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EN

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Y

SEGUROS

LECTURE ON RISK MANAGEMENT

PURE RISKS VERSUS BUSINESS RISKS



**Madrid May 9, 1994
CUMES**

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TABLE OF CONTENTS

1. *WHAT IS RISK*
2. *THE ENTERPRISE*
3. *EXERCISING THE POWER*
4. *RISK PERCEPTION*
5. *THE FORGOTTEN PARAMETERS*
6. *THE IMPOSSIBLE DISTINCTION*
7. *APPLICATIONS*
8. *CONCLUSION*

1. WHAT IS RISK

Our first question should be : what is a risk ? From a scholastic point of view, you will generally find enumeration of perils :

natural risks : earthquake, flood, hurricane

technical risks : fire, explosion

political risks : arbitrary decisions by the authorities

social risks : strikes

Some others do use different distinctions :

human risk

physical risks

financial risks

All are referring to the possible damage or loss resulting from a risk ...

Is it possible to go further, applying other different definitions and understanding?

- The risk is the probability of a loss. That definition implies that the loss can be defined in advance. It is certainly useful when the probability of a deferred loss can be transformed into the probability of a standard loss : for example, the probability of death per hour of driving a car at specific moments of the day.
- The risk is the dimension of a conceivable loss. That definition is the basis of many safety limits, put much beyond the possible accident. The resistance of the cables of an elevator are always put n x beyond the maximum load. It doesn't exclude the redundancy of other safety measures, like the parachutes put in the mechanism of the elevator.
It is exactly the same type of measures taken by the aircraft makers and users. The conceivable loss is the fall of the plane, with the crew and the passengers : as a consequence there is very high need for multiple redundancy between safety devices and measures (nobody would accept to take place in a plane, if he had to toss up for the probability of arriving at destination).
- The risk is the expected loss !
Any actuary in the life business may tell how many people will disappear in one year within a given population.
- The risk is the variance of the probability distribution within all possible consequences - this definition takes losses and gains into account and does not require an a priori discrimination between desired and undesired consequences. Our mental image and our day to day language are more familiar with that last definition.

This explains why so many disciplines do refer to "risk" but always with a different mental substance.

As stated by Edward P. Lelley, generally there are many definitions. One definition from the academic world defines risk as "the possibility that a sentient entity will incur loss". According to the Dictionary of Insurance Terms of the Chamber of Commerce of the United States, risk is simply the "chance of loss". But virtually every event in nature contains some chance of loss. So, to adopt such a broad definition would dump into the lap of the risk manager a responsibility for some aspects of practically every happening in the corporation. The risk manager would be stepping on the toes of most of the other managers in the company, including the chief executive officer. So, how do we define the spectrum of risks that rightfully come within the purview of the risk manager? Some say the risk manager's realm is the "static" risks of an organisation, as opposed to the "business" risks. Static risks are those possibilities of loss which the corporation cannot avoid. Like death and taxes, they are always with us. Business risks are defined as those a business can elect to take or not take and which contain the possibility of gain as well as loss.

An example of a business risk might be the risk that a company sales program will not meet its objectives, with consequent financial loss to the company. Or it might succeed beyond all expectations.

Another differentiation is between "pure" risks and "speculative" risks. Pure risks are generally defined as similar to static risks, but with particular emphasis on the loss-no-gain possibility. Speculative risks are generally defined very much like business risks. Although "speculative" may imply gambling, it better describes the concept and so is preferable to the term "business".

Closely associated with it are two other terms, peril and hazard. A peril is the agency, such as fire, windstorm, or flood, which actually causes a loss. Thus a pile of oily rags in your garage is a hazard, the existence of which enhances the possibility that the peril of fire will occur, thus increasing your risk of loss by fire.

It is only recently that new concepts have been elaborated and scrutinized. Orio Gianini, Secretary General of the Geneva Association, has initiated general reflection on the risk understanding, from a philosophical, economical and social point of view. The two key-words are "Uncertainty" and "Vulnerability".

Uncertainty being the normal status of life, I feel that the same uncertainty makes part of speculative and pure risks. All of them imply the possibility of losses. The main problem is to attain an appropriate understanding and to generate adequate attitudes.

Of course, there will always exist important discrepancies due to the local culture and education background, leading to basic attitudes towards risks, risk taking or risk aversion together.

One explanation can also be found in the way organisation and companies are built and structured.

2. THE ENTERPRISE

The "enterprise" is a vocal covering a lot of different configurations. Basically, the enterprise is a unit of economic organisation or activity -in short, a business organisation-.

It supposes the undertaking of something difficult, because business is always difficult, and implies also an element of risk.

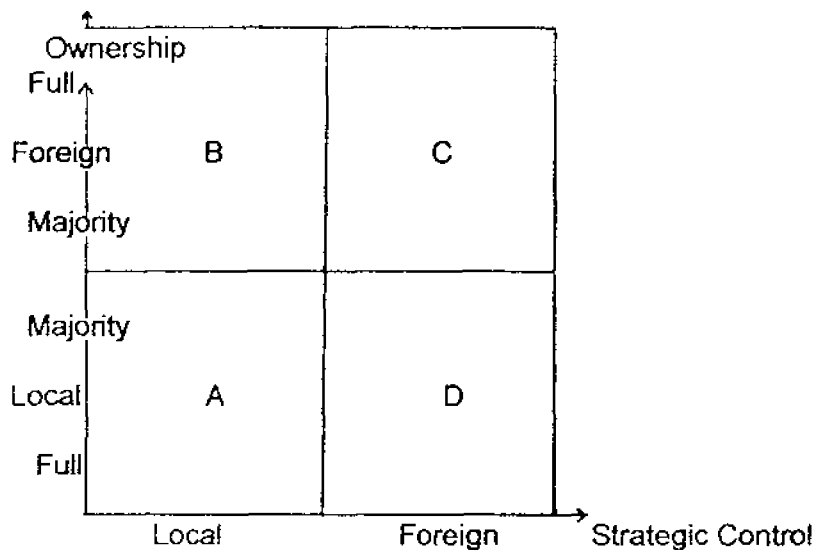
Among other elements, the following are of interest for the purpose of our study.

- *The size* : it is useful to separate small enterprises (or middle-small) from the others. Of course, this proceeds always from a qualitative and cultural background. A big company in Luxembourg could be considered very small compared to a middle-small company in the USA. In addition, as there exist no quantitative parameter, no standardised definition can apply. But if we agree on the distinction, we have to consider that there is certainly no comparison between a small enterprise and a multi-national corporation. A consequence will be found in the localisation of the activity.
- *Localisation* : Generally speaking, a small company will be located in a relatively small geographical area. Any multinational giant has multi-national operations, meaning subsidiaries or branches located around the world. In and between, organisations of different size do operate in two or more countries.
This doesn't mean that a small company never operates on the international scene, selling its products or services all around the world, but there is sufficient differentiation within that very basically approach.
- *Ownership* : small companies have operated since years mainly in the form of family companies.
larger organisation and multinational groups are generally in the hands of stockholders.
The stockholders may be divided in active(voting) stockholders, and institutional stockholders. Of course, through the Holding mechanism, there is a great variety of majority and minority locking possibilities but this depends on the applicable legislation, which may vary substantially country per country.

3. EXERCISING THE POWER.

There is a basic distinction between control and management. It is too often considered that the one who owns is also the one who decides. But there could also exist a certain (sometimes great) freedom of decision. This is the consequence of the separation - mainly since the beginning of the XXth century - between ownership and effective decision power. The reason has to be found in the "macroscopisation" of enterprises and a greater professionalism of the management. This move has increased the decision ability of the reduction of the influence of the stockholders : that move is directly influenced by the size of the organisation and the spread of the shares.

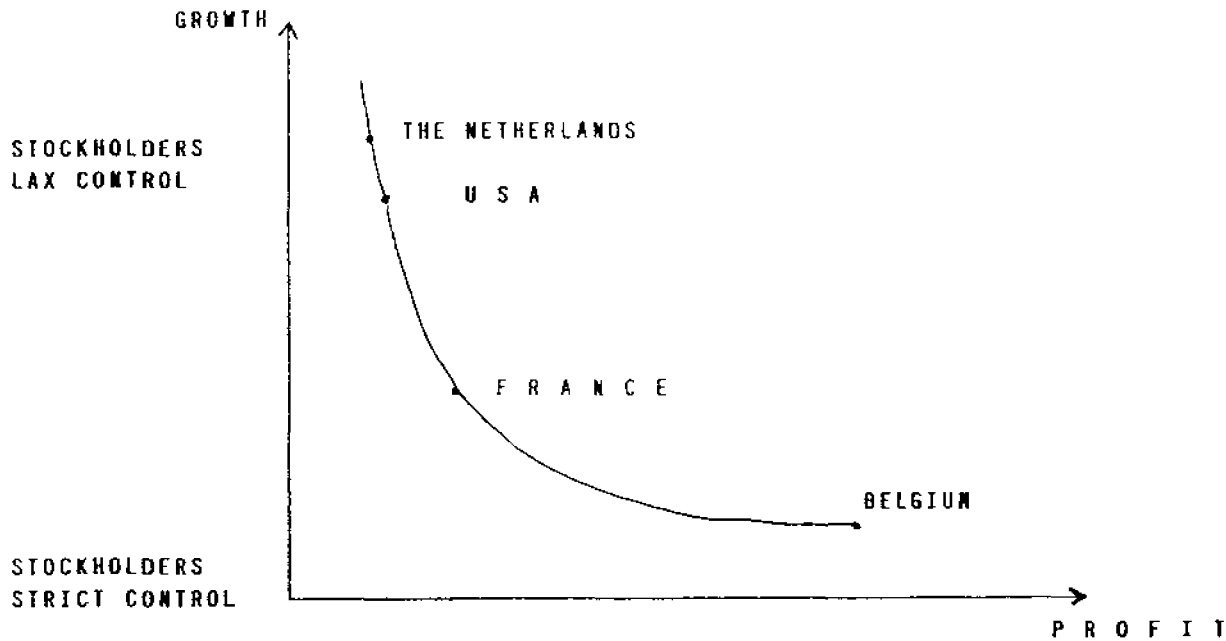
It is never easy to define the ownership. For example, the principal multinational groups have several quotations of their shares in several stock-exchange locations. The shares may also be owned by several entities, investors and funds. Among the funds some are pure institutional without voting capability or not exercising it. But it has to be considered that the organisational structure of the organisation plays a great role at control and decision level. The structure can be illustrated by the following diagram. This diagram can be applied to any localisation of a multinational group, but can also describe, in large countries, the situation of local branches and subsidiaries spread around the country.



Small local companies appertain to the A group
 Motor car companies generally to the upper C group
 Franchises do belong mainly to A and D configuration

The imbrication between ownership and management influences directly the strategic decisions and choices. Where stockholders do exercise also the management of the organisation, they will determine also the strategic policy of the enterprise. On the opposite, when stockholders do restrict themselves to controlling and supervising, the management will conduct the strategic orientation of the Cy. Risks and Risk Management make part of the strategy.

The following diagram shows the trends in Belgium, France and Netherlands, compared to the United States. I have no information on the Spanish situation but a rough estimation could make possible to situate your country.



(Source : H. Daems and P. Van De Weyer)

4. RISK PERCEPTION

The configuration of the enterprise and the decision process are deeply influenced by the considerations here above.

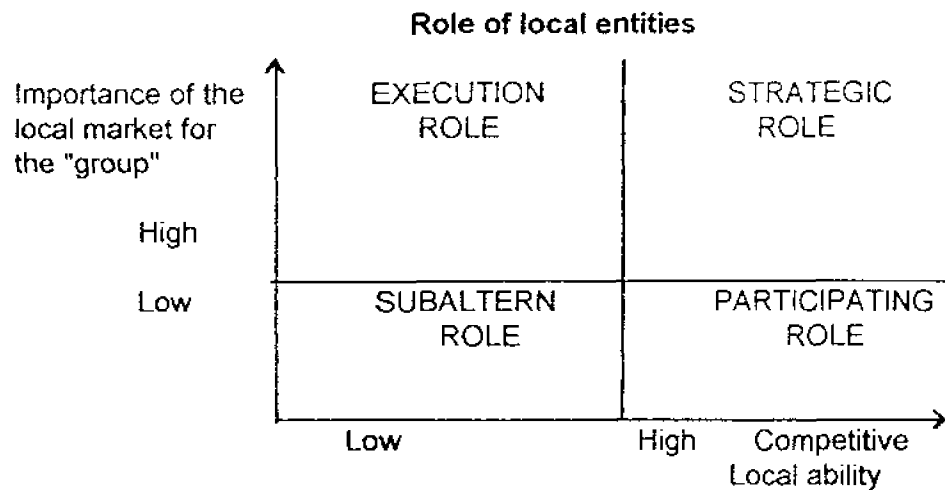
Small countries, show more or less, the typology of familial companies : ownership and management are more concentrated - I should say intricate- Risk aversion and control ability or desire, make the growth objective less attractive. Profit, and, if possible, immediate profit, remains the rule.

In larger organisations, a risk taking attitude is predominant. When the role of the stockholders is less effective - which is generally true in the case of institutional investor - the management is mainly focusing on the growth of the activities, and less on the immediate return : the risk taking attitude is greater than in small organisations.

What is less understood, is that the responsibility of that attitude relies mainly on the decision power localisation.

If you, as a subsidiary, are fully dependent on decisions taken elsewhere, you would only exercise a subaltern role.

In large organisations, the role of each specific location, branch or subsidiary will also be influenced by the importance of the local market and by the local competition. Those factors play thus an important role in the decision making process. The following diagram illustrates that phenomenon



(Source: H. Daems and P. Van De Weyer)

It is also obvious that risk taking preference attitudes and decisions, will depend on the intensity of the risk perception of the decision centre. The complication comes from the fact that risks are perceived differently by group with different ethic, educational and national backgrounds.

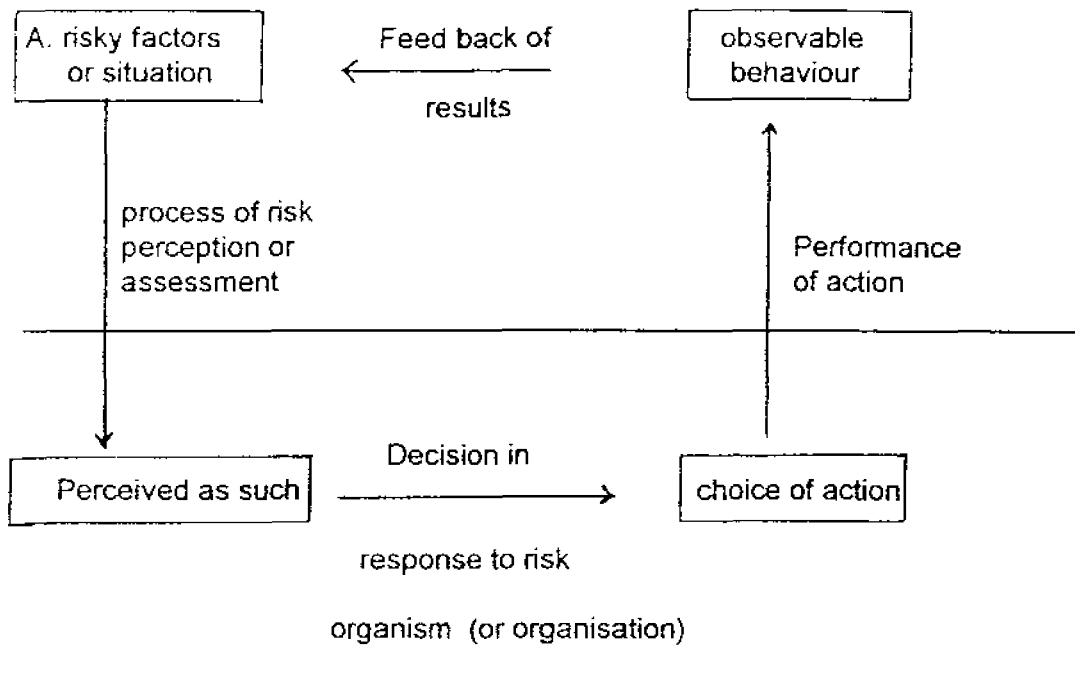
Aaron Wildavsky distinguishes four risk cultures : bureaucrats, egalitarians, industrialists (entrepreneurs) and fatalists. But all of these just try to introduce "uncertainty" in their mental concept, of course with different strenght.

From Mr Groth's cyclical model (1976), the process of risk perception for an individual combines four different elements :

- * the objectively risky situation
- * the subjectively perceived or interpreted situation
- * the choice of action, and
- * the observable behaviour

In fact, the process turns an objective situation into a subjectively perceived or interpreted one.

