, and how to get a better understanding of their likely behaviour in an incident, it is very disappointing to see that 49% still do not take this essential step in some form.

As BCM programmes are reviewed in-house, so there needs to be a process for engaging with key suppliers around changes at either end. While 18% “never review” and 37% wait until contract renewal, many are more structured and proactive by linking reviews to changes, and scheduling regular sessions.

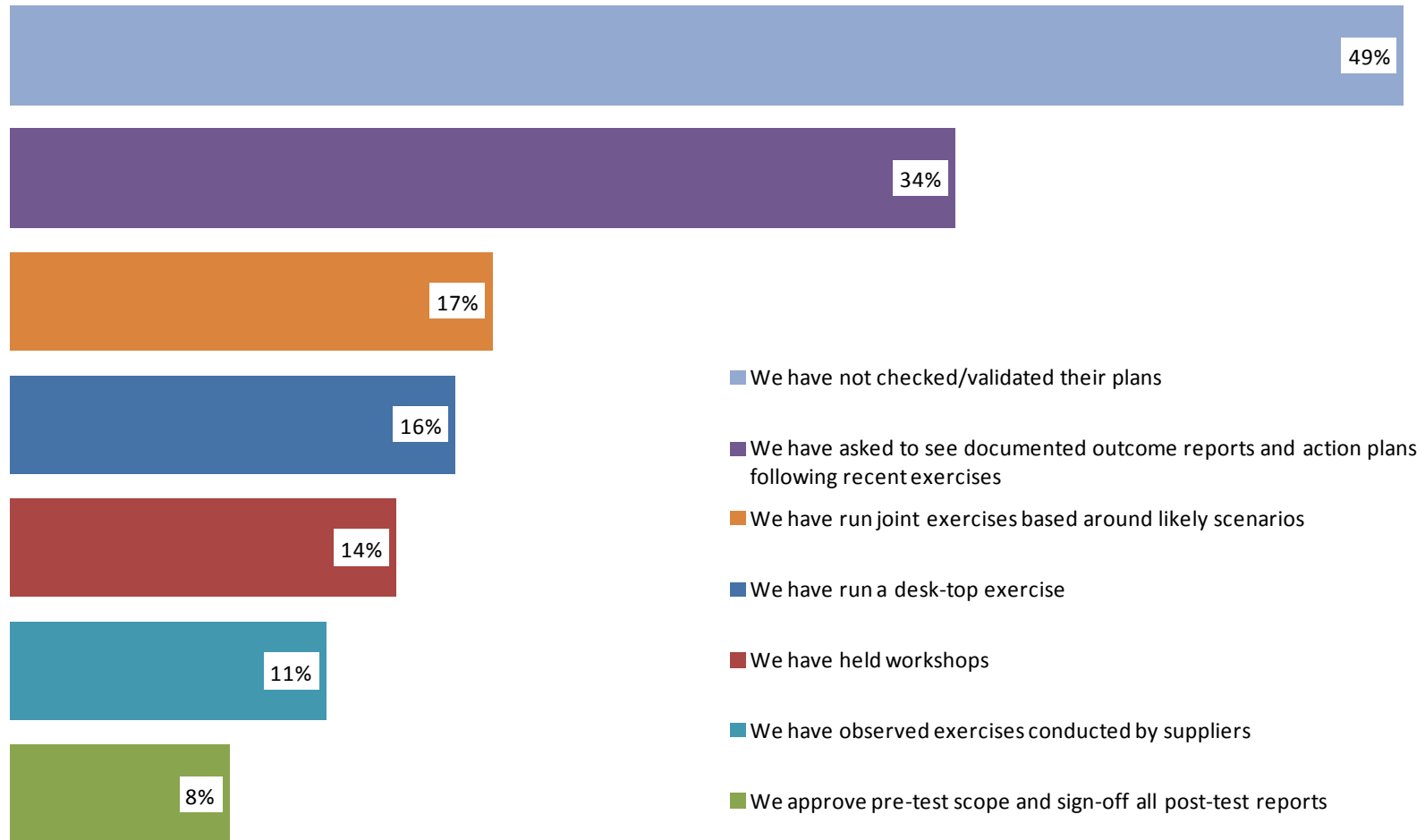
Finally, in this section, we asked about approaches to key suppliers who either do not, cannot or will not meet the purchasing organization’s BCM requirements. Where possible the most favoured approach is to work with the supplier to improve their capability. However, 39% are prepared to accept the situation, i.e. an increased level of risk, while 26% would change their strategy. 12% would look at financial risk transfer through insurance.

# Assessing a supply chain partner's BCM arrangements



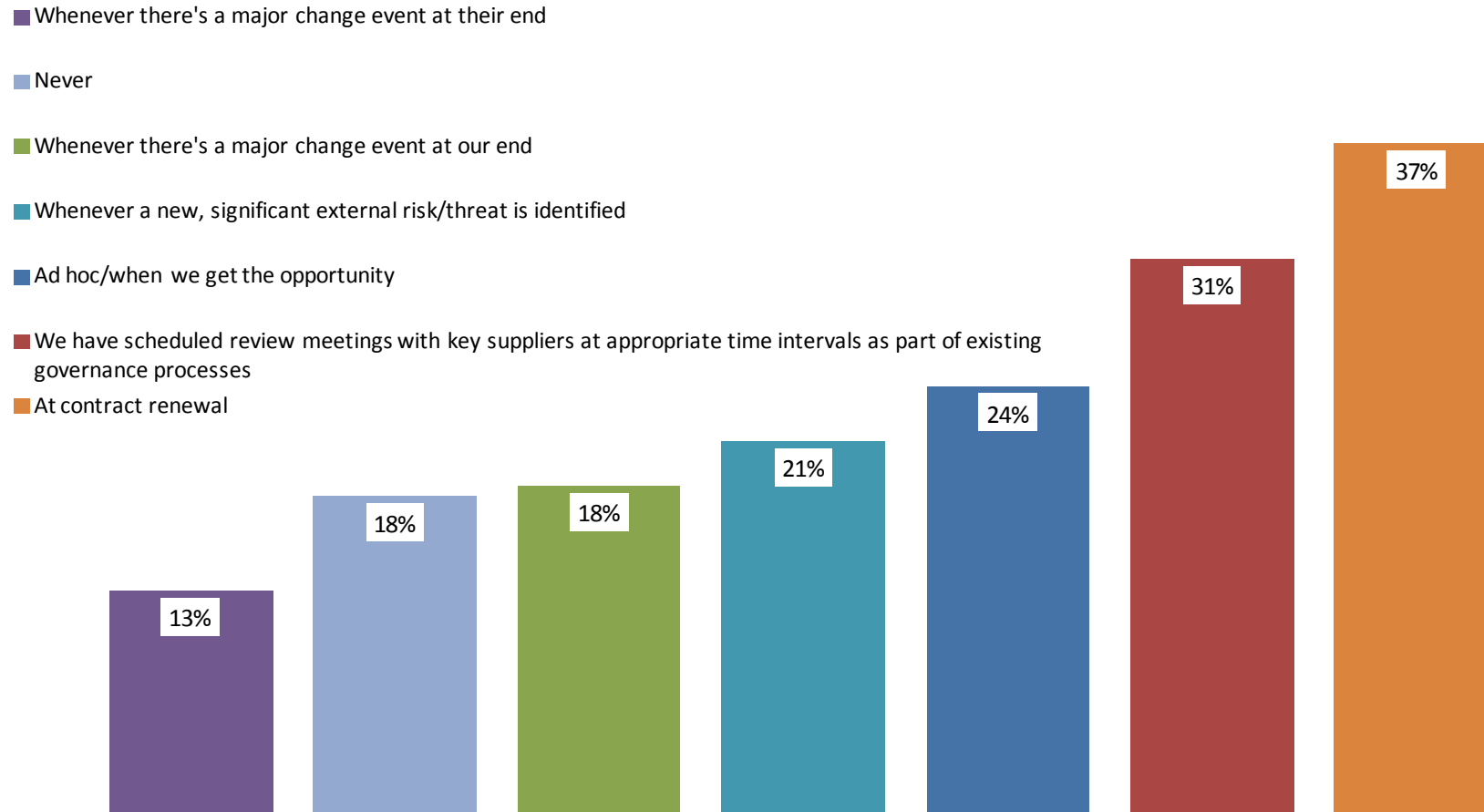
Base: 330. Numbers greater than 100% due to multiple responses allowed.

