

# gerencia de riesgos



## English Appendix

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EDITORIAL

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## Risk Management Information Systems (RMIS)

Management Information Systems or MIS in the usual terminology have become necessary instruments for the management of any business activity. These Systems are possible today thanks to the powerful, sophisticated and increasingly accurate data processing tools allowing data storage, detailed analysis of any area of business activity—whether it be by geographical area, department, product or subproduct—and the forecasting of future results.

In this way, bureaucracy is avoided, internal information within the company is speeded up and as a result of all the latter decisions at a management level are taken almost immediately.

In recent years, along the same lines, Risk Management Information Systems or RMIS have been developed as instruments to assist risk management in the company. These data processing products, basically packages easily adaptable to any data processing structure and in general to personal computers contain various applications among which can be mentioned: control and follow-up of losses, basically in high frequency such as Workers' Accidents, Automobiles and Health; safety means and measures, including costs; financing cost analysis, mainly insurance premiums; forecasting of losses and costs of self-insurance funds; inventory of goods and properties with their assigned values and depreciations; random forecasting of losses; standard reports on any of the above mentioned aspects, etc.

At an international level, many data processing packages of RMIS have been put on sale and distributed in the last 10 years, prepared by independent consultants, firms related to international brokers and also by the service companies of the great insurance groups. The offer is varied and the majority include, together with the packet itself, post-sale support. Assistance and training of the user or Risk Manager. Prices logically vary in function of the application and performance of the products.

In the current economic moment, of clear recession at an international level, many companies are reducing administration expenses and, among them, those corresponding to the Risk Management departments. For many people, however, this type of tool like the RMIS decreases internal bureaucracy and facilitates risk administration itself at the same time as controlling its cost, factors both of which are important to increase the competitiveness of the company.

In this copy of the GR magazine an article on possibly the first RMIS package in the Spanish language, prepared by ITSEMAP, has been brought as a socop. It compiles the multiple experience accumulated through many years by technician specialized in risk inspection, prevention and protection and advising the insurer. This package, baptised with the name of GERMAP, offers numerous possibilities in all the risk management stages: identification, evaluation, control, financing, and even inventory of assets. It will have to be, without a doubt an excellent instrument for those companies that want to develop a modern and responsible risk management with growing possibilities of autonomy from insurers and brokers.

GERMAP can work on standard personal computers and besides counts with the direct assesment of the experts that have prepared it and those who have contributed their great experience. As is normal, with this package is opened, on its lauhching in the market, an important period of debate and comparison of opinions among users. Although initially Risk Managers of several companies have already participated with their comments, it is hoped that in the near future, the number of observations permitting the improvement of GERMAP can be extended, contributing together with other aspects to the creation of an awareness of true Risk Management in many more companies of our economic environment.

Among other facts of interest, also in this copy, a decalogue about the future of Risk Management is included, which was presented in the International Forum held last October in Montecarlo and organized jointly by RIMS (Risk and Insurance Management Society of the United States of America) and AEAI (Association Européenne des Assurés de l'Industrie). It is hoped that it serves as food for thought for all the readers of this magazine with the new year, the symbolic 1992, which is now just in front of them.

# RISK MANAGEMENT IN THE FUTURE

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The International Risk Management Conference held last October in Monte Carlo analysed and discussed the future of the professionals and the techniques in this business field.

For this reason, the Conference included a closing «Brains Trust» on «The Risk Manager in the Future», made up by François Settembrino, Chairman of AEAI, Joseph Smetana, Chairman of AI Global, and Filomeno Mira, Chairman of Fundación MAPFRE Estudios.

In view of the interest of the issues for the development of Risk Management in the next years, we present below the ten points set out by Filomeno Mira in his speech.

## *1. The growing importance of Risk Management in the individual and family sphere*

Nowadays, the individual and the family are genuine «Insurance Buyers», just as the company Risk Manager was in his day. The consumer takes an increasing interest in his financial future, in his present and future health, and his physical safety, managing by himself in a situation of limited resources, where this activity can give him greater expertise and enable him to channel these resources away from the traditional paths. Insofar as his training, mentality and feelings have gone in this direction, it is likely that terms such as prevention, protection, self-insurance, and the search for group or collective solutions will form a clear trend in Risk Management in years to come.

