# Strategic Risk - A Guide for Directors

## FOREWORD

**Contents**



All complex organisations must manage their strategic risks well, both threats and opportunities, in order to survive and prosper. This Guide presents a challenging new approach, known as STRATrisk. Using it will demonstrate to shareholders (and to the public in the case of a public sector enterprise) that the organisation is committed to focussing on the outcomes which really matter.

Based on past experience, in the next ten years 10% of UK companies which have a credit rating will fail, while others will suffer serious setbacks or fail to exploit major opportunities. The public sector will experience many significant failures in that time, if its past record is repeated. However, more effective management of strategic threats and opportunities could transform this outlook dramatically, and lead to higher achievement, less waste of resources, greater sustainability, and increased value for shareholders and other stakeholders.

The Guide:

- shows why managing strategic risk needs a different approach from managing other risks;
- outlines our recommended approach, including the need for risk leadership by the Board itself;
- stresses the necessity for the Board to create the right culture, internal communications system and risk-management framework;
- discusses how to proceed in practice, outlining some useful tools.

Whatever else the Board does, and whatever other challenges it faces, we recommend that it should face up to the issues described in this Guide.

The actuarial and civil engineering professions are therefore pleased to sponsor the Guide. We hope you will act on it.

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| President, Institute of Actuaries | President, Faculty of Actuaries | President, Institution of Civil Engineers |

# WHY READ THIS GUIDE?

Traditional methods of risk management are based on identifying possible risk events, and then assessing their likelihood and potential impact, before deciding whether it would be worth taking mitigation action. Although such methods are usually appropriate for managing project risks and operational risks, they are not always sufficient when it comes to strategic risks. This is because, at the strategic level, an organisation is typically exposed to a wide range of uncertainty (much wider, in fact, than is often perceived). Strategic failures are usually not so much single events as the result of the interaction between various factors in a complex system. Nevertheless, some strategic risks are foreseeable, and can be managed in the traditional way. Although others can only be glimpsed vaguely, if at all, adopting the systematic STRATrisk approach described here will assist you to manage them. The self-assessment check on page [36] will help you decide whether to do so.

The STRATrisk approach outlined here, which has been sponsored by the organisations listed on the back cover and developed over three years by a Steering Group drawn from various backgrounds, is of universal application and can be applied in any organisation or industry, in either the public or private sector. This new approach has been warmly welcomed by attendees at our seminars, and we believe it could help many organisations. Its development was underpinned by a research programme by the Universities of Bath and Bristol. This included some fifty in-depth interviews with board members and senior executives, particularly in the construction industry, and provided a rich understanding of strategic risk management as currently practised.

The Guide includes references to a number of case studies. Many of these are described in greater detail in the accompanying CD, which also gives additional case studies, a full report on the research programme and some stimulating lines of thought drawn from various relevant academic papers.

The development of STRATrisk was supported by a 'Partners in Innovation' grant from the Department of Trade and Industry.

# WHY IS STRATEGIC RISK DIFFERENT?

"Strategic risk" consists of the most important risks which an organisation faces, i.e. the possible future scenarios which would make a material difference (for better or worse) to its ability to achieve its main objectives or even to survive. These risks differ in magnitude from project risks or operational risks, which are generally more limited in their impact. Strategic risks are more strongly influenced by people's perceptions and their behaviour. They are more dynamic, uncertain and interconnected, and therefore often need to be managed as complex processes rather than discrete events. This requires a shift in the way we think about them and the way we manage them.

Both the Strategy Unit of the Cabinet Office and the Office of Government Commerce highlight the attributes of strategic risk which are different. Such risks *"...tend to be less easy to spot, more disruptive, less easy to quantify and often less stable"*.

Wherever we mention "strategic risk" in this Guide, we include both strategic threats and strategic opportunities, two sides of the same coin.

Failure to think sufficiently deeply about strategic risk has caused serious problems at such firms as Enron, Arthur Andersen, Kvaerner, and Equitable Life. In the public sector the UK failed to plan for a foreseeable outbreak of foot and mouth disease, while in the USA Hurricane Katrina revealed that the strategic disaster- planning by the Federal Government was inadequate.

"...there are some risks that you may not identify, may not even consider, partly because you don't understand what it is that you are doing."

Major contractor.

A research study by Deloitte (Risky Business?, August 2005) concluded that, in the decade 1995-2005, nearly 40% of UK firms in the FTSE 100 and FTSE 250 Indices experienced a loss of share value amounting to 25% or more in a single day, and that one quarter of them never recovered their value during the period. On the other hand, the value-creating companies studied had a well-balanced portfolio of risk and value management strategies, and were constantly looking for ways to improve and differentiate themselves. By focusing on value creation they were able to create a 'value cushion' that helped to protect them from volatility and risk, and enabled them to quickly recover from one-off shocks.

Our research has shown that people's perceptions, and their subsequent behaviours, are the principal source of those strategic threats and opportunities which arise from within an organisation or at the points where it interacts with the outside world. In addition, people are the principal resource which can be harnessed to identify and manage strategic risk, wherever it arises. Hence managing people in the right way, within an appropriate culture, lies at the heart of our approach.

Strategic risk cannot be viewed in isolation from the other two types of risk to which an organisation is normally exposed, i.e. project risk and operational risk (see Figure 1). This is because risks in these two latter categories can sometimes develop into strategic risks.


Figure 1. Principal categories of risk

The large triangle in Figure 1 represents the totality of risks to which the organisation is exposed, i.e. "enterprise risk". Strategic risk is that subset of the triangle which could impact significantly on the achievement of the organisation's objectives, either positively or negatively. It includes the risks arising from the processes by which strategy is converted into a programme of different projects, for example the risk that the projects selected may not be the ones to achieve the strategic objectives. Project risk consists of the various opportunities and threats which arise within the projects which the organisation undertakes from time to time, such as investing in new facilities, launching a new product or undertaking a business change initiative. Operational risk consists of all the organisation's other risks in its ongoing business, such as health and safety, fraud, currency exchange, litigation, etc. Both project risks and operational risks need to be managed well, but this Guide concentrates on strategic risk, the management of which needs a different approach, linked to people, behaviour and culture.