# Validating that a supplier's BCM is likely to be effective



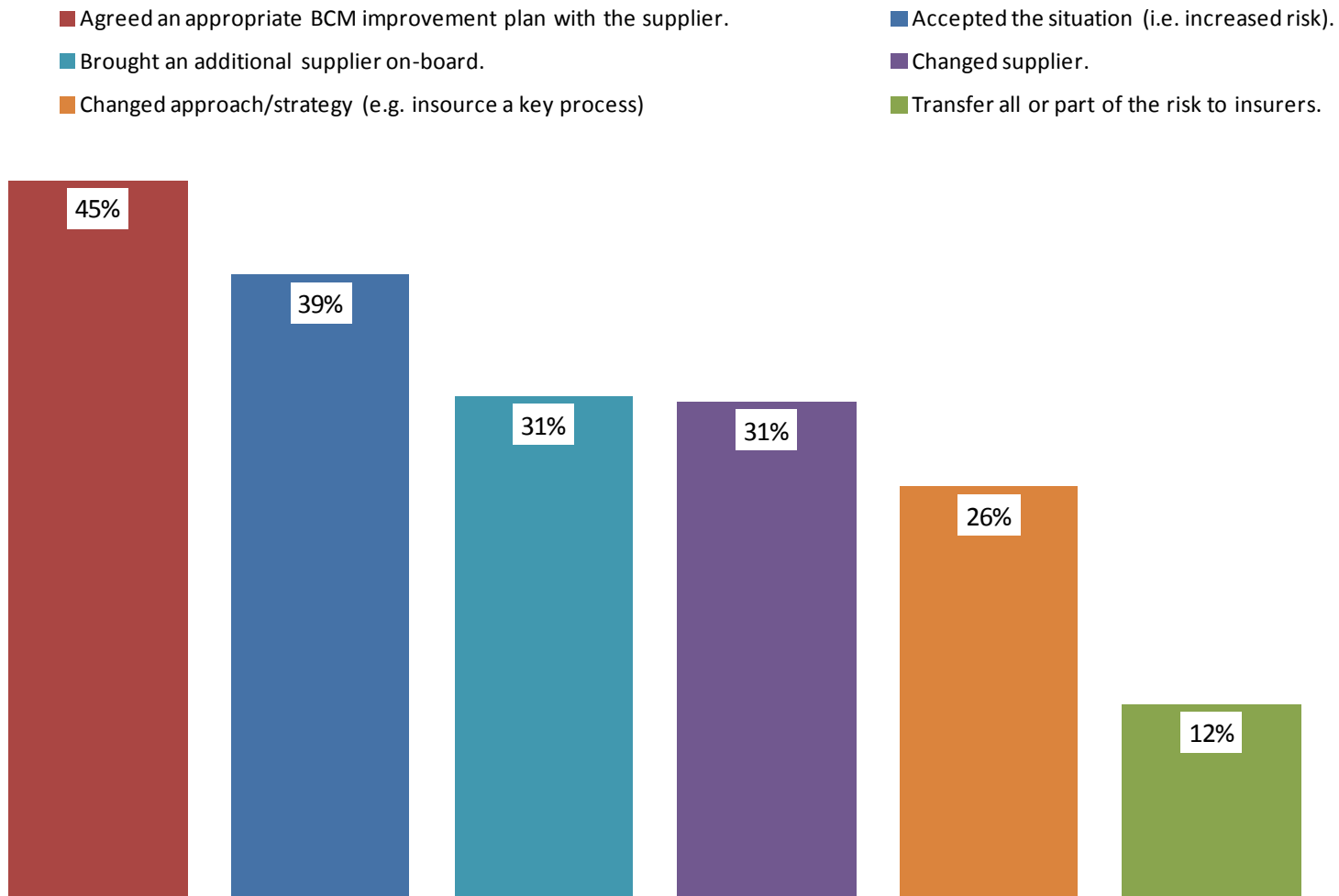
Base: 322 Numbers greater than 100% due to multiple responses allowed.

# How often are supplier BCM requirements and capability reviewed?



Base: 326. Numbers greater than 100% due to multiple responses allowed.

# What if your key suppliers do not, cannot or will not meet your requirements?



Base: 319. Numbers greater than 100% due to multiple responses allowed.

# Part 3: Winning business with BCM

# BCM is becoming a factor in winning business

Does BCM feature as part of your supplier contractual discussions? Base: 328



■ Yes, an integral part of the procurement process from the start ■ Yes, but after the decisions have essentially been taken ■ No

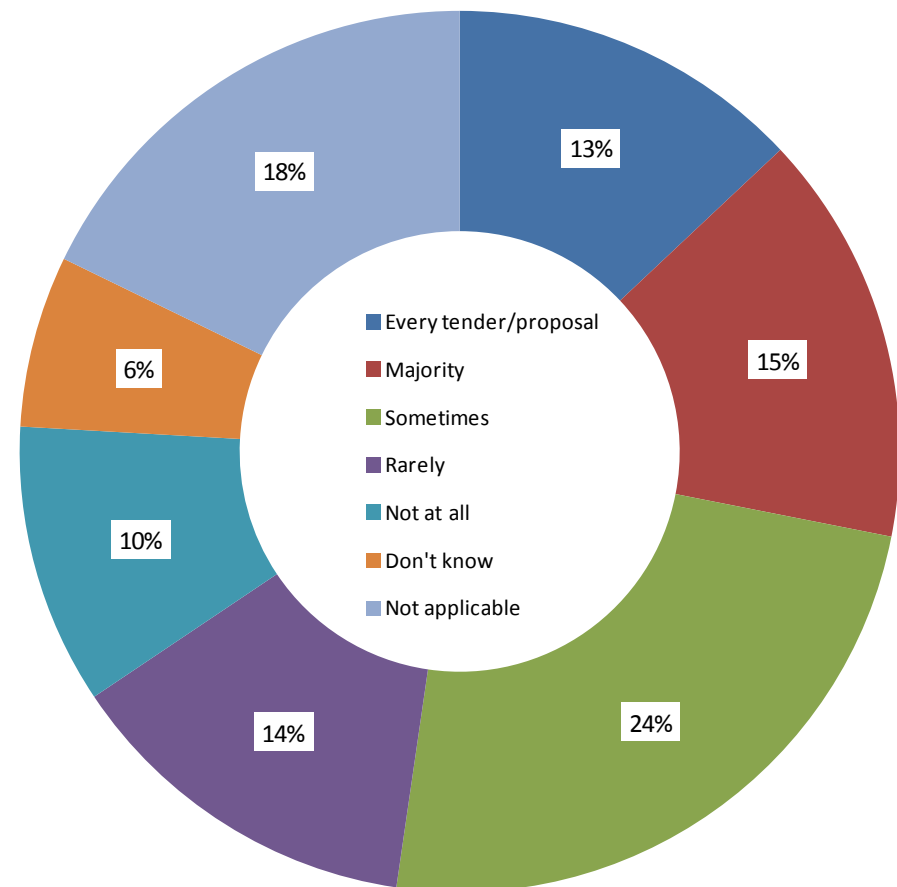
Here we consider both sides of the coin, we asked respondents whether BCM is part of the contractual discussions with suppliers, and equally, where respondents are on the selling side, the extent to which they need to provide assurance of their own BCM programmes.

On the buying side, BCM does not feature as part of the supplier contractual discussions for 24% , while it is an integral part of the procurement process from the start for 47%.

On the selling side, 28% of respondents are seeing this as a frequent if not constant requirement in tenders, and many respondents felt that this was an upward trend, particularly when tendering for business in sectors where BCM is a regulatory requirement.

Among those saying “no” are retailers and local authorities, the emergency services and regulated monopoly service providers, who either do not seek to win business or whose customers don’t have the buyer power to ask for evidence of BCM programmes (consumers).

**BC information is becoming a standard inclusion in most of our legal business pitches. *Survey respondent.***



When tendering for new business clients over the past 12 months, how often have you had to provide assurance to clients that your BCM arrangements are sufficient? Base: 331.



# Contract ‘force majeure’ invocations are more common than you might think

## 24% of respondents stated their suppliers invoked force majeure in the past 12 months

As in 2009 and 2010, the survey looked at levels of force majeure invocations and whether BCM was being used to achieve greater specificity in terms of events that could allow invocation of force majeure clauses in supply contracts.