## *2. The small company Risk Manager will become a buyer of Risk Management services instead of a buyer of insurance*

The function will become increasingly complicated, demanding better personal training and the use of assistance, or consultants other than the traditional ones, in order to confront the new challenges facing him: environmental pollution, product

liability, management liability, crisis planning, financial risk analysis, etc.

## *3. In large companies, Risk Management may emerge as developing area in its own right*

As an independent service creating great opportunities in technical or financial areas, either alone or in cooperation with other similar companies or, indeed, in a possible link-up with the major providers of insurance finance (insurance and reinsurers). The Risk manager may become the manager of the Risk Management Services area in large groups where separate and independent services can evolve, such as the regular captive insurance or reinsurance companies, prevention and protection services, environmental monitoring services, salvage, consultancy, training, etc.

## *4. Greater evolution of Risk Management in service activities*

If today's world is largely moving towards an increased role for the service sector as against the traditional economic sectors, we should be thinking of the increasing importance of Risk Management in these economic areas, which are possibly lagging behind other industrial activities at the moment. Are there many risk managers originating from or working in service bodies, such as insurance companies themselves, hospitals, educational institutions, public administration, or financial bodies such as banks, etc.?

## *5. Risk Management as a challenge to Insurance Megagroups*

Which have been evolving an ever-increasing activity of takeovers, mergers and alliances in recent years, until they have now reached a size which would have been unthinkable

until a short time ago. And yet we still cannot see any general trend towards the creation of technological areas of specialised services in the risk field as a function separate from the purely financial one of insurance itself. This would allow a new entry into the area of services for large industrial clients on a different basis from the traditional ones, either by offering service on uninsured or uninsurable risks, or by collaborating in specific areas of Risk Management, including the possibility of joint action.

The insurance world, even though it should be aware of its own limitations or its inability to provide financial cover for certain mega-risks or for some risks linked to approaching changes, is morally obliged to take some sort part in the challenge which they will bring, by means of the creation of development areas specialising in advice, evaluation, control, prevention, etc., in open collaboration with the business organisations and industries affected. This will allow it to be present in certain fields, and to adapt to the changing world.

The road to diversification will establish insurers' rights to a place in the Risk Management sector, a place which was until recently debatable from an ethical standpoint.

## 6. The growing importance of Risk Management in public administration

In the light of increasing demands for efficiency in public bodies, for deregulation and freedom of private enterprise, which must imply greater attention to those areas actually run by public authorities. The way in which public authorities manage the resources entrusted to them in many countries gives grounds to believe that, rather than a trend, it is an essential requirement that citizens and their organizations should demand from the Authorities.

Moreover, one may think of the handling of certain collective risks by way of associations, not necessarily public, as a result of the wisdom of the individual and of the inability of conventional bodies—including insurers—to solve problems. The creation of pools, friendly societies and other systems, which are common these days, may increase in the future, giving rise to new forms of Risk Management, different from those currently in existence.

## 7. Risk Management in politics

After the downfall of certain political systems, once thought traditional, as exemplified in Eastern Europe and other countries, where conventional parties have evolved differently

with the times, there is a discernible trend towards a closer assessment of the efficiency of public management, and to a realignment of political principles in order to safeguard certain concepts and goods (health, welfare, quality of life and, in general, greater security against the uncertainties are risks of our surrounding). This may perhaps imply that politicians are paying greater attention to natural, environmental and technological risks, and the risks of civilisation in general, such as those arising from carcinogenic products, cars, drug-taking, etc. This depends, of course, on a closer and more scientific analysis of risk-factors, of their evaluation, and the measures which it is politically feasible to put into effect to mitigate the consequences and to provide their voters with a suitable «offer».

## 8. The progressive shift of the responsibility and position of the Risk Manager

Towards risk management as an integral function of the company, with the participation of different levels of management and, essentially, in the last analysis, of the top executive. Recently, top managers of major industrial groups took part in a conference dealing with these very issues in order to discuss this point of concept into all organisations to the integration of the concept into all organisations to the detriment, perhaps, of the individual risk manager, but to the benefit of a greater presence of Risk Management, another trend to be watched closely in years to come.