The following diagram illustrates the process



The risk related decision is the end-product of various interaction processes, involving prior knowledge, experience attitudes, motives, concepts of ability. Confronted to the reality, it seems that the individual, (and this is also true for organisations) has a great difficulty to cope with uncertain or unknown situations, because of the probable lack of prior knowledge. So is the situation for doctors and actuaries confronted with the AIDS problem.

The attitude of an organisation or enterprise is not very different than the one of an individual and will depend on similar factors.

Prior knowledge is only valid for series or well-known pure risks, of different nature
 technical risks
 social risks
 political risks

but much weaker towards natural risks, like earthquake, flood, and climatic conditions (predictability of weather conditions is very short and will probably never exceed one or two weeks).

Within an organisation, some other risky factors or parameters are very often forgotten.

5. THE FORGOTTEN PARAMETERS

Within organisations, especially during these last years, much attention is paid to the financing of the operations : the literature is also focusing on the related risks. Currency and exchange rates, credit management, retention and captive mechanism constitute the main preoccupation.

Other parameters also contribute to the risk.

Some of them are listed hereunder :

- *Intellectual property* : Copyrights and trade-marks are the basis and, properly handled, contribute to the protection of the assets: no-one is better equipped and better placed than the organisation, company or corporation itself. But if you look to the practice, you will see that those aspects are often in the hands of external specialists.

The wrong handling of licensing and of royalties may lead to loss of substance and to reaction from the fiscal authorities.

- *Contractual relations*.

Contracts are not "paper tigers" : to be effective, they have to correspond to the economic reality, protecting the profitability of any transaction with third parties, and sometimes with other relations within the organisation itself. The risks involved, financial and commercial, generally exceed the surface of the transaction. It is essential that all parties involved contribute and collaborate to build a contract protecting the interests of the company. An additional difficulty comes from the necessity to join technical aspects to legal clauses. Attention should also be paid to the necessary "balance" between the interests of the parties involved. Courts are generally badly influenced by contracts where one party benefits of all rights and the other of all the constraints and obligations.

For example, in the matter of supply, the maritime right and the transfer of ownership are key elements, and their appropriate handling is never innocent.

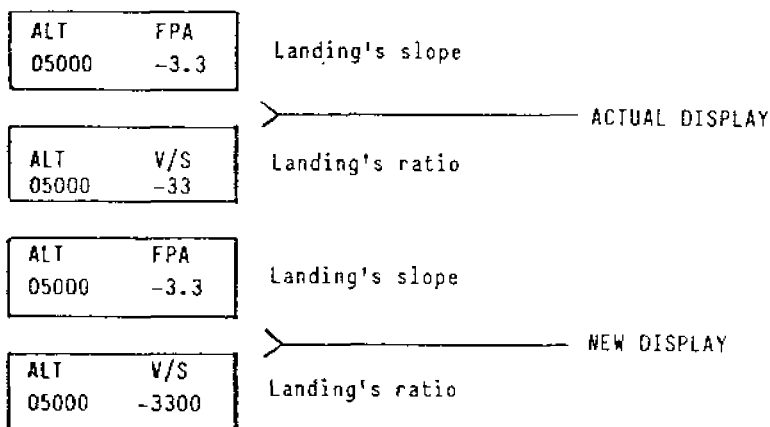
- *Robotic, computer and electronic risks*.

Robotic increases the vulnerability of the enterprises and the cost of any improvement or correction. After a generalisation, Japan is now moving in the opposite direction.

Computer risks suffer from a lack of knowledge. Everybody speaks about fraud and misuse but there is a lack of statistics and the generalisation of PC networks is too young to allow a proper judgement.

Few companies pay sufficient attention to the simple risk involved in the electronic mail, where safety and security is not greater than for telephone connections.

- *Environment* : public opinion, directives of the E.U. international convention and national or local legislation necessitate or impose constant vigilance, and relate to numerous aspects (pollution, waste, toxic and dangerous products, safety of the workers, dangerous transports etc ...)The problem is that rules are so numerous, too numerous, that no judge, no lawyer, no specialist is mastering them, meaning that the risks involved are really very difficult to handle. A study made at the University of Brussels on dangerous products only has lead to a guide weighing more than 2 kilos, listing all the conventions and legislations dealing with the subject.
- *Image* : As stated by Guy Lamand, the image is a very subjective notion, and it takes years to build a positive image. On the contrary, the image can be damaged or destroyed in a few moments. Even a rumour may exercise great influence (the example of Mc Donald is well known).
- *Norms* : A very impressive move has started on the international scene in the normative field. It is not an easy task and it implies the installation of certification processes. Some consider them as excellent risk protection measures, and they certainly will contribute to them, but they will never abolish liabilities, malpractice and possible defects.
- *Ergonomy* : Ergonomy deals with the interface "man/machine" and so contributes also to risk reduction. In the past, the aspects covered by ergonomy did relate to "mechanical" aspects. These days, ergonomy involves also subjective, intellectual and visual perception. An example, taken from the Mont St Odile (near Strasbourg) recent plane crash, will show you how ergonomy could have played an important role.



- *Not insurable risks* :Guy Lamand I referred to previously, in his book related to the risks involved in the selling of services and equipments, has issued an impressive list of insurable and not-insurable risks. Among the not-insurable risks let me underline the few following:

Fiscal
Interruption of the contract
Inexperience
Change of the clients team
Payment conditions
Non conformity with the competition right
Conflict on contractual conditions
Insolvency
Act of God
Expatriates
Delivery
Loss of confidence

6. THE IMPOSSIBLE DISTINCTION

Since years the literature is referring to two different categories of risks : speculative and pure risks. As already stated previously.

- The speculative risks are also called business risks : they are defined as those making part of the business objectives. Any company or business organisation, service, commercial or industrial enterprise is built up with the intention to achieve a goal : although, the used terminology "speculative" may imply a kind of gambling, it certainly describes the concept.

- Pure risks - or also static risks -, in opposition to speculative risks, do concern mainly the possibilities of loss a corporation cannot avoid. The "pure risks" terminology put emphasis on the loss-no-gain possibility- From a theoretical point of view, the distinction was greatly reinforced by the fact that pure risks were also considered in general as insurable risks, regardless if they were or were not, insured.

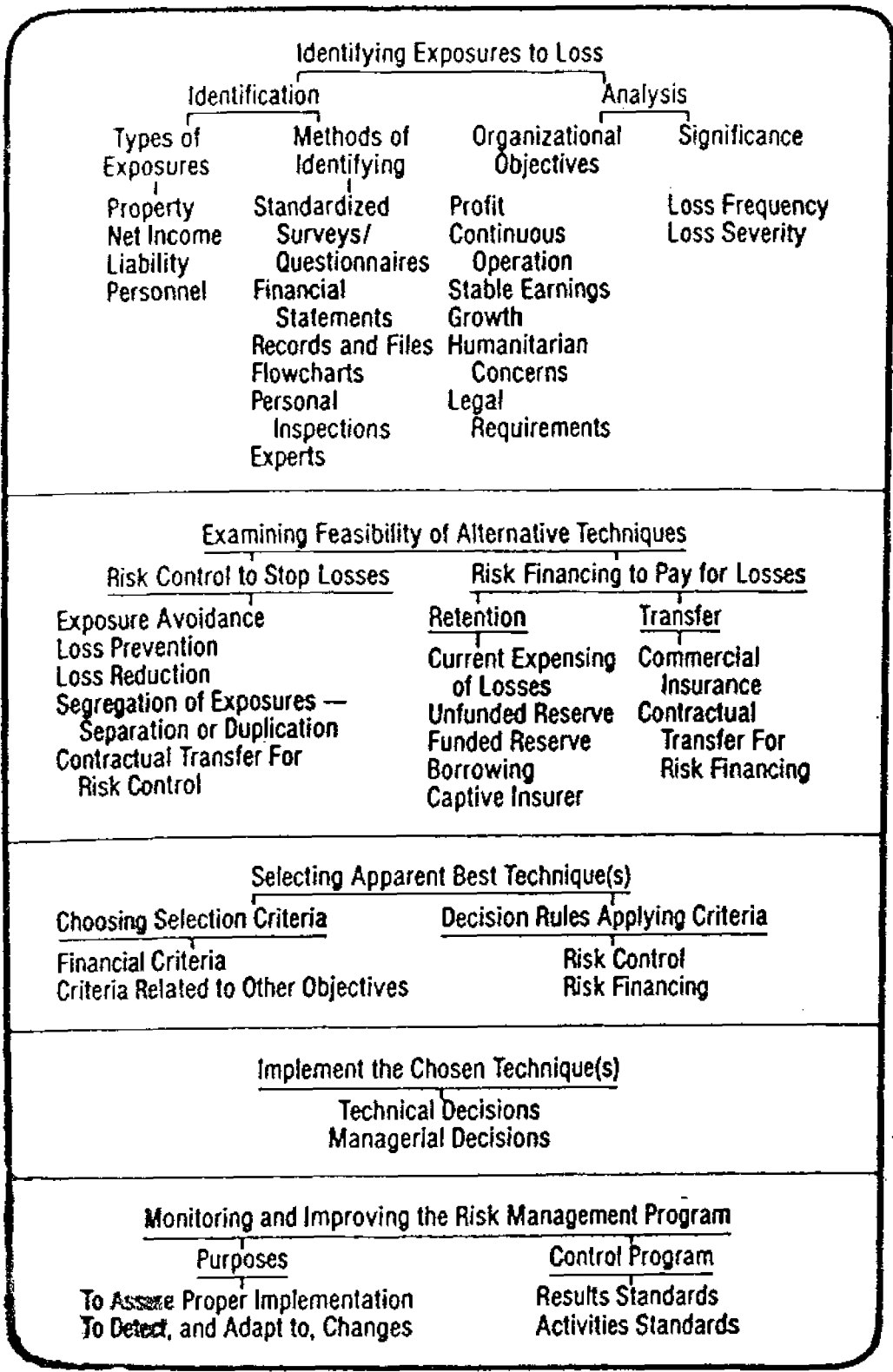
That understanding has had important consequences on the evolution of the risk management theoretical principles and education.

a) U.S.

Many Business Schools do provide, in one way or another, education on Risk Management

To become an ARM, or Associate in Risk Management you need to follow the education provided by the famous Insurance Institute of America located in Pennsylvania.

The methodology is based on the five steps decision making process, described here-after.



That approach is mainly focusing on losses, or possible losses, and can thus be considered as a Risk Management of pure risks. Even so, there remain some questions.

To identify something you always need a mental concept. It is as simple as that : if you don't have the concept, you will never be able to recognise. The possibility of recognising is always subordinate to the faculty of conceptualisation. You may never identify something you don't know. (Examples: Cockerill - La Defense)

Among the different methods of identification there is always reference to experts - those experts are always supposed to deliver a scientific answer. But any scientific expert opinion is only related to the measurement of something, using tools and models on which the scientific world agrees, but the propriety of any science is that any theory is only valid, till a new theory arrives on the scene. As stated by Karl Popper the intrinsic propriety of science, is the " falsification" process, in the sense that any theory can and will be invalidated by a new theory. Only dogmas and beliefs do not suffer falsifications or amendments, but they cannot be called "science", and they produce no expertise.

Douglas Barlow, one of the initiators of Risk Management in Canada and later in the United States, has issued a very interesting statement on the subject :

The risk management has no pre ordained definition : it is what risk managers do. It develops itself by evolution, i.e. by successive steps following perspicacity, creativity and initiative of the risk manager, his authority and from the facts provoking his action.

Consequently, it exists in diversity and may evaluate : its sphere (initially the insurable risks), its objective and its appellation are never frozen. As a consequence, any definition or theory about risk management may have the scope and the generality desired by the author. It can only be descriptive (in contra-distinction to prescriptive). Any prediction expected from the risk manager is not permissible, but extrapolation is justifiable and sometimes useful. In other words, as stated by René Thom, one can apply analogical reasoning to very different situations

It is probably for that reason that the famous Havard Business School is abandoning the well known "case study" methodology, promoting education in teams and focusing much more on the interdisciplinarity.

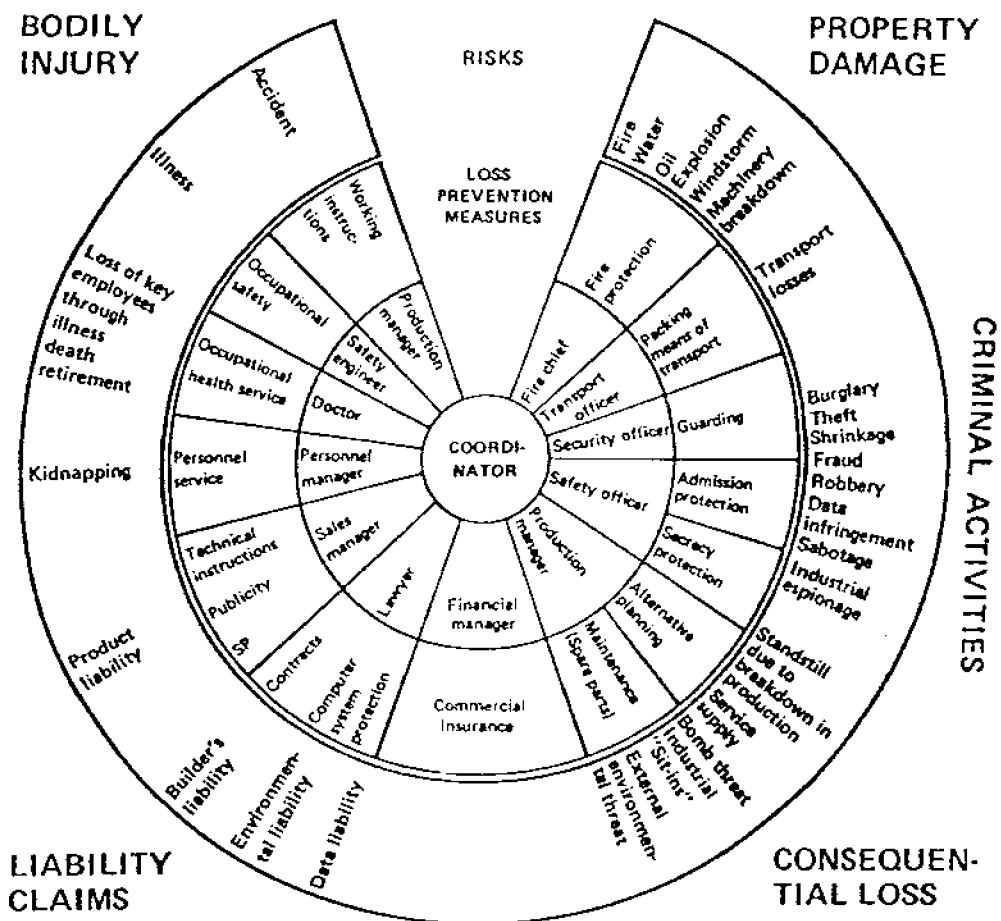
Europe has followed an other way :

Practice of business shows that the distinction between speculative and pure risks, easy to understand, does not resist to experience. As soon as one decides to start any new business, all the risks are to be considered together from the beginning. Any feasibility study has to integrate a lot of parameters and constraints. Even a service company, with no industrial production process deciding to build an office building cannot do it, beside the financial evaluation of investment and profitability, without passing several obstacles - building permit, safety and security requirements towards personnel and third parties, commercial and VAT registration etc.

It is even more complicated for a factory, where many additional points are to be settled, including exploitation permit and environmental impact study and audit. Interdisciplinarity is the rule, which is also confirmed by the courses delivered here. As a practical example, and regardless its assurability, is insolvency a speculative or a pure risk? Insolvency can be the result of an Act of God, a bad financial position or willingness of the client from the wrong execution of an under or co-contractor's duty or because of the non conformity to international rights and conventions. The figures, issued several years ago, by Skandia a thinking tank on risk management gives an excellent substance to what I said.

