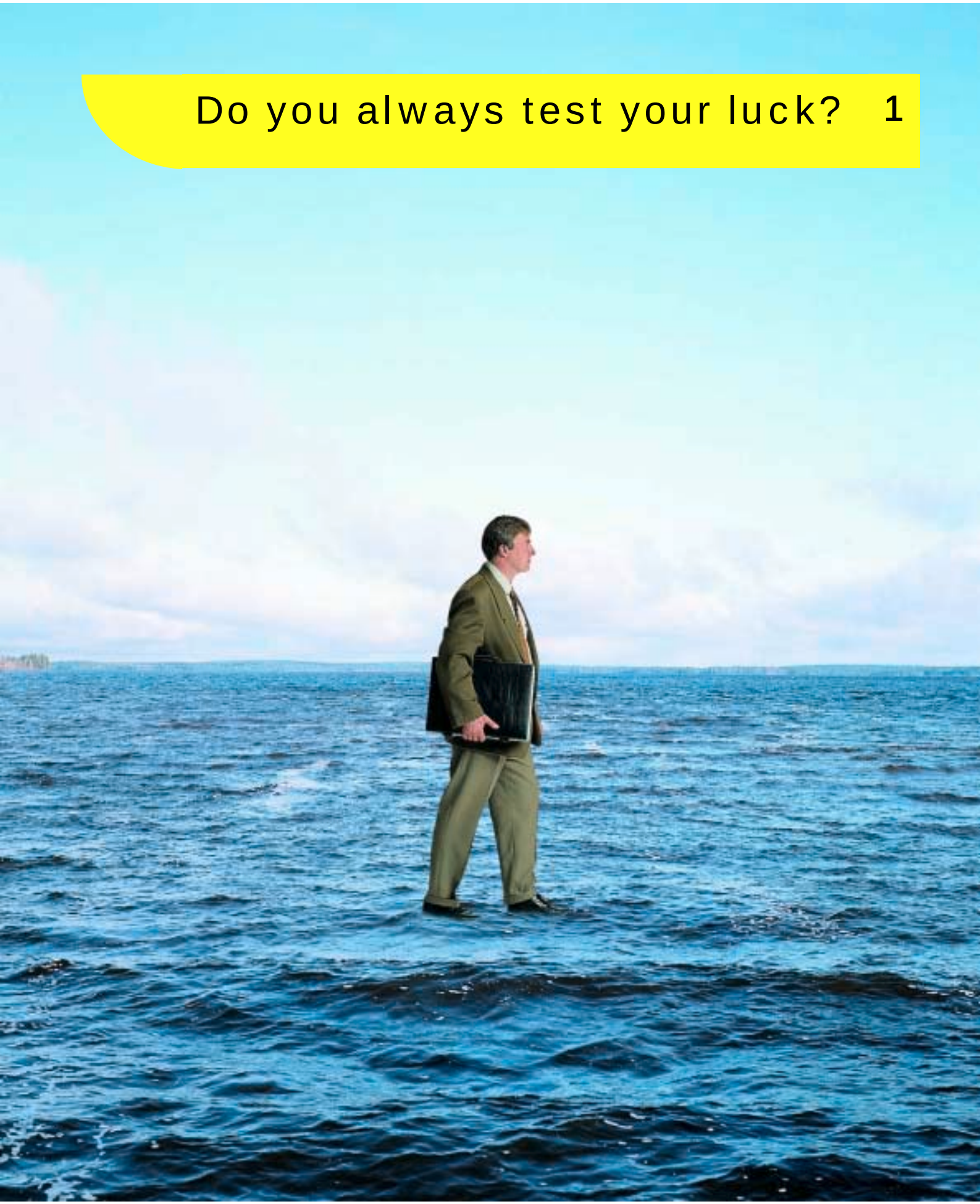
Do you always test your luck? 1



Risk Management Basics

for SMEs and Employees

SME
Risk Management
Toolkit

This Toolkit has been developed and amended for the UK by the Institution of Occupational Safety and Health (IOSH), from an original concept by VTT, Finland.

The Toolkit is mainly funded by the European Agency for Safety and Health at Work.

RM Booklet 1
April 2002

Do you always test your luck?

Contents

Risks can be influenced

The message of this booklet is that

Accidents are unnecessary – they can be avoided!

Losses are unnecessary – they can be avoided!

Waste is unnecessary – it can be avoided!

Interruptions in operations are unnecessary – they can be avoided!

Does this sound impossible? Although things don't always go as well as planned – it is possible to prevent accidents or minimise their effects.

How? This booklet provides basic information necessary for risk management in SMEs. Because everyone's input counts in a small company, this booklet is intended for all those who work in SMEs. We hope that it helps and inspires you to begin practical actions for the management of risks!

What are risks?

Threats and opportunities

Things don't always go according to plan: a company's sales manager changes employment in the middle of an important project, a packaging machine breaks down, business premises are stained with graffiti during the night, a lathe operator breaks his leg during a skiing holiday, a subcontractor goes bankrupt…life is full of surprises.