## 9. Development of the econometrics of Risk Management

As an important factor in cost/benefit analysis and its influence on quality, competitiveness, and security of the company. Vitally important for the small company in a competitive world, and not only to justify such a department or function.

## 10. Risk Management as an educational area

We may hope soon to see Risk Management emerge as a university subject, with an increasing presence in educational institutions the world over. A multidisciplinary science, by its very nature, which will have to train professionals in legal, economic, technical, actuarial and management fields to meet the needs of this function in the company of the future.

This educational «product», when complete, may be an alternative to other subjects offered as further studies to graduates or professionals, along the lines of university Master's degrees. But it would also be useful to develop the discipline of «Risk Management» as a complementary area in Economics degrees, especially Business Administration, in order to prepare future managers and executives and give them an adequate point of reference.

An issue of increasing importance from the educational point of view would be the setting-up of ethical principles (like the Hippocratic code of the medical profession) to allow discrimination between suitable actions or to set out priorities in the case of conflict of interests, which are so frequent in decisions concerning Risk Management.

## A HIGH-RISK AREA: THE COVER OF CONTAMINATION ARISING FROM UNDERGROUND FUEL TANKS

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### The Requirements

The new outline plan for financial civil liability drawn up by the United States Federal Government aims to ensure that the owners and users of underground storage tanks have adequate funds to pay the costs of corrective action and civil liability arising from the escape of the contents of their tanks.

The legislation applies equally to the owners and users of practically all underground tanks containing fuel, except those used for heating in buildings and facilities belonging to Federal and State Government bodies.

At the same time the U.S. Government has published a series of technical requirements designed to reduce exposure to damage caused by the escape of the contents of older tanks: better monitoring, periodic inspections, leakage tests, and the use of methods of containment. The U.S. Environmental Protection Agency (EPA) estimates that these financial and technical regulations will affect some 260,000 companies, with more than one and a half million underground tanks.

### The Opportunities

Insurers can be of help to this new underground tank market, either by insuring the tanks directly, or else by

assisting the State Consortium. Both of these activities entail risks, although they also present good business opportunities.

The main profit opportunity lies in the insurance of tanks which meet the technical requirements. Of the approximately 1.5 million tanks affected, the majority belong to the major oil companies, whose own resources are sufficient to cope with the stipulated financial liabilities, but many thousands of tanks will need other types of cover. Allowing for 500,000 tanks whose owners need insurance, and an average premium of 100,000 pesetas (\$1,000), there is a total volume of 50,000 million pesetas (\$500 million) of premiums being created at this moment. It is estimated that 20% of tanks installed present leakage problems.

In fact, the size of the market does not guarantee an obvious profit to the Insurer. There are serious practical difficulties involved in entering this market. Lack of experience is one. For example, the great differences in hydrogeology between states will affect the cost of cleaning —up after an escape. Few companies have set up different underwriting criteria for different geological areas. There will be a need for highly-qualified experts, the cost of which could, in some cases, exceed the operating margins of many insurers. However, these factors will only exclude a small percentage of the companies which will be able to participate in this business.

## Assistance to State Funds

The insurers' second option is management of state funds. Due to... to establish and manage funds, insurance companies can provide some of the technical services systems for these funds. They can also supply similar technical services to state funds, without incurring risks.

Insurers considering this possibility should take a longer-term view. The financial liability requirements for underground tanks could provide an ideal opportunity to get into the pollution insurance market.

It appears that the Environmental Protection Agency is trying to encourage the different states to become more closely involved in the process of insuring financial and civil liabilities. This will increase the States' ability to participate, and could be a first step towards the eventual extension of State Funds into other areas of civil liability.

Finally, civil liability programmes could provide an opportunity for insurers to improve their public image. Whether by taking part in information programmes, or directly, or by providing services to State Funds, insurers can promote an image of sensitivity and responsibility towards the environment. On the other hand, any possible failure could have a more damaging effect on the insurance industry's reputation.