The risks that were most consistently mentioned by respondents in our research programme were:

- Reputation
- Government policy and politics
- Staffing and resourcing
- Customers and clients
- Financial

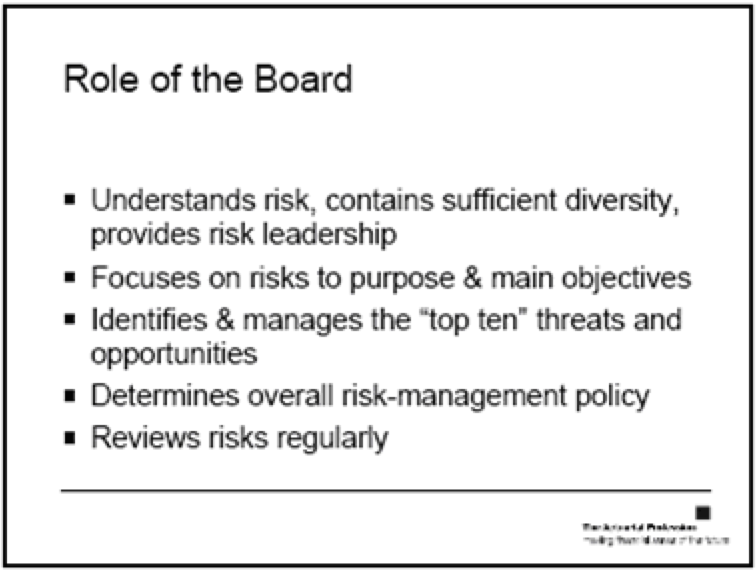
A checklist of all the strategic risks that were identified during the research is set out in Appendix 2.

# RECOMMENDED APPROACH

## Involvement of the Board

The Board itself needs to be fully involved in the risk management process, because:

- It is usually only at Board level that a sufficiently holistic approach can be taken, bringing together and prioritising the major risks in various parts of the business, and making the connections between them.
- The Board, working collectively, is likely to be multi-disciplinary and have longer and broader experience than most members of senior management.
- It is the Board which has the authority to ensure that risk management is given sufficient attention throughout the business, despite other pressures.




Role of the Board

Real commitment and leadership are needed to ensure that the management of strategic risk is actually given the focus and attention it deserves. The Board itself should take ownership on an ongoing basis, though one member of the Board will normally have special responsibility for implementation. There needs to be sufficient diversity of experience and perception within the Board, possibly by appointing non-executive directors from outside the industry concerned. Positive assurance processes and regulatory compliance should continue, in addition to the steps outlined here.

"...the non-executive directors are the people that spend most of the time talking in the Board and that is what we like."

Contractor

It is the Board's responsibility to understand the main risks and uncertainties, and to give guidance to the rest of the organisation. We suggest four principal steps:

- Ensure that all Board members have a good understanding of the nature of risk and uncertainty, and the processes available to manage them, as well as knowledge of the proven dangers of 'group think' and the reasons why bias can occur in risk assessments;
- Using the tools described in this Guide, identify a short list of up to, say, ten key strategic threats which could prevent the achievement of the organisation's purpose, strategy or objectives, or even threaten its survival;
- Similarly identify a short list of key opportunities that could enable the organisation to achieve its purpose, strategy or objectives to a greater extent or with greater likelihood of success;
- Develop a strategy for focussing on these key threats and opportunities, and managing them more effectively. In doing this, be aware that the research showed that organisations have greater difficulty in identifying their opportunities than their threats, and their weaknesses than their strengths.

The Equitable Life Assurance Society, after surviving for more than 200 years, was considered very safe. Yet following a legal action initiated by the Society itself in 2000, which had an unexpected result, the Society suffered a very serious business setback, which led to bonus cuts and many policyholders getting less than they had expected. The subsequent Enquiry by Lord Penrose found that the Society had been pursuing weak funding strategies for a decade prior to its collapse. The Society was dominated by its senior executives and the Board apparently failed to grasp the extent of the risks involved.

## Culture

It is also the Board's responsibility to ensure that there exists within the organisation a culture which is appropriate from a risk management viewpoint. This should encourage consultative leadership, participation in decision-making on risks, openness, accountability rather than blame, organisational learning, knowledge sharing and good internal communications. Getting the culture right is one of the key steps in managing strategic risk, enabling everyone in the organisation to participate, so that the Board remains fully informed. Risk management should be approached as helping to achieve success, rather than as protecting senior executives from criticism or satisfying regulatory requirements. Larger organisations will need a central function to co-ordinate the risk management work on behalf of the Board, but this does not absolve the Board from the vital need to get involved itself on a continuous basis.

There may sometimes be a degree of tension between the culture which the organisation has successfully developed for growing its business and the culture which is most suitable for managing strategic risk. For example, a company may be pursuing an aggressive "can do" culture, which is resulting in rising sales and profits, higher rewards for staff, bold initiatives and satisfied customers. Anyone who is highlighting threats or bearing bad news may be silenced, unless an adequate system is in place, which ensures that the Board itself continues to devote enough time and attention to strategic risks, and that staff realise that having a risk conscious culture (including opportunities as well as threats) alongside the "can do" culture is appropriate and necessary.

Arthur Andersen was one of the "Big Five" accounting firms until June 2002, when it was convicted of shredding documents relating to its audit of Enron, the Houston-based energy trading company that collapsed in December 2001 after inflating its earnings. Although the

Supreme Court of the United States overturned Andersen's conviction three years later, due to flaws in the jury's instructions, the damage had by then been done and the firm had lost nearly all of its clients. Moreover, there are still many civil lawsuits pending against the firm, relating to its audits of Enron and other companies.