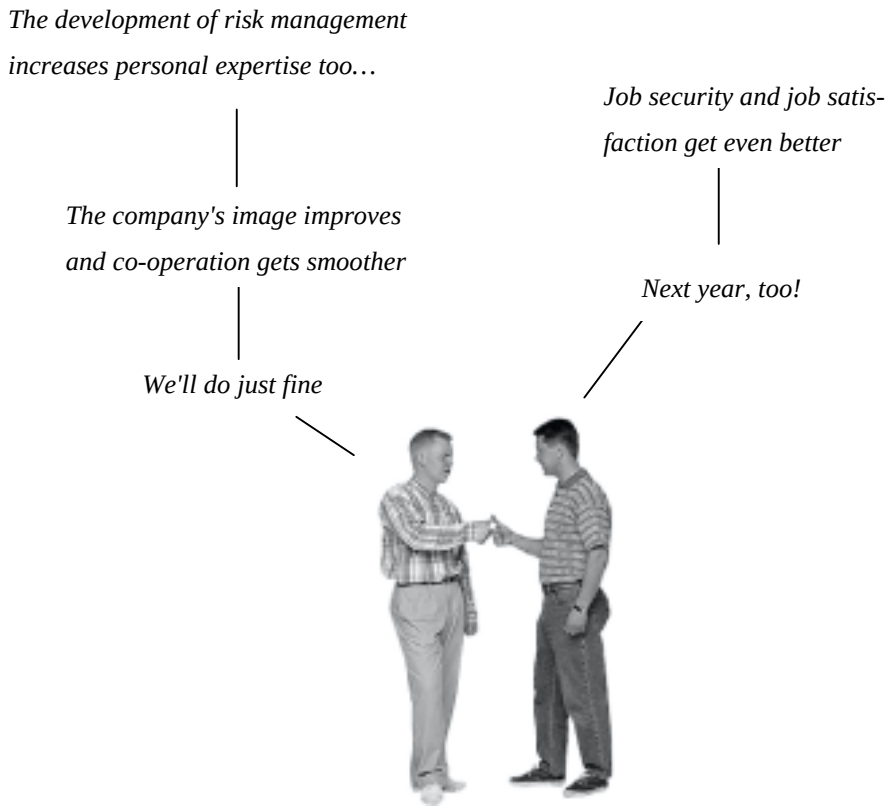
People cause almost all risks**, and they can be influenced**. Fate is not involved. Natural phenomena such as lightning, storms and rain sometimes cause damage, but it is possible to protect against these, too, and to be prepared for their consequences.

When harmful events occur, it is often due to the fact that there has been a lack of skill and awareness training to prevent them. Risks are also sometimes taken deliberately. We know taking shortcuts can lead to trouble – but the chance to save time and effort is tempting. Quite

often things go well, but every now and then, **risk taking** inevitably leads to accidents. The likelihood of harm occurring and the severity of the consequences is called **risk**.

Business risks are an integral part of business activities. For example there is always uncertainty concerning consumer response involved in the sale of products. On the other hand, taking a business risk may provide an opportunity for success. Good business risk management improves the **chances of success** and reduces the consequences of failure.

Risks should be assessed and kept under control. In unfavourable circumstances, even a minor disturbance could set off a **chain of events** that may threaten the existence of a company. In this respect, small companies are more vulnerable than large ones. Sorting out problems can fully occupy a company's few key personnel. They often don't have the time or expertise to manage the situation so that the company survives. The narrowness of decision making, clientele or range of products of a typical small company significantly increases the risk of failing.



A small engineering workshop is dependent on the expertise of its key personnel: the machinist, managing director and designer are each responsible in their own way for the company's success. If their ability to work is reduced, the company's operations become more difficult. Threats to work ability, such as accidents and stress, must be managed.

A subcontractor to a car factory had only one product. Due to manufacturing faults the subcontractor lost its reputation and its contract was terminated leading to bankruptcy. To prevent such events, the condition of machinery and the product quality control should not be neglected. A wider product range reduces the risk caused by reliance on only one product.

A company's machinist fell ill and the company didn't have anyone to take their place. An important order was not delivered - the customer could not tolerate this and changed to a new supplier. The company, unable to find new customers, went bankrupt.

Many types of risks – in all activities

Risks are divided into categories – **risk types** – based on their character and on the activities of the company they can affect. Many risks belong to more than one category. Categorisation makes it easier to identify hazards and manage risks. Some typical risk types are listed in the table below. Which of them apply to your own work?