Risk Management Circle

Examples of risk environment and loss prevention resources of a company



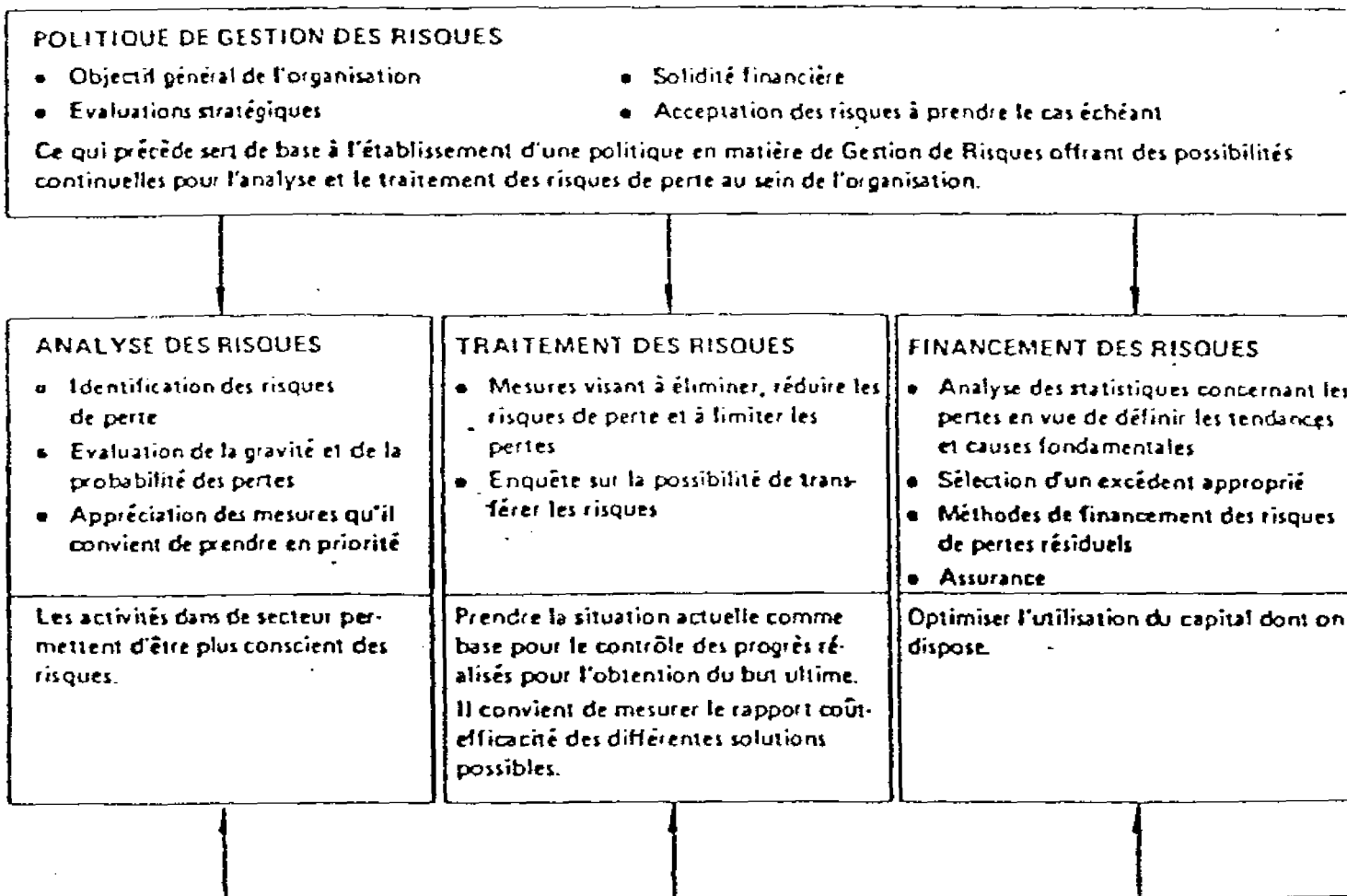
Idea: G Hamilton - Statsföretag
 Production: Skandia - Stockholm

QU'ENTEND-ON PAR GESTION DES RISQUES (RISK MANAGEMENT) ?

La Gestion des Risques est un moyen systématique de protéger les revenus et les ressources de l'entreprise contre les pertes qui pourraient se produire de manière à ce que les buts de la Société puissent être réalisés sans interruption. Correctement dirigée la Gestion des Risques assure la stabilité et contribue indirectement au profit.

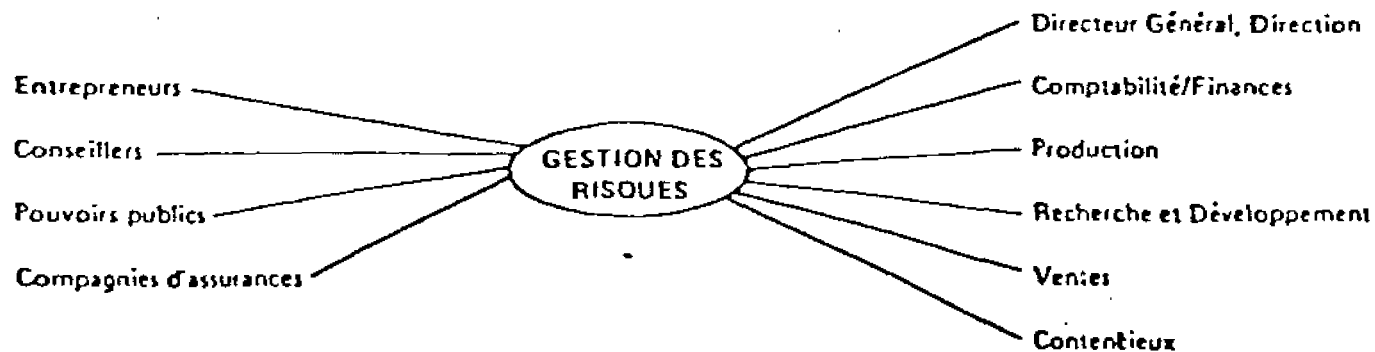
La Gestion des Risques n'est pas la même chose qu'une assurance mais l'assurance pourrait faire partie d'un programme de Gestion des Risques.

On peut décrire de la manière suivante les différentes étapes dans la Gestion des risques:



LA GESTION DES RISQUES — COORDINATION, EDUCATION ET COMMUNICATION

Il y a des risques partout. En conséquence, la Gestion des Risques doit toucher la plupart des secteurs d'une organisation à la fois sur le plan intérieur et extérieur.



Pour parvenir à cet objectif, il faut:

- L'éducation au sein de la société/de l'organisation afin que tout le monde soit plus conscient des risques et aussi pour jeter les bases d'une communication dans les deux sens.
- Un contrôle continu afin d'assurer l'adaptation à l'évolution des circonstances.
- La coordination selon l'objectif déclaré afin d'aboutir à la solution la plus économique.

7. APPLICATIONS

- At conceptual level :

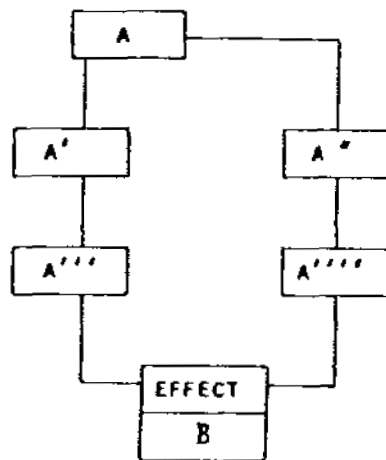
The reasoning has " progressed " since last century. The following chart here-
after summarises the evolution of the causality concept.

LINEAR :

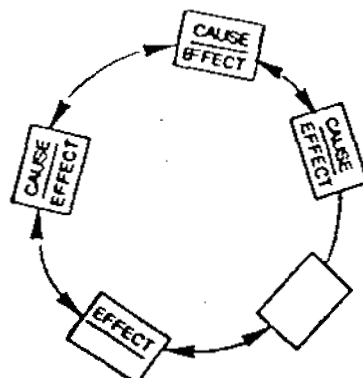
CAUSE A \longrightarrow EFFECT B

RETICULAR :

CAUSES A + A' + A'' ... \longrightarrow EFFECT B



FEED BACK : INTERREACTION OF CAUSES AND EFFECTS



In the same period, passage of the of the time (or line of the time) and irreversibility of phenomena has impregnated not only the philosophy, but also reflection of the scientific world; leading to the perception of uncertainty, including unpredictability of the future.

- At risk management's level :

* a deeper perception of the risks and of the interrelation of speculative and pure risks.

* the necessity to take into account the type of organisation and who exercises of the power. The different controlling and decision levels necessitate to adjust the risks management philosophy and practice. If strategic control is centralised, somewhere, in total or partly, the attitudes have to be different than in a decentralized organisation.

* Risk perception, leading to risk avoidance or risk taking attitudes, are to be integrated in the risk management process.

* The forgotten parameters are to be integrated in the global process.

* in a world of uncertainty, the risk management has to increase the resilience of the organisation to unforeseen, uncertain and unpredictable phenomena.

* The organisation has to be seen as a system. Only a systemic approach is able to consider the whole : survival planning and crisis management have to integrate all the components. They have to be well prepared.

No risk management is possible without taking into account, together

- | | |
|--------------|-----------------------|
| o people | o assets and earnings |
| o products | o market share |
| o trademarks | o company image |

* Risk management makes part of the internal culture, and has to be integrated at all levels. The risk Manager or the risk management team may only play the role of catalyst.

8. CONCLUSION

As a conclusion, allow me to use the terms used by Mr Leny, President of FRAMATOME (France)

"A risk manager (or team) alone cannot see everything, do everything, and know everything. This is why his main role ... must be to develop a state of mind, or an awareness of risks, so that everybody behaves with a sense of responsibility ...

... The notions of quality, safety and security are closely related ...and the notion of risk should be thought as part of basic general education at school ... We now find in companies many technicians, engineers or administrators ... seeming not to know the basic rules of common sense. Is it not the educational role of the managers to ensure that these values are discovered or rediscovered ?

The risk manager must naturally work with those in charge of security, but also with internal audit teams, to track down the risks resulting from any organisational dysfunctions. An overall vision of the organisation and on-site experience enables more easily apprehending problems.

From what I said, it is easy to understand that risk management may not be limited to insured or insurable risks nor to the pure financing aspects of risks. The process involves education, information and communication aspects. That is exactly where A.E.A.I. has initiated reflection between Academics and practitioners. An extraordinary and very valuable contribution came from the Institute of Risk Management of London in the person of Gordon Dickson, Dean of the Health Faculty of the Caledonian University of Glasgow and Chairman of the Institute. The group of 22 meets periodically to discuss the matter.

On the other side of the Atlantic, active thinker in the Risk Management field, Felix Kloman has produced a flood of new views and ideas. One of his last charts summarises what I have tried to explain : the sampling is different, but in no way is the sensitivity different.

Please do not forget that your studies, and I have here to thank the "Cumes", Philomeno Mira, and your teachers - that your studies have, as final goal, to enable you to appreciate the breadth of risks situations. Recognising them and responding to them is under the responsibility of everyone at its place, within any organisation.

I thank you for your attention.

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4 15

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An example of a business risk might be the risk that a company sales program will not meet its objectives, with consequent financial loss to the company. Or it might succeed beyond all expectations.

Another differentiation is between "pure" risks and "speculative" risks. Pure risks are generally defined as similar to static risks, but with particular emphasis on the loss-no-gain possibility. Speculative risks are generally defined very much like business risks. Although "speculative" may imply gambling, it better describes the concept and so is preferable to the term "business".

Closely associated with it are two other terms, peril and hazard. A peril is the agency, such as fire, windstorm, or flood, which actually causes a loss. Thus a pile of oily rags in your garage is a hazard, the existence of which enhances the possibility that the peril of fire will occur, thus increasing your risk of loss by fire.

It is only recently that new concepts have been elaborated and scrutinized. Orio Giarini, Secretary General of the Geneva Association, has initiated general reflection on the risk understanding, from a philosophical, economical and social point of view. The two key-words are "Uncertainty" and "Vulnerability".

Uncertainty being the normal status of life, I feel that the same uncertainty makes part of speculative and pure risks. All of them imply the possibility of losses. The main problem is to attain an appropriate understanding and to generate adequate attitudes.

Of course, there will always exist important discrepancies due to the local culture and education background, leading to basic attitudes towards risks, risk taking or risk aversion together.

One explanation can also be found in the way organisation and companies are built and structured.

2. THE ENTERPRISE

The "enterprise" is a vocal covering a lot of different configurations. Basically, the enterprise is a unit of economic organisation or activity -in short, a business organisation-.

It supposes the undertaking of something difficult, because business is always difficult, and implies also an element of risk.

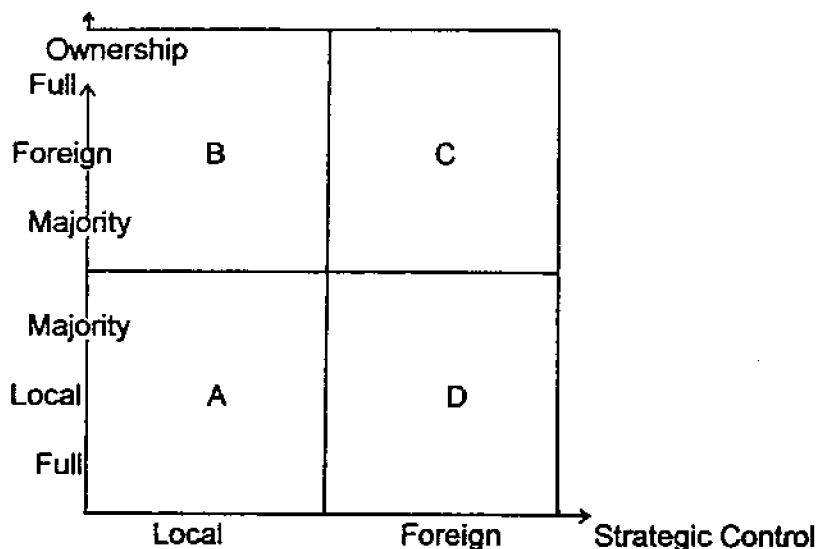
Among other elements, the following are of interest for the purpose of our study.

- *The size* : it is useful to separate small enterprises (or middle-small) from the others. Of course, this proceeds always from a qualitative and cultural background. A big company in Luxembourg could be considered very small compared to a middle-small company in the USA. In addition, as there exist no quantitative parameter, no standardised definition can apply. But if we agree on the distinction, we have to consider that there is certainly no comparison between a small enterprise and a multi-national corporation. A consequence will be found in the localisation of the activity.
- *Localisation* : Generally speaking, a small company will be located in a relatively small geographical area. Any multinational giant has multi-national operations, meaning subsidiaries or branches located around the world. In and between, organisations of different size do operate in two or more countries.
This doesn't mean that a small company never operates on the international scene, selling its products or services all around the world, but there is sufficient differentiation within that very basically approach.
- *Ownership* : small companies have operated since years mainly in the form of family companies.
larger organisation and multinational groups are generally in the hands of stockholders.
The stockholders may be divided in active(voting) stockholders, and institutional stockholders. Of course, through the Holding mechanism, there is a great variety of majority and minority locking possibilities but this depends on the applicable legislation, which may vary substantially country per country.

3. EXERCISING THE POWER.

There is a basic distinction between control and management. It is too often considered that the one who owns is also the one who decides. But there could also exist a certain (sometimes great) freedom of decision. This is the consequence of the separation - mainly since the beginning of the XXth century - between ownership and effective decision power. The reason has to be found in the "macroscopisation" of enterprises and a greater professionalism of the management. This move has increased the decision ability of the reduction of the influence of the stockholders : that move is directly influenced by the size of the organisation and the spread of the shares.

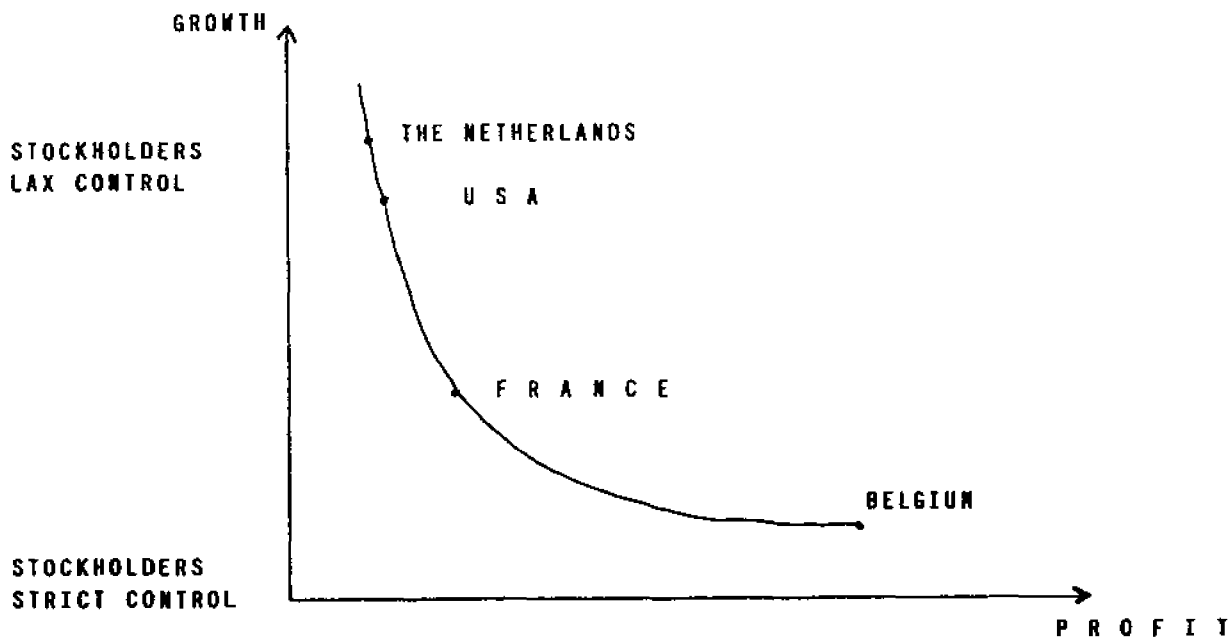
It is never easy to define the ownership. For example, the principal multinational groups have several quotations of their shares in several stock-exchange locations. The shares may also be owned by several entities, investors and funds. Among the funds some are pure institutional without voting capability or not exercising it. But it has to be considered that the organisational structure of the organisation plays a great role at control and decision level. The structure can be illustrated by the following diagram. This diagram can be applied to any localisation of a multinational group, but can also describe, in large countries, the situation of local branches and subsidiaries spread around the country.



