# Thinking about risk

## Managing your risk appetite: Good practice examples

November 2006

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# DEVELOPING A HEALTHY APPETITE FOR RISK [DTI]

**1.1** What's the best way of quantifying, communicating and practically applying risk appetite across an organisation? That's one of the questions that the Internal Audit Risk Support Team at the Department for Trade and Industry has recently been asking itself.

**1.2** The answer is important, because unless people understand what corporate risk appetite actually is, and how it impacts on the decisions they take, it makes it very difficult to embed effective risk management within an organisation.

**1.3** Risk appetite can provide consistency in the decision-making process. It enables people to take well calculated risks when opportunities arise that will improve delivery, and conversely, to also identify when a more cautious approach should be taken to mitigate a threat.

## Moving away from a risk-averse culture

**1.4** The trouble is that 'risk appetite' is not the easiest concept to get across even though people apply it each time they make a decision. Raising awareness of it and how staff need to align their own personal appetite to that of the Department's can help an organisation move from a risk-averse culture, to one where risk taking is more actively encouraged – but only where appropriate.

**1.5** DTI's Risk Support Team mulled the problem over, and together with the Department's senior managers, developed a number of tools to give DTI staff a better idea of what risk appetite is, and how it applied to their work.

**1.6** The first tool was a 'risk appetite matrix', which sets out on a single side of paper the different categories, (reputation and credibility; operational and policy delivery; financial / VFM and compliance – legal / regulatory), and the levels of risk appetite matrix also gives some practical examples of what the types of response could be.

**How hungry are you?**

1. Averse - Avoidance of risk and uncertainty is a key objective.
2. Minimalist - Preference for ultra safe options that have a low degree of inherent risk and only have a potential for limited reward.
3. Cautious - Preference for safe options that have a low degree of residual risk and may only have limited potential for reward.
4. Open - Willing to consider all options and choose the one that is most likely to result in successful delivery while also providing an acceptable level of reward.
5. Hungry - Eager to be innovative and to choose options based on potential higher rewards (despite greater inherent risk).

**1.7** The second tool was a standardised narrative, which would help senior managers to explain their appetite for different types of risk, and give some pointers to staff about how it should be interpreted in practice.

**1.8** The first Group to adopt the tools within DTI was the Services Group (now Operations Group). Having first used the matrix to identify what their risk appetite was in each particular category, Services Group management then used the narrative to explain to staff their decision.

## Packing a powerful punch

**1.9** The narrative isn't very long but it packs a powerful punch. After spending a few minutes reading through the Services Group narrative, for example, staff can say what the 'appetite' is in each area, and how, practically, it should affect their decision-making process.

**1.10** The Risk Support Team decided to circulate the Services Group narrative within the DTI, to give people a concrete example of what a narrative looked like, and how it could help them. Very soon afterwards, the Business and Innovation Group Board (now Enterprise and Business Group) followed suit, and developed a version of it for their area.

**1.11** Indeed, one of the independent members on the Group Board was so impressed by the matrix and narrative, he went on to implement DTI's approach in two limited companies and the Public Limited Company that he chairs.

## Innovation and Risk culture

**1.12** There's still some way to go before DTI achieves its aim of becoming an organisation which encourages innovation and risk-taking. That said, the matrix and narrative approach have really helped to increase the level of awareness about what risk appetite is, and the crucial role it can play in identifying new opportunities and performing more effectively.

**How to communicate risk appetite more effectively:**

1. Make it clear that risk appetite isn't an optional extra – when it's properly understood, it can help staff to be more confident about taking a particular risk, and more capable of managing it.
2. Try to explain it using practical examples – you need to show how it can be applied on a day to day basis.
3. Get buy in from the senior managers – if they understand risk appetite, then they'll be able to apply to their particular business area.
4. Keep communications with staff short, sweet and simple – use relevant practical examples instead of reams of theory.

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# 2 GETTING THE BEST BANG PER BUCK [DEFRA]

**2.1** When you are thinking about being able to cope with an outbreak of an exotic animal disease, such as Avian Influenza, simple questions such as 'How prepared do we need to be?' quickly get you into challenging territory.

**2.2** When staff at the Department for Environment, Food and Rural Affairs (Defra) started asking themselves this question, they realized that the answer ultimately depended on how much money they were willing and able to allocate to any particular risk.