Risk type	Examples	Possible consequences
Personnel risks	• Accident • A key person leaves • An entrepreneur is overburdened	• Loss of work input • The company loses important expertise • Ability to work is reduced
Business risks	• Demand for a product decreases • Disruption in a customer's payments • Production capacity doesn't correspond to a customer's needs	• The company's finances can't take it • Anticipated income doesn't arrive • The customer changes supplier
Property risks	• A fire in a production facility or shop • Water leakage spoils the company's stocks • A machine breaks down	• Sizeable damage, business operations are interrupted for several months • Production and deliveries are disturbed • Production is interrupted
Information risks	• A computer's hard disk breaks down • The customer register is sold without permission • The company's information is accidentally leaked	• Order data is lost • The company's reputation suffers. A competitor steals the customers • The company's competitiveness suffers
Operational liability risks	• An employee makes a mistake with a product or service • An agreed delivery is delayed	• Liability for damages to a third party • The company has to pay a contract penalty
Product liability risks	• A product causes damage • A faulty product has to be withdrawn from the market	• The company has to pay compensation • Financial loss, the company's reputation suffers
Interruption risks	• A power cut interrupts production • A delivery from a subcontractor is delayed • A load of raw material is stopped at the neighbouring country's customs	• The company's operations are interrupted • Production is interrupted • Capital is tied up, production is interrupted
Transport risks	• A product is broken during transport • A transport vehicle is stolen	• Financial loss • Deliveries are disturbed
Environmental risks	• An oil container breaks • Packaging proves to be unsuitable for recycling	• The company's reputation suffers and the company becomes liable for damages • Sales to an important export country are interrupted

Some risks are common to almost all SMEs. For example, all small companies are dependent on their key personnel's ability to work. Some of the risks are specific to certain sectors, and may also vary as times and situations change. An owner of a clothing store can worry about changing fashion and unsold products, whereas an owner of a service station may be

concerned about nightly thefts and tough price competition. A new enterprise, on the other hand, may be threatened by different issues to those of a well-established company.

Safety and security through risk management

Risk management improves a company's chances of success. Small companies need to focus their limited resources efficiently in order to control their risks. When hazards are identified and their associated risks eliminated/minimised, disturbances and interruptions are reduced and the efficiency and quality of production improved. In this way, unexpected accidents and the costs they cause can be reduced. The process of risk assessment helps workplace operations to become better understood - it raises awareness of the hazards and identifies where improvements should be made.

Employee competence can be improved by taking part in the identification of hazards and control of risks. A greater understanding is gained of work tasks. Once the causes and effects of hazards have been learned, employees are better able to analyse their work and its relation to the company as a whole. This improves **job satisfaction**, increases potential for professional development and supports the acquisition of new skills.

When risks are reduced, the work becomes **safer** and jobs **more secure**. A company that knows its risks and has them under control is also better prepared and able to operate after an accident has occurred.

Well carried out risk management also has an influence on a company's image and customer satisfaction. A company that manufactures high-quality products, knows how to market them and has its risks under control, gains the trust of its customers. It is not possible to manage in modern business life without conscious risk management.

What is risk management?

Risk management strives to ensure the continuity of a business and the well being of its employees. Risk management covers all actions that aim to reduce the adverse effects of risk on a company. Good risk management is **conscious, planned and systematic**. Risk management is both **planning and practical action**, in which proven measures are put into practice as well as 'common sense'. The management of risk potentially effects the well being of all employees and so should be a joint effort.

Risk management consists of distinct stages:

1. **Identification of hazards and evaluation** of risks: What are all the things that could possibly happen? Why can they happen? What can follow? How large is the risk? Which risks are largest?

Risk assessment must cover all of a company's operations - this means making a 'rough' or initial assessment of your activities, to identify the significant areas of risk. Once these areas of risk are identified they can be prioritised, so that the highest risk areas can be fully assessed first. In practice, this means one part of a company's operations or a significant risk-type is examined first, such as significant risks related to product development or transport. The work is then continued in priority order according to the level of risk established by the initial assessment.

2. Risk **control planning and measures**: Thought is put into how accidents can be avoided or their consequences reduced. Practical control measures are implemented to reduce risks.

Adopting safer working methods, by ensuring there is safe plant and equipment and by maintaining a safe work environment can prevent accidents. Insurance is required in the event of an accident, in order to ensure compensation for the injured or to cover other financial losses, e.g. in the case of a fire.

3. Planning for **actions to take in the event of an accident and how to recover**

Some risks can't be completely eliminated. It makes good business sense to prepare for adverse events, to make sure that safe and appropriate action will be taken to limit damage and re-establish normal operations as soon as possible. In the event of a product fault, for example, you will need to have planning and preparations in place for withdrawing the product from the market.

4. Review the situation and **learn** from the accident that resulted: How are things working in reality? Situations change, and so do risks. Do your controls meet present and future challenges?

Companies often monitor issues such as the number and cause of product faults and absence from work. It is possible to learn from accidents and it is well worthwhile. Near misses, too, should be monitored and analysed. Only the consequences were missing this time!

Risk management is a joint effort. Everyone has responsibility for risk management of their own work.

Responsibility can't be taken without the means to shoulder it. Risk management requires the development of expertise and commonly agreed rules at the workplace.

Everything starts with hazard identification

Hazard identification is the starting point of risk management. Unidentified hazards cannot be managed.

Hazard identification requires **co-operation**. In a company, people have different roles: some direct and co-ordinate whilst others do more practical work. The identification of hazards requires expertise and experience related to the activity concerned. Even though people are often 'experts' in their own work, experience can sometimes be a hindrance when identifying hazards. People can get used to the hazards involved and become complacent about the risks. Examining the situation with others often helps to give a fresh insight into how things really are.