- Small local companies appertain to the A group
- Motor car companies generally to the upper C group
- Franchises do belong mainly to A and D configuration

The imbrication between ownership and management influences directly the strategic decisions and choices. Where stockholders do exercise also the management of the organisation, they will determine also the strategic policy of the enterprise. On the opposite, when stockholders do restrict themselves to controlling and supervising, the management will conduct the strategic orientation of the Cy. Risks and Risk Management make part of the strategy.

The following diagram shows the trends in Belgium, France and Netherlands, compared to the United States. I have no information on the Spanish situation but a rough estimation could make possible to situate your country.



(Source : H. Daems and P. Van De Meyer)

4. RISK PERCEPTION

The configuration of the enterprise and the decision process are deeply influenced by the considerations here above.

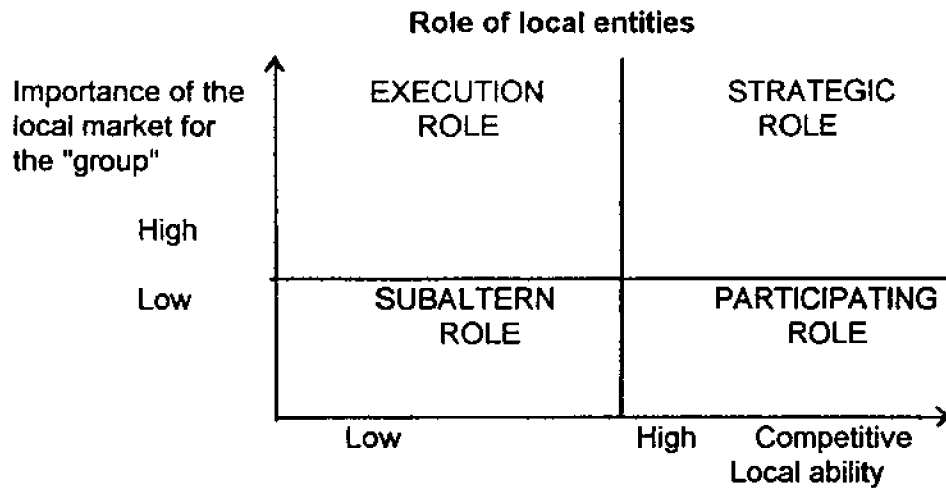
Small countries, show more or less, the typology of familial companies : ownership and management are more concentrated - I should say intricate- Risk aversion and control ability or desire, make the growth objective less attractive. Profit, and, if possible, immediate profit, remains the rule.

In larger organisations, a risk taking attitude is predominant. When the role of the stockholders is less effective - which is generally true in the case of institutional investor - the management is mainly focusing on the growth of the activities, and less on the immediate return : the risk taking attitude is greater than in small organisations.

What is less understood, is that the responsibility of that attitude relies mainly on the decision power localisation.

If you, as a subsidiary, are fully dependent on decisions taken elsewhere, you would only exercise a subaltern role.

In large organisations, the role of each specific location, branch or subsidiary will also be influenced by the importance of the local market and by the local competition. Those factors play thus an important role in the decision making process. The following diagram illustrates that phenomenon



(Source: H. Daems and P. Van De Weyer)

It is also obvious that risk taking preference attitudes and decisions, will depend on the intensity of the risk perception of the decision centre. The complication comes from the fact that risks are perceived differently by group with different ethic, educational and national backgrounds.

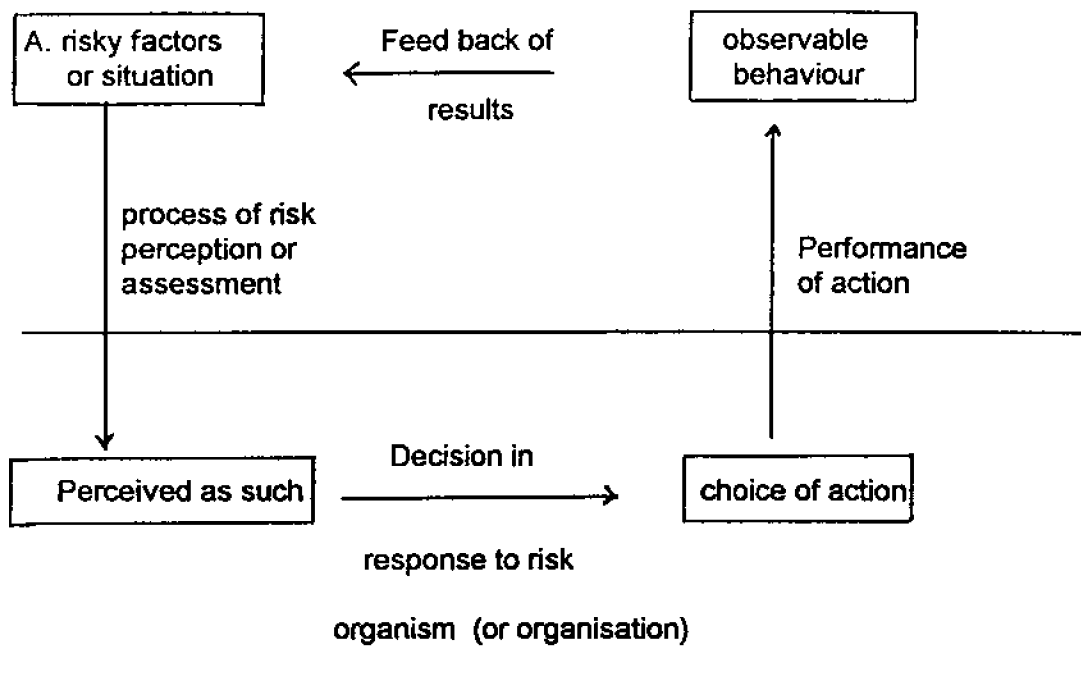
Aaron Wildawsky distinguishes four risk cultures : bureaucrats, egalitarians, industrialists (entrepreneurs) and fatalists. But all of these just try to introduce "uncertainty" in their mental concept, of course with different strenght.

From Mr Groth's cyclical model (1976), the process of risk perception for an individual combines four different elements :

- * the objectively risky situation
- * the subjectively perceived or interpreted situation
- * the choice of action, and
- * the observable behaviour

In fact, the process turns an objective situation into a subjectively perceived or interpreted one.

The following diagram illustrates the process



The risk related decision is the end-product of various interaction processes, involving prior knowledge, experience attitudes, motives, concepts of ability. Confronted to the reality, it seems that the individual, (and this is also true for organisations) has a great difficulty to cope with uncertain or unknown situations, because of the probable lack of prior knowledge. So is the situation for doctors and actuaries confronted with the AIDS problem.

The attitude of an organisation or enterprise is not very different than the one of an individual and will depend on similar factors.

Prior knowledge is only valid for series or well-known pure risks, of different nature

technical risks

social risks

political risks

but much weaker towards natural risks, like earthquake, flood, and climatic conditions (predictability of weather conditions is very short and will probably never exceed one or two weeks).

Within an organisation, some other risky factors or parameters are very often forgotten.

5. THE FORGOTTEN PARAMETERS

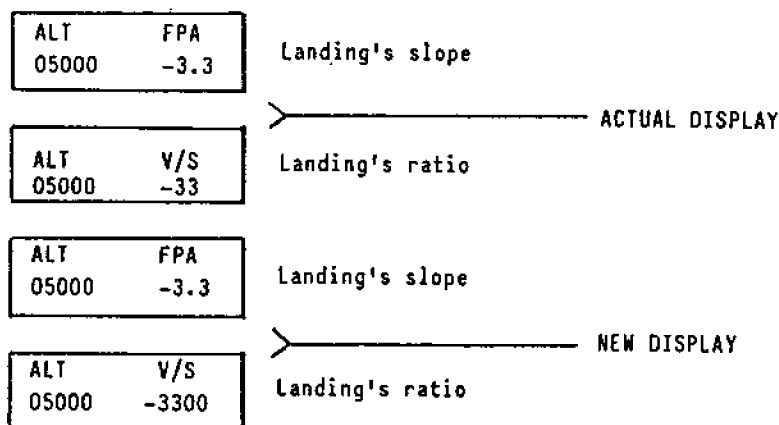
Within organisations, especially during these last years, much attention is paid to the financing of the operations : the literature is also focusing on the related risks. Currency and exchange rates, credit management, retention and captive mechanism constitute the main preoccupation.

Other parameters also contribute to the risk.

Some of them are listed hereunder :

- *Intellectual property* : Copyrights and trade-marks are the basis and, properly handled, contribute to the protection of the assets: no-one is better equipped and better placed than the organisation, company or corporation itself. But if you look to the practice, you will see that those aspects are often in the hands of external specialists.
The wrong handling of licensing and of royalties may lead to loss of substance and to reaction from the fiscal authorities.
- *Contractual relations*.
Contracts are not "paper tigers" : to be effective, they have to correspond to the economic reality, protecting the profitability of any transaction with third parties, and sometimes with other relations within the organisation itself. The risks involved, financial and commercial, generally exceed the surface of the transaction. It is essential that all parties involved contribute and collaborate to build a contract protecting the interests of the company. An additional difficulty comes from the necessity to join technical aspects to legal clauses. Attention should also be paid to the necessary "balance" between the interests of the parties involved. Courts are generally badly influenced by contracts where one party benefits of all rights and the other of all the constraints and obligations.
For example, in the matter of supply, the maritime right and the transfer of ownership are key elements, and their appropriate handling is never innocent.
- *Robotic, computer and electronic risks*.
Robotic increases the vulnerability of the enterprises and the cost of any improvement or correction. After a generalisation, Japan is now moving in the opposite direction.
Computer risks suffer from a lack of knowledge. Everybody speaks about fraud and misuse but there is a lack of statistics and the generalisation of PC networks is too young to allow a proper judgement.
Few companies pay sufficient attention to the simple risk involved in the electronic mail, where safety and security is not greater than for telephone connections.

- **Environment** : public opinion, directives of the E.U. international convention and national or local legislation necessitate or impose constant vigilance, and relate to numerous aspects (pollution, waste, toxic and dangerous products, safety of the workers, dangerous transports etc ...)The problem is that rules are so numerous, too numerous, that no judge, no lawyer, no specialist is mastering them, meaning that the risks involved are really very difficult to handle. A study made at the University of Brussels on dangerous products only has lead to a guide weighing more than 2 kilos, listing all the conventions and legislations dealing with the subject.
- **Image** : As stated by Guy Lamand, the image is a very subjective notion, and it takes years to build a positive image. On the contrary, the image can be damaged or destroyed in a few moments. Even a rumour may exercise great influence (the example of Mc Donald is well known).
- **Norms** : A very impressive move has started on the international scene in the normative field. It is not an easy task and it implies the installation of certification processes. Some consider them as excellent risk protection measures, and they certainly will contribute to them, but they will never abolish liabilities, malpractice and possible defects.
- **Ergonomy** : Ergonomy deals with the interface "man/machine" and so contributes also to risk reduction. In the past, the aspects covered by ergonomy did relate to "mechanical" aspects. These days, ergonomy involves also subjective, intellectual and visual perception. An example, taken from the Mont St Odile (near Strasbourg) recent plane crash, will show you how ergonomy could have played an important role.



- **Not insurable risks** :Guy Lamand I referred to previously, in his book related to the risks involved in the selling of services and equipments, has issued an impressive list of insurable and not-insurable risks. Among the not-insurable risks let me underline the few following:

Fiscal
Interruption of the contract
Inexperience
Change of the clients team
Payment conditions
Non conformity with the competition right
Conflict on contractual conditions
Insolvency
Act of God
Expatriates
Delivery
Loss of confidence

6. THE IMPOSSIBLE DISTINCTION

Since years the literature is referring to two different categories of risks : speculative and pure risks. As already stated previously.

- The speculative risks are also called business risks : they are defined as those making part of the business objectives. Any company or business organisation, service, commercial or industrial enterprise is built up with the intention to achieve a goal : although, the used terminology "speculative" may imply a kind of gambling, it certainly describes the concept.

- Pure risks - or also static risks -, in opposition to speculative risks, do concern mainly the possibilities of loss a corporation cannot avoid. The "pure risks" terminology put emphasis on the loss-no-gain possibility- From a theoretical point of view, the distinction was greatly reinforced by the fact that pure risks were also considered in general as insurable risks, regardless if they were or were not, insured.

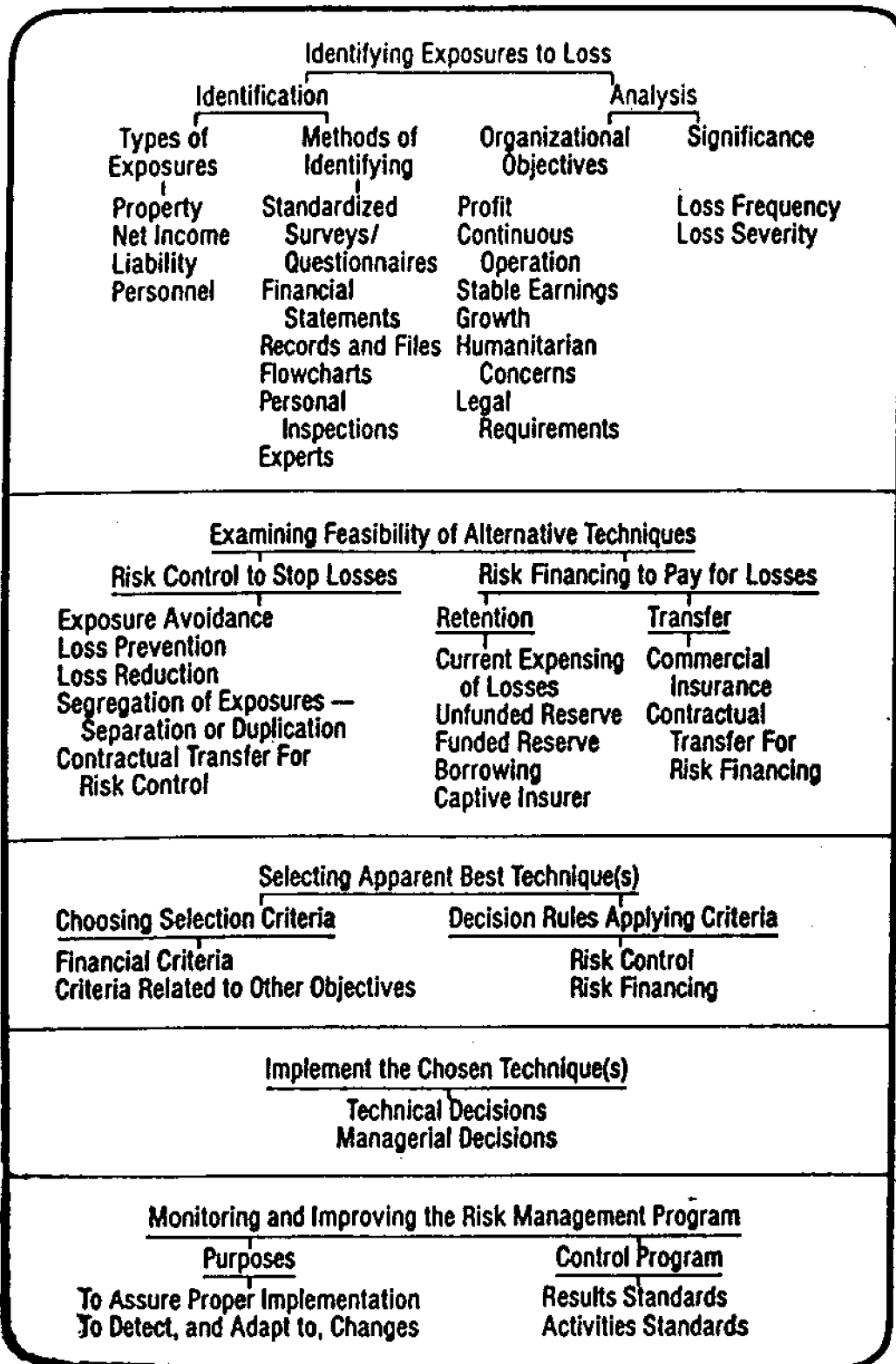
That understanding has had important consequences on the evolution of the risk management theoretical principles and education.

a) U.S.