Force majeure events are often described as “Acts of God”, implying that they are beyond the control of the affected party, and they therefore relieve them from performing their responsibilities under the contract. This is important in the BCM context as the type of events generally envisaged in such clauses are precisely those that BCM is traditionally associated with—high impact, low probability ones. Hence with the application of BCM,

purchasing organizations are able to place greater onus on the supplier to mitigate the impact of such sources of disruption. There are four key dimensions to a valid force majeure invocation<sup>2</sup>:

- One of the events referenced in the force majeure clause has occurred;
- The force majeure event was beyond the control of either party, it was “unexpected” and “beyond reasonable foresight and skill”;
- The event prevented, hindered, or delayed the party seeking to rely upon the clause from performing its contractual obligations; and...

- There were no reasonable steps that could have been taken to avoid or mitigate the event or its consequences.

The results from the survey show that 40% use BCM to some extent to negotiate greater specificity in force majeure clauses.

This is clearly an area where BCM practitioners, contract managers and legal can work more closely together for the benefit of their organization: Being the organization with the more specific terms of invocation may mean you enjoy higher priority in the affected party’s recovery strategy.

*Note 2: Supreme Court of Canada in Atlantic Paper Stock Ltd v. Anne-Nackawic Pulp & Paper Company Limited (Atlantic Paper). Cited in Blakes article 21.4.2009*

Is business continuity used as a means to negotiate greater specificity in “force majeure contract clauses\*? (Base: 324)



\* Specifically include or exclude event types or establish recovery times for suppliers

# Conclusions & Recommendations

---

## Conclusions

As in previous years, there are many sources of disruption to supply chains, and while the probability of being affected by any specific one naturally varies by business, sector and geography, the probability of your supply chain being affected by at least one of them is high—at least according to the sample of organizations that responded to this survey - with 85% reporting at least one disruptive event in the preceding 12 months.

A disruption in the supply chain can be as equally devastating on your own firm's brand and reputation as the organization facing the actual incident.

Effectively managing supply chain continuity is critical not just because of the immediate costs of disruption but as a result of the longer term consequences to stakeholder confidence and reputation that arise.

While just-in-time and outsourcing are here to stay in some form, this survey shows it is more critical than ever to strike a sensible balance between the need to drive down costs and the need for these cost savings not

to be wiped out through disruption or unacceptable risk exposure, especially in the context of the longer term reputational damage

The survey reveals that disruption originates below the immediate, tier one supplier, this provides a stark warning that if your immediate supplier has not got a handle on their suppliers, then you might suffer from a disruptive incident.

Fortunately, supply chain and business continuity management techniques are being brought together to better under the risk and provide methods for managing continuity of key supply chains.

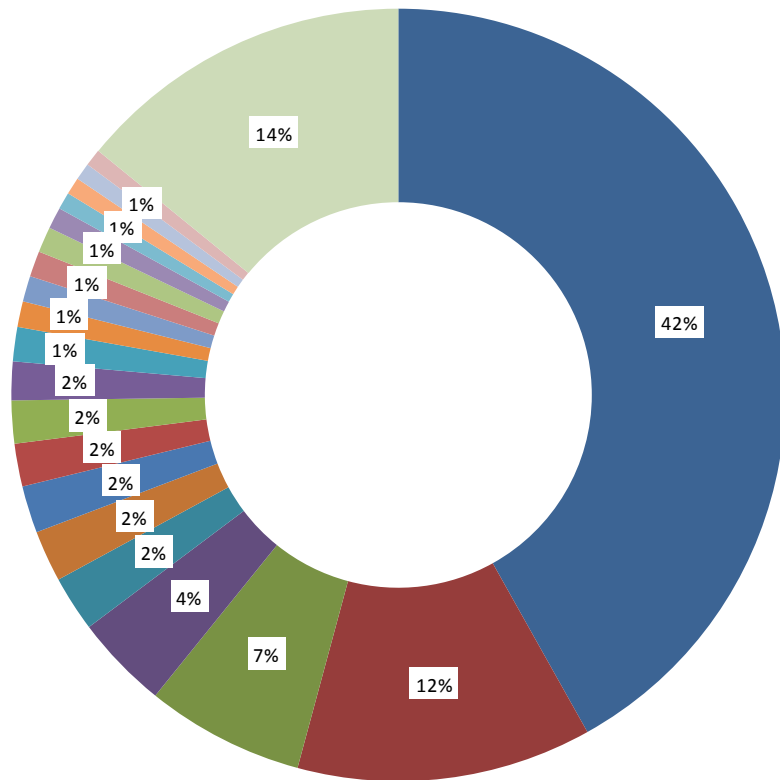
For the first time the survey sought to understand the extent to which BCM is becoming a factor in winning business. The response is encouraging with 28% already seeing a demand for BCM information in the tender process.

## Recommendations

- Resilience considerations need to be brought more prominently into the equation when considering operational efficiency in supply chain decision making.
- For the BCM practitioner, it is worth leveraging the discipline and vigour of supply chain management when it comes to engaging suppliers, especially to establish review meetings and audit processes.
- At a practical level, it is important to analyse supply chain incidents and learn from them, updating planning assumptions as a result. Be particularly alert to disruption below the immediate supplier.
- However good the risk mitigation approach achieved through applying BCM in the supply chain, organizations cannot “outsource” their responsibility for resilience and BCM programmes need to assume that disruption will happen and be prepared to deal with the consequences to ensure continuity of supply.

# Respondent profile

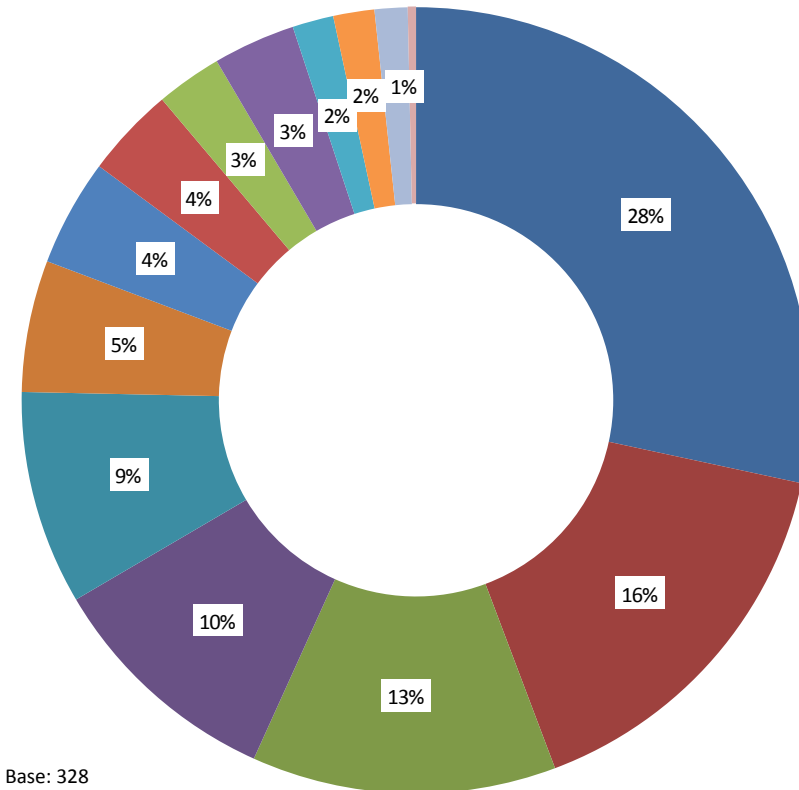
Geographical location of the respondent



Base: 559

- uk – United Kingdom
- in – India
- cn – China
- ch – Switzerland
- it – Italy
- ae – United Arab Emirates
- jp – Japan
- us – United States
- ca – Canada
- nz – New Zealand
- nl – Netherlands
- ng – Nigeria
- be – Belgium
- ke – Kenya
- au – Australia
- za – South Africa
- sg – Singapore
- pk – Pakistan
- de – Germany
- ie – Ireland
- Other

Primary activity of the responding organization (Standard Industrial Classification 2007)