Differing views concerning what kinds of issues are critical to a company's operations can arise. Discussing risks and examining the company's vulnerability from various angles –by involving different people – helps achieve **mutual understanding** and support for future decisions and control measures.

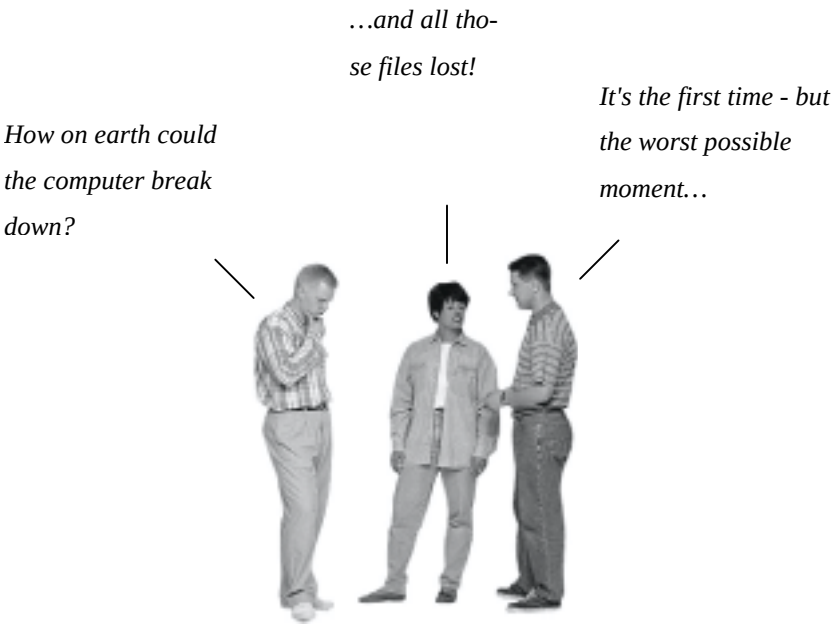
Co-operation requires proper **meeting practices**. The person in charge of the meeting should be knowledgeable about risk management and the tools that are involved. All identified hazards should be written down for the planning, implementation and monitoring of control measures.

The identification of hazards should not be limited only to the obvious hazards. It is also important to expose the **hazards that may not be apparent in everyday work** e.g. maintenance activities, emergency situations, etc.

Think about and examine problems as they occur – to find out the underlying causes.

Accidents are often due to several contributory factors that occur at the same time. **Coincidences** are not common, but the possibility should always be taken into consideration.

What do we do if the bottling machine breaks down when the maintenance man is on holiday and can't be reached?



How to identify hazards

'Unidentified hazards cannot be managed'.

A critical and unprejudiced attitude is a good foundation for the identification of hazards. In addition, tools are needed to ensure that the examination is comprehensive and systematic. A variety of methods and tools have been developed for hazard identification support. The process usually starts with **rough charting methods**, which provide a general picture of the company's present situation. These methods also help to find the hazard areas that should be examined with more detailed methods in the next stage. In this way, the identification advances from a general to a more detailed level. From time to time, the general situation should be re-evaluated with the rough charting tool used in the first stage.

Checklists

Checklists of hazards need to be comprehensive if they are to be useful. We have listed typical hazards (you can add more if you wish) in our checklists and you can use these checklists to help you estimate the significance of the hazards.

Fire hazards in the workplace can be examined using a checklist of the different contributing factors, e.g. the flammability and storage of materials, possible sources of ignition, fire-fighting equipment and fire exit routes, etc.

Hazard identification/analysis methods

When identifying hazards it is sometimes necessary to look systematically at the component parts of a job or process in order to establish whether they could represent a hazard, either individually or in combination with each other. In the analysis, the object of examination (e.g. job or process) is usually divided into small sections, and the hazards in each section are identified. Checklists or lists of key words are often used to assist identification.

Hazards related to a device can be examined by looking at the circumstances in which it is used, stage by stage. When do hazards occur? In which situations can problems occur during its use? What if some part of the device breaks down? Are all hazardous parts protected in case of unexpected conditions or passers-by?

When assessing the hazards related to a work task, the task is divided into stages. Hazards are examined stage by stage. Unusual situations and coincidences are also brainstormed during the process.

The dependencies of a company can be analysed by plotting its business network. Examining this network helps to assess a company's dependency on financers, subcontractors and other partners. What happens if one link in this network fails?

It is often necessary to use specialist services when conducting complex hazard analyses – particularly if the hazards, such as information or environment, are not very well known. Specialists are familiar with the analysis method and the general principles of risk management, and they know the hazards in their specialist fields. Further information about different methods of analysis can be obtained from insurance companies and health, safety and risk management consultants.