*This suggests that:*

- *Whatever specific incident or course of action produces a major problem, it is sometimes possible that the root causes may lie deeper, within the organisation's culture and values, so getting the latter right is of prime importance;*
- *Serious threats to a firm's reputation are always of strategic significance, since they could affect survival.*

## Communications

The recommended approach to the management of strategic risk involves a much greater emphasis (compared with traditional risk management) on the use of internal communications, to ensure that the identification, updating and management of the more important risks and uncertainties takes full account of a variety of ideas and perceptions within the organisation. The sources of strategic risk can be complex and hidden. Everybody in the organisation should have an accountability to identify risk, and to think about the management of risk, particularly within their own sphere of influence but also in other parts of the organisation or for the business as a whole. They need to be able to communicate effectively with the central risk function, so that their concerns and ideas can be understood in the context of the whole organisation, alongside concerns and ideas expressed from elsewhere.

The immediate cause of Railtrack's major accident at Hatfield in 2000 was a broken rail, yet eight months before, the rail was identified as needing replacement "urgently". A new rail was lying beside the track for at least five months prior to the accident, waiting for installation, yet no speed limit had been imposed. Both Railtrack and the contractor were later heavily fined for breaches of regulations, and the accident and its aftermath are thought to have contributed significantly to the Government's decision to wind up Railtrack.

*This illustrates that:*

- *A Board, however risk conscious, needs a holistic approach to risk, so that it identifies its key risks and focuses on them continually, even if this means that less attention can be paid by the Board itself to other risks;*
- *A complex organisation structure, involving a number of parties, can itself constitute a strategic threat;*
- *A failure to feed back information to the centre from various parts of the organisation in a timely way can result in critical emerging patterns being unrecognised until it is too late.*

Figure 2 illustrates that the analytical work carried out on the main sources of risk and uncertainty starts at Board level, with an understanding (however imperfect at the outset) of the principal threats and opportunities which are relevant to the organisation's purpose, strategy and objectives, and some initial views on ways in which these threats and opportunities should be managed. From this the central risk function develops a hierarchy of the main risks affecting the business, each layer of the hierarchy consisting of an expansion of the layer of risk above. This is done by starting with a narrative, based on discussion at the Board and other analysis, and then using the tools of Concept Mapping and Pattern Recognition, described later in this Guide, to identify in more detail the principal business activities which are likely to give rise to strategic risk and the key indicators of risk which staff should look out for. A preliminary strategy for managing the identified strategic risks should also be developed. The results of this work, after further discussion by the Board, are then communicated to people throughout the organisation, who comment from their own perspective, identify additional or increasing risks, and contribute suggestions for risk management. Their feedback to the centre is analysed and added to the results of focussed central Horizon Scanning (also described later in this Guide), so that the key risks and uncertainties can be updated. The Board is then further involved, using Risk Grouping to facilitate discussion, and the process is recommenced.

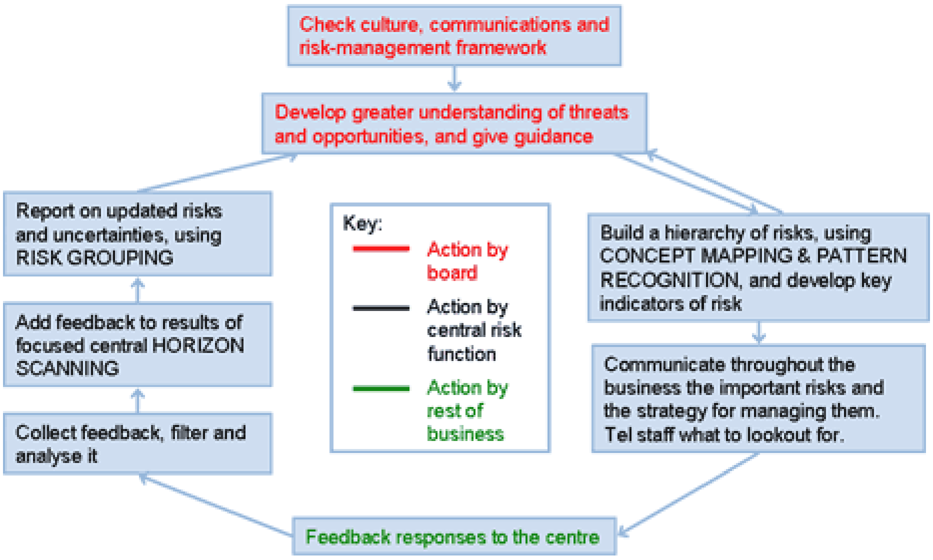



Figure 2. Understanding the risks and uncertainties

## The feedback process

Communication about risk should involve all levels of the organisation, from highest to lowest. Everyone needs to be aware that (as the research showed) there is often evidence available which could alert the organisation to the fact that a strategic risk is 'brewing'. For example there may be:

- A change in observed trends in aspects of the operations;
- Changes within the relevant industry, which have not yet affected the organisation but which are starting to impact on competitors;
- A series of apparently localised and unconnected events which, if considered together, would indicate an unexplained underlying change.

Such information needs to be gathered, filtered, categorised and reported, and connections made between factors that combine to cause strategic risk. It is vital that the Board understands in a timely way what is significant or potentially significant that is happening in all parts of the organisation, as well as supervising the management of the most important strategic risks itself. There needs to be an openness that allows risk issues to be communicated upwards, downwards and sideways, and in particular there should be an easy reporting mechanism on such matters as:

- Perceptions of new or enhanced threats and opportunities;
- Suggestions for mitigation of threats;
- Ideas for increasing opportunities;
- The existence of defective procedures;
- Failures to operate established procedures properly.

The culture must encourage such reporting, without inhibitions (and training must be provided where necessary). Employees who make reports should always be thanked for their trouble, and at a later date they should be given an explanation of what, if anything was done or not done as a result, and why.

"What we're trying to do is make the risk culture open and non-threatening".

Consultant.