**2.3** Of course, when you are dealing with things like disease, you can never fully eliminate the threat. So the question then becomes 'What level of residual risk are we really prepared to accept, and fund?'

**2.4** To help them find some answers, Defra initiated a project with IBM, which looked at two of the Department's riskiest policy areas: exotic animal disease and flooding. The aim of the project was twofold: firstly, Defra wanted to see whether different parts of the Department were handling risk in the same sort of way. If this wasn't the case, Defra then wanted to understand what this might say about their risk appetite.

## Best bang per buck

**2.5** IBM was asked to act as a facilitator, and initiate a discussion about risk appetite at various levels in the Department. To do this, IBM brought in a team that had a lot of experience with the economic assessment of risk.

**2.6** The overarching aim was for Defra to produce a framework that would allow its senior managers and ministers to calibrate their attitude to risk and then be able to make decisions about allocating resources that were more risk-informed. Or to put it another way, Defra wanted to find out where they could get the 'best bang per buck', in terms of risk reduction.

**2.7** As well as comparing the situations across their different policy environments, Defra also looked at whether they could improve on the way money was being spent within each area. For example, if they had an extra £1 to spend, would they be better off spending it on improved early warning or surveillance activities, or would it be better off going towards introducing more controls, or developing Defra's emergency response?

**2.8** And, what if they had £1 less? Which cuts could Defra make that would have the least impact on their exposure to risk?

## 'Systems thinking'

**2.9** To start answering all of these questions, Defra used a 'systems thinking' framework. They brought together experts in each policy area to identify the key factors that would affect the likelihood of a flood event or an outbreak of animal disease, as well as the scale of its impact.

## Doing the legwork

**2.10** The information on the likelihood and cost of particular events occurring was gleaned from a range of sources.

**2.11** It was much more straightforward to find the required information on the floods side, as Defra could just plug into the Environment Agency's National Flood Risk Assessment model. The model calculates average damages, by taking the likelihood of flooding in areas of the floodplain for a whole range of flood events of different magnitudes. The risk appetite team then checked and calibrated that information against historic data, including some data from the insurance industry on costs.

**2.12** On the exotic animal diseases front, Defra had to do a bit more legwork. They decided to use historic information on outbreaks in the UK, and then to augment that information with data from European countries. Lastly, they tapped into expert opinion on the likelihood of outbreaks happening today, and the potential size of any outbreak, and recorded the various key assumptions that were made along the way.

**Some of the factors affecting Defra's risk appetite:**

- Differing incentives – Flood risk is insurable, but there is limited cost-sharing in the animal disease arena.
- Differing legislative drivers – Defra's appetite for risk on the part of exotic animal disease is largely driven by EU legislation.
- Differing view of intangibles – Why flooding happens is much better understood than the science behind animal disease, so when things go wrong, there are normally fewer public health or food chain concerns.
- Differing delivery mechanisms – Risk appetite can be affected by the degree to which the emergency response, and associated risks, particularly the reputational ones, are retained in-house.

**2.13** Defra then developed risk profiles for each policy area, which gave them a visual presentation of the probabilistic exposure to the top ten exotic animal diseases and to flooding.

**2.14** As a result, Defra was able to build up a clear picture of the mean average annual costs to the economy of flooding and exotic animal diseases, as well as the likelihood and size of the worst-case scenario.

**What is a 'risk premium'?**

Where the annual investment in a policy area is more than the mean annual cost to the economy, you are paying a 'risk premium'.

**2.15** The risk profiles also helped to highlight how the introduction of new policy measures by Defra had dramatically reduced their worst-case scenarios, particularly for animal diseases such as Foot and Mouth Disease.

## A better evidence base

**2.16** Thanks to their work on risk appetite, Defra is developing an enhanced evidence base that should stand them in good stead throughout their discussions with HM Treasury about their future spending plans. It's also helping Defra and its delivery partners to better understand their levels of resilience, and the resources that are required to maintain or improve them.

**How to use a 'systems thinking' framework:**

1. Map out the levers in the system which are the really key ones in terms of driving likelihood and impact.
2. Then ask the following questions:
   - Which levers are within our control, and which ones are less so?
   - How does the money currently flow through the system?
   - Where are we currently investing most?
3. Dig up as much relevant information and expert opinion as you can, but…
4. Avoid information overload. Use visual presentations to make your key findings as easy to understand as possible.