Many Business Schools do provide, in one way or another, education on Risk Management.

To become an ARM, or Associate in Risk Management you need to follow the education provided by the famous Insurance Institute of America located in Pennsylvania.

The methodology is based on the five steps decision making process, described here-after.



That approach is mainly focusing on losses, or possible losses, and can thus be considered as a Risk Management of pure risks. Even so, there remain some questions.

To identify something you always need a mental concept. It is as simple as that : if you don't have the concept, you will never be able to recognise. The possibility of recognising is always subordinate to the faculty of conceptualisation. You may never identify something you don't know. (Examples: Cockerill - La Defense)

Among the different methods of identification there is always reference to experts - those experts are always supposed to deliver a scientific answer. But any scientific expert opinion is only related to the measurement of something, using tools and models on which the scientific world agrees, but the propriety of any science is that any theory is only valid, till a new theory arrives on the scene. As stated by Karl Popper the intrinsic propriety of science, is the " falsification" process, in the sense that any theory can and will be invalidated by a new theory. Only dogmas and beliefs do not suffer falsifications or amendments, but they cannot be called "science", and they produce no expertise.

Douglas Barlow, one of the initiators of Risk Management in Canada and later in the United States, has issued a very interesting statement on the subject :

The risk management has no pre ordinated definition : it is what risk managers do. It develops itself by evolution, i.e. by successive steps following perspicacity, creativity and initiative of the risk manager, his authority and from the facts provoking his action.

Consequently, it exists in diversity and may evaluate : its sphere (initially the insurable risks), its objective and its appellation are never frozen. As a consequence, any definition or theory about risk management may have the scope and the generality desired by the author. It can only be descriptive (in contra-distinction to prescriptive). Any prediction expected from the risk manager is not permissible, but extrapolation is justifiable and sometimes useful. In other words, as stated by René Thom, one can apply analogical reasoning to very different situations

It is probably for that reason that the famous Havard Business School is abandoning the well known "case study" methodology, promoting education in teams and focusing much more on the interdisciplinarity.

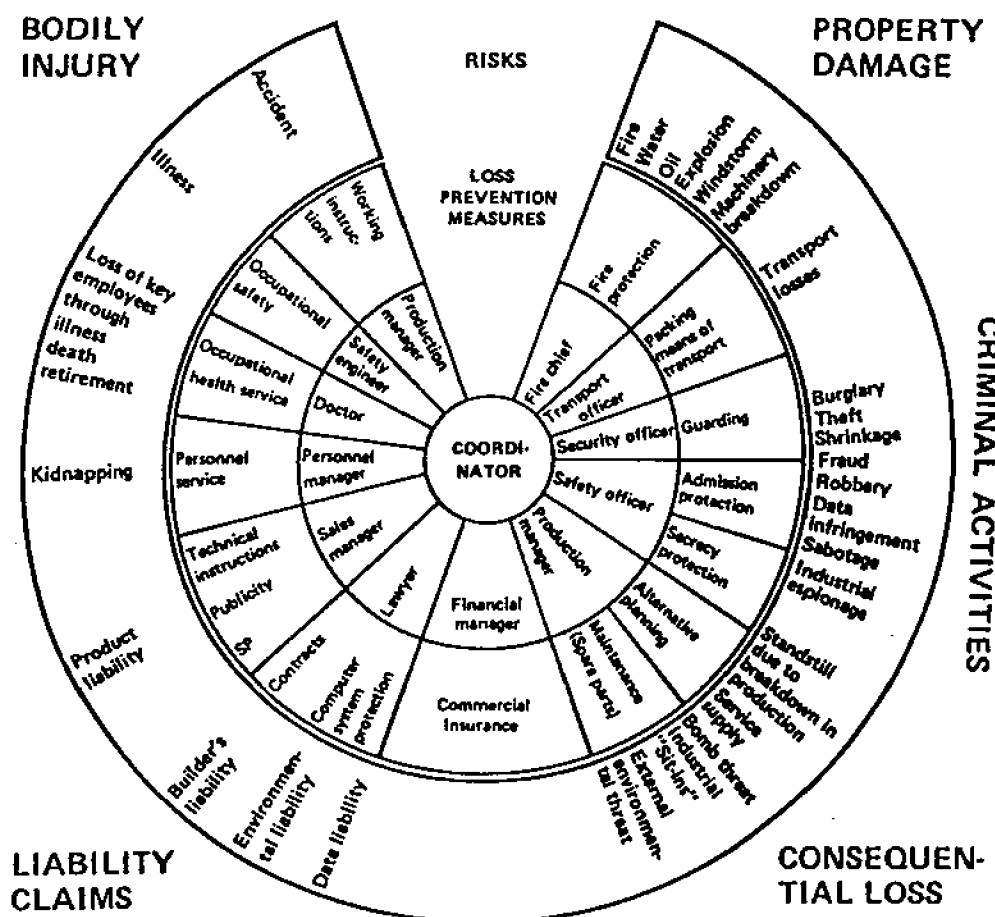
Europe has followed an other way :

Practice of business shows that the distinction between speculative and pure risks, easy to understand, does not resist to experience. As soon as one decides to start any new business, all the risks are to be considered together from the beginning. Any feasibility study has to integrate a lot of parameters and constraints. Even a service company, with no industrial production process deciding to build an office building cannot do it, beside the financial evaluation of investment and profitability, without passing several obstacles - building permit, safety and security requirements towards personnel and third parties, commercial and VAT registration etc.

It is even more complicated for a factory, where many additional points are to be settled, including exploitation permit and environmental impact study and audit. Interdisciplinarity is the rule, which is also confirmed by the courses delivered here. As a practical example, and regardless its assurability, is insolvency a speculative or a pure risk? Insolvency can be the result of an Act of God, a bad financial position or willingness of the client from the wrong execution of an under or co-contractor's duty or because of the non conformity to international rights and conventions. The figures, issued several years ago, by Skandia a thinking tank on risk management gives an excellent substance to what I said.

Risk Management Circle

Examples of risk environment and loss prevention resources of a company

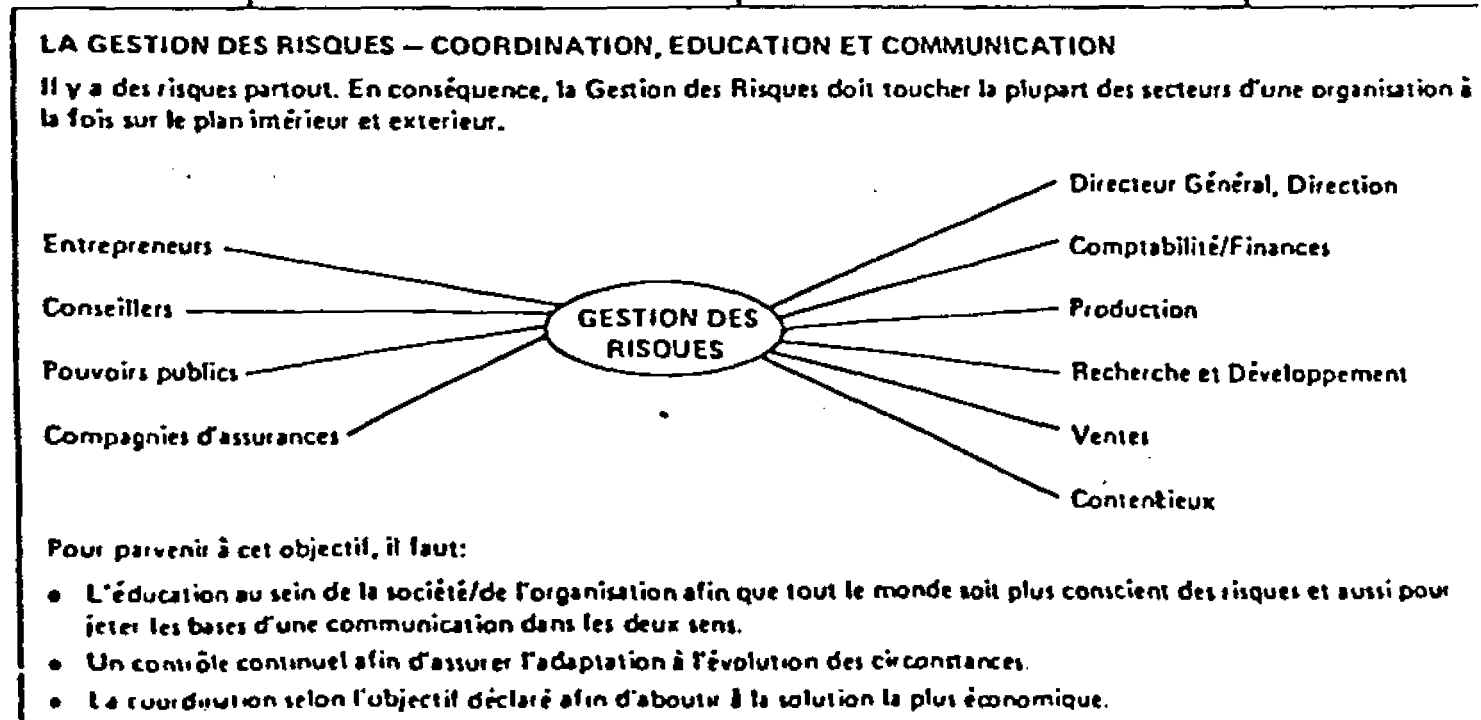
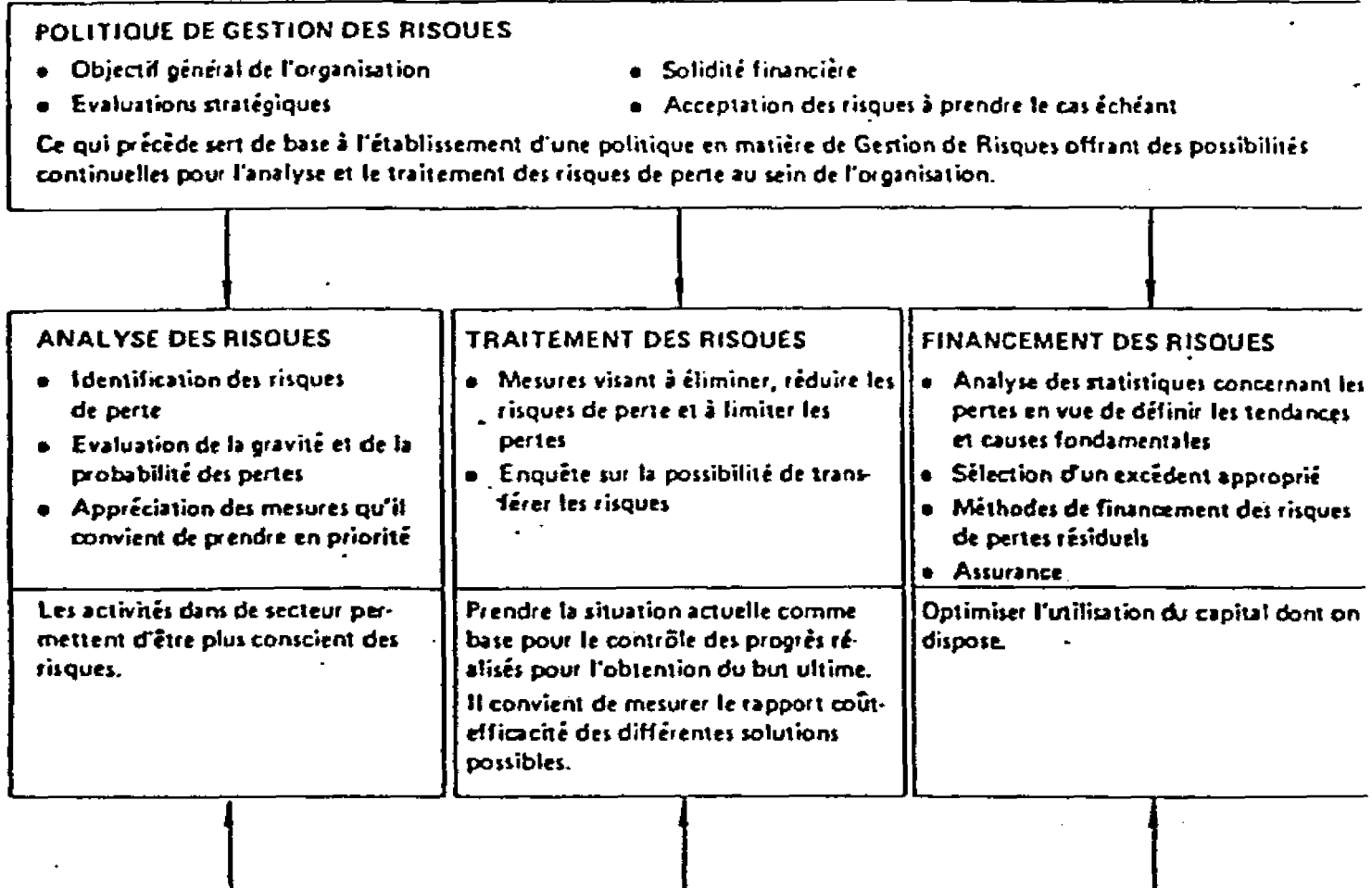


QU'ENTEND-ON PAR GESTION DES RISQUES (RISK MANAGEMENT) ?

La Gestion des Risques est un moyen systématique de protéger les revenus et les ressources de l'entreprise contre les pertes qui pourraient se produire de manière à ce que les buts de la Société puissent être réalisés sans interruption. Correctement dirigée la Gestion des Risques assure la stabilité et contribue indirectement au profit.

La Gestion des Risques n'est pas la même chose qu'une assurance mais l'assurance pourrait faire partie d'un programme de Gestion des Risques.

On peut décrire de la manière suivante les différentes étapes dans la Gestion des risques:



7. APPLICATIONS

- At conceptual level :

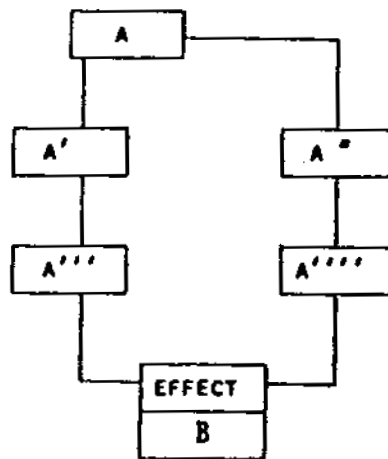
The reasoning has " progressed " since last century. The following chart here-
after summarises the evolution of the causality concept.

LINEAR :

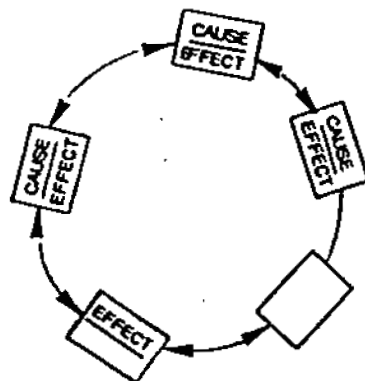
CAUSE A \longrightarrow EFFECT B

RETICULAR :

CAUSES A + A' + A'' ... \longrightarrow EFFECT B



FEED BACK : INTERREACTION OF CAUSES AND EFFECTS



In the same period, passage of the of the time (or line of the time) and irreversibility of phenomena has impregnated not only the philosophy, but also reflection of the scientific world; leading to the perception of uncertainty, including unpredictability of the future.

- At risk management's level :

* a deeper perception of the risks and of the interrelation of speculative and pure risks.

* the necessity to take into account the type of organisation and who exercises of the power. The different controlling and decision levels necessitate to adjust the risks management philosophy and practice. If strategic control is centralised, somewhere, in total or partly, the attitudes have to be different than in a decentralized organisation.