## Organisation for managing risk

The Board must give itself enough time to manage the highest level of the process effectively, with ongoing reviews and annual in-depth discussions. Unless the process is formally established, short-term business and financial issues can easily distract the Board's attention from emerging risks. The Board should also establish an effective holistic system of "enterprise risk management" covering strategic, project and operational threats and opportunities. A suitably qualified Risk Manager should usually be appointed in large organisations, to ensure good execution and the use of appropriate risk-management tools, as well as generally facilitating the risk management process. However, the Risk Manager will not normally actually manage the risks himself. The risk management processes should be embedded in the mainstream management processes of the business, becoming part of the normal way of life for line managers. Giving the Risk Manager an appropriate remit is one of the keys to success, as the research showed that in some organisations there is confusion about his or her role which leads to unnecessary tension and ineffectiveness.

Figure 3 below is a model of good practice in the holistic management of all the risks facing an enterprise.

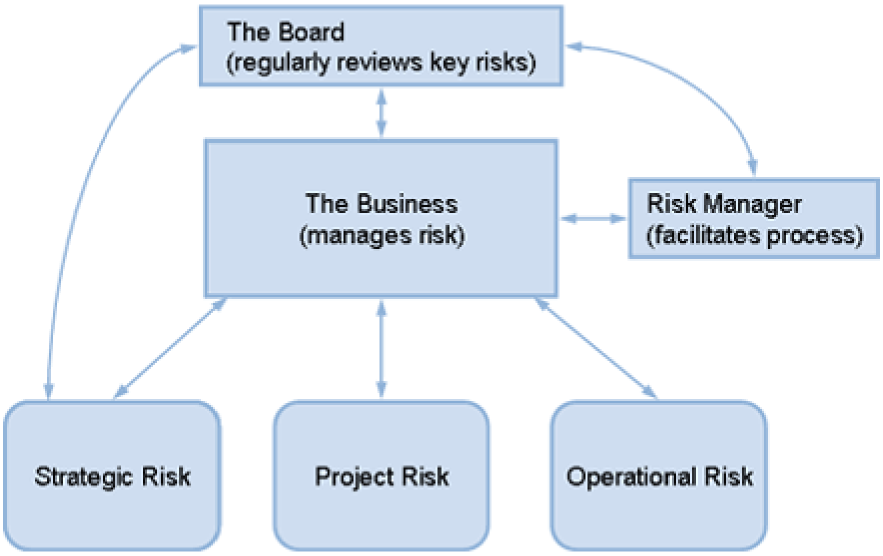
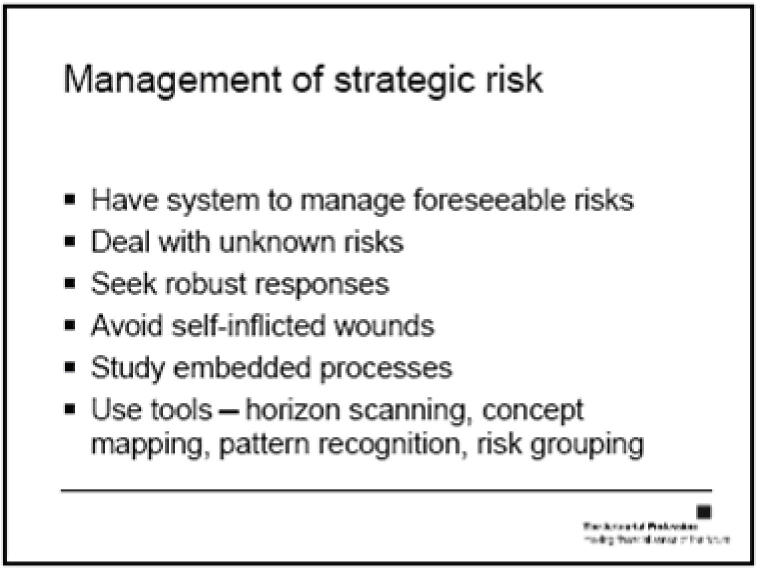


Figure 3. The holistic management of enterprise risk

Strategic risk needs to be managed separately from other risks, with both the Board and the Risk Manager having roles to play. The Board as a whole will take a primary interest in the short lists of "top ten" threats and opportunities (as updated from time to time), while the designated Board member and the Risk Manager will facilitate the process for managing the other strategic risks as well. The tool known as RAMP (see item 1 of Appendix 3) is appropriate for managing project risk, and standard risk management methods will be used for operational risk. The Risk Manager will act as the focal point for people throughout the business to contact on risk issues. He will be primarily responsible for involving the Board if any project or operational risks show signs of becoming strategic risks, and the Board must be able to trust him to do this. He will also often act as a conduit for communicating the Board's decisions on risk issues to the rest of the organisation, and needs to do this in a sensitive and motivational manner.

# APPLYING THE APPROACH

## Management of strategic risk




Management of strategic risk

The whole aim of STRATrisk is to enable strategic risk to be managed effectively, and there are special tools and techniques which can be used for this purpose. Seeking evidence and balance in the analysis is fundamental. Above all, since perceptions of risk may be very far from the truth, as much flexibility as possible should be designed into the organisation's operations, systems and response mechanisms.

The British Government is already starting to pay more attention to the major risks in its own activities. In November 2002 the Prime Minister (Tony Blair) wrote: "We need to do more to anticipate risks, so that there are fewer unnecessary and costly crises, like BSE or failed IT contracts, and to ensure that risk management is an integral part of all delivery plans".

## Foreseeable risks

Some strategic risks (usually a minority) are entirely foreseeable: for example, "if such and such happens, we shall be unable to carry on". The research showed that most senior executives and board members were aware of some foreseeable strategic risks, but few were able to put together a comprehensive list at short notice. Hence brainstorming effort put into identifying as many strategic risks as possible, and their root causes and connections, will be well worthwhile. Desk research should be carried out on catastrophic events which have occurred for similar organisations in the past, at home and abroad, with a view to understanding the processes which led up to these events and how a different management approach might have avoided them. Foreseeable risks are often capable of being managed in a traditional way, by generating possible risk responses and then selecting the ones which seem most appropriate and cost effective. Some examples of such risks and a way of presenting them are set out in Figure 4.