For further information please contact Edgar Black at: Edgar.Black@defra.gsi.gov.uk

# 3 Getting your house in order [Companies House]

**3.1** Although Companies House had a process in place to manage risk before 2003, it covered the Main Board and Projects only, and tended towards documenting risks rather than actual risk management. There was a single risk register for the main board – with 50 risks on it.

**3.2** Some of the risks had been there for a couple of years, and once a risk was added to the register, it tended to just sit there. The problem was that no-one within the organisation really had a clear idea of what counted as a high or critical risk.

**3.3** If in doubt, they escalated the risk up until it reached the Board's risk register. The Board consequently had so many different risks competing for their attention, that it was hard to prioritise them. It was clear that something needed to change.

## Embedding risk within the organisation

**3.4** In 2003, Companies House took a long, hard look at the way it was managing risk, and decided instead of just escalating risks all the way up to the top, staff at every level of the organisation needed to learn how to manage low and medium risks themselves.

**3.5** As well as developing a new corporate risk management policy, Companies House also developed a set of objective measures, which could be applied by both junior staff and senior management to see which risks really were important enough to be escalated up.

**3.6** Before these definitions were introduced, staff and their line managers often found it difficult to look at risks at a 'corporate level'. Afterwards, they had a common benchmark which could help them to judge what risks were really important.

**3.7** Lastly, Companies House worked across the organisation to educate staff about the importance of looking at the potential benefits and costs associated with any given risk. The message was clear: we don't take risks for their own sake; we take risks because of the potential benefits to be had if they work out.

**Risk Appetite:**

**Low risk** – should be monitored in accordance with the risk management policy, but management and staff are encouraged to minimise the amount of time, effort and money being spent on managing this particular risk.

**Medium risk** – should be managed locally, in accordance with the risk management policy, but escalated if its impact or probability are increasing.

**High risk** – the Board should decide whether the benefits outweigh the costs, and the risk is worth taking.

**Critical** – Taking the risk should be avoided.

## Three year plan

**3.8** The Assurance, Risk and Consultancy team at Companies House decided to implement the organisation's new approach to risk over a few years, primarily to give staff a chance to get used to the new way of working and make it a cultural as well as process change.

**3.9** In some instances, particularly on the project side, staff already had experience of risk management, and had to be re-educated using the new policy and definitions, selling them the benefits of a different approach, and in particular new definitions of risk.

**3.10** Most of the remaining staff were new to risk management, and the Team worked hard to keep them engaged and interested in the new processes long enough for them to start bearing fruit.

**3.11** The first year, the Team ran risk management training sessions and workshops for all team leaders and above. The second year, they invested in some new risk management software, made it available on the intranet and encouraged the project management teams to start using it. At the same time, they continued their regular staff training sessions and workshops on risk management.

**3.12** By year three, they'd rolled out the full risk management strategy and policies, and had finished re-working the organisation's appetite for – and definitions of – risk.

## Finding a common language

**3.13** The biggest benefit of introducing the new risk management system for Companies House is that staff at every level of the organisation now speak a common language. Staff at every level can now recognise a critical, or high risk, and know when that risk should be escalated up to the board, or when a risk should be dealt with locally.

**3.14** As a result, the number of risks on the Board's risk register has dropped from 50 to six, which means that it's much easier for the Board to prioritise and deal with them. There is now continual movement on the risk register, with risks regularly being identified, managed and reduced.

**Disaster Recovery**
Disaster Recovery was on the Corporate Risk Register for two years before the new system was introduced. The new approach demonstrated to the Board the importance of this risk, and they gave it a high priority for action.

As a result, Companies House made the decision to recruit someone to manage it and made IT and accommodation changes to improve our resilience. Within a year of the new system being introduced, Disaster Recovery was taken off the Corporate Risk Register. It had been prioritised, and successfully dealt with.

**How to embed effective risk management at every level:**

1. Be patient. Whilst processes and organisation structure can be changed quickly, it will normally take between three and five years to change people's behaviour and the culture of the organisation.

2. Start with a simple process that people can understand, and then build on it as you go along.

3. Get buy-in from senior management, and make sure that they are practising what they preach. If the CEO doesn't understand or appreciate the real benefits to be had from good risk management, then it's unlikely that you'll make any real progress further down the organisation.

4. Get good advice about what sort of risk management systems and procedures to adopt – but just don't copy someone else. Risk management will only work in the long term if it has been adapted to each organisation's particular culture, aims and resources.

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