## Three Approaches

Insurers can take up the challenge offered by the new underground storage tank regulations in three ways, each with its attendant risks:

- to try to evolve premiums suitable for all insured parties and for all types of risk.
- to insure only tanks meeting the technical and safety requirements set by the Environmental Protection Agency.
- not to provide cover.

Although a position of generalised cover would meet the objectives of the Environmental Protection Agency, this solution would be hard for insurers to accept. Experience of underground tank insurers shows that it is difficult to value this type of policy with the limited insurance experience at their

disposal. The setting of charges would also be affected by the increase in claims once the new technical regulations have been established.

The second option consists of insuring only those tanks which meet the safety regulations. This policy would give the insurers greater financial stability, but would not really respect the EPA's aim of dealing with leaking tanks. Furthermore, many of those needing insurance might not meet the new requirements.

## Spreading Risks

Analysis of the consequences of the EPA regulations shows that insurers may have great scope among small companies owning retail petrol stations. Spreading the risk in this way puts insurance companies in a good position to avoid bankruptcy through an accumulation of losses. The EPA estimates that in the next 15 years 1% of small companies will leave the market due to the cost of the financial civil liability regulations. 14% of these companies will remain if they can apply the risk —spreading mechanisms intended to put the financial requirements into effect.

The importance of these financial requirements has been highlighted by the financial markets. Since lenders are beginning to be aware of the prospect of a contaminated world environment, with little likelihood of return, they are unwilling to lend money to companies which do not comply with the regulations, whether they are service stations, apartment blocks, or even farms. Nevertheless, some of the more sophisticated lenders see the existence of an insurance policy as a back-up against financial liability, as well as an index of willingness to comply with the technical requirements demanded. They think that «if it is insured» there is sufficient guarantee for a loan to be granted. Although this is a simplistic view, it does increase the pressure on insurance companies to provide this kind of cover.

In this climate, the response of insurers is under intense scrutiny. Controlling bodies are ready to take a very serious view of insurers' irresponsibility. At the same time, the insurance industry has no easy answers which can maintain the equilibrium of the results of the civil liability line. Financial risks, in the light of experience of unpredictable losses, complicated by a shortage of technical knowledge, make this market unattractive to the majority of insurers. But ignoring the situation will only serve to increase public protest against the industry. Thus the best alternative has to be the pursuit of a policy of meticulous underwriting. Time, however, is pressing the insurance sector, which has to decide the best position to adopt.

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# INTEGRAL SAFETY IN THE ENTERPRISE

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## Introduction

Since their earliest beginnings, human beings have always sought safety from the risks which threaten their survival. Primitive man looked for safety: he protected himself from illness, from the harshness of natural phenomena, from wild animals and from his fellows when they turned against him.

The evolution of mankind, through agricultural stages to the industrial age and on into the post-industrial society of communication and computers, has added technological threats to those of nature, brought about by the skills developed by Man himself. Together with these new risks linked to man-made technology, development has brought the growth of great concentrations of population, of huge and complex structures and systems, with countless benefits but also source of potential accidents causing enormous losses.

The techniques of defence against risks have been evolved, albeit slowly, following the appearance and worsening of these risks. Thus, from primitive social structures we have reached the present and the immediate future, when complex social systems and their added risks call for suitable defence measures.

The business environment of today, and even more of the near future, is subject to forces which are accelerated by the continuous interrelation of internal, external, and international factors. The company system forms a part of, and relates to, other systems and macrosystems which change with great frequency and enforce continuous changes in decision-making criteria.

The marked tendency towards the opening-up of international business has highlighted the vital importance to company survival of commercial competitiveness as well as financial capacity. The proper development of business functions to ensure the maintenance of high degrees of competitiveness and solvency

may be affected by a whole world of company-threatening risks. Many risks, of great destructive potential, may endanger the survival of the company and lead to its downfall.

Modern or Contemporary Safety means that the position of the protagonists is directed towards a positive improvement not only of industrial performance but also of working conditions and the ecological environment. This is in contrast to the defensive type of Traditional or Specific Safety, which is concerned only with a very reluctant observation of regulations, regarding them only as an imposition which reduces the performance of business organisations.