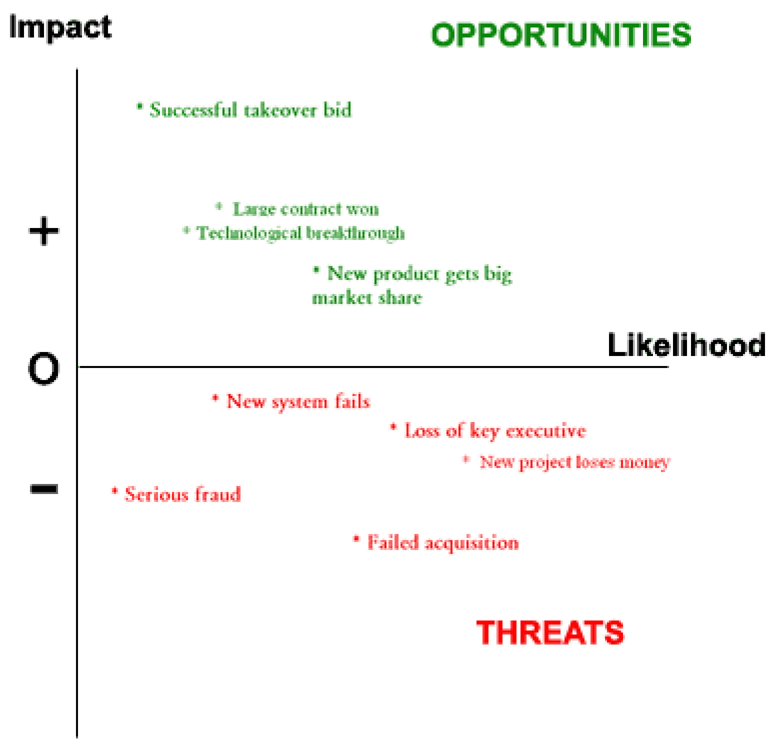



Figure 4 - Examples of foreseeable risks

## Unforeseeable risks and uncertainty

Other strategic risks are not easily foreseeable. Some of them may be glimpsed, but only in an uncertain way. Uncertainty may include, for example:

- Doubts about the possibility of totally unexpected events, constraints or outcomes (for example, when Equitable Life was considering starting its legal action);
- A lack of sufficient knowledge about possible chain reactions, where an apparently insignificant event could, if it occurred in conjunction with other events, trigger significant consequences;
- The possible consequences of complexity - research into catastrophic accidents like Bhopal and Challenger suggests that system complexity, rather than individual causes and effects, is sometimes responsible;
- The dangers, where many different parties are involved, of a catastrophic organisational failure - as helped to cause the collapse of the Circle Line tunnel in Singapore in 2004 with the loss of four lives;
- Worries about the future stability of the relationship between the organisation and its key customers, partners or suppliers;
- The possibility of step changes in the "state of the outside world".

Managing uncertainty in advance may be possible to some extent by brainstorming possible scenarios and studying them to increase knowledge and identify possible precautions. This may cause some risks to move into the "foreseeable" category, which would open them up to suitable management in advance. In addition it may be practicable to take actions that reduce the general vulnerability of the organisation to uncertainty and lack of knowledge and provide greater robustness, for example by eliminating unnecessary complexity in operations or by simplifying organisational relationships.

If you know what you don't know, you can develop a strategy that is robust to uncertainty and facilitates the management of a whole range of unforeseeable scenarios. (A civil engineering example would be the choice of a tunnelling machine that would deal with a wide range of unknown ground conditions).

## Responding to strategic risks

Each organisation will have its own unique list of strategic risks and will generate its own options for responding to those risks. However, there are some issues which often arise and are worth summarising here.

The research suggests that strategic decisions should not be based solely on one individual's beliefs, intuitions or perceptions, though it should be recognised that groups tend to take riskier decisions than individuals. Consideration should be given to whether the organisation is over-dependent on a few key individuals, whose illness or departure could imperil the organisation (as occurred in Argos before it was taken over). Other suggestions from respondents in the research were:

- Always leave a way out in contracts and relationships;
- Beware of the uncertainty of extreme innovation;
- Acquire necessary experience before embarking on significant new ventures;
- Clearly identify the responsibilities for managing risk at all levels of the organisation;
- Do not be so afraid of threats that you miss out on opportunities.

*An unexpected danger of innovation:*

When London's Jubilee Line Extension railway was being constructed in the late 1990s, a tunnelling method was employed that was new to the UK. The same method was also being used elsewhere, in a tunnel at Heathrow Airport, and the latter tunnel collapsed. This caused the Jubilee Line Extension to be put on hold and seriously delayed.

*Responding to a strategic opportunity:*

A large contractor who bid for a Ł60 million bridge-refurbishment contract:

"What we did during the bid period was to go and look at it. We sent five people down for a week and spent the whole week crawling over it. We knew we were the only people that had done this. The bridge was in a better state than everyone expected but we put in a bid based on the expectations. We won it and our margin will be Ł20 million."

*Always leave a way out:*

"The market became dramatically worse but we could not withdraw, because we were committed. If we had to do this sort of thing again, we should need to have break clauses in the contract" - major developer.

Strategic risk may arise in the key processes already embedded in the organisation, for example:

- The method for appraising capital projects, which might not be based on full risk analysis and mitigation, or which might allow bias to remain undetected;
- Mathematically-based risk models for controlling financial risks, which might not adequately reflect the extreme events of real life;
- Key spreadsheets or computer programs, which may contain errors that surface only occasionally but with devastating effect;
- Use of derivatives without adequate controls;
- Existing contracts, which might contain unrecognised risks;
- Insurance policies, which might not cover as many risks as are currently believed.

Such processes need to be studied carefully, and corrective action taken if necessary.