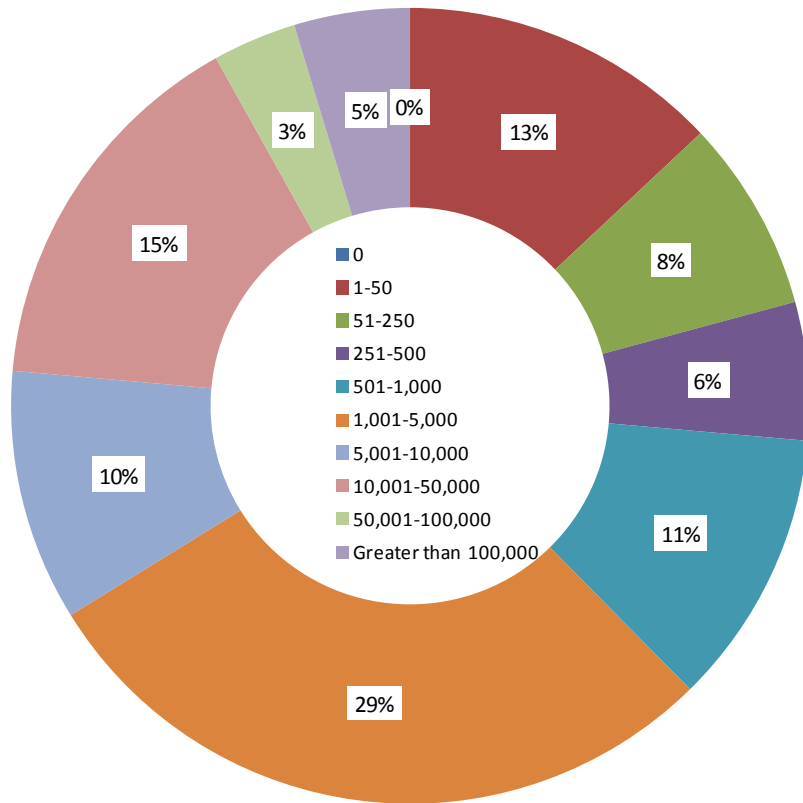


Base: 328

- Financial Services
- Professional Services
- Manufacturing
- Energy
- Education
- Engineering/Construction
- Support Services
- Government (e.g. local/municipal, central, emergency services)
- IT & Communications
- Health & Social Care
- Transport & Storage
- Retail/Wholesale
- Agriculture, Forestry & Fishing
- Media & Entertainment

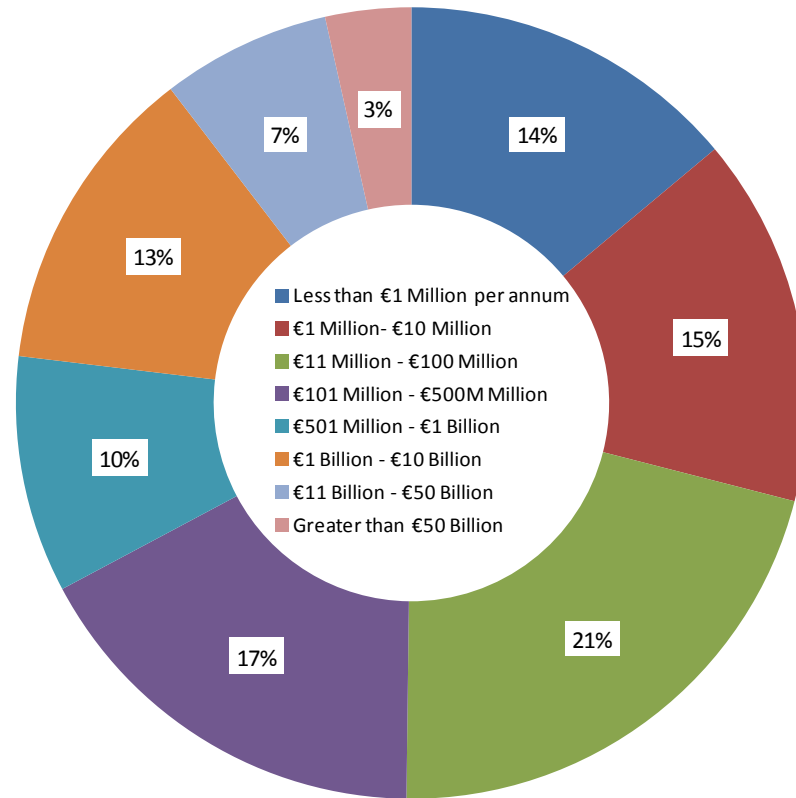
# Respondent profile

Size of organization by number of employees



Base: 322

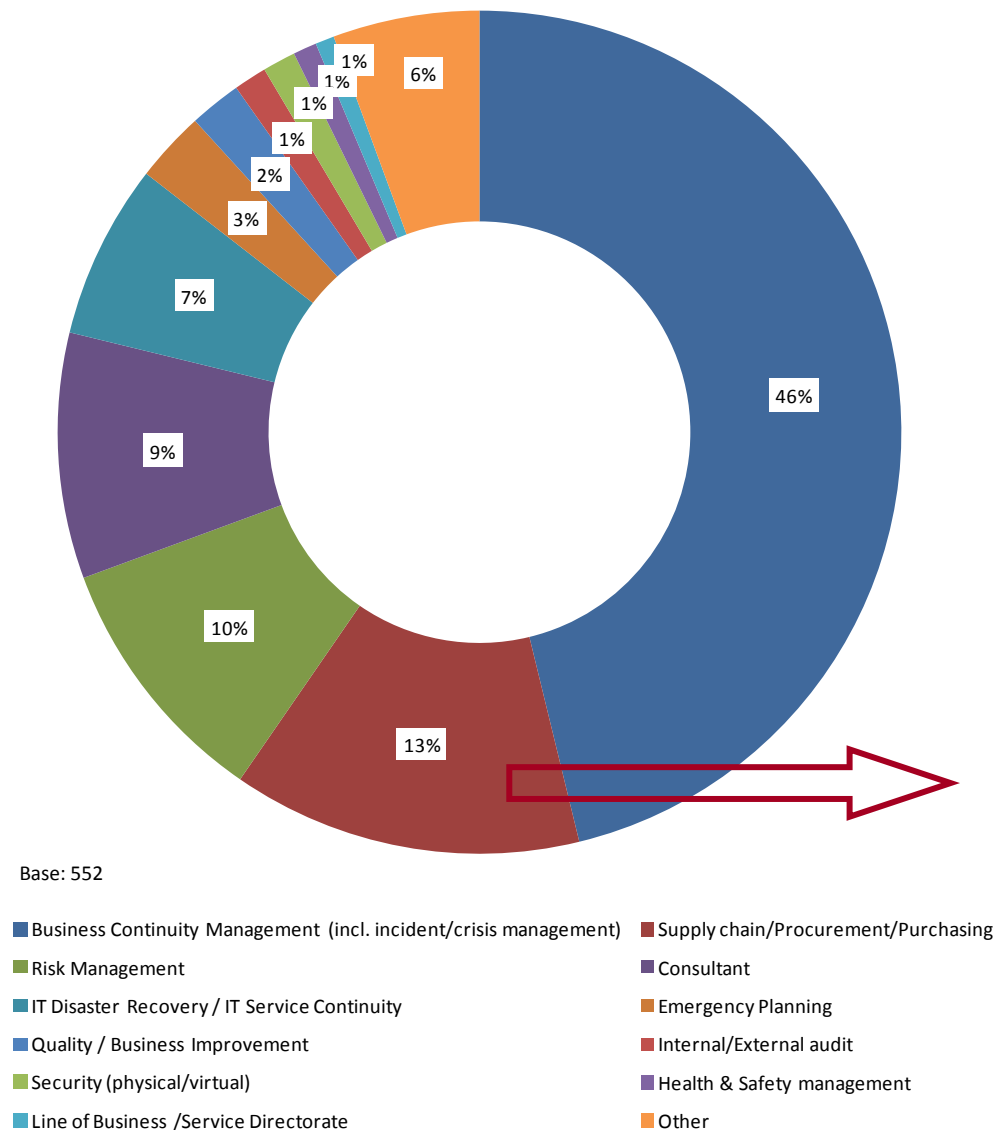
Size of organization by revenues or budget (public sector)



Base: 259

# Respondent profile

Profile of respondents by job function:



## Supply Chain Practitioners

- 94% experienced at least one disruptive event.
- Product quality, adverse weather and failure of service provision by outsourcers are given as the leading causes of disruption.
- Customer complaints, loss of productivity, increased cost of working and loss of revenue are given as the leading impacts or consequences of disruption.
- Spend, availability of other suppliers, and financial impact of non-supply comprise the top three criteria to identify key suppliers.
- Will typically look to bring an additional supplier on board, when faced with intransigence (47%).
- Significance preference for auditing key suppliers (63%) and seeking certification (39%) compared with the survey average.
- Much more likely to hold workshops with key suppliers (21%).
- Much more likely to have scheduled review meetings(44%).
- 68% state that BCM does feature as part of supplier contractual discussions.
- 48% have experienced a force majeure event in past 12 months.