* Risk perception, leading to risk avoidance or risk taking attitudes, are to be integrated in the risk management process.

* The forgotten parameters are to be integrated in the global process.

* in a world of uncertainty, the risk management has to increase the resilience of the organisation to unforeseen, uncertain and unpredictable phenomena.

* The organisation has to be seen as a system. Only a systemic approach is able to consider the whole : survival planning and crisis management have to integrate all the components. They have to be well prepared.

No risk management is possible without taking into account, together

o people	o assets and earnings
o products	o market share
o trademarks	o company image

* Risk management makes part of the internal culture, and has to be integrated at all levels. The risk Manager or the risk management team may only play the role of catalyst.

8. CONCLUSION

As a conclusion, allow me to use the terms used by Mr Leny, President of FRAMATOME (France)

"A risk manager (or team) alone cannot see everything, do everything, and know everything. This is why his main role ... must be to develop a state of mind, or an awareness of risks, so that everybody behaves with a sense of responsibility ...

... The notions of quality, safety and security are closely related ...and the notion of risk should be thought as part of basic general education at school ... We now find in companies many technicians, engineers or administrators ... seeming not to know the basic rules of common sense. Is it not the educational role of the managers to ensure that these values are discovered or rediscovered ?

The risk manager must naturally work with those in charge of security, but also with internal audit teams, to track down the risks resulting from any organisational dysfunctions. An overall vision of the organisation and on-site experience enables more easily apprehending problems.

From what I said, it is easy to understand that risk management may not be limited to insured or insurable risks nor to the pure financing aspects of risks. The process involves education, information and communication aspects. That is exactly where A.E.A.I. has initiated reflection between Academics and practitioners. An extraordinary and very valuable contribution came from the Institute of Risk Management of London in the person of Gordon Dickson, Dean of the Health Faculty of the Caledonian University of Glasgow and Chairman of the Institute. The group of 22 meets periodically to discuss the matter.

On the other side of the Atlantic, active thinker in the Risk Management field, Felix Kloman has produced a flood of new views and ideas. One of his last charts summarises what I have tried to explain : the sampling is different, but in no way is the sensitivity different.

Please do not forget that your studies, and I have here to thank the "Cumes", Philomeno Mira, and your teachers - that your studies have, as final goal, to enable you to appreciate the breadth of risks situations. Recognising them and responding to them is under the responsibility of everyone at its place, within any organisation.

I thank you for your attention.

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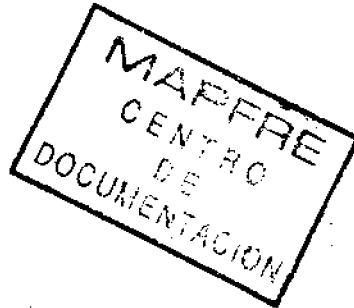
GERENCIA DE RIEGOS

Y

SEGUROS

LECTURE ON RISK MANAGEMENT

PURE RISKS VERSUS BUSINESS RISKS



Madrid May 9, 1994
CUMES

F. Settembrino
President of BELRIM and
past President of A.E.A.I.

TABLE OF CONTENTS

1. *WHAT IS RISK*
2. *THE ENTERPRISE*
3. *EXERCISING THE POWER*
4. *RISK PERCEPTION*
5. *THE FORGOTTEN PARAMETERS*
6. *THE IMPOSSIBLE DISTINCTION*
7. *APPLICATIONS*
8. *CONCLUSION*

1. WHAT IS RISK

Our first question should be : what is a risk ? From a scholastic point of view, you will generally find enumeration of perils :

natural risks : earthquake, flood, hurricane
technical risks : fire, explosion
political risks : arbitrary decisions by the authorities
social risks : strikes

Some others do use different distinctions :

human risk
physical risks
financial risks

All are referring to the possible damage or loss resulting from a risk ...

Is it possible to go further, applying other different definitions and understanding?

- The risk is the probability of a loss. That definition implies that the loss can be defined in advance. It is certainly useful when the probability of a deferred loss can be transformed into the probability of a standard loss : for example, the probability of death per hour of driving a car at specific moments of the day.
- The risk is the dimension of a conceivable loss. That definition is the basis of many safety limits, put much beyond the possible accident. The resistance of the cables of an elevator are always put n x beyond the maximum load. It doesn't exclude the redundancy of other safety measures, like the parachutes put in the mechanism of the elevator.
It is exactly the same type of measures taken by the aircraft makers and users. The conceivable loss is the fall of the plane, with the crew and the passengers : as a consequence there is very high need for multiple redundancy between safety devices and measures (nobody would accept to take place in a plane, if he had to toss up for the probability of arriving at destination).
- The risk is the expected loss !
Any actuary in the life business may tell how many people will disappear in one year within a given population.
- The risk is the variance of the probability distribution within all possible consequences - this definition takes losses and gains into account and does not require an a priori discrimination between desired and undesired consequences. Our mental image and our day to day language are more familiar with that last definition.

This explains why so many disciplines do refer to "risk" but always with a different mental substance.

As stated by Edward P. Lelley, generally there are many definitions. One definition from the academic world defines risk as "the possibility that a sentient entity will incur loss". According to the Dictionary of Insurance Terms of the Chamber of Commerce of the United States, risk is simply the "chance of loss". But virtually every event in nature contains some chance of loss. So, to adopt such a broad definition would dump into the lap of the risk manager a responsibility for some aspects of practically every happening in the corporation. The risk manager would be stepping on the toes of most of the other managers in the company, including the chief executive officer. So, how do we define the spectrum of risks that rightfully come within the purview of the risk manager? Some say the risk manager's realm is the "static" risks of an organisation, as opposed to the "business" risks. Static risks are those possibilities of loss which the corporation cannot avoid. Like death and taxes, they are always with us. Business risks are defined as those a business can elect to take or not take and which contain the possibility of gain as well as loss.

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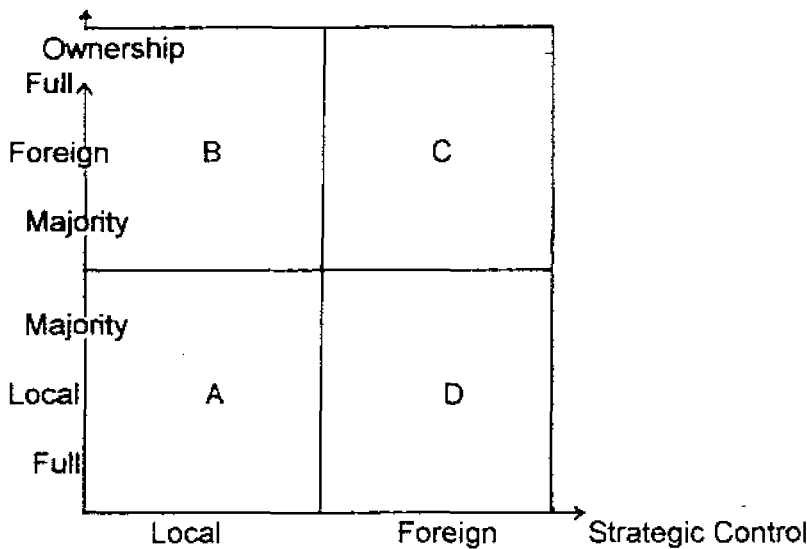
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- *Ownership* : small companies have operated since years mainly in the form of family companies.
larger organisation and multinational groups are generally in the hands of stockholders.
The stockholders may be divided in active(voting) stockholders, and institutional stockholders. Of course, through the Holding mechanism, there is a great variety of majority and minority locking possibilities but this depends on the applicable legislation, which may vary substantially country per country.

3. EXERCISING THE POWER.

There is a basic distinction between control and management. It is too often considered that the one who owns is also the one who decides. But there could also exist a certain (sometimes great) freedom of decision. This is the consequence of the separation - mainly since the beginning of the XXth century - between ownership and effective decision power. The reason has to be found in the "macroscopisation" of enterprises and a greater professionalism of the management. This move has increased the decision ability of the reduction of the influence of the stockholders : that move is directly influenced by the size of the organisation and the spread of the shares.

It is never easy to define the ownership. For example, the principal multinational groups have several quotations of their shares in several stock-exchange locations. The shares may also be owned by several entities, investors and funds. Among the funds some are pure institutional without voting capability or not exercising it. But it has to be considered that the organisational structure of the organisation plays a great role at control and decision level. The structure can be illustrated by the following diagram. This diagram can be applied to any localisation of a multinational group, but can also describe, in large countries, the situation of local branches and subsidiaries spread around the country.

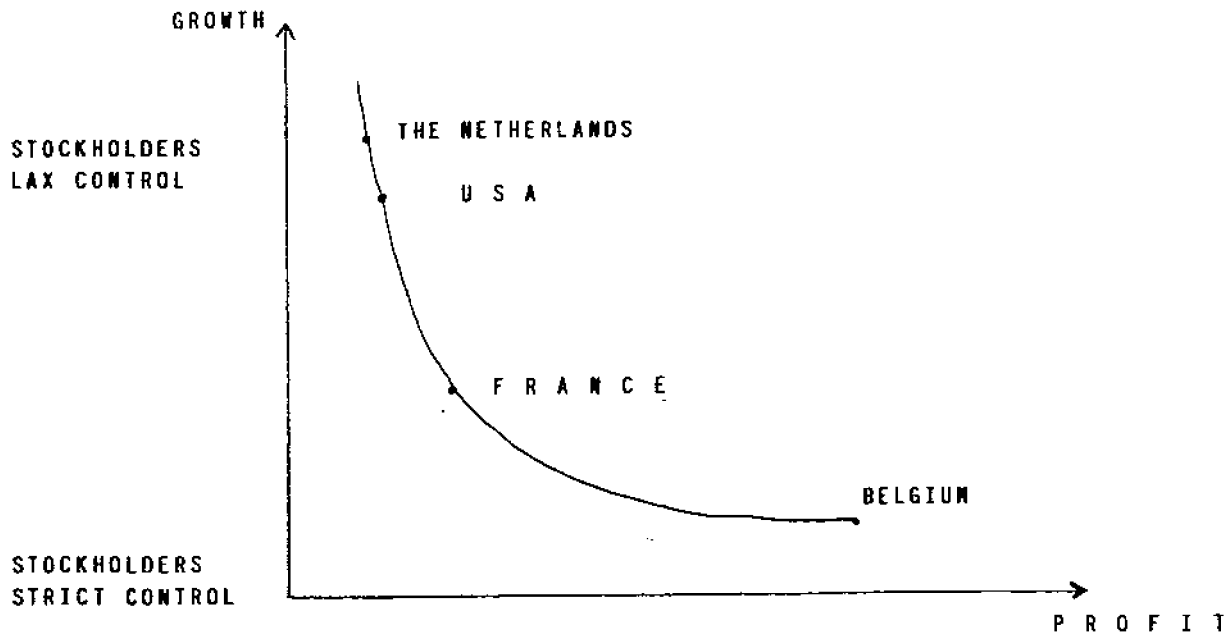


Handwritten notes:
 Ownership
 Strategic Control
 Local
 Foreign

- Small local companies appertain to the A group
- Motor car companies generally to the upper C group
- Franchises do belong mainly to A and D configuration

The imbrication between ownership and management influences directly the strategic decisions and choices. Where stockholders do exercise also the management of the organisation, they will determine also the strategic policy of the enterprise. On the opposite, when stockholders do restrict themselves to controlling and supervising, the management will conduct the strategic orientation of the Cy. Risks and Risk Management make part of the strategy.

The following diagram shows the trends in Belgium, France and Netherlands, compared to the United States. I have no information on the Spanish situation but a rough estimation could make possible to situate your country.



(Source : H. Daems and P. Van De Weyer)

4. RISK PERCEPTION

The configuration of the enterprise and the decision process are deeply influenced by the considerations here above.

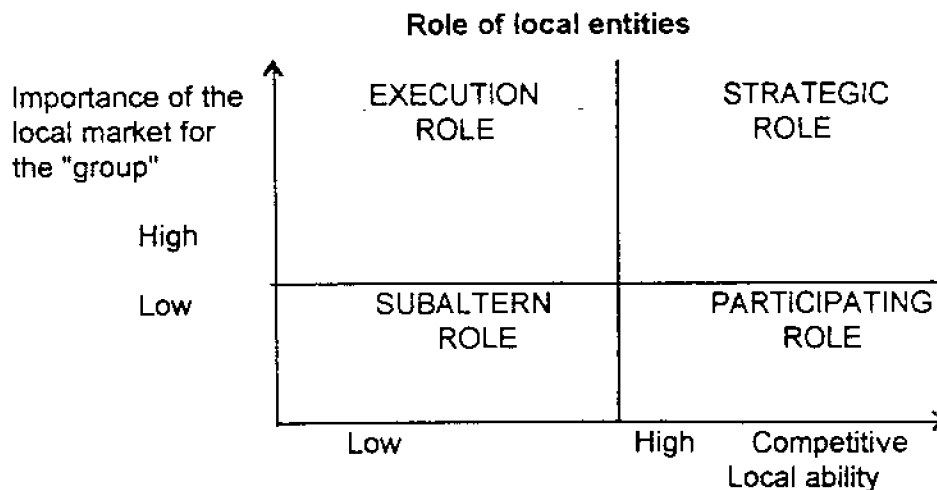
Small countries, show more or less, the typology of familial companies : ownership and management are more concentrated - I should say intricate- Risk aversion and control ability or desire, make the growth objective less attractive. Profit, and, if possible, immediate profit, remains the rule.

In larger organisations, a risk taking attitude is predominant. When the role of the stockholders is less effective - which is generally true in the case of institutional investor - the management is mainly focusing on the growth of the activities, and less on the immediate return : the risk taking attitude is greater than in small organisations.

What is less understood, is that the responsibility of that attitude relies mainly on the decision power localisation.

If you, as a subsidiary, are fully dependent on decisions taken elsewhere, you would only exercise a subaltern role.

In large organisations, the role of each specific location, branch or subsidiary will also be influenced by the importance of the local market and by the local competition. Those factors play thus an important role in the decision making process. The following diagram illustrates that phenomenon



(Source: H. Daems and P. Van De Weyer)

It is also obvious that risk taking preference attitudes and decisions, will depend on the intensity of the risk perception of the decision centre. The complication comes from the fact that risks are perceived differently by group with different ethic, educational and national backgrounds.

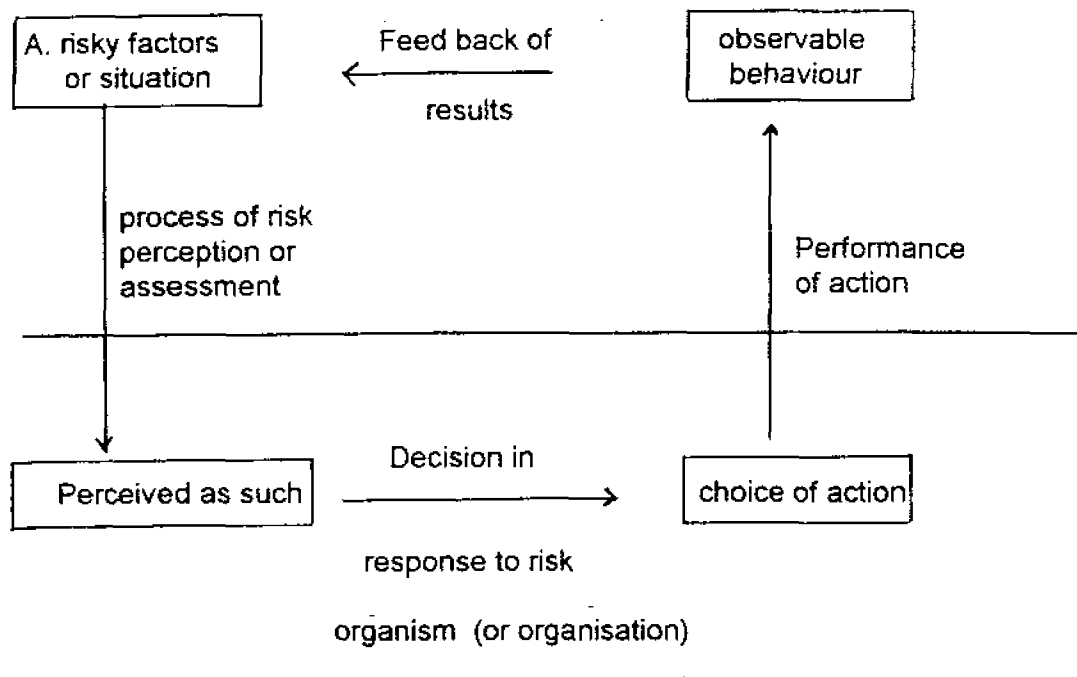
Aaron Wildawsky distinguishes four risk cultures : bureaucrats, egalitarians, industrialists (entrepreneurs) and fatalists. But all of these just try to introduce "uncertainty" in their mental concept, of course with different strenght.