In addition the Board should recognise that many strategic risks are self-generated, for example:

- Operational and project risks can sometimes quickly escalate into strategic risks;
- Lack of time (or perception of this), stress, or lack of training may cause catastrophic short cuts in the operation of procedures;
- Many strategic threats arise from individuals within the organisation (for example, their lack of skills or experience, or their greed, ambition, de-motivation, etc., or doubts about their responsibilities and accountabilities);
- Financial pressures from parent companies or shareholders may lead to the danger of short-term actions being taken without sufficient regard to strategic risk;
- Significant change in an organisation, such as cutting out a layer of management or achieving a takeover of another organisation, can carry substantial hidden risks;
- Outsourcing some operations and hence losing control may lead to hidden risks, as British Airways found in 2005 when they incurred a Ł40m loss due to a labour dispute at Gate Gourmet, the catering organisation which British Airways outsourced in 1997;
- Actions to reduce a particular strategic risk may actually increase it in other directions.

"Never buy unless you can do proper due diligence on it"

interviewee

"Follow-through" from risk identification is vital. A leading financial-services company, which has a long-established system of risk management, told us recently that the disasters they had experienced were often foreseen long in advance but no preventative action was taken. Many other examples could be quoted, where the effort or cost involved in managing even the most serious threats failed to qualify as a sufficiently high priority until it was too late.

## Managing unexpected situations

Whatever actions are taken in advance, it is important to have a fully adequate mechanism for managing unexpected situations at short notice. Sometimes an organisation will fail because of an inadequate or destructive response to a situation, rather than because of the situation itself. For example, Arthur Andersen's response to the Enron crisis led to disaster. After Railtrack experienced its major accident at Hatfield, it may be that its imposition of drastic speed restrictions right across the network for a protracted period contributed to its demise, whereas a more measured reaction might have enabled the storm to be weathered. Under-reaction should, of course, be avoided as much as over-reaction. The most careful consideration should therefore be given to the nature of the mechanism and who should participate. There should be adequate contingency plans, and the group of people concerned should be empowered to take entirely unprecedented or unforeseen action speedily if necessary, but with safeguards as far as possible.

# USEFUL TOOLS

In addition to prompt-lists of strategic risks (as in Appendix 2), there are four tools which an organisation could find useful in identifying and managing strategic risk. These are horizon scanning, concept mapping, pattern recognition and risk grouping (see Figure 5), and these are discussed in turn:

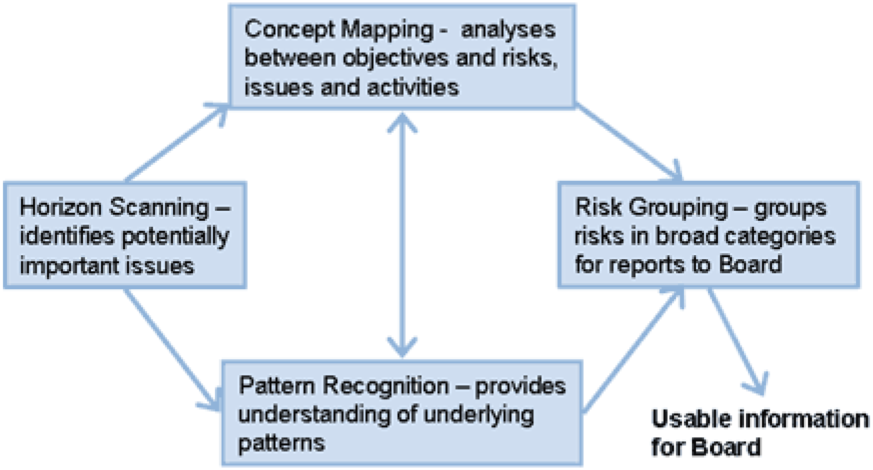


Figure 5. Practical tools for managing strategic risk

## Horizon Scanning

The purpose of this tool is to spot unexpected big issues, threats and opportunities 'coming over the horizon'. This is partly achieved through a structured system for gathering and collecting information from various parts of the organisation, at all levels, and feeding it back to a central point. (Sometimes it will be people working at the lowest levels of the organisation who are most aware of new or changed risks, and they need to be able to have direct access to the central point if necessary). The information must flow up the organisation in a well-organised way, which does not suppress key facts or opinions. However, clustering and categorisation methods need to be in place, so that the process is not overwhelmed by a mass of information. Particular attention should be paid to the possibility that a chain reaction is starting, with small beginnings that could result in dangerous escalation. In addition there must be a structured system of horizon scanning at the centre of the organisation, looking at possible developments such as new legislation, changing financial conditions, emergence of competition, technological change, etc.

"I say the issue of there only being 33 risks on this very large project just demonstrates that we've not driven far enough into the business to get the shop floor workers thinking, 'I've just spotted this, someone is going to have to do something about this at some time'"

Major contractor

## Concept mapping

A concept map is a model which allows complex interconnected factors to be shown in a simplified diagrammatic form, so that the overall picture can be understood and communicated to a wider audience. Such maps are particularly useful for identifying and analysing strategic risk. Starting with the organisation's objectives, the aim is to identify those areas of its business which could impact on those objectives in a significant way. For each identified area, one then works backwards to identify particular issues and activities which could be critical for the achievement of one or more of those objectives. The results are expressed as a narrative and this is then plotted on a diagram as a hierarchy of risks, which will highlight the activities that need to be most carefully managed from a threats or opportunities viewpoint. Particular attention will need to be paid to those issues and activities which could have an impact on several risk areas.

Figure 6 shows a highly simplified example of part of a possible concept map of the strategic risks for a hypothetical small bus-company, which is pursuing a policy of low fares on city routes. It is in competition with larger bus operators which use more modern vehicles and charge higher fares. There is a financial objective, in relation to which the three key risk areas have been identified as attracting too few passengers, being involved in a serious accident (with consequent loss of reputation and possible regulatory consequences), and having higher costs than expected.