# Survey response, methodology and acknowledgements

---

The online survey response in 2011 was 80% higher than in 2010 with 559 organizations responding. This reflects much higher numbers of supply chain professionals responding along with much increased participation from the USA and the almost doubling of countries participating overall. All members of the Business Continuity Institute received an individual email invitation to complete the survey. This was complimented by the Chartered Institute of Purchasing & Supply inviting its members to contribute through their existing communication methods. In addition, support is acknowledged from DRJ and Buyers Meeting Point for bringing the survey to the attention of their subscribers and members respectively. The survey was conducted between June 30th and September 5th 2011. Respondents came from 62 countries and were active across 14 industry sectors (SIC 2007).

We would like to thank Zurich for sponsoring this research for third successive year and DHL Supply Chain for joining them.

We would also like to thank the BCI Partnership Working Party on Supply Chain Continuity, and the BCI Partnership Steering Group for their support in the development of the survey.

Author: Lee Glendon CBCI, Head of Campaigns, The Business Continuity Institute

Chief Reviewer: Lyndon Bird FBCI, Technical Director, The Business Continuity Institute

# About

---

## The Business Continuity Institute

Based in Caversham, United Kingdom, the Business Continuity Institute (BCI) was established in 1994 to *promote the art and science of business continuity management* and to assist organizations in preparing for and surviving minor and large-scale man-made and natural disasters. The Institute enables members to obtain guidance and support from their fellow practitioners, as well as offers professional training and certification programmes to disseminate and validate the highest standards of competence and ethics. It has over 6,000 members in more than 100 countries, active in an estimated 2,500 organizations in private, public and third sectors. For more information go to: [www.thebci.org](http://www.thebci.org)

The BCI Partnership, established in 2007, offers corporate membership of the BCI with 80 member organizations including Aon, BAE Systems, BP, BSI Group, BT, ContinuitySA, Continuity Shop, Deloitte, DHL Supply Chain, DNV, Cassidian, Garrison Continuity, IBM, HP, Link Associates, Lloyds Banking Group, Lockheed Martin, Marsh, Milton Keynes Council, Prudential, PwC, Royal Mail, Savant, Statoil, Steelhenge Consulting, Vocalink and Zurich. To join as a corporate member, go to: [www.bcipartnership.com](http://www.bcipartnership.com)

## Business Continuity Management

Business Continuity Management (BCM) identifies potential threats to an organization and the impacts to business operations that those threats, if realized, might cause. It provides a framework for building organizational resilience with the capability for an effective response that safeguards the interests of key stakeholders, reputation, brand and value-creating activities.

## Contacting the BCI

Lee Glendon CBCI, Head of Campaigns  
The Business Continuity Institute  
10-11 Southview Park, Marsack Street  
Caversham, RG4 5AF, UK.  
Phone: +44 (0) 118 947 8215  
E-mail: [lee.glendon@thebci.org](mailto:lee.glendon@thebci.org)

## The Chartered Institute of Purchasing & Supply

The Chartered Institute of Purchasing & Supply (CIPS) is the leading international body representing purchasing and supply management professionals. It is the worldwide centre of excellence on purchasing and supply management issues. CIPS has over 65,000 members in 150 different countries, including senior business people, high-ranking civil servants and leading academics. The activities of purchasing and supply chain professionals have a major impact on the profitability and efficiency of all types of organisation and CIPS offers corporate solutions packages to improve business profitability. [www.cips.org](http://www.cips.org)

- Strategic partners include the United Nations and the UK Government
- Support donor-funded capacity and capability training all over the developing world and beyond to build effective, sustainable supply chains
- Offices in South Africa, Australia, the Middle East, the UK
- 20% increase in membership in 2010
- Supports over 47,000 studying members across the globe
- Over 6,000 members a year attend our events including our annual conference
- 1.2 million unique visitors to the CIPS website each year



## Zurich

Zurich Financial Services Group (Zurich) is a leading multi-line insurance provider with a global network of subsidiaries and offices in Europe, North America, Latin America, Asia-Pacific and the Middle East as well as other markets. It offers a wide range of general insurance and life insurance products and services for individuals, small businesses, mid-sized and large companies as well as multinational corporations. Zurich employs about 60,000 people serving customers in more than 170 countries. Founded in 1872, the Group is headquartered in Zurich, Switzerland. Zurich Financial Services Ltd (ZURN) is listed on the SIX Swiss Exchange and has a level I American Depositary Receipt program (ZFSVY) which is traded over-the-counter on OTCQX. Further information about Zurich is available at [www.zurich.com](http://www.zurich.com).

Zurich is a thought leader in supply chain risk management. It has developed supply chain risk assessment tools and an innovative and award winning insurance product. The company has extensive experience of working with clients to help them make their supply chains more resilient.

## Zurich Contact Details

Nick Wildgoose: Global Supply Chain Product Manager

Phone +44 (0) 7764282065

Email [nick.wildgoose@uk.zurich.com](mailto:nick.wildgoose@uk.zurich.com)

## DHL

DHL is the global market leader in the logistics industry and “The Logistics Company for the world”. DHL commits its expertise in international express, air and ocean freight, road and rail transportation, contract logistics and international mail services to its customers.

A global network composed of more than 220 countries and territories and about 275,000 employees’ worldwide offers customers superior service quality and local knowledge to satisfy their supply chain requirements. DHL accepts its social responsibility by supporting climate protection, disaster management and education.

## DHL Supply Chain Service Capability

DHL Supply Chain provides solutions for all industry sectors including retail and fashion. By understanding your business needs, DHL delivers cost effective supply chain solutions that improve efficiency. From consulting and design, sourcing and transportation through to warehousing, order assembly, distribution and returns, we manage the full supply chain operation.

DHL is part of Deutsche Post DHL. The Group generated revenue of more than 51 billion Euros in 2010.

## DHL Supply Chain Contact Details

Ruth Robottom: Supply Chain Development Manager

Phone +44 (0) 7880 980436

Email [ruth.robottom@dhl.com](mailto:ruth.robottom@dhl.com)

## Appendix A: Written comments by survey respondents

This section is only available to survey respondents and members of the BCI Partnership.

# Appendix A: Written comments by respondents

---

DISCLAIMER: Any views or opinions made in this Appendix A are those of the respondents and not necessarily of the Business Continuity Institute and the report's sponsors.

## **Do you record, measure and report on performance-affecting supply chain disruptions (i.e. where an unplanned cost has been incurred or loss of productivity or revenue experienced)?**

- Collected via Operational Risk loss event reporting
- The systems in place does not allow us but we are moving towards that direction
- I measure and report KPI's which affects the whole SCM within our company mainly premium freight, transport and inventory control.
- The reports are confined to Supply Chain. In other words, they are not visible to parties not directly affected.
- Only time delays in supply chain
- I record and report the effects of supply chain disruptions upon performance, however measurement is not possible at present as some departments are reluctant to contribute supporting data.
- Is the model that we develop and implement
- I work for clients in the highly regulated water/ wastewater sector. Any performance lapses (including causes) needs to be recorded and reported.
- Support departments, in particular Facilities and IT manage their suppliers carefully and record extra, unplanned costs. The costs of suppliers to our lawyers is passed onto our clients where possible.
- Not responsible for managing BCM with suppliers, only producing and updating the process and supplier questionnaire.
- This occurs at a contractual level for some (definitely not all) areas.
- Do not currently have the resources to identify and record
- Incident reporting, vulnerability assessments, and corrective action recommendations to senior management.
- If its a national supplier, then reported across whole enterprise
- Our central procurement department captures disruption but the whole cost are not captured across our operation
- This process is not at maturity level.
- The organization still does not see the value in doing so
- The organization is building a corporate team to centralize reporting.
- We are still developing the BCMS. It is an expectation that a robust supply chain strategy is developed and embedded in the organization over the next 18 months.
- Records are kept within our framework for organizational risk reporting
- Also run supplier watch forum to assess financial stability of suppliers
- Supply Chain staff deal with the disruption but do not undertake a trend analysis
- It must be stated that during the last 12 months the organization did not experience supply chain disruption yet some delays (w/o disruption) have been recorded.