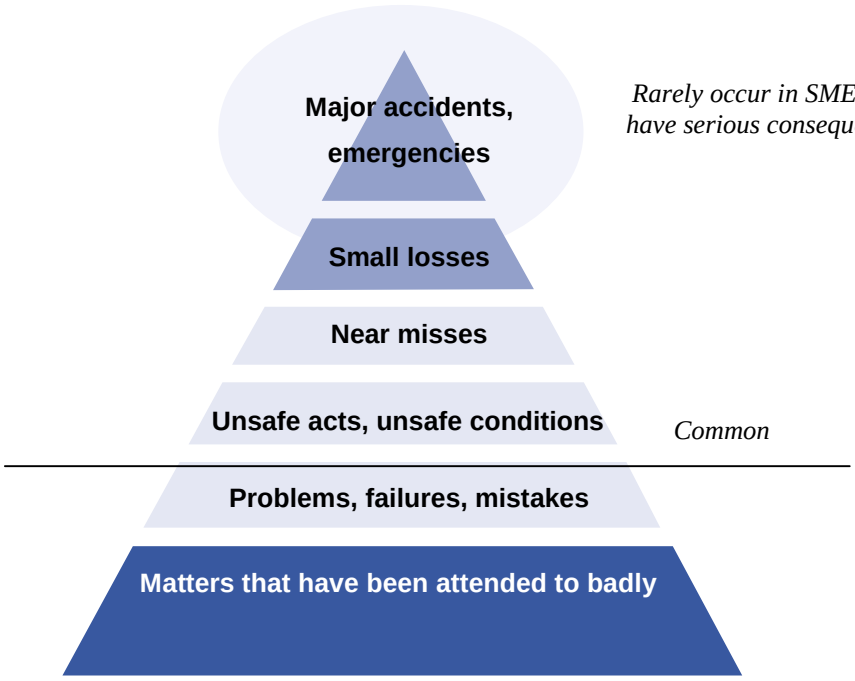
Gathering experiences and statistics

Hazardous events have probably already occurred in your company or similar companies. It is important to make use of experience-based information to support the decision making process of your own risk management system. Enforcing Authorities, insurance companies, trade associations, etc. may be able to provide this kind of information. In your own company, you should retain information about incidents that have occurred, including any near miss events. The lessons of these events must be learned and applied - it is never enough that employees only know that an incident occurred!

Many companies keep records concerning occupational accidents and ill health..

Even minor incidents, and near misses are worth analysing. In slightly different circumstances the consequences could have been serious. Is this kind of information gathered in your company? How is this information used?

Do you know of problems in other companies in your vicinity or business sector? Hazards related to storage, transport and crime, for example, may be common to many businesses.



Many problems, big and small, have the same or similar underlying causes. By monitoring small problems and analysing their causes, it may be possible to find causes for serious problems and hazards, and therefore to prevent them.

Evaluating the level of risks

Risk = severity of harm x likelihood of harm

When risks are systematically assessed, it is common to find more problems than can be fixed all at once. It is important to prioritise and tackle your biggest risks first.

The level of risk is determined by its likelihood and the severity of the harm. The table below can be utilised for risk estimation:

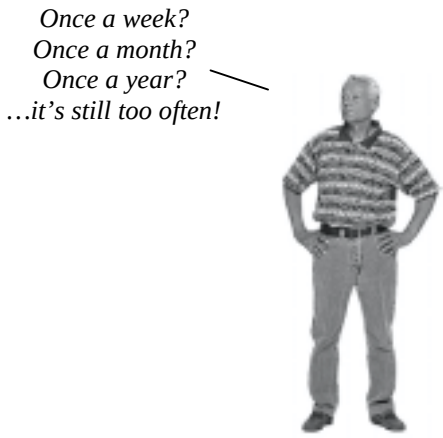
The likelihood of the harm	The severity of the harm		
	Slightly harmful	**Harmful**	**Extremely harmful**
Highly unlikely	1. Trivial risk	2. Tolerable risk	3. Moderate risk
Unlikely	2. Tolerable risk	3. Moderate risk	4. Substantial risk
Likely	3. Moderate risk	4. Substantial risk	5. Intolerable risk

NB 'Tolerable' here means risk has been reduced to the lowest level reasonably practicable

(Source: based on BS8800, Annex D)

When evaluating the level of a risk, attention should be paid to the following issues:

- **How often** do situations occur in work where accidents are possible? What contributory factors could be involved? These could be rushing for example, poor working conditions or difficult-to-use machinery
- What are the consequences of the accident likely to be? What could happen **in the worst case**? If an employee slips or falls over, there is a spectrum of possible outcomes, from being unhurt to being seriously injured or killed. In the business world, a small delayed payment can lead to years of problems when trying to acquire credit.
- **How far** do the consequences of the accident reach? How many people, tasks, machines, customers or product batches, are affected?
- The **indirect effects** of accident are often much greater than the immediate effects. If a computer breaks down, for example, repair costs may be relatively small, whilst the business interruption costs could be significant.