From Mr Groth's cyclical model (1976), the process of risk perception for an individual combines four different elements :

- * the objectively risky situation
- * the subjectively perceived or interpreted situation
- * the choice of action, and
- * the observable behaviour

In fact, the process turns an objective situation into a subjectively perceived or interpreted one.

The following diagram illustrates the process



The risk related decision is the end-product of various interaction processes, involving prior knowledge, experience attitudes, motives, concepts of ability. Confronted to the reality, it seems that the individual, (and this is also true for organisations) has a great difficulty to cope with uncertain or unknown situations, because of the probable lack of prior knowledge. So is the situation for doctors and actuaries confronted with the AIDS problem.

The attitude of an organisation or enterprise is not very different than the one of an individual and will depend on similar factors.

Prior knowledge is only valid for series or well-known pure risks, of different nature

technical risks

social risks

political risks

but much weaker towards natural risks, like earthquake, flood, and climatic conditions (predictability of weather conditions is very short and will probably never exceed one or two weeks).

Within an organisation, some other risky factors or parameters are very often forgotten.

5. THE FORGOTTEN PARAMETERS

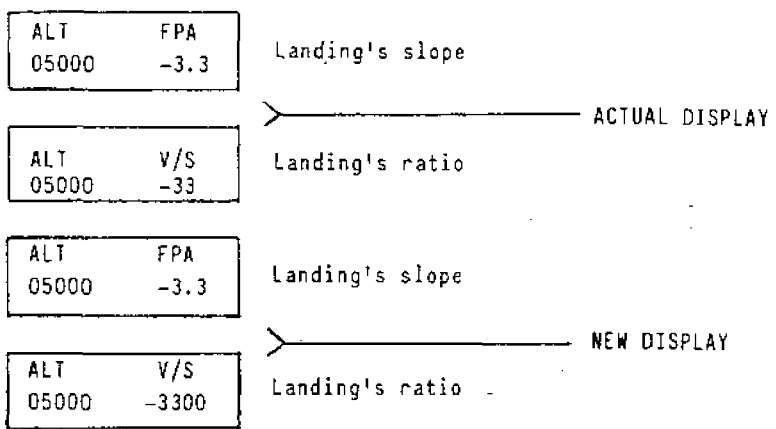
Within organisations, especially during these last years, much attention is paid to the financing of the operations : the literature is also focusing on the related risks. Currency and exchange rates, credit management, retention and captive mechanism constitute the main preoccupation. Other parameters also contribute to the risk.

Some of them are listed hereunder :

- *Intellectual property* : Copyrights and trade-marks are the basis and, properly handled, contribute to the protection of the assets: no-one is better equipped and better placed than the organisation, company or corporation itself. But if you look to the practice, you will see that those aspects are often in the hands of external specialists.
The wrong handling of licensing and of royalties may lead to loss of substance and to reaction from the fiscal authorities.
- *Contractual relations*.
Contracts are not "paper tigers" : to be effective, they have to correspond to the economic reality, protecting the profitability of any transaction with third parties, and sometimes with other relations within the organisation itself. The risks involved, financial and commercial, generally exceed the surface of the transaction. It is essential that all parties involved contribute and collaborate to build a contract protecting the interests of the company. An additional difficulty comes from the necessity to join technical aspects to legal clauses. Attention should also be paid to the necessary "balance" between the interests of the parties involved. Courts are generally badly influenced by contracts where one party benefits of all rights and the other of all the constraints and obligations.
For example, in the matter of supply, the maritime right and the transfer of ownership are key elements, and their appropriate handling is never innocent.
- *Robotic, computer and electronic risks*.
Robotic increases the vulnerability of the enterprises and the cost of any improvement or correction. After a generalisation, Japan is now moving in the opposite direction.
Computer risks suffer from a lack of knowledge. Everybody speaks about fraud and misuse but there is a lack of statistics and the generalisation of PC networks is too young to allow a proper judgement.
Few companies pay sufficient attention to the simple risk involved in the electronic mail, where safety and security is not greater than for telephone connections.

- **Environment** : public opinion, directives of the E.U. international convention and national or local legislation necessitate or impose constant vigilance, and relate to numerous aspects (pollution, waste, toxic and dangerous products, safety of the workers, dangerous transports etc ...)The problem is that rules are so numerous, too numerous, that no judge, no lawyer, no specialist is mastering them, meaning that the risks involved are really very difficult to handle. A study made at the University of Brussels on dangerous products only has lead to a guide weighing more than 2 kilos, listing all the conventions and legislations dealing with the subject.
- **Image** : As stated by Guy Lamand, the image is a very subjective notion, and it takes years to build a positive image. On the contrary, the image can be damaged or destroyed in a few moments. Even a rumour may exercise great influence (the example of Mc Donald is well known).
- **Norms** : A very impressive move has started on the international scene in the normative field. It is not an easy task and it implies the installation of certification processes. Some consider them as excellent risk protection measures, and they certainly will contribute to them, but they will never abolish liabilities, malpractice and possible defects.
- **Ergonomy** : Ergonomy deals with the interface "man/machine" and so contributes also to risk reduction. In the past, the aspects covered by ergonomy did relate to "mechanical" aspects. These days, ergonomy involves also subjective, intellectual and visual perception. An example, taken from the Mont St Odile (near Strasbourg) recent plane crash, will show you how ergonomy could have played an important role.

Devoir de la semaine



- **Not insurable risks** :Guy Lamand I referred to previously, in his book related to the risks involved in the selling of services and equipments, has issued an impressive list of insurable and not-insurable risks. Among the not-insurable risks let me underline the few following:

Fiscal
 Interruption of the contract
 Inexperience
 Change of the clients team
 Payment conditions
 Non conformity with the competition right
 Conflict on contractual conditions
 Insolvency
 Act of God
 Expatriates
 Delivery
 Loss of confidence

6. THE IMPOSSIBLE DISTINCTION

Since years the literature is referring to two different categories of risks : speculative and pure risks. As already stated previously.

- The speculative risks are also called business risks : they are defined as those making part of the business objectives. Any company or business organisation, service, commercial or industrial enterprise is built up with the intention to achieve a goal : although, the used terminology "speculative" may imply a kind of gambling, it certainly describes the concept.

- Pure risks - or also static risks -, in opposition to speculative risks, do concern mainly the possibilities of loss a corporation cannot avoid. The "pure risks" terminology put emphasis on the loss-no-gain possibility- From a theoretical point of view, the distinction was greatly reinforced by the fact that pure risks were also considered in general as insurable risks, regardless if they were or were not, insured.

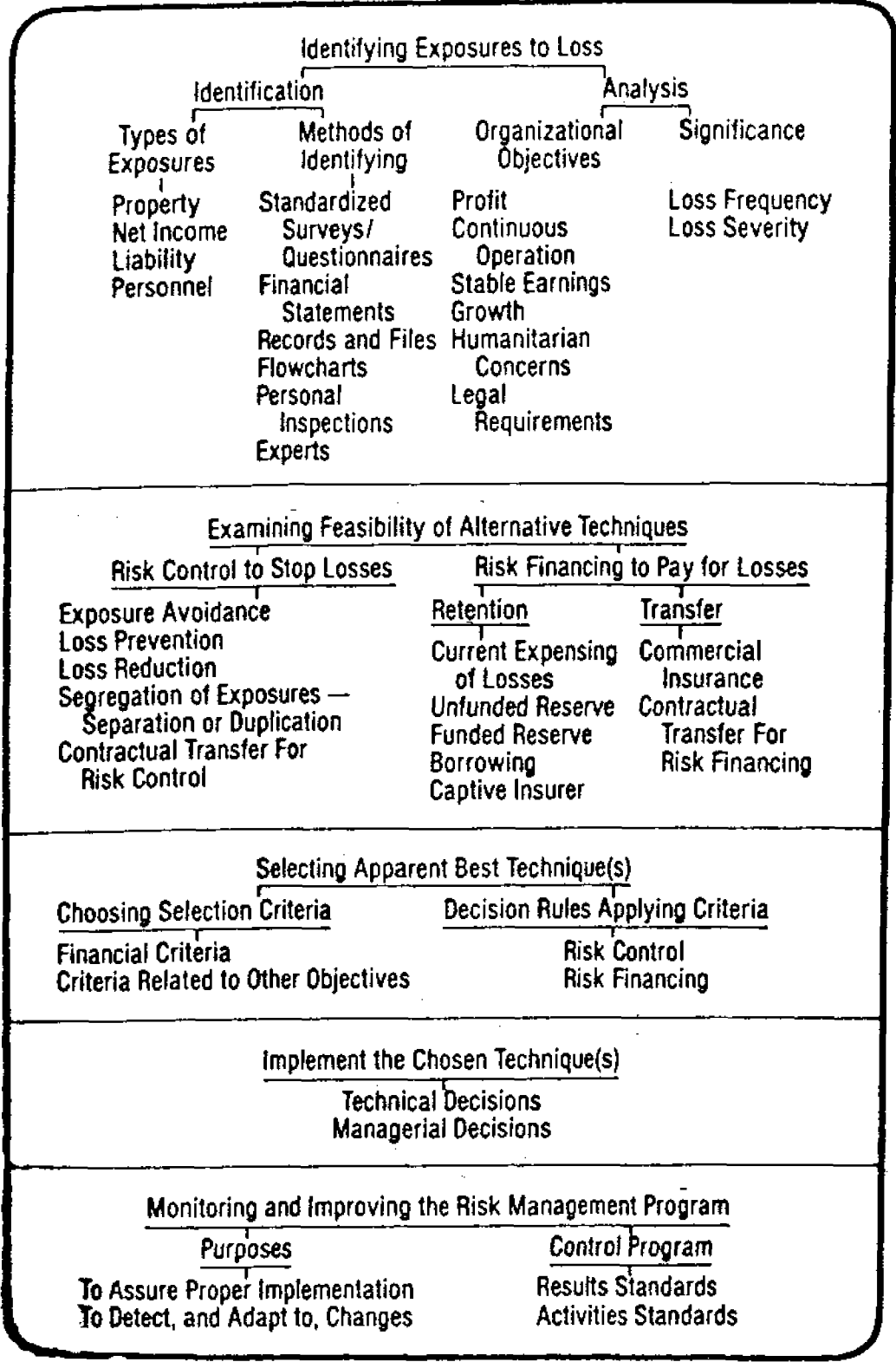
That understanding has had important consequences on the evolution of the risk management theoretical principles and education.

a) U.S.

Many Business Schools do provide, in one way or another, education on Risk Management.

To become an ARM, or Associate in Risk Management you need to follow the education provided by the famous Insurance Institute of America located in Pennsylvania.

The methodology is based on the five steps decision making process, described here-after.



That approach is mainly focusing on losses, or possible losses, and can thus be considered as a Risk Management of pure risks. Even so, there remain some questions.

To identify something you always need a mental concept. It is as simple as that : if you don't have the concept, you will never be able to recognise. The possibility of recognising is always subordinate to the faculty of conceptualisation. You may never identify something you don't know. (Examples: Cockerill - La Defense)

Among the different methods of identification there is always reference to experts - those experts are always supposed to deliver a scientific answer. But any scientific expert opinion is only related to the measurement of something, using tools and models on which the scientific world agrees, but the propriety of any science is that any theory is only valid, till a new theory arrives on the scene. As stated by Karl Popper the intrinsic propriety of science, is the " falsification" process, in the sense that any theory can and will be invalidated by a new theory. Only dogmas and beliefs do not suffer falsifications or amendments, but they cannot be called "science", and they produce no expertise.

Douglas Barlow, one of the initiators of Risk Management in Canada and later in the United States, has issued a very interesting statement on the subject :

The risk management has no pre ordinated definition : it is what risk managers do. It develops itself by evolution, i.e. by successive steps following perspicacity, creativity and initiative of the risk manager, his authority and from the facts provoking his action.

Consequently, it exists in diversity and may evolve : its sphere (initially the insurable risks), its objective and its appellation are never frozen. As a consequence, any definition or theory about risk management may have the scope and the generality desired by the author. It can only be descriptive (in contra-distinction to prescriptive). Any prediction expected from the risk manager is not permissible, but extrapolation is justifiable and sometimes useful. In other words, as stated by René Thom, one can apply analogical reasoning to very different situations

It is probably for that reason that the famous Havard Business School is abandoning the well known "case study" methodology, promoting education in teams and focusing much more on the interdisciplinarity.

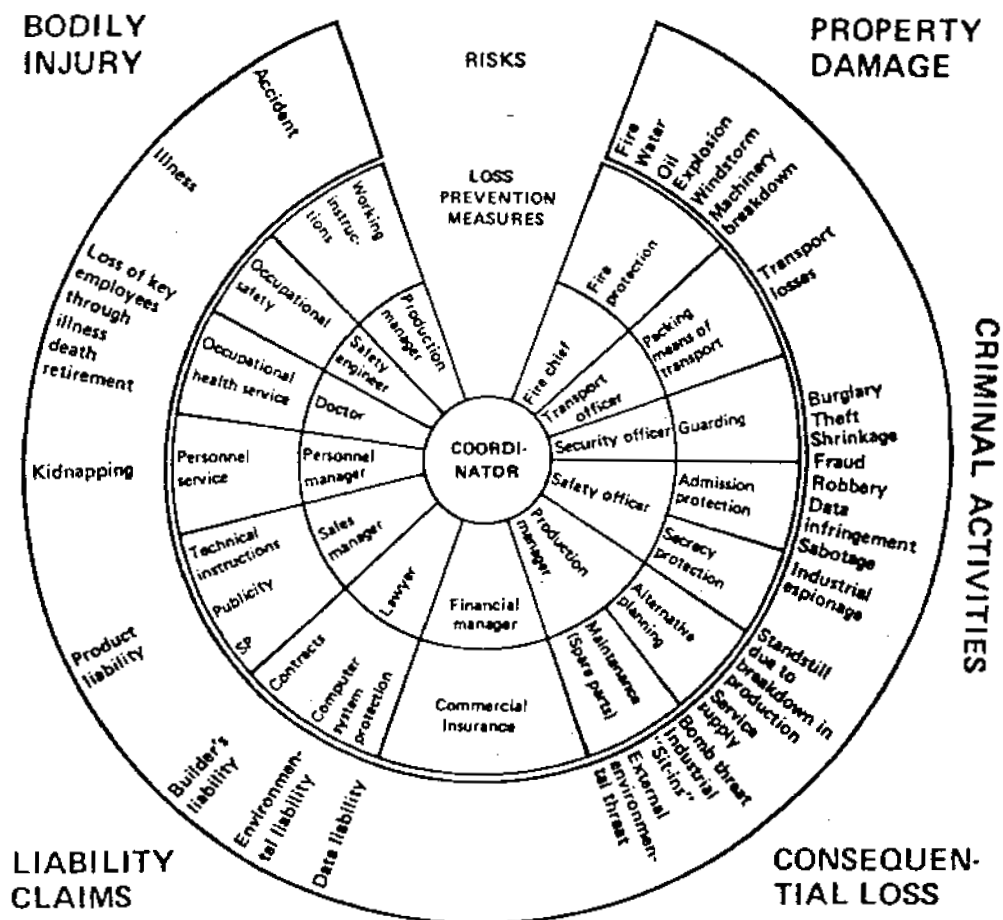
Europe has followed an other way :

Practice of business shows that the distinction between speculative and pure risks, easy to understand, does not resist to experience. As soon as one decides to start any new business, all the risks are to be considered together from the beginning. Any feasibility study has to integrate a lot of parameters and constraints. Even a service company, with no industrial production process deciding to build an office building cannot do it, beside the financial evaluation of investment and profitability, without passing several obstacles - building permit, safety and security requirements towards personnel and third parties, commercial and VAT registration etc.

It is even more complicated for a factory, where many additional points are to be settled, including exploitation permit and environmental impact study and audit. Interdisciplinarity is the rule, which is also confirmed by the courses delivered here. As a practical example, and regardless its assurability, is insolvency a speculative or a pure risk? Insolvency can be the result of an Act of God, a bad financial position or willingness of the client from the wrong execution of an under or co-contractor's duty or because of the non conformity to international rights and conventions. The figures, issued several years ago, by Skandia a thinking tank on risk management gives an excellent substance to what I said.