- We report on production delays caused by suppliers, this can include suppliers who may outsource some part of the process to create after action reports.
- Although we conduct drill to check the readiness of our critical vendor be able to alternate from alternate site.
- Strong recommendation to clients to do same, however, perhaps only 25-30% are at that level.
- This is managed by a different functionality.
- While disruptions may be recorded, resulting costs or loss of revenue will not generally be quantified/reported.
- Supply Chain disruptions are recorded, and reported upon to ultimate Parent organization.
- We have few suppliers that could affect our operation other than energy suppliers and IT hosting.
- For us supply chain disruptions happen so rarely that we do this ad hoc.
- Not done by the Business Continuity Unit. Risk Management does some form of such reporting across the whole enterprise.
- We are a certification body so we have to follow international accreditation rules which

require us to measure and record. Furthermore, any other issues are reported at normal management meetings.

**How many supply chain incidents would you estimate your organization experienced in the past 12 months that caused disruption to your organization?**

- Mainly continuity of phone service .
- Major power supply problems at a key data centre affected productivity of the organization
- Disease outbreak.
- My firm is an auto servicing firm, majority of our spare parts are imported, but the challenge is these parts are finally received into our warehouse a month or two after our lead time and this sometimes causes loss sales and inability to meet customer demand.
- One per month.
- Christchurch earthquake, Egypt civil unrest and Japan tsunami caused disruptions to supply chain.
- Industry low capacity for recovery; transportation; mechanical; quality problem with RM and Products; incidents in suppliers' supply chains.
- The figure could be higher but I have grouped these by the type of incident: severe weather,

economic conditions, changes in the (higher) education sector affecting partners/FE colleges, utilities.

- Winter weather snow disruption. One example is delay to community meals delivery to vulnerable residents.
- Principally around severe weather: reduced capacity for pilot transfer through non-availability of taxis; limited supply of rock salt.
- Late delivery.
- The bad winter weather did also have an impact.
- A municipal clients of mine that provides water/wastewater services to over 250,000 people.
- Nearly all electric power, IT and telecoms.
- We have resilience in the supply chain with multiple suppliers identified for no-unique products.
- Primarily to do with mail house or outsourced IT systems.
- These are mainly significant contractors failing
- Mainly infrastructure failures (developing country) .
- Disaster in Japan created backlog of emergency

food supplies from USA

- Adverse weather particularly affected our ability to provide our usual service provisions.
- Mainly seen in severe weather and IT failure. One incident due to provider going into administration has now been seen.
- No holistic summary across the worldwide Group available
- Disruptions are often dealt with through category managers resolving late product delivery, events seen as BAU so trend analysis should be ranked as major and minor.
- Two suppliers going into receivership.
- Within the UKIFEEMEA Regions we have over 600 sites that have experienced fires, power failures, IT failures, severe snow etc over the past year
- The Earthquake in Japan caused many problems in the primary supply chains, and the downstream impacts to other supply chains had a tremendous ripple effect
- Some plan schedules not met due to supplier can not meet our demand.
- Oversupply or shortages caused by natural events
- The main one that springs to mind was a bank

that had a data centre failure due to a faulty air conditioner. This caused delays in outgoing payments to people who use that bank.

- Utility supplier outage
- Ice Storms of 2010 and 2011
- Clients on average have experienced 20-30 particularly relating to Japan weather related disasters (commerce, transportation, airline industry excessive fee structure.
- Where incidents have occurred, resilience measures have prevented disruption.
- The most significant of which is the Japan earthquake.
- The earthquake in Japan provided supply chain challenges.
- Disruptions related to power outage and network outage were most common last year. One incident related to civil unrest got reported.
- Hosted Exchange Email was off line for three hours
- 2nd largest earthquake in recorded history in Japan, say no more!
- Not sure that the supply chains have told us of all incidents

### **Considering the supply chain incidents you are aware of in the last 12 months, which of the following apply in your experience?**

*NB. Tiers - this question asks you to identify the tier at which the disruption originated. Tier 1 refers to your immediate supplier. Tier 2 refers to their supplier's supplier etc.*

- The disease outbreak did not mean that we could not get the supply, but that the movement of the cattle was frozen by the competent authority.
- To an extent option one contributed to our challenge however the major cause of the problem is certain factors during clearing at ports of destination.
- Christchurch and Egypt Tier 1, Japan Tier 2
- Tier 1 - Availability of taxis; Tier 3 - Government restrictions on bulk storage facilities.
- Incidents in Colombia related to logistics have been of great impact in all country between June 2010 and may 2011, because of major floods on almost every region. Roads and other means of transportation have been severely damaged.
- One of our businesses suffered a disruption due to a Tier 2 Supplier of one of our Tier 1 Suppliers suffering major damage to one of

their Japanese facilities during the major earthquake in March 2011.

- Some areas were known to be 2nd Tier but this is not systematically assessed or quantified, we would be unable to identify any further down the chain.
- Several different incidents, involving immediate supplier disruption, as well as 3rd tier.
- A number of disruptions were multi-tiered. e.g. Electricity supply drops out and the buildings generator doesn't work.
- Where appropriate down to tier 3 & 4
- Risk assessment carried out indicates Tiers 3, 4 are equally responsible for disruption

### **Has your supply chain been affected by any of the following within the past 12 months?**

*Refer to diagram on pages 6 and 7.*

- All linked to the same incident. Started with a major power problem at a key data centre resulting in loss of service and replacement equipment on route from the continent was delayed by severe weather
- The Bank is among the recently bailed out banks by the Central Bank of [country]. They have also been given deadline to recapitalise or face liquidation.

- Production mechanical failure
- Severe weather in Scotland affected a national logistics company on which we and our clients are dependent
- Product theft, potential supply chain leveraging for contraband smuggling.
- Transport Union Strike
- Tier 1 call centre staff unavailable for work, tier 1 chemical suppliers unable to deliver due to road conditions. On site data centre disruption causing systems failure
- Administrative procedures internal to the supplier.
- Power Failure
- Chinese New Year
- Strike
- Thunder and lightning caused electric outage
- Customs
- Civil unrest in other countries has increased significantly as an interruption in the supply chain
- Supply and demand not met. Holiday over Xmas and New Year prevented manufacture and delivery
- Human error (Ed. three entries with this

problem)

- Utility outage - we lost water supply to our head office due to a water main burst.
- Most due to recall of products
- Riot

### **Did any of the incidents recorded in the question above require the activation of any contingency or business continuity arrangements (include incident and/or crisis management here)?**

- Impact neither serious enough, nor of sufficiently long duration
- Even if we can have the continuity the outbreak is a national issue which there is nothing we could do.
- For Christchurch and Egypt. Crisis Management invocation.
- Alternate approved sources used.
- Severe weather invoked major incident plan. Threat of industrial action invoked local BC plans.
- Use of organization's own 4x4 vehicles for pilot transfer purposes. Liaison with [County] Resilience Forum to facilitate gritting of some key access routes.

- Contingency plans were implemented immediately to obtain residual stock of the required items.
- Client activated its Emergency Response Plan (ERP) and Continuity of Operations (COOP) Plan
- Usual BC procedures followed.
- Operational incidents due to product quality and safety incidents.
- We moved production with the main client's agreement to another of our sites to maintain production
- Mainly activation of incident management arrangements to assess the scale of the impact. Given the limited impact of these disruptions no further action was required.
- Certain clients activated internal security-oriented response units.
- Not formally as incident managed by business and IT and overseen by senior management team
- Adverse weather required us to relocate our service to a more accessible, alternative work centre.
- The trigger points were monitored but not reached to require invoking the plans
- The business favoured reactive response not

planned.

- We had source some Tier 1 out of China
- We initiated commercial business continuity measures, and put in place secondary supplier categories with immediate effect - having had these on hold for 12 months prior.
- Incident management only
- Yes, all weather related incidents did involve our BCM Plan and Crisis Management team deployment.
- We invoked our crisis response plan
- To let everyone know that email was not functioning.
- Basic evacuation was initiated
- In the case of the adverse weather disruption, we put in place the contingency arrangements which we had drafted for the threatened Flu Pandemic previously - this is now in the process of being adopted within our Business Continuity Plan
- The G20 caused disruption greater than just supply chain impacts.