Risk control methods

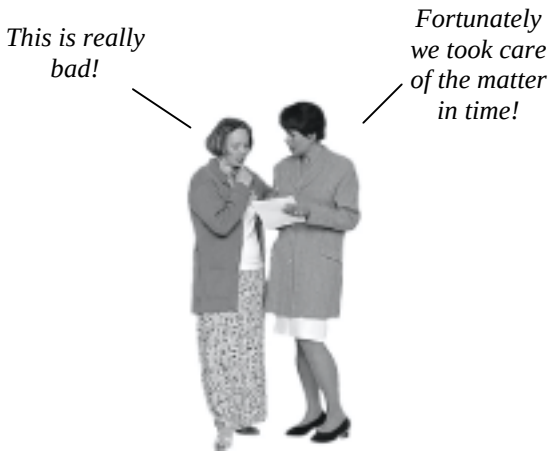
There are many ways in which risks can be controlled. Primarily, the aim should be to prevent loss or minimise the adverse effects of the risk. In health and safety terms this means preventing accidents or reducing their effects. The required control measures depend on the level and type of risk. Control measures can be planned with the help of the following table:

Risk level	Control measures required to reduce the risk
Trivial risk	• The risk is so small that no control measures or records are needed
Tolerable risk	• Control measures are not necessarily needed • Consider better solutions that don't cause extra costs • The situation should be monitored to keep the risk under control
Moderate risk	• Control measures should be taken to reduce the risk. A suitable timescale can be planned for implementing the controls • The cost-effectiveness of the control measures should be carefully considered • If very harmful consequences are foreseeable (such as serious injury or fire in a production facility) the probability of the event should be re-examined more thoroughly.
Substantial risk	• Work should not be started until the risk has been reduced. • Considerable resources may be needed to reduce the risk.. • Where work is in progress, urgent action should be taken to reduce the risk.
Intolerable risk	• Work should not be started or continued until the risk has been reduced – regardless of the cost of the control measures.

NB 'Tolerable' here means risk has been reduced to the lowest level reasonably practicable. Based on BS8800.

Risk control should start with cost-effective control of the greatest risks to the organisation. How much can you reasonably afford to invest in different loss prevention measures and insurance? An entrepreneur in a small or medium-sized business estimates risk costs as a whole – he or she has to consider how much risk management costs and what kind of benefits it can achieve.

Control measures that eliminate or reduce risks are referred to as accident or loss prevention. Typical risk management methods are listed in the following table.



Methods	Examples
Avoiding the risk	• Careful vetting of potential business partners • Avoid driving when the roads are icy - postpone non-essential journeys until it is safer to drive.
Reducing the risk	• A fire alarm system and fire doors are installed in a warehouse • Security against break-ins is enhanced • Machines are kept in good working order • Software backup copies are made • Good housekeeping is maintained in the workplace • Safe working procedures are developed and employees suitably trained. • Back-up staffing arrangements are made in case of illnesses.
Transferring the risk	• A contract is made with a trustworthy and skilled subcontractor to carry out potentially hazardous work safely. • Fire risk is transferred to an insurance company through insurance.
Keeping the risk	• Risks are a part of business. Some risks are kept and any losses are absorbed by the company (this can happen if risks are not fully identified).

Principles of risk prevention:

• Accidents attributed to **human error** are often caused by **job factors** (e.g. poorly designed/maintained equipment) **individual factors** (e.g. low competence levels) and **organisational factors** (e.g. poor management and work planning). Human beings make mistakes, this should be anticipated and the consequences mitigated.

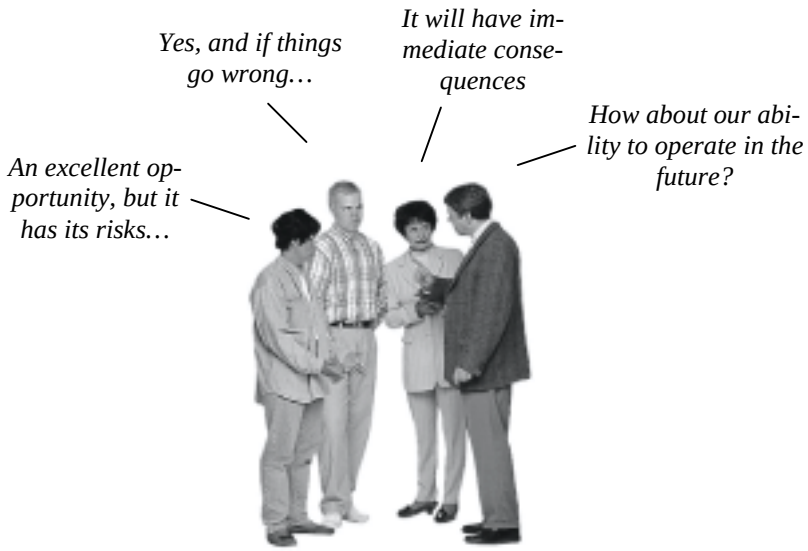
• Accidents are often due to **a chain of events**. It is best to influence the beginning of the chain, i.e. to eliminate the causes of the problem.

• Hazards should be **eliminated in advance** (i.e. designed out).

Hazards should be taken into consideration when new things such as new factory buildings are planned. Correcting defects later on is always expensive and laborious.

• Accident prevention control measures can positively influence both the **likelihood of harm and its severity**.

• Different risks, and levels of risk, require different approaches. You should **always insure against high risks that can affect a company's operations**.