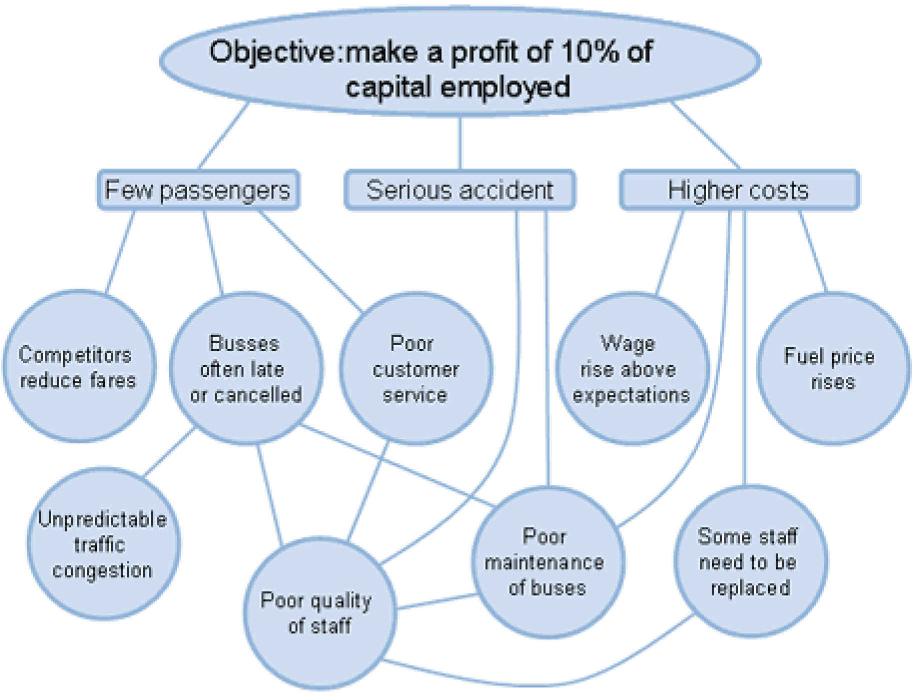



Figure 6. Example of part of a simplified concept map for a bus company

In Figure 6 the risk item "poor quality of staff" has a number of links emanating from it, showing that it has a bearing on several other risk areas. In fact it has a direct or indirect effect on all three of the key risks shown near the top of the diagram. It may cause buses to be often late or cancelled, or result in poor customer service, both of which will lead to fewer passengers. It may lead to poor maintenance of the buses, which in turn could lead to bus cancellations or even an accident, and will in any event increase costs. Poor drivers might cause accidents directly. If some of the poor staff have to be replaced, this will raise costs. Hence every effort should be made to mitigate the key risk of having poor quality staff, for example by putting special effort and cost into the staff recruitment and training process, so as to get staff of good quality in the first place. In the absence of such a diagram, and the thinking process behind it, the full importance of this particular strategic risk area might not be appreciated.

In practice, of course, the concept map of the strategic risks for even a small business would be much more complex than in this example, including threats in the areas of reputation, finance, new laws, litigation, property, passenger preferences, new competitors, buses needing to be replaced earlier than expected, etc., as well as opportunities in a variety of areas, including new routes, advertising revenues, additional premises, takeovers of other operators, expansion to other towns, possibilities of operating railway franchises, etc. As the complexity increases, the map becomes more valuable, by drawing attention to strategic risks, relevant to the business's principal objectives, that could otherwise be disregarded because they get lost among a multitude of lesser risks.

### Pattern Recognition

This is the process of turning a jumble of disconnected information into trends which may be significant. In a large organisation the evidence may be scattered over a variety of locations and, even if reported to the centre, needs to be recognised as forming a pattern which points to the risk concerned.

Pattern recognition is most likely to be successful if the responsible person has an awareness of risk patterns which have arisen in other organisations or previously in the same organisation. This can be assisted by reading case studies, reports on failures and accidents, descriptions of financial failures, success stories, etc. These need not necessarily relate to the same industry, as some causes of strategic risk are common to many industries.

Once pattern recognition has pointed out the possibility of underlying changes or new developments, there is usually the opportunity to investigate further and to manage the situation while there is still time.

### Risk Grouping

It is useful to group risks under a number of headings for brainstorming, analysing and reporting purposes, employing a classification system such as that used in the checklist of risks in Appendix 2, which distinguishes between risks of external and internal origin. This helps to identify and manage risks in a coherent way.

## CONCLUSION

A systematic approach to the management of threats and opportunities, within the context of a holistic risk management system covering all kinds of enterprise risk, is very practicable and desirable. However, many organisations are not yet doing it, or at least not doing it in an optimum way. Sometimes strategic risks are not sufficiently distinguished from the multitude of risks which the organisation faces, and as a result there is insufficient focus on them. The relevant tools may not be used and there may not be a suitable culture or internal communications framework. There may be inadequate follow-through after risk identification. Sometimes the organisation is dominated by a leader who mistakenly believes that his own experience is sufficiently wide to manage whatever events may arise, and who may not think that the effort involved in developing a systematic approach is worthwhile. It is quite common for Boards to devote inadequate time to risk management, even though it is arguably their most important function, and in some cases there is insufficient diversity of experience on the Board.

We hope, therefore, that this Guide may stimulate you to review the arrangements in your own organisation. Our research in the construction industry revealed that most respondents felt that their own company could manage its strategic risks better, and ought to do so. Even if you are not operating in that industry, you may feel the same way.

A simple self-assessment check follows in Appendix 1, to assist you in deciding whether such a review is necessary.

# Appendix 1 - SELF-ASSESSMENT CHECK

Mark out of 10 (10=excellent)

1. Is there sufficient diversity of experience on your Board?
2. Has your Board formally identified its "top ten" lists of strategic threats and opportunities and kept them updated?
3. Does the Board regularly make enough time for managing these strategic threats and opportunities itself?
4. Is there in place a fully-resourced holistic system of risk management, embracing all aspects of strategic risk, project risk and operational risk?
5. Is there clear communication on risks, up and down the organisation, within an appropriate culture?
6. Do you use horizon scanning, concept mapping, pattern recognition and risk grouping?
7. Is there sufficient follow-through after risk identification?
8. Do you manage strategic threats and opportunities in an optimum way?

If you have scored less than, say, 60 out of 80, we suggest you review your risk management system. You may wish to consider the possibility of getting help from consultants, who can give you the benefit of their own ideas, technical expertise, experience in a variety of other organisations, and assistance in setting up a suitable risk management system and training your staff. Contact the Steering Group (see back cover) if you would like pointers for the next steps.