**Which of the following impacts or consequences arose from the incidents/disruptions experienced in the last 12 months?**

- Our customers work slowed/unable to get parts from Japan
- Risk to vulnerable clients due to telecoms failure
- Increased board-level interest in business continuity and supply chain resilience
- Some service areas have a critical reliance on chemical deliveries
- Concerns leading to the review of BC arrangements
- Remedial actions managed as part of ongoing contract management
- Tiered resumption actions activated and critical core functions/processes resumed within required timeframes with little to no degradation to services.
- None, plan provided work around.
- As we are a service provider on and off site we had delays in testing and visiting clients in disaster area

**Considering the single most significant incident in the last 12 months what was the approximate financial cost (loss of revenue and/or increased cost of working)?**

*Please give your response in EUROS (x-rate: 1GBP =*



### 1.12EURO; 1US\$ = 0.7EURO)

- 1 x Day productivity lost due to snow, approx salary cost €130,000 over whole organization.
- Re-tasking some members of staff to cover absences resulting from inability to travel.
- With an estimated monthly loss of N1,000,000 in 220 branches of the bank, with conversion rate of 250 naira to a 1 GBP.
- Power failure - the most an incident has cost us is 224,000Euros due to lawyers not being able to work.
- Provider for educational needs transport going into insolvency. Costs incurred include officer and senior management time, lack of productivity in other areas, cost of acquiring another provider
- We lost over a billion in inventory and lost opportunity plus new model delays.
- We have a persistent problem with a payroll contractor, and three staff spend three days a fortnight checking their work before the pays go out. This adds up to about one fairly senior person full time.
- This is an estimate as very few (including ourselves) have been able to put a justifiable estimate on the financial loss re supply chain

incidents.

- There was an issue with a supplier's marking of objective tests that could have caused major reputational damage if not caught by our own quality checks. Although the actual cost to rectify was very low the reputation cost would have been high if not discovered before the results were issued.
- Live on an island and the weather caused delay to supplies for an office build
- The revenue loss was a delay in payment more than a loss due to clients locations being destroyed and them having to relocate before they could continue. New and repeat orders were down from the Tohoku region but increased in other regions
- Increased transport costs and labour costs
- The adverse weather conditions caused us to exercise contingency arrangements which were above the normal procurement cost due to their infrequent nature and small scale
- Primarily continued employment expenses relating to persons not working due to office shutdown

**Please rate your agreement with the following statements:** *(Refer to diagram on page 13)*

- Supplier consolidation allows us to place much more emphasis on BCM arrangements in contracts and having less suppliers makes it easier to verify those arrangements. Careful outsourcing doesn't negatively change the risk profile, there are some positives such as greater pool of experienced people.
- Offshore outsourcing has diversified our supply locations and added BCM options
- Business Continuity although given lip service is not taken seriously, it is considered to be supplier relationship management post contract award rather than building in resilience pre award
- Overseas sources of supply are subject to exchange rate fluctuations as well as fuel/oil price volatility impacting cost of supply.
- Low cost options (right Shoring) are always considered with Business Continuity in mind
- Supply chain shift WITHOUT being informed has resulted in a need to make our own educated analysis to supply chain risk.
- We try to buy within the state of Texas
- We test and certify and have a global network so as long as we have a test engineer, auditor and test machine we can provide the service. the weak point is if damage to specialist testing

equipment occurs. this causes delays. Even using other locations samples etc have to be sent and that relies upon critical infrastructure as well as logistic companies.

### **What methods do you use to identify key suppliers and supply chains?**

- Via questionnaire, via knowledge of business
- Retail environment: Key suppliers mainly identified by % participation and important SKU's (KVI's)
- We use account Analysis to decide our Top 10 to 20 customers.
- Analysis of potential impact
- Material Outsourcing standard and risk assessment required for all key processes, but originally identified in BIA as part of pandemic planning
- Procurement records and Invoicing
- We don't formally segregate key from non-key. BCM review is a standardised part of the approach for every supplier but we'd accept less robust plans from low-risk suppliers if need be.
- Primarily by spend or by criticality, but not in a structured auditable manner or using BCM techniques

- We do identify key suppliers, to some degree, but identification is informal, intuitive, and ad-hoc.
- Supplier/vendor business continuity questionnaire
- Combination of BCM & SCM; yet most clients stay at the Tier 1 level with approx. 30% going to Tier 2 and very few beyond that across the board (exceptions critical items such as petrol.
- Categorize main or common materials and simply identify the so-called key supplier
- There is an in house tool that identifies critical suppliers and is updated on a weekly basis.
- Informal

### **Please indicate whether any of the following criteria are applied to identify key suppliers: Refer to chart on page 16.**

- Important lines where we as a retailer cannot be out of stock
- Our leverage over that supplier (are we their biggest customer)?
- Impact on residents
- Volume of business they give to us
- suppliers supporting critical functions where vulnerable persons could be put at risk (e.g.

utilities, homecare, meals)

- Ability of organization to continue business process without the supplier (e.g. we still own the risk)
- Supposedly through category management and understanding of the category
- Never considered but interesting: Speed that can change to alternative supplier
- To an extent, we consider all these elements
- Other criteria as required based on risk analysis
- Supplier's BCM arrangements Contract / SLA in place
- Linkage to critical business functions
- Those whose product or services would be difficult to replace or manage without in a timeframe relevant to our organization (or critical business process), should they suffer a disruptive event. This is based on one of the BCI supply chain survey reports.
- Key suppliers are determined based upon what they supply - if it is a crucial component, they are a key supplier.

### **If your key suppliers do not, cannot or will not meet your requirements what approach**

## have you taken?

- The approach is currently being developed
- My purchasing 'hat' tells me to assess the whole situation, look for alternatives, and have discussions
- Ensure that they maintain their operational accounts with us
- Key suppliers are qualified through a government regulated process.
- Are 'pre-qualified' from which one is selected. So the quickest way in this case is to select another from the 'pre-qualified'.
- We decide our risk appetite for each key supplier failure.
- We are also tightening our standard terms and conditions to ensure a higher level of supply chain resilience that is independently verifiable.
- Some suppliers are located in 3rd world settings. The client attempts to improve their delivery capabilities, in addition to inculcating a higher level of resiliency in their local environments.
- Reminded supplier that our organizations ability to prove to local regulator that we can still meet requirements is mandatory - if they cannot meet our needs, we refer to contractual agreements that state supplier must also meet prudential regulatory requirements (e.g. fines etc in place/change supplier/in source)
- Likely to accept, efforts to ensure supply chain resilience are in its infancy
- Ensure robust contingency plans are part of the service BCP's. Also ensure robust contract T&E's with appropriate penalties/bonuses.
- We would not engage if the risk were material to the core business
- Our response to this could differ depending on the service provided
- This depends on the market share of a supplier. If you have identified e.g. Microsoft or Bloomberg as an external supplier - you just have to accept the situation (good or bad). With smaller suppliers it a lot easier to negotiate BCM related requirements within a contract.
- We tend to mitigate with internal checks and data transfer to internals when we can.
- Generally we would develop an alternative supply option, not necessarily by bringing them on board but by identifying the availability of alternatives and the expected time to implement the change. This may result in a MOU being agreed with alternative suppliers or even competitors where we can provide a reciprocal benefit. We would also look at the degree of stock that is appropriate to manage the additional risk.
- Introduced communication with supplier to explain what we need, how we operate and basic education of supplier to our market segment which they are not aware of.
- Also negotiated lower pricing when supplier would not agree to implementing/improving an appropriate BC/DR plan.
- Difficult in that certain suppliers may be unique to a given Region and or industry segment.
- We are on the doorstep to ask these questions to our suppliers.
- Working towards improved BCM through support and advice
- Build our own contingency independent of the supplier (e.g. increased stock holding)

## What approaches do you take to get the information you need from suppliers to better understand their business continuity management (BCM) arrangements and how these in turn support your needs?