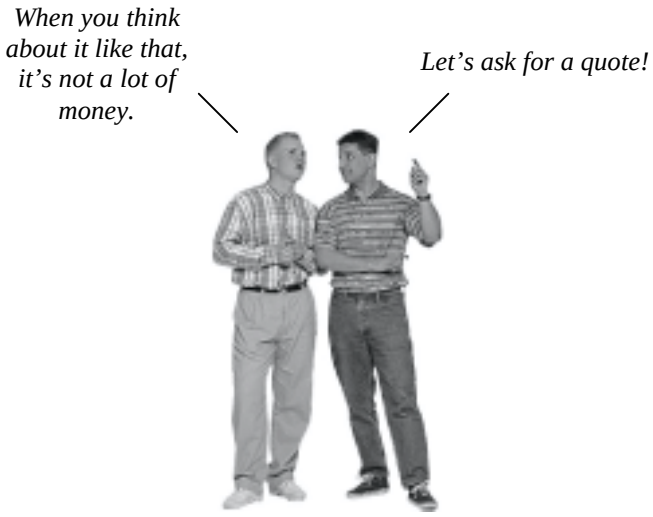
Insurance is important

Perfect protection against losses is not possible. However, it is possible to share the financial effects of many risks through insurance. Insurance is sensible **when a risk is too big to be carried by a company alone** and it can't be sufficiently reduced by other means. Employers are legally obliged to have 'Employers' Liability Insurance' and should also consider other types of insurance such as, Product Liability, Public Liability, Property, Transport, Engineering Insurances, etc.

Not all risks are worth insuring. A company can **deliberately** choose to carry a small risk itself. Minor vandalism is a good example of a small risk. On the other hand, almost all companies take out insurance against accidents, fire, etc. It may be advisable to consult a registered Insurance Broker, who will be able to offer an 'insurance package' to cover all your insurance needs.

Insurance doesn't prevent hazards and cannot rectify all the consequential harm. However, compensation from insurance and the services related to it can help smooth the way through the crisis.

Tips for insurance	
• Analyse the risks before insuring! • Try to eliminate hazards and reduce their effects before taking out insurance. • Make sure that the insurance cover is tailored to the needs of your company. • Beware of the dangers of under-insurance! • Utilise inexpensive combination insurance for property, liability and interruption risks. They are usually more expensive if purchased separately. • 'Shop around' for a good quality, competitive quote.	• Be consistent, however - repeatedly changing the insurance company seldom provides significant benefits. • Renewal time is not the only time when insurance issues are worth considering. Project launches and planning significant changes, for example, are other good opportunities. • The expertise of insurance companies is worth exploiting! Familiarise yourself with services and use them. • Remember your personal insurance cover, both in work and leisure time. It is worth considering additional pension insurance.



Risk management in SMEs

Are you aware of legislation and regulations?

Legislation sets the minimum standards for compliant operations and is thereby helpful in risk management – **requirements can be useful!** By operating in accordance with regulations, it is also possible to reduce the risk of legal consequences if accidents occur.

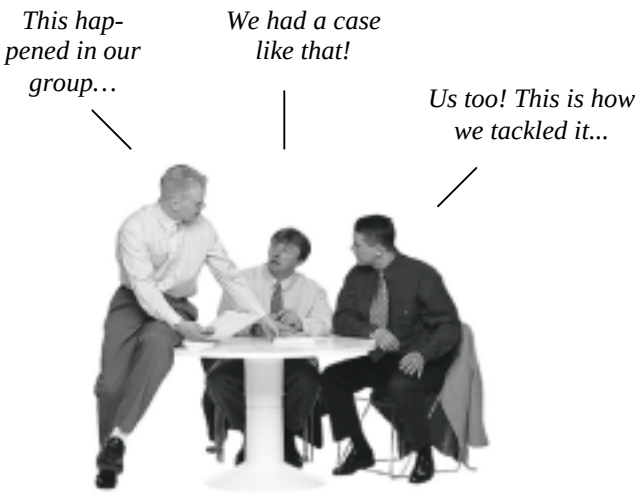
In addition, following regulations that concern operations and products sends a positive message to customers, business partners, employees and other stakeholders about the company's responsible attitude towards common rules. Does your company demonstrate this?

Risk management makes it easier for a company to meet its obligations. For instance, Health and Safety and Product Liability legislation places strict obligations on companies and ignorance of the law is no defence if accidents or damage occur. Systematic risk management helps you to keep up to date. Moreover, legislation offers you **protection** by placing similar obligations on your customers, suppliers, competitors and employees.

Risk control through co-operation

Risk management is the responsibility of a company's management. However, practical control measures require **the input of all employees**. The range of risks is wide, and it varies according to a company's continuously changing operational environment. This is why the experiences and ideas of everyone should be exploited in a small company.

Logically, the input from employees is greater in the management of risks related to their own work and work environment. Group meetings offer an effective way to harness the ideas and experience of employees, in order to 'brainstorm' for all potential hazards and control measures in the workplace.



Risk management is a part of daily work

Risk management is carried out continuously **as part of our daily work**. Periodically, you should consider whether any aspects of your work could be harmful to yourself, others, a product or the company. Also when starting a task, you might take a moment to remind yourself about what will happen if things don't go according to plan and what you will do.