Risk Management Circle

Examples of risk environment and loss prevention resources of a company

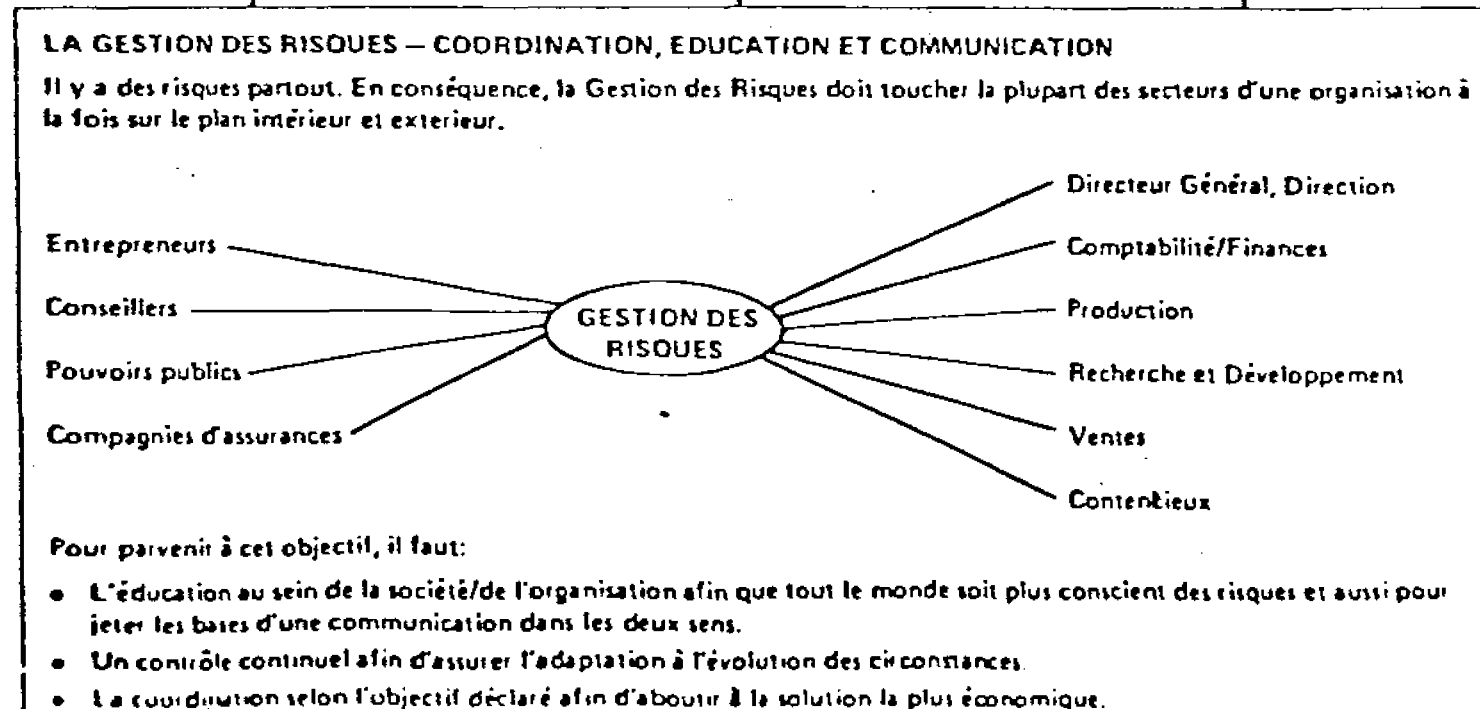
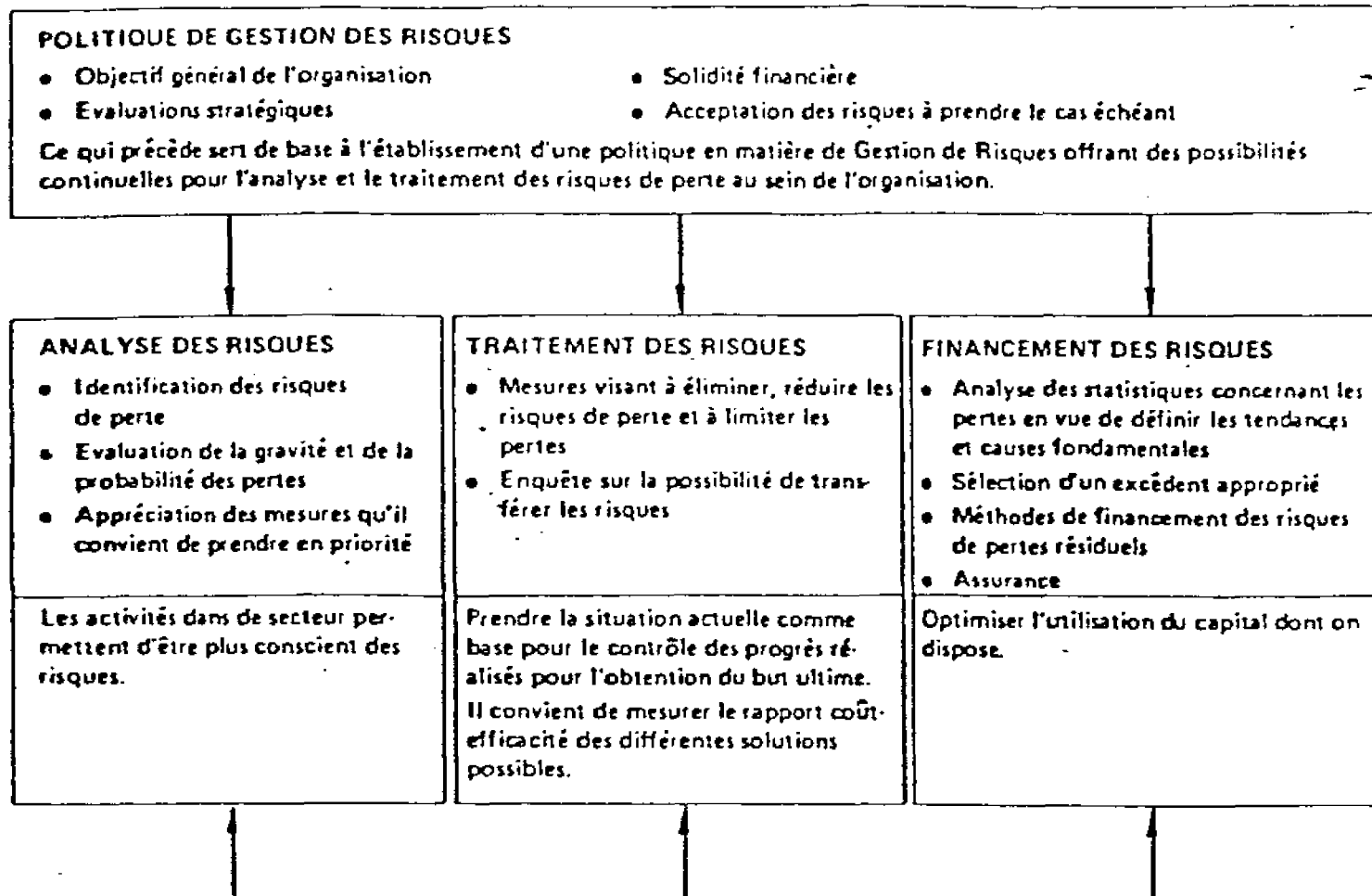


QU'ENTEND-ON PAR GESTION DES RISQUES (RISK MANAGEMENT) ?

La Gestion des Risques est un moyen systématique de protéger les revenus et les ressources de l'entreprise contre les pertes qui pourraient se produire de manière à ce que les buts de la Société puissent être réalisés sans interruption. Correctement dirigée, la Gestion des Risques assure la stabilité et contribue indirectement au profit.

La Gestion des Risques n'est pas la même chose qu'une assurance mais l'assurance pourrait faire partie d'un programme de Gestion des Risques.

On peut décrire de la manière suivante les différentes étapes dans la Gestion des risques:

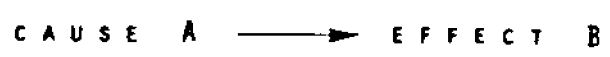


7. APPLICATIONS

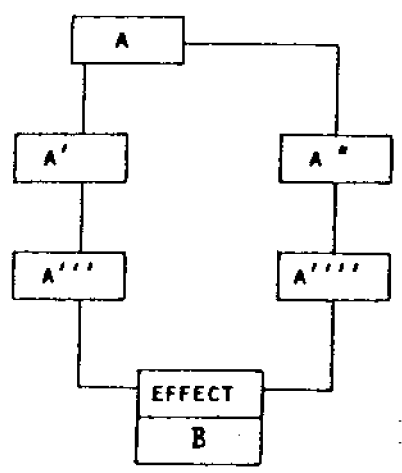
- At conceptual level :

The reasoning has " progressed " since last century. The following chart here-
after summarises the evolution of the causality concept.

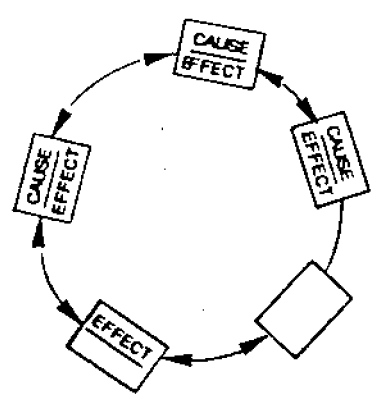
LINEAR :



RETICULAR :



FEED BACK : INTERREACTION OF CAUSES AND EFFECTS



In the same period, passage of the of the time (or line of the time) and irreversibility of phenomena has impregnated not only the philosophy, but also reflection of the scientific world; leading to the perception of uncertainty, including unpredictability of the future.

- At risk management's level :

* a deeper perception of the risks and of the interrelation of speculative and pure risks.

* the necessity to take into account the type of organisation and who exercises of the power. The different controlling and decision levels necessitate to adjust the risks management philosophy and practice. If strategic control is centralised, somewhere, in total or partly, the attitudes have to be different than in a decentralized organisation.

* Risk perception, leading to risk avoidance or risk taking attitudes, are to be integrated in the risk management process.

* The forgotten parameters are to be integrated in the global process.

* in a world of uncertainty, the risk management has to increase the resilience of the organisation to unforeseen, uncertain and unpredictable phenomena.

* The organisation has to be seen as a system. Only a systemic approach is able to consider the whole : survival planning and crisis management have to integrate all the components. They have to be well prepared.

No risk management is possible without taking into account, together

o people

o products

o trademarks

o assets and earnings

o market share

o company image

* Risk management makes part of the internal culture, and has to be integrated at all levels. The risk Manager or the risk management team may only play the role of catalyst.

8. CONCLUSION

As a conclusion, allow me to use the terms used by Mr Leny, President of FRAMATOME (France)

"A risk manager (or team) alone cannot see everything, do everything, and know everything. This is why his main role ... must be to develop a state of mind, or an awareness of risks, so that everybody behaves with a sense of responsibility ...

... The notions of quality, safety and security are closely related ...and the notion of risk should be thought as part of basic general education at school ... We now find in companies many technicians, engineers or administrators ... seeming not to know the basic rules of common sense. Is it not the educational role of the managers to ensure that these values are discovered or rediscovered ?

The risk manager must naturally work with those in charge of security, but also with internal audit teams, to track down the risks resulting from any organisational dysfunctions. An overall vision of the organisation and on-site experience enables more easily apprehending problems.

From what I said, it is easy to understand that risk management may not be limited to insured or insurable risks nor to the pure financing aspects of risks. The process involves education, information and communication aspects. That is exactly where A.E.A.I. has initiated reflection between Academics and practitioners. An extraordinary and very valuable contribution came from the Institute of Risk Management of London in the person of Gordon Dickson, Dean of the Health Faculty of the Caledonian University of Glasgow and Chairman of the Institute. The group of 22 meets periodically to discuss the matter.

On the other side of the Atlantic, active thinker in the Risk Management field, Felix Kloman has produced a flood of new views and ideas. One of his last charts summarises what I have tried to explain : the sampling is different, but in no way is the sensitivity different.

Please do not forget that your studies, and I have here to thank the "Cumes", Philomeno Mira, and your teachers - that your studies have, as final goal, to enable you to appreciate the breadth of risks situations. Recognising them and responding to them is under the responsibility of everyone at its place, within any organisation.

I thank you for your attention.

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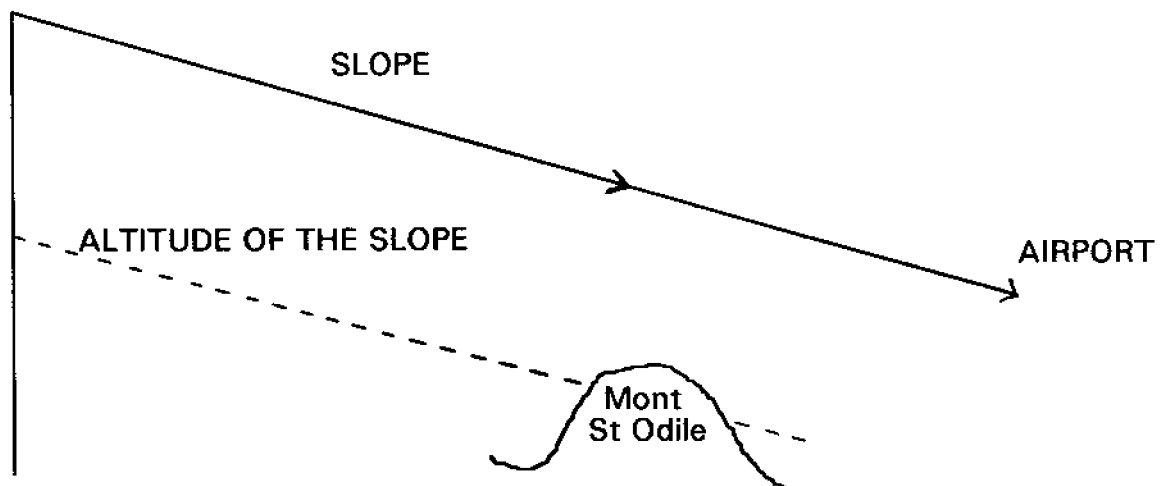
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ERGONOMY

Near Strasbourg, an Airbus plane crashed on the way to the airport, in a hill called Mont St Odile. The approach procedure was not completely automated like it is generally with other airports : on a modern aircraft intervention of the pilots is always filtered through the embarked computers. It seems, from the recorded conversation between the two pilots, that they didn't pay enough attention to the attitude, concentrating themselves on the slope. They benefited, of course, from the assistance of numerous screens and tell-talers, but if the ergonomics (user interface) of the equipment is not satisfactory, confusion can result.

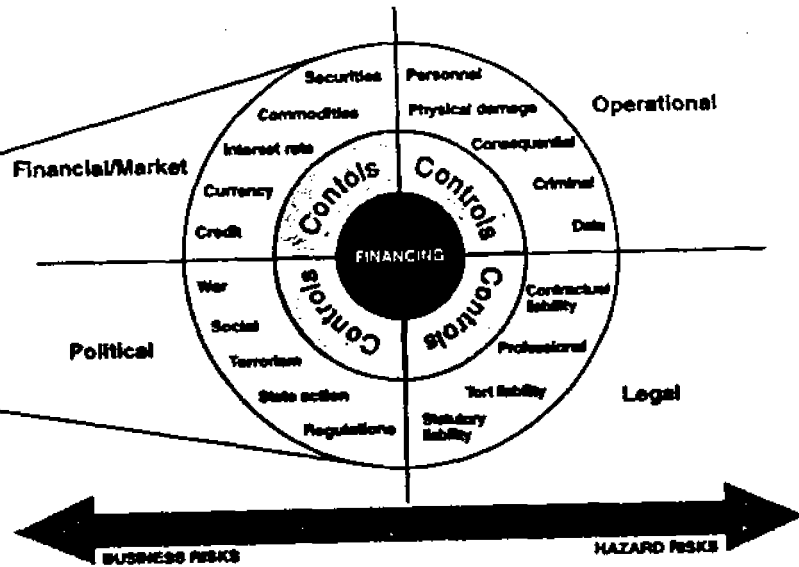
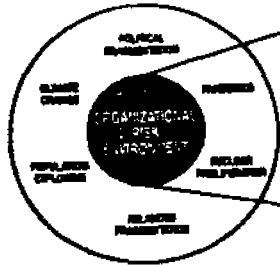
The corresponding diagram shows the difference between the 2 parameters.



The confusion can be generated by the way the information is given : for that reason, specific retraining has been given to the pilots, the ergonomics parameters have been reviewed with greater attention to the visual aspects and the subjective perception.

Organizational Risks

Global Risks



Source: N.F. Komar, "Rethinking Risk Management", Geneva Papers, July, 1992