# Appendix 2 - CHECKLIST OF STRATEGIC RISKS

The following strategic risks were identified by the Steering Group or obtained from respondents in the research programme. The list does not purport to be fully comprehensive, however. In particular it relates mainly to threats rather than opportunities, because the latter are likely to be specific to the organisation concerned.

## External origin:

| | |
|---|---|
| Natural disasters | Business interruption<br>Cost if not fully insured |
| War/terrorism | Business interruption<br>Unavailability of insurance |
| Political/regulatory/legal | Government spending policies/decisions<br>Future of PFI/PPP<br>Government over-committing itself<br>New UK or European laws<br>Increased regulation<br>Court decisions with wide implications |
| Economic/markets | Vulnerability to failure or takeover<br>Share price movements<br>Bad debt<br>Currency movements<br>Interest rates and inflation<br>Insufficient sustainable workloads<br>Uncertainty of funding<br>Significant market shifts<br>Shrinking markets<br>Geographic limitations<br>Supply/demand balance changes |
| Competition | New competitors<br>Competitiveness |
| Social/Environmental/Ethical | Health and safety of other people<br>Reduction in UK skill sets<br>General industry demographics<br>New environmental legislation |
| Technological advances | Pace of technological change<br>New technology<br>Obsolescence |
| Suppliers, partners and customers | Loss of a major customer<br>Failure of key supplier or subcontractor<br>Behaviour of the most important clients<br>Breach of contract by other parties |

## Internal origin

| | |
|---|---|
| Staff | People's behaviour<br>Quality of people<br>Scarcity of capable people<br>Loss of key executives and other staff<br>Serious industrial relations problems<br>Failure to observe procedures<br>Lack of openness in communicating uncomfortable issues |
| Structure | Inadequate culture<br>Not learning from the past |

| | |
|---|---|
| | Complacency and lack of awareness<br>Insufficient information flow to make decision-makers aware of the real issues<br>Inadequate risk management<br>Poor corporate governance |
| Systems and complexity | Financial systems<br>Merging two financial systems<br>Security, hackers, viruses<br>Corrupt business practices<br>Systems obsolete<br>Poor internal communications<br>Lack of internal understanding<br>Lack of transparency<br>Poor knowledge management |
| Strategy | Failure to grasp or create opportunities<br>Get left behind<br>Poor execution of strategy<br>Get taken over |
| Finance | Run out of cash<br>Errors in spreadsheets etc.<br>Losses on derivatives<br>Pension costs depress profits<br>Uninsured losses<br>Acquisition proves unprofitable<br>Serious fraud<br>Lack of finance to exploit opportunities |
| Contracts | Unknown contractual liabilities<br>A big claim against us<br>Insurance claim unsuccessful |
| Compliance | Regulatory fines<br>Disqualification of directors |
| Reputation | Major accidents or failures<br>Ethical failure<br>Adverse shareholder reactions<br>Insufficient customer satisfaction<br>Product recall<br>Environmental disasters<br>Compliance issues<br>Poor financial performance<br>Poor showing in surveys |
| Major projects | Delivery failure results in penalties<br>Project makes losses<br>Biased appraisals lead to wrong decisions |

# Appendix 3 - FURTHER READING

A few of the key publications on this subject are listed below. A more comprehensive list of reading and references can be found on the accompanying CD.

Actuarial and Civil Engineering Professions (2005). *RAMP: Risk Analysis and Management for Projects*, 2nd edition, Thomas Telford, London. RAMP is a simple and straightforward process for evaluating and controlling the complex risks which usually arise in major projects. It is recommended by the British Government for public projects and is also suitable for use in the private sector.

Blockley, D.I. and Godfrey, P.S. (2000). *Doing it Differently*, Thomas Telford, London.

Cabinet Office Strategy Unit (2002). *Risk: Improving government's capability to handle risk and uncertainty*. Full report - a source document. HM Government.

Chartered Institute of Management Accountants (2002), *Risk Management: A Guide to Good Practice*, CIMA Publishing, UK.

Garvin, D.A., Roberto, M.A. (2001). *What You Don't Know about Making Decisions*, Harvard Business Review, September 2001, 108-116.

Higgs, D. (2003). *Review of the Role and Effectiveness of Non-executive Directors,* Department of Trade and Industry, London.

HM Treasury (2001). *Management of Risk - A Strategic Overview*, The Orange Book, HM Treasury.

Kurtz, C.F. and Snowden, D.J. (2003). "The new dynamics of strategy: sense-making in a complex and complicated world", in *IBM Systems Journal 32(3)*, pp 462-483.

Perrow, C. (1999). Normal Accidents: *Living with High-Risk Technologies*. Princeton, N.J. Princeton University Press

**[Inside back cover]**



*The members of the Steering Group are:*

*Mike Nichols (chairman), Chairman & Chief Executive, Nichols Group*

*Neil Allan, Senior Lecturer in Strategy, School of Management, University of Bath*

*Roger Allport, Director, MRT Planning, Halcrow.*

*John Bennett, former Knowledge Manager, Institution of Civil Engineers*

*Michael Clark, Project Finance Manager, Royal Dutch Shell*

*John Davis, Reader, Dept of Civil Engineering, University of Bristol*

*Patrick Godfrey, Professor of Systems Engineering, University of Bristol*

*Adrian Jackson-Robbins, Senior Consultant, Davis Langdon LLP (on behalf of the Dept. of Trade & Industry)*

*Chris Lewin, Chairman, RAMP Working Party (and editor of this Guide)*

*Tony Ridley, Emeritus Professor of Civil Engineering, Imperial College, London*

*Contact details for the Steering Group: Marie Segui, telephone 020 7292 7003; Email: marie.segui@nichols.uk.com*

*There is an accompanying CD-ROM publication, Template for Change, which includes the full research report, case studies, more details of the STRATrisk tools, some conclusions from academic studies, and a reading list. Copyright of the research report rests with the University of Bath.*

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*Halcrow*

*Institute of Risk Management*

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*W S Atkins*

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