## Integral Safety in Enterprises

The potential effects of certain accidental risks on the company, perhaps leading to its failure, call for the implementation of efficient safety measures which are adequate to cope with the risks faced.

The application of safety requires some preliminary consideration, looking at all possible angles of the company's activities and how safety should relate to them. As a starting point we may take the philosophical definition of Integral Safety set out by the MAPFRE Foundation in the NICOYA Declaration:

«Safety is man's natural tendency towards the greatest possible degree of certainty in the achievement of his objectives and in the prevention of events or phenomena which he considers prejudicial. In the light of man's evolution and the development of his skills, the present day view favours the creation of Integral Safety, on the following general lines:

- A concern for general wellbeing of society at all levels and in the broadest universal sense.

- Ongoing study, leading to continual updating and adaptation to the individual needs of different countries and communities.
- An integration —oriented view of Safety, insofar as it affects the different aspects of social systems (man, machinery, methods and products) and the functions and characteristics of social and business efficiency (quality, productivity, culture, work-creation, environment).
- Interaction and coordination of the different risks which may affect the system under study.
- Individual specialised treatment of cases of risks with great qualitative or quantitative importance.
- A comprehensive overview which will apply different disciplines, including new techniques of prevention, assistance, repair and recovery.

### Justification of Integral Safety

The need for Integral Safety is made more evident by the following relationships within the company framework at internal and external levels:

#### **External**

- Duty to comply with general and specific legal requirements on safety or security in force in countries where the company operates.
- Fulfilment of conditions regarding safety or security included in contracts with business partners.
- Adoption of measures considered advisable for social, ethical, political, environmental or humanitarian reasons.
- Adoption of measures deemed necessary for reasons of business and commercial efficiency, arising from the milieu in which activities take place.

#### **Internal**

- Fulfilment of safety obligations in contracts with employees or other companies.
- Adoption of measures recommended for industrial relations purposes.
- Implementation of measures considered advisable for reasons of improved safety, productivity, quality and profitability.

### Organization and Management Methods

To achieve stipulated safety levels, there must be sufficient resources, including those listed below:

#### **Financial**

The implementation of the Safety Programme implies financial expenses which should be known in advance.

#### **Know-How**

Appropriate safety methods, systems and procedures to be developed internally, or adapted from recognised existing models.

#### **Organization**

Use of the company's general resources as support (human resources, communication, maintenance), or the specific resources of the Safety organisation, such as:

- Health and Safety Committee.
- Safety Board.
- Safety Department.
- Medical Service.

It is recommended that the Safety Department should function at an advisory or staff level on operating lines.

#### **Personnel**

Management groups and teams of personnel should have access to the necessary personnel, belonging to the company on a professional basis (working full, or part— time, on Safety) or, for certain purposes, to external services.

#### **Technical Resources**

— Availability of material resources needed for organisational action (Safety Department infrastructure) and operations (safety equipment and personnel).

### Integrated Safety

Safety should be integrated within the company, as another factor in the nature and operations of the different parts which make it up, especially in:

- Personnel.
- Procedures.
- Buildings and Installations.
- Products.
- Sales and Marketing.

### Cost of Safety

In the company the threat of risks with unknown potential losses must be met with a series of actions entailing expenditure, which can be summarised as follows:

- Insurance premiums.
- Losses not covered by insurance.
- Safety costs.

### Profitability of Safety

As one further factor in business management, safety should also be subject to cost-benefit criteria. Since it is not treated as a production activity, it is impossible to provide a direct justification for its profitability.

However, some benefits of prevention activities can be directly evaluated, while there are others which, although intangible, have a direct effect on the efficiency and profitability of the company.

### **Tangible Benefits**

- Investments which lead to an increase in capital assets.
- Discounts in insurance policies.
- Tax allowances.
- Public subsidies.

### **Intangible Benefits**

- Company Culture.
- Reduction in number of incidents.
- Reduction in number and seriousness of accidents.
- Better industrial relations.
- Increased productivity.
- Increased quality.
- Better public image.