In daily work, risks can be considered at different times:

- Risks can be the theme of workplace or quality meetings.
- Risks can be discussed in normal conversations.
- Risks should be taken into consideration in work instructions.
- It is possible to learn from accidents that have occurred in other companies by discussing whether the same thing could happen in your own company.
- When planning new projects and orders, you can take time to consider what can go wrong.
- Everyone can use their own initiative to consider issues that affect the quality and safety of their own work.

Using specialists

Risk management is the duty of management. The greatest benefit can often be achieved by starting the risk management process using in-house resource. However, the company's own expertise may not always be sufficient and in these situations it is best to contact a specialist.

Risk management specialists:

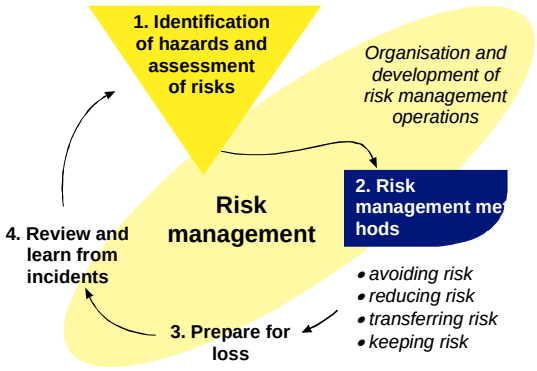
- **Insurance firms** - an insurer is a company's natural partner in risk management. An insurance firm's own resources provide limited assistance, but it can usually refer a client company to a suitable specialist or provide other advice.
- **Enforcing authorities**- the Health and Safety Executive and Local Authority Inspectors can offer health and safety information and guidance.
- **Private consultants** - consultants often specialise in particular aspects of risk management. You may wish to use a consultant who belongs to a recognised professional body.
- **Company networks** - often, companies operate together as a network e.g. Trade Associations, Chambers of Commerce, etc. This makes it possible to utilise specialists from member companies or arrange joint risk management operations.

Specialists know their field – do you know how to find one?

The development of risk management

Risk management and its development don't need to be difficult and laborious. In the **SME Risk Management Toolkit** this vast, and sometimes difficult-to-manage issue has been divided into small parts that can be managed with reasonable effort. The Toolkit consists of **small and simple tools** that make it possible to get started with risk management immediately and begin the development of risk management, step by step.

The **SME Vulnerability Analysis work card** is suitable as the first tool. With this card, the **risks in an SME are examined as broadly as possible**. The aim is to get a general picture of a company's risks and to find the areas of risk management that need looking at first. After this, risk management can be continued by utilising more detailed risk-type **specific work cards** or booklets, and by taking action to manage the biggest risks first. Periodically, you should check the overall risk situation again with the rough analysis method used in the first stage. In this way, risk management and its development form a circle (a continual improvement loop).



By using simple tools, it is possible to progress risk management with very little investment e.g. a single meeting isn't an unreasonable commitment of resource even in a small company. It is also **easy to customise** risk management to suit the company's needs: the most suitable tools are selected and their use is integrated into the company's other operations, such as weekly meetings or quality surveys. The Toolkit includes methods for more complex risk management. There is a more comprehensive booklet version of the SME Vulnerability Analysis work card, for example, which can be used to identify a company's risks in more detail.

Introducing new tools always requires some training for the participants. It's good to start **getting familiar with risk management** with this basic booklet. For those who require further information, the Toolkit contains many data cards and some instruction booklets on a variety of risk areas, such as personnel, business, product, information and crime risks.

For **those in charge** of risk management meetings in SMEs, the Toolkit includes materials to support the planning and implementation of training and group work, and for the assessment of a company's risk management operations.

And now, let's get to work...

SMEs have always striven to manage their risks. Risk management is a part of good practice in engineering and accounting and, more generally part of **a mature and responsible attitude towards work**. Companies are becoming more aware of the importance of risk management and entrepreneurs are increasingly considering risks and how to protect against them.

We hope that this booklet gives employees the resources they need to participate in this work. In this way, the risks of companies and their employees – all of us – become better controlled.

A pessimist believes that nothing can be done. An optimist, on the other hand, believes that nothing will go wrong. A realist knows that something may go wrong but that the situation can be managed. **Risk management is realism**, and it acts as a necessary counterbalance to a company's other best resource, optimism.

We wish you every success in co-operative risk management!

Sources of information and advice

There are different sources of **business information** and advice for different areas of the UK:

England: www.businesslink.org

Highland Scotland: www.bis.uk.com

Lowland Scotland: www.sbgateway.com/index.asp

Northern Ireland: www.ledu-ni.gov.uk

Wales: www.businessconnect.org.uk

For **health and safety** information and advice you can contact:

HSE Information Line: 08701 545500

HSE Information Centre: www.hse.gov.uk

HSE Northern Ireland – Advice and Information Line: 0800 032 0121

HSE Northern Ireland website: www.hseni.gov.uk

www.safestartup.org

For **insurance and risk services** you can contact:

Association of British Insurers (ABI) www.abi.org.uk

British Insurance Brokers' Association (BIBA) www.biba.org.uk

Independent Insurance Brokers (IIB) www.iib-uk.com

General Insurance Standards Council (GISC) www.gisc.co.uk