- Much would be done by the Framework

Contract holder on behalf of my employer

- Our sole time critical dependency is on the internet connection for which we use three providers.
- We share our BCM and look for commonalities or problems in the interworking of the plans. Face to face, informal meetings are preferred to facilitate open and frank discussion.
- This organization has only just embarked on a co-ordinated supplier assessment programme.
- Our Supplier BCM evaluation process is progressive, and depends upon our dependency upon them. If their self-assessment and documentation is well structured and consistent with Good Practice we may stop there. If our dependency is more critical we will engage the Supplier in discussions to assure ourselves that there are no significant gaps in their understanding and implementation of BCM within their organization. We also check that we are far enough up their "Key Customer" list to be sure that we do figure as one to whom service must be maintained rather than one to be abandoned until their recovery has been completed.
- We invite Key Suppliers to take part in Table Top exercises.

- Our BCMS is limited to the company at the moment
- We ask their other clients for feedback.
- Reviews are carried out by our Procurement dept, but in the main are not reviewed apart from commencement of contract
- The levels of checks would depend on the criticality of the contract and the level of risk involved
- My firm conducts the independent audits.
- We use a SunGard tool
- Approach is likely to be defined and tightened in the near future
- Current status, will change when the supply chain strategy is implemented and we will use multiple approaches depending on the criticality of the service/product.
- Cursory questions asked at prequalification stages without expert review
- Our requirements depend on the service being provided
- We also conduct drill
- We get the market feedback from suppliers' customer.
- This aspect of due diligence is decentralised to

the contract manager. The BC function doesn't have visibility over this. The contract manager is prompted to perform a risk assessment and mitigate as needed, but the quality of the assessment varies.

- We plan to use BCM-approach & assessment to our outsourcing partners in 2012+
- We encourage our clients to do as we do, partner with the supply chain with site visits and regular meets
- For critical suppliers more detailed analysis and questioning of BCM programme would take place
- We have just started to do this. Depending on the size or complexity of the organization, we may ask them for a self assessment, or complete an audit on them.

### **How have you checked/validated that key suppliers' business continuity arrangements might work in practice?**

- As our programme develops and BC relationship matures we will implement stronger validation methods
- We intend to hold workshops and observe suppliers own exercises.
- We run exercises with key suppliers

- We are planning to conduct joint exercises based on likely scenarios. We look at how they have coped with previous incidents.
- We also expect to run a series of live and desk-top exercises and/or attend exercises run by suppliers
- We conduct external audits on security vulnerability and hazard assessment, coupled with BC capabilities.
- Primarily IT system based testing with suppliers
- On closer inspection after a contract is awarded no plan has been in evidence
- Most of them do not have BCPs in place.
- We have checked our suppliers in real time scenarios as well like swine flu situation
- One of many targets is to run joint/coordinated exercises in the not distant future.
- The BC function has no visibility. This is a contract manager responsibility.
- Not yet seen any evidence, because suppliers are not willing to share commercial knowledge or have faint understanding of BCM
- Approach has varied depending on suppliers and levels of resiliency that exist
- Suppliers are not keen to be observed by other

companies

### **How often do you review your business continuity requirements with key suppliers and their capability to meet them?**

- Expectation rests principally with Framework Contract holder
- Part of plan maintenance
- Roughly once per financial year.
- With key suppliers that are affecting major clients, we do have an annual review process in place
- Annual requirement
- Dependent on criticality of service/product. For high value or critical supply it is part of the contract management meetings.
- Key suppliers reviewed annually
- Supposedly at quarterly supplier relationship management reviews, but little knowledge within supply chain staff to be effective
- In theory, at contract renewal, but the application of this varies.
- Reviewed on an annual cycle or whenever there is a major change at either end of the supply chain
- Some suppliers are scheduled but the majority

are ad hoc

- Annual reviews take place and its part of the Key Performance Indicators
- We want to start having scheduled review meetings with key suppliers at appropriate time intervals as part of existing governance processes. We are incorporating this into our BCM programme at the present time.
- This takes place at scheduled times during the annual Plan-Do-Act-Check
- [If] they have a service drop
- Normally annually, however, if there is a major change, a review will be carried out.
- We also review annual reports of certain supplier's capabilities. For certain suppliers, we have never reviewed their capabilities.

### **When tendering for new business clients over the past 12 months, how often have you had to provide assurance to clients that your own business continuity arrangements are sufficient?**

- Depends on the business line
- In this part of the world, people believe in seeing before they can accept.
- The after-sales dept is always at hand to assure

old and new clients of continuity of business and readiness to serve them best.

- Our major global customers are the ones who are requesting BCM information. Also some smaller, national accounts. Expect this to grow exponentially!
- It is not usual, sometimes Government agencies ask for it.
- Only once have we been requested to do so, however, this may start the ball rolling for more requests to do so.
- BC info is becoming a standard inclusion in most of our legal business pitches.
- Particularly for other financial service providers or government entities
- Most people still don't ask
- Increasing trend.
- Depends on their industry however there is an upward trend for such requests.
- We don't tender for new business as such (government/fixed market) but we do have to give a lot of assurance to our existing customers.
- Part of our Vendor Management Program
- BCM validation is becoming a routine part of

the tender process.

- We are an industry owned utility. As such, our participants (who are our owners and customers) expect us to have a high level of BCM, as such it is covered in our 5970 audit which is provided to them and in independent review with our regulators. The regulators for the financial services sector have very high standards. We seek to meet or exceed these standards.

#### **Does business continuity feature as part of your supplier contractual discussions?**

- Not at this time but we are reviewing/re-addressing our Procurement strategy and this is a key part.
- But it is only an optional criteria rather than compulsory.
- Some departments still only raise BC issues after the decision to purchase has been made.
- Part of the tender process.
- Only been put in place recently
- This happens in new contracts and high profile ones but depends very much on whether the procurement team think to contact me. Alternatively I may hear about these things through the grapevine and approach them.

- Unsure as it is handled by another part of the business
- Part of [...] outsourcing guideline
- We're starting to get into this now that we're outsourcing a key deliverable, but it's not necessarily something we've done well in the past.
- Unsure
- Depends on market info, reputation.
- Not that I am made aware of
- We've had some success in 2011 with integrating business continuity requirements into our center led procurement process.
- Internally the BCMS is being expanded and this is a objective and is in the program schedule for implementation in central purchasing
- We have BCM clauses in all supplier contracts

#### **Have you experienced any "force majeure" invocations among suppliers within the past 12 months?**

- Last 2 years, yes
- Earthquake
- Explosions, fires, shortage of 2nd tier raw materials, lightning strike

- Winter weather snow disruption
- Limited - to the situation in Japan.
- Volcanic ash, severe weather
- Work area recovery BCP in respect of Japan Tsunami.
- During Brisbane Floods in January 2011
- The supplier did not express correctly FM definition, and thought 'it was ok'.
- Flooding
- The ash cloud.
- We would, as a matter of practice include "force majeure" clauses within our bespoke contracts.
- Icelandic volcano disruption
- Prolonged adverse weather
- Power cuts and restrictions..impossible to take any action against utilities as protected by government

**Is business continuity used as a means to negotiate greater specificity in "force majeure" contract clauses (i.e. specifically include/exclude event types or establish recovery times for suppliers)?**

- It should be part of normal contract

discussions, not be 'held' as a 'gun to the head of a supplier'

- "Force majeure" is a complex legal term and it is unlikely that many BCM managers understand this in legal terms.
- Not really sure about this.
- We have tried but this is a challenge with external recovery site providers
- Would be less likely to enforce certain conditions if the confidence was there.
- To the extent that we would not be held liable for a "force majeure" event.
- Not currently that developed

**Please indicate the primary activity of your organization using the categories given below (based on SIC codes 2007). For example, a management consultancy would mark "Professional Services" only and not the sectors in which its clients operate.**

- Laboratory
- International Non-Governmental Organization
- Automobile sales and servicing company 4 Insurance
- Port Administration/Management

- Managed services
- Aerospace, Defence & Security solutions
- Food manufacturing, processing, importation
- Property Management/Consultancy/FM
- Brewing
- Professional services and emergency food / survival kits
- Business process outsourcing
- Utilities with civil contingency requirements
- BPO/Customer Services/Outsourcing
- Automotive
- Reinsurance
- Crown Entity providing accidental injury insurance for all Nationals and visitors.
- Logistics and Transportation
- International Government
- Health and security services
- Health Insurance
- Hospitality
- Third Party Certification Body for international standards

END OF REPORT.